CONGRESS OF THE UNIVERSITIES OF THE EMPIRE

1912

REPORT OF PROCEEDINGS

EDITED BY

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FOREWORD.

In November, 1909, a resolution was adopted by the Senate of the University of London, "That it is desirable to hold an Imperial Universities Congress in London in 1911." The Imperial Education Conference was to meet in May of that year, and it was thought that some of the representatives of Overseas Universities who would come to England for the purpose of attending this Conference would attend the Congress also. A Preliminary Arrangements Committee was appointed to ascertain whether the proposal was viewed with favour by the Universities of the United Kingdom, and, if they approved, to take steps to call the Congress into being. The time for preparation, involving, as it must do, communication with the most distant parts of the Empire, was short, and it was clearly necessary that invitations to attend the Congress should be sent out without delay. For this reason the Principal of the University of London, Dr. (now Sir Henry) Miers, Chairman of the Committee, with whom the idea of summoning a Congress originated, consulted the Vice-Chancellors of Oxford and Cambridge, without waiting until the proposal had been generally discussed. With their concurrence a letter of invitation, signed by the Vice-Chancellor of the University of London, was addressed to all other Universities of the United Kingdom. The proposal for a Congress was unanimously approved and the invitation accepted by them all. It soon appeared, however, that it would be wiser to postpone the meeting until 1912.

With a view to saving time the Senate of the University of London had agreed to undertake all financial responsibility for the Congress, leaving the question of the assistance which other Universities might be disposed to give to be settled later. They had also appointed as Secretary the late Dr. R. D. Roberts, whose name had been independently suggested by the authorities both of Oxford and of Cambridge, agreeing, in order that he might devote himself to the work of organising the Congress, to set him free, in part, from his duties as University Extension Registrar.

To the wisdom, foresight and assiduity of Dr. Roberts the

success which attended the Congress is mainly due. After his lamented death on November 14, 1911, the completion of the arrangements was entrusted to Dr. Alex Hill.

It was agreed that the Vice-Chancellors of the Home Universities should form a committee, which should take charge of all matters appertaining to the academic programme of the Congress; whilst the Preliminary Arrangements Committee, henceforth known as the Organizing Committee, should remain responsible for finance and other business connected with its organisation.

The Home Universities Committee met in London for the first time in November, 1910. At this meeting there were present the Vice-Chancellors of Aberdeen, Cambridge, Durham, Edinburgh, Glasgow, National University of Dublin, London, Manchester, Oxford, St. Andrews (by deputy), Sheffield, Wales, and the Principal of Birmingham. Illness and other unavoidable causes prevented the attendance of the Vice-Chancellors of Bristol, Dublin, Leeds, Liverpool, and the Queen's University of Belfast. The following representatives of Government Departments interested in the Dominions and in Education also attended by invitation: Sir C. P. Lucas (Colonial Office); Sir Charles J. Lyall, Sir Theodore Morison, and the late Sir Herbert Risley (India Office and Council of India); Sir Robert Morant, and Dr. H. Frank Heath (Board of Education). A draft scheme of subjects to be discussed at the Congress was considered, and it was decided to send this scheme to all Universities overseas for criticism and additional suggestions.

In June, 1911, a Preliminary Conference of representatives of Canadian Universities, convened by Principal Peterson of McGill University, and Dr. Falconer, President of the Universities of Toronto, met in Montreal. Fifteen Universities were represented. Dr. Roberts went to Canada for the purpose of attending this Conference, visiting the more accessible Universities, and conferring with their executive heads. Two sessions were devoted to the consideration of the subjects to be discussed at the Congress, and many most valuable emendations of the draft scheme were suggested. It was also suggested that universities should be asked for memoranda of information bearing on the Agenda. A summary of the proceedings was printed and sent to the Australian and Indian Universities. A Conference of Australian Universities was held at Sydney in September. The Vice-Chancellors of the Indian Universities met at Delhi immediately before the Durbar.

The replies from the various Universities were laid before the

Home Universities Committee at a meeting held in November, 1911, when the paper of Agenda was finally settled. As reconstructed in accordance with the general tenor of the advice received, the Agenda fell into two divisions: (1) *Universities in their relation one to another;* (2) *Universities in their constitutional aspect and in their relation to Teachers, Graduates and Students.* With the Agenda Paper a request was sent, as recommended by the Conference which met at Montreal, to all Universities for returns of information relevant to the various subjects to be discussed, and also regarding certain other matters of interest to a general assembly of their representatives.

Two other committees were appointed: (1) The General London Committee, of which His Royal Highness Prince Arthur of Connaught consented to be President. This committee was representative of the Universities, the Empire, and its Capital City in which the Congress was to meet. It included all the Chancellors and Lord Rectors of the Home Universities, the Chairmen of the Royal Holloway College, of the University College Committee, of the Delegacy of King's College, of Bedford College, of the London School of Economics, and of the Gilchrist Trust, the Archbishop of Canterbury, the Prime Minister and members of the Cabinet whose departments are connected with Universities, the High Commissioners of Dominions, the Lord Mayor of London, and the Chairman of the London County Council. Sir Gilbert Parker, who organized the Conference of the Allied Colonial Universities of 1903, was also a member of this committee. (2) The Reception Committee included representatives in Parliament of Universities, Heads of Colleges, former Vice-Chancellors, the Chairman of Convocation and members of the Senate of the University of London, the Agents General for the Colonies, together with representatives of the Colonial Office, the Board of Education, the Royal Colonial Institute, the Imperial Institute, the Victoria League, the League of the Empire, the Committee of the Head Masters' Conference, the Incorporated Association of Head Masters, the Association of Head Mistresses, the Incorporated Association of Assistant Masters, the Incorporated Association of Assistant Mistresses, the National Union of Teachers, the Teachers' Guild, the Workers' Educational Association.

The Colonial Office and the India Office assisted the Home Universities Committee in preparing lists of the Universities of the Empire qualified to receive invitations to the Congress; the Governors General of Australia, Canada, New Zealand, and

South Africa, and the High Commissioners of the Dominions and Agents General gave frequent help. Invitations were sent to the following Universities and accepted by them all :—

I.—*The United Kingdom.*

ENGLAND AND WALES.

University of Birmingham.
University of Bristol.
University of Cambridge.
University of Durham.
University of Leeds.
University of Liverpool.
University of London.
Victoria University of Manchester.
University of Oxford.
University of Sheffield.
University of Wales.

SCOTLAND.

University of Aberdeen.
University of Edinburgh.
University of Glasgow.
University of St. Andrews.

IRELAND.

Queen's University, Belfast.
University of Dublin.
National University of Ireland.

II.—*The Dominions and Colonies.*

AUSTRALIA.

University of Adelaide.
University of Melbourne.
University of Queensland.
University of Sydney.
University of Tasmania.
University of Western Australia.

NEW ZEALAND.

University of New Zealand.

SOUTH AFRICA.

University of the Cape of Good Hope.

CHINA.

University of Hong Kong.

EUROPE.

University of Malta.

CANADA.

Ontario—
McMaster University, Toronto.
University of Ottawa.
Queen's University, Kingston.
University of Toronto.
Trinity, Toronto.
Victoria, Toronto.
Western University, London.

Quebec—
University of Bishop's College, Lennoxville.
Laval University, Quebec and Montreal.
McGill University, Montreal.

New Brunswick—
University of New Brunswick, Fredericton.
University of Mount Allison, Sackville.

Nova Scotia—
Acadia University, Wolfville.
Dalhousie University, Halifax.
University of King's College, Windsor.
University of St. Francis Xavier, Antigonish.

Alberta—
University of Alberta.

Saskatchewan—
University of Saskatchewan.

Manitoba—
University of Manitoba.

British Columbia—
University of British Columbia.

III.—*India.*

University of Allahabad
University of Bombay.
University of Calcutta.
University of Madras.
Panjab University, Lahore.

Every University of the Empire sent a delegate or delegates to the Congress.*

In addition to the delegates who alone would have the right of voting upon the only subjects upon which it was proposed that votes should be taken, the calling of future Congresses and the establishment of a Central Bureau, all members of the General London Committee, the Home Universities Committee, the Reception Committee, and the Organising Committee were declared to be members of Congress. The several Vice-Chancellors of Home Universities were also asked to nominate as "Representatives" of their Universities persons, not exceeding ten in number, who were either members of their staff or otherwise intimately associated with and interested in their Universities. Certain members of the Universities overseas who happened to be travelling in England received invitations. Each Vice-Chancellor was asked also to nominate a student representative, and the British University Students' Congress to submit three names. Dr. Andrew S. Draper, Commissioner of Education of the State of New York; Dr. George Maclean, ex-President of the University of Iowa; Dr. Frank L. McVey, President of the University of North Dakota; Professor W. F. Knox, Carnegie Institute of Technology, Pittsburgh, attended the Congress by invitation.

To allow of the attendance of other persons interested in higher education but not coming within either of the official categories, provision was made for the admission of Associate Members whose names should be approved by the Committee, such persons to have the privilege of attending the open sessions of the Congress, but not to speak, and of receiving the Report.

It is customary to apply the term "congress" to all gatherings of persons who meet to talk about matters of common interest; the assembly of representatives of Universities which met in the buildings of the University of London in July, 1912, was so eminently representative in character as to be far removed from a typical congress; it might have been termed, with propriety, a Council of Universities. The delegates, as will be seen from

* With the exception of the nascent University of Calgary, to which no invitation was addressed, on the ground that the University proposes for the present to restrict its degrees to Agriculture.

the list printed on pp. xxix to xxxv, were almost exclusively vice-chancellors, principals, professors, or other officers of the Universities which sent them. Many had come great distances at great sacrifice of time and money. They spoke with the deep sense of responsibility which distinguishes members of a council but is not always equally characteristic of those who take part in congresses.

From the outset of the preparations for the Congress it was contemplated that all delegates from overseas would receive invitations to visit the various Universities of the United Kingdom, so far as such visits could be undertaken within the limits of the time available. It was arranged that these visits should be paid shortly before and shortly after the meeting in London. Owing to the fact that few of the delegates were able to reach England sufficiently early, the number of those who took part in the tour planned for the ten days before Congress met was comparatively small, whereas almost all the delegates, with the ladies by whom they were accompanied, were guests of such of the Home Universities as had arranged to receive them after the London meeting. The following is the list of the Universities visited and the dates on which they received their visitors:—*Before the Congress*: Aberdeen, Saturday, June 22, to Monday, June 24; Sheffield, Monday, June 24; Glasgow, Tuesday, June 25, to Wednesday, June 26; Edinburgh, Wednesday, June 26, to Friday, June 28; St. Andrews, Thursday, June 27; Armstrong College, Newcastle-on-Tyne, and the University of Durham, Friday, June 28, to Monday, July 1; University of Dublin, Saturday, June 29, to Monday, July 1. *After the Congress*: Oxford, Saturday, July 6, to Monday, July 8; Birmingham, Monday, July 8, to Tuesday, July 9; Manchester, Tuesday, July 9, to Thursday, July 11; Liverpool, Thursday, July 11, to Friday, July 12; Leeds, Friday, July 12, to Saturday, July 13; Cambridge, Saturday, July 13, to Monday, July 15.

At Aberdeen the delegates were entertained at luncheon in the Palace Hotel, the Very Rev. the Principal, G. Adam Smith, D.D., presiding. After a tour in motor cars and a visit to King's College, they were received at Chanonry Lodge by the Principal and Mrs. Smith. On Sunday they attended Divine Service in the University Chapel, when the Principal, after extending a welcome to the visitors from over the seas, delivered a discourse on the ethical and intellectual ideals common to all the Universities of the Empire, the history of the Universities, and the aims of the Congress.

A Special Meeting of the Senatus was held in the Senatus Room at Marischal College, at which the degree of D.D. was conferred upon the Rev. T. W. Powell, President and Vice-Chancellor of the University of King's College, Windsor, N.S., and the degree of LL.D. upon Charles Chilton, Professor of Biology and Palæontology of Canterbury University College, Christchurch, N.Z., and the Honourable Devaprasad Sarvadhikary, of the University of Calcutta.

At Sheffield, after a reception at and inspection of the University buildings, the delegates, together with the members of the Council and Senate and other guests, were entertained at dinner in the Town Hall by the Lord Mayor (Councillor A. J. Hobson). The toast of "The Universities of the Empire" was proposed by the Lord Mayor, and responded to by Professor I. A. Mackay, Saskatchewan, and Professor P. C. Roy, Calcutta. Private hospitality had been offered, but the delegates were obliged to leave by the night train for Glasgow.

At Glasgow some of the delegates were entertained in the houses of members of the University Court and Senatus Academicus, others in hotels in the City. Tuesday, June 25, was observed as Commemoration Day. At a meeting of the University in the Bute Hall, after Divine Service an Oration was delivered by Professor F. O. Bower, Sc.D., F.R.S., on "Sir Joseph Hooker." Honorary degrees were then conferred on the delegates who attended, the degree of LL.D. was conferred upon Mirza Abbas Ali Baig, member of the India Council, Bombay; R. A. Falconer, President of the Universities of Toronto; the Hon. Sir John McCall, Agent General for Tasmania; and W. H. Warren, Professor of Engineering, Dean of the Faculty of Science, Sydney. In the afternoon delegates attended the presentation to the University of a bronze medallion of Emeritus Professor William Stewart, D.D., and, subsequently, a Reception at Queen Margaret College, the women's department of the University. At a dinner held in the University Examination Hall the toast of "The Oversea Universities" was proposed by Professor Archibald Barr, D.Sc., and replied to by President Falconer and the Hon. Sir John McCall.

It happened that on the day arranged for the visit to St. Andrews, the Freedom of the City was to be conferred upon Sir James Donaldson, Principal and Vice-Chancellor. The delegates attended this ceremony. They were then entertained at luncheon by the University in the United College Hall. After luncheon the Librarian of the University, Dr. J. Maitland Anderson, con-

ducted the visitors over the University buildings and the principal places of interest in the City of St. Andrews. The degree of LL.D. was conferred upon the Hon. Devaprasad Sarvadhikary, Calcutta, at the Graduation Ceremonial on July 17.

At Edinburgh the delegates were received by Principal Sir William Turner, K.C.B., Vice-Chancellor, and members of the Senatus. After a tour of the University buildings they and a large company of other guests were entertained at luncheon in the Caledonian Hotel. The toast of "Our Guests" was proposed by the Vice-Chancellor and responded to by President Falconer, Toronto, and Rai Bahadur G. N. Chakravarti, Allahabad. In the afternoon the delegates attended a Reception in the University Union. The Reception was followed by a Concert arranged by the Union Musical Society.

At the Graduation Ceremonial on July 12th the degree of LL.D. was conferred upon H. B. Allen, Professor of Pathology and Dean of the Faculty of Medicine in the University of Melbourne, and R. Ramsay Wright, Professor of Biology and Vice-President of the University of Toronto.

At Dublin delegates were the guests of the Provost and other members of Trinity College. They attended the Annual Commemoration and Graduation Ceremonial on the Saturday, and on the Sunday they were entertained at dinner in the College Hall.

The delegates who visited Durham were received at the University College, Newcastle-on-Tyne, when a Special Convocation was held, at which the degree of D.Litt. was conferred upon W. Peterson, Principal of McGill University, Montreal, and the degree of D.Sc. upon Prafulla Chandra Roy, Senior Professor of Chemistry, Presidency College, Calcutta, and Dean of the Faculty of Science, and T. P. Anderson Stuart, Professor of Physiology and Dean of the Faculty of Medicine in the University of Sydney. The Chancellor and the Senate afterwards entertained the delegates to luncheon. In the afternoon they travelled to Durham, where they were lodged in the Castle as guests of the University. On the Sunday delegates attended the morning service at the Cathedral, when the Bishop of Durham preached. In the afternoon the Dean, who is Chancellor of the University, conducted the delegates over the Cathedral. After tea in the Common Room of University College, they were taken over the Castle by Dr. Gee, Master of University College.

At Oxford delegates were the guests of various colleges and of members of the University. On the Saturday evening a dinner

in their honour was given at Christ Church. On the Monday, at a Special Convocation, the degree of D.Litt. was conferred upon W. Peterson, Principal of the McGill University, Montreal, and the degree of D.C.L. on Sir Frederick Lugard, G.C.M.G., Hong Kong.

At Birmingham delegates were the guests for the night of members of the University and other citizens. On the following morning they were received by the Principal, Sir Oliver Lodge, and members of the Council and of the Senate at the University Buildings at Edgbaston. After they had inspected the various departments they were entertained to luncheon at the Imperial Hotel. In the afternoon they proceeded to Manchester.

At Manchester delegates were guests of members of the Senate and friends of the University. The following morning they were received in the Council Chamber of the University by the Vice-Chancellor, Sir Alfred Hopkinson, K.C., and members of the Senate. After a lengthy tour of inspection of the laboratories and other buildings, they were entertained to luncheon in the Town Hall by the Lord Mayor (Mr. S. W. Royse). They subsequently visited the Rylands Library and the School of Technology. In the evening they were entertained to dinner in the refectory by the Council of the University. The toast of "The Universities beyond the Seas" was proposed by Professor Lamb, and responded to by Professor Warren, of Sydney, and Professor Dunn, of Allahabad.

At Liverpool hospitality was provided by the Vice-Chancellor, Sir Alfred Dale, the Treasurer, and the members of the Council. On their arrival delegates were received by the Vice-Chancellor in the Senate Room, after which the party split into sections, each visiting such departments of the University as they wished to inspect. The majority of the visitors were entertained to luncheon by the Vice-Chancellor, whilst the remainder lunched at the Adelphi Hotel, Professor Gonner and Mr. Edward Carey, Assistant Registrar, acting as hosts. In the afternoon some of the party returned to the University buildings; others visited the Art Gallery and public buildings of the City. In the evening the Council of the University entertained their visitors to dinner at the Adelphi Hotel.

At Leeds the delegates were received by the Vice-Chancellor, Dr. M. E. Sadler, the Council, and Senate. After they had inspected the various departments of the University they, together with many other guests, were entertained to luncheon by the Vice-Chancellor and Mrs. Sadler. Dr. Sadler, after giving the

toast of "The King," dwelt upon the organisation of the University of Leeds and its collaboration with the civic and educational authorities of the city and county. The toast of "Our Visitors" was proposed by the Lord Mayor (Mr. William Nicholson) and replied to by President Falconer, of Toronto. In the evening a Reception was held in the refectory of the University, at which a discussion on "The Present Tendencies in Education" was opened by the Vice-Chancellor.

At Cambridge the delegates were lodged in rooms in St. John's and Magdalene Colleges, the ladies at Newnham College. On the Sunday they attended the afternoon service in King's College Chapel, and were subsequently entertained at St. John's College Lodge by the Vice-Chancellor and Mrs. Scott.

The wives and daughters of delegates were in all cases invited by their University hosts.

The thanks of the Committee are heartily due to the members of the Senate of the University of London and many others who entertained delegates as their guests during Congress Week.

All Members and Associate Members of the Congress received abundant hospitality during their stay in London. The time was so short that it was impossible to find room in the programme for all the entertainments offered, and the Committee is equally indebted both to the hosts who received the Congress and to those who would willingly have done so had it lasted longer.

For the evening of Monday, July 1, the British Academy arranged that the second annual "Shakespeare Lecture" should be delivered in the theatre, Burlington Gardens, by A. C. Bradley, LL.D., Litt.D., F.B.A., sometime Professor of Poetry in the University of Oxford. Dr. Bradley chose as his subject *Coriolanus*. The lecture was followed by a Soirée.

On Tuesday, July 2, his Majesty's Government entertained the General London Committee and Delegates at luncheon at the Savoy Hotel. The guests were received by the Right Hon. Earl Beauchamp, H.M. First Commissioner of Works, sometime Governor of New South Wales. They were seated at thirty round tables, over which the following gentlemen severally presided :— Earl Beauchamp; Viscount Morley of Blackburn, O.M., Lord President of the Council; the Right Hon. Sir Edward Grey, Bart., Secretary of State for Foreign Affairs; the Right Hon. Lewis Harcourt, Secretary of State for the Colonies; the Right Hon. T. McKinnon Wood, Secretary for Scotland; the Right Hon. Herbert Samuel, Postmaster-General; the Right Hon. Walter Runciman, President of the Board of Agriculture; the

Right Hon. Joseph Pease, President of the Board of Education; the Right Hon. C. E. Hobhouse, Chancellor of the Duchy of Lancaster; his Grace the Duke of Norfolk, Earl Marshal, Chancellor of the University of Sheffield; the Right Hon. the Earl of Shaftesbury, Chancellor of the Queen's University of Belfast; the Right Hon. the Earl of Rosebery and Midlothian, Chancellor of the University of London and of the University of Glasgow, Lord Rector of the University of St. Andrews; the Right Hon. the Earl Curzon of Kedleston, Chancellor of the University of Oxford; the Right Hon. the Viscount Iveagh, Chancellor of the University of Dublin; the Right Hon. the Lord Reay, Chairman of the University College Committee; the Right Hon. the Lord Kenyon, Senior Deputy Chancellor of the University of Wales; the Right Hon. the Lord Strathcona and Mount Royal, High Commissioner for Canada, Chancellor of the University of Aberdeen and of McGill University, Montreal; the Right Hon. the Lord Avebury, F.R.S.; the Right Hon. the Lord Shuttleworth, Chairman of the Gilchrist Trust; the Right Hon. Sir George Houstoun Reid, G.C.M.G., K.C., High Commissioner for Australia; the Hon. Sir Richard Solomon, G.C.M.G., K.C.B., K.C.V.O., K.C., High Commissioner for the Dominion of South Africa; Sir Gilbert Parker, M.P., Organiser of the Allied Colonial Universities Conference, 1903; Sir William Turner, K.C.B., Vice-Chancellor and Principal of the University of Edinburgh; Dr. Herringham, Vice-Chancellor of the University of London; Sir Donald McAlister, K.C.B., Vice-Chancellor of the University of Glasgow; Sir Oliver Lodge, F.R.S., Principal of the University of Birmingham; Sir Alfred Hopkinson, K.C., Vice-Chancellor of the Victoria University of Manchester; Sir Frank Forbes Adam, C.I.E., Chairman of the Council of the Victoria University, Manchester; Sir Alfred Keogh, K.C.B., Rector of the Imperial College of Science and Technology.

The Chairman, Earl Beauchamp, gave the toast of the King. With the toast of the Queen, Queen Alexandra, the Prince of Wales, and other members of the Royal Family, he coupled the name of Prince Arthur of Connaught. "This gives me an opportunity," said Lord Beauchamp, "of expressing through his Royal Highness a very hearty welcome on behalf of his Majesty's Government to those who are taking part in this important Congress. His Royal Highness was good enough to show the interest that he took in the Congress by accepting the position of President of the General London Committee."

Prince Arthur of Connaught replied: Honoured as I am by

your invitation to attend this most influential and representative gathering, I have seldom risen with feelings of greater diffidence than I do at the present moment, confronted as I am by a sort of quintessence of the wisdom of ages and the brain power of to-day, in the presence of the delegates from so many seats of learning scattered throughout our vast Empire, with which we as Englishmen are privileged to claim kindred. The nineteenth century was very far advanced when the Imperial idea of the responsibilities of the Mother Country towards the various nationalities and races gathered together under the dominion of the British Crown culminated, and took definite shape, in the proclamation of Queen Victoria as Empress of India, and it is surely a very remarkable object-lesson in the vitality of the Imperial ideal that though the twentieth century has but just passed its first decade, such an assemblage as I see before me should be possible. (Cheers.)

I am informed that no fewer than fifty-three Universities are represented at this Congress, and the names of the chairmen who will conduct your deliberations promise well for valuable and permanent gain to the cause of higher education.

The Royal Family, for whom it is my privilege to respond on this occasion, has shown its interest in and appreciation of a University training by giving the heir to the Throne an opportunity of receiving that training during the last two generations. (Cheers.)

I wish to thank you very much for the extremely cordial way in which you have been good enough to respond to this toast, and I thank you, Lord Beauchamp, for the kind words in which you have referred to myself. I assure you it gives me the greatest satisfaction to be present and to see so many gentlemen from all parts of the Empire gathered together under one roof and with one aim.

The Right Hon. Lewis Harcourt, M.P., Secretary of State for the Colonies, in proposing the toast of "The Congress of the Universities of the Empire," said: I shall rigidly adhere to the admirable rule laid down for and pursued in all entertainments by the Government of a brevity in speech which is in inverse ratio to the warmth of the welcome they offer to their guests. It would, indeed, be an outrage on hospitality to inflict post-prandial oratory on those whose days, and perhaps nights, are for the moment devoted to the delivery or assimilation of speeches.

It is the irony of fate, or the humour of the authorities which has conferred on me the honour of proposing this toast. From

the accidents of life I was deprived of the advantage of a University experience. But my association with them has been maintained through my father, who was a faithful son of Cambridge, where for many years he was Professor of International Law, and I am happy in the fact that my home is within the radius and in sight of the University of Oxford.

It is, however, not my duty, or within my capacity, to speak to you to-day of University culture. It is my pleasant task to welcome here, on behalf of his Majesty's Government, the representatives of the Universities of the Empire.

When I was of undergraduate age, who amongst my contemporaries would have believed that in 1912 it would have been possible to call a Congress which would contain, as this does, the representatives of no less than fifty-three Universities under the British flag?

The race for knowledge on its higher plane is making these newcomers jostle one another for recognition. Queensland and Hong Kong joined the throng last year; Western Australia, Calgary, and British Columbia are the lusty babies of this spring. Your academic chiefs shine in other walks in diverse countries; to mention only two, Sir Samuel Way,* the Chancellor of the University of Adelaide, is a member of the Judicial Committee of our Privy Council; Sir Frederick Lugard, the Chancellor of the University of Hong Kong, adds to his activities the Governorship of the two Nigerias. You have brought to our shores a representation so brilliant as to dazzle the staid students of the old home.

In my capacity as Secretary of State for the Colonies my interest is profound in the success and extension of your schemes. As Bacon said, "Knowledge itself is power": the seats of learning, therefore, are the seats of the mighty; and a Congress of your seats of learning becomes an Imperial Conference of the brains of the Empire. The largest and the smallest, the oldest and the latest, are represented in London to-day, and putting their minds into a common stock for the desired and desirable end of a greater co-operation. The Universities of the Dominions, of India, and the Colonies are the first and finest product of intellectual Empire: they are the training-ground of those who will carry on our traditions, improve upon our methods, study our history, and govern our land when we are in our graves. They are the meeting ground of men of varied climes and diverse thought. The modern University does not aim at being the producer solely and mainly of

* The Right Hon. Sir Samuel Way, Chancellor of the University of Adelaide, was, at the last moment, prevented from attending as delegate to the Congress.

a governing caste—it is the elevator of every class which it attracts to its curriculum. The labourer and the millionaire are alike its supporters and friends. No nobler destination can be indicated for accumulated wealth than its dedication to the instruction of an Imperial race. You will find—you have found—here no jealousy on the part of the older establishments; only the warm welcome and the helping hand to the younger sisters.

When co-operation is sought or suggested it does not mean uniformity: we may well agree to differ in our methods but to correlate our aims, but in heaven's name let our differences be methodical and deliberate, and through such divergence we may attain a unity of utility. We know no politics at this table, but I may trench on its vocabulary without offence if I say that whilst we are all for Free Trade in students and in teachers, we are none the less in favour of an Imperial Preference in educational reciprocity. For the completion of such reciprocity I venture to suggest that we require some greater uniformity of the tests and conditions of entrance to Universities leading to the great goal of equality of opportunity.

I have heard it said that uniformity of effort is a proof of mediocrity. We are, indeed, saved from such a danger by the startling and specialized variety of the aims, the methods, the materials and the results of the diverse but converging genius of the organizations which are gathered here to-day. Specialization came to be scoffed at, but has come to stay. The strain of the world's work leaves neither space nor time for training of the universal genius. The Admirable Crichton of the twentieth century is the man who does *one* thing admirably well. He may write a history or construct an aeroplane—he may cure a disease, or produce synthetic rubber, but if he dabbles in them all he is doomed. Specialization, in such a diffuse Empire as ours, is the natural result of special circumstances and peculiar conditions. Though forestry taught at Oxford finds its field of work in the Himalayas, the chemistry of cotton-growing or the mechanics of gold-mining would not be there a specially appropriate course. But with varying soil, climate conditions, and industry, comes the necessity for the higher training and cultivation of the mental material and the ultimate output adapted to those local requirements.

You have, indeed, at this Congress a great problem to solve—a great reward to gain—in the alignment of effort and result. But in all this inevitable and necessary specialization—directed, as it must be, rather to the profit of the future than to the rumina-

tion of the past, I venture to hope that no Universities beyond the seas will forget a duty which they owe to history, to themselves, and to their successors. They are not only making, but they have already made, history; it is their duty to record and conserve it for the profit of posterity. Memory is transient; memoirs are superficial; no Gazette, no statute book, no Hansard, will give you the history of a grown or a growing nation. I beg you, therefore, to snatch from your class-rooms or your laboratories, from your graduates or your professors, at least one man who will become the historian of your country and your race. Hold fast to the records of your youth, even beyond the statistics of your prime. Some day some man—and he will be a great man—will say to you that he will let others till your prairies, or work your mines, if he may write your history which will be the song of your people. And so with the triumph of abounding commerce and the material and deserved rewards of organized prosperity you will associate the flavour of an ancient culture with the recorded glory of a younger race.

There is a fascinating chapter in Green's *History of the English People*, in which he points out that the "new learning" of the Renaissance of the sixteenth century accompanied, and was partly the product of, the discovery of and contact with the great new lands. There are parts of More's *Utopia* which might have been a prophetic vision of the Dominions beyond the sea. When "Greece crossed the Alps," as one of her exiled sons described the new birth of learning, the revival of letters in England assumed a phase more practical in its bearings upon society and politics. The peopling of those new lands, their material development, the discoveries of science, have in their turn produced a *newer* learning. It would not be untrue or unjust to say that to-day the circumstances of the case and the necessities of our time have replaced the purely literary student by the masters of applied science. A wide-flung Empire, such as ours, is maintained and kept in touch by the triumphs of engineering and the attainments of medicine. The Canadian Pacific Railway was no small factor in the making of Canada: the application of steam to ocean-going ships has made the populations of the Empire both locomotive and interchangeable. The telegraph—with or without wires—keeps the brains of the Anglo-Saxon race in daily and nightly communion. Curative and preventive medicine has enlarged the bounds of exploration, and the treatment of tropical disease has made many a torrid swamp potential territory for the subjects of the King. The newer learning, then, has no apology to make

for its divergence from the older systems, and culture has no cause to cavil at the laurels of its younger sons. In deep admiration of the energy and splendour of their present attainments and future promise, I give you the toast of the Universities of the Empire. (Prolonged applause.)

Lord Rosebery, in consideration of the address which he had given to the Congress in the morning, contented himself with replying to this toast in a brief and witty speech.

Principal Peterson, of the McGill University, "spoke with much feeling about the reception they had received, and said that every fibre of their being was touched. They were like children gathering round the family hearth. Turning to the two former speakers he said (with a great appearance of trying hard to remember) that he had no recollection of any visit paid by either of these gentlemen to the Dominions. He promised them a great welcome when they came, and the freemasonry of Universities there was such that they could pass on their guests without the danger of a single interviewer. He referred with much feeling to Lord Morley, and quoted his remark at Manchester about the work of the Universities being to form those habits of mind upon which the soundness of public opinion depends. At the moment at which he was speaking one of the candidates for the Presidency of the United States of America was the president of a great University. If he were successful in being elected from the presidential chair of a University to the Presidential chair of the United States he would do a great deal to purify and exalt public life in his country. This reference to the recognition of the supreme place of learned men in the guidance of nations roused much enthusiasm, and the luncheon party closed on this enheartening note."—*Manchester Guardian.*

In the afternoon the Marchioness Dowager of Bute, on behalf of the Victoria League, gave a garden party at St. John's Lodge, Regent's Park. The President of the League, the Countess of Jersey, the Honorary Secretary, Miss Talbot, Mrs. Macmillan, Treasurer, the Marchioness of Bute, the Duchess of Northumberland, and many other members assisted the Marchioness Dowager in receiving the members of the Congress.

The Committee of the London School of Medicine for Women also gave an At Home.

In the evening His Royal Highness Prince Arthur of Connaught received the delegates in the Marble Hall of the University of London. Chancellors and Vice-Chancellors of Universities, in their robes of office, formed a group behind the President, who

wore his robes as Doctor of Laws. The Reception was followed by a Conversazione attended by upwards of 2,500 guests. The committee is indebted to Professor Sir Frederick Bridge, C.V.O., for arranging, and to Trinity College of Music for producing, at the expense of the College, a most attractive programme of music; to Dr. Waller, F.R.S., Director of the Physiological Laboratory, Mrs. Waller, and their assistants for exhibiting apparatus of various kinds at work and giving demonstrations of vital phenomena; to members of University College, King's College, Bedford College, Birkbeck College, Northampton Polytechnic Institute, Sir John Cass Technical Institute, and the South-Western Polytechnic Institute for exhibits and demonstrations of many objects and processes of scientific interest; to Mr. R. A. Rye, Goldsmiths' Librarian, who arranged in the Library a selection of rare books and bindings; to the University of London Contingent of the Officers Training Corps, who arranged a torchlight tattoo and a display of all arms in a mimic assault, "The Storming of the Sultan's palace at Tlemcen." The band of the corps performed during the evening.

Members and friends of the University of London were most generous in subscribing funds to meet the expenses of the conversazione.

A collection of photographs, drawings, and plans of University buildings was exhibited in the East Gallery on the evening of the Conversazione and throughout Congress Week. The bulk of these illustrations had been collected by Mr. C. R. Ashbee, F.R.I.B.A., for the use of the Hungarian Government, who very kindly lent them to the Congress. At the request of the Committee a large number of Universities sent additional illustrations to the Exhibition. A *catalogue raisonné* was prepared by Mr. Ashbee.

The Worshipful Companies of Fishmongers, Merchant Taylors, Clothworkers, Leathersellers, and Vintners entertained all the overseas delegates and many other members of the Congress to dinners in their several Halls on the Wednesday evening. The stately and sumptuous hospitality of the City Companies, the ancient ceremonial which directs it, the glory of their historic Halls, and the beauty and interest of their plate, combined to produce an impression which will not easily be effaced from the minds of those who were so fortunate as to be their guests.

Later in the evening the Countess Beauchamp received the members of the Congress at her house in Belgrave Square.

On the Thursday the Principal and staff of King's College entertained delegates to dinner in the College.

On this evening, also, the Lord Mayor and Lady Mayoress gave a most delightful entertainment at the Mansion House.

On the Friday evening Mrs. E. B. Sargant gave an At Home at Claridge's Hotel.

As stated earlier in this record, the University of London made itself responsible for the expenses of the Congress. For this purpose a sum of £500 was voted by the Senate during the Session 1910–11 and a further sum of £200 in the succeeding session. Other Home Universities contributed the following amounts: Bristol, £25; Cambridge, £50; Dublin, £50; Durham, £25; Edinburgh, £50; National University of Ireland, £50; Leeds, £25; Liverpool, £25; Manchester, £25; Oxford, £50; Sheffield, £25; Wales, £25. The Carnegie Trustees made a grant of £100, and the Rhodes Trustees a grant of £250. Certain of the City Companies also made most generous donations: the Worshipful Company of Clothworkers, £100; the Worshipful Company of Fishmongers, £105; the Worshipful Company of Goldsmiths, £100; the Worshipful Company of Grocers, £100; the Worshipful Company of Merchant Taylors, 50 guineas; the Worshipful Company of Salters, 25 guineas; the Worshipful Company of Skinners, 25 guineas; the Worshipful Company of Vintners, 10 guineas

The final session of the Congress on the afternoon of Friday, July 5, was restricted to delegates. At this meeting it was resolved:—That arrangements be made to summon a Congress of Universities of the Empire at intervals of five years.

DELEGATES, MEMBERS, AND ASSOCIATE MEMBERS OF THE CONGRESS.

GENERAL LONDON COMMITTEE.

NOTE.—*The offices given after the names of Members are those which they held in February, 1912, when this Committee was completed.*

PRESIDENT:
H.R.H. PRINCE ARTHUR OF CONNAUGHT, K.G., G.C.V.O.

H.R.H. PRINCE CHRISTIAN OF SCHLESWIG-HOLSTEIN, K.G., G.C.V.O., Chairman of the Royal Holloway College.

THE MOST REV. HIS GRACE THE LORD ARCHBISHOP OF CANTERBURY, G.C.V.O., D.D.

THE RIGHT HON. H. H. ASQUITH, K.C., M.P., Prime Minister, First Lord of the Treasury.

THE RIGHT HON. THE VISCOUNT MORLEY OF BLACKBURN, O.M., Lord President of the Council, Chancellor of the Victoria University of Manchester.

THE MOST HON. THE MARQUESS OF CREWE, K.G., Lord Privy Seal, Secretary of State for India, President of the Imperial College of Science and Technology.

HIS GRACE THE DUKE OF NORFOLK, K.G., G.C.V.O., Earl Marshal, Chancellor of the University of Sheffield.

HIS GRACE THE DUKE OF DEVONSHIRE, Chancellor of the University of Leeds.

THE MOST HON. THE MARQUESS OF LANSDOWNE, K.G., G.C.S.I., G.C.M.G., C.I.E., Former Secretary of State for Foreign Affairs, former Governor-General of Canada and Viceroy of India.

THE RIGHT HON. THE EARL OF DERBY, G.C.V.O., C.B., Chancellor of the University of Liverpool.

THE RIGHT HON. THE EARL OF SHAFTESBURY, K.P., K.C.V.O., Chancellor of the Queen's University of Belfast.

THE RIGHT HON. THE EARL OF ROSEBERY AND MIDLOTHIAN, K.G., K.T., Chancellor of the University of London and of the University of Glasgow, Lord Rector of the University of St. Andrews, Rhodes Trustee.

THE RIGHT HON. THE EARL GREY, G.C.B., G.C.M.G., G.C.V.O., late Governor-General of Canada.

THE RIGHT HON. THE EARL OF MINTO, K.G., G.C.M.G., G.C.I.E., late Viceroy of India, Lord Rector of the University of Edinburgh.

THE RIGHT HON. THE EARL BEAUCHAMP, K.C.M.G., H.M. First Commissioner of Works, former Governor of New South Wales.

THE RIGHT HON. THE EARL OF SELBORNE, K.G., G.C.M.G., former High Commissioner for South Africa.

THE RIGHT HON. THE EARL CURZON OF KEDLESTON, G.C.S.I., G.C.I.E., Chancellor of the University of Oxford, former Viceroy of India.

THE RIGHT HON. THE VISCOUNT MILNER, G.C.B., G.C.M.G., former High Commissioner for South Africa; Member of the Royal Commission on University Education in London: Rhodes Trustee.

THE RIGHT HON. THE VISCOUNT IVEAGH, K.P., G.C.V.O., Chancellor of the University of Dublin.

THE RIGHT HON. THE VISCOUNT HALDANE, F.R.S., Secretary of State for War, Chancellor of the University of Bristol, Chairman of the Royal Commission on University Education in London.

THE RIGHT HON. THE LORD PENTLAND, Secretary for Scotland.

THE RIGHT HON. THE LORD BALFOUR OF BURLEIGH, K.T., G.C.M.G., Chancellor of the University of St. Andrews.

THE RIGHT HON. THE LORD REAY, K.T., G.C.S.I., G.C.I.E., Chairman of the University College Committee.

THE RIGHT HON. THE LORD KENYON, K.C.V.O., Senior Deputy Chancellor of the University of Wales.

THE RIGHT HON. THE LORD RAYLEIGH, O.M., Chancellor of the University of Cambridge, Past-President of the Royal Society.

THE RIGHT HON. THE LORD ROTHSCHILD, G.C.V.O., President of the London School of Economics.

THE RIGHT HON. THE LORD STRATHCONA AND MOUNT ROYAL, G.C.M.G., G.C.V.O., High Commissioner for Canada, Chancellor of the University of Aberdeen and of McGill University, Montreal.

THE RIGHT HON. THE LORD AVEBURY, F.R.S.

THE RIGHT HON. THE LORD SHUTTLEWORTH, Chairman of the Gilchrist Trust.

THE RIGHT HON. LEWIS HARCOURT, M.P., Secretary of State for the Colonies.

THE RIGHT HON. AUGUSTINE BIRRELL, K.C., M.P., Chief Secretary to the Lord Lieutenant of Ireland, Lord Rector of the University of Glasgow.

THE HON. W. F. D. SMITH, Chairman of the King's College Delegacy.

THE RIGHT HON. JOSEPH CHAMBERLAIN, M.P., Chancellor of the University of Birmingham.

THE RIGHT HON A. J. BALFOUR M.P., Chancellor of the University of Edinburgh.

THE RIGHT HON. A. H. D. ACLAND, Chairman of Bedford College, London.

THE RIGHT HON. SIR GEORGE HOUSTOUN REID, G.C.M.G., K.C., High Commissioner for Australia.

THE RIGHT HON. GEORGE WYNDHAM, M.P., former Chief Secretary to the Lord Lieutenant of Ireland.

THE RIGHT HON. ALFRED LYTTELTON, K.C., M.P., former Secretary of State for the Colonies.

THE RIGHT HON. WALTER RUNCIMAN, M.P., President of the Board of Agriculture, late President of the Board of Education.

THE RIGHT HON. J. A. PEASE, M.P., President of the Board of Education.

THE RIGHT HON. A. BONAR LAW, M.P.

THE RIGHT HON. THE LORD MAYOR (SIR THOMAS BOOR CROSBY, M.D., F.R.C.S.).

HIS GRACE THE MOST REV. ARCHBISHOP WALSH, D.D., Chancellor of the National University of Ireland.

THE HON. SIR RICHARD SOLOMON, G.C.M.G., K.C.B., K.C.V.O., K.C., High Commissioner for the Dominion of South Africa.

THE HON. SIR WILLIAM HALL-JONES, K.C.M.G., High Commissioner for New Zealand.

THE VERY REV. THE DEAN OF DURHAM, D.D., Chancellor of the University of Durham.

THE CHAIRMAN OF THE LONDON COUNTY COUNCIL.

SIR GILBERT PARKER, M.P., Organiser of the Allied Colonial Universities Conference, 1903.

ANDREW CARNEGIE, Lord Rector of the University of Aberdeen.

DELEGATES APPOINTED BY THE UNIVERSITIES OF THE EMPIRE.

ABERDEEN:

THE VERY REV. G. ADAM SMITH, M.A., D.D., LL.D., Litt.D., Vice-Chancellor and Principal.

PROF. MATTHEW HAY, M.D., LL.D., Professor of Forensic Medicine.

PROF. JOHN HARROWER, M.A., LL.D., Professor of Greek.

ALBERT WESTLAND, M.A., M.D., C.M., Member of University Court.

ACADIA:

PROF. R. C. ARCHIBALD, M.A., Ph.D., Assistant Professor of Mathematics, Brown University ; formerly of Acadia.

ADELAIDE:

THE RIGHT REV. THE LORD BISHOP OF BATH AND WELLS, D.D., formerly Bishop of Adelaide.

PROF. W. H. BRAGG, M.A. (Cantab.), F.R.S., Member of Leeds University Court, Professor of Physics, University of Leeds; formerly Professor of Physics, University of Adelaide.

PROF. HORACE LAMB, M.A., D.Sc. (Oxon., Cantab. and Dublin), LL.D. (Glasgow), Professor of Mathematics, University of Manchester; formerly Professor of Mathematics, University of Adelaide.

PROF. H. DARNLEY NAYLOR, M.A. (Cantab.), Hughes Professor of Classics.

ALBERTA:

H. MARSHALL TORY, M.A., D.Sc., LL.D. (McGill), F.R.S.C., President.

PROF. BARKER FAIRLEY, M.A. (Leeds), Ph.D. (Jena), Lecturer in Modern Languages.

THE HON. A. C. RUTHERFORD, M.A., LL.D., ex-Premier of Alberta.

ALLAHABAD:

RAI BAHADUR G. N. CHAKRAVARTI, M.A., LL.B., Inspector of Schools, Member of Senate and of the Syndicate.

PROF. S. G. DUNN, M.A., Professor of English Literature, Muir Central College.

PROF. E. A. RADFORD, M.A., Professor of Philosophy, Muir Central College.

QUEEN'S UNIVERSITY, BELFAST:

REV. T. HAMILTON, M.A., D.D., LL.D., Vice-Chancellor and President.

SIR SAMUEL DILL, M.A., Litt.D., LL.D., Professor of Greek.

PROF. J. A. LINDSAY, M.A., M.D., F.R.C.P., Professor of Medicine.

PROF. J. A. STRAHAN, LL.B., Professor of Jurisprudence and Roman Law.

BIRMINGHAM:

SIR OLIVER J. LODGE, D.Sc., LL.D., F.R.S., Principal.

PROF. W. J. ASHLEY, M.A., M.Com., Ph.D. (Berlin), Professor of Commerce, Dean of the Faculty of Commerce.

PROF. ALFRED HUGHES, M.A., Organizing Professor of Education, Dean of the Faculty of Arts.

PROF. E. A. SONNENSCHEIN, M.A., D.Litt., Professor of Latin and Greek.

BISHOP'S COLLEGE, LENNOXVILLE:

REV. R. A. PARROCK, M.A. (Cantab.), LL.D. (N.B.), D.C.L., Vice-Chancellor and Principal, Hamilton Professor of Classics, Dean of the Faculty of Arts.

BOMBAY:

MIRZA ABBAS ALI BAIG, C.S.I., B.A., LL.D. (Glasgow), Member of the Council of India.

MAJOR S. C. EVANS, I.M.S., M.B., C.M., Professor of Gynæcology, Grant Medical College, Bombay.

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REPORT OF PROCEEDINGS.

TUESDAY, JULY 2.—Morning Session.

CHAIRMAN.

THE RIGHT HON. THE EARL OF ROSEBERY AND MIDLOTHIAN, K.G., K.T., D.C.L., LL.D., CHANCELLOR OF THE UNIVERSITIES OF LONDON AND GLASGOW, AND LORD RECTOR OF THE UNIVERSITY OF ST. ANDREWS.

I.

QUESTION OF DIVISION OF WORK AND SPECIALIZATION AMONG UNIVERSITIES.

II.

INTER-UNIVERSITY ARRANGEMENTS FOR POST-GRADUATE AND RESEARCH STUDENTS, INCLUDING THE QUESTIONS OF RECIPROCAL RECOGNITION OF COURSES FOR POST-GRADUATE DEGREES; CO-OPERATION IN POST-GRADUATE COURSES AND SPECIALIZATION IN POST-GRADUATE COURSES ALONG SPECIAL LINES AMONG UNIVERSITIES.

First Session.

The Chairman: Ladies and Gentlemen; it is my high privilege as Chancellor of the University of London to offer a hearty welcome to this Congress of the Universities of the Empire on meeting in the capital of the Empire.

This is the age of Congresses, and we have innumerable Congresses—some eminently useful, some perhaps eminently superfluous. (Laughter.) But I very much doubt whether amongst all the Congresses that have met in London, there is any which is in reality so vitally important, so striking in its nature, making so great an appeal to the imagination of every British subject as that which meets here to-day. From Oxford to Sydney, from Cambridge to Calcutta, from St. Andrew's to Saskatchewan, and from Dublin to the Cape, we are all joining hands to-day and singing as it were in imagination "Auld Lang Syne." At a meeting which represents every part and region of this world-wide empire (applause) I would ask you, gentlemen, is not this after all the best kind of empire, the best kind of imperial feeling, a form of imperialism to which the Least Englander could not object—that of co-operation in high and noble tasks, with the common sympathy, affection and energy which would characterize the members of an immense family. (Hear, hear.)

The fact, the feature that must strike us all to-day is the immense growth in number of the Universities of the Empire. Take the year 1830, a very critical year in our history and in the history of Europe, and consider what such a Congress would have been had it met at that time. If it had been an English Congress it would have been a meeting—an interesting, private, confidential meeting—of two representatives. Had it been confined to Great Britain it would have been a meeting of six representatives, because, while England had for centuries been content with two Universities, Scotland was never content with less than four. (Laughter and applause.) You will forgive me, I am sure, for that patriotic reflection! But suppose it had been an Imperial Congress such as we have to-day, it would not have consisted of more than eight representatives, that is to say, you would have taken in Dublin and a Canadian University,[1] but beyond them nothing. Eight members! And eighty years afterwards we come here fifty-three strong. (Hear, hear.) May we not believe that, had Daniel Webster lived to deliver to-day his famous eulogy on the British

[1] The University of King's College, Windsor, Nova Scotia, received its Charter in 1802; the McGill University was established in 1821, but was not functionally active until a later date.

Empire (in a small space the most eloquent ever delivered, and that by an American statesman), he would have added to his famous figure of "the universal drum-beat of the Empire" that it is belted round with Universities? (Hear, hear.)

Now to what is this marvellous increase due? I think we may say that it is due to an immense demand and an immense need. It is not due especially, as our older Universities were due, to the instincts of the pious and, generally, ecclesiastical founders. The development in our Universities has taken a totally different turn. Whereas formerly, had new Universities been founded, the founders would probably have chosen the sequestered solitude of some Cathedral city like Wells or Canterbury so as to attract those youths who demanded learning and who should be secluded in a cloister from the dangers of too free an intercourse with the world, the new Universities are totally different. They meet the demand of great cities which require that they shall be situated in their midst, and that their Universities shall meet the demands of their community. That, I think, is a great and instructive feature of this huge development of the University system. Oxford and Cambridge satisfied the wants of England for centuries, and nobly they did their work; but with the increasing complications of our civilization, together with the increase of our population, our commerce and our wealth, it was felt that these two Universities could no longer do for us what we required, and every great city seems to consider it a matter of pride and a necessary appanage of its own position that it should hold a University within its walls.

I pointed out a moment ago how many Universities have been founded in the last seventy years. But, in the twelve years of the twentieth century which have already passed, in England alone no fewer than five Universities have been founded. That surely is a remarkable and striking feature of our times, and the same thing has been going on all over the Empire. Now, gentlemen, I am not going to-day—even if I had the time I have not the capacity—to deal with the University problems which you have met to discuss. Each University represented here has its own separate task to undertake, differing probably in some one respect at any rate from the task of every other University. Fifty-three Universities, in a word, represent fifty-three problems. And though I cannot wish for a moment—as I think that every University must work out its own salvation in its own way—though I cannot wish for a moment for any idea resembling centralization in any form or shape, because a centralization or federation of the Universities of the Empire would, in my opinion,

be a poisonous idea, demoralizing to them and fatal to their growth and development, yet I cannot but hope that this Congress when it shall have separated will leave behind it in some shape or another some channel, some permanent channel, however slight, through which the Universities of the Empire can continue to communicate with each other, when necessity shall arise, either as to methods or as to men, or obtain hints from each other as to the best working out of their several problems. (Applause.)

Now, gentlemen, let me allude for a moment to one fundamental idea of these Universities, which appeals, I confess, strongly to myself. Whatever your different tasks and problems, there is one common to all of you; there is a need which you alone can supply, the great need of the age, which is the need of men. I suppose the work of Universities may be roughly divided into three parts: the part of research, which can take its own burden so long as it is sufficiently equipped with funds, for every University will do as much research as it has money to undertake; then there is the training of the higher intelligences, who also if they have fibre can take care of themselves; but the great mass of students have nothing to do with either the one or the other,—they are pass men, winning their degree as a stamp of their education or else as a means of earning their bread. Yet they, after all, constitute the most important part of the University (hear, hear), and make the largest demand upon the care and thought of the teachers who control it, because to form the men I am asking for you cannot appeal to any Professor or to any class, you cannot have a class of character or a class of morals; but you can imbue and infuse character and morals and energy and patriotism by the tone and atmosphere of your Universities and of your professors. (Applause.) So far as you, gentlemen, in your different Universities can fulfil that task of sending out men—I care less about their brains than their character, for the purpose I am speaking of—you are rendering by far the greatest service to the Empire that any bodies within the Empire can render. (Applause.) I have spoken of the increase of Universities, but think of the enormous development of the requirements of the Empire as compared to what they were seventy years ago! Certainly a century ago one Prime Minister sufficed for the whole British Empire, and we had some difficulty in finding him (laughter), but now the whole Empire is dotted over with parliaments, which require not merely members, uncorruptible, earnest, honourable members,—I do not ask so much for brains, because brains go to wherever there is a career for ambition,—but ministries and prime ministers (who are

supposed to be the most important of all). These are the requirements that have developed all over the Empire and for which we have to find men or, more strictly speaking, *you* have to find men, because it is Universities alone that can supply the sort of man that is required.

Take, again, another development, the enormous development of municipal life, of municipalities dotted all over the country, for which we require equally honourable, uncorruptible, strenuous men, if these municipalities are not to degenerate into something very perilous to the well-being of the State.

Well, where are we to get the men for these purposes if not from you? I sometimes wonder—I suppose you men of light and leading and learning are aware of it—I sometimes wonder if Universities sufficiently recognise the function that they have to discharge to the Empire in furnishing the Empire with men to carry on its work. If you fail in that, I will not say you are of no use to us, but you are not discharging the function which under Providence you were meant to discharge. (Hear, hear.) Take the case of Australia alone. I may be wrong in my figures, because I add them up on my fingers and I am not always sure that I have not left a parliament out, but I think Australia enjoys the privilege of no less than seven parliaments for a population not more than half that of Greater London. These seven parliaments, seven ministries, seven prime ministers, represent a drain on the intelligence and vitality of the Australian nation that can only be adequately met if the Universities of that country do their duty. (Applause.) And let me add this one sentence, which appeals, of course, to us as well as to those outside these islands, that this Empire is becoming increasingly difficult to maintain; before the great crush and competition of nations for place it was comparatively easy: we simply spread ourselves involuntarily over the globe. But no one who observes the signs of the times can fail to see that it will be increasingly difficult to maintain this Empire in its entirety and cohesion without an intensity of character and devotion which it must be the task of the Universities pre-eminently to maintain. (Applause.) But I would add a further plea for you to supply the men of whom I think we have need. It is not only the Empire but it is the world itself which has need of all the character, all the intensity, and all the ability which it contains, developed or undeveloped, to carry it on without the danger of anarchy and chaos. I do not think any intelligent observer can watch the course of the world without seeing that a great movement of unrest is passing over it, whether for good or for evil—

I cannot doubt for good,—and that it is affecting not merely England and the Empire, but the entire universe. After centuries of deadness it has affected the East, and the Ottoman Empire is apparently in the throes of preparation for some new development. More striking even than that, it has touched the dormant millions of China, which for the first time in its history appears likely to take a new start and a new development, a new progress to some ideal which we ourselves are incapable of divining. Is not the whole world, gentlemen, in the throes of a travail to produce something—something new to us, something, perhaps, new to history; something, perhaps, better than anything we have yet known, which it may take long to perfect or to achieve, but which at any rate means a new evolution? Now, we want all the help we can get. For the purpose of guiding this movement, for the purpose of letting it proceed on safe lines that will not lead to shipwreck, we need all the men that the Universities can give us, not merely the highest intelligences that I spoke of, but also men right through the framework of society from the highest to the lowest, whose character and virtues can influence and inspire others. (Applause.) I am looking to-day at the Universities simply as machines for producing men, the best kind of machines for producing the best kind of men who may help to preserve our Empire and even the universe itself under the grave conditions in which we seem likely to labour. I hope you will forgive me for taking this narrower and yet broader view of University functions than that which it is usual to take. (Applause.) It is in that spirit and in the hope that the Universities of the Empire will not be insensible to the high responsibility which is cast upon them that I bid God-speed to the labours of this Congress. (Prolonged applause.)

QUESTION OF DIVISION OF WORK AND SPECIALIZATION AMONG UNIVERSITIES.

First Paper.

THREE causes have contributed to make the question of specialization and co-ordination of work among Universities a matter of urgent importance.

First, there has been a striking increase of late years in the number of institutions providing a University training. Seven new Universities have been founded in England within the last five-and-thirty years, five of these within the last twelve years, and the character of the University of London has been transformed. The question of the specialization of work between the various colleges and institutions included within the University of London alone constitutes a problem of no slight magnitude.

Secondly, there is an immense increase in the number of subjects taught, in the subdivision of each, and in the cost of staff, accommodation, and material requisite for teaching. In the older Universities new schools and new departments have arisen with bewildering rapidity. An Oxford or Cambridge man who graduated forty years ago and had not watched these changes would be ludicrously under the mark if asked to state the number of professors in his University. In Manchester, again, to take one case as an example, forty years ago there was one Professor of Zoology, Botany, and Geology; now there are four professors and fourteen lecturers and demonstrators. Botany alone, in addition to the original Chair, has its special professor of Cryptogamic Botany, and Lecturers in Economic Botany and in Vegetable Physiology.

Thirdly, the new Universities are smaller in numbers, and their resources are far more limited than those of the two ancient Universities; but their activity is constant, and the desire for new developments is ever present. If each of these Universities insists on providing instruction and equipment in every subject, their resources will be overtaxed and the result will not justify the great expenditure incurred. They cannot all teach every subject efficiently; and there is a limit to the number of students in the country who will, or who can with advantage, take up a given subject, for instance, in such subjects as Agriculture, Mining, and Archæology. As regards some subjects, too, local conditions in certain places are unfavourable. For example, it would be impossible, owing to lack of material as well as other

causes, for every University to attempt to develop a School of Tropical Medicine or of Naval Architecture. Some differentiation determined by local circumstances, the possession of special endowments and facilities and the nature of the instruction in allied sciences is most desirable. There are, of course, some subjects which ought to be taught in every University worthy of the name; we cannot imagine a real University without a Chair of Mathematics; we do not wish to think of one without a Chair of History. Half the good of a University comes from the association in one place of men, both teachers and students, following different pursuits. The founders of Bristol, the newest University, have done wisely in securing the permanent endowment of certain Chairs in Arts and in Science which every University ought to possess. But it is not necessary for every University to attempt to develop every department to the same extent. It is doubtful, indeed, whether all should attempt to include every one of the regular professional faculties; whether, for example, all can possess a really efficient School of Medicine or of Law or of Divinity is open to question, and it is still more questionable whether all should aim at having a Department of Public Health, or a Chair, say, of Comparative Religion or of Assyriology.

How is a reasonable division of work to be made and the necessary specialization to be brought about? It has been suggested that some external authority should attempt the task, intimating to the various Universities that expenditure in certain directions should be avoided, or discouraging, or even preventing, the expenditure of which it disapproved by direct control or by imposing conditions on the grants made. It may at once be said that the creation of such external control would be a fatal mistake. No outside body can possibly lay down rules which might not have the effect of strangling useful and often most fruitful developments. A great teacher arises in some subject—no one can foresee where it will be—he attracts students to hear him, draws to his lectures and laboratories men keen in the pursuit of learning and science, whose researches he will direct, encourage, and stimulate. A wise University will provide him with assistants, enlarge his laboratories, provide the equipment he needs, even when it involves serious strain on its resources. Private donors may then step in and aid the work. Sometimes, again, a private donor interested in a particular University may provide a handsome endowment for some special branch of work in it. Such an endowment may induce, almost compel, that University to add from its general funds what is necessary to establish the department on a satisfactory footing, though the

subject may not be one which it would otherwise have undertaken. No one can safely predict from year to year what are the best lines of advance, or in what order different extensions can be effectively made from time to time. Sometimes steps have to be taken immediately to avoid the loss of a golden opportunity.

Another suggestion is that Universities should solve the problem for themselves by entering into undertakings with one another. But for reasons similar to those already advanced in opposition to the proposal to give a power of control to some external authority, anything like a formal agreement between Universities that one shall undertake one subject and leave out another is undesirable and really impracticable.

Can nothing, however, be done to prevent an admitted and probably growing evil? The answer appears to be clear that each University in directing its own policy should take note of the danger; that each should avoid the fatal policy of saying that because another University has provided for a special subject it should do so too; that it should not flatter its neighbour by hurrying to imitate; that each should undertake what it can do properly, and no more. Again, it is a distinct advantage that those who are responsible for the administration of each should give information to and confer with one another from time to time, especially in the case of Universities which are near together. It is tempting to furnish examples of possible action or forbearance at the present time, showing how one University may abstain from instituting a special Faculty or Department which exists in another near at hand, and to indicate by name which subjects each should undertake; but an attempt to outline a policy of distribution of subjects between the Universities would naturally be regarded as officious, and little would survive of any such scheme after it had been discussed by representatives of each. Let each bring for the advancement of higher education in the country as a whole what it can do best, welcoming the development of others in directions in which it cannot effectively follow, and arranging where desirable for the passage of students from one to another in order that they may secure the special advantages afforded anywhere for any particular branch of study. Autonomy is essential but not isolation. There is a community of interest, and only gain can result from associated action and interchange of thought between the various Universities of a country, even of an Empire, as it does within each University.

ALFRED HOPKINSON.

Second Paper.

In one of the preliminary committee meetings at which the question of the subjects to be discussed by this Congress was first mooted, I suggested, somewhat light-heartedly I remember, as a possible topic this question of the "division of work" and of "specialization" in the Universities. On second thoughts I became a little alarmed. I saw that it was a subject of some delicacy and might cause heartburnings. No University likes to be told that it must not take up any study, or to have it hinted that it is not as good as, or ought not to aspire to the same rank as any other. I offered, therefore, to withdraw it; but I found that it was hailed with a certain eager interest, and I was not allowed to do this. So here it is, in the forefront of our programme, and if it proves an apple of discord I must to some extent bear the responsibility.

But I am not altogether sorry. If it is a delicate subject, it is all the more one which calls for discussion, and it seems to me one which is specially suited for our Congress. It is one which the home country and the daughter nations alike must face, which the Empire indeed must face; one in which the whole can help the parts, and in which the parts can help the whole; one in which old experience can advise new opportunity, and young and unprejudiced and uncommitted institutions can fairly criticize their elders and avoid their mistakes.

The question is not unlike that of "town-planning." The old system, or want of system, has grown up to a large extent, though not perhaps if we look deeply, quite so largely as might appear, at haphazard. In dealing with the new we have the opportunity of laying out our foundations and schemes on scientific principles.

It will be admitted by all that a country may have too many or too few Universities or University Colleges. They may be badly placed. They may overlap. They may cut each other's throats. There is the difficulty here, as everywhere else, of steering between the rivalry which, as the old Greek poet said, is healthful and helpful, and the competition which is wasteful.

We live, for good and for bad, in days of specialization and division of labour. It invades the most liberal of the liberal arts; it invades the sciences, alike the most pure and the most applied. *Non omnia possumus omnes.* We are confronted with the problem of division of labour to-day in the home country. England was for many years, indeed for many centuries, a country with too few Universities, just as Germany was a country with too many. This was partly accidental. Universities bade

fair to arise, as students of history know, at other places than Oxford and Cambridge, in London, for instance, or again at Ipswich, as Shakespeare reminds us, or, as Brasenose men know, at Stamford; yet it was only a hundred years ago that any serious rivals to Oxford and Cambridge came into being. Gresham College, established in 1548, was intended by its founder to give a University training, and actually figures as a University in Stow's Annals; but it was not until the beginning of the last century that, at the call of a patriotic poet, London University came into being. Meanwhile, Oxford and Cambridge have themselves experienced to some extent their division of labour and their specialization; the subtle law of differentiation has affected them. Popularly they have been supposed to be more different than they really were. Nothing was more absurd than the idea that Cambridge was devoted entirely to Mathematics, and Oxford to Classics. The University of Bentley and Porson was supposed to have no scholarship or literature, just as the University of Wren and Halley was supposed to possess no science. Yet such was, and indeed often still is, the view of the man in the street.

But if that view is wrong, it is still true that Oxford on the whole has been more "metaphysical," Cambridge more "physical"; that the moral and political sciences have flourished more on the Isis, the material and mathematical more on the Cam. Yet on the whole the equality and parity of Oxford and Cambridge, in studies as in athletics, have been more remarkable than their difference. They have divided the country. They have both been expected to be, and have expected themselves to be, complete and first-rate. All the arts and sciences have, sooner or later, found a footing in them, and on the whole they have tended of late to converge rather than to diverge. The Moral Sciences, Economics and History, have of late especially gained ground at Cambridge, just as Oxford has added the Natural Sciences, and to some extent even the Applied Sciences, more and more fully to her curriculum. And here I would say that this is a law, or at any rate a tendency, of Universities, and within certain limits I cannot but think a very healthy law and tendency, that they should each and all of them strive to make their equipment fairly complete, and to become what is commonly called "all round." It is not true that a University is, or ought to be, a place where everything is taught. That is not the meaning of "*Universitas*." But it should be a *Studium generale*. Half of the value of a University lies in the association of studies, in the bringing together of both older and younger men occupied in, or preparing themselves for different intellectual pursuits.

Within what limits then does the solution of the problem lie? I believe that the main facts to be considered are these three. First of all, there is an irreducible minimum of equipment, without which no University is complete, or worthy its name, the equipment of Arts and Sciences, comprising on the one hand Languages and Literature, Ancient and Modern, History and Philosophy; on the other, Mathematics, and the main Sciences, Physics and Chemistry. I am not an advocate of compulsory Greek, but I consider that a University which contained no opportunity of learning Greek would hardly deserve the name even of "one horse," and might take its title from a still homelier animal.

Secondly, there are Universities and Universities. Some are, for reasons which may or may not be permanent, to a certain extent, of what may be called the "provincial," and others of the "capital" order. Every University ought to possess both Arts and Science, or, if you prefer to put it, both Science and Arts. Without this I believe real University life is impossible. Universities have discovered this for themselves. Nothing is more significant, I think, than the way in which at University Colleges, now Universities, such as Birmingham, or Leeds, Arts, at first excluded, by and by took firm root and made healthy and natural growth. Something of the same kind may be seen, I think, in the history of London and of Manchester. But these last show most clearly another fact, that when a University, owing either to its wealth or its position, or to any accidental circumstance, reaches a certain size and importance, it is almost forced to make itself complete.

This introduces the third factor, which is "position," as I may call it, geographical or political. It is obvious that a University located in a great capital, national or provincial, and surrounded by a large industrial population, is very differently situated from one which is placed in the country.

So again, a University which is placed inland, whether in a capital or not, is very differently situated from one whose home is in a seaport.

The environment of the University of London is different on the one hand from that of Paris, on the other hand from that of Oxford, just as again the University of Edinburgh is differently situated from that of St. Andrews, or that of Berlin from that of Heidelberg, or the University of Bristol from the University of Birmingham. Parallel differences no doubt are to be found as between the Universities of Toronto, Montreal and Quebec, of Sydney, Melbourne, and Adelaide, or the Colleges of Christ Church

and Otago. The contiguity of the Law Courts and the Hospitals of a great civic centre offer their large opportunities and have their potent effect. We see, if we look with any care, some necessary and proper specialization, and in proportion as Universities adapt themselves to the life of the communities in the midst of which they are planted, and live more in the present, and less in the past than they have sometimes done, we shall probably see yet more of this specialization.

The now well-known "London School of Economics" was deliberately planted in a business neighbourhood. Mr. Passmore Edwards, who largely endowed it, wished it to stand in—

> "Streaming London's central roar,"

where, to continue the words of the poet slightly adapted, we may say,

> "The feet of those he wrought for
> And the sound of those he thought for
> Echo round his halls for evermore."

It is natural to Liverpool to include in her curriculum Naval Architecture and Marine Engineering. Her mercantile connections lead her equally naturally to establish a school of Russian studies and, like London, of Tropical Medicine. Manchester, again, naturally possesses her Faculties of Technology and Commerce; Leeds her departments of Textile Industries, Tinctorial Chemistry and Dyeing; Sheffield her Degrees in Metallurgy.

It is equally natural for Reading to include Dairying and Bee-keeping in her programme; or for Bristol, surrounded by Agricultural counties, and not far from the "apple land" of Avalon, to develop Agriculture and Agricultural Science of particular forms, such as "cider making." In a new country regard should be had to these possibilities from the first. "Science knows no country" is often said; but science, on the other hand, knows all countries, and should make the most of the varieties of opportunity they offer. Subject then to the consideration that a first-rate University which already covers the greater part of the intellectual field ought to make itself complete, there is room for differentiation and division, and the opportunity for such will be found especially in the applied sciences. The more applied they are the more do they depend on concrete and practical considerations. As science has become more immersed in, and again has arisen more out of, technical arts and industries, these have naturally found more and more a place in our Universities. Students, again, will continue to come, and parents will continue to send their sons to Oxford and Cambridge for reasons which may be called secondary, or only partially University reasons; for the sake, for instance,

of the College life, the national tradition, the historic and poetical suggestion or inspiration. But given that man is what he is, a "being of a large discourse," students of all kinds need, and profit by, these secondary advantages, the future theologian, the future lawyer, and future medical man no less than the man of letters as such. The young engineer, the young soldier wishes to pass on with his friends and compeers from the public schools to the old Universities, and to find his own studies side by side with them at Oxford and at Cambridge. This is to a large extent, in addition to the fact of their already possessing the old underlying sciences, the justification to the old Universities for their developing the new applications of science to Engineering and Forestry, or to Agriculture.

In another field, why at this moment do the working men, the students of the Workers' Educational Association, specially affect Oxford and desire to study there? They might learn Economics in London or at Cambridge, at Manchester or Birmingham. It is partly only a temporary phenomenon due to the fact that Oxford has been the first to hold out a helping hand and welcome to them. It is partly that Oxford is strong in these Political and Social Sciences. But it is also partly on account of the tradition of Oxford, the University of Peel and Gladstone and Salisbury, of Lord Rosebery, of Mr. Asquith, and Lord Curzon.

On the other hand, there is, as I said before, a limit, and a limit which perhaps is definable. It is difficult to find either the money or the men to equip all or many Universities ideally.

The problem of the future may be partly solved by the migration and interchange both of teachers and of students. That, however, as Aristotle and Rudyard Kipling say, is "another story," and will be considered at another period of our discussion. But in the meantime we might perhaps arrive, and here exactly it is, I think, that free and frank discussion among ourselves may be helpful in arriving at general principles and determining rules. Up to a certain point competition and rivalry are natural and of the greatest value. But we might agree to divide the field to a certain extent. It is for the Delegates here to tell us how we might do this; for you of the new home Universities to say how, if at all, it might be divided at home, for us in turn perhaps to suggest that you Delegates of the daughter nations might consider what is the natural future and what the legitimate development of the many growing Universities of your own several lands and of the Empire.

In conclusion, I would only suggest that Universities are often

too conventional and imitative, too unoriginal. They all want to succeed in the same way, to excel, and indeed to surpass, in the same lines. This commercial rivalry is both unworthy and unwise. There have been exceptions. May I say without offence that Liverpool from the first has been such an exception, and with conspicuous success. A University does best work which "finds itself," which develops its own special advantages, which hears and follows its own inspiring call. "*Per te sapere aude*" might be in more senses than one a good motto for a new University whether at home or across the seas.

T. HERBERT WARREN.

Discussion.

SIR ARTHUR W. RÜCKER, D.Sc., F.R.S. (London): The great increase in the number of the British universities, and the drawing together of the various portions of the Empire, which have been such prominent characteristics of the end of the nineteenth and the beginning of the twentieth century, have raised new problems, many of which are far from easy to solve.

We are in our tentative fashion slowly trying to develop a connected course of education, leading from the primary to secondary and technical schools, and thence to the university. Schemes have been drawn up which aim at showing the natural points at which choices have to be made, depending upon the future at which the student is aiming, and the special powers and abilities which he has begun to display. The steps, which must, to a great extent, be the same for all in the earliest stage, may thus be guided towards the careers which best accord with the needs and abilities of those who undertake them. On this wide general question it is impossible to enter in a short paper, and I shall content myself with dealing with two or three matters connected with the inter-relations of our new universities.

In the first place, it is a matter of importance to determine whether an excessive duplication of plant and staff should not be avoided by the assignment of certain subjects to particular universities. That unnecessary duplication leads to waste of money and energy is so obvious that all possible means should be adopted for preventing it; but the problem will have to be attacked with great care and caution.

In the first place, we must distinguish between universities which, like Oxford, Cambridge, and London, have many colleges situated in the same town, and those which, according to a rule that has now become more general, have only one college, or in which, if they have more, all the colleges are under the ultimate control of one governing body. The prevention of unnecessary duplication in the work of the colleges of universities of the former type is a matter of internal, not of inter-university organization, and as, in the case of London, a Royal Commission is dealing with this and similar question, I shall not venture to trespass on their province.

In the more usual case of single college universities, the first condition that I should lay down is that they should not be deprived of the primary characteristic of a university education, namely, that many subjects of different kinds should be studied by the students. The interaction of young and active minds directing their energies to various studies and interested in different things,

forms the true basis of the highest kind of university education. It follows from this that, if special subjects were assigned to special universities, the regulations by which this object would be achieved would have to deal chiefly with advanced and post-graduate work.

Secondly, the means by which any such arrangement was made should be, I think, primarily by agreement among the universities themselves. It is very difficult to lay down any regulation to the effect that a given subject may be studied in one university and shall not be studied in another. Such a regulation would be hard to enforce. The good pleasure of donors, the sudden appearance of a genius, capable of doing first-rate work in a subject forbidden to his university; capable, therefore, of shedding lustre upon the institution with which he is already connected, and for whom, perhaps, no room could conveniently be found in another—these, and many similar accidents, might purchase the advantages of a symmetrical plan, and perhaps save some money, at the cost of the non-advancement of learning.

As for the students, the best thing for them is that each should go to that university in which the best teaching in the subject he desires to study is given at the moment at which his choice of a university is made. In teaching, I, of course, include the highest branch of teaching, in which a professor who is himself advancing his subject guides his students towards research.

There are, indeed, cases in which some natural advantage points out certain universities as those at which some particular subject may most advantageously be studied. In England the great ports are the natural sites of Schools of Tropical Disease, and accordingly we find them in London and Liverpool. There are no gold mines in this country, but the capital interested in gold mining is largely represented in London, and that is obviously the place where such knowledge as can be imparted away from the actual scene of operations should be given. Considerations such as these have already, without any compulsion or the enactment of rigid regulations, led in some cases to the results which a supervising body would necessarily approve as the best it could itself propose. I should be sorry to see some paper constitution devised which would merely introduce the idea of compulsion to enforce arrangements to which common sense has already spontaneously led. In so far as it did this it would be unnecessary. If it went further and attempted too rigidly to define the permissible limits of future effort, it would probably be impossible to enforce; and if enforced, it might prove to have a cramping and not an inspiring effect.

But while very much doubting if any benefit would result from

what may be called prospective regulations, I fully recognise that wise precautions should be taken to prevent the unnecessary duplication to which I have already referred.

Without any covert reference to existing institutions which may be desirous of attaining the status of a university, I feel sure that in the future the question will arise whether, and if so, what limit should be assigned to the number of British universities. On this point I can say no more than that public money and private benefactions can, in my opinion, be more usefully employed in maintaining a relatively small number of institutions in the position of really active and well-known university centres of learning, than in just supporting at the minimum university standard a large number of colleges by which that standard is barely attained. Competent authorities hold that modern facilities of transit diminish the cogency of the arguments which might lead to the over-multiplication of universities. The honours lists for Part I. and Part II. of the Cambridge Mathematical Tripos have just been published. A little over seventy candidates gained first classes in these two examinations and they were drawn from about sixty schools. All classes of the community and all parts of the country were thus represented. Financial difficulties which probably existed in some cases had been overcome, no doubt, by the aid of scholarships and other helps to the attainment of sound learning.

It is clear from these facts, and others well-known to all who are acquainted with the state of university education in this country, that our older universities are not in the possession of a privileged class, and that students who are not possessed of any considerable sums beyond those they have gained from scholarships flock to them from all parts of the United Kingdom and from the dominions beyond the seas. Still easier of access to the localities in which they are situated are the younger universities, and it is impossible to contend that distance from a university centre is now a serious deterrent from the attainment of a university degree, or, from what is far more important, a genuine university education. This being granted, there will, in the not very distant future, be no need to incur the risks to the status and efficiency of the whole class of university institutions which must necessarily arise from the over-multiplication of universities. Before interfering with the work of existing universities on grounds of economy, let us be sure that we do not create more than are necessary for the work.

There are also other steps to be taken which, without interfering with the freedom of universities, might check the desire to undertake the teaching of subjects without any reasonable hope

that the burden of expense which the teaching of each new subject lays upon them can be borne. Such are: facilities for the exchange or transfer of students from one university to another. Quite unnecessary difficulties have, in my opinion, been placed in the way of students desiring to migrate from one university to another by the conditions to which such migration is subject. These conditions are partly due to the fact that one university may lay more stress than another on the importance of obtaining at an early stage in a student's career certain standards in certain subjects. Partly perhaps, though this, if it exists, is happily rarer, to the fear that the less advanced institutions should undersell their more advanced sisters by providing an easier initiation into the studies of the first year or two of a university career. These difficulties only require to be stated in plain terms to show that they contain the germs of their own destruction. It is not to be desired that substantial differences in university ideals and courses should be destroyed; on the other hand, the very intercommunication which a frequent exchange of students would produce would tend to do away with minor differences, and check the erection of unnecessary barriers.

Students would soon find out that an inferior preparation in the earlier stages of a university career brought its appropriate punishment when the later stages were reached. Assuming then that these difficulties no longer existed, and that the universities were willing and able to discuss among themselves such assignment of different subjects to different universities as they might deem to be practicable and profitable, the question may still be raised: are they who are now the recipients of considerable sums from the State to be the ultimate judges in such a matter?

On this point I can only describe an existing system, of the future failure of which I should need to be assured before I became the advocate of a system approaching compulsion. The universities are already in active communication with each other. Apart from the fact that the group of northern English universities have, as they are bound by their charters to have, a common matriculation examination, meetings of principals and other similar occasions are no doubt found at which ideas can be interchanged. In the matter of Government grants an Advisory Committee, of which I have the honour to be a member, has been appointed by the Board of Education to advise on the allocation of the sum at their disposal among the different universities. Before making their reports the Committee visited the different institutions concerned, not so much with the object of making a formal inspection as of conferring with the authorities. A

means is thus provided for securing that the division of the fund is made after full consideration by a body of persons experienced in university education, who can obtain information whether by correspondence or interview.

It is not desirable to dwell on this matter further. I am desirous to see inter-university questions settled as far as possible by the consent of the universities themselves; and it would be both unnecessary and unwise to discuss, before they have actually arisen, circumstances under which this policy might prove inefficient.

I will only add one point more. This is an Imperial Congress, and I have said little or nothing about universities across the seas. The general principles I have laid down apply *mutatis mutandis* to them. The particular scheme with which I have had most to do for facilitating a transfer of students is that established by the Royal Commissioners for the 1851 Exhibition. It has worked well because it is subject to few hampering restrictions. The scholars are the nominees of their own universities chosen without any external examinations. Aided, no doubt, by the advice of their teachers, the beneficiaries select the university at which they wish to continue their studies, though it must not, except by special permission, be the same as that from which the student enters as a candidate. The scheme was, I believe, at the time of its initiation a great departure from precedent, but has itself set a happy precedent elsewhere. The freedom of choice given alike to the participating universities and the students is, in my view, the principal cause of the success of the scheme, and I sincerely hope that in any new schemes which may be proposed at this Congress this valuable feature will be retained.

SIR CHARLES WALDSTEIN, Litt.D. (Cambridge): To clear the field I should like to say at the outset that my remarks will in no way apply to our collegiate system in England, but only to the organization of Universities as such. A great deal can be urged in favour of our ancient colleges in the older Universities, and to them we must mainly turn when we consider the question of the *education of character*. I heartily endorse the eloquent words of the noble earl, our chairman, as to the importance to the nation of "character-training." But a University—in contradistinction to the home, the school, and even the College—does this by impressing into the whole nature of the student the power of work and concentration of thought, of perseverance, of the intense love of work in its highest and

purest form. It does it in upholding the highest ideals of life devoted to great spiritual ends, which all nations, all ages, and the whole of humanity have, or ought to have, in common. And it does this in every phase of its teaching activity and by the living example of its teachers who have whole-heartedly devoted their lives to pure thoughts. Much can be said on this point, and there is much open to criticism in the present state of our own Colleges. On the whole, however, I consider this distinctive feature of our older Universities (existing nowhere else in the world) to be one which has its admirable uses, and I sincerely trust that, with all the reform which is urgently called for, the existence and the proper function of our colleges will never be jeopardized.

On this occasion, however, I wish to deal only with Universities as the intellectual centres of the nation, and I therefore have in view only the highest intellectual education. Remembering Goethe's paradox when he said of himself, that "he was regular only in one thing, that was, his irregularity," I should like to put it paradoxically, and say: A University is to specialize only in being the foremost specialist in every branch of study. The designed and formal specialization for any University (*i.e.*, that a University should set out with the fixed and published purpose of specializing in any given branch) is bound to be bad for the University as a body, for its teachers, and for its students. A University, however clearly it stands before the world, by its locality and district, its buildings and apparatus (libraries, laboratories, &c.), lives and thrives, and does its work through its teachers and students, in the first instance through its teachers. It is a living body of teachers and students, and its character depends upon them. The teachers in the first instance do its work; each one active in his own sphere and in his own way, collectively give it its spirit as a whole, and establish its tradition; and the unity it possesses depends upon the unity of this collective effort. It is the unity of knowledge, of truth, of science—I should prefer to use the Greek word, ἐπιστήμη, or the German word, *Wissenschaft*. Now this spirit of knowledge, truth, and research, in its highest and purest form, must always, under all conditions, and in every phase and aspect of its pursuit, be nurtured and developed in teachers and students. It is a living, organic—not a mechanical—spirit. As such it has many sides, which all contribute to the vitality of the spirit as a whole. If you take only one side and isolate it mechanically, it loses its vitality and dies. The chemist or mechanician, the physiologist or geologist, the historian or scholar or theologian, the jurist and

economist—any conceivable department of study—isolated is likely to lose intellectual health, vigour, and balance, and the intellectual function will either be weakened or will die away through such isolation. For a University it is all-important that every side of the nation's intellectual life be represented, and that they inter-act upon one another to produce and maintain health and efficiency, both as regards teachers and students.

Of course, one or the other department of study may at a given time dominate over the others, but this will be, and ought to be, caused by the intellectual and scientific dominance of the teacher himself. He will, for the time being, raise his subject to the greatest height and gain for it the widest reputation, and, through it, for his University. But when such a teacher is not there, no amount of assertion on the part of the University authorities, of mechanical and material advantages, appliances, tradition, and reputation, will secure eminence for any given subject, or group of subjects. The teacher will draw the students there-as—if I may be allowed to refer to my own University—Sir Joseph Thomson, Professor Bury, and several others of our teachers at Cambridge, are doing for their University at this moment. This is a natural and organic state of University development, which is constantly and normally the case everywhere, and is most active in the Universities of Germany. You must give each teacher opportunities thus to expand his energies, to realize and effectuate the capacities that are in him; you must give equal opportunities to all, and not disfavour the development of any one subject by crushing the ambition and the power of work of the teacher, or by weakening the stimulative effect upon the teacher of a subject favoured by granting an exceptional position of eminence to him from the outset. Moreover, the full intellectual health and balance of the University teacher can only be ensured by living among, and in touch with, his colleagues in other departments. As, in his social capacities, man is, and always will remain, a *ζῷον πολιτικόν*, so, in the intellectual world, man cannot live isolated and remain a normal, healthy, intellectual being.

I thus hold the firm conviction that the eminence, which any one University will at the time possess in any special subject, will entirely depend upon the eminence of the teacher of that subject.

Now to turn with a few words to the students. Here, too, the same freedom and natural development are required. They must be given freedom of choice among the teachers, and must learn to use this freedom. As soon as possible they must realise

the power and responsibility of judging for themselves to regulate their own mentality. This, in itself, will form a great discipline of mind and of character. The students of our own older Universities are deprived of this inestimable advantage by our so-called tutorial system, against which—if time permitted—I should have much to say. Thus in the student world a "public opinion" is formed, and the reputation, together with the distinctive qualities as teachers, of the representatives of science throughout the whole country, is well known in the student world. This stimulates their own studies, and reacts in a most fruitful manner directly upon the academic teachers themselves. Again, the students pursuing different and most varied studies are all thrown together. The tendency is to avoid one-sidedness by the influence which they exercise upon one another, not only as regards the various branches of one group of studies—say, in the natural sciences—but in all the different aspects of higher intellectual life, all of which together constitute culture. I may be allowed, perhaps, to quote my own experience in a German University many years ago. I well remember how, in the early 'seventies, when there were about eight hundred students in the University of Heidelberg, the lectures of that famous academic teacher, Kuno Fischer, on subjects philosophical and æsthetic, given in the evening, were attended by over five hundred students, a large number of them belonging to the faculties of mathematical and natural sciences, whose mental development and whose capacity for their own special subject was certainly not diminished by gaining intellectual sympathy with a sphere of study remote from that to which their life was to be devoted. I also remember how interesting and unforgettable in their lasting influence upon us, who belonged to the humanistic departments, was our occasional attendance at the lectures of men like Helmholtz, Kirchhoff, Bunsen, Gegenbaur, and Kühne. Let no man say that this led to superficiality and smattering; it was a great intellectual experience; and, while widening the mind, it sharpened the edge of thought in scientific method as applied to any subject, and as a final result, made us realise the unity of systematic knowledge, of true science. As far as the students are concerned, intercourse among those pursuing various branches of study makes of a University a real intellectual world of itself, a *cosmos* of systematic knowledge and of the ideal pursuit of it.

There is one question more to which I shall attempt a short and imperfect answer: "How can this natural development in a University be ensured?" My answer is: "By improving the conditions of the academic career among University teachers,

by creating conditions of free and natural flow, of lability—if I may use the word—in the professional life of the academic teacher." I venture to say that there is no career in our common life so thoroughly handicapped by unfavourable conditions as is that of our University teachers in the British Empire and in the United States. The general and prevailing custom has been, and is, that a University teacher must remain where chance has placed him from the beginning, even though there be no possibility of his extending his activity and of improving his position. I have known, and I know, of innumerable cases where men of real power, and even of eminence, won a position shortly after their graduation, with salaries corresponding to that of a junior clerk in business or in Government offices, and had to realize in the course of years that there was no further prospect of advance in that University, and that no tradition as yet existed to facilitate any advance in sister Universities; that, in spite of great effort and brilliant achievement, they remained in that position for the rest of their lives. In Germany, on the other hand, the academic teacher begins his career modestly as a so-called *privat-docent*, and, if there is any good in him, by his capacity as a teacher and especially by his original research in the advancement of his science, he is soon raised through the various stages to the highest position in academic teaching, either in his original University or in one of the other numerous academic centres of the German Empire, Austria, or Switzerland. The process of his advancement is that of natural competition, which applies to all other walks of life. His growing reputation, which has the freest means of publication through his printed works and through the tradition among the academic students, to which I referred above, brings him an invitation from some other University where a vacancy has occurred; while his own University may make efforts to retain him by increasing his stipend, by raising his position, by the conference of some higher *honorific* title, or the bestowal of some high order. He may even be rewarded by the students, for remaining in the University of his choice, by torchlight processions, and other demonstrations of esteem and gratitude. It is a living world and a living career; while with us it is a dead world and there really is no career at all. Allow me to dispel a superstition, which I find even among those directly concerned in academic matters, as widespread in this country as it is absolutely unfounded in fact—the idea, namely, that the German University Professor is reduced to penury and receives none of the material rewards which accrue to other vocations in life. Carlyle's *Teufelsdröck* as a type is responsible to some degree for

this widespread delusion. I will simply state as a matter of fact, that the incomes which the leading German professors at Universities derive from their professional work is in many, I venture to say in most, cases superior to the salaries paid to Cabinet Ministers and to Judges. The stipends of the most highly-paid and leading representatives of science and learning in our great English Universities and in those of the United States are, without the claim to a pension, actually lower than those of second-class civil servants in any one of our departments of State. So long as we have not absolute Socialism, the value which a nation, in the long run, sets upon the services which it demands is expressed by the material remuneration which it offers for such services. In Great Britain and the United States, perhaps the richest countries of the world, the remuneration for the highest intellectual services is decidedly the lowest among all liberal professions.

Finally, there is but one fact which I desire to impress upon the Congress, namely, that the great advance made in Germany in the industrial sciences, the applied sciences, those that—like physics, chemistry, mechanics, medicine, &c.—have directly raised the industrial and commercial life of the community, and have so enormously increased its wealth, came from the highest Universities, and not from the technical or polytechnic institutions; and that, even in most cases where discoveries were made in such technical schools, the teachers themselves had been trained in these higher Universities where every department of learning is equally represented.

Mr. ROBERT CHRISTISON (Queensland): It is just a year since the University of Queensland was inaugurated in Brisbane, appropriately in Coronation time, by his Excellency, Sir William MacGregor, who is also the Chancellor of the University.

Government House has been dedicated to the Queensland University, in its domain surrounded by the Botanical Gardens, and as it stands on the fine, navigable Brisbane River, it suggests to my mind that before long we may have a Commonwealth eight challenging Oxford and Cambridge.

It is difficult to appreciate the greatness of the task that looms ahead of the brave young University. Tribute is due to the energy and devotion of Mr. Kidston, and to the public-spirited leader of its pioneers, Sir William MacGregor, whose foresight has guarded the young institution and given it a fair start in its career of great potentialities. Its fortunes are bound up with the fortunes of Queensland, one of the youngest of the States, and

I believe, to become one of the greatest, with its 670,000 square miles and a population considerably less than its square miles. More than ever before, progress depends upon the ability of the State to understand what problems it is called upon to solve, and upon its possessing knowledge to solve them. This knowledge constitutes the dynamics of the State, and is built out of scientific investigation. The great modern revival in founding Universities springs from recognition of this fact. A fitter race must evolve through the keen international competition in industrial production based on scientific education which is the rule to-day. To meet this struggle for existence the rising generation must be trained in applied science. I will pass from the honourable beginning made by the University in founding faculties of Arts, Science, and Engineering, and speak rather of its immediate need for scientific instruction in its industries. Queensland should be governed by a Chair of Tropical and Semi-tropical Agriculture. This term includes a wide range of subjects,—veterinary science, bacteriology, plant physiology and pathology, agricultural chemistry, geology and agricultural engineering. These studies would proceed in the laboratories of the University and also by practical experiment on the land, with resulting progress in knowledge of climatic conditions, and of the operation of physical laws. Study of the higher animals would provide opportunities for observing the effects of heredity through many generations in a few years, and the results might be compared with human parallels.

When the land was thrown out of cultivation, Virgil wrote his work on agriculture to lead men to useful improvement. Scientific investigation has travelled far from Virgil to Darwin, and its journey has only begun. As each university develops its individual character, I hope that Queensland may become pre-eminent in this study which must grow with her national destiny.

The Commonwealth Government has expeditions now exploring the Northern Territory. Queensland ought to be able to provide the scientific knowledge needed to make the Northern Territory available. As this is the great immediate problem confronting Australia, I will state the two views. Mr. Thomas, Minister of External Affairs of the Commonwealth: "It was a hurried trip, but we saw as much of the country as arrangements would permit, and I must say that I came back even more confident than before I went that we do not need to think for one moment of importing coloured labour to develop the Territory. . ."

Others will be found to hold with that great authority, Sir Patrick Manson, that "the loss of physical and mental energy, the modification of physical characteristics undergone by white

races when placed during several generations in tropical conditions, . . . indicate that the white races on first arrival are not in all respects adapted for tropical conditions, that they are somehow prejudicially affected thereby, and that while living in tropical countries they are more open to certain pathological risks than are the natives of these countries."

We hear that it is due to the science of medicine that it is possible to make the Panama Canal. There are new fields for research in Tropical Australia. I look forward to seeing the School of Tropical Medicine of Liverpool comparing results with a sister faculty in the University of Queensland.

Start from a point on the N.E. coast of Queensland and run it west along the twenty-third parallel of south latitude, and you have on the north Tropical Australia, an enormous tract nearly one-third of the Continent. It will produce all tropical fruits, rice, sugar, maize, cotton, tea, coffee, beef and mutton, wool; also gold, silver, copper, opal, tin, and other valuable ores, and great fields of coal. The soil varies, the seasons are erratic—heavy floods and protracted droughts—hence the necessity for science to investigate these conditions, which must be considered in developing the great areas which England possesses in tropical regions oversea. Queensland must advance and help take a share of the Imperial responsibility. The position of the young University is most suitable for carrying on scientific investigation. A nucleus towards founding the Chair of Tropical and Semi-tropical Agriculture is lodged with the Senate of the Queensland University; this Chair would be an important asset for our Empire and of universal service, but the amount is inadequate without further help.

In 1866 I remember it took me considerably over a year to cross the Continent of Australia. I find I have been trying to relate fifty years' experiences in ten minutes, and also to say something of the conditions ahead of the young University of Queensland.

INTER-UNIVERSITY ARRANGEMENTS FOR POST-GRADUATE AND RESEARCH STUDENTS.

INCLUDING THE QUESTIONS OF RECIPROCAL RECOGNITION OF COURSES FOR POST-GRADUATE DEGREES; CO-OPERATION IN POST-GRADUATE COURSES AND SPECIALIZATION IN POST-GRADUATE COURSES ALONG SPECIAL LINES AMONG UNIVERSITIES.

Paper.

THE title of this paper is a comprehensive, even a formidable one. Any adequate treatment of the topics prescribed would require a whole volume. The invitation to deal with them may have been addressed to me because it was assumed that I might have some knowledge of what is going on on both sides of the Atlantic. In any case, in my treatment of the subject I want to include the universities of the United States: if they are not imperial they are, at least, English-speaking. And we have much to learn from each other. My connection with the Carnegie Foundation in New York has given me access to many valuable sources of information, more especially as some of the most distinguished Presidents of the American universities serve with me as Trustees on that Board. I know something also of the conditions which obtain in the newer universities on this side, and have been at pains to consult the most recent Blue Book containing the Report of the Parliamentary Committee appointed to inspect the Universities and University Colleges of Great Britain which participate in the Parliamentary grant. Lastly, I can speak of Oxford as a grateful alumnus, and of Cambridge, though it is a peculiarity of the British system that for information about these venerable institutions one must go elsewhere than to such a publication as the Blue Book just referred to.

It seems important first to ascertain what is actually going on at present under the head of graduate and research work in the universities on both continents. When that has been set forth we may proceed to consider the possibility or the expediency of instituting and developing reciprocal arrangements and providing for specialisation along certain lines of work. Perhaps I may be permitted to remark incidentally that this struck me as one of the most fruitful of the suggestions made at the first Imperial University Conference, held in London in 1903.

If I begin by referring to the preliminary difficulty of nomenclature, it will not be merely for the purpose of indicating a personal aversion to the somewhat amorphous term "post-graduate." There is a great lack of uniformity in regard to the whole matter. What is called at Harvard a "School" is elsewhere termed a "Faculty"—as, for example, in the University of Toronto, Faculty of Education, Faculty of Applied Science, Faculty of Forestry, Faculty of Medicine, though the provisions of the University Act of Toronto permit the Board of Governors to establish other organizations, or a like organization with another name, such as "Board," "School," or "Department." At Columbia the term "Graduate Faculties" is used only as a convenience, and the official title of the department in which graduate work is done is "Faculties of Political Science, Philosophy and Pure Science." At Harvard the term "School" is used not only for graduate work but also in Medicine and Law. At most centres it is recognised in practice that the presence of a few graduate students in undergraduate courses does not greatly affect the character of the instruction given. But where the bachelor's degree is a pre-requisite, it is obvious that the School of Medicine or the School of Law may be as much a Graduate School as the Graduate School of Arts or Sciences. And there is apt to be some further confusion when in a Medical Faculty like Johns Hopkins, which rigidly excludes those who have not already taken a previous degree, there is a body of students in attendance on the regular classes who have already taken the degree of M.D. in addition. These are doubly entitled to be designated graduate students in Medicine.

What then do we mean by what I shall call generally graduate work? First, it is the further study or research which follows on the ordinary undergraduate curriculum in the liberal arts and sciences, both theoretical and practical. The considerations which make all higher education centre round the courses of study in the Faculty of Arts and Sciences are valid also in regard to this type of graduate work, and one of the indispensable duties of the university is to preserve and develop that ideal of knowledge for its own sake, and also for the sake of all other kinds of knowledge—professional, technical, and the public service generally—which is the soundest and surest basis of all academic aspiration. Next comes the various professional schools, including technological, commercial, and even industrial branches. If the foundation on which the superstructure of such studies is raised sometimes appears rather meagre, it ought to be remembered that the endeavour throughout is to inspire the teaching with the idea

of research—a word that is often misused, though the thing itself ought always to have a place in any scheme of higher education. We speak too much of research as though it were only a means of advancing knowledge, instead of furnishing, at the same time, an instrument of training. The researcher is always adding to his own knowledge, even though he may not at the same time be increasing the world's store. In practically all the American universities the major stress is placed upon this element of research (sometimes, it must be admitted, along lines so narrowly laid down as to suggest pedantry rather than true scholarship), and in the case of candidates for the Ph.D. degree, evidence of competence in this direction must be furnished by the production of a dissertation presumed to contain some addition to existing knowledge in the field to which it belongs.

In any case, graduate work is obviously the crown and coping-stone of the whole university curriculum. It is a stimulus and an inspiration alike for teachers and taught, and perhaps it is not too much to say that the aims and efficiency of a university can be most readily tested by the degree of prominence which it gives to this department. Nothing should help so much to confer distinction on the curriculum and to prevent the otherwise possible absorption of the whole activities of a teaching staff in the service of the ordinary pass-man. The Master of Christ's College, Cambridge, has made it lately something of a reflection on the activities of American universities that they are so much taken up with training crowds of ordinary students that they do not discover and develop the highest forms of intellect and ability, and consequently fail to produce leadership. Many students in America take the Arts course, just as they resort to Oxford or Cambridge, because they want, or their fathers want them, "to go to the university." If Mr. Shipley's criticism is to be more effectively met in the coming time, it will be, in my judgment, through the growing activities of the graduate schools. There are certainly many men in the United States who have the right point of view. Take what Dean West puts forward as his ideal for the Graduate College of Princeton, of which he may be said to be the intellectual founder :—

"The character of the graduate student must then be a profoundly regulative factor in the life of the graduate school. All those and only those who show capacity and desire for high intellectual effort should be encouraged to enter. It is no place for either shallow dabbling, narrow intensity, dull mediocrity, or unsocial isolation. Young men, young in spirit, rich in intellectual and moral worth, responsive to scholarly impulses, eager to seek and find, able to perceive, take, and use the more valuable as distinguished from the less valuable material of knowledge, willing to do all and dare all to make themselves master-students, open-eyed to ideas in their relevancy,

worth and beauty, pulsing with energy, inventiveness and fantasy, men companionable, magnanimous and unselfish—such are the students to be longed for and prized supremely. These are the sons of knowledge who are best fitted to live, not for themselves alone, nor by themselves alone, but first in the household of knowledge and then in the larger society of the world."

The growth during recent years in the number of graduate students is one of the most remarkable phenomena in the history of higher education in the United States. They have increased 50 per cent. in the last decade and tenfold in the last thirty years. In the session 1909–10 there were registered 8,776 resident graduate students, as compared with 5,831 in 1899–1900. The number of Ph.D. degrees conferred in 1899–1900 was 125 : in 1909–10 there were 437, an increase of 250 per cent. in ten years.

Now all this may to some extent be overdone, although it must be remembered that it is paralleled not only by the growth of population but by the huge increase in the number of undergraduates. It is interesting to note that these graduate students may be regarded in great part as candidates for the higher positions in the teaching profession, *e.g.*, college professorships. They are either already teachers, or else are expecting to become teachers, and they need the degree of Ph.D. for their professional advancement. It is obvious that, seeing that this forms the main source of supply for those who are to hold high educational positions, the ideals of scholarship which govern the graduate schools must be regarded as of fundamental importance for the academic future of the country. These schools naturally include a considerable and increasing number of men who look forward to other careers, but even if they did nothing more than train the university staff they would be doing noteworthy work. It is perhaps a result of the German influences that have been at work in the shaping of this department of their activity that while great stress is laid on research, it is sometimes planned, as has been said already, on rather narrow lines. A great deal of the best research in America is carried on apart from graduate schools altogether. Certainly the enormous growth of graduate schools cannot be interpreted as meaning that, so far as they are concerned, research has gone forward with equal strides. And, after all, the method of conferring the Doctorate of Philosophy is comparatively free from the reproach of excessive mechanism which governs much of the practice in the lower stages of the curriculum. I refer to the American system of counting up courses and accumulating credits, and to the various regulations for "safeguarding the degree," which are in so obvious contrast

with British methods of dealing with the whole subject by way of major examinations. In addition to the Doctor's degree there is also the Master's. This being an inheritance from earlier times has been less subject to foreign influence, and there exists in connection with it a wider variety of practice and purpose, so that even within the limits of a single institution it may be regarded either as a stepping-stone to the doctorate or as a thing apart, of minor significance, and to be conferred upon easy terms upon a graduate of one or more years' standing. The M.A. has come to be regarded as an increasingly effective preparation for a teaching career in the secondary schools, rather than as the normal and necessary precursor of the doctorate.[1]

In recent years there has grown up through the Association of American Universities a clearing-house for the exchange of opinions relative to graduate work and information as to results obtained. That Association now includes twenty-two members. The effect of its work is shown in a partial standardizing of ideals and methods which may be expected to go on progressing in the future. While several larger universities, especially those with over five thousand students, have now passed Johns Hopkins in the race for graduate work, the last-named university should

(1) A special committee of the Columbia University Council recently reported that the result of their inquiry as bearing on the question of a national standard for the Master's degree was inconclusive. There is at present no standard and no clear evidence that one is evolving from the varieties of local theory and practice. The nearest approach to a generally valid formulation would be something like the following: The Master's degree, at the greater American universities, now stands for a year of more or less advanced work, following a Bachelor's degree of some kind, done usually in residence, and devoted to one or more subjects chosen under various local restrictions.

The paper discussed the problem of a national standardisation of the Master's degree, and the question was raised as to whether such a thing is desirable. There are possible advantages to be gained. The question, however, should be looked at in a large way, as one of general educational utility. If desirable, it was asked whether a standardisation is possible. The difficulties in the way were concluded not to be insuperable, provided that the idea of a standard be not taken to imply a rigid scheme of any kind, but only an agreement on two fundamental propositions, all minor matters and administrative details being left to local discretion.

Two propositions were submitted as a basis of agreement: (1) The backbone of every curriculum for the Master's degree should consist of intensive work in some one subject, to which the candidate should be required to devote as much as one half, and permitted to devote the whole, of his working time for at least one year; his working time being estimated at from forty to forty-five hours a week, including class-room attendance. (2) Candidacy for the degree should presuppose not only a Bachelor's degree from an institution of reputable standing, but also a specified amount of previous collegiate work in the major subject chosen. This preparatory requirement would have to be fixed with reference to average undergraduate conditions, and might properly be more in some subjects than in others; for example, more in Latin or mathematics than in economics or astronomy. It should be defined in terms of some unit to be agreed on, and should be substantially the same everywhere for each of the subjects that may be offered as a major specialty.

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always be mentioned first as the indisputable pioneer. There were enrolled in Johns Hopkins in 1910–11 :—

Graduate Students, excluding candidates for M.D.	161
Candidates for M.D. (all graduates)	351

and the number of degrees conferred in 1909 and 1910 respectively were—

	1909.	1910.
Ph.D.	27	25
M.D.	53	69
M A.	4	3
Total	84	97

In point of numbers, Columbia and Chicago have the most notable record. The latter is largely concerned with post-graduate work. The number of students enrolled in 1909, and the number of degrees conferred in that year, are :—

In the Graduate School of Arts and Literature	870	
,, ,, ,, Science	546	
Graduate Students in University College	57	
Total number of Graduate Students		1473
Total enrolment in University		5659
Bachelor degrees conferred (B.A., B.S., Ph.B.)		325
Masters' ,, ,, (M.A., M.S., Ph.M.)	75	
Doctors of Philosophy	38	
Total number of Post-graduate Degrees ...		113

The graduate students thus make up more than one-quarter of the whole enrolment, and more than one-quarter of the degrees conferred were post-graduate degrees.

Among other universities the following may be quoted :—

	Enrolment. Grad. Students.	Total.	Degrees conferred. Bachelors.	P.G. inc. Ph.D.	Ph.D.
Harvard (1909–10) ...	411[1]	—	566	160	38
Yale (Dec., 1908) ...	385	3450	722	138	32
Cornell (1909–10) ...	309[2]	4215	625	82	34
Princeton (1909–10)	134	1400	222	43	4
Michigan (1909–10)...	362[3]	2469	376	94	13

[1] In Harvard, only candidates for A.B., S.B., A.M., S.M., Ph.D. are included in this table.

[2] Besides 252 graduate students in undergraduate courses. In all cases the number of post-graduate degrees given includes the Ph.D.'s, which are given again in the last column by themselves.

[3] Enrolment in the department of Literature, Science, and the Arts.

Special attention should be directed to the growing activities of the Graduate School at Princeton. The promoters of that school are greatly interested in inter-university arrangements, and are seeking to make clear to all the distinction between graduate work which is in the nature of advanced education, enlightenment, enlargement of knowledge, and the graduate work which is definitely limited specialisation. They believe that the danger to American universities at the present moment is the disappearance of the first factor, although higher intelligence is, after all, the final guarantee of sanity in the most advanced form of university work. This point is strongly brought out in Dean West's recent paper on the "Proposed Graduate College of Princeton : with some reflections on the humanising of learning." Its object, he says, is "to create in America a valuable institution which does not yet exist, a residential college devoted solely to the higher liberal studies—a home of science and philosophy, of literature and history." Princeton evidently means to give more weight to the departments of language and literature and to the physical, natural, and social sciences, than to the professional colleges of medicine, agriculture, engineering, and so on. It does not protest against these being included within the curriculum of graduate work, but it does object to having them magnified and exalted to the prejudice of what seems to it more fundamental.

As to Canada, consideration may practically be limited to Toronto and McGill, both as regards actual conditions and plans for the future.

For McGill, a separate entry regarding the Graduate School is made in the Annual Report to the Visitor, from which it appears that though the school was formally established only in 1906—on the understanding, I am afraid, that it was not to cost anything—its numbers have increased from thirty in the first year to 114 for session 1911–12, when there were twenty-four candidates in course for the Ph.D., forty-seven for the M.A., and forty-three for the M.Sc. The numbers at Toronto seem to be substantially the same—twenty-eight for Ph.D. and eighty-seven for M.A.

Certainly in these two Canadian schools—and probably later on in others—there is the promise of great development as regards inter-university relations. In his opening speech at the conference of 1903, Mr. Bryce indicated the opinion that it would be specially in certain branches of applied science (*e.g.*, mining and forestry) that the oversea universities would prove attractive. There are obvious advantages attaching, say, to the study of

Mining at McGill, including the summer tour, and a forward step as regards Forestry could easily be taken if English or Colonial students of that subject could be encouraged to go to a Canadian university for a time and follow a combination course of study, partly under the university and partly in a Government Forestry Department—the conditions to be laid down in the main by the universities which send such students. Even on the side of Arts—though here the flow of students will naturally be, with adequate inducements, from the oversea Dominions to the mother-country—Canada can offer an interesting field in such subjects as history, anthropology, and the like, and also as regards problems in economics, administration, and sociology.

I must avoid the mistake of overloading this paper with statistics, and yet for the sake of completeness it is indispensable to include here a brief reference to what you are more familiar with under the head of Graduate Work in Great Britain. In London, *e.g.*, the Parliamentary Blue Book shows that there were 423 students in post-graduate courses at University College in session 1909–10, divided among thirty-three departments—152 "full-time" and 271 "part-time" students. There is a considerable number of post-graduate Fellowships, Scholarships, and Exhibitions, confined almost entirely to students of the College. The courses at the London School of Economics, which appeal largely to specialist and research students, attracted in 1909–10, among many others, no fewer than 221 graduates; and ninety-five of its students are returned as doing work of post-graduate standard in virtue of some definite piece of research to which they are applying themselves. "The School makes a special feature," says the Report, "of its provision for specialist and research work done by post-graduate and other advanced students, especially those from other universities in the British Empire and foreign countries." That struck me, by the way, as an excellent watch-word for the reorganized University of London. Manchester announces that the degree of Litt.D. and D.Sc. are open, under certain conditions, to graduates of approved foreign and colonial universities. It has 138 students (many science and medical) in attendance on its post-graduate courses—ninety-five "full-time" and forty-three "part-time," and the Principal's report recently published shows a marked increase in these numbers. At Liverpool "certain departments are entirely devoted to post-graduate teaching and research work," and during the session 1909–10 the number of students engaged in work of post-graduate standard was sixty-nine—thirty-nine "full-time" and thirty "part-time." The case is very much the same at Birmingham, where "all students

for higher degrees are required to send in dissertations embodying the results of their researches." At Leeds, where the number of post-graduate students is thirty-eight, "special laboratories are provided in the various departments of science for the pursuit of research, and in certain cases members of the staff have been appointed to give the whole or the chief part of their time to the conduct and superintendence of the work. Persons desiring to pursue research are admitted to the laboratories on reduced terms, and facilities are given for work during vacations."

And now what am I to say of Oxford and Cambridge? The Rhodes Scholarship scheme, among other agencies, has enabled us to make some comparison of the output of our English-speaking universities on both sides of the Atlantic, and it may be said as a result of this comparison that, as regards thoroughness and concentration, as well as by virtue of the more adequate previous training of her undergraduates, Oxford has no need to lower her colours to any American college. Indeed, it might be argued that an Oxford first-class man in the Final School of "Greats" or History can be relied on to hold his own—apart from the requirement of a thesis—even with most Ph.D.'s. But the trouble is that Oxford and Cambridge do not seem to get credit for all they do. If universities in America are burdened with too much machinery, they probably have too little. Oxford and Cambridge have not studied the art of putting their wares in the window. A useful little pamphlet, published by Sir Donald Macalister as far back as 1896, showed quite clearly the advantages Cambridge was beginning to offer to the "advanced student," and since that date Cambridge has been able to boast of a considerable number of graduate students in science who have been attracted to her laboratories from overseas by the fame of her professors and the excellence of the equipment. The 1851 Exhibition Scholarships have been a great help in this connection. Oxford, too, has deserved well of the other colleges and universities of the Empire by offering privileges in connection with admission to honour schools and special courses. But it was clearly brought out at the preliminary conference held a year ago in Montreal that increased facilities for post-graduate study at the great English universities would be considered of the greatest possible benefit. After all, if a man already possesses a B.A. degree, it is not a great stimulus to him to be admitted to study for another B.A. on a reduced period of residence. The process is apt to make him a little stale. In our oversea universities the degree curriculum is general rather than special, and it will not do to insist that a student who has spent his undergraduate time on several

subjects shall, in his selected special subject, go over the old ground and make up all his deficiencies of knowledge in the preliminary parts. It was the realization of this view, so widely entertained in the colonies, that made it possible for the late Dr. Roberts to report, after our Montreal meeting last summer, as follows—without prejudice, as the lawyers say, to the wider conception that rejoices in the possibility of a larger interchange of students, not among the universities of the Empire only, but throughout the world :—

"It was pointed out by one speaker after another that students who, having taken the initial degree of B.A. in a Canadian University, wished to pursue a post-graduate course and take a higher degree in some other University, were at the present time going chiefly to the American and German universities. It was said by one speaker that 95 per cent. of the Canadian post-graduate students go either to the American or the German universities, and not to the British universities. The reasons given were, in the first place, that the British universities do not furnish full and clear information as to the post-graduate courses that were possible in the way that the American and German universities do. A young professor whom I met afterwards told me that he had been anxious to go to Oxford, and had failed to get from Oxford the information that he wanted, and finally he had obtained it from a pamphlet published in America by American students, prepared by themselves for their own use. In the second place the American universities offer fellowships or studentships to post-graduate students, and often award these on the nomination of the University sending the student. A former professor of Queen's, Kingston, whom I met, told me that whenever he had a good post-graduate student, he could always get for him a studentship at Harvard. The third point was, that the post-graduate students who are hoping eventually to obtain professorships must, as an essential qualification, obtain a Doctor's degree, and they therefore choose universities where it is possible to obtain a Doctorate by post-graduate work within a reasonable time. They said that if a B.A. of a Colonial university went to Oxford or Cambridge and pursued a post-graduate course of study for two years, the only degree he could get would be again the Bachelor's degree, which was of no use to him from the point of view of obtaining an appointment. If it were possible to obtain a Master's degree it would be a real step forward, although what the student most desired was a Doctor's degree.

"Upon this question the opinion was unanimous that, both from the university and the imperial points of view, it was of supreme importance that something should be done without delay to divert the stream of able Canadian students from America and Germany into the United Kingdom. It was pointed out that with the rapid growth of Canada, and the consequent founding of new universities, there was a large demand for university teachers, and the opinion was strongly expressed that the universities would greatly prefer to have professors who had pursued their post-graduate work in the United Kingdom rather than in the United States."

If one wanted to raise a concrete issue, one might be bold enough to ask why the English universities should not start the Ph.D. degree, mainly in the interest of advanced students from other institutions? It would, of course, have to be differentiated

from any degrees that may be given as a reward for a thesis alone, regardless of the elaborate system of concurrent seminar training supplemented by lectures now in vogue in Germany and the other Ph.D. countries. While the D.Litt. and the D.Sc. already exist in the English universities, there does not seem to be any clear recognition of the fundamental difference between them and the Ph.D. degree. Degrees of the former type are not, as a rule, within the reach of the average student, say from an American university, who goes over to Europe to specialize for two or three years at most. Such a man starts, as has been stated already, with a very modest equipment of knowledge in his selected subject after he has taken his B.A. degree. If, however, he has good ability, he can study, in residence, along prescribed lines by taking lectures on various parts of that selected subject, reading extensively at the same time under direction, and still have time to carry out a piece of research work that may fairly claim to be an original contribution to knowledge. When an American student has gone so far at Oxford and Cambridge, he feels aggrieved that he cannot win a Doctor's degree which will show the character of the work he has done. So it may well be that Oxford and Cambridge lose many students by not holding out to men of this type some such reward as the Ph.D.—a degree involving residence for at least three years in one or more graduate schools, attendance at an adequate number of lecture courses, and a thesis. Residence should continue to be an essential condition : there are other types of the Doctor's degree that will meet the aspirations of students who are only loosely connected with the university, and who may carry out research work of excellent quality without facing the requirement of study at the university seat. Such men ought also to be attracted into our graduate schools, but on another plane. This is especially the case with candidates whose local surroundings furnish facilities for their work comparable with those of university libraries and laboratories.

The one caveat to be uttered in this connection is that we ought not to make a fetish of the Ph.D. degree. Its popularity in the United States is too intimately connected with its financial value. Colleges, and even secondary schools, have shown a disposition to ignore the application of any candidate who cannot boast this particular form of appendage. "During the last twenty-five years," says President Butler, "there has developed among the colleges and schools of the United States a deplorable form of educational snobbery which insists that a candidate for appointment to a teaching position shall have gained the privilege of

writing the letters Ph.D. after his name. This fact has given to the degree of Doctor of Philosophy a commercial value which it ought not to have, and it has sent to Columbia University and to all American universities no inconsiderable number of students whose chief aim is not graduate work or training in the methods of research, but simply the acquisition of a higher degree." I cannot help thinking that it would be comparatively easy to provide against this danger at Oxford and Cambridge, which have been so successful in safeguarding undergraduate college education in its present form, and where the interests of truth and knowledge are not likely to be unduly affected by the atmosphere of an employment bureau or an agency for securing teaching appointments.

Another concrete issue is the question whether there should be a separate Faculty for the Graduate School, or whether the teaching should be distributed among the members of the ordinary staff. I refer to this because I know that it is a burning question in some centres. Surely it is one that ought to be settled in conformity with the existing circumstances and potential development of each institution. A Graduate Faculty, with a Dean and Secretary, would be unnecessary, and might be an instance of over-organization, where genuine graduate and research students are few. It has been too often the case that the premature establishment of graduate schools in general has been prejudicial to the financial interests of the undergraduate department. "In America," says Dr. Pritchett, "the graduate school in nearly all institutions is a parasite, existing on the undergraduate school and generally supported by it, and whatever strength and vitality it develops is, in most cases, at the expense of the undergraduate college." If this is true, the argument must tell doubly against separate Faculties, unless special endowments are secured. Moreover, the exaltation of such a separate Faculty might tend to depress the standard of undergraduate teaching, as having about it less dignity and distinction. And in normal cases the attempt to draw a sharp line of division between two classes of teachers may do more harm than good. There may be professors who are fitted only for graduate work, and others who should be confined to undergraduate teaching, because of a special capacity in that field. But there should always be a large part of the staff capable of doing both kinds of work in certain proportions. At Harvard, for instance, by far the greater number of those engaged in graduate instruction also give undergraduate teaching. No one principle should be allowed to dominate in the matter. It is altogether wrong to cut

off from research and higher investigation those who are mainly occupied with undergraduate work, or to tie yourself in such a way that you cannot set free for the most advanced instruction those whose time can best be employed for this purpose alone. The teacher who is engaged in undergraduate work is kept more alert and alive if he can do something along new lines in his own subject; otherwise he has to keep to the treadmill of lower standards, in which his teaching from year to year is but a repetition and reiteration of what he has done before. And conversely, the teacher in the graduate school will be all the better for coming into touch from time to time with undergraduate interests. They will remind him of actualities, and keep him perhaps from soaring away from facts and concrete needs into the dim haze of abstract speculation, or from becoming unduly absorbed in a mass of dry detail where everything is microscopic and minute.

This view of the question seems to be correct for normal cases and as a rule. There is also the alternative, which I may say we have adopted at McGill, of having a Committee on Graduate Studies, containing representatives of the main departments, especially those which are actually engaged in giving essentially graduate instruction. Our Committee, I may add, reports separately and not through the Faculties.[1]

Having shown the nature of existing arrangements for graduate work, I must now endeavour to deal with the other topics suggested by the title prescribed for my paper. These may perhaps be made to centre round the three words, (1) recognition, (2) co-operation, and (3) specialization.

Recognition is easy enough. On the American side of the water it is quite common for a man to take one, or even two, of his three years for the Ph.D. away from his own university. The principle of mutual recognition has long been accepted, and is in constant operation. What is needed is perhaps a little more co-ordination. Courses in graduate schools should be so arranged that students shall be increasingly encouraged to plan to take a portion of their course in one university and complete it in another. At McGill, for instance, the ordinary course for the Ph.D. extends over three years, and science candidates who have taken our B.Sc. and an additional year of study leading to the degree of Master of Science are allowed to enter the Graduate School of Yale, the Massachusetts Institute, Harvard and Prince-

(1) For details as to the methods of organization in vogue in some of the leading Universities of the United States, see Appendix, page 47.

ton, and to obtain their Ph.D. with two additional years. This arrangement is largely availed of and seems to work out well in practice. For instance, Dean Adams tells me that he has, or had recently, students going forward to the Ph.D. in Geology under these conditions in each of the above-named institutions. And the department of Geology at McGill contains a distinguished teacher who came in the same way from Yale to take a year at McGill, and decided to remain. Harvard, again, requires only one year's residence as a minimum, and is constantly giving recognition to work done elsewhere, either in the United States or abroad. Dean Haskins writes, however, "Practically the question does not mean very much at Harvard, because our students commonly spend from three to five years in their study for the doctorate, of which at least two years are taken here. The requirement being one of attainment rather than time, the specific question of recognition of the work of other institutions is thus in practice comparatively unimportant at Harvard, although we are very glad to welcome men who have been carrying on advanced studies elsewhere."

Next as regards what I may call, by way of short title, co-operative specialization. While some universities may be so happily situated that they can undertake practically everything, it will be found expedient as a rule to adopt some limitation of programme. Pure science may well be the speciality of many colleges, applied science of others; literary studies will be more highly developed in another type of institution, while yet another will lay special stress on the study of economic problems in their bearing on commerce and industry. The recognition of these differences of type seems to be a necessary step in any scheme of effective co-operation. It can hardly be said that this step has yet been taken. Almost every university, in America at least, still appears to want to teach practically everything, and it rarely happens that a student of a given subject is referred to an unquestionably superior department elsewhere.

When once it is begun the process of subdivision will go forward in an increasing ratio. In America at present each university is striving to build up its higher departments, but at the same time it sometimes happens even now that when some one university is particularly strong in one phase of a subject, such as botany, a neighbouring institution will refrain from seeking the same development in that special branch. American universities are to-day in a rapidly growing condition, and the relative strength of institutions and departments is changing so steadily that no particular statement will hold good from one period to

another. The most that could be done would be to indicate by conference and co-operation what should be developed and what, on the other hand, omitted, especially in institutions which are near neighbours.

Professor Cattell, of Columbia, reported a few years ago that he had found by examining the records of the universities in which the thousand most eminent men of science in America had pursued their studies, that Johns Hopkins had excelled chiefly in chemistry, physics, zoology, and physiology; Harvard in zoology and botany; Columbia in zoology, botany, and mathematics; Cornell in physics and botany; and Michigan in botany and pathology. From this the lesson has been derived that in selecting a place for graduate study the student will do well to look beyond the general reputation of a university and elect a department, and even a particular professor, rather than a place. The teaching activity of Professor Gildersleeve, at Baltimore, to take a prominent instance (and one, by the way, in which limitation of work to graduate students has been of the greatest benefit), has virtually marked an epoch. He has done something in America to revive the days of the great Heyne, who is said to have trained in Germany over one hundred professors of philology. The work of the Association of American Universities (established in 1900) is largely directed, as already stated, to the helpful task of showing how the various institutions compare with each other in this regard. In the first place, this agency has collected and classified facts bearing on the standing of the B.A. in the various colleges, so that graduate schools have now something to go on in the evaluation of the degree which serves as a standard of entrance. Delegates representing the universities included as members of this body meet annually to discuss topics of mutual interest. The Association was originally organised to "consider primarily matters of common interest relating to graduate study," and, in addition to dealing with entrance qualifications, it has been able to secure an approximation to uniformity in the requirements for higher degrees and the establishment of higher standards. In recognition of the efforts made in this direction, the Universities of Berlin and Leyden *shorten the time of residence necessary for the degree of D.Ph.* in favour of students who have completed a certain amount of graduate work in an American university which is enrolled as a member of the Association. In the United States, the work of this Association illustrates the cordial relations that exist among institutions which are in some sense rivals, competing for students over a large extent of territory. While each maintains

its own academic methods and standards, a free interchange of opinion tends to produce a certain degree of similarity, if not a real equivalence. Moreover, migration from one university to another is facilitated by fellowships open to candidates from any reputable institution, and by a liberal policy of extending academic credit in any one of the universities represented in the Association to work done in another of similar rank. On the whole migration is naturally less common in America than it is in Germany, partly because of disinclination to break away from familiar surroundings, and partly because of an instructor's unwillingness to send on to another his own somewhat immature candidate. Universities are only human, and they tend to encourage migration toward rather than away from themselves. But it is clearly to the interest of the student that he should come under different influences at successive stages of his career, and there is great promise of improvement in the work of the Association just referred to, as well as in that of the National Association of State Universities. Such agencies will inevitably help migration and mutual credit, by bringing into prominence, and, in a sense, advertising, those departments of each university that are especially well developed in their fields of specialization because of environment or support, as well as by reason of the eminence of its teachers.

Recognition will undoubtedly operate to bring about a larger measure of specialization. The two will act and react upon each other. The result of an arrangement by which a certain institution is encouraged by others to pay special attention to the teaching of a certain branch would undoubtedly be that it would in this way be enabled to offer much more thorough courses of instruction in the branch in question. From the economic point of view there is undoubtedly a considerable waste of money. It would be helpful to the cause of higher education if there could be a tacit, or even an explicit, understanding between the leading universities as to the field to be occupied by each. The present system of competition in every domain is becoming more and more expensive. It is impossible for every university in America to keep up every specialized branch of every department to the highest level. Each one can maintain certain departments more easily than others. We have been told of the recent abandonment of one university cost-accounting system because it revealed the great expense of some departments that had very few students. As such accounting becomes more general and more public, it will be found impossible for a half-dozen universities in the same general region to maintain departments of, for example, Oriental

Languages for a total number of students that could easily be accommodated in a single institution. The way from competition to co-operation is long, but there is a growing conviction that competition in post-graduate work is at present unduly expensive, sacrifices the student, and hinders scholarship in order to further personal, institutional, and regional emulation. When our graduate students have some accredited method of learning that if they want to study a certain subject they will find that subject best taught in a certain university, we shall be in a much better and more highly organized condition than at present. The problem is not free from difficulties, but it will be found as time goes on that increased co-operation shows the direction in which a solution ought to be sought.

The Carnegie Foundation has promised to undertake a thorough-going study of existing graduate schools and to publish a report. Meanwhile, Dr. Pritchett has put himself on record in no uncertain terms. "The universities themselves," he says in the Sixth Annual Report of the Foundation, "need to examine with conscientious care their own responsibility in the matter of the multiplication of graduate schools. Whatever may be urged in favour of the multiplication of colleges, it is certainly true that we need comparatively few graduate schools. The cost of higher education is already enormous, and is year by year growing greater. University ambition is no excuse for imposing this cost unnecessarily upon the community or upon the student body. The university must face a little more frankly the question: What is the function of the graduate school? and having determined that, decide what sort of men should be admitted to it."

He speaks also in the same unmeasured terms against the giving of subsidies to attract students. "There are well-known institutions," he says, "in which every graduate student is in some form or another subsidized. For ten years past there has been a strong feeling that any respectable university must have a graduate school, and under this assumption students for the graduate school must be had. If they do not rush of their own volition, they must be subsidized to come. The extent to which this has been carried, and the demoralization of the graduate school by reason of the material thus brought in, has, I am sure, been far greater than most presidents and teachers have realised." From this statement it would appear that the system of fellowships at present in vogue interferes seriously with healthy migration, is the fruit of excessive competition, and is hampering the best progress of American universities. It is certainly in strong contrast with what was told us at the last London Conference by

Sir Henry Roscoe and others as to the working of the system of scholarships instituted, at the instance of the late Lord Playfair, by the Royal Commission of the Exhibition of 1851. In awarding their scholarships, which are given not by examination but by recommendation, the Commissioners have recognized the great principle of freedom of choice on the part of the student as to where he shall continue his studies. Nothing has done so much to promote free interchange among the universities of the Empire, and also with Germany, France, and the United States, as these Exhibition Scholarships, and they might very well form the nucleus of a great system of scholarships and fellowships expressly designed to promote that end. As another instance of what can be done by co-operation, I would refer also to the excellent results produced on academic standards in Scotland by the Inter-University Competition for the Ferguson Scholarship in classics, philosophy, and mathematical science.[1]

The application to the home universities of the argument I have sought to develop in this paper, and of any new information it may contain, will best be undertaken by those of my colleagues who are most conversant with existing conditions in each university centre. I cannot doubt that the growth of such near neighbours as Manchester and Liverpool, for example, has been and will continue to be conditioned—even without any specific delimitation of territory—by a natural and instinctive wish to differentiate in the field of graduate work and specialized research. And when once the principle has been established in this country, there remains the wider question of the relation of the home universities to the universities oversea. If I have made it plain that we should do well on the American Continent to apply ourselves to the working out of a better organized system of specialization and the mutual recognition of each other's activities, surely the same thing would be feasible as between Great Britain and her oversea dominions—ultimately perhaps throughout the English-speaking world. I am not going to enlarge here on the far-reaching results that might follow such a system in other

(1) I ought not to omit to chronicle one concrete and definite attempt at co-operation between two leading universities in the shape of the Yale-Columbia Consular Course, which combines the resources of the two institutions. My information is, however, that this course has not so far attracted students, possibly because American consuls are not yet appointed on a basis of such training. Again, it has been suggested to me that, just as books are lent by one library to another, so some economies could be effected by the loan of expensive apparatus. We have at McGill, for example, an installation of rock-squeezing machinery which it would probably be unnecessary to duplicate elsewhere in Canada. And a Professor at Princeton told me recently how he managed actually to transport from the University of Wisconsin valuable physical apparatus that has been specially supplied to him during his tenure of office there.

than academic relations. McGill has always stood up for the ideal of "federation through education," and believes, moreover, that our universities should have something to say in connection with the Imperial problems that are before us to-day. Nor am I forgetful of the wider view which sees in inter-University co-operation one of the best guarantees of increasing solidarity among the nations of the world at large. Canada in particular owes a great debt of gratitude to the universities of the United States for the hospitality they have extended to her graduate students. But the immediate purpose of this paper will have been attained if I have been able to show that it will be well for us to make arrangements by which, in regard to higher work, the best talent in our own Empire shall be encouraged to select, and to find access to, the best teaching in each branch of study, no matter where that teaching may be offered. In the words used by Mr. Bryce at the opening of the Conference held in 1903, "That which a great university does as the organ of the intellectual life of the nation in each community may, to some extent, be done by a combination of universities for the national life of the whole British world."

W. PETERSON.

APPENDIX.[1]

HARVARD UNIVERSITY.

"The Graduate School of Arts and Sciences came into existence in 1872. Until 1890 it had little formal organisation, and was known as the Graduate Department. In 1890 it was more solidly established under the name of the Graduate School. In 1905 its name was changed to the Graduate School of Arts and Sciences.

The Graduate School of Arts and Sciences is under the charge of the Faculty of Arts and Sciences. It is the business of that Faculty to fix the conditions of admission to the School; to provide courses of instruction for its students; to direct their studies, and examine them in the same; to establish and maintain the requirements for all degrees in Arts, Science, and Philosophy, and make recommendations for these degrees to the President and Fellows; to lay down such regulations as they may deem necessary or expedient for the government of the School, and to exercise a general supervision over all its affairs."

The "Faculty of Arts and Sciences" which thus "lays down" regulations for the Graduate School and "exercises a general supervision over all its affairs," "has immediate charge of Harvard College, the Graduate School of Arts and Sciences, and the Graduate School of Applied Science.

"Harvard College is an undergraduate department in which are enrolled candidates for the degree of A.B. and candidates for the degree of S.B.

"The Graduate School of Arts and Sciences is a School for admission to which a Bachelor's degree is ordinarily required; its students if qualified are admitted to candidacy for the degrees A.M., S.M., Ph.D., and S.D.

"The courses of instruction are provided by the Faculty of Arts and Sciences for all students under its charge." (*Harvard Catalogue*, p. 309.)

Thus at Harvard post-graduate and undergraduate courses are provided for and are controlled by the same Faculty, which, under the statutes of the University, "is composed of all the

(1) This Appendix consists mainly of extracts from the "Catalogues" of some of the leading Universities of the United States. It is included in this paper for the purpose of showing the various methods of organisation which have been adopted in regard to Graduate Schools.

Discussion.

PRINCIPAL E. H. GRIFFITHS, Sc.D., F.R.S. (Wales): To-day's subject of debate is one which might employ us for the whole of the sitting. Three separate questions are raised, each of importance. An initial difficulty presents itself: What is post-graduate study? Do we mean by it any study pursued after graduation? Roughly speaking, post-graduate students may be divided into three classes:—

(1) Those who continue their studies for professional reasons, under which heading we may include many medical and technological students, and also those in the scholastic profession who wish to add to their monetary value by securing higher degrees.

(2) Those pursuing their studies simply with the object of acquiring further knowledge.

(3) Those who are engaged in research work.

Of course, individuals may belong to two, or even three, of these classes, but, roughly speaking, all may be summed under one or other of the above heads. It is, I think, evident that no hard and fast system of treatment can apply to all three classes. I confess that I do not think it necessarily the mission of the Universities to make any strenuous efforts to meet the needs of those who come under the first head, namely, those who are seeking for higher degrees in order to increase their own market value. My own feeling is a wish that we could limit the scope of higher degrees and thus increase their significance. The degree of M.A., for example, at Oxford or Cambridge is simply a question of lapse of time and payment of fees. In some of our more modern Universities it represents a definite amount of creditable work, but, except as a source of emolument to the Universities concerned, I feel that little harm would be done by its disappearance. I do not propose, therefore, to concern myself with any discussion as to the extension of opportunities to the class of students I have referred to.

It appears to me that we should concentrate our attention on extending the opportunities available to those of our graduates who have shown capability for original investigations and research. I agree with Principal Peterson that this term research is an indefinite one, and that it does not simply mean additions to our knowledge. We must all have experienced with disappointment the fact that it is not always the graduate who has taken the highest honours who possesses the powers necessary for successful research, and this, it appears to me, is one of our chief difficulties. It is probable that no wholly satisfactory method

can be devised of testing this necessary aptitude, but I think it possible that some steps might be taken in this direction. The mere reciprocal recognition of courses does not seem to me entirely to meet the difficulty. Suppose, however, that each University had established for its graduates what I might term *a probationary year*, in which the student could follow a mixed course of reading and research work of a modest nature. Suppose that at the end of that year a certificate was given to those who had shown evidence of possessing the necessary qualities that the holder, after graduation, had pursued a course of the nature indicated to the satisfaction of the University. Such certificate, it seems to me, ought to be a passport to all the Universities of the Empire.

An experiment on a small scale of this nature has been attempted in Wales. Nearly four years ago the University received an additional grant of £1,500 a year for the purpose of establishing Research Fellowships. Many of us felt that the election of a Research Fellow in cases where our only guide to his abilities was the honours he had gained in examinations, was an unsatisfactory procedure. It was decided, therefore, to establish in addition to Fellowships a number of post-graduate Studentships of the value of £63 per annum, tenable for two years, and awarded on the recommendation of the Students' college; the first year to be passed at the College from which the student had graduated, the second year the student being free to hold the studentship in any University he might select. His work during the first year is thus accomplished under the cognisance of the University. At the end of this probationary period the University receives reports from the constituent Colleges and is thus, to some extent, able to judge if the student has shown those qualities which render him fitted for election to a Fellowship, and if so, by election to a Fellowship enables him to have several years of profitable post-graduate work.

I may say that so far as we can now judge, this system has proved extremely successful. I do not see why it should not be capable of wider application. Where funds are available, let the graduate remain for a year at his own University. Let those who are acquainted not only with his year's work, but also with his previous academic history, indicate the conclusions to which their observations have led them. And let the possession of the resulting certificate be a passport to the higher work and degrees of all the Universities of the Empire.

I am driven to the opinion that under our present system there is a great waste of effort. Many young men embark on research

work of which they are found incapable, and it is only after a waste of some years of the most valuable portion of their lives that their lack of the necessary qualities for success is discovered by themselves or by others.

What Principal Peterson has said as to the value of research as an instrument of training, is, I am afraid, only true in the case of those who have the necessary aptitude.

I can recall more than one instance where the sense of failure has been not only a discouragement, but also a cause of loss of self-respect and confidence which has adversely affected the whole after-career of the student, and, at all events in one case, the failure did not arise from lack of ability, but only of ability of a particular kind; had the student employed the years thus wasted in his professional career, he might have proved singularly successful.

From considerations such as those I have indicated, I would hesitate as to the advisability of the Universities too freely opening their doors to research students, without some further evidence of their ability for the work than is supplied by a degree.

Principal Peterson has referred to the singular increase of post-graduate work in the United States, and he has also hinted that no small proportion thereof may be due to the commercial value of the degrees obtained, especially the Doctorate of Philosophy.

Although the actual numbers are larger, I doubt if the increase is so very much more rapid than in this country. It is difficult to obtain accurate information on the subject. I have received information from most of the British Universities, which indicate that at present there are in them close on three thousand post-graduate students, who may be roughly divided into over one thousand in Arts, rather less than one thousand in Pure Science, and about one thousand in Applied Science, including Medicine. I have been unable to obtain any reliable figures which would show me the probable numbers, say, ten years ago, but there are indications that the increase must be something of the order of at least one hundred per cent. in that time. No doubt a very considerable portion of these are engaged in the pursuit of higher degrees, rather than of research, and in spite of what Principal Peterson has said, I am doubtful if it is our best policy to increase the facilities offered to that class of student.

I find also that most of the modern Universities in this country recognise the initial degrees of other Universities, as qualifying, with varied conditions, for higher degrees in their own. The conditions, however, vary so greatly that it is evidently most

advisable that, if possible, some general understanding should be arrived at. And to me the simplest plan appears to be the probationary year which I have indicated.

As regards specialization, I should deprecate any hard and fast limits in this matter. It must be remembered that it is not the University which specializes, but the Professors. Your highest class of research student passes, as a general rule, to another University with the object of continuing his studies under a man who is known to be a special master of his subject, or of a branch of his subject. It is the *man*, not the University, that is the magnet, and to assume that because graduates flock to a certain University to-day to pursue certain special investigations, their successors of the next generation will do likewise, would be a *fatal mistake*.

It is true that the environment of a particular University may naturally give facilities for the pursuit of certain studies. But even in that case, it does not follow that it possesses the inspiring teacher who will attract students from all quarters of the globe. Specialization is certain, but let it be specialization by natural selection, rather than by agreement. In this matter let each University follow the line of least resistance; let each discover where specialization, if I may so phrase it, *pays*.

Perhaps our greatest difficulty rests in the fact that unless our students have sufficient means for self-support during the first few years of their post-graduate career, it is a dangerous thing to withhold them from embarking on the pursuit of their profession, unless we are able to afford them some financial help during those critical years which follow on an initial degree. For example, in Wales it is necessary for the large majority of our students to obtain the means of support immediately after leaving College. As illustration I may say that over seventy per cent. of our graduates have passed through the Primary Schools.

Until the establishment of post-graduate studentships and Fellowships to which I have referred, it was almost a crime to tempt such men to sacrifice, under circumstances of great hardship, two or three years to the pursuit of work for which we had no evidence that they were fitted. This difficulty I have no doubt is felt elsewhere, and to me the only solution appears to be that each University should, as far as possible, devote funds for the support of men whose fitness has been demonstrated, and that this support should be freely extended to them wherever they may study. Also, that the support should be of such a nature as to enable students to live in some degree of comfort and without financial anxiety, even if, owing to lack of funds, this

necessarily leads to limitation in numbers. You cannot, as a rule, obtain the highest results from anxious and half-starved men, although I am quite aware that it would be possible to name some brilliant exceptions.

I may sum up my desultory remarks as follows :—

(1) It is not the business of the Universities to disturb themselves for the encouragement of men who are mere degree hunters.

(2) Each University should establish some system by which it may test if the student has the necessary qualifications which afford reasonable hope of success in research work, and should adopt some definite means of indicating its opinion.

(3) All students who have been thus tested should be freely admitted to courses of study and to higher degrees in all the Universities of the Empire.

(4) Sufficient financial assistance should be forthcoming to support, if necessary, such students during their time of study, and to enable them to pursue their studies under any teacher they may select. If as a result a limitation of numbers is necessary, we should aim at efficiency rather than quantity.

All this, I know, may appear a counsel of perfection, but it indicates the direction in which I, for one, would like to travel.

PROFESSOR H. B. ALLEN, M.D. (Melbourne): My Lord, as a representative of one of the Universities overseas, I esteem it a privilege in the first place to acknowledge a profound debt of gratitude to the Universities of the United Kingdom. We see in them the storehouses of learning, the instruments of culture, the centres of research, the homes of high tradition. Born and educated in Australia, I am free to recognise that the Universities in the British Dominions have been founded and built up chiefly by the labours of graduates of Universities in the Motherland. Coming more closely to my text, I desire also to offer thanks for all the kindness that has been shown to the graduates and students who have come from us to you. But the question arises whether the best possible has been done with the human material so passing from new communities to the old country. Have there not been unnecessary difficulties in entrance on a new curriculum, unnecessary returns to studies already adequately completed? Time will allow me to quote only a few examples. A boy who has passed the Senior Public Examination in the University of Adelaide, including Greek, desires to enter a Cambridge College, but he is compelled to go to a coach to be prepared for a special entrance examination. A

Bachelor of Arts of Melbourne, proceeding to Oxford, finds that he is allowed only one year towards the Bachelor's Degree. A Bachelor of Medicine of an Australian University would have to spend two or three years in obtaining the same degree in a University of the United Kingdom. How different is the spirit shown by the Royal Colleges of Surgeons in England or Scotland or Ireland. A Bachelor of Medicine of an Australian University may proceed at once to the final examination for Membership; or, if he has completed the necessary practical anatomy and hospital practice, he may proceed directly to the examinations for the Fellowship. I may be asked what facilities we grant to students and graduates coming from the United Kingdom. In the University of Melbourne, we give undergraduates from any University in the United Kingdom credit for all attendances and examinations already completed. We admit graduates to degrees *ad eundem*. We permit Bachelors taking our *ad eundem* degree to proceed with our courses for higher degrees. Bachelors of Medicine of the United Kingdom may proceed to our Doctorate by examination or by original research without passing through our stage of Bachelor. Very recently the Professorial Board in Melbourne reconsidered the whole question of admissions *ad eundem*, and inclined to require examination or approved research as a condition for admission to any degree except *Honoris Causâ*, but otherwise the old freedom was still affirmed. We do not desire to challenge any reasonable conditions of residence, any final test however searching for any degree, but we strongly desire that there should be no unnecessary requirement that students or graduates should return upon their former studies. In particular, we desire that all the Universities of the United Kingdom should adopt a Statute resembling Statutes 112 and 113 of the University of London, which are to the following effect:—

Statute 112 gives power to accept in the place of the whole or any part of the examinations for any of the degrees of Doctor, or the degree of Master of Surgery, or the final examination for the degree of Bachelor of Science, the results of study or research whereby a distinct contribution to knowledge has been made.

Statute 113 reads as follows:—

"Provided also that the Senate may admit as Internal Students and as Candidates for any of the Higher Degrees (except in Medicine and Surgery) without their having previously taken any lower Degree the following persons (that is to say):—

1. Graduates of Universities approved by the Senate for this purpose.

2. Persons who have passed the Examinations required for a Degree in some University approved as aforesaid."

The privileges of Statute 113 might be extended to degrees in Medicine and Surgery of Universities overseas whose degrees in Medicine and Surgery are registrable in the United Kingdom. Such legislation would enable those holding degrees of Bachelor in approved Universities in the Dominions to proceed at once towards a higher degree in a University of the United Kingdom, and above all to proceed by way of original research. I need not say how valuable such a privilege would be for graduation, not only in Professional Schools, but also in Philology, History, Philosophy, Mathematics, and the various branches of pure and applied Science. I am confident that such new legislation would, with growing experience, be animated more and more by living sympathy; and that the relations thus created would form a new and ever closer bond of kinship and affection between the Mother-land, the Mother Universities, and the daughter Dominions and their Universities overseas.

PROFESSOR FRANK ALLEN, M.A. (Manitoba): In discussing this subject, which Principal Peterson has so ably brought before us, I feel it is unnecessary to say much from the theoretical standpoint because he has so completely covered the field. There is one central idea that to my mind stands out prominently in the midst of the subject, and that is the mutual recognition of University courses. This, it seems to me, depends upon a further question: Is it desirable that students should migrate from one University to another? The feeling of the times certainly is that students do gain a very great benefit indeed in travelling from one University to another at sufficiently long intervals. I do not suppose, of course, that a few months at one and a few months at another University would be of much service unless at a later period of the student's career, but certainly one or two years spent at one University and a similar time at another would be of great advantage. The only thing that prevents that, theoretically at least, is the question of mutual recognition. And why should there not be this mutual recognition of courses? Any member of this Congress could easily off-hand mention the names of a score of Universities of equal standing, and it seems to me it is hardly worth while discussing the question of why should not these Universities recognize each other's courses. Furthermore, I am bold enough to believe that when this Congress meets again the question of mutual recognition will be as much worth discussing as is to-day

the re-imposition of religious tests. In the United States and in Germany they have already this recognition, and I am certain, from what the preceding speakers have said, that the same courtesy is extended by most of the Universities here. In regard to the limitation of the number of graduate students which is sometimes suggested, I am very glad indeed in reading statistics of the Universities of different countries of the world in order to learn about how much of the population are taking advantage of the opportunities for higher education offered to them, to see that students are flocking in thousands to the Universities, and that the standard is not in consequence being lowered. All who are interested in higher education must be delighted that men and women come in such large numbers to the seats of learning. As regards graduate students, whether they subsequently enter the teaching profession or not, I am glad beyond measure that the numbers are in thousands, and I trust they also will come to be tens of thousands, so that the Universities will be compelled to make abundant provision for all students who wish to obtain opportunities for the widest study and research.

But the subject that at present interests me most is the position of the Canadian student in regard to his future graduate work. We are a young country, but we have a number of Universities of what we consider rather ancient standing, and the number of students graduating from these, as well as from others of newer foundation, is very great. The graduates of our Canadian Universities, like those of other Universities in various parts of the world, follow different walks in life; some go into business, many follow the professions of medicine, law, and journalism. Those who enter upon graduate work are those who will ultimately come back into the teaching profession in the high schools, the academies, the colleges, and the Universities. The Canadian student is confronted with the question of where he shall continue his course. There are but two Universities in Canada which have up to the present made extended provision for graduate courses, and, while it is the natural and legitimate—almost the necessary—ambition of every institution which ranks as a University ultimately to provide graduate work, limitations of various kinds prevent many from realizing this aim. The student is confronted by this condition: he must use his training to earn his living. Therefore, not being possessed of very great means he must find an institution where he can continue his work and put himself in the very best possible economic condition at the end of his course. These economic reasons are very strong and should be considered in connection with the organization and aims

of a graduate school. I do not think there will be any trouble arising from any so-called commercialization of the higher degrees of M.A. and Ph.D. At any rate, there are the students, and where shall they go? They find that in the United States there are many Universities and many eminent men whose courses are highly organised. A student knows in advance that he will receive recognition of his previous work if he goes from an institution of proper standing, and will obtain permission to enter the graduate school. If he lacks in some minor respect he has the privilege of entering the undergraduate courses of the institution and making up the deficiency in a short period, perhaps by a summer's work. After a certain period of study, from three to four years on the average, he receives, if worthy, an advanced degree; nor do I think that the large and reputable American Universities lower their standard because the number of students receiving degrees is so great. A student, therefore, chooses the American Universities because he has a large choice, knows where he is going, knows what is before him, and knows what will be the end of his three or four years' labour if he is capable of carrying on the work. I desire, as a Canadian, not having myself had the privilege of attending a University in Great Britain, that similar conditions should prevail here as regards our students as prevail in the United States. We are very grateful to those institutions for the courtesy shown us; they have excelled in the cordiality of the reception given to our students; but nevertheless we are British and we are at present dominated by British ideals, and, seeing the great opportunities of culture that are presented in this country, we desire our students to profit by them so that they may obtain the manifold advantages that a country so rich in history, so wonderful in its literature, possesses. Therefore, we desire the Universities of this country to organize their advanced courses, if they have not already done so, and we wish our students to be informed in the first instance of what will lie before them—how many years' residence it will be necessary for them to accomplish in order that they may attain the goal to which they are striving. Last of all, they must receive some sort of recognition in the form of an advanced degree. If that is not forthcoming, the students will not be forthcoming. You may say what you like about the commercialization of the degree or the lowering of the aim in obtaining it, but these are the facts. The students will not come unless they obtain some tangible recognition in the end which can be used in some sense as a commercial acquisition. We have to earn our living with our education; University people

here, I presume, have to do the same. The degree is but a means to an end, and students will not come unless they receive it. I want to state the facts as plainly as possible, because I am anxious that this Congress shall result in something tangible being done in order that the stream of students which constitutes a serious leakage from our Empire—for most of the students remain in the United States—shall be diverted to our own British institutions; and that the Universities here shall be not merely English or Scottish or Irish, but Imperial Universities. In this way they will constitute themselves centres for the Empire where our students may come into contact with them and their ideals, and return to their own country bringing with them the influence of their training.

PROFESSOR SIR J. J. THOMSON, O.M., F.R.S. (Cambridge): The discussion this morning connected with post-graduate research interested me very much. I have had very considerable experience in this direction for about twenty years, and the conclusions I have come to are very much those stated by Principal Griffiths. I think the real difficulty as to the increase of the number of research students is a financial one. Very few of these students are in a position to go to another University and spend two years there without some kind of financial support. There is most excellent work being done by a fund administered in London by the Commissioners of the 1851 Exhibition. They give scholarships intended for post-graduate work to the various Universities of the Empire. There is no educational work in the country more productive of good results than this Fund, so ably administered by several whom I see here. We ought not to forget that many Universities have given considerable help to these post-graduate students. Several Colleges in the University of Cambridge, notably Emmanuel and Caius, have been most liberal in granting scholarships and aiding in other ways those students coming from Canada and Australia. I may say that some of these research students, who have come from other Universities, have been elected to Fellowships in various Colleges in Cambridge, so that a considerable amount of encouragement is already given. But I feel, from the experience I have had, that the awarding of scholarships to students from other Universities is a very difficult and to some extent unsatisfactory process. You have to rely on testimonials, and to estimate the weight of a testimonial (if it ever has any weight) you ought to know something of the character of the writer. There are some Professors whose geese are all swans, and others whose swans are all geese, and to

introduce the personal equation in order to come to some kind of reasonable decision is a matter of very considerable difficulty. I think that no more useful contribution could be made than the provision of more scholarships and Fellowships. I think it is a weak point in the Universities overseas that so much value is attached to buildings. The buildings and laboratories make one's mouth water, but with all that there is a great dearth of any means of enabling poor students to continue their work and education after they leave the University. I am quite sure that if that could be remedied, if you could only constrain your millionaires to spend their money on men instead of buildings, the results would be very much better.

I only wish to mention my agreement generally with what Principal Griffiths said I think his suggestion that a kind of probationary year should be served in a man's own University is one of considerable importance if that year is a fourth year. I should be rather doubtful as to the wisdom of the proposal if the extra year came after more than four years. I also wish to say that I thoroughly agree with what he said about the possibility of specialization in Universities. You may specialize in technical Universities; you may have spinning in Manchester and textile industries at Leeds, but you can never specialize so far as research is concerned in pure science So much depends on the Professor, and you would have to pass an Act of Parliament in order to force the man of the moment to accept the Professorship.

DR. WALLER, F.R.S. (London): I am very grateful to you for this opportunity of comparing the position to-day with the position as it stood some years ago, and I desire to utilize the few minutes at my disposal for giving some account of the efforts made on the part of the University of London during the last few years to take its share in the co-ordination of post-graduate work.

Some ten years ago the Professors and students of a given discipline in this University—that of Physiology—banded themselves together and formed themselves into a panel, and informed the authorities of the University of their willingness to give of their best by a series of post-graduate lectures. The University approved, and a first panel of student-teachers was formed in 1901. It included at its outset the whole of the Professors and students of Physiology in the University of London. But the panel was not confined to London. It included members of the Universities of Oxford, Cambridge, and Liverpool. And it did

not long remain confined to the United Kingdom; it soon grew to include Professors and students of Physiology belonging to Universities of all parts of the Empire—Montreal, Toronto, Winnipeg, Manitoba, Cairo, and Johannesburg; and lastly the panel came to include representatives of Universities of the sister Anglo-Saxon country—representatives of the Universities of Cleveland, California and Harvard. Each member of that widely scattered panel undertakes, when it happens to be suitable and convenient, to deliver in London a course of eight lectures upon the portion of science in which he has been a first-hand student, and upon which, therefore, he has acquired authority to teach. Thus the panel forms in the particular province of science belonging to it, a school of growing knowledge, to which each member brings of his best

A school of this character is surely to be regarded as a valuable unit to form with other units belonging to other branches of science, the structure of "post graduate" learning in the system of Universities which this Congress represents.

I am anxious to avoid the temptation of preaching for any particular parish of Science on such an occasion, but inasmuch as I happen to have been largely responsible during the last ten years as caretaker of the interests of a particular parish, and since the welfare of the whole depends upon the welfare of the parts, I shall best serve our common aim by bringing to the common melting-pot of this Congress the definite if limited experience of this particular field during the past ten years. For I am persuaded that the same guiding principles under which an enterprise of the sort has prospered on a small scale in this building are to govern the endeavour on the larger scale to bring together in some intellectual clearing-house learned men from all the Universities of the Empire.

In the first place, any organization of such exchange requires the two chief ingredients—men and money. The energy of gold, like the energy of coal, is controlled and made effective by the energy of men, and grey matter is the master-stuff—yellow matter is its fuel. The Chancellor has just told us that this fuel is our primary need, and I almost felt as if his statement contained an implication that if enough money were forthcoming everything would be plain sailing. Not assuredly so I had nearly said "Assuredly not so." Money, like coal, can be wastefully burned. The large cheque does not of necessity effect useful work. Its energy can be useless or actually mischievous according to the channels into which it is directed. The yellow matter which the cheque represents is not the dominant, but the dominated

factor; grey matter controls and dominates the energy of yellow matter.

And so at the outset of our enterprise, ten years ago, enumerating its primary considerations, we did not put finance in the forefront as our primary and dominant consideration. We enumerated the chief features of what we conceived might prove to be a healthy organism having as its special function to contribute to the advancement of knowledge. We trusted to the future for the feeding of our organism, and, as it turned out, our trust came to be justified. But at the outset, in 1901, the Board of Studies in Physiology, under whose auspices the organism was conceived, forwarded to the University of London a list of nineteen working Physiologists, all of whom had declared themselves willing and anxious, without emolument, to deliver initial courses of lectures on the branches of Physiology with which they were individually conversant. These nineteen teachers formed what I have already mentioned as the First Panel And while finance was not treated as the primary consideration at this stage, let me add that its importance and necessity were even then explicitly recognised by the Board as a secondary consideration required for the permanent existence of this scheme. In the covering letter of the Chairman of the Board it was stated that: "It is, of course, well understood by the Board that honorary lectures cannot form a permanent University institution, and that its continuity will ultimately require appropriate funds."

Time will not permit that I should retrace the steps of infancy and childhood of this organism. It has enjoyed advantages as well as suffered from the disadvantages arising from the rivalries and jealousies inseparable from our composite University of London. But taken as a whole, while it has not been an overfed child, nor a noisy child, nor a big child, it has been a perfectly healthy child—a real University institution to which all the Colleges of the University have contributed. And acquainted as I am with the secrets of its nursery, its sins and virtues and mistakes, I see in this healthy child of many colleges a type and an augury of what can be expected of similar organisms built on bolder lines, of broader scope and more extensive action, the children of the many Universities of the British Empire to-day for the first time sitting in Congress together. I see in this little post-graduate school of ours in London a forerunner of *great post-graduate schools forming, so to speak, an exchange and a clearing house of University learning in all parts of the* British Empire.

Ten years ago we enumerated four principal requirements for the success of our post-graduate school :—

1. The men : a panel of teachers at first hand, *i.e.*, themselves engaged in learning through original research.

2. The place : *i.e.*, a lecture-room resting upon a laboratory at the headquarters of the University.

3. An organ of expression : *i.e.*, a publication of valuable but non-remunerative monographs to be issued "on the authority of the University (*a*) by reason of addition to knowledge or (*b*) by reason of excellence of exposition of recent additions to knowledge."

4. Studentships and Fellowships for promising laboratory workers and assistants.

The extent to which we have been able to act up to our aspirations and professions is set out in some detail in our Report,[1] which gives in summary the account of our constitution and of our proceedings during the past ten years.

We have not made much noise. We are practically unknown to newspapers. But we have not worked in absolute ignorance of what is going on in other countries towards the furthering of post-graduate learning and research. It is, I think, an open question whether post-graduate schools should or should not be connected with the University. The tendency of former days appears to have been, on the whole, towards the establishment of such schools independently of the University and free of all academic convention. Thus the Collège de France, established by Francis I. in the sixteenth century, had no connection with the University of Paris. And of recent years the most notable efforts to promote post-graduate study, such as the Carnegie and the Rockefeller Institutes, and lastly the Kaiser Wilhelms Forschungsinstitute, have each and all been free of University leading strings. And even the Johns Hopkins University has enjoyed the same independence as a free post-graduate institution. The only instance that occurs to me of organic connection between a University and a post-graduate institution is that of the Institut Solvay at Brussels.

Time will show whether post-graduate inquiry best flourishes in freedom or in continuity with academic discipline. I shall hardly venture to pronounce any firm opinion in the matter, which after all does not present in the laboratory the strict and mutually exclusive alternatives that are apt to take shape in the Committee-room. The fixed knowledge of to-day has its source in the free

[1] To be obtained on application to Dr. A. D. Waller, Physiological Laboratory, University of London.

question of yesterday, and the free inquiry of to-day is giving birth to the orthodox canons of to-morrow. And whether or no the research institute be established in formal administrative union with the University, the same mental ingredients are required by both—freedom of thought, the progressive factor; purity of dogma, the conservative factor. And it will be for future Congresses of the Universities of the Empire to recognise and to devise the ways and means whereby the University of the future shall continue to fulfil its cardinal intellectual functions of conservation and discovery and application.

PROFESSOR P. C. ROY, C.I.E., D.Sc. (Calcutta): I am here simply to associate myself heartily with the remarks made by Principal Griffiths and Professor Allen. I am afraid there is a tendency for our degrees to be branded with the stamp of inferiority in this country, not because of their intrinsic worth, but because they are Indian ware. At the present moment I am only speaking of my own branch—chemistry. There are many students in my University engaged in research, and their researches are hospitably received in the columns of the leading chemical journals. But if they have to take a British degree they have to go through a tedious, depressing and laborious course of undergraduate study, going over again the same kind of studies which they have already finished. It was a happy suggestion that such students should go through a period of probation under some scientist in whose laboratory they desire to work, and if a student satisfies his Professor at the end of a year that he is fit to go on for a thesis in original research he should be allowed to do so. This would be of great help to Indian students, as some of them find it very difficult to go through three years of undergraduate studies.

May I be permitted to remind the Congress that in the Calcutta University several post-graduate scholarships have been created of late, and that we in India have been proverbial from time immemorial for preaching and practising the doctrine of plain living and high thinking. We can afford to live on little. May I say also that the quality of the teaching of the Calcutta University is not as inefficient as it is supposed to be. We are always ready to learn from the British Universities, but at the present moment the foremost lawyer of Calcutta, who is known throughout the length and breadth of India for his forensic ability, is a graduate of the Calcutta University. The leading physicians and surgeons of Calcutta are also graduates of the Calcutta University, and the Vice-Chancellor of the Calcutta University, who enjoys

the unique distinction of being thrice nominated to that onerous post by the Viceroy of India, is a graduate of the Calcutta University. All this goes to show that the Calcutta University produces some of the greatest ornaments of our society and of our country, and I plead for a more generous recognition of the degrees of our Indian Universities.

PRINCIPAL SIR WILLIAM TURNER, K.C.B., F.R.S. (Edinburgh): The subject now before us is a very comprehensive one, much too comprehensive to be included within the limits of a ten minutes' speech, because "questions of reciprocal recognition of courses of post-graduate degrees," and provision for research require grave consideration. I would like to say, speaking now as a representative of the Scottish University system, that in the arrangements for curricula of study leading to graduation in the Scottish Universities, a considerable amount of recognition is granted to education, and up to a certain point to examinations passed in other Universities. In medicine and in science, in divinity, in law, and in the arts—in all these faculties recognition is given to a proportion of the education obtained outside the particular Scottish University concerned in conferring the degree. But the point on which I wish more especially to say a few words is the question of research and the provision for research.

As regards research, I hold with several speakers who have preceded me that if it is to be conducted fully and to good purpose, there must be a natural aptitude in the individual. You cannot by education make the skilled man of research. Given the natural faculty, you can educate and train him so as to put him in a position to make the best use of his natural gifts. What provision have we in Scotland for the encouragement of research? Each University has certain small foundations which it applies to the purposes of research; but, thanks to a great benefactor, Mr. Andrew Carnegie, we have in Scotland an arrangement by means of which considerable sums of money are voted so as to aid young men, and even men who are no longer young, to conduct research in a profitable manner. There is a popular idea that the Carnegie benefaction in Scotland is for purely eleemosynary purposes, to relieve the Scottish parent from paying University fees for his children. Up to a certain point that is true; but the Carnegie fund in Scotland covers a much wider ground than that of relief from the payment of fees, because the Universities, as corporate bodies, receive each year many thousands of pounds which they apply to the construction of buildings, to assist in the payment of teachers, and to provide books for the

libraries, equipment for laboratories, and other means of practical instruction. But the Executive Committee of the Carnegie Trust very early after the foundation of the Trust resolved that they would set aside a considerable sum of money in order to encourage research, and, having been a member of the Trust from the beginning, I can state some facts connected with this work of the Committee which will, I think, interest you. It was resolved, that we should gradually feel our way as to how much money out of the annual income of the Trust might be employed satisfactorily for research purposes, nearly £15,000 was applied for this year, and we decided to set aside £10,000 for that purpose. How is this to be applied? We have three methods of bestowing the money. We have established scholarships and fellowships and grants of money for research purposes. To become a Carnegie scholar it is necessary that the applicant shall present certificates from his teachers (not one teacher only), so that we get the benefit of having several judgments, as it were, upon the competency of the individual. The scholars are selected from the graduates of the Scottish Universities—all the Universities share in this—and each scholar is given £100 a year. If at the end of his first year those under whom he has worked say that he is fit to hold a scholarship for a second year, and that he has begun a research, the scholarship is continued for a second year, and in this way the scholars have a testing period, which Principal Griffiths called a probationary period. If this probationary period is satisfactory, the scholar is then ripe to become a Fellow. His allowance is increased to £150 a year, with also, not infrequently, a grant for expenses, and he is allowed to pursue his research work, not merely in the Scottish Universities, but in Universities elsewhere, and a Fellowship may be held for three years.

I have no doubt that the eminent head of the Cavendish Laboratory in Cambridge has had some of our Fellows under him and has taken a part, therefore, in their later training. Grants of money are also given to graduates who are engaged in conducting independent inquiries. I ought to state that the scholarships, fellowships, and grants of money are not limited to those working at physical, natural, and medical studies, but that encouragement is also given to the pursuit of historical, economic, and linguistic studies. The Carnegie Trust has, therefore, shown that it has encouraged research in a very material manner during the eight years that this system of bestowing a portion of its income has been in operation. I regard this, if I may say so, as an admirable mode of encouraging research in this country. I mention it because, at a Congress of this kind, where the Universities of all

parts of the Empire are represented, it is well that it should be known. I hope that this good work—for I venture to say that it *is* good work—will continue.

DR. J. W. BARRETT, C.M.G. (Melbourne): I rise, even at this late hour, to emphasise the point of view presented by the speakers from the Dominions, by Professor Allen of Melbourne and Professor Allen of Manitoba, and I will summarize it under two heads. The difficulty is entirely the recognition by the home Universities of that which the Dominion Universities have come to regard as essential—the feeling, as Professor Allen of Manitoba pointed out, that a higher degree is necessary for certain purposes, that people are prepared to make the sacrifice of time and energy in order to get that degree, and that the degree has a certain commercial value because it represents a considerable amount of work done. We regard that as a reasonable and proper attitude and as in no way detracting from the value of a University which wishes to cultivate research and other developments. We should be sorry indeed to see any University shut its doors against those graduates who wish to do such work and obtain a senior degree.

Secondly, the limitation of facility of research seems to represent an impossible position. It may be perfectly true that a good deal of the research done is wasted because people have not the faculty referred to so eloquently. But are you satisfied, is the world satisfied, with the amount of research work done? and can you tell exactly where that faculty is coming from? Is it not better, then, to keep to the practice of Canada and the United States and throw open the doors of the University and provide facilities for post-graduate work for all willing to bear the expense and maintain themselves while doing it? Is it right to close down on that desire of humanity to obtain knowledge and improve itself in every direction?

This represents the views of those from the Dominions. We listened with delight to the address of the Chairman this morning, for he expressed our position very clearly and voiced our aspirations and sympathies. Why can we not come to a common understanding by which students can proceed from a University in any part of the Empire to a University in any other part, subject to reasonable conditions, and get credit in these places for exactly that which they have done? That seems to be a reasonable position, and I do hope that Principal Griffiths and those members who have taken the opposite view will, during the ensuing five days, reconsider the position, and see if they cannot do something to

meet the views presented by my colleagues, Professor Allen of Melbourne and Professor Allen of Manitoba.

PROFESSOR RUTHERFORD, D.Sc., F.R.S. (Manchester): I am afraid that at this late hour I shall not be able to say more than a few words on this interesting discussion, but, from the remarks of several speakers, it appears to me that there is a considerable misunderstanding on the question of facilities offered by the English Universities for advanced or post-graduate work. I know of no University in this country that is not ready and willing to give all facilities in its power for advanced research to any graduate with suitable qualifications from a Colonial University. We have in the University of Manchester a number of graduates from Colonial and foreign Universities, who come to undertake research in special subjects, and I think this is true for all Universities in this country. For example, the Universities of Oxford and Cambridge, and others, arranged in 1895 to admit without examination Colonial and foreign graduates with suitable qualifications who wished to undertake advanced work or research. If their work is satisfactory, the research degree of B.A. is awarded after two years. For example, in my own case, I came over to Cambridge in 1895, entered as an advanced student and obtained in due course the degree; and I know that a very large number of Colonial students have done the same. In most provincial Universities, Colonial graduates may obtain the M.Sc. or D.Sc. degree by research, subject to a definite time of residence in the University. There is a regular avenue in these directions for Colonial students who wish to undertake original investigation; but on the other hand—and I think that here the confusion arises—there is a wide difference in the arrangements for advanced work in the Universities of this country and in those of America. In American, and also in some Canadian Universities, there are special post-graduate courses leading to the degree of Ph.D. This degree is given partly on examination and partly on an original thesis. Under these conditions, the student does not undertake advanced work in any subject until after he has obtained the ordinary degree. The procedure in this country is very different. For good or evil, the English Universities have developed the Honours system, in which the abler students take work of an advanced character in their undergraduate course, and are awarded a degree with Honours. The standard of this degree varies somewhat in different Universities; but it includes a fair part of the advanced work required for the degree of Ph.D. in America. In some cases, for example, in my own department,

the student is required to send in in his last year a thesis embodying the results of an investigation of a simple character. After graduation, a good student should be capable of undertaking under direction an original investigation of a simple character. In some departments a number of advanced courses are given suitable for post-graduate students. We have no machinery in this country to give exactly the same type of training as that provided for the Ph.D. degree in America, as, for example, in the Johns Hopkins University. On the other hand, there are direct avenues for our own and for Colonial students to the higher degree of D.Sc., which in the majority of cases involves a much higher research qualification than is required for the Ph.D. It may be possible, but it would be certainly difficult, to graft on to the Universities of this country the system that prevails in the United States and to some extent in Canada. It would mean a complete re-casting of the whole University system in this country. Personally, I am not a believer in the devotion of excessive time to mere training in a special subject, which might be more profitably spent in original investigation. It is highly desirable to develop the original capacity of the students, and this can be done far more effectively by means of investigation than by attendance at routine courses of lectures. The combination of research with advanced reading has always appeared to me the most fruitful direction by which to develop the best capacity of the advanced student.

PRINCIPAL PETERSON, C.M.G. (McGill): Where there is so much general agreement there is little to reply to. Professor Rutherford alluded to one misunderstanding, and I may correct another. A casual listener to what has been said by the various speakers might be apt to imagine that the Paper which formed the basis of this discussion was a Paper on scientific research. But my Paper was on graduate study in general, of which scientific research is only one department. And I do not agree that it is not possible to specialize as between Universities. I agree with Sir Joseph Thomson that in pure science it is impossible, but in applied science it is not only possible but imperative. Again, in some cases, Universities should develop their literary side rather than their laboratories; others may do well to give special weight to the influence of science on the development of industry and commerce. But the whole subject of my Paper is higher or graduate study. We are all aware—or at least most of us—how very little we knew when we took our ordinary degrees, even the Honours degree of which Professor Rutherford spoke with so

much appreciation. It is higher work for which I have been pleading, the further study undertaken in many centres after the ordinary degree has been gained. It is not merely scientific research—that fateful word so often uttered when scientific people get together, as though it were the end and aim of all things. I agree with a previous speaker who admitted that there is much that goes forward in the name of research that has not altered the destinies of the world. I have not asked that the Ph.D. should be added to the degrees generally given in this country. If so it would have to supplant some of the degrees which are conferred at present, under various heads. Nor do we need the caution uttered by Principal Griffiths against increased facilities for degree hunting. I remember the recognition given at the 1903 Conference to the results of the work of the Commissioners of the 1851 Exhibition, and the great appreciation of what had been achieved by its scheme of Fellowships under the teaching of Sir Joseph Thomson and others at Cambridge. And I am glad to see with us again to-day that veteran Sir Henry Roscoe, to whom we are so greatly indebted for the practical working of this scheme. But I call attention to this concrete statement of fact, which cannot be controverted. Principal Griffiths told us that graduate work (I do not like the term post-graduate) has gone up 100 per cent. in the last ten years in Great Britain. In the same period it has gone up 250 per cent. in the United States of America, and, without suggesting that conditions are altogether comparable on both sides of the Atlantic, I invite serious consideration to that fact. No one has greater appreciation than I have of what is being accomplished in the domain of physical research. But that is not everything. I do find it somewhat anomalous that while Universities like Toronto and McGill, which owe their origin to Scotland, have organized a definite graduate school and have already enrolled over one hundred graduate students who join that school for higher study, the records of the Scotch Universities, as submitted to this Congress, show that only a score of students are seeking the advantage of higher education at Edinburgh or at Glasgow—and that in a somewhat unorganized way as compared with the conditions which I have had the honour of describing to you as already existing on the other side of the Atlantic.

WEDNESDAY, JULY 3.—Morning Session.

CHAIRMAN.

THE RIGHT HON. THE EARL CURZON OF KEDLESTON, G.C.S.I., G.C.I.E., D.C.L., LL.D., CHANCELLOR OF THE UNIVERSITY OF OXFORD.

I.

THE RELATION OF UNIVERSITIES TO TECHNICAL AND PROFESSIONAL EDUCATION AND TO EDUCATION FOR THE PUBLIC SERVICES.

II.

INTERCHANGE OF UNIVERSITY TEACHERS; CONDITIONS OF INTERCHANGE.

Second Session.

THE CHAIRMAN: Ladies and gentlemen; I was rather alarmed just now when a friend in the audience told me that he had paid me the compliment of coming here to listen to my address, for the reason that I have no address to deliver. I understood that this was a meeting of important representatives of education from all parts of the globe, met here to discuss matters of vital interest common to them all, and after the welcome given to you by Lord Rosebery yesterday, it did not occur to me that you would want anything particular from any person leading a public life at home, but that you would rather listen to those who are expert in those subjects, and who have come from all parts of the world to discuss matters of common interest. I have no address, therefore, in any true sense of the term, to deliver, but I have a few observations which I will venture to lay before you rather in the form of a welcome than of anything else. (Applause.) In the public welcome which was given you yesterday by Lord Rosebery, the University of Oxford, for which I have the honour to speak, and which was one of the three Universities which took part in the original invitation to you, begs leave to join. The most ancient, and perhaps the most illustrious, of existing Universities is not one whit behind any of her compeers in the enthusiasm with which she greets the birth of younger academic societies, some of whom may almost be said to have sprung from her own loins, whether they be in the crowded industrial cities of the Mother Country or amid the relics of venerable civilizations, as in India and China, or amid the younger communities of our own race, who are bursting into nationhood across the seas. Oxford recognises in this vigorous progeny fellow-workers in the same prolific field, co-partners in the same high cause, and where, either out of her accumulated experience or from her supplies of disciplined and eager manhood, she can contribute anything to the growth or strengthening of these younger offshoots, she does it with a full heart, generously and gladly. (Applause.)

Some of you who come here from distant lands may perhaps think that in our own country the older Universities, for one of which I speak, look with some tinge of jealousy or suspicion upon the type of University that is springing up in Leeds, Sheffield, Liverpool, Manchester, Birmingham, Bristol and other great English cities. Let me assure you that such a belief would be wholly without foundation. The field is too wide to be covered by any one institution, or even group of institutions. The growth

of science is so rapid, and its ramifications so complex, that if the instruments of education and research are to keep pace with it, there is need even in these small islands, with their restricted population, for Universities to be counted numerically, not on the fingers of one hand only, or even of both hands, but for as many as the specialized needs of localities, the impulse of provincial patriotism and the ever-extending boundaries of the realm of knowledge may fairly demand. We know no rivalry in this happy competition; there is no room either for superiority or inferiority; we are all contingents in the same army, fighting the same enemy, obeying the same commander, and occupying with a well-ordered strategy, with what I hope, after the meetings of a Congress like this, will be a better ordered strategy, in the future, different parts of a single and almost boundless field. And, gentlemen, if these are our sentiments towards these younger Universities which give a more technical training and provide a more strictly professional outlook in our own country, with feelings not less warm may we contemplate the efforts of those who, whether as teaching Universities or as examining bodies, are engaged in creating for the first time and in maintaining the same standards in the oversea dominions of the Crown, and who for their part, when they send their representatives home on such an occasion as this, we would fain believe, regard such institutions as Oxford and Cambridge, not as venerable relics of an obsolete past, but as sanctuaries of a spirit that never dies, but breathes in their bodies and burns in their veins just as in ours. (Applause.) Or, if a change of metaphor be permitted, we would like them to regard us as elder sisters of the same family, anxious to share with our younger relatives whatever advantages or privileges or resources may have accrued to us from an earlier origin and a more prolonged experience, or from traditions that have been hallowed by centuries.

Ladies and gentlemen, the first subject that is down on your agenda paper this morning affords an illustration of the manner in which the older and younger Universities may profitably co-operate and divide the field of labour. If you ask me in what relation an old University like Oxford stands to technical and professional education, I would answer that in the technological training required for many industries and employments we do not attempt to compete. These needs are better provided for in the newer and younger Universities, and as time passes on they are becoming increasingly equipped for this task, but there are certain professions in the preparation for which the parent desires that his son shall not merely obtain the technical know-

ledge requisite to pass his examinations and enter upon his career, but shall also acquire that breadth of mind and humanization of character that shall enable him to grapple with the problems of life and deal with men. I allude, for instance, to certain professions in which we have begun lately to specialize somewhat at Oxford, either by providing the scientific groundwork for a professional career, as in engineering science, or by supplying more distinctly technical teaching, as in forestry and agriculture. And what I say of Oxford applies, in the case of these sciences, equally to Cambridge. We do more than this at Oxford; we give a diploma in economics, also a development of recent years, which may be described as occupying a half-way house between a general arts course and a technical course; and finding that business men—and this, I think, is a new feature—are increasingly turning to us because they want character and stability and what is known as a gentleman's education in the young men who enter their employ, we are about to frame a curriculum with direct reference to a mercantile career. But in each of these cases I would impress upon you that the University is not so much entering upon a new field as it is opening up necessary extensions of its traditional arena, for I would like it to be known to the members of this Congress that we still cling, and mean to cling, to our old traditions in one respect. Never, I hope, will the day come when Oxford will cease to give to those who desire it—and in a utilitarian age the need will grow not less but greater—that liberal culture, that training of the mind and that developed capacity for affairs which spring from the study of the history and literature and philosophy of the past, and are attuned to practical and strenuous ends by the influence of a society, at once chivalrous and democratic, of a system of tuition at once free and intimate, and of associations and buildings at once venerable and inspiring. These, ladies and gentlemen, are the priceless possessions of the older Universities, of which none, I am sure, would seek to deprive them, which it is the duty of their official champions religiously to guard, and which are, I believe, as dear to the exiled teacher or the youthful student in Vancouver and Hongkong as they are to the most indurated don in the sequestered shades of an Oxford garden. It is the inheritance of this spirit that enables us at Oxford and Cambridge to return an unfaltering answer to the second part of the first question submitted to us this morning; namely, as to the fitness of the curriculum of the older Universities as a training for the Public Services. A feeling exists, and has been to some extent responsible for the recent appointment of the Royal Commission

which is now sitting to deal with the subject, that the older Universities have too great a monopoly of the Public Services and that the newer institutions should furnish more men. I am confident that Oxford would grudge no such extension of opportunity, but, as one who has administered great territories and been for a time the head of the most efficient Civil Service in the world, I should like to record my belief that in the College system as it exists in the older Universities and in the life and teaching of those institutions as a whole are to be found the best guarantees for that character which, in the conduct of government and the daily business of administration, is more precious than rubies and more potent than regiments of armed men. Nor, ladies and gentlemen, let me assure you, is this an aristocratic sentiment born of any spirit of social exclusiveness or caste feeling. The older Universities, as you will find if you visit them in the course of your stay in this country, are thoroughly democratic places of study, and are yearly becoming more so. At Oxford, for instance, artisans and miners, compositors and factory hands, come up and take part both in our studies and in our social life; conversely we send out our tutors to conduct classes in the crowded hives of manufacturing industry, and thereby we learn something, and this is not the least valuable part of the association, of their aspirations and points of view. There may be in the attitude of some of the labour organizations jealousy and even hostility towards the older Universities, but closer contact is rubbing away these misunderstandings, and there is growing up a warm desire to act in unison and a feeling of mutual respect.

And so I am brought to the second main subject of our discussion this morning. In the increasing correlation of studies and courses between the Universities of the Empire; in the interchange of teachers and also of students, will not the older Universities, retaining a pride of place which none will be concerned to dispute, and appealing to emotions which none will be ashamed to own, be able to render a service that no other bodies can supply? I should like to open wide, wider than now, our doors, that all may enter in, finding in the poetic groves and the sculptured halls of Oxford interests wider than are anywhere collected in any other single place of learning, an experience that is both hoary with age and yet in touch with the latest phases of modern life, a social order that inculcates that give and take between man and man which is the cement of society; an outlook on affairs which is both catholic and imperial, and a sense of duty that inspires to honest effort for the public good. The future will, I firmly believe, bring the older Universities into closer contact with the

younger : affection and respect and mutual co-operation will grow between them ; each will supplement the needs of the other, and in the more systematic but still elastic organization of educational effort, which will spring from the labours of Congresses such as this, I cherish the hope that the eyes of the young and vigorous institutions, who a century hence will be numbered not by tens but by hundreds in all parts of the British Empire, will still look upwards to the old, famous and God-fearing Universities of the Mother Country as unto the hills whence cometh their help.

THE RELATION OF UNIVERSITIES TO TECHNICAL AND PROFESSIONAL EDUCATION AND TO EDUCATION FOR THE PUBLIC SERVICES.

First Paper.

THE subject which I have the honour to bring before this meeting raises certain large and fundamental questions of University polity, which have been agitating many minds and which deserve serious consideration, and I think it will be more useful if, instead of attempting to give historical or statistical information, I direct the attention of the Congress to the broad considerations which affect the relation of Universities to what is now commonly understood as technical and professional education.

In outline, the situation may be described in the following way. Professions and business vocations are more and more becoming learned callings, each developing a special body of knowledge, which requires for its full mastery and effective use, an intellectual training of what may be called the University standard. The special training so required is, for what are known as the learned professions and for some other callings, already provided in Universities. In the case of law, medicine, and theology it has been provided from the earliest days of Universities; in engineering and agriculture it is comparatively new; in commerce and chemical technologies it is hardly of yesterday.

Outside the Universities, the training and the intellectual standards which are deemed essential for certain callings, are often regulated by associations of people representing the particular interest concerned. This is, of course, still partly the case with medicine, law, and theology. Associations of the kind frequently set up the standards, enforce them by examinations, but do not provide any training. Such, for example, is the case in this country with the Institution of Civil Engineers and the Institute of Chemistry. Further, we must note the existence of a great variety of special training schools with professional or technological aims, where a portion or the whole of the work is of University standard, but where there is no direct association with a University or with an incorporated body representing a single interest. Lastly, there are affiliation arrangements for the inclusion of technical studies.

The next fact that I wish to emphasise is that the authorities who govern these outside institutions and associations are, to a large extent, men engaged in the particular calling concerned,

and are not primarily academic in their interests and outlook. In some cases a municipality is the governing body. It is to be expected that in any readjustment of educational plans the existing governors will be tenacious of the authority they have already acquired.

The question now is, What should be the attitude of the Universities in this complicated situation? They do not stand outside, they are already involved in it; they cannot refuse to be interested. It concerns especially those newer Universities, which are still developing a fundamental policy.

The main difficulties of the position appear to me to be these. On the one hand, it may be supposed that those who are primarily interested in special studies, would be very glad to secure for them the certain advantages which come from incorporation in a University. They can hardly refuse to acknowledge the benefit to all young men standing at the threshold of their life-careers, of the humanizing life of a University, with its great variety of individuals and interests, its broadening influence on intellectual outlook, and its potent effect in the formation of ideals and of character. They fear, however, lest the committal of their interests to the academic government of a University might mean the loss of their own influence and the sacrifice of a vital element of reality in the studies themselves.

On the other hand, the Universities cannot fail to recognise the growth of new studies and new demands, differing in no easily definable way from those they have already recognised and met. Yet the number of these new studies and demands, the particular character of some of them, and, above all, the prospect of greater intrusion of the outside world in the regulation of University studies, give cause for reflection, hesitation, and, it may be, alarm.

I think there is no doubt that amid much activity in the institution and recognition of technical studies by our Universities, there still lingers in many minds a doubt as to the validity of the claim of applied science for a place beside more ancient subjects. This doubt, when it exists among the representatives of the traditional humanities, is not nearly so serious an obstacle as when it is entertained by the votaries of pure science; for whilst the humanist will frankly avow his dislike of these "utilitarian" studies, the man of science may declare his entire disbelief in their utility, and claim that the industrial arts are sufficiently served by the unpolluted streams of pure science. A change of opinion is, however, taking place, and the exclusive man of science is being forced to recognize that there is a whole

realm of specialized knowledge, lying immediately outside his own domain and in close juxtaposition to the industrial arts, which may fitly engage the highest intellects to explore, to extend, and to impart, and which in every respect has earned its title to University recognition.

In discussing the present situation, I think it will be best to face at once the fundamental question: What constitutes the fitness of a study for University recognition? It is a question not often publicly discussed, but it constantly comes before those who are concerned with the organization and management of higher education, and there is no doubt that it gives rise to a good deal of strong feeling. We are constantly thrown back upon a consideration of the legitimate functions of a University.

On this subject much has been said and much may be said; but if we desire to be brief and summary, I do not think we shall easily find a better declaration than is contained in words used by our Chairman. Speaking of a University, he says, "A fourfold duty lies upon it: to provide the best teaching over the entire field of knowledge of which its own resources and the progress of science may admit; to offer this teaching to the widest range of students; to mould and shape them not merely by the training of intellect, but by the discipline of spirit, so that, wherever they go, they may be worthy citizens or worthy servants of the State; and to extend by original inquiry the frontiers of learning." (*University Reform*, Lord Curzon of Kedleston, 1909, p. 210.)

These words are used expressly in relation to "a University so historical in its character and so majestic in its influence" as Oxford. But I think we shall say that they define the proper functions of every University, and that any corporation styling itself a University, which does not mean to abide by every one of these articles of faith, is guilty of taking a name in vain. The newer Universities, so far as I know them, are just as ambitious, and just as high-principled as the old; and they would scorn with equal fervour the worship of false gods. They are, it is true, young, and for the most part small and greatly lacking in amenities; yet Universities they are, and each one of them hopes, I imagine, under the blessing of Providence, to become in good time a mighty instrument of wisdom and enlightenment.

It is therefore no solution of the question of the fitness of doubtful studies for University recognition, to suggest that they may be relegated to the young institutions, if this suggestion is made, as I am afraid is sometimes the case, from a feeling that these places after all have not much of a character to keep up.

On the contrary, if certain studies are essentially alien to the purpose, or derogatory to the dignity of a University, they should be excluded with especial rigour from Universities that are handicapped by the frailties of youth.

Only one thing could be worse—to propose a segregation of these doubtful studies altogether, because they are doubtful; to put them upon the suffrages of the Philistine; and to let them proclaim their money-worth in the market-place, to all who are eager only for what they conceive to be the utilities of knowledge.

What is it that lies behind this suspicion of the studies that are in question? It is undoubtedly the belief that they are in their nature mercenary; mercenary because they are meant for direct application to the occupations of life. It is, in fact, the old, old question of bread-and-butter studies. Narrow, pedantic, and mischievous as, I think, is the spirit often associated with this jibe, I respect the apprehension that underlies it; and if I believed that the embodiment of technological and professional studies would depress either the intellectual or ethical standards of University life, I should, I hope, never raise my voice in favour of such a policy.

We treasure, and justly treasure, the ideal of a University which, in the past, has been appraised again and again in the finest and sincerest eloquence of our worthiest men. I hardly know how to follow their words with any language of dissent that will not seem impertinent; yet I must confess to never having felt the justice of praise bestowed upon the feature of detachment, which in the past has been so characteristic, especially, of English Universities. I am, of course, aware of the force of certain influences which are specially favoured by seclusion from the world, just as I am aware of the dangers which beset any individual or institution that becomes embroiled in the strenuous life of our feverish Western nations at the present day. But I do not think that any thoughtful person who has spent his years, say, in the North of England, can have failed to discover and deplore the great lack of sympathy and good understanding between the educational and industrial communities, and to seek for the cause of this estrangement. I can only give my own explanation. I do not believe that the cause lies in the turpitude of the industrial world. I have no sympathy with those people who can see in the industrial life nothing but a sordid struggle for worldly success and wealth. It is a distorted and an unfair view. The amassing of money is no doubt an inevitable incident and the readiest measure of success in industry. Truly enough, it is a consuming purpose with multitudes who are under the

stress of hard necessity. But exactly the same is true of the learned professions. There may be more sordid souls among the leaders of industry than in the professional world—I express no opinion—but as well in industry as there, the achievement, and, to all right minds, the glory of success, come from the conquest of difficulties; it is this same zest to do right things well, and it is not cupidity, which is the sustaining force of our manufacturing world. Such at least has been my observation.

The fault, I believe, has lain rather with the educational world. It should have led, where it has tardily followed. If educational institutions are to preserve their influence on the people they must alter their ways with the progress of civilization, in some measure, as the people alter theirs; they must be ever alert not to get detached. But how difficult it is! At one time mankind inaugurates a system well adapted, it may be, to the conditions of the time. The system becomes dear to its generation; people who have profited from it proclaim its excellence, recommend and enforce its claims upon their contemporaries and their successors. As years roll on it acquires the added graces of antiquity and becomes something almost sacred, something that would be profaned by change; until at last it is found to be standing hopelessly apart from the human needs it was intended to subserve. For happily humanity itself is progressive; change, unceasing change, is the law of progress, and what fitted the conditions of life a century ago cannot be expected to fit them equally to-day. These remarks apply, I believe, with full force to education, and it is surely incumbent on us to be continually asking whether our educational system is in conformity with the conditions and legitimate needs of the day.

The Universities stand at the head of our educational system, and from them flows the intellectual stream to irrigate the plains where men do their varied tasks. It is at the Universities that all types of education should receive their sanction and their inspiration. It is not for Universities to fold their arms and say, "*j'y suis, j'y reste*," and to look with disdain upon the efforts of the multitude to get for themselves through the zealous aid of Government officials, municipal authorities, and men of business, something adapted to their new intellectual needs and appetites—something they cannot find in the rigid articles of their educational hierarchy. If the Universities do this, they may, indeed, preserve a splendid isolation and do great things in many ways, which it is my last wish to belittle; but they will leave undone what is essential if they are to exert their proper influence, and if the balance of life is to be preserved between thought and

action; and they will continue to divert from industry intellectual talent that is born in it, and that would go back to strengthen, enlighten, and ennoble it if the talent were well directed, and if it found that in the high courts of learning even technologies had an honourable place.

The isolation of professional or technological studies, and their cultivation in separate institutions, seem to me to be fraught with serious dangers and disadvantages. In the first place, countenance is given to the mischievous tendency to distinguish between useful and useless knowledge. An entirely artificial cleavage is produced in the whole body of learning, which prevents that reaction between teachers, students, and studies of different types that is so potent in correcting extravagances, in extending the mental horizon, in producing breadth of intellectual sympathy, and in giving a well-adjusted culture to the whole human being. It would, I think, be difficult to overstate the importance of the influence which comes from the close association in a place of learning, of people of widely different interests and destinies. It means more than one can well say. It is at the basis of what we call liberalism in education; it is the thing which works equally against pedantry and venality; it is more than intellectual, it is spiritual. It is, I believe, all-important and indispensable if we desire to imbue the rising generation with the true perspective of knowledge and of life.

I am well aware that the cultivation of technical and professional studies in separate institutions is favoured by some high authorities and is the accepted practice of some countries. I can well believe that it has some advantages of convenience and may conduce to a certain kind of efficiency. Efficiency we certainly desire; the close union of specialized knowledge with the practical arts is now a necessity of national existence. But national well-being depends in the end on something much deeper than intellectual efficiency and technical skill. We want first and foremost men of character, understanding, and ideals, and in the organization of technical and professional training, as in all educational enterprise, this is a primary consideration to which sacrifices may be cheerfully made.

For these reasons then, positive and negative, I am an earnest advocate for the actual embodiment of professional and technical studies in our Universities. It is there that they will find not only abundant springs of intellectual nourishment, but also the influences that will keep them expansive and wholesome. It is there that they will bring a much-needed bond with a vast section

of the working world, and help to keep in check extravagances which are the opposite of their own.

It is, of course, not suggested that each University should attempt to cope with the whole range of professional and technical studies. Among them they may cover the whole field, each University addressing itself to the particular studies which local or other conditions determine as appropriate. This division of labour, accompanied by freedom of interchange of students between Universities, would greatly promote both economy and efficiency, and would prevent any undesirable predominance of technical and professional studies in a single institution.

The policy which I have advocated in this paper has been fully embraced by the University with which I am connected, and, in conclusion, it may be of interest if I refer to some questions of detail in connection with it, which have forced themselves on my attention.

I have alluded in an earlier part of this paper to the existence of a number of associations representative of various professions and industries, which have among their objects the regulation of the training and the intellectual standards which are deemed essential for their several callings. It seems highly desirable that the interest and the experience of such associations should be brought in to aid the Universities in the organization and control of those departments which are concerned with technical studies. There seems no more reason, for example, why, in a subject like Engineering, the organized bodies of the profession should not participate just as much in the regulation of University studies of that subject as the medical profession does in effect in the study of medicine. And the same thing applies generally to organized bodies, which are deeply concerned in the education that is preparatory to the calling that they represent. This idea has, I believe, only been realized to a very small extent; but in some of the newer Universities great importance is attached to the co-operation, in the administration of departments of Applied Science, of Advisory Committees, consisting of men for the most part actively engaged in the industry to which the applied science is related. At least one case may be quoted where such an Advisory Committee is composed mainly of representatives directly delegated from the professional associations representative of the whole industry concerned. The gain to the University of such relationship is very great. Not only does it bring with it a large amount of valuable advice to the service of the University, but it breaks down the barriers which are so apt to arise between academic and practical life, and ensures that there shall be a

vitalizing contact between the University and the world outside. The extraordinarily rapid transformations which industries undergo at the present day, lead to the danger of a teacher becoming out of touch with current developments and new needs, if he is isolated within the precincts of a University. His intercourse with industrial leaders is greatly facilitated by the existence of such Advisory Committees as I have referred to. The limits of the authority of such Committees will, of course, be regulated by the University, and care will be taken that their intervention does not proceed beyond due limits. They should be, in academic matters, as their name implies, rather advisory than executive.

The difficulty of securing suitable teachers of applied science is no doubt very considerable. Whilst it is essential that such a teacher should have a first-hand knowledge and experience of the industry towards which his teaching is to be directed; and whilst he should keep in mind industrial needs and industrial demands, and maintain a sympathetic interest in the point of view of the man who is limited on every side by industrial and commercial conditions, it is no less essential that he should be as much an enthusiastic lover of knowledge and an eager seeker of new truth as any other teacher. The qualifications of an ideal University teacher of applied science are, indeed, more complex than those of any other class; and having regard to the temptations by which such a man is beset to commit himself wholly to an industrial career, it must be regarded as a stroke of good fortune when he is secured to a University. But when the right teacher is found, he may be trusted to maintain the intellectual prestige of his subject, to keep it in every way worthy of its place in the University, and to be scrupulous in regard to his own professional relations with the calling in which he is an expert.

The creation of faculties within a University seems to be almost inevitable for various purposes of administration, but it is well known to be attended by certain risks. There is a tendency in the deliberations of a faculty, for questions to be viewed too much from a single standpoint, and it is not easy, when a united opinion has been formed in this way, to avoid a certain amount of friction when the same question intimately concerns two separate faculties. For such reasons there is much to be said for maintaining applied science in close association with pure science. A fusion of the two faculties for all deliberative purposes has seemed, in my own experience, to be of the utmost advantage.

With regard to the question of degrees embodying applied

science and the curricula related thereto, there is no doubt a good deal of difference of opinion. I am, for my own part, strongly averse to the multiplication of degrees, and cannot help regretting that so much differentiation has already taken place. It seems much more important that a degree should mark a state of maturity rather than a special kind of proficiency, and I have a fear that great variety in the names of degrees will lead to much public confusion. I can see no objection to giving a qualified student of applied science a degree in science without further modification of the title. But the matter is, perhaps, of no very great importance.

With regard to curricula, the introduction of applied science creates some difficulty, owing to the number of contributory studies which claim a place, and the reluctance which every teacher naturally feels to see his own subject either excluded or reduced in range. It is, however, an inevitable consequence of the growth of knowledge and the rise of new studies of all kinds, that some sacrifice of the old must be made, that the range of preparatory studies must be restricted, and that they must be reduced more to their philosophical essentials. It is, however, a great mistake to suppose that the disciplinary element and intellectual depth of scientific knowledge are reduced when we pass from pure to applied science, or that a curriculum which extends over three or four years and includes a large measure of applied science, stands in any but the most pedantic sense "below" any other University curriculum of equal length.

It is no doubt justly held that the besetting danger of specialized education of all kinds is the neglect of preparatory studies and fundamental sciences, without which, technical knowledge, however elaborate, is inanimate and sterile. It is here that what may be called the academic weight of a University affords a safeguard that can hardly be overvalued.

There are many other questions of importance which arise in connection with the subject of this paper, and I am well aware that my treatment of it has been meagre and incomplete: but I have been intent mainly upon the advocacy of a general policy, and I have no doubt that those who follow me in the discussion will bring forward questions which I have omitted, and on which, from their own special experience, they can speak with much greater authority.

A. SMITHELLS.

Second Paper.

THE University is, or ought to be, a place of study where all the knowledge of the time is pursued. It is thus a place for the training of professional men—doctors, surgeons, engineers, lawyers, cultivators, schoolmasters, divines. It is also a place for those specialists whose profession is learning, whose primary function is to drive back some little way the frontiers of ignorance, to advance the frontiers of knowledge; with these classes this paper is not concerned.

But there are other classes of professional men who cannot acquire their speciality at a University. No Economics Tripos, no school of business, can teach a man to manage a factory, to extend the credit and the sales of a commercial house, to direct the currents of finance. These arts can only be learnt in the school of life. It is a doubtful point whether a man is a better business man for having studied at a University. Some still hold that a man who intends to devote himself to business had better start quite young and serve a full apprenticeship. But there is no doubt that a business man should be a completer man for having followed liberal studies in his earlier manhood. He should have a wider knowledge of the meaning and interrelations of human life: the simplest daily function should bear for him a larger significance; he may even be able to hear the music of the spheres while he is totting up the books. To hear that music without losing hold upon everyday life is the highest gift of education.

The man of commerce and industry should gain as a man through the wide education that can be obtained at a University; but it is not there that he will learn the rudiments of his business. But there is another class of whom it may almost be said that they serve their apprenticeship in the University. Every year about a hundred of our best young men, when they leave the Universities, pass into the administrative service of the Empire in India, in the Far East, in the public departments at home. Others enter the diplomatic service and the consular service. Perhaps an even larger number devote the whole or a part of their time to Parliament, to municipal work, or to some of the multifarious public activities which our social life encourages. Others become journalists—the free-lances of public life. What should the University do for the young men who come to her to be prepared for public life?

In the first place, they may expect that she will sharpen their wits. That she can hardly fail to do, if they have any wits to

sharpen. Social intercourse, the play and fence of eager minds, debating societies, long talks in the late hours on all the mysteries of God and man, these form a stadium in which youth is trained to run, without knowing that it is being trained. Beyond this, almost any course of study affords a training for the mind. Mathematics afford one kind of training, the Natural Sciences another, the Classics a different one, the Law yet another; the difference in the value of these studies depends not so much on the amount of mental training afforded as on the varying degree in which they illuminate the imagination, extend the field of thought, and provide a working basis for a sane conception of life in the round. For the public man and the public servant the education given by the University should be wide, not desultory; solid, not abstract; it should not neglect the material world, but it should be principally concerned with humanity. Any knowledge that is incidentally acquired will be useful, but knowledge is not the object of education. On the other hand, there are some accomplishments so useful to the public man that any education would be for him incomplete which did not deliberately aim at developing them. Chief among these accomplishments is the mastery of the written and the spoken word.

I leave aside those preliminary studies which should be completed at school. It would be a good thing for this country if no man were admitted to a University unless he could produce a leaving certificate, setting forth that he had pursued his studies at an efficient school for an approved period, and had followed prescribed courses and passed prescribed tests in English, history, geography, one foreign language, mathematics, and one experimental science. But we are a long way from such an ideal at present, and our Universities must be content to do their best with the material, not infrequently half-prepared, which the schools send to them. They should not devote themselves to making good the deficiences of secondary education.

The education intended for our public men and servants should be solid, not abstract. I do not wish to depreciate mathematics, which have done more to enlarge the field of human knowledge than any other branch of science. But our public man must not lose touch, even for a moment, with human nature. If he imagines that men can be governed by a formula, indicated by a series of symbols, or explained in any adequate sense by numbers and figures, he must go wrong at once. Again, if he acquires the belief that reasoning is infallible, and that safe inductions as to human conduct can be drawn from the most carefully constructed premisses, he falls at once into another set of errors. The study

of mathematics tends to create these fallacious attitudes of mind. The intellectual functions of statesmanship are understanding, imagination, sympathy, intuition, rather than ratiocination. A good grounding in mathematics strengthens the mind, but an exclusive attention to mathematics tends to create an unreal world in which reason reigns supreme.

Similarly, the danger of the public servant is that he lives in a realm of written and printed papers, and he is apt to lose sight of the realities which those papers record. Mathematics encourage this tendency; the best education for civil servants would be that which supplied the most efficacious corrective.

That corrective is not to be found in the natural sciences. Here we come into touch with realities; but they are the realities of matter, not the realities of humanity, which are above all emotional and spiritual. The public man and the public servant should know enough about the physical sciences to know at what point he should invite the assistance of the expert. The champions of scientific education often speak as if the errors and inequities of public government and social systems were due to ignorance of scientific facts, methods, and laws. On the contrary, no greater error can be made in approaching the study of human nature than to imagine that it can be explained by scientific analysis, apprehended by scientific observation, usefully studied by scientific methods, or in any way brought within the four corners of a science. The study of science is useful to the public man or public servant by increasing the range of his information; all knowledge, of whatever kind, will or may be useful to the public man; but the study of the natural sciences does not in itself tend to develop the most valuable mental faculties, the most propitious attitude of mind.

On the borderland between the natural sciences and the studies which are approached through literature lie the study of law and the study of philosophy.

On the face of it, the study of law should be very useful to the public man and the public servant. And so much of legal education as will assist the student to understand, interpret, apply, and co-ordinate laws will be of great value to all public men and public servants. Such persons should not be in the presence of a lawyer as a layman before a specialist, an ignoramus before a pundit. But an education based exclusively or mainly on the study of law is not the best preparation for public life. The lawyer has also his errors of the cave. He also does not deal with human nature direct, but through the medium of rules, formulæ, and principles. The lawyer in Parliament is apt to

lack something that the true statesman must have; the lawyer in the public office is apt to lay too much stress on regulations and precedents, and forget that as a rule administration is essentially different from the interpretation of the law. The administrator is often at liberty to deal with the special case upon its merits; the lawyer or the judge rarely or never.

Philosophy is a very useful whetstone for youthful wits. Moreover, it tends to supply the universal view, the comprehensive outlook, which is necessary to fill out that ample and rounded intuition of the concrete multiplicity to which the statesman should aspire. Pursued too far, however, it is a danger. Some abstraction is necessary to correlate and co-ordinate our apprehensions of the concrete; philosophy wedded to knowledge of the world, to knowledge of human nature, to experience, and to practical ability, is a great strength, as well as a great consolation; it is, above all, useful in assisting to create that just sense of proportion between the obvious and the more remote but not less important elements of a problem which is needed for a wise, broad, and sane policy. But too much philosophy dulls our interest in the individual and the concrete; it encourages the purblind arrogance of intellect; and it is not without cause that we expect the philosopher to be an unpractical man.

Political economy is a branch of philosophy. It is perhaps the most dangerous branch of philosophy. Too exclusively honoured, it induces that dull veneration of the material which is such a gloomy characteristic of our age. A light top-dressing of political economy stimulates the weeds and chokes the crops. It supplies the student with false laws, misleading half-truths, and erroneous views of human nature, which will either disgust him with this so-called science, or blind his eyes to the truths of life, perhaps for ever. But a thorough and a critical study of abstract economics, corrected by a practical and intelligent observation of human nature and human affairs, gives to the independent mind a largeness and clearness of vision on the material side of man's life which can hardly be acquired by any other way. Young men, however, are not fit to learn political economy; a mature and independent mind and experience of affairs are needed as a corrective; the young will get their education on this side best from the economic side of history, which should not, however, be divorced from all the other sides of history.

And now we come to those studies which are approached through literature, the studies which are properly termed humane. Here, if anywhere, we shall find the studies most valuable in preparation for a public life, for there are only two

ways by which we can extend our knowledge of human nature, quicken our sympathies, and develop our intuitions. One is by intercourse with human beings of every sort, in their most intimate and actual relations and revelations; the other is by literature. The first the University may and does in some measure facilitate, though not by any fixed curriculum; the second it is the proper function of the University to throw wide open.

The humane education which is the best preparation for public life embraces history, poetry, the drama, rhetoric, and, to some extent, law, politics, and philosophy. It should be intimately concerned with some countries other than our own. It should be wide, but systematic; it should be confined to the best, for time is limited, and the greatest writers are those who have the deepest insight into human nature. It should be attractive, and at the same time severe. It should fire enthusiasm and test endurance.

History should be the main thread on which the pearls are strung. But the history should be approached in large measure through literary masterpieces. For instance, the Elizabethans should be approached through Shakespeare, the Puritans through Milton, the society of Louis XIV. through Molière. We might well sacrifice some of the detail of historical fact which the students at our University at present acquire for the more real and solid knowledge that comes from a study of the literature. Original documents are very well, but they are best when they are masterpieces.

The kind of history that I mean is not scientific. Scientific history is one of two things; either the systematic collection, verification, collation, and arrangement of historical data, or the attempt to deduce laws and principles from history as we know it. The first is not a task for youthful minds; the second is a waste of time. The value of history to young minds is that it is experience at second-hand. A man of years and experience is wise and resourceful because no new set of circumstances can be wholly unfamiliar to him, because he has known all sorts of men and seen many complications unravelled, because the instincts and intuitions of his mind have been trained by constant exercise. Through history and literature the young man can acquire vicarious experience: he can live many lives, and commune with many souls. When he goes out into the world he will have to correct many impressions; things will look different to him, but nothing will be altogether new.

The young man should travel through the predestined succession of the ages; he should learn the measure of our debt to Athens and to Rome; he should receive some clear conception

of the construction, the system, and the demolition of Imperial Rome. He should traverse the dark winter and the seed time of the Middle Ages, when the modern world was in germination. He should know how our modern Europe was framed, and when and how the Great Men lived and worked. All this should be laid before him in its broad organic unity till he feels European society and civilization as a single living whole.

He should pass in like manner, but with somewhat closer inspection, through the history of our native islands. But his special study should be of certain periods in this and foreign countries when literary masterpieces were abundant. Athens in the time of Pericles and Plato; Rome in the late Republic and the early Empire; Italy from Dante to Ariosto; England in the times of Chaucer, of Shakespeare, of Milton, of Swift, and Steele; France from Louis XIV. to the Revolution. He cannot, of course, study all the periods that are worth studying from this aspect, but he might well study two foreign periods and two English periods.

I deprecate from the point of view of education the separation of political, constitutional, economic, literary history. All these form one; and the young student can claim to have won his footing, to have done something to prepare himself for public life, when he begins to perceive these several elements as distinct but intermingling manifestations of the one informing spirit. To estimate the various pressures and reactions, to interpret the movements of the forces that are disclosed, to understand the unity in multiplicity, the multiplicity in unity, that is the gift of history; and young men are well capable of receiving it.

I have postulated but two main subjects of University education for public life: literature and history. But these include poetry, the drama, law, rhetoric, politics, and philosophy. In different periods some one or more of these will have greater or less importance; but the texts on which our instruction is chiefly based will afford opportunities to illustrate and comment on each of these in turn; and the texts should be chosen partly for this purpose.

One more thing is necessary; systematic education in language and in expression. It is much to be desired, and, indeed, probable, that many of our young men will come to the University knowing two languages besides their own. But the scholarly pursuit of the accurate use and interpretation of words should not be intermitted at the University. And this not only as affording the key to literature and history, but also for its own sake. Man has many instruments and engines; but words are the most

powerful of all his tools. The public man must largely rely on the written and the spoken word. The public man should be capable of action; and action, I think, cannot be directly taught at the University. But as a means to action he must be able to persuade. For persuasion no education is sufficient for his purposes which does not give him a thorough drilling in the use of words in his own language. And the study of foreign languages is one of the best ways of perfecting the knowledge and mastery of the mother-tongue.

Now where, you may ask me, are we to find such a University course as you describe? Nowhere, of course; otherwise it would not have been worth while to set before you my ideals. I need only have pointed to the model, and said: That is your exemplar. But there are certain approximations.

The best history schools in England are good; I am not going to enlarge upon their defects; but they all lapse into the error of separating history into water-tight compartments, they none of them use literature sufficiently as an instrument of historical instruction, and, above all, they none of them enforce the scholarly study of language as an integral part of the training.

The nearest approach to my ideal is in the great classical schools of our Universities. Some of them are better than others, but all are based on the scholarly study of language, all approach the study of history through the literary masterpieces, and all by this means in some measure bring into their scope poetry, the drama, law, rhetoric, politics, and philosophy. This system has been elaborated for four hundred years: it is linked up with the schools; and the Universities are secure in the knowledge that those who follow the classical schools will not need to be taught the elements. It is the best system we have now; but it does not follow that we could not have a better. The classical course itself might with advantage be linked up more closely with modern life. I do not myself see that it matters when you are studying history whether you study the history of the fifth century B.C. or the history of the twentieth century A.D., provided you study it in the right way, principally through the masterpieces. But as the study of modern times needs to be linked up with the past, so the study of ancient times needs to be brought into relation with the present. The young man who after taking a good classical school takes a good historical school, which he can do with his training in one year, gets, I should say, nearly as good an education as he need wish for. He will probably read English literature for himself.

But the youth whose interests lie in modern languages and

literature has nothing so good accessible to him. If he takes a modern language course in honours he will find himself sucked up into philology and the antiquarian study of language; the books he gets to read will not be for the most part masterpieces; he will get little insight into the history and politics and manners of the countries whose languages he is learning. If he takes a historical school he will find that the language side is ignored; if he knows languages he will get no help in perfecting his knowledge; if he does not know any he will have to do without them.

It is not my business to talk about secondary schools, but I must point out that there is a similar defect in present-day school education in modern subjects. The modern languages are taught, but the literature, the history, the law, the manners of the countries, are not taught as they are taught on classical sides. Some day, perhaps, the teaching of modern languages in schools will be systematised on lines that improve upon the classical teaching; and a good sound all-round education will be provided based upon literature, history, and languages.

Then perhaps one of our modern Universities, or even perhaps one of our old Universities, will furnish for students of modern things a general education in modern subjects and languages as good as is provided by *Literae Humaniores* at Oxford, or the two parts of the Classical Tripos at Cambridge. It might even be better, in some ways.

STANLEY LEATHES.

Discussion.

SIR ISAMBARD OWEN, M.D. (Bristol): If we are to think clearly about the great question raised to-day of the relation of Universities to professional and technical education, one of the first things to do is to rid our minds of a presumption which has seemed to weigh rather heavily upon university policy of late years; the apparent presumption that the main object of a University is to produce graduates, and that nothing is properly "University" education that cannot be fitted somehow into a curriculum qualifying for a degree. It is a presumption which has neither historical nor logical foundation. Historically the original meaning of a University degree was membership of a teaching corporation; and though, in its strict sense, the original meaning persisted for only a short period, the idea underlying it has always remained active in University life. Universities have always, more or less, felt that the qualification for a degree constituting membership of its body, though the degree need not necessarily involve admission to teaching as a profession, should nevertheless be the possession of that particular kind of education which goes to the making of a Teacher; and that a University graduate should be, if not a man actually qualified to teach others, at all events qualified to teach himself and to pursue the study of his chosen subject by himself in after years. In other words, that the curriculum he goes through should be a curriculum founded on such broad foundations and pursued with such depth and thoroughness that the student shall acquire not merely a body of information as to the facts of his subject, but a grasp of its underlying principles and of the methods by which knowledge of it can be advanced.

But it is one thing to say that this is the kind of education proper for graduation; quite another to say that it is the only kind of education or instruction which it is the function of a University to give. I do not regard it as the only function, or even the main function, of a university to provide graduation curricula or to produce fresh graduates. I would suggest for the consideration of this Congress that it is within the duties of a University to impart any kind or degree of knowledge or training that is of public utility and is not provided for by some other public means.

My particular object in speaking to-day was not so much to travel over this wide ground, as to suggest for the deliberation of the Congress, in the light of the views I have ventured to outline, certain considerations arising out of the practice, common to us and to France, of treating a University degree in a profes-

sional subject as being at once an academic distinction and a professional qualification. The practice, as carried out in both countries, appears to be to place certain difficulties in the way of fulfilling the idea I have indicated as to the qualities of a genuine degree curriculum. Let us take, for example, the usual course of an English University in medicine. The final part of the curriculum and the final examination include, it is true, much matter which can be studied as based on broad foundations of preliminary knowledge, and which the student can hope to pursue both deeply and thoroughly. In every University he is examined both deeply and thoroughly in general pathology and in general medicine and surgery; and so far the curriculum satisfies our fundamental criterion; but, as the University degree is not merely an academic distinction, but a State qualification to practise medicine, neither the curriculum nor the examination can stop there. Both are obliged, and necessarily obliged, by the State to include a certain body of other knowledge which the student, in the time available for the work, cannot possibly hope to enter into either deeply or thoroughly: public health, for example, mental diseases, laryngology, toxicology, medical jurisprudence, and so forth. Some rudimentary knowledge of these things is judged necessary in a medical practitioner, and as long as a degree is a qualification to practice, some rudimentary knowledge of them all must be included in the requirements for the degree. The number of such subsidiary subjects, of which a smattering only is possible, tends constantly to increase. They absorb much of the time which can be allotted to a degree examination; and, which is more important, the superficiality with which they have to be treated has an inevitable tendency to reflect itself upon the teaching and examination in the more academic subjects. If the proportion of subsidiary subjects is large in Medicine, it is still larger in our Dental curricula and, possibly, larger again in our attempts to force Agriculture into a degree-mould. And here an economic point arises. The requirements in such subjects, rudimentary as they are, are practically the same in all Universities, the examinations might for all practical purposes be identical; and yet each University is maintaining an elaborate and costly apparatus of examination, independently of its neighbours, to deal with them, in some cases even though a very limited number of students is involved.

My suggestion, therefore, is that our Universities should as far as possible separate, in drawing their schemes of work in their professional faculties, the idea of a professional qualification from that of an academic degree in a professional subject, and should

regard the requirements for the one as standing on a somewhat different footing from those for the other. The former will be fairly uniform in all Universities, in the latter the individuality of a particular University may find scope for expression. As a commencement, in the Faculty of Medicine, let me suggest that the provincial Universities of England and Wales should arrange to unite their machinery of regulation and examination in such parts of the curriculum as are pursued for "qualification" purposes only. As a further development, joint examinations might also be held for "qualification" purposes only, in the main subjects of the curriculum as well, so that a complete joint diploma, qualifying its holder for practice, might be the first stage towards the attainment of a degree; the degree itself being reserved as a mark of attainments of a higher, more thorough, and more truly academic character. The degree examination, being thus relieved of extraneous matter, might be more searching than is always possible at present, and at the same time more individualized, and, if needed, more specialized in individual cases; placed, in short, more on the intellectual level of an honours examination in Arts or pure Science.

I do not, of course, forget that the part of a preliminary qualifying examination and diploma in medicine is already to some extent filled by the examinations and diplomas of the Conjoint Board. The object of my suggestion is not to destroy the Conjoint Board, but to fulfil more thoroughly the aims with which it was established. I contemplate that if the Universities entertained my suggestion, the Conjoint Board would ere long come to take its place in the federation thus established; a federation which I do not suggest should be eventually limited to any particular group of Universities. Starting from the group of English and Welsh Universities, in which it could most easily be originated, I contemplate its eventual extension to the whole of the United Kingdom, and even to the entire Empire, so that the long-desired end might be brought to pass, of a single common entrance to the profession of medicine.

PROFESSOR HENRY LOUIS, D.Sc. (Armstrong College, University of Durham): In discussing this complicated subject I propose to approach it from the standpoint with which I am in more immediate touch, namely, that of the industrial or technological worker. Of course, I am not in the least degree insensible to the extreme value of a general University education to the man who intends to devote himself to technology, but this point has already been amply and efficiently dealt with by Professor Smithells; I there-

fore propose to confine myself to that particular aspect of the subject to which I have referred, and to which preceding speakers have perhaps paid less attention. In general terms I am quite in accordance with the leading principles laid down by Professor Smithells in his excellent paper, and therefore, instead of attempting to discuss it, I prefer to attempt to supplement it in one or two particulars, viewed more especially from the aspect that I have selected.

Perhaps I ought to make it clear at the outset that I regard the University as an institution intended only for the training of men who are to occupy the higher positions in technological industries. Whilst laying down this proposition, I feel impelled to add that this type of training is by no means the only educational need, perhaps not even the greatest educational need of our industries at the present day. Our industries want, and want badly, better training for their workmen, and, above all, for men of the class of foremen, the men who constitute the non-commissioned officers of our great industrial army. Urgent though the need for such training may be, I look upon its provision as the duty of each particular industry, and not as one of the functions of a University. I do not wish to have it thought that the share of technological education, which I am thus assigning to the Universities, derogates in any way from the democratic spirit that ought to characterise them; nowadays there is assuredly no deficiency of scholarships and other similar forms of pecuniary assistance, and there are ample avenues leading from the primary schools to the Universities for any lad, however humble his origin, provided only that he possesses the necessary mental qualifications to enable him to follow that road.

A point which was barely touched upon by Professor Smithells is one which strikes me as amongst the most important of the many that require consideration I refer to the very serious question, why the technical industries do not themselves rate more highly than they do the college-trained man. The fact is quite undeniable that in this country there are still to be found to-day employers who openly express their preference for the so-called practically trained man over the man with University training. This is, no doubt, an unpleasant fact, but like most unpleasant facts it is one which ought to be faced squarely. I think it particularly relevant to bring this problem before the present Congress, because this fact, as far as my experience goes, is true only of Great Britain. Strangely enough, in all foreign countries, and more particularly in our Colonies, quite the reverse

is the case, the college-trained technologist finding a ready acceptance in all branches of industry. I can find nothing either in our industrial conditions or our methods of University training to account for this startling difference, and I sincerely hope that some of our colleagues from overseas may give us the benefit of their advice and experience, and explain to us in what respect we in this country fall short of the end which they appear to have attained. It is obviously a matter of the utmost importance to us to determine the cause of this attitude on the part of British employers, and if possible to remove the cause. It has often been suggested, and Professor Smithells, too, hints at the suggestion, that one reason may be found in the fact that employers having often themselves no such technical college training, may be somewhat insensible of its importance. As one result of the changes which we find in the modern industrial world, the old type of employer, usually himself a technical man, has been very largely replaced by Boards of Directors, composed of shrewd, capable men of business, but often devoid of special technical knowledge; it is quite conceivable that by such men the importance of a sound scientific training in the principles of technology may be overlooked or misinterpreted.

I do not, however, myself think that this is by any means one of the principal reasons for the fact that I have pointed out. I consider that one of the most important factors is that until quite recently in this country the apprenticeship system was the only means of entrance into our technical professions, and I fear that there are still to-day too many engineers who are obsessed with this apprenticeship fetish, and who cannot bring themselves to believe that there can be other modes of education for an engineering profession than that under which they were themselves trained.

Another, and perhaps even stronger, reason may be found in the fact that we in this country were very late in recognising the importance of technical education. It was only when our industrial supremacy was severely threatened by competition from other sides that we awoke—or perhaps I should say we were rudely awakened—to the need for technical education. We were then at once confronted by the want of properly qualified teachers. The few technical experts, who had received a sufficiently wide scientific education, were far too well engaged in their own professional work to think of abandoning it for teaching, and the teaching of technology was thus perforce relegated to the pure scientist; thus it was that in earlier days we saw metallurgy taught by the chemist, mining by the geologist, and engineering

by the mathematician. It is perhaps unnecessary to say that I in no way undervalue the importance of these pure sciences as the absolutely indispensable basis of technological training, nor do I suggest for one moment that such sciences should be taught by anyone other than the highly-trained pure scientist. I do, however, assert emphatically that the pure scientist is, by natural bent as well as by training, quite unfitted to teach technology. The natural result of the old order of things was, of course, that when the practical man saw that the teacher, who was set up to train the future manager, was not himself capable of filling a foreman's job, he became suspicious of the value of the training given under such auspices, and mistrustful of the efficiency of the pupils thus trained, and it must in justice be admitted that he could at times point to examples that justified his mistrust. The position has now altered for the better, and technical professorships are for the most part now filled by men who have practised their professions for a considerable number of years before being called upon to teach them.

Though its cause is thus being steadily removed, the old mistrust still survives, because prejudices are proverbially hard to kill. It is only by steady perseverance in this same line, where technological appointments are concerned, that a more complete understanding between the Universities and the industries can be hoped for. I imagine that the Universities may experience some little difficulty in persisting in this course, because the methods to be followed in selecting a technological professor diverge so widely from the old-established principles which have given such admirable results in both arts and sciences. There is an obvious natural process of evolution by which the capable student becomes the Demonstrator, Lecturer, and in due course of time, Professor in the subject to which he has devoted himself. I can conceive of no better or more thorough method for the training of professors in pure science subjects, but it must be emphasised that this same routine is worse than worthless when applied to technological subjects. In all these it is indispensable that the student should pass from college to practical work, and only after years of such work, and only after having mastered his profession by assiduous practice, should he be allowed to come back to the University to teach that professional work which he has successfully practised.

There may be yet another cause which may well contribute somewhat to this same poor estimate in which the practical technologist sometimes holds the college-trained youth. I refer to the existence in some Universities—not in many, I am glad

to say—of College workshops. I am using this word in contra-distinction to such College Laboratories as Engineering and Metallurgical Laboratories, which fulfil a function of the utmost importance in technological training. I mean what I am tempted to describe as "toy works," in which the student is taught to do the actual manual work of the trade. No doubt in some cases such works have been erected by way of reaction against the purely theoretical training to which I referred a few months ago, but I am afraid that in other cases they have been established rather with the desire of "playing to the gallery" and of impressing the public. The general public is very much like the small boy in the well-known story, and "wants to see wheels go round," and the fond mother or anxious father who comes to a college, and is proudly shown, say, an engine which has been actually made by the students of that college, goes away fully persuaded that the engineering education provided in such a college must be of a thoroughly practical character. The expert engineer, however, knows better; he sees that parts which ought to be round, are not round; that parts which ought to be square are not square; that pieces which ought to fit, are slack; the pieces which ought to work easily, jam; and, in a word, that the whole thing is an unworkmanlike job; then when he goes a step further, and inquires into the thing that really matters, and finds out how much this poor specimen of an engine has cost to build, he is horrified at the bill submitted to him, and he discovers that the student has not only been acquiring habits of slipshod workmanship which it will take some years of shop-work to eradicate, but has been brought up with a hopelessly false view of the economics of engineering, which may seriously injure his whole future career. Of course, it cannot be expected that the student would understand that the methods of work which have been taught him in college are precisely the methods which would ruin any industry in the country if carried out in every-day practice.

The essential condition of a sound University training in technology is that the student should leave the institution with nothing to unlearn, and this can only be attained by acting steadfastly on the proposition that the proper sphere for the college is the teaching of principles and not of practice. By working on these lines I am convinced that a training in technology forms as excellent a form of mental training as can be got by any other branch of education. A thorough training in technological principles, based upon the co-ordination and application of the fundamental sciences, provides a systematic progressive educational course, which develops to the utmost the

thinking and reasoning powers of the student, and is in this respect no whit inferior to a similar course of study in abstract arts or sciences, despite the fact that its ultimate object is strictly utilitarian.

If I might summarize my views on this subject in a sentence, it is that it is the duty of the modern technical University to teach technological principles, but to teach them by men who are masters of the practice.

I do not propose to refer to post-graduate courses or to research work, because here again technical education differs widely from the other branches. As was pointed out by several speakers yesterday, in arts and in pure sciences the value of a post-graduate college course can hardly be over-rated, but in technology the proper place for a post-graduate course is at the works, in the mines, in the shipyard, or in front of the smelting furnace. I hold that once he has taken his degree, the technical student cannot get too soon into touch with the realities of his work. His college career is only the commencement of his professional training, and the best college course is that which fits him most fully to benefit by his subsequent practical experience, but it cannot be too often or too strongly laid down that college training alone never can make a complete technologist, and is, indeed, not intended to. In the same way as regards research, I hold strongly that no student can be fitted to undertake technological research until he has had a good many years of practical experience in his profession. I hold that it would be to the benefit of industries to make more thorough provision for the carrying on of technical researches by University professors, but I would emphatically discourage all attempts at so-called research undertaken by technological students.

I have laid stress mainly upon the points that I look upon as essential, if our Universities are to render the most highly efficient services to our industries, by providing the technical education best adapted to the needs of the latter. I should like to conclude by pointing out that all the obligations do not lie on the side of the Universities; it is undoubtedly the duty of the Universities to assist in the development of our industries, but it must not be forgotten that the industries owe as least as great a duty to the Universities. Not only should the industries give the Universities a more liberal measure of material support than they have done hitherto, but, above all, they should strive to bring about a closer relation between themselves and the Universities, and should see to it that they make the road easy for the college-trained man to enter the industries under conditions

which give a due measure of value to the education he has received. Unless the industries co-operate cordially with the Universities in this direction, a great deal of our labour will necessarily be wasted.

MR. R. BLAIR, M.A. (London County Council): As the officer of a local education authority, and not as a professor of the University, I may be allowed to approach this question from a different point of view. The point of view to which I would like to direct the attention of the Congress for a few moments is that of the student. You have heard a good deal this morning about the education to be provided, but the student may look at the question from a different standpoint. He does not go to the University to get his mind trained. I spent four years at a University and I believe I never heard the phrase. Students go to the University, the majority at all events, in order to be put in the way of earning a living, and I should like to speak on behalf of those students who are not usually in the minds of speakers. They refer to the students who belong to the families of the fairly well-to-do. I do not want to speak so much on their behalf as on that of the student who finds his way to the University with the assistance of the local education authorities. During the last few years young men and young women in increasing numbers have been going to the University with that assistance. Such young men and young women have plenty of brains, but a considerable proportion are lacking in physique; and there is one other general characteristic, they hesitate to mingle among their fellows, they fear they are not able to hold their own with those who come from better-class homes. Now I do not want to talk about what philosophy, mathematics, history, or English literature can do for such students as these. You heard this morning of the assumption that the University is a place for the formation of character—I want to know whether the Universities can form their character, because that is the mission they have towards them, that is what they go to the University for. Can the playing fields of the Universities, can the debating Societies of the Universities teach these young men and women that they can hold their own in the playing fields and debating societies as they do in the class rooms? because if the playing fields and if the debating societies can do that for them, then they have taught them that they have something more than wit; they have taught them that they have character and power, which will enable them to hold their own, whether it is in the workshop or in the public service or in the field of agriculture.

The second point which I would like to urge on behalf of the same students is this : they are not sufficiently well-informed as to what the Universities can do for them. It is exceedingly difficult for such students to choose a University with wisdom, and those of us who would assist them also find that our knowledge is restricted ; and I want to know whether the Universities as a whole could not do something for us in the way of telling such students what they do, what each University does, in specialized work. Now I know that that is open to considerable danger. It would not do for the Universities to be advertising their wares, to be touting for students. At the same time, it would be useful if this little pamphlet which has been placed in our hands this morning were so enlarged that the student could find out, if he wanted to be a mining engineer, which would be the best University for him. If he wanted to study, say, the chemistry of fuel, if he wanted to go into business, into the commercial service, the student ought to have some information, and those who assist him in making the selection ought to have some information which would enable him at the beginning of his career to make the very best choice.

The third point which I want to make is this : something more must still be done for such a student at the close of his career. He comes from a family whose knowledge of the world, whose influence in the world, and whose experience is extremely limited, in some cases is nothing at all, and that student when he has closed his University course wants to enter the career for which he went to the University, and he wants help there ; he wants help such as is given by the appointments boards. There are not enough appointments boards, and where they exist their activities are not wide enough or great enough. It is not sufficient to tell the student that there are posts here and posts there, of this salary and that salary. The post may be offered in the home Civil Service, in the Indian Civil Service, in the service of the Egyptian or Soudan Government ; the post may be offered in one of our Colonies, in the Federated States of Malay, or in Ceylon. What does the student know about India, or about the Federated Malay States, or about Ceylon? The salary may seem to him extremely good : somebody ought to put him in the way of knowing how he has to live there, of the clubs which he will have to join, and of the society in which he has to move, if he is to have any influence. All this diminishes very largely the salary which is offered to him. It seems to me that it would be a good thing if the Universities at home were to join together in forming some common Bureau, a Bureau which would collect information and distribute this information to the various Uni-

versities, so that it should be distributed by them to students and to appointment boards. By way of illustration, it might be useful for the University to look round and see what is done by certain professional bodies. One of the ideas that was submitted here this morning, I think by Professor Smithells, was that there should be an advisory committee of the University, made up partly of those engaged in University work, and partly of those engaged in business or some industry. Such is the formation of the Board of the Institute of Chemistry. It is a mixed board, mixed in the sense of comprising men engaged in teaching and men engaged in industry. In that way there is brought to bear on the standard of training and the character of the examination the influence of those who are engaged in work. But further, the Institute does a great deal for its fellows in bringing before them information of the character I have referred to this morning. In dealing with such subjects it would be wise if all those wide and varied sources of information could be collected for the advantage of the student.

PROFESSOR CONWAY, Litt.D. (Manchester): After the weighty and inspiring words with which our proceedings were opened this morning, and after the brilliant, if somewhat sweeping, remarks of Mr. Stanley Leathes, it might seem superfluous for anyone else to speak, even for a few minutes, on what I may perhaps call "the side of the angels." But I venture to think that in this gathering of Universities there are some things which may seem almost commonplace to those whose work has been connected only with the older academic institutions, which have, nevertheless, been invested with new meaning by the experience of the younger Universities. I should like, if I may be allowed to say a word or two about the place which Classical studies ought to occupy in the training for public life in this Empire. Some of us, perhaps, find "Imperial thinking" in itself a rather difficult task; but if, as our Chairman yesterday bade us believe, it means thinking not so much about the privileges of the Empire as about what Kipling called "the white man's burden" —what I would rather call "the wise man's burden"—the burden of the thousand new problems of society and government which confront us in the politics of every part of the civilized world, then there is no topic, surely, which could better represent the objects with which this Congress has assembled. And if we are to meet this demand wisely and capably, then I venture to plead that the humane studies, humanely treated, are an element of life which no University can afford to neglect. My Lord, there is

no fear that the great University over which you preside will ever forget its duty in that respect; but those of us who have in a sense gone out from the older Universities into a world where every study has to stand on its own footing, has to justify its existence in competition with other subjects by the profit and the interest which it brings to the students who pursue it, feel that our experience does bear very directly on this point. We may grant at once that there is a certain danger of the older subjects being overlooked and crowded out by the immediate needs of an industrial age. But may I say that there are needs for public life—and by public life I mean not simply the life of what is sometimes called the governing class, of the kind of man whom Mr. Leathes has to choose and send out, but the life in which every member of the community nowadays may have to share, from the leader of the House of Commons down to the working-man member of some municipal body—there are needs which the humane studies can supply, and for which it is very difficult to find preparation in the same proportion anywhere else. "It is a difficult thing for a popular government to manage an empire"; that is an exceedingly ancient discovery; but it is one with which our own experience of every day brings us face to face. Now there are one or two qualities, there is one quality above all, which men must have if they are to deal well with men—they must have sympathy. Those of us whose privilege it is to teach young men and young women to understand the great writers who belong to all time, know that the study does do something to increase their power of sympathizing with different classes and different conditions of men. By reading these great writers, the students' sympathies are widened, first, because they come in contact with ideals which are totally different from the ideals of the community in which they live. To take examples almost at random; men brought up in the black manufacturing towns of Northern England, full though they are of intellectual zeal, full of philanthropic endeavour, are startled, and startled for their good, when they come face to face with the fundamental belief of ancient Greece that nothing can possibly be good which is not also beautiful. And perhaps it is also a little startling for modern readers to come into contact with Horace's belief that it is a disgraceful thing for a man to accept quarter in battle. Now it is clear that an intelligent appreciation of different ideals helps men to hold intercourse with those who have been brought up in traditions different from their own. They gain sympathy also because the whole picture and framework and story of the ancient life to which they are introduced is remote from their

own. May I say, partly in answer to the interesting appeal made by the last speaker, that though Classical study has for historical reasons long been regarded in this country as the privilege of the governing and wealthy class, yet no one who has not taken part in the literary teaching of the younger Universities can realise how true it is that classical study is the romance of the poor student. It is a quite wonderful experience to discover how studies which many men continue at Oxford or Cambridge only because they have begun them at school come with a burst of revelation of a totally new and more beautiful side of humanity to those whose daily life in some great centre of population is conditioned by the concrete and bitter realities which some would have us make the chief field of education. The enormous difference between ancient life and modern life is in itself startling. It tends to arouse those elements in character and outlook without which no education will be of much value for any student, the sense of reverence for humanity and the enthusiasm for wider knowledge, and the power to transcend the immediate horizon of one's work. And is there any power which will make men or women better servants of their generation? Finally, classical studies give men sympathy by bringing them into touch with great individual minds. It is not merely that they study the history of different periods : they study that history through the channel of great minds—minds full of the instinct of humanity, full of sympathy and pity for the mysterious limits of our mortal condition. Saint Augustine repeats, with a certain pride, more than once, that he could not read the story of Dido without weeping ; and it was not for nothing that this great bishop and administrator had in his youth learned from Vergil to sympathise with the sorrow of a pagan queen.

Let me bring these considerations to a practical end by pleading that in all our Universities abundant opportunity should be given to students to begin Greek, even if they have learnt none at school. It is certain that less richly endowed schools in old communities and the great bulk of local schools in new communities will be able only with difficulty and by degrees to make room for Greek in their curricula. But it has been shown again and again that students who have been thoroughly grounded in Latin can acquire Greek with ease and speed, and can reach a high Honours standard in three and a half years from the time they first began its alphabet. Let me plead, too, that the governors of popular secondary schools should not be content to say, "Oh, these boys and girls are of humble origin ; there is little need to provide any Latin for them. Let it be taught, if at all, only two or three

hours a week by anyone we happen to be able to find—perhaps some teacher who has the lowest stipend on the staff—the subject does not really concern our scholars at all." This is the attitude against which all believers in education, all friends of free government, and all lovers of the great ancient authors are alike bound to make the strongest protest. See to it that in all your Universities and your popular education you do something, not to build higher, but to break down, the dangerous walls of class-ignorance, and of the class-prejudice that is always linked with that ignorance, and you will have done something worth doing for this Empire and for mankind.

THE HON. THEODORE FINK (Melbourne) : Speaking as representative of an Australian University, I would very much like to say how fully we realize the value of the great spirit and traditions animating the older Universities. I speak not merely of Oxford and Cambridge, but of the Scottish Universities, and, I may add, the University of Dublin as well. The men who in the earliest days of our existence founded the Universities of Sydney and Melbourne, were men whose culture—and it was not small—was acquired in those ancient seats of learning, and the first professors were men not without distinction from the Universities of the three Kingdoms. Up to the present time nearly all the occupants of our chairs have been trained in those very Universities. The ideal was, and has been, that the University should be a seat of learning and the fount of culture in the community, that knowledge in every department should be pursued for its own sake, and that its bounds should be extended by teachers and students, and above all, that University training and the University atmosphere should be one in which all that is best in personal character should develop and mature. That is really what is aimed at by University education on liberal lines.

All must realize, of course, that without or apart from such a training, and without such a spirit underlying it, all technical and scientific courses, even if pursued to the end, would not be complete. They would, and unfortunately often do, stop short of producing anything like a complete citizen. It is the ideal cherished by ancient seats of learning, and it is the task of those who have profited by them to remind us of this—and in the new institutions in Australia this is borne in mind. Unfortunately, we cannot always develop the many studies making for full culture as fully as we desire. Means are limited, and the demands for the extension of staffs and equipment in connection with new and growing scientific departments greatly compete with the claims of these studies. Still, their claims are recognised, and

their importance in the improvement of our citizenship is more and more recognised.

As to the relation of Universities to technical and professional education, this question is absolutely settled by the necessities of the case in new communities, such as that served by the University which I represent. A University there should not be merely a seat of learning and research. Of necessity, in our circumstances, it must be a seat of the highest and best teaching for every department of technical and professional life, whether it be law or philosophy (which apparently are among the subjects that, according to Mr. Leathes, unfit people for public life) or medicine, veterinary science, education, or the various branches of engineering. It is interesting to hear Mr. Leathes referring to so many time-honoured subjects of study, pursued for generations at every seat of learning, as by him officially ascertained to be useless, and without thanking them even for their provisional services, dismissing them with the curtest of acknowledgments. But apart from that, Professor Smithells' paper shows that a student has not only to get his technical requirements, his academic and scientific knowledge, but, as far as the scientific principles are concerned, that they can most efficiently and most thoroughly be acquired within the walls of Universities. As far as many new countries are concerned, they can as a rule be fully acquired nowhere else. A new country cannot duplicate the best teaching staff required, cannot always afford to have teachers of the highest eminence and capacity both in its Universities and its technical schools. Of course, I should not omit to mention that we have good and progressive technical schools which, short of University degree standards, have done, and are increasingly doing, a large amount of really good and effective work, and are turning out in our State and others men who achieve good progressive work in mining, engineering, agriculture, and many other departments. They are being correlated with our Universities. But we have not enough good men in every department of science; we cannot afford two such men in each department. We are very lucky if we get one man of leadership and eminence in his department of science to tackle the vast problems which new lands and new conditions present. And as to the students, the best engineer would not be contented with a diploma. An engineer must have a degree that represents the higher rank of University study, and not the lower. Even if the lower had a business value, the University should encourage only the higher standard, and not the second-rate one.

I would like to say here, too, that the best training for men who are to direct the development of a new country like the

unpeopled parts of our island continent, or its northern territory, is not a purely technical or utilitarian training. No one is likely to succeed who has not courage, and above all, imagination. This is a quality that has not been absent in the great phases of bridge-building, pioneering, making railways across the great waste spaces of new lands, and appreciating the potentialities of unsettled and undeveloped regions. And by reason of this the great technical and scientific professions which so greatly aid the development of a new country are not without their poetic interests. I know culture and character can be attained in many ways, and by many paths and influences, but all technical excellence should be attained in their atmosphere. After all, a livelihood is not a life.

As regards the education of young men for public life and public service as discussed by Mr. Leathes, this is a complicated question. We get our public servants wherever we can, and there is an increasing tendency to demand, apart from the official qualifications required by Government, professional or academic attainments. In every branch of the public service throughout the Commonwealth of Australia we find men occupying the highest posts of administration without a University degree. But there is no royal road to the making of a successful administrator or his lieutenants. Throughout Australia we have had many high posts of administration filled most efficiently by men without any University training at all. Each year, of course, Universities and seats of learning are making their influence felt more and more. For instance, Professor Gilruth, the professor of veterinary science at Melbourne, has just been appointed administrator of half a continent, the Northern Territory. He will have problems of government, of science, and administration, and require, as he possesses, knowledge of human nature and ability to rule men. His qualities were such as stamped him as a capable administrator. He has taken with him from our University for a year Professor Spencer, a Fellow of the Royal Society, a distinguished Oxford man, who with him and other scientific colleagues will investigate the conditions under which a white civilization can grow up and occupy that territory.

You cannot reduce the training of high public servants to a formula. Something must be left to human nature. Personality, that great quality, may even escape the set requirements of the most carefully designed public service regulations. Even these may not be able to smother or obscure the best qualities necessary for success. And if too much is claimed for academic training, the respect of the people for those who make it will be weakened, and University influence thereby lessened.

INTERCHANGE OF UNIVERSITY TEACHERS: CONDITIONS OF INTERCHANGE.

Paper.

ONE of the principal difficulties in effecting exchanges arises from the alternation of the seasons in the northern and southern hemispheres. In Australia lectures commence about March 15th, and terminate in October. The annual examinations usually take place in November and December. This is the arrangement in the Melbourne University, and I believe it holds good in the main in the other Australian Universities. The seasonal difficulty obviously applies also to South Africa, and must, therefore, be considered in the contemplation of any transfer of officers from the northern to the southern hemisphere, or *vice-versâ*. However, it is to be hoped that the exchanges will not only be effected between Great Britain and the Dominions, but also between the various Dominions themselves. The time occupied in transit between Australia and Great Britain in the following plans has usually been assumed to be about thirty-one days. This has been done for convenience of comparison in the tables. Rather more time may be taken, but the necessary adjustments will always be easy to make.

The following plans are suggested :—

PLAN NO. 1.

English Professor	*Australian Professor*
Leaves England June 30, 1912,	Leaves Australia August 1, 1912,
Arrives Australia August 1, 1912.	Arrives England September 1, 1912.
Leaves Australia November 1, 1913,	Leaves England January 1, 1914,
Arrives England January 1, 1914.	Arrives Australia February 1, 1914.

The total duration of absence of the English Professor would be seventeen months; the Australian Professor eighteen months.

It will be seen that a *locum tenens* may be required in Australia from August to November, 1912, and a *locum tenens* might be required in Great Britain for the short period at the end of 1913. By this plan the English Professor would deliver one year's lectures and conduct the annual examinations in 1913, and could by arrangement and the appointment of a *locum tenens* have a large amount of time to himself from August, 1912, to February, 1913.

The Australian Professor would deliver one year's lectures in Great Britain, and would have the long vacation in Great Britain in 1913 at his disposal, and one month of the long vacation of 1912. He could further have the period of October, November, and December of 1913 at his disposal if a *locum tenens* were appointed.

PLAN NO. 2.

English Professor	*Australian Professor*
Leaves England December 1, 1912,	Leaves Australia November 1, 1912,
Arrives Australia January 1, 1913.	Arrives England December 1, 1913.
Leaves Australia December 1, 1913,	Leaves England January 1, 1914,
Arrives England January 1, 1914.	Arrives Australia February 1, 1914.

The English Professor would be absent thirteen months and the Australian Professor absent fourteen months. No *locum tenens* would be required, except for examination purposes.

By this plan the English Professor in Australia would deliver one year's lectures without interruption, and would, in addition, have at his disposal the greater part of the long vacation of 1913. The Australian Professor in England would deliver one year's lectures, but the lectures would be broken by the English long vacation.

PLAN No. 3.

English Professor	*Australian Professor*
Leaves England July 1, 1912,	Leaves Australia August 1, 1912,
Arrives Australia August 1, 1912.	Arrives England September 1, 1912.
Leaves Australia September 1, 1913,	Leaves England August, 1913,
Arrives England October 1, 1913.	Arrives Australia September, 1913.

The English Professor would be absent fourteen months, and the Australian Professor thirteen months; no *locum tenens* would be required.

By this arrangement the Australian Professor in England would deliver one year's lectures and would have a portion of two English long vacations at his disposal. The English Professor in Australia would deliver one year's lectures broken by the long vacation.

I do not doubt that many other arrangements could be devised, but these statements will, I think, serve sufficiently to indicate in general the manner in which an exchange can be effected if officers really desire it. From the point of view of season there is no real difficulty.

FINANCE.

In the Australian Universities there are Professors, Assistant Professors, Lecturers, and Demonstrators.

The salary of the Professors is usually £900 per annum; the salary of the Assistant Professors is £600 per annum; and the salary of the Lecturers and Demonstrators £400 per annum.

The contemplated exchange should apply to all these officers, and the method of financing the exchange becomes, of course, a matter of consideration.

It may be necessary to make some small deduction for the remuneration of a *locum tenens* in the first plan, or for examiners in the second plan; but inexpensive adjustment could be made, and such expense never need be heavy. The simplest way to deal with the matter would be for each University to continue to pay the salary of its officer, even when he was doing the work in another University.

The alternative plan would be that the exchanging Professors

should pool their salaries and divide them equally or on some plans mutually agreed upon. There is the further possibility that either University might, for special purposes, be able to supplement the exchange by a gift of the travelling expenses. I do not think, however, that such a condition could be relied upon, or that it is desirable to urge it.

At present all Professors or officers of the Australian Universities are encouraged to visit other parts of the world, and are given leave of absence periodically. In Sydney University the practice is to allow one year in seven, if desired. In the Melbourne University there is no fixed term. It is varied, from once in five years to very much longer periods. It is, however, recognised as a general principle that such visits are of great benefit to the officer himself and to the University, and that within reasonable limits they are to be encouraged. But the University makes a practice of paying only one-half the salary during the absence, the other half being retained for the expense of a substitute.

There is a great difference between the visit paid to Europe or America on these terms, and the visit paid as a matter of exchange when heavy obligations and responsibilities would fall on the visiting officer. It is, therefore, not likely that such exchanges will be very frequent as between men of professorial rank; but one can never tell. They may, however, be much more frequent between Assistant Professors and Lecturers and Demonstrators.

It is not possible to speak definitely with regard to any particular exchange, but it is perfectly certain that the attitude of the Australian Universities will be one of complete sympathy with any reasonable proposal.

As a preliminary to this Congress, the representatives of all the Australian Universities met in Sydney in 1911, in order that their views might obtain some sort of uniformity and coherence before being presented to the British Congress. There was absolute unanimity respecting the value of such changes, and every inclination to forward the movement in every way possible.

I have found the same general attitude prevailing amongst the members of the staffs of Canadian Universities with whom I have had the opportunity of discussing the matter.

Exchange Bureau.

One of the most useful steps which could be taken to effect free interchange would be the arrangement of a central exchange bureau, say at the University of London—its proper place. To

the officer in charge of this bureau any member of any University staff could write expressing his desire to exchange, and forwarding the necessary particulars. Such information could be communicated to the Universities of the Empire, copies of the register being periodically forwarded. As soon as two officers had expressed mutual willingness to exchange, the governing bodies of the respective Universities could be approached and the necessary business arrangements made.

Advantages.

It will be quite clear to men of science that Australasia offers great advantages to those who wish to study zoology in its various forms, geology, climatology, and particularly to those who wish to study economics and political science; for in matters of industrial legislation it is clear that Australia is some fifteen years ahead or behind the rest of the world, according to the point of view, and consequently well worthy of careful examination by the trained economist. Its isolation has caused a much more rapid march of events than is likely to occur in older countries. It is not remarkable then that we have had visits from American or German Professors, some of whom are making the most elaborate and thorough examination of the phenomena which have become obvious. Yet I do not recollect in Victoria a single instance of an Englishman of professorial rank who has tried to do this work in the same thorough-going fashion, although, curiously enough, Great Britain seems to be the country of countries most likely to go the Australian economic road, and that speedily.

The plan of Cecil Rhodes, making it possible for Colonial, American, and other students to visit Oxford, was a fine conception, but as far as Australia is concerned it was somewhat unnecessary. There is never any difficulty in getting Australians to visit the Mother Country; the difficulty is entirely in the other direction, in persuading those who will become responsible for the control of a vast tropical and temperate Empire to make themselves familiar with its constituent parts.

By the exchange of Professors, keen observers, men of scientific habit would quickly assimilate the thought and life of the country, and would return to their own University well informed and of far greater value than travelled junior students. The lesson most surely learnt by watching human events is the extraordinary service and influence that can be rendered by one trained, energetic, and determined man. Such an exchange of Professors,

even if the numbers were limited, might do more to promote a sane and healthy Imperialism than any other single administrative act.

Throughout the foregoing I have spoken as an Australian, but what I have been saying applies equally to South Africa. As, however, I have no intimate knowledge of South Africa, a special reference to the problem from the South African point of view will, no doubt, be made by South African representatives.

The British Association is to visit Australia in 1914, at the invitation of the Commonwealth Government. The invitation has been accepted, and provision has been made for the expenditure of £15,000 to facilitate arrangements. Australia has recognised the extreme importance of such a visit and the desirability that the arrangements should be such as befit the occasion. The visit will probably be of very great service, but ought to be preceded or followed by the visit of men of professorial rank, who would make a quiet and continued study of local conditions for twelve or eighteen months under conditions of daily routine expert work.

I have laid stress in general terms on what appears to be the principal object of exchange, the social service to the nation. There are, however, many advantages, minor in themselves, which warrant inclusion in a category and a brief reference. A member of a University staff may find it desirable, for reasons of health on the part of family or self, to obtain a change of climate, and to seek a fairly prolonged change in some other country. It frequently happens in Australia that members of the staff and their families are essentially British so far as their relationships are concerned, and are desirous of spending time in the vicinity of relatives. It may happen that they wish their children to enjoy a year's European education; in fact, there are so many of these really important, though apparently minor considerations, that one wonders why exchanges have not been organised long ago. It is quite clear, too, from a colonial point of view, that a well-organized system of exchange is likely to still further improve the chances of securing the very best men for oversea appointments. Some of us have from time to time suggested that the Empire would be well served if similar exchanges could be effected between school teachers as in the case of the United States and Germany, and between officials of the Civil Service. It is certain that once the feasibility of effecting professorial exchanges has been demonstrated, and a reasonable organization has been developed, the method will be copied in many quarters. As already stated, careful study of, for example, Australian con-

ditions by a trained economist would be of vast service; so also, for example, would the visit to Europe of our educationalists and legislators prove valuable to us. Once get the habit established of seeking stimulation and information abroad, and there is a most abundant field open for those who possess energy and scientific imagination. No sensible and thoughtful man can travel home from Australia through Canada and the United States without finding the stimulation almost overpowering, the wealth of impression is so great.

The proposal to exchange Professors is only novel so far as the British Empire is concerned. The Universities of Harvard, Yale, and Columbia have put the system into operation long since. Harvard effects three exchanges annually—one with Germany, one with France, and one with the Western States. Furthermore, the Lowell Institute in Boston provides for the periodical visit of distinguished men from abroad. Science knows no political boundaries, and I am sure that Australia will always welcome any man of science. But there will be a singular and an added pleasure in welcoming people of our own race who come from the land of our fathers, and who are endeavouring to obtain a sound knowledge of the Empire to which they belong.

JAMES W. BARRETT.

Discussion.

PROFESSOR RICHARD LODGE, LL.D. (Edinburgh) : I have only a few words to say on the subject which Dr. Barrett has so ably put before you, and have little claim even to say those few words. But I can claim that I belong to a University which, though it has done little or nothing in the direction indicated, yet draws its students from all parts of the world, and especially from distant parts of the British Empire ; and, in the second place, I represent on this occasion that subject of history which, according to Mr. Stanley Leathes, ought specially to fit its professors to benefit themselves by the experience to be derived from exchange, and also through their teaching to benefit others.

Now I am not going to dilate upon the advantages of such a scheme of exchange as has been sketched in Dr. Barrett's paper, partly because Dr. Barrett has already spoken about them, and partly because I think those advantages are not likely to be contested by the present audience. I propose to speak for a short time of the practical difficulties which would arise in carrying out such a scheme. I do not think that these difficulties are insuperable, but I think that they must be faced before the scheme can be carried into execution. It must be remembered that two governing bodies have to be convinced that the scheme is both feasible and advantageous.

As to the financial arrangements between exchanging professors, the difficulty seems to be a small one. The two Universities should continue to pay the stipends of their own professors, and there should be no direct financial dealings between the teachers concerned. The difficulty as to different dates and calendars is more serious. Dr. Barrett suggests several ways of solving the problem, and I can only say here that the third of these methods seems to me to be much the best from the Home University point of view.

There is one aspect of the financial problem with which Dr. Barrett has not dealt, and that is the question of travelling expenses. We hear a great deal in the present day, my lord, of the increased cost of living, and of the necessity of making wages correspond to it. But I have not yet heard of any suggestion to raise the salaries of professors, mostly fixed before this increase of expense took place, in order to meet a change which affects them as much as any other class of the community. I am bound to say that the cost of travelling to distant parts of the Empire would be in many cases a very considerable obstacle in the way of exchange. Possibly this would be a lesser obstacle in the

case of a Colonial professor, because in many cases I understand that it is a recognised thing for him to come back to this country from time to time, and that he makes provision for such a contingency. But there is no such contemplated arrangement of a Colonial visit in the financial scheme of a British professor, and a man with a family might well find the expense prohibitive. Hence, if this scheme is to be carried out, some sort of financial endowment, not necessarily a large one, would be almost essential. Otherwise exchange would be limited in Great Britain to junior members of the staff, which would at once reduce the scheme to inadequate proportions.

There are other obstacles besides finance which require to be considered. The personal or tutorial relations of a teacher with his students would be interrupted by absence. His connection with the administrative work of his University would also be broken off, and in this connection his substitute would be obviously inexperienced and inefficient. A scheme of exchange is too often discussed as if the only function of a professor is to deliver a course of lectures. Probably the answer given to these objections is that the professor's efficiency would be so increased by his enriched experience that this would more than compensate for any temporary dislocation caused by his absence.

There is another difficulty which is perhaps more conspicuous in a subject like history than in some other subjects, such as science or languages. History is such a huge subject that a teacher is compelled to concentrate his attention upon some period or some department, and it is not easy to find a professor who is ready and able to take up the precise work of another professor. You cannot do as you would do in the case of subordinate substitutes, and provide him with notes of your lectures. On the other hand, he may quite rightly object to write new lectures, nor is it desirable that his time and energy should be absorbed in such a task. He is rather to absorb experience of the life of the new community, and not to spend all his time in his study and among his books. And to many a teacher one of the attractions of exchange would be that he could fire off his old lectures, and possibly make his old jokes and tell his old stories, with renewed vigour in other surroundings.

This difficulty in exchanging teachers is like the old difficulty in the way of barter. The person who wants a particular commodity has to find someone who can supply that commodity and is also willing to take in exchange the commodity which the other can offer. I came across a case the other day in which a project of exchange, which was on the point of being concluded,

and where the two Universities had given their approval, broke down on this precise point. A British professor was willing to undertake the subjects of an Australian professor, but when the latter was confronted with his colleague's programme he struck: he was not coming over if he were expected to do all that work.

In view of these, and probably other difficulties, it would be useful, I think, to start the scheme of exchange and also to supplement it by a more moderate and simple proposal. But this also would need some financial assistance. At present some Universities and colleges give to the members of their staff what is called a "sabbatical year." During this year the teacher generally receives, as Dr. Barrett points out, a reduced stipend. My suggestion is that these years could be utilised for some of the purposes for which the exchange scheme has been advocated. If we had a fund from which the deficiency of stipend, or part of it, could be made up on condition that some portion of the year was spent in lecturing at another British University, several things would be gained. The teacher would be better off, the University to which he went would have the assistance of a new and perhaps a stimulating lecturer, and his services could be utilised without the difficulty of requiring him to do the precise work of another man. By some such method as this we might hope to familiarize the Universities with the possible advantages of exchange, and we should in the meantime avoid most of those difficulties which, in no carping spirit, I have endeavoured to point out.

MR. T. R. GLOVER, M.A. (Cambridge): In reply to your lordship's invitation, I venture to speak for a few moments, because I stand in the position of a man who has had experience on both sides of the Atlantic, such as Dr. Barrett has been suggesting. It was not by any arrangement between the Universities, but because my own University had no use for me whatever, that I went over to Canada in 1896, and stayed there for five years. I want to say in the briefest possible way that in a certain sense I look upon those five years as the most valuable of my education. I learnt to think in the terms of a new world, and that was an immense gain. I learnt also to know that the ancient classical literature, which I have to teach, does appeal, and does apply to the conditions of a new world. The difficulties that I see are, of course, financial; but there is also some difficulty for a pure European to make himself intelligible to the Colonial. I found that; but I am thankful to say that that can be outlived, and one enters so much into the mind of the Canadian as to feel

the newcomer from the Old World a little strange. May I say that on coming back to the old country, as one with this Colonial experience, I found a further gain in being able to see my own country and my own University with some detachment and freedom of mind, which I did not enjoy before? I should like to do it again, but I cannot say if that will ever be possible. But I do urge that those who are Principals of Universities, Chancellors, and persons of influence, should try to make the scheme as possible as it can be made, in the interests not only of the Colonies—and I think I may say that I know it is of importance and of interest to them—but also of the old country.

PRESIDENT R. A. FALCONER, C.M.G. (Toronto) : The reason why I am here before you this morning, my lord, is that at the last meeting of our Senate, held in Toronto a fortnight ago, it was stated that this subject would be brought before the Conference, and I was authorised by the Senate to say that the University of Toronto is thoroughly in sympathy with this scheme as a whole. The difficulties that have been brought forward by Professor Lodge are difficulties which are very evident, and yet there may be some modification of the scheme, which, with the process of sessions and years and growing experience, may remove some of them. The financial question is possibly not the greatest difficulty, because I fancy we might be able, through our governing bodies, to secure at least a moderate amount of financial support, if the scheme commends itself as a working scheme, and the advantages accruing from it seem sufficient to justify the expenditure. I do not think then that in itself the expenditure should stand in the way, nor do I think that the expenditure involved would necessarily be very large, because probably in any one year there would not be more than one teacher in any University who would be willing to exchange, and the travelling expenses of one teacher even from the remoter districts would not be formidable.

It seems to me that the greater difficulty is in the arrangement of subjects. In Toronto we might have a man who would be thoroughly well fitted to do work in another University, and it might be as Professor Lodge has remarked, very difficult to fill his place, and to get the work required for the average student done by any man from abroad. Probably, however, the scheme ought not to be directed towards the needs of the average student, so much as towards the general education of the University as a whole, and it should aim at the introduction of new life. I am one of those who believe that the Empire will be most strongly

welded together by increase of communication and by developing knowledge. The visits that we receive from distinguished men of the old land are of enormous value to us, and I am happy to be able to say that in Toronto we do receive many such visits. There is a small fund which the Governors have set apart for the purpose of paying the travelling expenses of such gentlemen as may come and give us some lectures, and we have had some lectures every year from representatives of the Universities of Great Britain. If this intercourse could be increased, if we could have from time to time short courses dealing with some particular subject, a living subject in whatever branch of education it may be, thrown open to all the students, we should reap enormous advantage. Why should we confine the advantage to any one faculty? As a matter of fact we have visitors from the faculties of medicine and applied science from other Universities. If a distinguished engineer came to us, with the experience of work done in Great Britain or in various parts of the Empire, lectures drawn from his special line would greatly stimulate the whole faculty. Stimulation is really what counts, and I think the scheme if developed in that direction primarily more practicable, and in the long run it might lead to a more permanent scheme. Something permanent is desirable. Just how it should be arranged is not absolutely clear to my mind. The suggestion of a Bureau I consider a very necessary suggestion for the carrying out of such a scheme. I desire to say that in so far as my own University is concerned, we are thoroughly in sympathy with the principle, and would welcome any suggestions as to how it is to be made practicable.

DR. J. C. R. EWING (Panjab) : It is not a question, with those of us who represent the Universities of India, so much of exchange between men, as a question of exchange between men on your side and the money which will probably be available on our side. A recent suggestion has been made in India, emanating from our University of the Panjab, to the effect that in order to obviate and remove some of the difficulties and limitations connected with the existing Universities, which are so largely purely examining bodies, and in order to bring about a condition of things which is common to teaching Universities, it would be wise for our Universities to secure, if possible, from the West men of eminence, men of proved efficiency, as teachers for short periods of service in India. I know that in the University of Madras, the Vice-Chancellor of which is present this morning, and in the University of the

Panjab, things have begun to take definite shape in this direction, and the time, we believe, is very near when we shall be able to make proposals to men of such efficiency as those to whom reference has been made, to come to India for a year, giving to our Universities the advantage of this new life of which they stand in much need. This advantage will be twofold, first to the student, but perhaps no less to the teacher himself. The majority of the professors in the colleges of the Universities in India have never crossed the sea; they have not had an opportunity of coming in contact with the best that the West has, while others have found it difficult to keep abreast of the times; and so we feel that a more or less constant supply of men of the kind to which I have referred would be of inestimable value. This is the interchange which, my lord, I wish to put before the Congress this morning, as I believe it is an entirely practicable way of accomplishing something of great value.

DR. G. R. PARKIN, C.M.G.: Somewhat later in the Conference I shall have to speak on things that have a bearing on this question, but there are a few points which I have in mind now which it may be worth while to mention. The question is what is the range of subjects which could be most benefited by an interchange of this kind? I would point out that it is quite possible to make an exchange in some cases with the promise of good results. Take, for instance, the question of Colonial history. I suppose that there are few things so necessary to us as a nation as an understanding of our history. To each Colony a knowledge of its own history is of recognised importance, as well as the history of other Colonies, and professorships are being founded in several Universities for the special teaching of Colonial history. There is the strongest reason why a professor who has to teach Colonial history in the Colonies should sometimes come to England, the centre of the Colonial system; and, on the other hand, it would be a great advantage if professors at home were to go abroad and come into actual touch with the countries they deal with. I believe that an interchange in this case would give a large opportunity for doing good work. Take, again, the question of geography. I do not think a man can be a good professor of geography who has only lived in these islands. The professor of geography at Oxford the other day told me that he would jump at the chance to go and teach for a year at one of the Colonial Universities in order to broaden his knowledge, and to bring back the inspiration which some of the larger breathing places of the new worlds

would give him. Then there is the question of economics; what is more important than that the teachers of this country should learn, not from mere theory, but from immediate contact with the circumstances, not only of their own country but of all parts of the Empire? What a difference it would give to a man's teaching who had been brought up in Free Trade England to throw himself into the life of Canada, Australia, or New Zealand, where you have protective systems and different conditions. I cannot believe he would come back here and discuss these matters in the same way as he did before he went. You may enlarge this, if you like, to cover geology, mineralogy, and a large number of subjects of that kind. I recognise the difficulties, but I believe some arrangement is possible by which very often an exchange of the kind suggested could be effected. I feel perfectly sure that if we are going to get that comparison of experience, that acquaintance with world-wide work which is offered by our Empire, we must interchange both professors and students.

DR. J. W. BARRETT, C.M.G. (Melbourne), in reply: The objections which have been raised are very real, but they can, I believe, be overcome. The financial objection is a difficult one, but I know of exchanges that could have been effected within the last three years, in spite of the question of finance. The governing bodies in the United Kingdom could by a sympathetic attitude facilitate exchanges, and perhaps it will not be very long before these exchanges are in operation. All objections should be fairly faced, but only in the spirit of difficulties to be overcome.

THE CHAIRMAN: I think you will allow me to terminate the discussion this morning, and I would like to say in parting that I do not think this Congress could have had a more valuable morning's work. We have had a series of speeches most valuable and pertinent, and well co-ordinated, and I am bound to say also reasonably short. The number of occasions on which the bell has tinkled have been very few. I must congratulate you on the good work which has been done.

WEDNESDAY, JULY 3.—Afternoon Session.

CHAIRMAN.

THE RIGHT HON. A. J. BALFOUR, D.C.L., LL.D., M.P.,
CHANCELLOR OF THE UNIVERSITY OF EDINBURGH.

I.

THE PROBLEM OF UNIVERSITIES IN THE EAST IN REGARD TO THEIR INFLUENCE ON CHARACTER AND MORAL IDEALS.

II.

RESIDENTIAL FACILITIES, INCLUDING COLLEGES AND HOSTELS IN CONNECTION WITH UNIVERSITIES.

THIRD SESSION.

THE CHAIRMAN: Ladies and gentlemen, the Conference this afternoon differs in one important respect from any of the others which either have been held or which it is proposed to hold. The difference consists in this, that we are this afternoon, at all events in the earlier part of our proceedings, dealing with a problem not common to all the fifty-three Universities which are represented at this great imperial Congress. We are dealing only with one group of problems connected with one group of Universities, those, I mean, which have their seat in the East, and which are intended to minister to the wants of our Eastern fellow-countrymen. The nature of the difficulty with which it is proposed specially to deal this afternoon will, I think, become apparent to everybody who puts aside our ordinary current form of speech and remembers what everyone of us knows, that education is something much more than intellectual training, and still more than the mere acquisition of a certain amount of knowledge in a form either useful to the conduct of life or useful to the passing of examinations. All of us know, of course—it is a mere commonplace, though sometimes forgotten—that education deals not merely with the imparting of knowledge on one side and the acquisition of knowledge on the other, but it deals also with the training of the whole man. We are allowed to forget this with relative impunity in Western Universities because, in fact, the general training of the young is only in part carried out by the official teacher. All of us who have been either at school or the University know well enough that, whatever may have been done for us by our teachers in those two forms of education, no insignificant part—I would almost say the most important part—of our training was due to the collision of minds between the boys at school or between the young men, the undergraduates, at the University. We do not have it brought home to us here with the same insistence with which it is brought home to teachers in Oriental Universities, that there is and there must be a collision—not an irreconcilable collision, but still a collision—between the growth of scientific knowledge in all its branches and the traditions, the needs, the customs which are the great moulding forces of social man.

In the West the changes of knowledge and the changes of tradition have gone on by relatively small degrees. There has been in that case mutual adjustment, and though, in practice, we may not be conscious of the difficulties of teaching due to the necessity of keeping up that adjustment, nobody is likely to

under-rate those difficulties even in the West. The difficulties are incomparably small when compared with those which necessarily come upon us when we bring in upon a society unprepared by the long training which we have gone through, generation after generation, the full stress and weight of modern scientific, critical and industrial knowledge.

Now I do not think that anybody, whatever his views may be upon education at large, or the function which spiritual ideals and ancient customs exercise in connection with that training, is likely to underrate the violence of the effect which this sudden contrast must produce upon an ancient and a civilised community. This modern knowledge, remember, is not a thing which can be ignored or neglected by the East, for it comes to it with all the enormous prestige which naturally results from great material successes. Scientific knowledge, our growing conception of the need and character of the world in which we live, is no mere speculation. It attracts to itself something more than the attention proper to a mere speculation; it comes armed with that perhaps more vulgar, more impressive prestige due to the fact that from it have been born so many of the great arts of life, so many of the things which have made races powerful, have made them wealthy, have made them prosperous.

How then are you going to diminish the shock with which this sudden invasion of a wholly alien learning must meet the cultured society of the East? We all know that any catastrophic change in the environment of an organism is apt to inflict great injury on the organism, even perhaps to destroy it altogether. We all know, on the other hand, that if time be given to the organism, if the change, however great, be gradual, if the organism be given an opportunity of making its own changes in correspondence with its changing environment, there is no reason why it should not flourish as greatly in the new as it did in the old surroundings. Here, however, we are forced to be catastrophic. It is impossible to graft by a gradual process on the East what we have acquired to by a gradual process, but which, having been matured up to its present stage in the West, is suddenly carried, full fledged, unchanged, and planted down as it were in these new surroundings.

The magnitude of the problem I have ventured in these brief words of introduction to indicate. I would gladly have left the whole question to those who are to read papers, but I was informed that a brief statement of the nature of the main difficulty with which we have to contend would be asked for by those whom I have the honour of addressing this afternoon. I have

endeavoured to carry out these instructions; at any rate I have presented the problem to you as it presents itself to me. I do not pretend even to suggest a solution. Papers are to be read this afternoon which will not perhaps cover the whole ground I have indicated, but which will, at all events, suggest certain methods of mitigating the dangers and difficulties inevitably incident to what in the main will, I hope, prove to be a great and beneficial revolution, but one which in its inception and some of its accidental and accompanying characteristics is not without danger to some of the best and the highest interests of the great Oriental races with whose educational needs we shall attempt to deal this afternoon.

Ladies and Gentlemen, having indicated the problem, I must leave it to you to deal with its development.

THE PROBLEM OF UNIVERSITIES IN THE EAST IN REGARD TO THEIR INFLUENCE ON CHARACTER AND MORAL IDEALS.

First Paper.

FEW or none will be found at the present day to controvert the proposition that in a University open to all creeds it is impossible to teach the Christian Religion compulsorily. On the other hand, it is difficult, if not impossible, in a University established in a British Colony to give religious instruction at the option of the parents in religions other than Christianity (*e.g.*, Mohamedanism, Buddhism, Hinduism, Confucianism, &c.). The solution has therefore commonly been to exclude religious teaching of all kinds. The result of Western Education is admittedly to undermine Eastern beliefs, and thereby to disorganize much of the social life which, among Eastern peoples, is usually so intimately bound up with religion. The impact of a purely Secular Western Education upon Eastern peoples has therefore a tendency to deprive students of their national religion and to substitute nothing for it, while the study of the philosophic theories of the West, of political economy, and of Western History, with its outstanding examples of the emancipation of the people from oppressive control, are all apt to fire the immature imaginations of imaginative races, and to impel them to conclusions destructive alike of the family influence on which the social system is so largely based, and of all constituted authority. They are apt to imagine that the parliamentary and self-governing institutions which Western nations have evolved to suit their own conditions and character, are equally suitable for the East in which, in all the centuries covered by History, they have never been evolved, and to which they may therefore be considered to be probably unadapted; and in their efforts to achieve these novel ideals they become revolutionaries and separated in sympathy from the bulk of their own race. Parents who observe these tendencies and dread their results, fear to send their sons to Western Universities.

What is the solution of the problem, which was recently stated in the following terms by *The Times* (Educ. Supl. 3.1.11):—"Can Western Education divorced from all religious teaching supply a code of morality to take the place of the ancient indigenous codes of which a purely Secular Education tends to sap the inherited religious basis?"

It was dealt with exhaustively in a Blue Book issued by the Government of India in 1890, which contains the views of many of the highest expert authorities both on Education and on Administration in India at that date. The results of that inquiry as judged by the events of the last twenty years, both in India and in Egypt, do not appear to have been very satisfactory. The writer quoted speaks, indeed, of "the disastrous effect upon the rising generation of the complete severance of secular education from all religious sanction, and from the moral influences bound up with religion." In 1904 the Governor-General in Council issued a Resolution on Educational Policy, in which the following passage occurs:—"In Government Institutions the instruction is, and must continue to be, exclusively secular. In such cases the remedy for the evil tendencies noted above (*i.e.*, want of discipline and the spirit of irreverence) is to be sought, not so much in any formal methods of teaching conduct by means of moral text-books or primers of personal ethics, as in the influence of carefully selected and trained teachers, the maintenance of a high standard of discipline, the institution of well-managed hostels, the proper selection of text-books, such as biographies, which teach by example, and above all the association of teachers and pupils in the common interests of their daily life," which was, in fact, an amplification of a passage which occurs in Sir A. Croft's report on p. 141 of the Blue Book, where he writes: "Instruction in morality should not be limited to special text-books, or confined to fixed lessons two or three hours a week, but should be regarded as pervading the whole course and system of instruction."

The Chinese, as the late Lord Salisbury once said, are among the most tolerant of people in the matter of religion, and in Hongkong, non-Christian Chinese who have no sympathy with Christianity have been willing to send their sons to a College (St. Stephen's) conducted by a religious body, where a certain amount of religious teaching is given, and where there is no restriction on the influence which devout Christian teachers may exert upon pupils out of school hours. They were prompted by the knowledge that the religious sanctions therein inculcated, even though they themselves had no personal sympathy with them, exercised a restraining influence, and the students neither showed themselves to have imbibed socialistic or revolutionary ideas, nor to have cast off that reverence for the family and its elders upon which the Chinese set such store. But though the experiment has succeeded at the School named, I cannot disguise from myself that, in the first place, the success is largely due to

the personal influence of its Head, and in the second place, that what may succeed with a school for boys may not necessarily succeed in a University where the field of learning is much more extended—or, in other words, that there is not so much in the scope of a boy's learning to undermine his beliefs as there would be in the scope of an Undergraduate's.

The problem before us in opening a University in Hongkong is how to train character, and how to create moral ideals which shall have a vital and compelling force in the formation of character and the conduct of daily life, without introducing compulsory religious teaching. Is it, for instance, possible to obtain the powerful aid which religious sanctions give—operating on the Spiritual and Emotional side of a young man's nature—without any form of compulsion? The English boy when he goes to school has a groundwork, not only the religion which has been taught him from his cradle, but he is the heir to 1900 years of Christian environment—an environment which has permeated all the custom, the law, and the social tradition among which he lives. The Oriental boy has no such atmosphere, and if his belief in Hindu theology, or in his ancestral worship, is shattered by his Western learning, he has nothing to replace it.

So far we propose to meet the difficulty in the following ways :—

(*a*) By allowing religious bodies to establish Hostels, in which they will be at liberty to teach the Christian (or other) religion, provided that they conform to the regulations laid down by the University.

(*b*) By bringing the best influences to bear on the remaining students, who will be compelled to reside in the University under the close control of a carefully selected staff; and by encouraging outdoor sports in which the staff will find opportunities of associating with the students.

(*c*) By carefully selecting the text-books, &c., so as to hold up the example of the lives of great men, whether of Eastern or Western origin, as models of high standards of life and high ideals.

But I personally believe that even these precautions are but palliatives, and that what is required is that those who are engaged in the teaching of Orientals should adapt their methods to the requirements of the East, instead of attempting to foist upon the East a system identical with that which in the West has by the process of natural evolution proved its adaptability to the particular circumstances of the West. The lessons of History

in the East may point to an opposite conclusion to what they have taught in the West. The unit of national life in the East is the family—and the preservation of the *patria potestas* modified (but very gradually, as in Japan) by adaptation to Western methods of social life is essential. It may therefore form a page in the Political Economy of the East, which is unnecessary in the West. The lines of Eastern thought and the currents of Eastern feeling and emotion must be studied by those who would instruct the East, with entire detachment from pre-conceived ideas adapted to nations which are the outcome of 1900 years of Christianity. The text-books used must be prepared for and adapted to Eastern students. These are mere discursive views, and I advance no claim to be an "Educationist." They are noted only by way of making clear the problem to which I invite attention, viz., How in advanced educational institutions (such as a University) in the East, can the social tradition and atmosphere created in the West by Christian Education in childhood, by Law based on and enforced in accordance with Christian Ethics, by environment, and by an unwritten moral code be effectually replaced? And if the driving force, and the compelling power of religious sanctions be not directly employed, what is to take their place in the training of character?

N.B.—A note on this subject, however brief, would be incomplete without some allusion to the volume recently published by Mr. Chirol (*Indian Unrest*, 1910). On p. 268 he names four characteristics of the existing scheme of education in India:—

(1) Absence of direct Government control over Educational Institutions.

The scheme of the Hongkong University from its initiation has included Government representation on Court and Council, while the Governor will be Chancellor, and the Chief Educational Officer will have a seat on the Senate.

(2) Concentration on higher education to the neglect of the schools which will train for the University.

In Hongkong the University has been founded only as the last step in a system of primary and secondary education which had (with the College of Medicine, &c.) already produced boys qualified to matriculate. Simultaneously with the inception of the project the School Educational System has been overhauled. Representation on the Governing Body is accorded to nominees of the Grant-in-aid and Government Schools of the Colony, so

as to promote close touch between them and the University. It is, however, true that students who otherwise would proceed to Europe or America (or if unable to bear the expense, would have to forgo a University Education) will be admitted from schools in China, but this is an inherent characteristic of the scheme which is admittedly framed to assist China, and which has been liberally supported by Chinese.

(3) The third criticism refers primarily to schools for boys, and condemns the sole use of English as the medium of instruction.

The criticism does not apply to Universities where (as here) it is necessary that Western knowledge should be conveyed in a Western tongue, since there is no common dialect which is understood by all Chinese, since the Chinese language is at present incapable of expressing technical and scientific terms, and knowledge of a Western language is necessary in order to open up the literature of the West to the student. The importance of the study of the Chinese language and literature is, however, fully recognised.

(4) The fourth is the problem already dealt with, viz., the neglect of that vital side of Education which consists in formation of character.

It may incidentally be noted here that the Indian Universities "are almost exclusively examining and not teaching bodies, and as the colleges affiliated to each University are scattered over a wide area, there is very little contact either between professors or between scholars. These Universities being also non-residential, afford none of the collegiate life which is so valuable a feature of our Home Universities."

In each of these respects the Hongkong University affords a direct contrast in method. Another important contrast between the Indian system and that which will be adopted here lies in the fact that in India in the teaching staff, both in the Colleges of Universities and in the secondary schools, the proportion of native to British teachers is overwhelming. "From the point of view of moral training and discipline and the formation of character the results have been disastrous," writes Mr. Chirol (p. 215). In the Hongkong University the Staff will be wholly British, except perhaps in regard to a few specialists in Chinese language and literature, and I may add that of late special efforts have also been made to raise the proportion of British teachers (both in relation to Chinese teachers and to the number of pupils) in both Government and Grant-in-aid Schools throughout the Colony. Again, Mr. Chirol points out that in India the pay and prospects of the few Englishmen engaged in Education are not such as to attract

the best type. "Considering (he adds) how immeasurably more difficult is the task of training the youth of an entirely alien race according to Western standards, the conditions should be such as to attract not average men, but the very best men we can produce." This view has been consistently held by the founders of the Hongkong University and the ignorance of the Professor from England of the character and customs of an Oriental people when he first arrives, will, it is hoped, be compensated for by the knowledge of the Chinese possessed by Lecturers who are in local practice as Medical men, Engineers, &c., by the close association of Chinese-speaking officials, and of Chinese Gentlemen on the Governing Body, as well as by the Mission Hostels conducted by men who are in the closest sympathy with the Chinese. By these means we trust that parents and guardians will be induced to give to Educational Officers the support of their parental authority.

Sir Charles Eliot, K.C.M.G., has, since the above was written, been appointed Principal and Vice-Chancellor of the Hongkong University, resigning the Vice-Chancellorship of the Sheffield University to take up this appointment. His sympathy with and knowledge of Oriental peoples is well known.

"The raising up of loyal and honourable citizens for the welfare of the State" cannot, it is urged, be achieved by a *laissez-faire* policy in regard to the moral and religious side of education. "The divorce of education from religion is still on its trial in Western countries, which rely upon a highly developed code of ethics and an inherited sense of social and civic duty to supply the place of religious sanctions. Almost everywhere in the East in some form or another religion is the dominant force in the life both of every individual and of every separate community to which the individual belongs. Morality apart from religion is an almost impossible conception for all but an infinitesimal fraction of Western-educated Indians." "The educated European (wrote Sir G. Clarke) may throw off the sanctions of religion, but he has to live in a social environment which has been built upon the basis of Christian Morality, and he cannot divest himself of the influences which have formed his conscience." "The Oriental, educated or partially educated in Western thought, has no such environment and the restraints of ancient philosophies have disappeared, and there is nothing to take their place" (p. 352).

The very teaching of Western knowledge which undermines Oriental beliefs, is in itself incompatible (argues Mr. Chirol) with an absolutely impartial neutrality in matters of religion. These

religious conceptions, though opposed to our own conceptions both of religion and of morality, provide the ties which hold the whole fabric of society together, and those ties cannot be loosened without serious injury to society. "Respectable parents complain that the spirit of reverence and respect for parental authority are killed by an Educational system which only trains the intellect and estranges youths from all the ideas of their own world. Many prove this by preferring Mission institutions in which, though no attempt to proselytize is made, a religious, albeit a Christian, atmosphere is to some extent maintained." Quoting the appeal of the Maharajah of Jaipur for religious teaching in schools, Mr. Chirol urges that the resolution of the Government of India of 1904, laying down the thesis that instruction in Government institutions must be secular "is already out of date, and certain hours should be set apart on specified conditions for religious instruction in the creed which parents desire for their children." This view, it may be noted, applies to schools for "children," and not to Universities. It may, or may not, be possible or advisable in India, but it must be noted that there are in that country native-born men of the highest attainments in Western knowledge who have retained their Eastern beliefs, whereas no such class exists in China.

The principle of a broad tolerance in matters of religion is not, however, antagonistic to the rules we have laid down in our scheme of University Education in Hongkong. For if the Chinese exhibit a strong desire to inculcate among Chinese the tenets of Chinese religious belief, it is open to them to establish a Hostel for the purpose equally with Christian Creeds, provided only that it is established *bonâ fide* on a religious basis, and not for purposes of political, provincial, or racial discrimination and rivalry. It is not perhaps impossible, as Mr. Chirol argues, that by a broad-minded and liberal policy of this kind some approximation of Eastern to Western Ideals may eventually be reached.

At the opening of the Hongkong University on March 11th last, I laid much emphasis on this aspect of its work, and I will, with your permission, read a brief extract from my speech as Chancellor on that occasion, since it summarizes our present aspirations, though I hope that we may receive fresh light and guidance from the discussion of the subject by the eminent and experienced men who are present to-day.

> "The graduates of this University will go forth into China with standards of life, with conceptions of duty, with characters and ideals formed during their training within these walls and the affiliated hostels. Just as they will speak

English, so they will reflect the training received here from a British staff.

"A University is necessarily secular—its very name implies it—but the history of the greatest Universities shows us that their success has been invariably associated with the moral and ethical no less than with the intellectual training of their students. I will ask your indulgence if I speak somewhat frankly on this subject, since in my view it is by far the most important with which we have to deal. The neglect to recognise its importance has led to disastrous results in other Eastern and African countries. This University, as I understand, has been founded to promote two distinct objects. On the one hand its secular teaching is intended to be eminently practical, in order to fit its graduates for spheres of utility, whether in Engineering, Medicine, Commerce, or Administration. On the other hand, this secular teaching is to be imparted under such safeguards and conditions of residence, of association, and of collateral influence as to ensure that the higher requirements of man's nature are neither neglected nor placed in the background. To all those agencies, whether they be Christian or other, which come forward to assist the University to fulfil its transcendent obligations in this most important of all branches of education, the authorities of this University will, I imagine, always accord a welcome. I speak in the presence of the representatives of many creeds, but I speak not of systems of philosophy, or of creeds. I speak of the controlling force and guiding principle which ministers through creeds and systems of philosophy to spiritual needs. The force of which I speak inspires man to a sense of duty, to unswerving integrity and loyalty whether in the public or private relations of life. It is additional to, and greater than, the secular and utilitarian education of the class-room. It is founded generally on religious sanction, and finds its highest expression in the noblest of creeds. It is an essential part of the environment and atmosphere of any University fit to train and educate a nation, and I earnestly hope that it will be pre-eminent in this one."

The scope of discussion at this Congress is limited to the Work of Universities. I could wish, as regards the special topic which we are discussing this afternoon, that those necessary limitations did not exist, for we have before us a problem of immense interest in Nigeria (in which we need the guidance of experience), in the creation of an educational system which shall achieve the same

results in the formation of character, and the adaptation of pupils to their environment and duties in life which I have expressed the hope that the University in Hongkong will achieve. In Nigeria we are now making the vernacular the medium of instruction in our new schools, and opportunity is, I understand, afforded for religious instruction in the creed of the parents—the creed of Islam. And in Africa perhaps more than in any other part of our Empire, we have to admit to-day that the system of education adopted in the past has been a failure, and that new methods and new ideals are essential.

F. D. LUGARD.

Second Paper.

In a University open to all creeds, the compulsory teaching of the tenets of any particular faith is obviously neither desirable nor possible. In no other country is the recognition of this principle so constantly and forcibly urged upon us as in India. The extraordinary number of widely divergent religious creeds and practices represented amongst the students of the schools and colleges of the land bring before us the problem of moral and religious training in a peculiarly acute form.

In our Universities there are enrolled Hindus, Muhammedans, Christians, Sikhs, Jains, Parsees, Buddhists, etc. The mere mention of these names will suffice to convey some impression as to the complexity of the situation; but when it is remembered that within the pale of more than one of these religions there is an indefinite variety of belief and practice, the magnitude of the problem confronting those who would arrive at some effective method of dealing with the question before us scarcely calls for further elaboration.

The question of the moral and religious training of youth in school and college is encompassed by tremendous difficulties in every country in which personal liberty, in relation to these matters, is esteemed the heritage of each individual. But in India the normal difficulties are accentuated by unusual conditions. The principle of non-intervention in religion renders it imperative that there should be no teaching of the tenets of any particular faith in those schools and colleges maintained and controlled by Government. While recognising and appreciating at its full value the liberality and substantial justice of this covenant, and ready to resent as a breach of faith any violation of it, the people as a whole are not content with the condition of things which is the logical result of the principle.

The past score of years has witnessed, in all parts of the country, the establishment of schools and colleges by several sections of the people, with the avowed purpose of imparting to the young the doctrines and principles of the various forms of faith which they represent. Institutions maintained and conducted by Government are doing magnificent service, and have been able largely to set the pace for others in point of equipment and general educational efficiency, but just because they are definitely representative of Government, they are restricted from taking any direct part in the religious training of their students.

In very recent days we have been hearing much of the urgent need for moral training, and, in some quarters, hopes are apparently entertained that this is a thing capable of realization

through a process by which the morals of the youth may be adequately cared for, without in any way trenching upon ground commonly recognised as the domain of religion. It is not for a moment contended that great good has not been accomplished through appeals to motives and sentiments which alike find their sanction in all religions; but may it not fairly be claimed that the thoughtful young student is most unlikely to rest satisfied with that? His conduct will receive little, if any, impress from the mere knowledge that respectable people in general, including men of all religions, accept certain rules of conduct, as, upon the whole, the best and most salutary. If such rules are to mean anything of value to him in times of moral crisis, he must advance a step further, and will be heard asking why these things are supposed to be true; and it is just at this point that he requires the guidance of that teacher who has definite convictions concerning them, and who feels himself free from every restriction that would hinder the frankest and fullest presentation of his personal convictions.

The study of ethics apart from religion is by no means destitute of a certain value, and yet it must, I think, be admitted that for men, as we find them in actual life, ethics cannot be separated from religion without rendering both more or less abstract and unreal.

In considering this question it is essential also to remember that, perhaps more than in any other land, religious ideals and motives give colour to the lives of the peoples of India. This is a fact which no scheme of education can afford to ignore. We must take into account the almost universal conviction of the reality of the invisible and supernatural, and upon this basis make it possible for each faith, if it will, to build and inculcate its own code of morals. Any attempt to substitute for the religious sanction which the vast majority of the people believe to be of paramount authority, such artificial scheme of morals as would be sufficiently colourless to be acceptable to all, is doomed to fail; and even though it should succeed in obtaining general acceptance, its result would be to defeat the very purpose which we all alike aim to achieve. It is by no such procedure as this that Government schools and colleges can be put into a position where those who are being educated therein may secure, not only as they now do, the best of intellectual training, but also may come under such moral and religious influences as their parents and guardians desire for them. It has been advocated by some that the Government should gradually, but largely, withdraw from all direct control and maintenance of high schools and colleges, leaving this entire field to private or aided effort. We may, how-

ever, confidently assume that no such disastrous course is in contemplation. It seems to me unquestionable that the highest interests require that, for many years to come, those who have in hand the financial resources to provide the necessary machinery and the power to determine its general character should take a conspicuous part in the further development of a system which they themselves, with the loftiest purpose, have introduced. While in increasing numbers, for reasons already indicated, students will resort to institutions maintained and controlled by private bodies, the number of those who will remain to be taught directly and exclusively by the State, will surely not decrease. As has been intimated, the parents of these youths are more or less desirous that, in the process of education, attention should be given to the matter of morals and religions. That those charged with the responsibilities of the Educational Department of Government are, in general, fully alive to the importance of this question is not to be doubted, but they are not free to deal with the problems of morals in such a way as to appear to favour one or another of the several religions professed by their pupils. Is there, then, no method by which this situation may be, at least in some measure, relieved?

What has been said as to the restrictions which prevail in the case of all institutions maintained exclusively by public funds is equally true with regard to the Indian Universities, since these are under the guidance of Government in association with representatives, in the several Senates, of large bodies of men belonging to many sects and religions.

The Universities give to the affiliated colleges the fullest freedom in the matter of moral and religious teaching. Those colleges which have been established by representatives of the several religious faiths find themselves quite untrammelled by any regulations of the Universities. But both in these sectarian institutions and in those in which no religious instruction can be permitted, the field of direct action on the part of the University in matters of morals and religion is distinctly limited. In certain directions, however, beginnings have been made with much promise of useful results in the way of emphasizing the paramount importance of character. Of these mention may be made of :— (1) The establishment of hostels where perfect liberty is given to teach the tenets of the religion professed by the founders, provided that the place be conducted in conformity with the regulations laid down by the University.

A thoroughly equipped and adequately managed hostel in the vicinity of an affiliated college, furnishing a home for the students of a particular faith, would ordinarily be welcomed by the

authorities of the place as a positive help. It need hardly be said that such an enterprise could be of an appreciable value only when most seriously undertaken. It involves not only the expenditure of considerable sums of money, but also depends for its success upon the moral earnestness of the men in immediate charge.

It is by no means claimed that we have here a solution of this great problem: even though these hostels should be established in vastly greater numbers than now seems probable, we should still be only at the beginning. Obviously the plan could only merit approval when earnestly, efficiently, and persistently undertaken and maintained. Attempted in any other spirit, such institutions would be intolerable in the vicinity of and in affiliation to well-regulated schools and colleges, and would be a source of positive injury to those who might find residence in them.

(2) Definite cognisance by the University of the personal character of the members of the teaching force in the several colleges.

Influences other than those of direct interference by the Senate are ordinarily strong enough to secure a fairly high standard of personal morality amongst the teachers of Indian colleges. But, supplementing these, there is the recognised fact that a report by an Inspecting Committee conveying information of a serious moral delinquency on the part of a teacher would unquestionably be followed by summary action by the Syndicate. There is a general recognition by enlightened parents and guardians in Hindustan, quite as general as in any other country, that the teacher should be a model as well as a guide: and that if good morals are to be inculcated, the character of the teacher should be such as to furnish a definite guarantee that a directly opposite end be not reached.

That our Indian Universities are in a position to exert a strong and beneficent influence in this particular is obvious to all who are familiar with the relations into which they have been brought to their colleges through the provisions of the Universities Act of 1904. That the several governing bodies have quite realized their responsibility and opportunity may fairly be questioned; nevertheless, that they have at hand some most admirable machinery will be universally admitted. Apart from the direct inculcation of moral truth based upon divine sanction, it is but a truism to declare that no agency is so effective as that of the clean, strong and beautiful life of the teacher acting upon the life of the student. Indeed, without the latter the former may be relegated to the category of things well-meant but hopelessly ineffective.

Our Indian Universities are, in the judgment of the writer, in a position to claim and receive from the mass of the enlightened population, the fullest appreciation and support for every effort to erect and maintain a high standard of personal character as essential to the holding of an appointment on the staff of an affiliated college. We have a right to claim something more than mere negative qualifications. We want some assurance that the man will do more than merely refrain from teaching things that are positively wicked. The University may insist that he be such an one as will inspire the pupil to admire and to desire to practise that which is true, unselfish, noble and strong. There have been since the introduction of the present University system into the country a great number of men, the contribution of the West, who although they have been by the rules of government restricted from the impartation, in their official capacity, of any distinctively religious views, have nevertheless exerted a mighty influence for good upon the ideals and lives of their pupils. This influence is the fruit of what they themselves were, much more than of anything they ever said. This race of men exists still, and is accomplishing for the people to-day incalculable good.

More of them are needed. It is through them and such as they that the Universities can hope to stem whatever tendency now exists toward a culture that is wholly of the intellect and the acceptance of an ideal of life that leaves out of account the paramount importance of personal character.

(3) The University is charged with the responsibility of selecting and prescribing all text-books in the several subjects of study. There is, undoubtedly, in this connection place for a considerate and wise selection without in any undue degree limiting that freedom and breadth in reading which is essential to a good education.

Ordinarily those charged with the choice of texts will be found eager to avoid everything that would be likely in the most indirect manner to lower the moral ideals and standards of the young, and not alone this, but to prescribe that which in its positive tendency is in the direction of helping them to recognise their true relation and duty to God and man.

This, in general, is the attitude, in this particular, of the members of the Senate of each University. Less was not to be anticipated in consideration of the spirit in which their foundations were laid. It is possible that more may be done through a more careful scrutiny and a fuller appreciation of the tremendous issues involved in the possible evil that may follow the introduction of a book that gives currency to a false view of matters

pertaining to the character and work of the individual as he takes his place in the world.

(4) The establishment of Universities possessing more of the character of teaching bodies than can be given to any of the older institutions, and the gradual modification of the older, so as to furnish them with as much as may be possible of the machinery and appliances essential to their greater efficiency in their relation to the undergraduate regarded not merely as a gleaner of facts, but as an individual charged with definite responsibilities toward society and toward his own higher nature —such, in general, is a scheme of things possessed of a certain attractiveness to some of the students of present-day educational conditions in India. Regarding it, we may with confidence assume at least this: that it recognises a radical defect in the system that has prevailed hitherto, and aims, by bringing teacher and taught into closer personal relations, to guide the life of the student toward those things which so greatly transcend in importance the mere passing of examinations.

The task of the Indian University is in this respect more formidable than that which occupies the thought and energy of the Western institution. This statement is made in recognition of the fact that in Western countries those who plan for the development of personal character in the young are usually able to count, with confidence, upon the co-operation of the powerful influences of the home. In India the largely prevailing illiteracy of the Zenana forces upon the school and college a responsibility which elsewhere it may avoid. The lad enters college quite destitute, in the majority of cases, of those early impressions which mean so much to the youth whose childhood has been passed in the atmosphere of a home characterized by intellectual and moral enlightenment. The University must take this item into account in every attempt to estimate her responsibility. Failure to provide what is needed here is failure at an essential point.

Our difficulties are enormous. Efforts to overcome them upon the lines suggested, and upon others also, of which special mention need not now occupy our time, are being made. Other efforts and other lines will claim our sympathy and co-operation, and less of barrenness and artificiality will characterize the training of the future. The full attainment of our ideal may be remote, but to abandon the hope of making the Indian University an instrument for the suggestion and development of high moral ideals would be to acknowledge the entire system of education in that country to be a failure.

J. C. R. EWING.

Discussion.

SIR THEODORE MORISON, K.C.I.E. (Member of the Council of India) : Ladies and Gentlemen ; in view of the great stress which has been laid upon the shortcomings of Indian education in many books and publications recently, in view also of certain remarks made by Sir Frederick Lugard, I should like to make one preliminary observation. In certain directions, and especially upon the moral side, this much-abused secular education in India has not been a failure at all. On the contrary, it has been a splendid success. It is universally acknowledged that it is English education, and especially English literature, which has freed the public service from corruption. It has also, to my knowledge, immensely raised the standard of honour and honesty in professional life. Indians generally tell us that it has also very largely raised the standard of morality in relation to the sexes. If there was one thing which I had to select as a proof that English education has been a great moral force, I should point to those great movements of social reform which are transforming and elevating the whole of Indian society. I feel to say so much to correct a pessimism which has laid hold upon a large number of writers on Indian education.

Do I then entirely differ from Sir Frederick Lugard? No, I do not. I do not think there is any educationist in India who would claim that his work had been an unqualified success. It has done a great deal of good, which I say has been under-valued and under-estimated at the present day, but it has also produced some unexpected and untoward results. Our difficulties arise from the immense influence which English education exercises upon all who receive it. Indians of all classes constantly refer to the great change which English education has made in their mental outlook. They recognise that the boy is no longer the same boy when he has once, like Luria, learned to look with European eyes. I have often asked my Indian friends to tell me in what this great change consisted : "What, exactly," I have asked, "has English education done for you?" I have very generally received the same answer, and the one which I will give you is that I received from the Hon. Mr. Gokhale, who summed it up very pithily. He said : "English education has freed us from the thraldom of authority." That is to say, that the Indian is beginning to think and to judge for himself. He no longer is bound by the *ipse dixit* of his spiritual teacher or temporal governor, and therefore throughout India at the present moment there is a questioning spirit abroad : old orthodoxies are

being challenged; old social usages are asked to justify themselves, and even political institutions are being questioned. Therefore, if I may use the jargon of the day, you have religious unrest and social unrest in India, which are quite as marked as the political unrest. I do not deny, I recognise and would emphasise the fact, that this irreverent and mutinous spirit does pose very disagreeable and awkward question to all persons set in authority, to priests and fathers and administrators. I could go further and say that it is a spirit which may lead to very grave dangers indeed, and personally I do not disguise from myself or from you the apprehensions which I feel on account of that spirit. I feel it may jeopardize the whole of Indian progress. But if you ask me whether I think the last state is worse than the first I answer unhesitatingly no. I would rather face these dangers and difficulties, which I apprehend for the future, serious as I can see them to be, than see India again cowering at the feet of superstitious Brahmans or blindly obedient to fanatical Maulvis who have made the Word of God of none effect by their traditions. In this you see I agree in my diagnosis with Sir Frederick Lugard, though I arrive at it by a different road. But if we are right in our diagnosis of the evil which exists at the present moment in India, surely you can see at once that it is in no way special or peculiar to India. The decay of authority is the malady of the modern world; we are suffering from it in this country, and quite as much as India is; and if we attempt to prescribe for India remedies for this disease she may well retort to us: "Physician, heal thyself."

I gather that Sir Frederick Lugard would be content if we could secure in the East only so much reverence for authority as we have been able to retain in England. I think we can if we proceed by the same methods. You may, for instance, in a residential school or college in the East create those traditions, or you may see springing up that *genius loci*—what we call the tone of a public school—which will set the same indelible mark on the character of all who come within its walls, as is done in this country. I believe it was those traditions very much more than what was taught in the class-room which produced the distinctive characteristics which are supposed to mark the Aligarh boy. I will not labour this point, for it has already been dealt with by Mr. Ewing, with whom in this I cordially agree.

There is another point which has not yet been dealt with. English education in the East I submit has failed (in so far as it has failed) by not making use of the moral influences of Oriental culture. In so far as we have attempted to influence character

and conduct at all, it has been by means of Western precept and example. In the abstract these may be as good or better than anything we could find in the East, but I doubt whether Western precept and example could ever be so powerful to affect conduct as Hindu or Mohammedan precept and example to the Indian boy. To influence character you must touch the heart and awaken emotion, and it is not to the words or doings of a stranger that the heart will beat quicker, but to the precept and example of a man who is endeared to us by historical associations with ourselves. With an English boy Nelson's is a name to conjure with, Washington's or Lincoln's with an American; but you will not stir either the English or American boy by the example of such outlandish worthies as Khaled or Omar or Ram Chandra. The same is true of the Moslem boy. His whole nature will respond to stories of Islamic heroes, and the fault of our English education is that it has deprived him of this great inspiration. It is pitiful to observe how slightingly the great men who have made Indian history are referred to in our current text-books; how absolutely neglected is that great wealth of legend and apologue which is contained in Islamic history and literature. In old days every Moslem youth's education was founded on the Gulistan and Bostan of Saadi; some of the stories need editing to-day, but taken even as it stands the Gulistan has been in the past a more powerful influence on character than any book now taught in our Anglo-vernacular schools.

THE HON. DEVAPRASAD SARVADHIKARY, M.A. (Calcutta): I have in the first instance to express the great obligations of Indian Universities and their representatives that to the consideration of what has long been considered a vital question, has been allocated a special Session of this historic and never-to-be-forgotten Congress. Education is a world-old problem in India, and to speak of Indian education and its needs and possibilities in utter misapprehension and ignorance of what has gone before, is to approach the subject in a spirit utterly inconsistent with the character and objects of this Congress. Having regard to the way in which the matter has been handled in a paper purporting to deal with quite another branch of the subject, I find it difficult to give the strictures a complete go-by, but still more difficult to put in a defence and answer for the whole of India and the Indian systems, in the short ten minutes assigned to me. Much rather would I forego the right of defence if my silence was not apt to be misunderstood, and also to give the go-by to things "Chinese," that I neither know much about

nor understand. China has recently—and apparently after the paper was composed—achieved in many directions what certainly was never anticipated, and reference to such matters, particularly in connection with India, would be as out of place as undesirable. As the reference to the satisfactory success of the Anglo-Chinese methods of education is, however, particularly pointed, and as the claim for this success rests on the almost exclusive employment of European teachers, the unfairness of the comparison with India is clear and apparent. If China, with its exclusive staff of European teachers, has achieved what is claimed for it in Sir Frederick Lugard's paper, such a result can never be achieved, however welcome it would be, in India, for the simple reason that we cannot afford it. We, whose schools and colleges have mostly to be manned by ill-paid Indian teachers, have to work out our educational salvation in our own way. It must be well known to all who know anything of the subject that Indians have to grow up in their knowledge of the language and literature of your great country, take their degrees, and go out of the academic into the professional life, without, in many cases, having ever heard an Englishman speak the language in the class-room. That, sir, is a difficulty which we have, and must long have; and if the educational millennium is to come to India through exclusive employment of European teachers, of which China has so much to boast, I am afraid it will never come. If a bountiful Government would provide to-day for enough European teachers and professors of the proper order, at least to teach the language and the literature of England, welcome would the grant indeed be all over India, and our school and college systems could undoubtedly be strengthened so far. But that is not a near possibility. Anglo-China, so fortunately situated, would therefore continue to have claims which we could not, or need not, contest; but many must long be glad if Chinese examples in some directions could be indefinitely avoided. India has other conditions and must work out its salvation in other ways. She must be content for the present with recollections of having lent China some of its own literature and learning many thousand years ago.

To attempt to approach the consideration of the Indian question proper without appreciating or appraising what has gone before and what now obtains, is neither business-like nor fair. With reference to the weighty words that fell from the Chair regarding the undesirableness of violent concussions between things and ideas Eastern and Western, regarding the untoward results of such collisions in a state of Eastern unpreparedness, and

the need of diminishing the violence of the shock by methods of easy introduction, it would be difficult not to be in perfect agreement with the sentiments, if we were dealing with ancient history. You would possibly have to be as, and more, circumspect if you were just introducing English education in India. But English education in that country is now nearly one hundred and fifty years old; it almost introduced itself, in spite of worse than passive resistance in some quarters, towards the end of the eighteenth century. It is now quite a lusty, thriving plant that may have to be trimmed and nursed, but not as you do in the planting stage. Time was when some resisted methods that are triumphing to-day, and that would still be resisted if the things that we have just listened to were to find currency. It was long left to private Indian individuals and societies and to that great body of European missionaries, to whom our debt of obligation is abiding, to baffle prevailing inaction, nay resistance, in spite of clear Government injunctions, and to throw open the store-house of the West so that the East might be benefited by the West, and the West and the East might be reconciled. What has been referred to from the Chair to-day may possibly relate to times when, with the first advent of almost smuggled and ill-managed English education, beef-eating and wine-drinking became in some quarters the *sine qua non* of culture; and to have a fine scorn of one's religion and to pretend ignorance of one's vernacular, was considered the hall-mark of real refinement and education. It did not, however, last long nor affect any considerable section; in any event, it has long been ancient history, as some of those who have spoken before me, know. They are worthy and well-esteemed Christian gentlemen who know our Universities, and they have told you that this fetish about the supposed failure of secular education in India, because of the absence of direct religious education, ought long to have been dead. But fictions die hard, and the bogey-man of non-religion and unrest has been rigged up anew, and we are almost asked to believe that education in India is irreligious or devoid of religion, because there is no denominational teaching, and because Government is pledged to religious neutrality. Religious neutrality, be it said to the honour of the Government, has been always maintained, and must be. But if religious education in our educational institutions was so easy and desirable, how is it that the difficulty does not disappear when we come to institutions that are not governed by the bar of neutrality? It is because the sects are many, the in-

terests are many, and even families of the same sect and community sometimes differ in regard to their religious ceremonials, if not beliefs. But a situation like this affords no reason for urging that secular education is a failure, and that moral ideals suffer, or that formation of character and maintenance of discipline are not, all the same, matters of anxious and persistent care in our Universities and educational institutions. We have been told that the English student is better off in this respect, because he has behind him 1,900 years of Christian training and tradition. Barring slight historical inaccuracies, this is a matter in which we extremely rejoice for many reasons, and maintenance of unimpaired Christian ideals in the East by Christians would undoubtedly be a great factor in helping on our own moral ideals and character. Christian ideals are, however, no monopoly of the West, nor are they the only ideals. The East would be particularly glad of the upholding of Christian ideals by the Western races, because such maintenance would be beneficial in many ways, and no less because that with the presentment of the Prince of Peace to the West, high spiritual ideals of the East were inculcated, which in Europe have ultimately found acceptance, ideals that for all time must be good for the East as well as Europe. But there are other and more ancient ideals that have answered well in the past and will still answer, if allowed to; ideals that in some cases are not 1,900 years old, but 19,000 years old or more. Sir Theodore Morison has said that he would not go back to the superstitious Brahmin; nor would I. But should he and I object to go back to the non-superstitious Brahmin? That would indeed be superstition. We have always been as ready as Europe since its acceptance of Christianity, to imbibe high moral and ethical ideals, which we hope, under the auspices of the British Government and its admirable neutrality in religious matters, will go on fructifying and purifying where need be. It is in this great work that our Universities are attempting to reconcile the East and the West, and they have had but a short time to perform this gigantic work. My University celebrated, under the new order of things, its first Jubilee, only the other day, when some of you were celebrating your fiftieth Jubilee. Short indeed is, therefore, the time that we had to order our house since taking up the difficult work of making the East and West meet in spite of questionable and latter-day poetic phantasies, and in common fairness you should wait and see what can be done by the great amalgam now in the process of integration. It is a most interesting experiment that is going on, and it has to be watched and helped on in a scientific and friendly spirit, and not deprecated

and voted a failure because, according to short-sighted critics, the result is yet neither complete nor satisfactory.

The problem of Universities in India is not only world-old, but is world-important. As in the West much later, the origin was religious and spiritual. In the West, however, the origin was disowned, and almost resented, within a few hundred years; but the ideals of the origin held sway in India for thousands of years and left their undying influence and impress on a civilization and culture that outlived the civilizations of Assyria, Babylonia, Chaldea, Egypt, Greece and Rome, nay of olden China. An enormous and valuable volume of public opinion grew round these ideals, the objective of which throughout was building up of morals and character. Knowledge was rarely sought for material advancement alone, but mostly for its own sake and as a means of salvation. The *Vedas*, the *Upanishads*, the *Puranas*, the great epics *Ramayana* and *Mahabharat*, the later *Tantras*, and the modern *Smritis*, all lay down elaborate educational and ethical codes, including those of rigid and severe discipline, for the building up of character and moral ideals. *Kulapatis* taught, in their distant forest homes, "tens of thousands" of students were maintained and taught, who gave their limbs and lives, if need be, in their preceptor's service.

Onwards from the *Panchala Parishad* mentioned in the very ancient *Chandoyga Upanishads*, where *Swetketu*, son of *Arani*, went for instruction, through a long and glorious vista of educational life at its best, we come to the later Universities of Taxila, Vaisali, Nalanda, Vijoynagar, and many others in all parts of India, and covering different periods, where experts taught special subjects in their crowded cloisters, valuable libraries were gathered together, rich endowments were founded, fine, high, solid and lasting buildings constructed, and even academic hoods and caps were devised many hundred of years ago. Greek and Chinese testimony is forthcoming in abundance in proof, if other testimony be considered doubtful. The lamps of knowledge so lit were kept burning in the modern Universities of Mithila and Navadwip during the Mohamedan rule, and in Muktabs and Madrasas, Arabic science, literature, philosophy and law flourished side by side.

The ideals and standards were unavoidably lowered near large cities during the period of transition that Sir William Jones and Macaulay described and deprecated, though they had chance glimpses of the brighter side as well. That was an anxious moment in our history when the laudable behests of the authorities in

England, first promulgated as far back as 1698 in the Charter of William III., were unfortunately neglected and overlooked. But even barren times like these yielded a Ram Mohun Ray, who demonstrated the possibility of the East meeting the West and yielding the best of results. He led the van of reforms, piloted Lord William Bentinck's great work, almost created a language and literature for his province, and laid down his life for the present Universities, whose mission was, and was bound to be, to supplement and conserve, not to supplant, what they found. This is what other institutions also have been aiming at in still more recent times.

Universities in this country were by this time slowly throwing off religious tests and discarding residential conditions. London had become the model of the day. Indian Universities that had been planned in the days of Macaulay and could not be carried out, partly because of religious difficulties and needs of neutrality, naturally took London for an example, when, after much travail, Lord Canning passed his memorable Act, an inevitable adjunct of the Indian people's greater Charter, Queen Victoria's gracious proclamation. That is how we became non-denominational and, for the time being, a non-teaching body. In time, however, our work expanded, and after Lord Curzon's recent Act, which is being loyally worked, the Universities have assumed teaching functions as well. A fine Law College has been established in Calcutta. Lectureships and Readerships have been established in various Arts and Science subjects, a chair in Economics has been founded, others in Indian History, Mathematics, Chemistry, and Physics are likely to be soon founded, and we are fast qualifying ourselves for our teaching work and claim corresponding rights and privileges.

In spite of difficulties attending on exclusion of direct religious instruction, the Indian Vice-Chancellor, with confidence, and year after year, charges his graduates "ever in life and conversation to prove himself worthy of his degree." And these graduates in their thousands do their best to live up to the charge and to make their surroundings correspond. And thus a little leaven leaveneth all. Those who know India and are endowed with a well-balanced mind and instincts of justice, bear eloquent testimony to the purity, as also the ability, of even the lowest paid of our public services, recruited from our graduates and undergraduates, and to the loftiness of professional ideals and capacity.

Our Universities recognise that for the purpose of making the culture of the East accessible to the larger body, simplification of Persian, Arabic, Pali and Sanscrit learning is necessary; and

effective and easy methods have been invented for teaching these difficult classical languages—the great woe of our matriculates, in addition to the necessity of having to learn your fearfully difficult language, in which most of their subjects have to be taught. Simplification of methods of teaching classics such as our Universities have embarked on is itself a great experiment worthy of being tried in your places of learning where all classics—the salt of human culture—are threatened with extinction. With carefully prepared curricula aiming at teaching high moral lessons, and by the training of teachers who look after discipline, the Indian Universities are, moreover, trying to free themselves of many errors of the past which attach to you just as much as to us, and our Indian Universities are no longer mere teaching bodies. Besides the chairs in many important subjects I have mentioned, research scholarships available both at home and abroad, have been created, school and college work is being rigidly controlled, residential supervision is being insisted on, equal facilities are being afforded to men and women to graduate in all branches of learning, teachers and graduates are being afforded some slight representation in matters of University government, cramming and memorizing are being discounted, and other important educational reforms are being initiated with our very limited resources. These are details far too numerous to go into within the time at my disposal. There is a general assertion, but false, and false to the knowledge of those who urge it, that English education is destroying our moral ideals, impairing our character, and generally contributing to unrest, other than the world's progressive unrest that none can escape. Educated Indians may not unnaturally be startled and uneasy when they find that new classes and new castes are being created under auspices that might be expected to favour better conditions. They never, however, object to be ruled; though they, like Englishmen, distinctly object to be misruled. Their efforts and yours must tend towards making all misrule impossible by raising the standard of character and ideal, not in the East alone, but in the West as well, and making the completion of the amalgam, which Indian Universities have, in spite of all handicap, started. With statesmanlike instincts, the King-Emperor in his late visit to India realized and voiced the true situation, and said, in answer to the Address of the University of Calcutta, that to the Universities of India His Imperial Majesty looked for the solution of many difficult problems of the day. His gracious message of Hope—better than Sympathy—will be inscribed in gold on marble in my University, for the benefit of

unborn generations of graduates and undergraduates, as also unborn generations of Englishmen and all interested in the true solidarity of the Empire and the uplifting of the people, yea, as Asoka's messages were in days of yore.

Sir, that is the spirit in which the East has to be nursed; that is the spirit we hope to find in this Congress, and in all its deliberations in detail, affecting our vital interests. That is the spirit which I am sure dominates this Congress, an Assembly of no less importance than the great Durbar I was privileged to attend at Delhi. Let us not mind the discouraging and jarring note of the moment.

I am sorry I have no time to go into many things about our Indian Universities, their hopes, ideals and difficulties, which I should like the Congress to know something about. Even if all this be left unsaid, as it must be, it was fully worth one's while to come all the way to this great gathering of the picked intellect of the Empire, its true rulers, to tell the representatives of culture from all parts of the sun-lit kingdom, over which proudly floats the flag we all obey and revere, that the sentiment which proclaims that Britons never shall be slaves can be understood in no narrow sense. Not Britons alone, but all that share in whatever belongs to the Empire—the Britons of Greater Britain, claim that they never shall be slaves, and that claim shall be allowed. The realisation of that dream is the great work before your and our Universities, by the spread of the redeeming light of knowledge, culture, true spirituality and high character, and than which no greater and surer bond of Empire can be conceived. And that, as I read the sign of the times, is the true significance and objective of this great Congress, to which all who have the real and abiding interests of the Empire at heart, must wish God-speed.

SIR THOMAS RALEIGH, K.C.S.I. (Member of the Council of India): During my time in India it was my duty and privilege to make a fairly close acquaintance with about fifty of our colleges. They fall under various types, as they were conducted by the Government, or by missionary societies, or by Hindu or Mohammedan committees. We are considering to-day the question of how far we can rely on these colleges to maintain a high standard of conduct among their men—in India they call them "boys," but I prefer the Oxford and Cambridge word "men"—and to form the characters of those who will be the working leaders of the next generation. As happens on these

occasions, all the points on which I should like to speak have been anticipated and fully dealt with by those who have spoken before me.

The greatest force on which we can rely to raise and maintain the moral standard of our colleges is personal influence. Wherever our Acts and regulations are working well in India, it is because the system is humanized by the influence of teachers, Indians and Englishmen (for both have a hand in the work), who not only meet their students in the class-room, but live with them, and take an interest in them, man by man, and know how to command the confidence and respect of young men, so that in years of living together they impress upon their pupils their own qualities of industry and virtue. The great need of India is more of such men, not more Acts and regulations. If you will promise not to tell any of my colleagues in the legislative department, I will venture to say that we have given India almost enough rules already; but we are still badly in want of men, and, as some of these men must come from England, I hope we shall look to it that we send of our very best to India. The career of a University teacher in India is a very laborious and sometimes a thankless one; but I know of no nobler career to which any young graduate of an English University could devote himself.

My second point is, the importance of hostels, and here I am glad to know I am on ground common to all connected with Universities in India. Long ago I remember some hardened votaries of the examination system who rather resented my polite inquiries into the habits of their students, where they lived, and so on. It was supposed that the examinations afforded the one and all-sufficient test of merit. My long experience as an examiner had not prepared me entirely to accept that view of the case. A great deal depends on where the men live, and how they live, and I hope it will never be supposed that in providing places of residence and calling them "hostels," we have done the whole of our duty. I have been in many establishments of that kind which were only a degree better than what we in India call chummeries—places where young men lodge together and have the place to themselves. As time goes on and our resources improve, I hope a genuinely collegiate character will be given to college life in India. One knows of the difficulties in the way, but so long as you have men spending their lives apart, meeting only in the class-room and nowhere else, so long you will fail to have complete understanding as between teacher and taught.

Finally, I come to a question which is very difficult, and on which in a few minutes I can say nothing particularly worth

listening to. I rather deprecate the language sometimes used—and some of it has been used to-day—implying that religious and moral interests are altogether excluded from the life of our Indian Universities and Colleges. That is not so. I have heard in our Colleges in India lectures and addresses and discussions in which the partially conflicting ideals of Hindu and Christian and Mohammedan were discussed keenly but with perfect temper and in such a way as to show that the minds of these young men are alive and awake, and that they are thinking over these and other things. Religion and morals in a country like India are perhaps not suited for formal instruction, and, thank Heaven, they are not suited for examinations. A great deal depends on discussions such as I have tried to describe, and a good deal also on general reading. There are Colleges, I am sorry to say, where the undergraduate has very little opportunity of general reading. Good libraries in India are few and far between, and a man whose mind might be opened if he were allowed to go into a library where there are interesting books, and read a little for himself, is unable to do so; for want of good books he falls back on periodicals and newspapers. Therefore we should steadily impress upon Indian colleges the duty of improving their libraries; they should not satisfy themselves with getting only those books which are set for examinations. What should we say to a man at Oxford or Cambridge if he never opened a book unless mentioned in the examination statutes? We should say he was not getting the full good of the place, and that is exactly what you have to say of some Indian students. And if there be one branch of general reading which ought to be specially encouraged it is the reading of good scholarly, workmanlike histories and biographies. It is often said that the mind of the Oriental is not historical, but I very much doubt whether in that respect the Oriental has had a fair chance. Nothing can give you the historical view of politics or anything else unless you have access to a place where you can find information for yourself. Lectures are of necessity limited in their scope; you have to think very carefully what is necessary for success in the schools; you have often to confine yourself to that; you administer learning in tabloid form. Outside and unconnected with the programme of instruction there must be a great deal of general reading, and among undergraduates there will always be general discussion. If the materials for that are supplied by the College library I should look for the best results. One knows what the difficulties of the University education in India are—I could spend a long time in describing them—but my belief is that, if the lions

in our path are met and faced one by one, we shall vanquish them in the end.

THE REV. J. M. RUSSELL, M.A. (Madras): The distinctive features of this problem in India are due to the variety of religious belief and practice that is to be found in that land, and, within the Hindu community, to the influence of caste. These differences tend to create antagonisms which restrict and pervert the free play of those social instincts with which morality is so largely concerned. Caste goes so far in this direction that for all social purposes it confines sections of the community within what we may call "water-tight compartments," if it be remembered that these compartments are so graded that the Brahmin claims and secures *precedence over* all *others*, and a *certain religious reverence* from them all. The lines of separation in the Indian community stand out the more sharply because of the absence in India of any dominating and unifying sentiment, such as the feeling of nationality, which can evoke devotion and self-sacrifice for the well-being of the community in general.

Have our Universities in India done anything to soften or to modify these antagonisms, and to break down the barriers which religious and race prejudice have reared, and which superstition has so carefully buttressed? And have they, at the same time, done anything to create a moral ideal which is raising the people to a higher plane, and leading the community forward in the path of moral progress? It will, I think, be freely admitted that higher education, as represented by the Universities, has succeeded in securing a wider toleration between religions than was to be found formerly, and has done much to overthrow the barriers that separate caste from caste. Certainly it is the case that education has assisted in effecting the modification or even the discontinuance of many social and religious practices which the community concerned has come to recognise as abuses worthy of condemnation. While this is so, our Universities have passed through a phase--perhaps they have not yet left it quite behind --a phase in which there has been serious danger lest what may be described as group or caste selfishness and intolerance should be replaced by something more pernicious, viz., the crudest form of a cold, calculating, individual selfishness. Established as our Indian Universities were in the late 'fifties, they did not fail to bring from the West some at least of the features of the Gradgrind scheme and theory of education. The imparting of knowledge in the shape of facts was regarded as the main function of a University, while there was a disregard for, if not the sup-

pression of, all sentiment that would quicken the mind and will of the students to higher issues, together with the encouragement of a hard and dry utilitarianism. Not that all the Colleges of all the five Universities were brought under the heel of such a soul-destroying theory, but unquestionably it was difficult for any of them to escape altogether from the tyranny of the system.

As I have indicated, however, I believe this phase of our University education is passing away. There is now more prevalent a serious effort to train the student, rather than to cram his mind; he is being led to have regard for something more than his individual interest; he is being taught that he has duties towards his college and his fellow-students, and that in the life in the greater world that awaits him, there will be much expected of him—in other words, he is to become an intelligent, enlightened man, and not a mere machine. With your permission, Sir, I should like to submit some first-hand evidence of this fact.

In the Madras Christian College, with which I have been connected for the last twenty-five years, we have 800 undergraduates belonging to the Arts Faculty of the University. Of these, 60 per cent. are Brahmins, 25 per cent. are non-Brahmin Hindus, 12 per cent. are Christians, and 3 per cent. are Mohammedans. You have there, in that College, the free mingling of castes, religions and races, all receiving equal treatment, and all engaged in the various activities of College life in a spirit of healthy rivalry. All the students have abundant opportunity for co-operation, and for the give-and-take of a social community in their hostel life, in the literary and scientific societies of the College, in their clubs for field games, and in the reading circles which are organised. More than that, they are encouraged to look beyond the bounds of the College to the community at large, and with this in view they have organized themselves into a College Brotherhood, which undertakes such beneficent work as the visitation of the sick in the city hospitals; they inquire into the social evils of a great city, particularly an Oriental city, such an evil, *e.g.*, as mendicancy; and they maintain at their own cost, and ordinarily with themselves as teachers, a night school for the street waifs of the part of the city where the College buildings are situated. All these activities have been in operation for some years, most of them for very many years, in the College to which I refer, and I am glad to say that at least some of these organized activities are to be found in other Colleges of the University of Madras.

I know it can be said that you may have all the organization

of College Societies, Clubs and Hostels, and yet all may be soulless and uninspired by any moral ideal; that, indeed, some of these institutions may be so perverted as to subserve the most objectionable, if not the basest, ends. Unfortunately this is too true; and therefore it is that all these organizations require the most watchful oversight and guidance on the part of College authorities. And it is just here, as I believe, that we must find the key to the problem we are considering. All that may be done will prove ineffectual, unless the teaching staff and all the College authorities are men of character, themselves actuated by moral ideals. The mere inculcation of moral truths will not suffice. As we were reminded yesterday, "You cannot have a class of character or a class of morals"; but we can have the association of men of character with the plastic, impressionable, young student. The Oriental is peculiarly responsive to personal influence and to personal example. He needs must love the highest when he sees it, but he requires to see it—it must be put before him in the concrete; and if he is brought into contact with men who show a sense of responsibility, with men who by their conduct show themselves to be disinterested and sympathetic, and especially if these qualities are combined with some measure of self-sacrifice, the Oriental will be found to entertain an appreciation of them so high that it cannot fail—and it does not fail—to evoke something at least of an imitation of them in himself.

Ours, I may be permitted to say, as I would say it in all humility, is a vastly more arduous task than that lying before the Universities of the West, whose work is amongst the youth of British blood. *You* have but to be true to a tradition handed down to you through the centuries, and you are surrounded by a multitude of helpful collateral agencies in pursuing your task. *We*, on the other hand, are seeking to implant in alien races a new spirit, and to lead them to adopt a standard of life and conduct to the acceptance of which many of the institutions and practices of their age-worn civilization cannot but offer at the least a passive resistance that may well seem at times to be immovable. But character and moral ideal should not be one for the West and another for the East. There are qualities and ideals which must become the common possession of all mankind.

I trust it may not be thought that I become too personal or special if, in concluding, I say that the College with which I am connected has all along, through the seventy years of its existence, endeavoured both by its teaching and its example to set forth the Ethical conception of that prophet of Nazareth whose name it bears; and we look for the day when in India, as in this

ancient Christian land, the practice of that Ethic, and the realization of that moral ideal, will be reinforced and inspired by a religious belief founded on Eternal Truth.

RAI BAHADUR CHAKRAVARTI, M.A. (Allahabad): I am here to give my support to the statement made by my fellow-countryman, the Hon. Dr. Sarvadhikary, that the India of to-day, far from being irreligious, is imbued with a strong spirit of religion. But from exactly the same premiss I am afraid I am driven to a different conclusion regarding the necessity of religious education permeating the influence of University centres. It seems to me that in any discussion of the principles of University ideals it is necessary to remember the characteristics of a nation whose intellectual and moral elevation it is sought to effect. In the individual it is well recognised that the characteristics of the student must be studied, so that he may profit by the character of the instruction imparted. What is true of the individual is true of the race. If we examine very superficially the characteristics of the Eastern peoples, speaking particularly of India, the characteristic which stands out in bold relief in the national consciousness of India is the religious sentiment, a yearning for something invisible, a reaching out of the soul into the infinite, a finding out of some principles of the spiritual life which may actuate the conduct of daily life. Even a superficial acquaintance with the literature of the Indian would bring one to the conclusion that a strong under-current of religion runs through every department, and that from ages immemorial the Indian mind has sought to solve the problems of existence. Coming to practical institutions, we find that in old days colleges of learning were always identified with centres of spiritual enthusiasm. Benares and Nuddia were centres of intellectual as well as of spiritual culture, and these institutions supplied the moral and intellectual needs of the people—intellectual knowledge was included, but it was subordinated to the higher spiritual knowledge. It is unfortunate that at the time when our Universities were started India was in the grip of spiritual darkness; spiritual ideals were dragged into the mire of priestcraft, and encrusted with a layer of ceremonial. Our Universities were unhampered by past errors, it is true, but they lacked also the inspiration of the best traditions and past experience. Apart from that the Government which was primarily responsible for these Universities had to maintain the doctrine of religious neutrality. At a time when the people had not been assured of the intentions of Government in matters of education, it was a wise policy to be strictly careful not to

offend the religious susceptibilities of the people, but it seems to me that the observance of this spiritual neutrality has been pushed to the extreme. You will understand what I mean when I say that in at least one of the Indian Universities the philosophical course made no provision for the study of Hindu philosophy, which in late years has attracted the admiration of the Western world, and has resulted in a better understanding between the two races. But, admitting the shortcomings of our University training in this respect, I do maintain that it has not been without value. Sir Theodore Morison, Sir Thomas Raleigh, and Mr. Sarvadhikary have borne eloquent testimony to the results of University education as it now stands. No human being can come into contact with the moral and elevating influence of the literature of one of the noblest races on the earth without being uplifted and edified, and the Hindus and Mohammedans of India, sensitive as they are to higher influences, could not fail to have been impressed by all that is enshrined in the rich and beautiful literature of the English people. The moral elevation of India, as the result of English education, is illustrated by one fact more than any other—the raising of the status and character of public service, to which Sir Theodore Morison has already referred, and which I need not dilate upon.

I do also strongly repudiate any charge of disloyalty as the result of the education imparted in our Universities. It is the grossest libel on my educated countrymen. Can you imagine that an educated person could be so unconscious of the benefits of education, and so oblivious of his own interests, that he would desire to overthrow the British rule? What would educated India be to-morrow if the British rule were not there? We owe everything to the British rule, and the instinct of self-defence—if no higher sentiment—makes us uphold the maintenance of that rule. We have a proverb that no man would ever think of cutting off the branch he is sitting on. Would the educated Indian be so far forgetful of his own interests that he would strike at the root of the tree that upholds him? Allow me to dispel that illusion. The educated Indian is the most loyal person to be found in India. He stands for British rule quite as strongly as a regiment of British soldiers.

But having admitted that present Universities have done much for the moral uplifting of the people, the time has now come when a further advance should be taken in the direction of improving University education. The time has now come when all that is best and noblest in Eastern culture should be combined with all that is most valuable and efficient in the secular education of the

West. If we can do so we shall bring into the educational field not only intellectual men learned in Arts and science, but men of the country imbued with a sense of religion, whose minds are rich with the traditions of their great past, and who cannot fail to be great factors in the moral and spiritual regeneration of the country. With this aim in view I need hardly mention that attempts have been made to establish two Universities on lines somewhat novel and rather different from those on which the present Universities are run. You may have heard that both the Hindus and Mohammedans are making efforts to establish Universities in which the religious doctrines of their respective sects should form an important feature of instruction. The Government of India in its generosity and liberality has given every support to this movement, and has recognised the necessity for trying this new experiment.

I repeat I am here to explain that those ideals, about which our friend, Sir Theodore Morison, and others have spoken to-day, are obtaining recognition in our country, and that we are making efforts to raise education above the purely secular atmosphere in which it at present lives.

THE CHAIRMAN with great regret declared the discussion closed.

RESIDENTIAL FACILITIES, INCLUDING COLLEGES AND HOSTELS IN CONNECTION WITH UNIVERSITIES.

Paper.

IN this paper an attempt will be made to show not only what are the main features as to residential accommodation in the principal Universities of the Empire, but also the direction in which further progress is naturally to be expected. To the authorities of the colleges, halls, and hostels who have been so kind as to supply the materials used in preparing this brief account, the thanks of the writer are gratefully offered. In almost every case the documents essential to a proper understanding of the subject have been generously supplied; but more than that, the heads of many of the institutions, putting aside other occupations, have written with their own hand detailed explanations of the method of government of the hostels under their charge.

Perhaps the simplest point from which to approach the whole subject is to review the accommodation in University centres where there are no halls of residence, or where these form only an insignificant portion of the total residential facilities. Since almost any large city is capable of lodging the full number of University students without special arrangements, the chief question with which the authorities of Universities so situated have to deal is to what extent they think it wise to supervise the housing and general mode of life of those undergraduates who live apart from their parents. At present there is a well-marked tendency to leave the students altogether free in their choice of rooms, and to interfere as little as possible with their liberty in other respects, so long as they attend the necessary lectures and conform to certain simple rules within the University walls. As Dr. Headlam, the Principal of King's College, London, puts it, "We have practically no regulations as to discipline; provided a student does not do anything to get him into the police courts, or in other ways is guilty of public disturbance, we have no control over him outside the gates of the college." It is, however, quite a usual practice to keep an official list of approved lodgings, which is at the disposal of students seeking suitable accommodation in the city. At Birmingham a further step is taken, thus: "A list of authorized lodgings is kept by the secretary of the University, and the students and their parents are recommended to make their selection from this list. But there is no compulsion, and students may reside anywhere with the full cognisance

of their parents, and at their own and their parents' risk. Students in authorized lodgings who misbehave themselves would be reported by the landlady, but we exercise no control over students residing in lodgings outside this list." This association of parental responsibility with other means for the control of the student is unusual but has obvious merits, and it is to be hoped that in the course of our oral discussion some representative of Birmingham University will say how the plan answers. As a general rule the modern English Universities in the large centres of population follow the Scotch methods (indicated above) of dispensing with any special requirements as to lodging, and with almost all disciplinary regulations outside the University precincts. It is perhaps worthy of note that the conditions of residence are stricter as regards undergraduates qualifying to be teachers under the recent regulations of the Board of Education, and that the influence of these regulations tends to the foundation of new University hostels.

In Wales, Cardiff is the only constituent part of the University where men find residential accommodation as they please. At Bangor and Aberystwyth, which are, of course, much smaller towns, students are required to live in licensed lodgings.

Montreal may be given as an example of a city in the oversea dominions which provides for the great majority of the male students attending the University of McGill in apartments of the usual type. In a good many instances, however, the men themselves combine to hire a house and establish what is known as a "fraternity." This is something more than the chance association of friends in a lodging-house, for its occupants own the furniture, find their own servants, admit new members, and form almost a body corporate. The origin of the fraternities is probably to be found in the Universities of the United States and their Greek Letter Society Lodges. In the beginning these societies seem to have been established for purposes like those of the literary and debating societies of our own Universities, but with the addition of certain secret and quasi-masonic signs which, according to trustworthy information, are chiefly enjoyed for their own sake. In certain cases, rooms were hired where members could meet and find some of the amenities of club life. It was not a long step from this to the provision of bedrooms, and to the establishment of hostels entirely controlled by the members themselves. The Fraternity Lodge has great advantages of its own, but it lacks the permanence of a properly established hostel. It is better adapted to the needs of a small community of a dozen men or so than to a larger number. There is often a tendency

to separate out the wealthy students from those of smaller means, and in other ways to bring together young men with the same narrow outlook upon life instead of promoting intercourse between undergraduates of every variety of social and intellectual experience. At its best, however, such a community is full of useful activities of all kinds, and of readiness to obey its self-imposed regulations as well in the spirit as in the letter. Both by their advantages and by their defects, the fraternities have given an impulse to that rapid extension of hostels and dormitories which is at present a marked feature of American Universities.

The next step in regard to organized residential accommodation is the hostel provided by some independent authority, but managed by the students themselves. University Hall, Edinburgh, founded in 1887, is the typical example of this kind of hostel, for though Toynbee Hall in the East End of London preceded it by several years, and though Professor Geddes expressly acknowledges the founder of the latter hall as his precursor in a new social movement, yet its aim was not simply to provide residential accommodation for University students as in the hall at Edinburgh. Moreover, Toynbee Hall had its Warden controlling the whole social organization, even though Canon Barnett's hand was of the lightest, while the chief pride of University Hall is that the senior students manage the affairs of the hostel without any higher authority. It is well to warn those who read this article that they are here brought on to a battlefield where the opposing forces are hostels without wardens and hostels with wardens, and that it cannot yet be said that victory has declared itself for either party. In all probability one type of hostel is best suited to some circumstances, and the other type to different circumstances. But the arguments on the two sides are so interesting and throw such a clear light upon the problem of housing undergraduates that it is worth while to treat of University Hall at some length.

In the year 1887 one of the younger teachers connected with the University of Edinburgh (who from the context is clearly Professor Geddes himself), impressed with the need of providing for undergraduate and post-graduate students something better and more collegiate in character than isolated lodgings, rented three flats at 2 Mound Place, Edinburgh, where students might enjoy the social and other advantages of residence in common. Thus began the system of residence now known as University Hall. "Vivendo discimus," the motto chosen for the hall, rings as finely in its way as "Manners Makyth Man."

Beyond residence and social intercourse, life in University Hall has little in common with the life of an Oxford or Cambridge College. A fundamental difference is that the undergraduate in England is subject to the authorities of his College, whereas a resident in University Hall is subject to the control of no immediate authority except that of the public opinion of his own house. In four of the five houses, into which University Hall had developed by the year 1904, the residents themselves decide by ballot who may become a member of their particular house. While in 1887 there was barely accommodation for seven residents, fifteen years later room for one hundred and forty-five became available. All the houses are within seven minutes' walk of either the Old or New University Buildings. The rooms are furnished as study-bedrooms, and vary in rent from 8*s.* 6*d.* to £1 a week. In addition, there are in each house two Common Rooms. The food bills, which are completely under the control of the students, include the keep of the servants, and also the cost of fire and electric light. Rents are payable to a body called the Town and Gown Association, Limited, who have the power to refuse either to let a room to an applicant for admission, or to continue to let a room to a present resident. Their decisions are final as to all points affecting the external relations of the Hall. Internal matters remain in the hands of the senior residents, that is to say, those persons who have been in residence for six months. The father or guardian (or else a guarantor) of applicants for admission is required to undertake that their rent and food bills shall be duly paid, and the applicant himself has to agree to conform to the terms of a printed constitution which regulates the management of all the houses in their relation to one another. Each house deals with its own affairs through a Treasurer, representing the Town and Gown Association, and a house committee elected monthly by the residents from among themselves.

Professor Geddes adds an interesting detail of this life, namely, that some of the graduates who have been at these Edinburgh halls remain in residence among the undergraduates for years; and even when they marry and settle down it has in certain cases been found practicable to build them houses or flats in the growing group of hall buildings. Thus they still remain interested in the student community as a whole and begin a new social circle within it.

The immediate success of this experiment led to the formation of an inter-university Halls of Residence Committee in 1904, which body addressed inquiries on the subject of hostels to a number of British and American Universities. Amongst other

facts elicited was the surprisingly small total accommodation for men (quarters for 470 students only) provided by residential halls in the Universities of Great Britain, other than Oxford and Cambridge. Edinburgh, with its five halls under the Town and Gown Association, came first with accommodation for 140, Durham second with 115, London third (and that only owing to the establishment in connection with Guy's Hospital of a hall of residence with accommodation for sixty medical students); Manchester fourth with 58 men at Hulme Hall and Dalton Hall. The average cost per student was £56 a year. Since that time there have been several additions to the list. If, as seems not improbable, part of the outcome of this Congress is the foundation of a Bureau of Information in connection with all the Universities of the Empire, nothing could be more appropriate than that such a permanent body should make inquiries and issue a periodical report continuing and enlarging the work of the Committee of Halls of Residence and of our own Board of Education.

Largely owing to the success of the Edinburgh University Hall, a hostel managed upon somewhat similar lines was established in London. Though the new building at Chelsea was begun in 1899, it was not until eight years later that it came fully into operation as a hall of residence with a nucleus largely composed of old Edinburgh Hall men. The hostel was officially recognized by the Senate of the University of London, with the Principal of the University as visitor and with Professor Geddes as Warden. This last point deserves especial attention since the main contention of Mr. Whiston, one of the secretaries of the Town and Gown Association (who seems now to be most directly responsible for the external affairs of University Hall), is that halls of residence without wardens are superior to halls with wardens. Professor Geddes, on the other hand, appears to attach more importance to securing a right spirit in each new hostel by means of a leaven of residents from the older hostels, or, in his own words, "gradually adding house to house, not developing as one great institution; and further, from the very outset, trying to establish what bacteriologists call a 'pure culture.'"

The case for self-governing residential halls has been put with real enthusiasm by Mr. Whitson in an article contributed to the *University Review*. It is scarcely necessary to follow his arguments in detail, but the chief points he makes are that the cost of the warden is saved, that the students become better men and citizens for learning to guide their own footsteps, and that such hostels are more popular because they secure sufficient companion-

ship without any sacrifice of essential liberty. He remarks, "It is not strange that wardens should express the opinion that halls of residence cannot be successful without a warden at the head of affairs. Naturally, these gentlemen cannot believe that the duties, often difficult ones, which they perform, and no doubt perform well, can be allowed to look after themselves. They cannot see that it is because there is a warden that these duties—at least many of them—arise, and that without a warden many of the duties would not have to be performed at all."

This article, as might be expected, called forth more than one reply in the same *Review*. It will be sufficient to notice the answer of Mr. John W. Graham, Principal of Dalton Hall, Manchester. Dalton Hall was established in 1876 by the Society of Friends, and is managed by a committee of that body. It is open to students of all denominations. After working for six years in temporary premises, the institution was removed to a building specially designed for the purpose. In 1893 twelve new rooms and a sanatorium were added and a large plot of adjoining land acquired. In 1901 a house standing in the grounds was used to accommodate yet another thirteen students. The hall is exactly a mile from the University on the side away from the city. It has tennis courts, a covered Rugby Fives court, and a football field. There are twelve tutors giving private tuition in small classes, most of them being also on the staff of the University. All this by way of preliminary, so that the point of view of the warden may be appreciated. Mr. Graham says right out that he does not believe in self-governed halls for English students. Speaking of the multifarious functions of a warden, he emphasises the fact that police duties are a very small part of his service in ordinary times. "To make a hall worth having at all, circumstances, premises, and persons must be propitious. There must be plenty of room indoors and out, ample recreation, steady comfort, and general goodwill. A bad hall is far worse than none at all. A noisy or unhappy hall wastes time, destroys peace of mind, intensifies temptation, and gives scope to the few who are blatant, vulgar, or vicious."

The truth is that the circumstances of University life in Edinburgh and Manchester are quite different. The one city has a great and ancient tradition of complete liberty for the student, and the other has (or had at the time of the foundation of Dalton Hall) no University tradition of its own of any importance. The one student is—to take the average—twenty-three years of age; he is often poor, and generally drawn from the countryside. The other is two years younger; he probably be-

longs to the prosperous middle class, and has urban rather than rural associations. The one hall is designed to give something that the canny Scotch undergraduate can recognize as better and little more expensive than solitary lodgings, the other to provide a local substitute for an Oxford or Cambridge College. Though some small part of the difference in boarding fees (£42 as compared with £90 a year) must be put down to the cost of the warden himself, a larger part is, no doubt, due to the longer terms in an English University. And it may be reasonably conjectured that the tutorial classes at Dalton Hall are also a heavy item in the cost of the Manchester hostel. Probably Dalton Hall would not have flourished in Edinburgh, nor University Hall south of the Tweed, though there are students of every type and length of purse in every University. Mr. Whitson informs us that the Students' Representative Council did endeavour for twelve months, in or about the year 1905, to open a hall at Manchester to be governed by a resident committee of senior students, but in response to an inquiry lately addressed to him he says that he is not aware that the Council has yet been successful in carrying out the scheme. Moreover, the whole discussion (which, it should be said, was carried on in an excellent temper, though with some occasional hard-hitting) came into the hands of those who were responsible for the establishment of University College Hall, Ealing, in 1908. This circumstance gives point to the fact that they deliberately chose to appoint a warden, and their reasons are no doubt to be found in the words of Walton Seton, the Bursar of the Hall and a prime mover in its foundation. "Personally, I do not believe that the presence of a warden means much additional expense, if any. A man who gives his whole time to the work can secure economy in the maintenance of a residential as of any other institution; he can supervise the buildings and prevent undue dilapidation in a way no committee of students can possibly do; he can see that the work is carried out by the domestic staff as students absent most of the day are obviously in no position to see to it. Further, he can do much towards keeping the hall full by advertisement, correspondence, interviews, &c." University College Hall, Ealing, is governed ultimately by the directors of the company which was formed to establish it. There is a committee of management, three members of which are appointed by the governing body of University College. The warden is appointed by the committee of management and is responsible to them. As regards internal discipline, the general aim has been to make the regulations as few as possible, and the committee rely primarily for the main-

tenance of good order, &c., on the personality and influence of the warden and of the house committee appointed by the residents. There is accommodation for forty-two residents, the rooms, with board, ranging from 25*s*. to 40*s*. a week. As the College terms comprise thirty-three weeks in the year, £50 would roughly be an average charge. But to this sum has to be added another £5 for the cost of the railway season-ticket from Ealing to Gower Street. Here is one peculiarity of London as compared with most other towns. It is well-nigh impossible to establish a hostel with four and a half acres of ground, and within easy reach of an athletic ground, except at such a distance from the University buildings as altogether to preclude going to and fro on foot. Another of the conditions of London life is common to many other University cities, namely, that the average payment of London students for board and lodging is not over 30*s*. a week, and therefore less than the average cost of a hostel.

This difficulty has been very well put in a letter from the Warden of Lyddon Hall, a proprietary hostel established in connection with the Yorkshire College (now the University of Leeds), in which the fees for board and lodging amount to £63 for the University year. He says :—

"(1) It is not possible to live decently in hostels for the same outlay as in lodgings, because :—

(*a*) The price of lodgings is set by the very considerable number of people who let them for the housewife's private purse. The student does not pay the full cost of his living. Rent and taxes are paid by the husband, so are repairs and renewals, and the amount paid by the student is often little more than the wages of a cook. Twelve to fourteen shillings per week is a useful addition to the housewife's purse, but it is earned by the attendance alone. I observe that the lodgings which are let for a living steadily deteriorate, there being no money for renewals and repairs. The students are *supported* by their landladies.

(*b*) A man will live without complaint on food which he chooses for himself in lodgings, when he wouldn't look at the same food in a hostel where he has no choice. I found here that the food was much better than in lodgings, but there was great grumbling. I put in a lady housekeeper trained in the modern domestic schools, and gave one instruction : that the same dinner should not be *repeated* on the *same day of the week* more than once a term. This has been carried out, and though there is no increase of expenditure, grumbling disappeared absolutely.

(2) The hostel system on a small scale cannot pay its own expenses. Under twenty-five or thirty students, the standing expenses per head are excessive, *e.g.*, at least eight servants are required for that number. Every additional ten students require only 1 additional servant. For twenty students the *domestic* expenditure, wages, servants' food, &c., is about 10*s.* 6*d.* per student per week; for forty students 6*s.* 6*d.* per week of term, and the expenditure on domestic fire, light, &c., is only very slightly increased in total, and, of course, halved per head."

It seems then that no hostel arrangements are likely to be as cheap as private lodgings; that houses hired, occupied and administered on the fraternity plan by students themselves are only suitable for numbers up to fifteen or so; that halls of residence owned by some friendly proprietary association, and otherwise managed by students, should not contain more than thirty members, and that regular hostels with wardens at their head are most economically administered when there are at least forty students in residence. Obviously this test of numbers is not the only test that should be applied to these various forms of residential accommodation. As has already been intimated, local considerations go far to determine the type which is most applicable to a particular University. On the other hand, more than one type might be found well adapted to a particular locality, but only one exists there simply because others have never been tried. Upon the whole, the organization of halls of residence under a warden, which is the prevalent form throughout the Universities of the British Empire, appears to be that form which is best adapted to the needs of our undergraduate students. But as the principal of one hostel puts it, "All seems to depend upon the character of the warden. Some have too little power given to them; others possess little tact, and by tact I mean (1) justice, (2) good fellowship, (3) discrimination, (4) power of control over himself and others."

Nothing is more noticeable in the correspondence to which these inquiries have led than the wise and tactful view of their position which distinguishes the answers of the lady wardens in women's halls of residence. These approximate more nearly to one another in point of type than the men's hostels, and at the same time they provide for a larger percentage of women students at the Universities. Not only so, but if the Oxford and Cambridge Colleges be excepted, the actual number in residence is probably greater. Thus in 1905 there were 729 women resident in

fourteen hostels, while there were only 470 men in their eleven

As a fair example of the business-like qualities and good sense which are characteristic of the management of these institutions, we may take the hall of residence for women students in connection with the University of Birmingham. The charges vary from forty to fifty-five guineas per annum, according to the size and position of the study-bedroom occupied, and include in each case firing and one scuttle of coals and the provision and washing of household linen. The warden writes, "The number of paying residents (*i.e.*, residents excluding the sub-warden and myself) is fifty-nine this term, and was sixty last term. This is an outside number, and means using the visitor's room as a student's room : fifty-eight should be our normal number. Of these residents, four are members of the University staff, four are secondary teachers (graduates) teaching in the town, six are working at the Municipal School of Art, and the remainder are students of the University or University Day Training College.

"The hall is now the absolute property of the University, and is governed by it through a committee of ladies who are responsible for all purely domestic matters. Questions of finance are referred to the Finance Committee of the University, and by it reported on to the Council. The fact that I am a member (though not an *ex officio* one) of both these bodies provides in practice a close connection.

"The funds of the hall are administered as part of those of the University, the cheques being signed by the treasurer of the University and by me, and the accounts being annually audited by the University auditor. I regard this close association with the University as being of the very highest advantage to the hall.

"With regard to your question as to the maintenance of good order, I am somewhat at a loss for an answer. I am primarily responsible to the House Committee, and through them to the University, for the order of the students under my care, but happily no serious difficulty has ever arisen under this head. I always consult the Chairman of the Committee, who is the wife of the Vice-Chancellor, on any point where I think the committee may take a definite view, but practically questions of discipline of sufficient magnitude to confer about seldom arise. The students are allowed a large measure of liberty and self-government, which they use, as a body, with good sense and moderation. They annually elect a senior student who has a considerable share in the government of the students."

If this continuous growth of the Women's Hall of Residence

in Birmingham be compared with the history of the failure of the hall of residence for men students in connection with the same University, some useful lessons as to the establishment and management of hostels may be learned. The late warden of the men's hall says: "Queen's College Hall of Residence was rented for a short term by Birmingham University to try by experiment whether the students would appreciate a residence, and if so, to what extent such an institution would be self-supporting. The college was opened in October, 1907, and remained open during four complete University sessions. It was viewed with considerable suspicion by the great body of students, who looked upon it as likely to restrict their liberty. This feeling to some extent wore off during the four years. We commenced with eleven students in residence, and our largest numbers were twenty-four students and six members of the staff. The building itself was by no means ideal, being some seventy years old, the rooms small and dark, and the situation in the middle of Birmingham giving an amount of noise and dirt not at all conducive to quiet work.

"It had been expected that the experiment might lead to some wealthy friend or friends of the University taking the matter up and endowing a suitable hall on a convenient site. Unfortunately, the needs of the University in other directions have apparently exhausted wealthy friends. Nor did the financial position of the University itself warrant the Council incurring such a large financial responsibility. Thus, with considerable regret it was decided to close the college last year. This was the more regrettable as one feels justified in saying that had the experiment turned the corner, and given a suitable building in a good situation, there was every probability of carrying on a very useful work, which would have benefited the whole University. We are now awaiting 'pious founders and benefactors.'"

In comparing the two ventures it is worthy of note that the men's hostel was promoted directly by the Council of the University, while the other had its origin in private effort, although afterwards connected with the University in the manner stated by the warden (Miss Margery Fry). Perhaps to the official standing of the men's hostel may be traced the existence of regulations that less docile spirits would regard as vexatious, such as the regulation that matriculated students must wear academic dress in hall at meals, and when calling upon the warden or sub-warden on college business. Next, there is the important fact that the women students were first accommodated in an ordinary dwelling-house, evidently in a small way, and that it was only when the success of this experiment was demonstrated that a site

of over two and a quarter acres was taken and a hall built in the manner that experience had shown to be desirable. Again, though the majority of the women students were in attendance in the old buildings of the University, close to the centre of Birmingham, the present hall was erected in the suburbs, near to the new University buildings, which, as the library and other departments are added, is likely more and more to become the centre of University life. Nor was any scruple shown about receiving into the hostel non-University inmates, whose interests were connected with education or Art. The ladies were determined to do all in their power to make the experiment a success; nor is there any evidence of a disposition on their part to make the continuance of the hostel depend upon the discovery of pious benefactors.

It will be noticed that the primary consideration in almost all those hostels which have been dealt with up to the present, whether for women or for men, is the provision of residential rather than tutorial facilities. Before going on to discuss the residential colleges where much of the teaching is given within the walls of the institution, we shall find some advantage in casting our net very wide and drawing in the Indian hostels for inspection. There is this feature in common between the women's case and the case of the *mofussil* students at the Universities in British India, that the difficulties of finding suitable accommodation in the great towns of the East are often insurmountable. The *mofussil* undergraduate is he who is drawn from the country districts, a student often so helpless by training, and so poor in circumstances, that the question whether some particular lodging-house is sanitary and of good fame scarcely enters into his calculations. As the general arrangements of the Indian Universities will be dealt with in other papers, all that need here be said is that they are, in essence, examining and degree-giving bodies, with constituent colleges in the various centres of population whether these are situated in native or British territory. The colleges are the teaching institutions, and round them are grouped Hindu, Mohammedan, Christian, and other hostels, to most of which the *mofussil* student is given priority of entrance. The Universities lay down general regulations for the courses of study in the Colleges, and the Colleges (or Universities) certain governing conditions for the hostels. For those who have no acquaintance with Indian habits of life it may be added that the picture of a well-found English hall of residence must be dismissed. To the writer of this paper, who derives his impressions almost entirely from the various papers

supplied to him, the circumstances of lodging seem sometimes to approximate to those of the wandering merchants in the *Arabian Nights*, who were wont to put up at the Khan near to the market, to furnish their room with their own travelling equipment, and to go to the various dealers in produce to buy their provisions. In the simplest kind of hostel there is literally no furniture provided; in the next class a cot (without mattress), stool, and desk are provided in each room, sometimes a lamp and cupboard are added. Among the regulations of the hostel it is not unusual to see a prohibition against bathing on the verandah of the house, or lighting a fire for cooking, either there or in the private rooms. A group of students often combine together to form a mess and engage their own cook, a separate kitchen being provided for them: they hire sweepers and attendants; in certain cases those who can afford it are allowed their own personal servant. Possibly as the result of the influence of the warden (who is in most cases a European), a tendency is shown in some hostels to provide a common body of servants for the whole house, and even to serve common meals; in such cases, where there are both Hindus and Mohammedan students under one roof, or Hindus of different social and religious observances in regard to food, separate kitchens are provided. An idea of the wandering character of the students may be gathered from the almost universal provision that students on entrance to a hostel must declare if they have previously been at any other College in connection with an Indian University; also from another provision that students who do not appear punctually to the day, or send any written explanation of the reasons for their absence, may find their room given to some other applicant, even though they themselves have already been inmates of the hostel.

As to cost, let us take, almost at random, three examples of high-class hostels attached to Colleges which are themselves affiliated to the University of Allahabad. The New Boarding House in connection with the first-grade Government College, Ajmer, charges for lodging about 16*s*. 6*d*. (Rs. 12) for a term of six months. Presumably there is no reduction for the vacations, which, in any case, seem to be of shorter period than in England. The rent for the year is therefore about £1 13*s*. Inmates make their own arrangements for food and servants. Approximately the cost of boarding is 11*s*. a month, and of servants somewhat less than 3*s*., so that for a University year of ten months these expenses would not exceed £7. Even if the students remained in the hostel the whole year round, their total expenses for board and lodging could scarcely amount to more than £10.

At the Central Hindu College Boarding House at Benares, the board and lodging for the year of ten months is from £9 to £10, but this fee includes two summer uniforms and one winter uniform. A boarder requiring a separate kitchen for himself is supplied with fuel and uncooked rations and a small enclosure on payment of about £2 a year extra. A cook and kitchen for any sub-caste may be provided without extra charge as soon as ten applications for such provision are received. Again, let us take the Christian Boarding House at St. John's College at Agra, which was founded by the Central Missionary Society. Here the average cost of board and lodging amounts to £7 for the academic year. A point of special interest is that this hostel is soon to be joined to the Hindu hostel, and both are to be thenceforward spoken of as the New Hostel. "In time it is hoped that all religious distinctions may be so regulated as to permit of free social intercourse and a common table. It is not the function of a Christian College to perpetuate caste restrictions, but rather to promote the Brotherhood of Man—and the time for a bolder advance in this direction seems to have arrived. If Indian nationalism has done nothing else, it has done a real service to India in suggesting that it is quite time that many time-honoured, but not strictly religious restrictions, shall no longer be allowed to separate man from man." It should be added that cricket and football matches and other athletic contests are in themselves potent instruments for breaking down class distinctions in India as well as in every part of the British Empire, and we may note with satisfaction that a small sports or gymkhana fee is part of the compulsory expenditure in connection with many of the Indian Colleges. This particular College reports with pride that it took part in a unique cricket match in February of last year. In the deciding match for the Agra League cup it met and tied with the Agra College, the score of each side being eighty-four in the first innings and eighty in the second.

As so few women receive a University education in India, there is little need to dwell upon the hostels provided for their accommodation. Reference must, however, be made to the Isabella Thoburn College, at Lucknow, opened in 1870, in which twenty-five women have taken their degree of Bachelor of Arts. The College is under the management of the American Methodist Mission and affiliated to the Allahabad University, and it possesses a separate residence for matriculated students. Here the cost of board and lodging varies from £10 to £14 a year.

There is still one Indian University institution which calls for

special notice, since it was established in 1875 to provide a College "in which Musalmans may acquire an English education without prejudice to their religion," and a Boarding House "to which a parent may send his son in the confidence that the boy's conduct will be carefully supervised, and in which he will be kept free from the temptations which beset a youth in big towns." This is the Mohammedan Anglo-Oriental College, at Aligarh. Its singularity is that the late Sir Syed Ahmad and its other founders definitely contemplated from the first the establishment of a Mohammedan University and residential college in one. Should that scheme come to fruition—and a great effort is being made at present to carry out the founders' ends—Aligarh College could only be compared to Trinity College, Dublin. For a religious minority such a University becomes not only a chief means to secure leaders on an intellectual equality with those of the majority, but also by reason of its residential homogeneity, it develops the character in a very definite way, giving to its graduates a social outlook which, though capable of seizing by turn each aspect of the needs of the population, and of furnishing leaders to every movement, remains always coloured by an unforgettable tradition. It is this development of character that alone concerns us in our present consideration of residential facilities and their effect upon students; therefore beyond the statement that Aligarh has 528 University students who are boarders, as against eighty-one day students, that 111 of these are already graduates, that there is in addition a school with almost the same total number of scholars, that the fees for board and lodging are higher, but only slightly higher, than those already quoted—say from £9 to £10 10*s*.—nothing is left to note but this: that among the students there is to be found a small number of Hindu students, both in the College and in the school. How far this fact is connected with the affiliation of the College, first to the Calcutta University and afterwards to the University of Allahabad, there is nothing in the documents which have been furnished to show. Probably if Aligahr were admitted as an independent University, the Act would safeguard the admission of Hindu students to the various lectures and the continuance of the Hindu hostel. But it is well known that religious equality may be guaranteed as far as teachers and students are concerned without affecting in any marked degree the essential atmosphere of an educational foundation. All depends upon the governing body and the tradition.

Returning again from India, we may observe that in South Africa there is the same indirect relation of the University of

the Cape of Good Hope to the hostels and halls of residence distributed throughout Cape Colony and Natal—not to speak of the Orange Free State and the Transvaal, where the relations are as yet less well-defined. The teaching is done in the various Colleges, which are affiliated to the University for purposes of examination, and round the Colleges are grouped the hostels. In the arrangement of these, as in India, considerations both of race and religion play a part, but they are the lesser differences between different European stocks and different forms of the Christian religion. College House, in connection with the South African College in Cape Town, may be taken as an example of almost neutral ground. There is here accommodation for about seventy students, out of some three hundred at the College. The fees for board and lodging are £11 5*s*. a term, and as there are four terms the yearly payment is £45. That is, the South African student pays by the quarter rather more than the Indian student for the whole year. A residence for women students has been opened in connection with the same College, at which the fees are slightly higher than at the men's house.

But by far the most interesting University institution for women is the Huguenot College at Wellington, Cape Province. This College "began with the Huguenot Seminary, which was founded in January, 1874, by the Rev. Andrew Murray, D.D., so well-known throughout South Africa. Dr. Murray was greatly interested in the life of Mary Lyon, and he determined to establish an institution similar to Mount Holyoke College, which should be a Christian educational home for the daughters of South Africa. Miss A. P. Ferguson and Miss A. E. Bliss came from Mount Holyoke, Massachusetts, U.S.A., to become Principal and Vice-Principal of the Huguenot Seminary." Here is an instance of the leaven already spoken of—that "pure culture" which can be transferred from one environment to another. From this Seminary sprang the Collegiate department, which was incorporated by Act of Parliament, 1907. Board and lodging at the College House, which provides for about sixty persons, including women students and professors, is £40 for the academic year. The College is absolutely unsectarian, and students are permitted to attend any of the churches (Dutch Reformed, English, and Presbyterian) of the village of Wellington. There is also a Sunday evening service for students in the College Chapel. In the Huguenot College the usual proportion of the sexes is reversed; young men, resident in the neighbourhood, are allowed to take the classes, but as the total number at the College is only sixty-six, they are seen to be altogether in the minority.

It may be added that some of the best features of American college-training are here clearly discernible, and that a number of the staff are still drawn from the States.

In New Zealand we find one more example of a University which holds together a number of teaching colleges by the tie of examination; but as there is so little in this Dominion in the way of organized residential facilities, it is best to pass at once to the prototype of all Universities of this class, namely, the University of London.

Two of the London hostels have already been taken into consideration, namely, those situated at Chelsea and Ealing respectively, but in neither of these were residential facilities connected with tuition within the buildings. As might perhaps be expected, the foundations that provide for University instruction and for residence in the same place are chiefly associated with women. Bedford College takes rank with the highest of the London colleges, and through its association with University College and other colleges within the London area is able to supplement any deficiencies in the scope of its own teaching facilities. Those responsible for the management of the colleges have been able lately to accomplish what seemed a well-nigh impossible task, that is, to find a site of nine acres, with well-wooded grounds and a good house, scarcely more than two miles from Charing Cross, and to obtain a building and endowment fund of £100,000. At present there is residential accommodation for sixty-three students, partly in the present College buildings in York Place, Baker Street, and partly at South Villa, Regent's Park, which is the recently acquired property. The buildings proposed to be erected on the new site include a library, laboratories, lecture-rooms, and a specially constructed residence for students; upon their completion, the whole College will be transferred to its new quarters. The students have opportunities for lawn tennis, boating, swimming, hockey, and gymnastics. Those in residence pay fees ranging from sixty-eight guineas to seventy-three guineas a session.

Even more liberally endowed is the Royal Holloway College, close to Windsor Forest, but by special enactment included within the University of London. As is well known, this College was founded by the late Mr. Thomas Holloway, "to afford the best education suitable for women of the middle and upper-middle classes." The estate was bought for over £25,000, and more than £600,000 has been spent upon the building. An endowment fund of £200,000 also forms part of this magnificent bequest. It is not perhaps so well known that the founder desired that powers

should ultimately be sought to enable the College to confer degrees on its own students. Thus we are again brought face to face with a residential institution, consisting of a single college, which was created to be, but has not so far achieved the position of an independent University. For some time the students entered as freely for the examination of Oxford University as of London, but in recent years they have almost all taken the London curriculum. For instance, in 1910 there were forty-four London University graduates, and only two who took the final Honours School at Oxford. The College estate is ninety-five acres in extent, and in connection with it there are facilities for almost every form of athletic exercise. There were 164 students in residence in 1910. Provision is made for the admission of non-resident students, who must in general reside with their parents or guardians; but from the position of the College, at some distance from any large centre of population, these students are a negligible quantity. The charge for board, lodging, and instruction is £100 a year, and for instruction only (in the case of non-resident students) it is £12 a term. This seems to indicate that board and lodging alone are to be reckoned at £64 a year. As regards the governing body, the founder indicated various public bodies which should nominate members, but laid it down precisely that at no time should a woman be appointed a governor or honorary governor. This cannot but be regarded as a singular provision in regard to a College especially designed to be a residential institution for women; and, as a matter of fact, the provision has lately been set aside as non-fundamental in character.

Of special interest also was the founder's desire "that the domestic life of the College should be that of an orderly Christian household," and with this view he directs "that the lady principal shall, every morning during the College session, conduct in the presence of the students a simple religious service, consisting of a psalm or hymn, and reading a portion of Holy Scripture, and some form of prayer approved by the Governor. The lady principal may, with the sanction of the Governors, make from time to time such provision as be expedient for the conduct of public worship on Sundays in the College Chapel, but no permanent chaplain shall be appointed, and no arrangements shall be made which would identify the College in any way with any particular sect or denomination of Christians. The students shall have the right, under proper regulations, to attend the services of any religious sect or denomination which their parents or guardians may desire." It is a noticeable feature in regard to

many women's residential halls and colleges that there is an absence of any denominational bias in the governing body or in the regulations for religious observances. There are, of course, very remarkable hostels for women organized by the Church of England and by the Roman and other Churches, but these foundations are the exception, whereas in the case of men students it would probably be nearer the truth to say that the majority of University hostels, even those of quite modern times, were founded and are still governed by or on behalf of religious agencies, and that the men are expected to attend religious services associated with some particular creed unless they show special cause for not doing so. One explanation of this may be the paucity of women students at most Universities, and the attendant difficulty of establishing more than one hostel in each University to accommodate them.

It should be observed that the arrangements for external students at this University make it quite possible, anywhere in the Empire, to start a hostel exclusively filled with students preparing for the London degree, though such an institution would, of course, have no voice in the administration of the University. There may or may not be such a place for all that the writer of this paper knows, but what he does realise is that in some distant hostel, say a hall connected with one of the Welsh University Colleges, there are not infrequently students in residence, drawn from a great inland centre of population like Birmingham and working for the London degree. "Non-local" residential facilities can scarcely go beyond this point.

If we turn to Ireland, we find that in the past there have been two extreme types of accommodation for students. There has been the single college which is both University and hall of residence rolled into one, and there has been the purely examining University, with its dispersed colleges round each of which hostels may, or may not, be grouped. Trinity College, Dublin, is a University world in itself, of which no adequate explanation can be offered in a short paper like this on residential facilities. But a warning may be offered to those who feel disposed to class that great Elizabethan foundation as simply an educational bulwark of Protestantism in a Catholic country. The truth seems to be that until the last century at any rate, the Nonconformist student who got his education in Trinity was not in the main stream of the University at all, and that whether he was Roman Catholic or Presbyterian. Residence at this University has upon the whole exercised a moderating and somewhat Erastian influence upon the character of its students. A tradition

such as this, especially if reinforced by the brilliance of intellectual achievement of its *alumni*, is not easily disturbed. It may then be predicted with some confidence that Trinity College, Dublin, will still offer facilities for the leaders of public opinion, who there get their training, to understand one another and the needs of Ireland in a very special way, a way that it is not easy to reproduce in another and newer University. As to the fees payable at Trinity for board and lodging, it is not easy to come at them from the regulations of the University Calendar, and apparently no explanations have been offered by the College authorities. Those delegates to the Congress who have arranged to visit Dublin will doubtless receive full information on this head, and we may perhaps hope that a few particulars will be given by some representative of this University in the course of our oral discussion.

The new Queen's University of Belfast (formerly the Queen's College, Belfast, in connection with the Royal University) has no hostels, nor any rules for discipline of students living in lodgings. Attached to the University College of Cork is a recognised hostel for lay students opened by the Franciscan Fathers. The fee for board and lodging is £30 for the academic year. There is also a hostel for women.

But as an example of a highly successful residential college for Irish women it is sufficient to name St. Mary's University College, Dublin, which sprang out of the Dominican Convent in Eccles Street. The object for which the University College was founded was to afford Irish Catholic women an opportunity of separate University study. The Principal writes: "As our College has not yet been recognized as a constituent College of the National University, we opened last July a hostel in St. Stephen's Green that our students might still enjoy all the advantages of University life while attending lectures at University College, Dublin."

In Canada it is possible to study the natural history of the single-college University under unique conditions. Nova Scotia alone possesses at least four of these Universities, of which one only is situated in a town of any size. That is Dalhousie University, in the city of Halifax. But the other three, King's College at Windsor, Acadia College at Wolfville, and St. Francis Xavier College at Antigonish, are all degree-giving institutions with residential accommodation for their students and in the neighbourhood of villages or, at most, small towns. The first is in connection with the Church of England, the second with the Baptist community, and the third is for Roman Catholic students.

To deal with St. Francis Xavier first, there is one feature of the college that delights the senses. Well waxed floor, spotless coverlets for the beds, an entire absence of dirt, food that is good, abundant, well cooked, and properly served, every detail of household management thoroughly carried out—the explanation of arrangements so unlike those that betray the hand of the "bedmaker" or "scout," is that the domestic department is under the directions of a religious community, the Sisters of St. Martha. There are 251 students, many of whom are drawn to Nova Scotia by the opportunity of learning English thoroughly in a Catholic University. The fees are about £23 a year for board and lodging, and this includes washing and laundry.

But what is to be said of the diminutive Baptist University only twenty miles from the still more diminutive Church of England University? Why should not both be swallowed up in the University of Dalhousie, which, though Presbyterian in origin, is practically undenominational? The answer is that a considerable effort has been made on more than one occasion to bring this about, but that the single-college residential University proves to be one of the most difficult of bodies corporate to amalgamate with anything else. It is established in most cases with the aid of subscriptions from the mother country, by some religious denomination which has its agencies at both ends, and can bring out the teaching staff necessary to start the college. Through its various branches in the new country, the church can make the institution widely known, and use its influence to obtain students. Such a widely-spread net is difficult to transform except by complete reconstruction. But there is something more than this urging every religious denomination towards the establishment of its own separate residential institution for higher learning, and that is the necessity for training the clergy under suitable conditions. To send intending ministers to obtain their education at a University founded by another denomination, to expose them to all the temptations of life as lodgers in a great city, even to bring them into contact with students of every variety of belief in a common hostel: these are risks that many of those responsible for the training of the clergy do not care to face. As soon as one denomination, moved by these and other considerations, has obtained leave from the legislature of a new country to establish its own seat of higher learning, and has made the necessary residential arrangements, there is an inclination on the part of other denominations to press for equal facilities. At the present time it is scarcely conceivable that any British legislature, having power in a self-governing dominion or a Crown

Colony, would allow an Act of this nature to pass; but in the days in which King's College, Windsor, was founded, the English Church naturally followed the Government to Nova Scotia. Dalhousie College, in its turn, represented the Presbyterian interests, and according to Scotch notions was established in a populous town. Then came the turn of the Baptist community, which was beginning to occupy a strong position in the province, and though their difficulties take us a little beyond the simple consideration of residential facilities, yet it is scarcely possible to separate these from other and more general considerations when Universities of this type are under review. It is best to let one of their own pastors speak for himself:—

"The prejudice of the Baptist people against an educated ministry, together with the causes and degree of its strength, must be brought clearly before us in order that we may understand and admire the adaptedness of the instruments employed, right instruments fitted just in the right time and manner, for a remarkable work; one no less than removing in a wonderfully short time the existing prejudice of a large community, indifferent to all education, and actually hostile to that of ministers, and transforming them into some of its strongest friends.

"It was hardly unreasonable for the Baptist people to become thus hostile. They had very few, if any educated men in their congregations. The position Windsor held towards them excited no favour for learning. The common schools were too often of the meanest order; but, more particularly, they had learned the Gospel from uneducated teachers. Their churches early in this century (the nineteenth), or in the end of the century preceding, had been largely formed from Christian societies, gathered, in the first instance, by earnest preachers of some Congregational type—good men, possessing strong religious affections, and very limited mental culture, and whose honest Christian character was accompanied by some extravagances, but who were sound on most points essential to earnest and active Christian life—just the stamp of character which would have little sympathy with that style of religion, however sincere, which is wont to retreat behind the screen of exact literary knowledge, of honoured forms, or of superior social position. The coldness, too, real or supposed, which the people found in the educated ministers of some other denominations, they contrasted with the warmth of their own preachers, and concluded that education destroyed in the soul the principle of religious life, so that this error was daily increasing in strength and difficulty of removal.

"The pastors, indeed, who afterwards presided over these communities when they became Baptist churches, and by whose

labours they grew rapidly, differed in many points from their earliest teachers. With equal zeal, they possessed more solid judgment; they often lamented, even with tears, their own deficiencies, their want of mental training, and of Biblical and general information."

Given these conditions, it is easy to see how first the Horton Collegiate Academy, and afterwards the Acadia College and University, arose as separate institutions under Baptist control, though at no time were any religious tests imposed upon the students. The village of Wolfville, close to the proposed site of the College, contained only three or four houses, so that to erect a building large enough for the accommodation of students would have required larger funds than the leaders of the movement had at their command. They were quite determined, however, not to found their University in or near a large town. In this extremity a happy thought arose in some mind. "Why not," it was asked, "attempt to build the College without money? Ask not for money, but for materials and such other things as the people have, timber boards, nails, work, &c." And this is what was actually done.

At Acadia University there are now 176 students in the Department of Arts and Sciences and twenty-two in the Department of Theology. With others in the Department of Applied Science, and with unclassified students, the University has a total of 230. It sufficiently indicates the standing of Acadia College that students who have completed the course in Engineering are admitted to the third year of the Faculty of Applied Science at McGill University. In the College Residence there are rooms for about sixty students (men), and the average cost is about £30 for an academic year reckoned at forty weeks. There is also a College Women's Residence. "Other young ladies are only permitted to board at places approved by the faculty, and never at residences where male students are boarding."

Without understanding something of the earnest purpose and ever-growing respect for learning of the Protestant population of the Maritime Provinces, and, on the other hand, without comprehending the fissiparous tendencies of their religion in regard to education, it would be difficult to find the clue to the development of the modern Canadian Universities, especially upon their residential side. These provinces have furnished to the Dominion many of her ablest men and clearest thinkers, and their influence, as will appear later, has generally been used to prevent the establishment of conditions in regard to higher education such as they experienced themselves.

In striking contrast to these conditions are the results produced

by the organizing genius of the Roman Catholic Church. Connected with the University of Laval there are eighteen colleges for students in Arts established in the different towns of the province of Quebec. Only those students whose home is in the town are usually permitted to live outside the college walls. In the city of Quebec alone there are 300 residents in the central college. Students in Law and Medicine live in boarding houses absolutely independent of the University. In any just consideration of this immense organization it is well, however, to remember that Laval does not model itself upon the same lines as Universities in most other parts of the British Empire. Doubtless many of the students in Arts in these eighteen colleges would be found in the upper classes of one of our classical high schools. But as far as residential facilities are concerned, it would be difficult to find a more complete system in any territory under the Crown.

Bearing in mind these features of the two University systems, we shall better be able to understand the residential arrangements of the McGill University. There two of the quite prominent buildings are the Diocesan Theological College and the Presbyterian College, both of them residential institutions for the training of ministers of religion. It seemed vital to the small minority of Protestants in the province of Quebec that the teachers in their churches as well as in their schools should be educated under Protestant conditions; indeed, perhaps necessity alone induced Presbyterians and members of the English Church studying for the ministry to come together in one University. McGill has, of course, outgrown these early conditions, and become one of the great Universities of our Empire, yet still the only conspicuous residential buildings are these theological institutions.

In Toronto University the aim has been to group the smaller Universities of the province of Ontario round the one great State University, and through their co-operation, and by means of the establishment of independent foundations, to provide adequate residential accommodation for both men and women students. The history of Trinity College, with its dependency—St. Hilda's—for women, will serve as an example of this process.

In the middle of the nineteenth century King's College, which had been founded in close association with the Church of England, was secularised by Act of the legislature of Upper Canada. As a result of this, various denominational Universities sprang into existence, and among them Trinity College as a Church of England institution. After some fifty years of inde-

pendent existence, this college has now cast in its lot with the State University of the province and becomes a residential Arts college therein. At the same time, it remains an independent University of the Church of England in respect only of the faculty of Divinity. The numbers of students are as follows: Men (resident) 102, men (non-resident) 54, women (resident) 54, women (non-resident) 17. Board and lodging for the men comes to about £35 for the academic year. These students are, of course, only a small part of the total collegiate and non-collegiate population of the University.

Passing over Manitoba in favour of still newer provinces, we find that as regards Alberta and Saskatchewan the authorities have determined to start a single provincial University with residential accommodation on lines that shall prevent the difficulties that have been experienced in the eastern provinces from ever arising in these cases. The President of the University of Alberta writes thus:—

"Our University is to have a complete residential scheme. We have one residence now complete which will accommodate about one hundred and fifty students, and a second in the course of erection. In addition, Alberta College, a residence belonging to the Methodist Church on the University grounds, has residential accommodation for about one hundred and fifty students. The Presbyterian Church is also building a college for the same purpose. We have no definite disciplinary regulations. The residence is under the control of a committee known as the House Committee, on which the senior students in residence have representation; in fact, are in the majority, one of the professors being chairman. The system of rules with regard to hours of work has been drawn up by this committee and approved by a body known as the Committee of Student Affairs, composed of representatives of the Faculty, the Governing Body, the Senate, and the Students. In fact, our scheme is very largely one of self-government, the Committee of Student Affairs being a sort of second chamber for the purposes of passing on regulations made by the Student body and the House Committee for the government of the students. We have found the system to work admirably so far."

At present the University of Saskatchewan has not brought its residential arrangements into so definite a shape, but it must be remembered that the University Act was only passed in 1907. There is to be a University Residence for 130 students, and it is expected that a fee of £1 a week will cover living expenses.

To find another example of so clearly-defined a residential

system we must cross the Pacific. In the Melbourne University Calendar is (or used to be) shown a ground-plan of the University buildings with the sections of land reserved by the Act of Incorporation of 1853 to the use of the various Churches (Church of England, Presbyterian, Wesleyan, and Roman Catholic) for residential purposes. In the centre of all is the recreation reserve. Ormond College is the largest of all the residences. It stands in the reserve granted by the Government to the Presbyterian Church, and was mainly built with money contributed by Mr. Ormond, whose donations and bequest amounted to over £100,000. The college is open to members of all religious denominations, and students may be resident or non-resident. Meals are provided for resident students in the College Hall at stated hours, but academic dress is only worn at dinner. Non-resident students may lunch in the hall. The fees for board and lodging range from about £57 to £75 a year, with this peculiarity, that the senior students pay the lower amount. There is also a fee of 12 guineas for college lectures, tuition, &c., payable both by resident and non-resident students. All resident students *may* attend morning and evening prayers in the college, and *shall* attach themselves to some congregation of the particular Church to which they belong. Women can become students, and in some of the colleges there is a hostel established for resident women students.

It will be noticed at once that the grouping of these colleges about the University buildings, and the general arrangements for tuition and residence, bring Melbourne University more nearly into line with Oxford and Cambridge than any of the modern Universities which we have so far considered. The chief difference is the equal place assigned to various denominational bodies in regard to the residential arrangements. In connection with this, it may be observed that in recent years Oxford and Cambridge have admitted denominational halls (some of which have no connection with the Established Church) to a smaller or larger part in the University life. And if we go back to the early days of those Universities, we shall be able to find a parallel to most of the conditions of residence which have been set forth in this paper; for instance, a parallel to the halls managed chiefly by students to which allusion has been made in connection with Edinburgh University. And though the small degree-giving residential colleges of Nova Scotia may seem foreign to the atmosphere of our ancient Universities, yet we should remind ourselves that it is not so long since New College and King's granted their own degrees.

Into the facilities for residence at the Oxford and Cambridge Colleges it is not proposed to enter here. These are so well known to all who are likely to attend the Congress that it would be waste of time and paper to set them forth. And, in any case, there are the student's handbooks to the two Universities and their Colleges, one published by the Clarendon Press at Oxford, and the other by the Cambridge University Press. These give all the information that can be desired.

But a question may arise in the minds of some of those who consider the great tradition which these Colleges are still carrying forward from one University generation to another. Have they had a sufficiently direct influence upon the growth of the hostels and colleges in the newer Universities? It happens that the writer of this paper was consulted quite lately in regard to the residential arrangements at the very newest of Australian Universities—the University of Western Australia, and that he then gave advice as to the establishment of halls of residence upon a plan which, so far as he knows, has never yet been tried. His proposal was that the University, instead of making its own arrangements for residence, or calling in the various Churches as its agents, or waiting for a body of persons interested to promote a proprietary hostel, should arrange for one or more of the colleges at Oxford and Cambridge to associate themselves with the undertaking. Unless the new University itself were in a position to guarantee the initial expenses, a local committee would still be needed to invite the Master and Fellows to send one of their body, or perhaps a small group of members of the college, to establish the daughter institution. Since in the beginning the warden of the new college might also be a professor of the University, and since much of our experience tends to show that it is best to start a hostel in a small way in hired premises, those initial expenses need not be large. The endeavour to obtain any large endowment might well be deferred until the new college had proved its worth, and this comparative poverty at first would go far to ensure that only the worthier part of the traditions of the mother college was transplanted to its fresh home, the traditions of high learning, of great men, and of "playing the game." This idea can better be developed in our oral discussion than set out at length in a printed paper, but delegates to the Congress are asked to reflect in the meantime that the method is no less applicable to such a University as Birmingham, for example, than to the distant Universities of Western Australia or Saskatchewan.

E. B. SARGANT.

Discussion.

PRINCIPAL W. M. CHILDS, M.A. (University College, Reading): I regard it as a high honour to be invited to address the Congress upon this important question. The institution at Reading which I represent is not within the charmed circle of the Universities which are admitted to this Congress as of right. We are not a University, though we propose to become one at the earliest opportunity, but at present we are that contradiction in terms—a "University College." But even so, and although we are youthful, it does so happen that relatively to the other new University institutions in England, we lead the way in the provision of halls of residence. We have it on the authority of the Board of Education, an authority which no one in England ever challenges except when it happens not to be on their own side, that a year ago the total number of places provided by these new Universities and University Colleges in their halls of residence was 950. Of that number we at Reading at that date provided 194; we now provide 210, and quite shortly we shall provide about 270. That is a more extensive provision of hostel or hall of residence accommodation than is to be found anywhere else among the new University institutions of England, a fact which I cannot help observing seems to have escaped the notice of Mr. Sargant. At Reading, for numerous reasons, we adopted this system some years ago, and we believe in it. We require every student under the age of twenty-five, man or woman, not living with parents or guardians, to reside in a hall of residence, provided there is room for him, and provided that the student is undertaking a degree or a diploma course of study. I ought to say that we have been most fortunate in finding among our friends benefactors who shared our belief in, and our enthusiasm for, the system of halls of residence. There may be some here who have seen, for instance, that hall at Reading known as Wantage Hall, which is the personal and noble foundation of Lady Wantage, and if so I think they will agree that it is the most admirable collegiate hall of residence for men that is to be found in England outside Oxford and Cambridge.

In a ten minutes' address it is necessary to go straight to the point. Why is it desirable or necessary for Universities to pay attention to the corporate welfare of their students, and in particular to equip themselves, so far as those students whose homes are at a distance are concerned, with halls of residence? The answer is that while you can have a University without these things, without paying very special attention to them, you cannot

have the best University education. We were reminded yesterday by Lord Rosebery—and you, sir, have reiterated the truth to-day—that education has to deal with character and life as well as with formal instruction and scientific research. The purpose in short is not to turn out simply freaks or experts, or even specialists, but the purpose, ambitious though it may be, is to turn out men and women competent to bear their part in the various stresses of the battle of life which lies before them after they leave the University. If, however, that is the purpose, it becomes obviously necessary at once to consider, not only what amount or kind of formal instruction is necessary to fit them for that kind of future, but it is also necessary to consider what are to be the experiences which your students while at your University will undergo apart from those experiences which are merely academic. I venture to say that no University can possibly ignore that wider aspect of the problem. The moment a University makes the simplest rule of discipline it acknowledges the existence of that wider question, and it is a problem which has derived further urgency in an age in which women as well as men are admitted to all our University courses, at any rate in the new institutions. I can recall the existence of a University across the Atlantic which allowed this problem of the corporate life of its students and the conditions of their residence to drift pretty much as it pleased, to find at last that it was a problem which had attained such dimensions that the authorities of the University felt it necessary to summon to their councils, and appoint as an officer of discipline, an experienced police officer from a great city. But there are other and better ways of solving even the disciplinary part of the question. I am here to touch only upon one, and that one is the hall of residence.

There is nothing new or original about it. After all, the residential hall is the great contribution which mediæval Oxford and Cambridge made to the problem of University life. Modern experience more and more commends that contribution. It is true—one has reason to know—that in the great new Universities of the United States, whereas years ago the idea prevailed that nothing was to be learnt from the practice of English Universities, and nothing certainly from the practice of our collegiate system, now it is more and more realized that the mere growth of numbers and accession of prosperity means an aggravation of troubles unless something can be done to provide proper conditions—that is, conditions, broadly speaking, on collegiate lines—for the residential life of the thousands of students in attendance at the University. To come nearer home: last year Lord

Balfour of Burleigh, as Lord Rector of St. Andrews, urged on the Scottish Universities that they should pay more attention to the residential conditions of their students, and he urged it on the ground, not merely of disciplinary precaution, but rather because it is by bearing their part in a vigorous, spirited, responsible comradeship and community that a man or woman undergoes that kind of training in the art of living and the conduct of life which is the best possible preparation for the sterner exigencies which lie before students as soon as they pass through the portals of Universities to the greater world beyond.

But, sir, if a hall of residence is to fulfil these purposes, there are certain conditions which, in my opinion, it must observe.

The first of these is that it should not be too large. Whatever may be the advantages of living in a hall of residence, I do not think there are any advantages in living in a crowd, and I should say, having regard to a good many considerations, that seventy or eighty is the very maximum number for a single hall. In the second place—and I urge it with equal earnestness—the students in a hall of residence should not all be of one sort. To illustrate that point, without dwelling upon it, I do not hesitate to say that no more disastrous or dismal blunder has been made in this branch of practical education than the segregation into separate halls of residence of those students preparing to be teachers. If you wish to have a variety and richness of life in your halls you need students of all kinds, students of differing antecedents, courses of study, and destinies. Thirdly, the life there must be conducted with dignity, each student having a private room, the arrangements for meals and life generally being on University lines; and as far as possible the students should preserve their own order. Lastly, I do not think it wise for a University to allow its halls of residence to become centres for teaching.

In conclusion, I am certain that the whole question (of which this is only a branch) of the corporate welfare of students is receiving, and must receive, more and more attention at the hands of the new Universities of this country. It is possible to pursue a course of study leading to a degree, and to get the degree, and yet never to have known at all what a University education means. I am told that it is possible in London for a student to spend four hours a day in trams, tubes and train, in getting to and from his home or lodging and the University, to have to take a long journey in order to reach the University playing fields, to have no opportunities, or very scanty ones, for cultivating friendships—which is one of the main reasons why a

University education is desirable—to have little or no share, through want of opportunity, in the management of student organisations, and to have few opportunities of expressing *esprit de corps* except, perhaps, some not very mannerly exhibition at a degree ceremony. Call it what you please, that is not University education. There may be many correctives, but I know of none better than that the new Universities should take from the older ones their fine tradition of the collegiate hall, and that in simple and economical ways, and yet in ways conservative of dignity, they should adapt it to the purposes which are peculiarly their own.

PRINCIPAL R. A. PARROCK, LL.D. (Bishop's College, Lennoxville) : I may say at the outset that I stand here as the representative of one of the smaller Universities of the British Empire, situated in the province of Quebec, an institution that has ventured to transfer the traditions of the residential life of the Universities of Oxford and Cambridge to a country place in one of the colonies, and that has been conducting a University on these principles for over sixty years. We have established, I think, an atmosphere and tradition at Lennoxville in favour of the residential life, and are now able to say that we are proud of it, and that we leave a mark upon our students owing to this residential system which is recognized in the public life of the country. I say this to show that with wise adaptation it is possible to transfer these old traditions to new lands, and thereby do something of great importance for the life of the Dominions beyond the seas.

Now I think we have to remember that this is no new question. The question of residential and non-residential Universities is a very old one indeed. We may almost say that from the very beginning we have had Universities springing up and developing on both lines. There is that principle of the life of Oxford and Cambridge which was connected largely in the beginning with the monastic rule, and there is also the entirely different tradition connected with the Scottish Universities and with the great Continental Universities. On the one hand it was thought necessary that, in order to enjoy the corporate life of the University or College, all the students should live, under a common rule, a common life with common ideals. On the other hand it was thought sufficient that in large centres great teachers should assemble and give courses of lectures which gradually attracted more and more students, and that the individual life of the students should be left entirely to themselves, and as long as they

did not break the laws of the city or country in which they lived, they were left absolutely free from any University control. I venture to think, sir, that at the present day there is a tendency in the great Universities of the cities, as well as in the smaller Universities of the Empire, to realize the great importance of the residential system in forming a corporate life and corporate tradition, and this feeling comes to a great extent, in the Dominion of Canada, from the students themselves, as it also does in the United States. We find that the students in those large and magnificently equipped Universities for which our cities are famous, by means of fraternity houses and by other methods, are feeling after this common life, and personally I think this is a good sign. Those fraternity houses and similar institutions should be brought under the control of the University authorities, and may lead gradually to the establishment of colleges and hostels which give a true idea of the corporate life.

As to the details of life in these colleges or hostels, I think, speaking for a comparatively new country like that in which my lot is cast, and has been for the past twenty years, that we require very few rules indeed. The students have to live under rule, it is true, but I believe the fewer the rules the better. I also feel that in this connection the personal contact between the members of the teaching faculty and the students is more important than the framing of a set of elaborate regulations. This personal contact between members of the staff and the student body outside the lecture hours is one of the great benefits of the residential system—at any rate we feel it is so in the University with which I am connected. It is not only that we have the unmarried members of the faculty living among the students—it is a small University where it is possible to carry out these ideals—but we also have a group of houses where the married members of the faculty live, and these homes, with their refining influences, are open to the students, and I believe do much to form their characters at an impressionable time of life. For in Canada the average age of the students is probably rather younger than the average age of the University student in England. It is quite common for those coming from Canadian schools to pass the Arts Matriculation at the age of sixteen, and sometimes even younger; and probably the average age of entrance to a University course is seventeen. These years, between seventeen and twenty or twenty-one, are, as we know, the most plastic years of life for the formation of character; and I believe that in this residential system, wisely administered, we have a most valuable factor for forming a sound character which will be of benefit to the whole

after-life of the student and to the community in which he lives. These details, as was said at our preliminary conference at Montreal, are details that have to be carried out differently according to differing circumstances. In the case of a University consisting of one college, it is easy to carry them out if one has the financial assistance necessary for the provision of residences, dining halls, &c. These things require a good deal of endowment and financial backing, at any rate in the early stages. But I am sure that as those who are encouraged to help our Universities and Colleges financially realize the importance of this great question, so more and more money and endowments will be available for the establishment of residences.

In conclusion I should like to say that I hope a very wide view indeed will be taken of this question and of the other great and important questions that have come before this Congress, because we are not merely dealing with instruction, but with education in the highest sense. I believe, through competent instruction, combined with the residential system and the sense of corporate life, we shall be able to produce men of knowledge and men of culture, men who have learned through close contact with other students the lessons of loyalty and unselfishness before they complete their collegiate course, men filled with the enthusiasm of humanity, broad-minded men fitted to be the leaders of the coming generation, and men who will be able to recognize their opportunities and make wise use of them for the benefit of the particular part of this Empire in which they live, and some of them for the benefit of the whole Empire at large.

PROFESSOR PATRICK GEDDES (Warden of University Hall, Chelsea): We are all agreed, I presume, about the general desirability of hostels. I would rather fix on one or two points which may be briefly pointed out.

That residential accommodation of some kind has to be provided at Universities I take to be a matter that is quite obvious; but of what sort should this be? I desire to follow Principal Childs in protesting against the disastrous method of segregation of the students of a single faculty, whether of the teaching or medical profession, or law students. It is a method which directly reproduces the historical defects of the ecclesiastical seminary without its advantages. I plead for the freer mingling of all the faculties, even the faculty of Fine Art, for instance—whether in the University or not—of all liberal professions, whether recognized or not. My point is that residential halls would increase their usefulness by running somewhat ahead of the definite limitations of the Uni-

versity, and by welcoming all the professions, from the architect to the accountant, whether there is a University degree or faculty for them or not. In this way the University would gather together all the professions, and the hostels meet economic difficulties. Of course the opposition of landladies would have to be reckoned with; landladies are a sweated industry, who can undersell any University hall; consequently a hall must be in great difficulties if it be not carried out as far as possible on a self-supporting basis.

In this matter there are two great difficulties. Firstly, that of limited income, deficiency of income in the early years when residents are few. Secondly, where properties are held by the company owning the hostel, their value tends to depreciate. Everybody knows that house property is now worth less than it was ten or fifteen years ago, and consequently the capital value of the property has decreased. Therefore very reluctantly I am compelled to confess that it would be desirable to possess some margin or guarantee in establishing such ventures. This need not be great, however; rather it should be small to stimulate economy in management and general efficiency.

Then Mr. Sargant sums up somewhat too simply in his proposition that the one main matter is the problem of Warden or no Warden. It is not so simple as that. The point which is really important is whether or not these organizations are governed from without by the University, or from within by the Warden, or whether they should be governed from within by the men themselves. The third alternative is the principle I press for, and which the institution I am Warden of in Chelsea exists to secure. The other method is of the seminary under authority, with its inevitable tendency amounting almost to the necessity of revolt and the establishment of new regulations in a vicious circle. By allowing the students to make some of their own mistakes they are sent into the world more ready to face it. No one welcomes more than I do the guidance and suggestion of the historic English Universities in this matter of residence, which is one of their greatest contributions to the culture of the world; still, their example does not suffice. In a Scottish University forty or fifty years ago a great endeavour was made to establish a hall of residence, and admirably begun. An excellent tutor, both for work and play, was brought from Oxford, and all went well for a time; but a new authority came in—all that could be desired in many ways, but with a little over-regulation—with the result that the hall was soon in rebellion; the men were sent down, and the whole thing ended in disaster.

There has since been the greatest difficulty in establishing halls of residence in any Scottish University. Had these residents been accustomed from the first to a reasonable self-government, these difficulties would not have arisen. I do not say that in Edinburgh we have never feared a scandal. We sometimes have; and it required considerable self-denial not to interfere, and to leave a group of young men to work out their own difficulty as far as they could, but this is better than authoritative settlement. Undoubtedly these houses are subject to deterioration; for even when you start with the best group of men, when the best ones leave the house the less effective remain and colour the whole house, perhaps to its disadvantage. In a year or two, however, the life of the place renews itself, and the hall is pulled together.

So much for the inner life; now for the outer life. Just as we have seen great results from the University Settlement movement, so there are great possibilities in the University Hall. In Edinburgh we have gradually grown into an enterprise for the reorganization of the Historic Mile, the ancient ridge of the city between the Castle and Holyrood. What of the collegiate side of the University of London? Chelsea, with traditions worthy of Oxford or Cambridge themselves, from Erasmus onwards, is tending to develop into a collegiate city, as Kensington is becoming the centre of laboratories and museums. In such ways, then, our University Hall system develops a greater life, one that extends beyond the little hall of the College corporation into the city, and beyond the good works of the University settlement into endeavours of civic reconstruction, leading on to civic development of all kinds. In this way we come to a larger University vision altogether, one which tends to enrich the University by garnering into its service all the professions of life and learning as in the days of old.

As to wardenship, I should make it clearer that the question is not of Warden or no Warden. The ideal I hold strongly is that of houses as self-governing as may be, yet with all the elder companionship, influence, and leadership which can be obtained, consistently with freedom.

As to general management and organization, that of a limited company has its disadvantages of various kinds—and certainly needs supplementing in some way not yet clearly worked out, so as to prevent that subordination of educational to business detail, and of ideals to balance-sheet, which is even deleterious to the latter. In Scottish phrase, we need Elders in Session above the Deacons' Court; or, shall I say, Clergy no less than Churchwardens.

THURSDAY, JULY 4.—Morning Session.

CHAIRMAN.

THE RIGHT HON. LORD RAYLEIGH, O.M., Sc.D., D.C.L., LATE P.R.S., CHANCELLOR OF THE UNIVERSITY OF CAMBRIDGE.

I.

CONDITIONS OF ENTRANCE TO UNIVERSITIES AND THE POSSIBILITY OF EQUIVALENCE AND MUTUAL RECOGNITION OF ENTRANCE TESTS TO DEGREE COURSES.

II.

ACTION OF UNIVERSITIES IN RELATION TO THE AFTER-CAREERS OF THEIR STUDENTS.

Fourth Session.

The Chairman: Ladies and gentlemen,—I was asked to take the chair this morning by the authorities of the University of Cambridge in order to mark their interest in the work of the Congress, and to extend a welcome on behalf of Cambridge to those who have come to attend it, in many cases from very distant parts of the world. My own personal interest in University work lies rather on the side of research. In the Statutes of Cambridge which were made in 1882, and for which I was partly responsible, the advancement of knowledge by research is put into the forefront of the professor's duties. That advancement may take place in more than one way—primarily by the professor's own work; but secondarily, and hardly less importantly, in the training of others who will succeed him when his work must fall to another generation. Opinions may perhaps differ as to the extent to which that training should go. It should be primarily by example and advice, although it may be that in some cases there is rather too much of what may be described as "spoon feeding," in which every detail is prescribed to the student who is supposed to be doing original work. But, of course, I realise that it is rather the other side of the question with which this Congress is concerned. Some people seem to expect a great deal too much, to my mind at least, from education—I am using the word in the commoner and narrower sense—but no one can doubt its immense importance, and in connection with the methods of education all kinds of difficult questions arise, such as are presented before this Congress, and some of these will come up for discussion on our programme for this morning. Certainly all that can be done to facilitate the settlement of these questions, and to save the time of the teachers in individual Universities which would otherwise have to be spent, and, I am afraid, largely wasted, on them, will be very much to the good. I believe the best we can do now is to proceed at once to the programme.

CONDITIONS OF ENTRANCE TO UNIVERSITIES AND THE POSSIBILITY OF EQUIVALENCE AND MUTUAL RECOGNITION OF ENTRANCE TESTS TO DEGREE COURSES.

Paper.

I HAVE been asked to introduce at the Conference the discussion on the subject of entrance examinations at the Universities of the Empire, and the arrangements for the mutual recognition of such examinations by University bodies. I cannot pretend to submit any single solution of what all must admit to be a difficult problem. I can only state, so far as I understand them, the main points involved, point out in brief what arrangements have already been made (referring you for fuller information to the details supplied by various Universities), and indicate what appear to be the most promising lines of progress.

We are all, I suppose, agreed that it is desirable to recognise the solidarity of education : "it moves together if it moves at all," and especially within the countries which make up the British Empire, the practical recognition of this unity is a duty laid on all bodies concerned with higher education. But if unity is a vital principle of our commonwealth of learning, that does not mean uniformity. Variety is one of the "notes" of our political arrangements, and it is no less vital in our educational structure. If hitherto we have perhaps had too little uniformity, we must be careful not to rush into the other extreme, and systematise merely for the sake of system.

These two principles then have to be borne in mind—unity and variety, and these issue in two practical conclusions :

(1) that, so far as possible, the different Universities should accept one another's testimonies;

(2) that we should recognise diversities of requirement in the different Universities.

Even in the countries, like Germany, where higher education is entirely under Government control, different qualifications are demanded for pursuing different University courses; and, in view of the diversity of aims and methods among the Universities of the Empire, we cannot expect to hit upon any single avenue to University studies which shall serve for all students.

Where do we stand at present?

If we start from Great Britain we find that "mutual recognition" has already been widely adopted.

(1) Oxford and Cambridge, London and Birmingham, and the Northern Universities, have already, on conditions, arranged

that the entrance[1] examinations, or first University examinations as conducted by any one University or its examining Boards, shall be generally accepted as giving access to the other Universities. The certificates of the Scottish Universities and of the Board of Education for Scotland are similarly accepted at Oxford and Cambridge, and the Scottish Universities, on their part, accept on certain conditions the certificates of English University examining bodies.

Hitherto these arrangements have been made without any sacrifice of the characteristic features of the Universities in question. Broadly, it may be said that there are two types of entrance examination (or first University examination), one requiring a less knowledge of a larger number of subjects, among which there is a choice; the other requiring a pass in a smaller number of subjects, all being compulsory. The latter type is that at present in use for Oxford and Cambridge, where Latin, Greek, and elementary mathematics are required of all students for Arts degrees.[2] Account is taken of these differences in the arrangements so far made amongst Universities. There are two changes in regard to these differences which would, no doubt, much simplify entrance at the older Universities in the future (1) if the requirement of two ancient languages were relaxed, (2) if the requirements of Oxford and Cambridge could be brought more into accord.

But even as it is, the mutual recognition so far achieved has done much to simplify the free movement of students among the Universities of the Empire.

(2) At Oxford and Cambridge arrangements have been made by which (*a*) students of Colonial and Indian Universities, (*b*) students of foreign Universities, and (*c*) graduates of other Universities within the United Kingdom, can obtain certain standing, with exemption from a year of the required period of residence and from certain examinations, in virtue of having already attended specified courses and passed specified examinations at their former Universities. This has been found to work smoothly and well, and will work with increasing smoothness as the standards of the Universities come to be better known.

The corresponding acceptance by Colonial Universities of certificates given by University bodies in England has so far not been very much developed, for obvious reasons. Hitherto,

(1) Oxford and Cambridge have at present no entrance examination properly so called: but the general practice of the Colleges is not to allow residence until the first University Examination has been passed.

(2) Students for B.C.L., B.Litt., and B.Sc. are dealt with later. Students from India and the Colonies who are not of European parentage are provided for by special statutes, allowing them to substitute English and a classical Oriental language for Latin and Greek.

the number of Englishmen going to the Colonies for their University education has been small; but, with the growth of important special schools in the Colonies, such as that of engineering at McGill (I name only one instance), the question of the conditions of admission to the Colonial Universities will become a pressing one, and the Universities of the Colonies will doubtless be ready to give reasonable recognition to British certificates. This is already done by McGill, and probably by other Colonial Universities.

Recognition has also been given to the "leaving certificates" of the Universities of the German Empire, the Austro-Hungarian Empire, Switzerland, Russia, and to the French Baccalauréat.

What then are the lines of further progress?

There are two possible policies :—

(1) It is suggested that a uniform examination might be established to be used over the Empire.

At first sight this is an attractive proposal, but the objections against it are very serious.

(i) It would tend to enforce greater uniformity than is necessary or desirable.

(ii) In practice it would be very difficult to work. It would mean the addition of one more to the many existing examinations of this standard, and would require either the intervention of an external central authority (*e.g.*, the Board of Education) or the constitution of a representative Board, an elaborate new machinery.

(2) The other policy is to proceed on the existing lines, *i.e.*, to encourage and develop the principle of mutual recognition, and to make more widely available the existing information as to the conditions of entrance at the Universities of the Empire.

Are there any ways in which the process can be promoted or extended? I should like to suggest :—

I.—That if as an outcome of the Congress an Imperial Universities bureau should be established, it should be one of its main duties to act as (i) a bureau of information for Colonial students, and for English students going to the Colonies.

It may be said that any student can at present inquire freely of any University from which he desires information. This is true, but very often what is desired is "comparative" information, which cannot be effectively supplied except by some central body.

(ii) a means of calling the attention of British and Colonial Universities to any particular difficulties in the way of Colonial students, and to any means devised by any University for dealing with them.

It may not be out of place to point out that in Oxford a Committee of the Hebdomadal Council is charged with the duty of inquiring into applications from Indian and Colonial and foreign Universities and of making recommendations upon them, leading to the necessary legislation. Probably every University has in some form or other a "foreign department," to which such questions can be referred. But the existence of a central office in London to keep in touch with these departments in the several Universities would probably have the effect of calling earlier attention to any pressing needs and of putting in motion the authorities concerned with meeting them.

II.—The second suggestion I would make is that the examination qualifying for entrance at a University, *i.e.*, the examination which is to test the general education of a University student, should, in general, be taken not later than seventeen. This suggestion is one which has the support of a large body of educated opinion, and already schools are more and more tending to act on this principle. If once the practice becomes habitual, most boys in the Empire who have had a secondary education will have qualified in a good part, at least, of the requirements of a University entrance examination some time before the school course is over. If they should then decide to go on to a University not in their own country, they would generally have time before completing their school course to prepare for satisfying any special requirement imposed by the University of their choice for the course they have in view, *e.g.*, the Colonial coming to Oxford could fulfil his main requirements at seventeen, and if weak in Greek would have time to work at that before leaving home.

III.—It may be that before many years have passed the Universities here and in the Colonies will find it possible to attach some weight, for the purposes of entrance at a University, to a three-years' attendance at an inspected secondary[1] school. This in itself would tend to make the movement of students among the Universities of the Empire easier and more free.

IV.—Meantime, it must be borne in mind that in some of the older Universities already there are certain classes of students who are admitted on conditions which, if not easier than, are different from, those of the normal entrance examinations. Such students are, *e.g.*, at Oxford:

(*a*) Diploma students, *i.e.*, candidates, not for the Arts courses, but for more special lines of study leading to a diploma. Such

(1) "Secondary" is used in its widest sense, including "Public Schools," Grammar Schools, and Secondary Schools receiving grants from the Board of Education.

candidates, instead of having to pass Responsions, have to satisfy the Boards concerned with their studies that they have received a good general education.

(*b*) Students for the degrees of B.Litt. and B.Sc. Such students, unless they have already passed the examinations for the degree of B.A., or are graduates of some other University within the United Kingdom, have to satisfy a committee that they have received a good general education. A degree in Arts, however, at most, if not all, Colonial and Indian Universities, is accepted by the committee as sufficient evidence for both classes of students.

The degrees are obtained on the results of a "research" course extending over at least one academical year as tested by a written dissertation, supplemented by a *viva voce* examination conducted by examiners specially selected for each individual student. There is also a residential qualification of two years.

(*c*) Students holding a degree in Arts, Philosophy, or Science from another University who wish to study for the degree of B.C.L. Such students are admitted to study without examination if they satisfy the Board of the Faculty of Law that they are well qualified to pursue such advanced legal study, and become qualified for graduation if they obtain Honours in the examination for the degree of B.C.L. and keep statutable residence for two years.

Such conditions, which, no doubt, already have, or soon will have, their parallel in other Universities, introduce an element of elasticity into the system which is very desirable.

My suggestions, it will be seen, are not of an elaborate kind; the Universities of the Empire seem to me to be more closely in touch than they have ever been before, and are all sincerely anxious to open their doors to all qualified students. Such free intercourse can do nothing but good, provided that the standards of study are maintained. I believe that by steadily pursuing their present policy of mutual recognition, with the further aid of a bureau of information and communication such as I suggest, the Universities of the Empire will become accessible to all who deserve access to them.

P. E. MATHESON.

NOTE.—In response to the request of the Committee, the Universities very kindly furnished returns of information relating to their several entrance examinations and conditions for exemption; but it was found impracticable to include these returns in the Appendices in this Report. In most cases they comprised many pages extracted from the Calendar. This very valuable material will be available for the use of the Central Bureau.—[EDITOR].

Discussion.

PRINCIPAL W. H. HADOW, M.A. (Armstrong College, University of Durham): Mr. Matheson has so completely covered the field that I feel there is really nothing for me to say, except a few words of exposition and commentary. And I should like to begin by urging that at every University the full degree curriculum should be approached by an entrance examination, the standard of which is high, clearly defined, and easy of recognition. Indeed, one would have thought that this proposition might be taken for granted, except that, like most axioms in these pragmatic days, its truth is beginning to be questioned. Many people have maintained during the last few years that the thing which matters is the degree, not the entrance examination, and that the entrance examination is of comparatively little moment. Let the University, they say, hold out hospitable arms to all comers, and only see to it, when they go away with the University hall mark, that the metal shall be of sufficient value. This is not a very satisfactory conclusion. It reminds one a little of those shops which one sees in Continental cities bearing over their doorways the invitation "Entrée libre," and in which, if you yield to their allurement, you find that the entrance is free, but the exit is not. I cordially agree that it is the culminating examination of the University—the Degree—which is of the highest importance. I believe that the degree is the main object, aim and end of the University course, and do not assent to the view that it should be in any way confined or restricted to those who are going to engage in teaching or research. We have passed beyond that mediæval conception of University work. But unless the standard of entrance examinations is sufficiently approximate to the standard of the Degree, if there is too wide a gap, it is obvious that either some of the University teachers will be wasting their time instructing pupils after they have entered the University in work they ought to have done before, or the pupils will be overstrained by trying to catch up ground which they should already have covered. And here I would venture to raise a question as to one of the points made in Mr. Matheson's paper: the proposal that the entrance examination, that is, the examination which is to test the general education of a University student, should be passed at school, at the age of seventeen, presuming that eighteen is to be the age of entering the University. There are some things to be said for this proposal, but there are three things that may be urged against it. One is from the point of view of the University. To speak

quite frankly, one of the main difficulties of the matriculation question in England at this moment is that not all the secondary schools have advanced far enough to meet the University frontier. *A fortiori*, there is a real danger that if we lower the age at which the matriculation examination is to be passed, we may tend to lower the standard. Secondly, from the point of view of the schoolmaster. If a boy passes this examination at seventeen, and especially if it is called a leaving examination, there is danger that the parent will at once proceed to remove him. This is not an imaginary danger; I have heard it put forward by more than one headmaster. And, thirdly, from the point of view of the boy. Unless boys are fundamentally altered since I was one—and I have observed no fundamental alteration—there is the danger that if they go back to school having passed the University examination, there may be some temptation to take their last year of school life somewhat lightly. That might be met by setting up a special post-matriculation curriculum, and if the examination is to be passed at seventeen, such a curriculum should be imposed. Even then I am not sure that it would entirely meet the difficulty.

I cordially agree with everything that has been said on the subject of mutual recognition. I believe that if the facts could be known we should see that an enormous amount of mutual recognition could be established now without any further adjustment. Mr. Matheson has told us how widely it has spread throughout the British Islands, and I believe that it could soon be made to spread throughout the Empire. There might be a general list of subjects, some necessary and some optional, from the latter of which each University might determine its own requirements. That may sound somewhat complex as a practical proposition, but there is a common basis already in the matriculation examinations of the Modern English Universities, and this could be easily organised and adjusted, and made to suit the needs of all.

Lastly, while I entirely agree that the full graduate course is that which makes the University, and on which it stands in the estimation of the world, I would still hope that Universities will retain their freedom to dispense with the full entrance examination, and therefore with the full graduate course, where the right occasion arises. Almost all our Universities specialize to some extent or another—in one they specialize on engineering, in another on the textile industries, in another on naval architecture—and there should be courses to suit the man who does not intend to take a degree, but who may still get a great deal of good from attending special courses of lectures with or without

a view to a diploma. That seems to me to be an important matter which affects many men on whom the door of the University should not be closed. It is no more than a nebula round the nucleus; but it would certainly increase the local value of the University, and would widen the area of its most distinctive teaching.

Of practical proposals by far the best seems to me to be that of an information bureau by means of which every University should know the requirements of every other. I would go further and put forward a suggestion made in last night's *Westminster Gazette*, that if possible at this Congress a Committee should be established in order to find out as soon as possible which Universities of the Empire are prepared to recognise each other's matriculation, and where they are not so prepared, what additional requirements they would lay down. We should know where we are, and if some such scheme were adopted, I believe we should find that Universities are fully deserving of that mutual trust which is the most important feature in their mutual co-operation.

Sir Edward Busk, M.A. (London): I think it must be due to the fact that I have the honour of being Chairman of the Matriculation Board of the University of London that I have been asked to make a few remarks upon this subject to-day. It is a matter to which for many years past my University has given very great attention, and although it does not concern either the progress of research and discovery of new knowledge, or the higher branches of teaching of University rank, yet I think it is difficult to exaggerate the enormous importance of the conditions on which students are to be allowed to enter the University.

The special functions of a University are to discover knowledge and to disseminate it; but, beyond that, Universities exercise a very important influence upon education not of a University rank, and if we were to look round and see by what regulations the general education of the whole population is most affected, we must all agree that the conditions and tests of entering the Universities are those which touch the population at large far more than any others. The standard of admission to Universities cannot fail to influence the curricula and the standards of all the secondary and technical schools, and in that way to cause a beneficial effect upon the studies of all who have passed beyond the limits of primary education. Everywhere in Great Britain, and, I think, throughout the overseas Dominions of the British Empire, encouragement is given to attain to a higher standard

of education, whether in secondary schools, or in technical institutions; and all of us must wish to see this influence maintained and even extended. It is probably on this account that the Congress has been invited to consider the mutual recognition by the Universities of the Empire of entrance tests to Degree courses, and not the advisability of establishing one uniform examination to be applied throughout the Empire. Such an examination, besides being detrimental to the cause of education, would, in my opinion, be difficult to administer, if, indeed, it did not prove wholly impossible, owing to differences of languages, laws, and customs.

At first sight it may seem hopeless in the face of the different aims of the schools from which the Candidates for admission come, and of the Universities they seek to enter, to attempt to arrive even at equivalence of entrance examinations and mutual recognition; but I believe that is merely a *prima facie* view. When we look at the matter more closely, there are, underlying this variety, general principles governing the necessity for and the nature of a barrier preliminary to University study which can be and are recognised by Universities generally; and it is the common acceptance of these principles which renders possible the mutual recognition of different entrance tests.

What has to be borne in mind is that University work is really higher work for students who are above rather than below the average, and that those who enter upon such work with a view to graduation should furnish evidence that they have acquired a good general foundation for future acquirements, and a rudimentary, though not superficial, acquaintance with the main branches of a liberal education, and will be able to profit by the higher education of a University. If that be the real character of the conditions in question, then tests may be based on these principles, and if it be so, then I think that although I do not differ entirely from what Dr. Hadow said, I should ask for great hesitation on the part of the Universities in accepting the certificates of other Universities and facilitating matriculation. We are beginning to see in this country what has been apparent for some time past in Germany. The young people begin to specialize too soon, and it is actually the fact in Germany that candidates go up to the University to study as scientific students, while their linguistic attainments are so limited or non-existent that the Examiners cannot make out what their answers mean. In other words, they are unable to express themselves in their own German language in answer to a question. That same difficulty has been occurring in the Technical College

on the Governing Body of which I am, and I know that the answers of many students are practically unintelligible. It may be gathered that the student knows the answers, but he has failed to express himself clearly. I was mentioning this matter before the Royal Commission on University Education, and Lord Haldane interposed in order to say that that was exactly what they found at the War Office: that the candidates could not express themselves in English. It is surely right that people should not be allowed to specialise until they have acquired a command of their own native tongue. In my opinion a student should not study languages exclusively until he has made some study of science, and a science student should study some language, and it is at that early stage, before he begins to specialise at a University, that an all-round knowledge of elementary subjects ought to be acquired, and the University ought to have evidence that it has been acquired. Entrance tests should therefore be general and should not vary according to the faculty the candidate proposes to enter beyond leaving to him a selection among some optional subjects such as will not impair the all-round character of his examination.

I am in most thorough accord with what has fallen from the lips of Mr. Matheson and Dr. Hadow on the subject of mutual recognition. I think mutual recognition of certificates is the way out of this difficulty, and that it can be attained; and with your permission I would ask leave to detain you a few moments in order that I may let you know what the University of London has already done in this matter, taking it from the point of view of this University, as Mr. Matheson has taken it from the point of view of Oxford University.

We have established an interchange of University students with the University of Paris, counting one year's work in Paris as equivalent to one year's work here, which has proved to be a great advantage in the case especially of those undergraduates who propose to become teachers. Every candidate for entrance to our University has to pass an entrance examination or to fulfil such other tests of fitness as may be prescribed. With regard to entrance examinations, we have two absolutely compulsory subjects: English—which involves more than mere English—and elementary mathematics. Then there comes an option: between Latin or Greek on the one hand, and one of three named sciences as an alternative. Then there come a number of subjects, any two of which must be taken by every candidate, the candidate offering such two as he likes, except that if he has not taken Latin or Greek one of those two optional subjects must

be a language other than English. The examination takes place in two forms: one is what we call the ordinary form, just an examination to ascertain that the student is able to learn, by ascertaining what he has learnt; and the other is a more modern introduction, which has found great favour in our eyes, and which we hope will spread—it is the conducting an examination of matriculation standard at any school inspected by this University, and giving a course of instruction, and with a curriculum pursued by the pupils which the University has approved. In those cases the examination is conducted with special reference to the curriculum and aims of each school.

The entrance examination, in its common form, is held not only in London, but in a large number of provincial centres of England, Scotland, Wales, and Ireland. And not only that; it has been, and is, held in almost every part of his Majesty's Dominions. These examinations have so far been held in Canada, Australia, New Zealand, South Africa, and India; in the West Indies, at two places in West Africa, in the Bahamas, Bermuda, British Guiana, Ceylon, Fiji, Honduras, Hong Kong, Malta, Mauritius, Newfoundland, the Straits Settlements, and the Seychelles Islands.

We dispense also in many cases with any further test of fitness for entrance to our University. Naturally any graduate of an approved British or Overseas University is excused, and those who have passed examinations at Oxford or Cambridge with first and second-class honours are excused one year out of the three, and can graduate at the end of two years. Under certain conditions candidates who have passed the Scotch School Leaving Examination, Oxford Senior Local Examination, Oxford and Cambridge Schools Examination, Previous Examination at Cambridge, Cambridge Senior Local Examination, the Matriculation Examination of the Manchester, Liverpool, Leeds, and Sheffield Universities, and those who hold the Senior School Certificate or the Senior Grade Certificate of the Intermediate Education Board for Ireland, are exempted from the Matriculation Examination. Besides these exemptions, most of which are based on the comity of Universities, our University has decided that persons of nineteen years of age and upwards who present (*a*) certificates of matriculation in Colonial Universities, or (*b*) Indian or foreign certificates from an acamedical or other educational authority which give evidence of their having attained a standard *primâ facie* equal to that of the Matriculation Examination, may be admitted after a special supplementary examination before a Board of Moderators. It is really necessary

to have an examination of that character, because with some of the students who come from India, where there are 150 different languages in use, the mere acquisition of English is a great achievement, so that the examination has to be modified, and the important thing is to escertain that the person to whom English is a foreign language has a sufficient command of it to benefit by University instruction.

Bearing in mind the principles on which the conditions of admission to all Universities are alike based, and what has already been successfully achieved in the way of mutual recognition, there seems to be no doubt as to its possibility, and very good ground to hope that a complete scheme may be established for carrying it out either by means of an Imperial Universities Bureau, or otherwise. The permanent existence of such a Bureau as Mr. Matheson suggests will, I believe, be necessary, because from time to time the Universities may find it expedient to alter the conditions of admission of their students, and when such alterations have been communicated to a central office the other Universities will be able to consider them, and to judge whether the altered tests are equivalent to those which they replace.

MAJOR S. C. EVANS, I.M.S. (Bombay): The conditions which guard the portals to a career in one of our Universities lies at the very root of our educational system. The test imposed by the University aims at excluding the unfit. It may go still further and select, to varying degrees of exclusiveness, the most fit. This may, in a general sense, be a fitness for a University curriculum, or it may, in a special sense, indicate an aptitude for some particular course of training. Of, finally, it may narrow itself down still more and, in effect if not in intention, confine the selection to certain classes of persons.

The standard of our University entrance examinations should form the exit from every school of any importance in the country, and any boy possessing the necessary intelligence should be able to go direct from any good school to any University. This implies that Universities should be at least moderately uniform in their requirements and that the subjects and limitations they lay down should be such as to meet the needs of walks of life outside their walls.

In fixing the standard for entrance examinations there are certain principles that should guide us. These principles are: (1) that a graduate is a person with the education of a gentleman, and (2) that every student is capable of understanding what is placed before him, whether in lectures or in a

text-book, without conscious effort beyond that incidental to the technical aspect of the subject. Both these points require some elaboration. As regards the first: If we put the Faculty of Arts, which embodies in its curriculum all that we are in the habit of associating with the education of a gentleman, out of consideration, my point becomes at once evident. A training in one of the Faculties dealing with technical subjects does not necessarily mean a good general education. The education of a gentleman implies a certain knowledge of his native or adopted tongue so that he can speak and write correctly; it implies the power to think logically; and it implies a certain knowledge of the world's history, of geography, and of mathematics—all things that must be thought of and dealt with apart from, and preferably as a preliminary to, a training for a degree in Medicine or Science. The second of these principles is also only rendered obvious when the Faculty of Arts is excluded, and is very specially exemplified in the conditions of entrance to a medical curriculum. A knowledge of Latin and, to a very much less degree—so small a degree indeed that it could be excluded without materially affecting the point—a knowledge of Greek helps a student very considerably in grasping what is placed before him in the lectures to which he listens or in books he reads. Greek is insignificant. The paramount language is Latin. The whole of a medical curriculum from the elementary natural sciences of the first year to the final examination is permeated with it. So much is this so that what strikes the thoughtful student most when he begins his education is that he is faced with a new language. He has, it is true, to remember things and facts, pictorial and otherwise, and to learn to reason on certain lines, but he must also be able to convey on paper, or verbally, the details of what he remembers. To do this he must be familiar with the names of the things with which he is dealing. Medical literature positively bristles with names, and it is this massive nomenclature which constitutes the new language with which the student is faced. If he does not possess a knowledge of Latin his difficulties are enormous. He must cram up the names, and will probably, at first at any rate, swamp his conception of things and of arguments in the exercise of his word memory. Too much stress cannot be laid upon this point because it would appear that Latin is slowly losing its position as a compulsory entrance subject—a fact of less importance in Great Britain, where it forms a part of every boy's education, than it is in the East where it need not. Another point of very special importance in connection with the culture necessary

for readily understanding what is placed before the student in the shape of lectures is a knowledge of English. Especially is this so in those very large sections of the Empire where the native tongue is not English. If the standard required in these countries is not fairly high, the student fails to appreciate what is said to him in a lecture sufficiently quickly to enable him to take reliable notes or to grasp pointed explanations. He has, therefore, to fall back on his text-book; and anyone who will consider the vast amount of material, important and otherwise, contained in standard works, the care which teachers take to dwell on leading points and to explain matters usually found difficult of comprehension, and the very great help that note-taking was to one in one's own student days, will appreciate the enormous difficulties of such a boy proceeding to work through a curriculum conducted in the English language by English teachers. It is for this reason that a higher standard in English and in History, with the wider extent of reading and consequently greater general familiarity with the language which they necessitate, is required of an Eastern candidate educated in the East than need be obligatory for English-speaking students. I take it, therefore, that a fitness for a University career implies a certain standard of general education for all, *plus* a special qualification which will vary with the faculty and, on the principle indicated, with the nationality.

The education of a boy for an Arts degree ought to, and I believe does as a rule, progress steadily from his school-days to his final examination. The subject of an entrance examination in this case, therefore, resolves itself into the question of where school should end and University begin. The ideal preliminary to a degree in any other Faculty is a degree in Arts, for such a preliminary embodies all that one is accustomed to look upon as a good general education, and places beyond doubt any question of mental fitness to follow up and grasp subjects of a technical nature. The infliction of such a restriction is, however, in the case of Medicine and Science at any rate, not advisable, for the time involved in the combined curriculum, especially with Medicine as a part of it, is so enormous, and the call upon the working period of a man's life so considerable, that it would be unreasonable to expect the general run of graduates to submit to it. Nor is it necessary, for a much inferior standard of education, provided it is well designed, will meet all the requirements of the case. It is for these reasons, I take it, that governing bodies have set about to devise preliminary examinations. With what result? Anyone who sets

himself the task of reading through, one after the other, the entrance regulations set forth in British University Calendars will probably find himself absolutely confused by their total lack of uniformity. I do not mean to say that it is not possible, by restricting one's attention, to get a clear conception of the conditions laid down by any single University. It is when one widens one's attention to embrace the whole that one experiences difficulty. To begin with, there is the nomenclature: Medical and Science preliminaries, matriculations, senior locals, school-leaving certificates, senior grade examinations, and the like render unnecessarily complicated the study of the subject. If one turns one's attention to subjects and standards, one finds oneself in no less difficult a case. From an uncomplicated statement of English, Latin, Elementary Mathematics, and Greek or a modern language to be found in one Calendar, to the twenty-nine items mentioned by another, one passes through all degrees of complexity. It would appear that some Universities consider a good general education sufficient; that others insist that a candidate must be specially trained to undertake the special course of instruction he has selected; and that each has a different conception of the value of these considerations and the extent to which they may be carried. The difficulty seems to be that there are a number of University authorities and a number of school authorities, variously influenced by tradition and questions of utility, all with their own ideas of what a boy should know, and all holding their own examinations, under various names, embracing various subjects of various extent. I do not think there is anyone who will deny that such a condition of affairs is undesirable, but as long as men will think and act separately so long are their results apt to be wanting in uniformity. The remedy seems to me to be obvious, viz., a Central Authority, representative of both Schools and Universities, which will control the final goal for which the schoolboy works and regulate the requirements which the University may demand. It should be possible, too, so to construct this borderland examination as to meet the needs of those whose education in the ordinary sense of the term ceases there. It may be argued by some Universities that the regulations for entrance contribute very largely to the individuality of their degrees and the prestige that goes with them. True. But is it so to any great extent? And if it be so, is it a reasonable and expedient method of attaining distinction? Is it not along the lines of specialization and on the training necessitated by the severity and scope of their degree examinations that Universities should look for their distinction? Having

admitted that a degree in Arts is the ideal preliminary to a career in any other Faculty, one cannot deny the reasonableness of those who require that any particular portion of that curriculum should precede such study. But that is not the point. Every portion of an Arts curriculum must be taken *in* a University. It cannot be an entrance *to* a University. Standardisation does not affect it. A uniform preliminary would still leave examining bodies the option of demanding that a candidate shall pass, say, the previous, or intermediate, or B.A. examination before he may graduate in one of the other Faculties. In the one case the Faculty of Arts is the door to all the others; in the other a boy passes direct from school to the career he selects.

The change I have outlined would be of considerable service to Indians. It is their ambition, and a very laudable one too, to finish their education with a British degree. To go through the entire mill would mean complete separation from family and friends for a period of life during which home influences are most needed. The result is that students generally elect, and wisely so I think, to go through their University curriculum in their own country, and then to put in residence and pass the necessary examinations at one of our British Universities. A standardized preliminary would give them a wider field to choose from. As matters stand at present, a candidate for a medical degree, for instance, unless he is a graduate in Arts, must face an entrance examination again or put certain Universities out of his head. Standardization ought to leave the field open to everybody.

SIR CHRISTOPHER NIXON, Bart., M.D. (National University of Ireland): It would be quite impossible in a ten-minutes' speech to deal with the important subject of entrance examinations to the Universities of the Empire, but I will endeavour to compress what I have to say within the shortest limit in my power. Perhaps I should apologize for not having prepared a printed paper on the subject, but I preferred to be free to discuss the observations and suggestions of the speakers who preceded me.

I should like to say that I think the paper introducing the subject for discussion by the members of the Congress is an eminently practical and suggestive one, though I confess I should have liked the writer to have gone a little further in the direction of the establishment of a common form of University entrance examination for all the Universities in the Empire. No doubt difficulties present themselves as regards the standard of examination and the question of uniformity, but these diffi-

culties are not insurmountable, as an examination of existing conditions would show. Within a few years mutual recognition has been adopted in the Universities of Oxford and Cambridge, London and Birmingham, and the Northern Universities, and reciprocity has also been established in connection with the certificates of the Scottish Universities and the Board of Education for Scotland. It can be said that a leaving-school certificate for England and Scotland is in sight, notwithstanding the inertness of the Board of Education for England, whose potentialities appear always to refer to the future, never to the present. It was this masterly inactivity that led Professor Sylvanus Thompson to make the statement that secondary education in England was to a large extent a muddle, ending in chaos. I may be permitted to direct attention to what has recently taken place in Ireland. In 1908 the Royal University was dissolved and the National University established in its place. The change might be said to synchronise with the extinction of the purely examining type of University. In respect of reciprocity in its matriculation examination the Royal University stood completely isolated, and this isolation applied to all its examinations. Its examinations were ignored, and, in turn, it ignored the examinations of other bodies. It might be said to have adopted the words of the old song,

"I care for nobody, no, not I,
If nobody cares for me."

It was, therefore, essential that the University should have sole exclusive control of its matriculation examination. But in the National University, which I have the honour to represent at this Congress, recognition is given to the testimonies of the Scottish University Board; the examination in the several faculties of the Scottish Universities; the examination of the Scottish leaving certificate; responsions of the University of Oxford; the previous examination, Parts 1 and 2, of the University of Cambridge; Oxford Senior Locals; Cambridge Senior Local; the examination for the higher certificate of the Oxford and Cambridge School Examination Board; the matriculation examination of the following Universities: Queen's University of Belfast, London, Birmingham, Northern Universities Board, Wales.

In addition to the reciprocal recognition of the examinations mentioned, the National University recognizes the senior-grade examination of the Intermediate Board as qualifying for entrance to the University, if the subjects passed are those laid down in

the matriculation curriculum. Should the student not pass in all the subjects of the senior grade, he may still qualify for entrance to the University by passing in the matriculation subjects.

A modification of the rule has been made by Queen's University, Belfast. This University recognises the subjects passed in the middle-grade examination as entitling a student to be *examined* in the same subjects by the Matriculation Board of the University. I think the time is not far distant when a leaving-school examination and certificate will be instituted by the Intermediate Board of Education in Ireland. The Board represents the leading educationists in the country, and I have the most thorough confidence in the future of education whilst in their hands.

It is remarkable that the results obtained with regard to the recognition of the testimonies of different Universities have been attained without overmuch regard to questions relating to standards or uniformity. No doubt it is desirable to have a minimum standard below which recognition would be withheld; this will be conceded by all. But granting this, is it in the interests of Universities generally that the standard should be such as would shut out a large number of students, who would thus be debarred from the great advantage of a liberal education? There is something to be said for the "pass man" of a University, and in relation to this point I would like to express my agreement with the views put forward by Lord Rosebery. The Universities, no doubt, rely as to their prestige and usefulness to the community upon the training which they give to men of commanding abilities and original bent of mind. But in addition to encouraging men of this class, Universities should attract large bodies of students who, though they may not reach an honours standard, still, by their force of character, their recognition of what is due from one man to another, and by the moral standard which they create amongst their fellows, help largely to develop the high ethical tone upon which the University largely bases its claim for general usefulness. Moreover, the ordinary course of studies laid down for the "pass man" implies a degree of culture which it would be most undesirable to deny to him, and which means so much to the individual in his future career. With regard to uniformity, in some respects it may be thought necessary, in many respects undesirable and unattainable. I shall not labour the point further than to say that uniformity can only be regarded as an accident, not an essential. Each University will maintain its special characteristics, its special course

of studies, its *genius loci*. Oxford, for instance, holds to its *literae humaniores*; Cambridge to mathematics and science generally; the Northern Universities to specialized utilitarian studies; McGill, and Universities of a similar type, to the great studies by the cultivation of which they have acquired their fame. Would it not be unwise, as it would be futile, to try to fetter the University in the exercise of its legitimate discretion? To some, compulsory Greek and compulsory Irish may seem illogical in respect of free choice in educational subjects, but who will deny that each University is the best judge of its own concerns? Perhaps in the future some relaxation with regard to those subjects may be made in the case of certain professional subjects. I cannot too strongly emphasise the words used by Mr. Matheson in his paper: "If," he says, "unity is a vital principle of our commonwealth of learning, that does not mean uniformity. Variety is one of the 'notes' of our political arrangements, and it is no less vital in our educational structure. If hitherto we have perhaps had too little uniformity, we must be careful not to rush into the other extreme, and systematise merely for the sake of system." So far a good deal has been accomplished without any drastic changes. *Entia non sunt multiplicanda praeter necessitatem* is a good principle in philosophy, and it might find its application in the reform of entrance examinations, and, upon the lines already followed, it is not too much to hope that a common entrance examination may ultimately be found to be practicable. There should be no difficulty with regard to students of the home Universities. The general adoption of a leaving-school certificate would enable the student to enter *per saltum* the University. There might be some difficulty in regard to students who have had no school training, and who, perhaps, enter the University late in life. For these a special matriculation might be provided, or they might present themselves for the leaving-school examination. What regard should be had to the loss of not having a school training of two or three years' duration would be a matter for consideration.

But it is especially with regard to a third class of students—those who leave home for the Colonies, and for the Colonial students who enter the Home Universities—that the serious difficulty arises, and for which the strongest grounds can be urged for reciprocity. I do not think in this matter the Home Universities have been sufficiently considerate. There are conditions involving recognition of examinations between the Home and Colonial Universities that partake of the nature of pin-pricks, which call for adjustment. It is in relation to this matter that

the establishment of a bureau for all the Universities of the Empire at which reliable information, "comparative information," as it is rightly termed, can be obtained. It may be urged that this information may be obtained from the University calendars. Theoretically, yes; practically, no. A University calendar is often to the student a mass of Ariadne, perplexing, misleading, and by no means clear as to the information obtainable, and it does not supply the comparative information which is desired. Mistakes of a serious nature may occur, landing the student in difficulties which may involve serious loss of time and expense. The student who relies on the calendar only is often in the position of a traveller who undertakes a journey to some distant country and who relies entirely upon the information supplied by a Continental Bradshaw. In connection with this matter I should like to refer to an institution which has been doing useful spadework in this direction—I allude to the Society for the International Interchange of Students. It should obtain some recognition for the excellent work which it has done, and overlapping obviated. It could supply the Bureau with much valuable information both for Home and Colonial students.

In conclusion, I venture to express an earnest hope that at this meeting of the Congress of the Universities of the Empire steps may be taken towards establishing a common entrance examination for the Home and Colonial Universities, thus giving a great stimulus to University work throughout the world. If this be carried out, it will come at a time when it is so necessary that all of us, Englishmen, Scotchmen, and Irishmen, with our brethren beyond the seas, should stand shoulder to shoulder in thorough sympathy with the great Mother Country to which it is our birthright to belong, and that we should strive by every means in our power, politically, socially, and intellectually, to cement the union which happily exists amongst us, and which will render this nation impervious to all attempts to lower its prestige, or lessen its influence in the steady progress of civilization.

MR. J. W. JOYNT, M.A. (New Zealand): As a delegate of the University of New Zealand, this subject seems to me of considerable importance to us. First, I may say that I am heart and soul with the objections that have been raised already against any universal or Imperial entrance examination. A few days ago a friend of mine, a Dublin man, said to me, "What are you going to do at the Congress?" "Well," I said, "there will be a large number of matters discussed."

He said, "I hope you won't do anything to standardize the Universities of the British Empire." It is quite clear from the tendency of the discussions up to the present that there is not the least danger of the outcome of this Congress being the standardization of University education in the Empire. We feel too strongly, and it has been impressed on all of us, the very great importance of preserving individuality and variety according to local circumstances and conditions. If this is true with reference to different localities in England, it is vastly more true in connection with the outlying parts of the British Empire; and if this variety and individuality of character are important and worth preserving in connection with the whole University curriculum, that distinction should begin from the beginning. If we are to preserve free scope for individual tendencies and qualities and characters in Universities, our freedom should begin with the entrance examinations. As has been well pointed out by a previous speaker, the entrance examination is not merely to be regarded as a test of fitness for entering on a University education; it has an enormous and widely ramifying influence on the education of the whole country. And therefore, if we are all brought under the domination of one common and Imperial matriculation, what will be the consequence? Not only the Universities of the Empire, but certainly the whole general education of the Empire will be forced into one common cast-iron mould. Let us realize fully the enormous influence that our matriculation examinations are exercising over general education. It is so in England, and it is so in the Dominions, too: the schools are framing their curricula in the direction of entrance to the University. Of course, in the Dominions there is a larger proportion of pupils who do not aim at a University career, owing to the practical requirements of growing countries; but the principle remains the same: the higher work is directed towards the University entrance examination. Therefore I am entirely opposed, and I think I am speaking the sentiments of my colleagues in the University I represent, when I oppose any Imperial examination. I say this with all respect to the writer of the forcible article in last night's *Westminster Gazette*, notwithstanding his failure to grasp the wide differences which separate the education-system of the British Empire from that of other countries in Europe. But mutual recognition is a different matter, and here is the direction in which our hopes are tending. It is comforting to know that recognition has already been attained to a considerable extent, and that the tendency is growing and increasing; but, ladies and gentlemen, the whole stress of the remarks that have

been made has been in the direction of mutual recognition among the Universities of the British Islands, and only casual reference has been made to the Dominions over the seas. For them it is a very serious matter. Our students want to know what they will find in the way of recognition when they come home. I am here to state deliberately that the New Zealand matriculation examination is well worthy of recognition, at least by the modern Universities of Britain. I was an adult before I saw New Zealand; the bulk of my educational life was spent in Dublin. I am not, therefore, speaking from local prejudice: I am speaking after careful consideration and with sane knowledge of the claims of these modern Oversea Universities. I would urge this claim on behalf of the University of New Zealand, and naturally Sydney, Melbourne, and Adelaide put forward a similar claim. Our compulsory subjects are English and mathematics, with a language and science under certain conditions. If there is a slight difference in the compulsory subjects between individual Universities, that is a matter of small importance. We cannot intrude on the sanctity of the older Universities with regard to the ancient languages; but we say we may fairly and modestly ask for recognition of our matriculation in any one of the modern Universities.

Let me add this further point: the extension of recognition is increasing the responsibility of individual Universities to make themselves worthy of it. That process has been manifest to me for some years past. The extension of recognition is one of the most potent factors in keeping up University standards; and the raising of the standard of the New Zealand examinations a few years ago was not only due to the hope of beneficial effects to be produced on education in New Zealand, but to the hope that it would increase our claims to recognition by the British Universities. I may mention incidentally that New Zealand has an entrance scholarship examination which entitles to free University education and monetary payments. That examination is on a level with the average arts degree. It is so recognised by visitors to the Colonies.

I cannot enter into the case of Oxford and Cambridge. Of course, they are generous to us in many ways: they have been generous to our Rhodes scholars, and they are prepared to meet those students who go there. But there are provisions in their statutes which impose certain obstacles. The reader of the paper said this was a matter of little importance to men going to the Colonies. May I dissent from that view? There are a considerable number of Englishmen moving to the Oversea Dominions looking for openings as teachers, and they ask, "What

exemptions shall we get for what we have done in our own Universities?" That number is increasing from year to year. With regard to New Zealand, it is set forth clearly in our statutes that every degree or portion of a degree course achieved at British Universities is recognised *ad eundem statum*.

There are a great many other points on which I should like to speak, but my time is up. May I briefly touch on one. We also feel that one of the directions in which one may hope for reform is the abolition of the neccessity for matriculation examinations altogether. We hope for the recognition of a school-leaving certificate, guarded by rigid conditions, which could be obtained after a *bona fide* school course, and in a manner beyond all suspicion. This is the direction which we hope the movement may take, and that the recognition of such school tests, clearly defined and beyond suspicion, may take the place of a matriculation examination. That is all I have time to say on the matter, though there are one or two other points upon which I should have liked to touch.

DR. J. W. BARRETT, C.M.G. (Melbourne): I have very briefly to make reference to two points. I should, however, first acknowledge the very sympathetic reference made by the reader of the paper to recognition of the work of other Universities. If that sympathetic spirit prevails, the difficulties will disappear.

The first point is with reference to the lowering of the standard of examination. In Melbourne the difficulty is not the lowering, but the raising of the standard, and the University has been forced to consider a measure for preventing the undue raising of standards. The authorities had to consider whether the period of school life should not bear some relation to the probable duration of human life. We shall endeavour to sketch a course of study to be placed before the examiners, and to ask the examiners to take into consideration the amount of time that should properly be devoted to that subject. Otherwise we shall find, as before, that the standard of examination steadily rises to abnormal heights.

Furthermore, the University of Melbourne recognises the certificate of entrance and the studies in any University of the Empire. The student who comes to us gets credit on production of proper certificates for the work done elsewhere, and no attempt is made to discriminate between the Universities. On the whole the system works exceedingly well, and we would ask the British Universities whether it would not be possible to adopt some such reasonable attitude. It seems to me the broad and simple way

of dealing with the matter is to accept the certificates and status of a student or graduate in any recognized University of the Empire, and as far as may be, to give a corresponding status in the University to which he applies.

An attempt to discriminate involves much difficult work, and the results of such investigation, as measured by after careers, are negligible quantities.

SIR ALFRED HOPKINSON, K.C., LL.D. (Manchester): I am not going to take up the time of the Congress for more than three or four minutes. I am going to put a point of view and then to state a negative conclusion, and suggest three positive conclusions.

The point of view is that of the parents and the students. It is intolerable that we should have to say occasionally to a young man, and still more to a man advancing in life: "You have had a proper school education, but before you can go in for a degree course you must pass another examination on the subjects you have forgotten, though the effect of the training may have remained." It is still worse in the case of older men to be put back to school subjects. We cannot get on without some recognition by each University of the entrance examinations of others. At the same time I agree with the representative of the New Zealand University when he says we do not want a single examination for all the Universities. There is the negative conclusion. It has been suggested that in a short time these matriculation examinations will largely be superseded by "school-leaving examinations." The time is not yet ripe for getting rid of matriculations, but it is coming, and the best thing is for the different Universities to be working their "school-leaving examinations" along with the matriculation examination.

Now a word about the positive conclusions. One remedy for Universities placed near together is the constitution of Joint Boards. When the Northern Universities of England were created or remodelled, the Privy Council said, "You must conduct the entrance examinations by a Joint Board." Let us try the system of grouping Universities and instituting Joint Boards. The effect of that association is to produce a stronger Board, and to prevent the risk of touting for students and lowering of the standard. A Joint Board works extremely well, and it is specially good for the schools of the district to be brought into contact with a widely representative Board. It does away with a large portion of the difficulty entailed by the multiplication of examinations, and the result of three or four Universities working together is rather to raise than to lower the standard.

The second remedy is to frame *concordats* between different Universities, or groups of Universities. The Northern Joint Board has a *concordat* with the London University, and with Oxford and Cambridge. It works without interfering with the internal policy of any of the Universities concerned. Thus Oxford does not recognize the Joint Board examination unless Greek is taken, but a student who has passed one examination in the required subjects has the chance of entering the University without going in for another. The system of *concordats* is one that might easily be extended through the Empire. There is one thing to guard against: we must not sacrifice too much in our desire to exhibit amiability in deciding which examinations shall be thus recognized.

Thirdly, each Board or University should have a standing Applications Committee to which students can apply, and which shall have power to accept the examinations of certain other Universities as equivalent to their own. Those, for example, who have passed the examinations of other Universities in certain subjects are at once accepted, and proceed to a course of study in any of the Northern Universities if the number of subjects and standard are satisfactory. The plans above mentioned do not interfere with the autonomy of each University as regards any particular faculty or Honours School. It is perfectly open to any of the associated Universities to say: "Before we admit any student to an Honours School he must show that he has passed something beyond the minimum standard." But a minimum we must insist upon for all. I believe the above suggestions are capable of such development as almost to solve the whole question if they are rightly carried out.

SIR HIRAM SHAW WILKINSON, LL.D. (Belfast): I do not propose to go over the whole of the subject which is now before you—a most important subject. I wish to speak for one class of persons, and one class of persons only: the class described by Sir Christopher Nixon as a negligible quantity, of which I am an insignificant atom. I refer to the late learned. It is agreed, and this point has been referred to from time to time here, that each University should be in accord with the necessities of its environment. The University to which I belong is in Ulster, and I am able to speak with some authority as to the particular circumstances of that province. It would be most interesting to know, and I should like to hear some person who is capable of doing it, give the reasons why in Ulster there should be more late learned men—men going late to the University

—than are to be found in England. But there are some cases of such men to be found everywhere.

The reason which has made me speak is the suggestion in Mr. Matheson's paper that the examination qualifying for an entrance to the University should in general be taken not later than seventeen. Now, what is put forward as a proposition for general operation is often made compulsory, and I wish to protest against such a result. The late learned man ought to have an opportunity of going into a University and enjoying its benefits. Sir Christopher Nixon perhaps does not consider this class of men so negligible a quantity after all, because, if I understood him right, he suggested that the examination might be lowered to meet the necessities of their case. I think, however, I can say as a class they would ask for no such favour. The men who desire to go into the University, and who have been deprived of the opportunity of entering it at the normal time, are, as a rule, men who have sufficient determination to reach up to the standard required by any University. What they would ask is, that they should not be debarred from entering the University, nor from competing for any of its prizes on account of age, and I would urge that this should be borne in mind whenever any regulations are made for matriculation or entrance scholarship examinations.

There is one point which was referred to : the different spheres of primary, secondary, and University education. The question arose yesterday with regard to English, and I should like to say that in my opinion, both in the secondary schools and in the Universities, the subject of English might receive a great deal more attention—especially the more elementary parts of the subject. Before leaving the primary school, the student ought to have arrived at a certain standard of correctness and facility in the use of his own language, but unfortunately, whatever be the cause, the standard attained at that stage is often far from being what it ought to be. Much, however, might be done, and, it is submitted, ought to be done, both in the secondary school and in the University, to remedy this defect. It is unfortunate that this should be necessary, but, where the necessity exists, it ought to be recognized, and steps taken accordingly.

There is another point on which I should wish to say a word. Reference has been made to the relative advantage and disadvantage of specialisation in mercantile matters, as illustrated in the case of the Germans. There are many lessons to be learned from them, but long experience alongside of German merchants and English merchants has led me to the conclusion that the broad views which English merchants take have often carried them to

success when the specialization of the German has been in a large measure to his disadvantage. I venture to express the hope that the custom that has been initiated of taking University men into business will continue and spread, and that business men may more and more be given an opportunity of entering the University.

SIR OLIVER LODGE, D.Sc., F.R.S. (Birmingham): My Lord, I will be very short. The subject this morning is one of the most practical of the debates of the Congress, and may have a definite result. What I want to impress upon everyone is that a matriculation examination is not only an entrance to the University, but is an external examination for the school, and the more it is held in connection with the schools, and the more from their point of view, the better. Hence I deprecate one uniform examination, though I would gladly relieve the strain on the schools for specific preparation. It is desirable, it seems to me, that each University should be the centre of educational influence in its district, and should have some kind of contact with the schools; and that then it should hold its own matriculation examination. I have agreed with most of the speakers, but I differ with what Sir Alfred Hopkinson said about Joint Boards. What I feel is that we should try for elasticity, autonomy, separate experiments, and, to some extent, separate characteristics in the different Universities; though all should aim at the same kind of standard of matriculation, and should certainly accept each other's results when that is attained. The Joint Board of which he speaks is a vestige of federation of the Northern Universities, and, if extended, would be too much like the beginning of a central control. No doubt it works well as it now exists, but it does not seem to be a policy capable of extension. You could not have a Joint Board between the Universities of Australia, for instance. Distance would be an obstacle, and a multiplication of machinery and meetings should not be encouraged. Hence what I urge is that we should do everything we can to encourage the acceptance of each other's results, and that we should have a Bureau for disseminating information, but not a central board of control.

MR. P. J. HARTOG, M.A. (London): In dealing with this immense field, I propose to confine myself to one point, but that point seems to me the central one of this discussion. What do we mean by a standard?—what do we mean by tests? When a person has passed your entrance examinations, I ask, what can he do? He has pased in English—can

he express himself clearly in English? Can he write a good English letter? I say in many cases the answer is "no." He has passed in French—can he read a leader in a French newspaper? Can he find his way about a French railway station? Again, in many cases, the answer is "no." He has passed in Latin—can he read his Virgil, I will not say his Cicero, with pleasure? We know the reply. In mathematics, of course, you do have more definite results. If a boy has passed in mathematics, in many cases you can say, "he can do this, he can do that, he can do the other."

Now, my lord, I venture to suggest to the representatives of the Universities here present that before deciding under what conditions they will admit persons who have passed entrance examinations at other Universities, they should ask themselves what they really wish to insist on as a condition for entrance into their own. That is a question which is not put at present. And if it were put I doubt if it could be answered. Of course we may be told that no one can enter such or such an University unless he earns (say) 30 per cent. of the marks in a number of papers on a number of subjects. But if we come to closer quarters and ask what the boy or girl who earns that 30 per cent. can do, we shall find—at any rate in most cases—that we get blank silence for a reply. Perhaps we may indeed be told that while it would be difficult to assert that your successful entrance examinee can do any particular thing, yet that he has proved that he has a certain amount of "culture" But is not that the very last result which we should expect of the ordinary examination test? And is it not the last result that we find in actual experience? I suggest to you that if examinations cannot test culture, which they try to test, they could test other things, which, with our present system of standards and marks, they signally fail to test, that some things they might do really well, which they now do indifferently. In five or ten minutes I can test a boy in regard to his power of speaking French, or his power of using logarithms. French *viva-voce* tests, and the use of logarithms, form part of many examinations; but in how many cases do the examiners, as examiners, give the successful examinee a definite certificate in regard to either of these matters?

What we really want—and I should have liked this Congress to serve as a starting point for such an inquiry—is an inquiry into examination methods and standards. Before we can discuss with profit the equivalence of the entrance tests of our various examinations we must ask ourselves searching questions as to the real meaning and working and value of our present examination

machinery. I think that the result of such an inquiry would lead us to use examinations for the purpose for which they were originally designed by the mediæval guilds, as tests of efficiency.

Our examinations, we are sometimes told, promote and test "culture." You might as well try to eat soup with a fork. What I suggest is that you should use examinations for the purpose for which they were really intended—as tests of efficiency—and that culture should be promoted by other means.

THE CHAIRMAN: Several others whom we should have liked to hear have sent in their names as desiring to speak, but this discussion must now be considered as closed. I will not attempt to sum up; to do so would be beyond me. I should like to express my adhesion to one matter brought forward by Sir Edward Busk: it is of the very greatest importance, in my eyes, that students who take up scientific or practical subjects should be taught to express themselves properly in their own tongue. It is a matter upon which we cannot insist too strongly; but one in regard to which there has been, in the past, great laxity on the part of both teachers and examiners.

ACTION OF UNIVERSITIES IN RELATION TO THE AFTER-CAREERS OF THEIR STUDENTS.

First Paper.

A UNIVERSITY must, in the education of its students, provide men to carry on higher teaching and research, training them for its own service and that of other universities. It must train teachers for schools and supply the needs of educational administration. Finally, a part of its teaching will be professional, or, in the broader sense, technical. There will be students in law, medicine and engineering; others will look forward to a career in the application of science to the arts and manufactures, or to forestry or agriculture. So far the function of the university is clear, and so far the problem of employment presents no particular difficulty. It will be merely necessary to give all possible information to the student which will enable him to fit himself for his future career, and to systematise, to some extent, inquiries for competent professional men.

But there is another aspect of the matter. Until even twenty years ago the complaint was common enough that when a college or university had received its last degree-fee from a student, the interest felt in him ceased abruptly. Many a friend of mine who, on going out into the world has been content to do as well as he could the work that lay before him, has told me of the dreary atmosphere of a visit to his old college. The familiar rooms occupied by a new generation, the knowledge that in the stir of the corporate life his own undergraduate career is no longer even a memory—these things are inevitable. But why the chilliness of the hospitality grudgingly dispensed, the air of gloomy unrecognition, the remoteness of the interest in former graduates out in the world? The tacit assumption was that the university existed in the main to produce a few fellows of colleges and a few professors; a fellowship was the pearl of great price; no matter that there should be a holocaust of less distinguished victims, if only a narrow type of academic learning might be served. That Olympian detachment had its reward. The name of "don" became synonymous with dry-as-dust, and the public attitude to the universities was summarized in the taunt of Heine: "that one term's wave of students chased another like the waves of the sea; only the old professors remained steadfast, like the pyramids of Egypt; but in these university pyramids no wisdom lay hidden."

But a university of to-day takes all knowledge and all life for its province. We shoulder with hope and with confidence the responsibility of moulding the scholars and statesmen, the men of science and affairs, the engineers, the captains and officers of industry that are to be. The graduate's work in the world is our chief asset. And we are none of us content unless, in the language of the bidding prayer which is the great charter of all of us, we are doing what in us lies, and in the broadest sense, to see "that there may never be wanting a supply of persons duly qualified to serve God both in Church and State."

Now this intimate contact with the world of affairs is and must be the characteristic of a university of this century. The problem of the employment of the graduate forces itself to the front. It is of national importance to make the most of this excellent material, and then to dispose of it to the best advantage.

The University of France has been, since the Revolution, organised on a thoroughly democratic basis. Is the result, so far as the product of the education is concerned, satisfactory? I am told that there is one very disquieting feature—the number of *déclassés*—of graduates who do not prove good enough to attain to such positions as their education aimed at, and who yet are lifted out of their class and unfitted for other work they might have done well. In industrial processes I suppose that the greatest modern development is the utilisation of waste products. An ideally organized industry has, strictly speaking, none, and an ideal university would have no waste products either. If the great majority of its graduates—those who are not destined for higher teaching or research—are not ready to take a reasonable and useful place in the community, and are driven to merely parasitic occupations, the public welfare will be affected, and the reaction on the university itself must be ultimately disastrous. It is widely supposed that the ancient universities of this country have, for the great majority of their students, young men who have on graduation a ready-made opportunity awaiting them; who are born, to use the homely phrase, with a silver spoon in their mouth. But an examination of the lists of the tutor of any large college at Oxford or Cambridge would tell a very different, and a very remarkable, tale. I had occasion in June, 1911, to look at the previous educational record of the undergraduates of that year who were being examined in a small specialized section of the Science School at Cambridge. They were seventeen in number; *thirteen* of these had received their education in elementary schools. Of course, an examination of

the whole list of students in natural sciences would give a different result; nevertheless, especially since the Education Act of 1902, the abler boys from the elementary schools, and from the small country grammar schools, are finding their way to Oxford and Cambridge in considerable numbers. If this is the case in the older universities, it must, of course, be still more so in the case of their young and vigorous sisters in this country and in the Britains beyond the seas. We gather together then, nowadays, a large body of the intellectual flower of all classes. After training this good material, to ensure as far as may be its use to the best advantage, is a national duty, and the most sacred of trusts.

A university of these days is, and must be, democratically based; but in another aspect it is the finest kind of discriminating sieve. The undergraduate is tried in the balance of intellect: but he is also tried in the fire of life. He experiences, somewhat sheltered maybe, yet not too greatly so, the actual conditions of the larger world as in a prologue to the great play. He is weighed and tested by expert judges of young men, and the hall-mark of genuine approval will go far, when its value is widely and properly understood, to help him at the outset of his life. In all universities there will be men who differ widely in ability, in character, in resource, in all manner of personal characteristics. To speak of "the university man" as of a class with definite qualities or defects is an absurdity manifest enough to those who know the facts. But the public habitually uses this language, and a great deal of harm to the capable graduate results. I may be allowed to sum up this aspect of the matter in the sentence which our Appointments Board uses in its public announcement: "The Board is well aware that university men differ among themselves as much as, or more than, any other class, and for that reason it regards its function of careful and responsible selection as all-important."

Some sort of selective machinery then, official or not, seems a necessity—some recognised means of making responsible and carefully sifted recommendations; a means to which employers may have easy access, a means to guard them in respect of the internal aspects of a student's career of which they may have no specific knowledge, and a means which will command increasing confidence. But this is not all; the necessary organization must not be too impersonal; it must regard the student as an individual, must know him and make a friend of him, and endeavour to estimate his qualities so exactly as to give him his best chances; for it is the merest commonplace that a man may fail dismally

in one walk of life, who might yet achieve a considerable success in another.

It is quite possible that when the questions of organizing is raised in a concrete case, some objections will be encountered. Perhaps a summary of our own experience at Cambridge may be useful. It was argued (i) that it is no part of the function of the university to deal with employment; its business is to educate, and to extend the boundaries of knowledge; (ii) that students may come to regard the university as responsible for obtaining employment for them as a matter of course; (iii) that a strong Appointments Committee, if officially constituted as a regular part of the university machinery, may react on the studies of the university, and possibly push them in inexpedient directions; (iv) that it is impossible for the permanent officials of the Committee, few in number as they must be, to give competent advice over such a wide field of careers as is implied in the very existence of the organization.

As regards the first objection, it is of vital importance to the university that its graduates should make their mark in life; and as regards the second, a chimerical fear in my opinion, the risk is at least worth taking in consideration of the resulting goodwill from past graduates. The third objection, at any rate, will not stand. The anticipation was evidently that the tendency would be to push the university more and more in the direction of technical studies, to the exclusion of the humanities. We have not found it so; on the contrary, by developing new careers for the students in humanities we have justified by actual fact the position which has always been maintained by the advocates of these studies, namely, that they are an extremely valuable instrument for producing the man of affairs; for example, a very large proportion of the young graduates who are making good their position in the business community are classical men. But as regards the possible influence of an Appointments Committee on curricula, there is, of course, no doubt that the influence may exist; this has certainly been found to be the case with my own Board; but when a given course of studies is found, even from the practical point of view of employment, to be unsatisfactory, it is at least a gain to the university to know this, and to focus the dissatisfaction. It does not follow that action will be taken; there may be higher considerations to prevent this. But as a fact, in the one or two instances in which the inadequacy or want of adjustment of our curricula has been made apparent to the Appointments Board, the University has shown, by taking

prompt action, that it appreciated the considerations put forward. The very existence, however, of such a possibility implies a high degree of control by the university, and any proper organization must provide for this. In the last objection there was some force, especially at first; but an office will gradually accumulate experience suited to its own students, and a perfectly accredited organisation will not lack experienced advisers in the outside world; we, at least, have a large debt to acknowledge in this respect.

The function of a properly constituted Appointments Committee will be much wider than is implied in the mere obtaining of appointments, which is one, but not the only important, side of its work. It will advise the student, and it will teach him early to consider his future career in a thoughtful way; it will to some extent save him from pursuing impossible ends. Tutors of colleges frequently send their men to our office to ask what course of study should be pursued in given circumstances; and the giving of this advice is a very delicate and responsible matter. The members of the Committee are likely to be called on by public bodies to give expert evidence on various questions, such as the schedules of public examinations suitable for university students, the conditions as to stipend, &c., in certain employments which may be expected to attract a given class of professional men, and so on. I have already touched on the delicate question of curricula. Finally, the Committee must carry on an unceasing propaganda in favour of the trained intelligence, the skilled labour of the intellectual world, and of the importance of proper selection. In this respect, as they will soon find, they are forcing no open door, and they must be prepared to justify their position by clear results. I may be permitted to quote an instance which one ought to regard as typical of the normal development. My correspondent is a man of great eminence in the business world, and fortunately for us as broad-minded as he is eminent. I omit all details which can in any way lead to identification. First, in a letter of a year or two ago, occurs the sentence, "The pity of it is that in business circles X.'s case will become the text of the folly of trying to combine business and higher education." Then, later on, "I quite see your point with regard to applications being made through your Board." And finally, "The Cambridge men are all doing well. I am satisfied now that I exaggerated the length of time required for a university man to overtake men who have had the advantage of a preliminary mercantile training."

The details of the organization are a more difficult matter,

because universities differ so greatly in surroundings, constitution, and size. I think that in any case it would be a clear gain to start with some loose, experimental organization, in the first place unofficial, except that the university would regard the work favourably, and prominent members of the university would take part in it. Much would be learned in this way, and with the experience so gained a fresh start could be made a year or two later with a recognized university department. This was precisely the method adopted at Cambridge. The Cambridge "Appointments Association" was founded at the end of 1899. It was not till the beginning of 1902 that the university, after appointing a syndicate to inquire into the experience gained by the Association, created the Appointments Board. The name Board is in our case a technical expression implying that we are a university department, as much a part of the regular machinery as any other.

As regards employment, the end to be aimed at is emphatically not—or at least not directly—the provision of employment for every graduate who wants it. No doubt one object will be the widening of the area of graduate employment. But this object must be attained by a most careful endeavour to ensure that every candidate recommended must be really, and in himself, as distinguished from paper qualifications, what he is asserted to be. The curse of employment in this country is the "open testimonial," and things have gone so far that it is almost universally discredited. It leads indeed constantly to the employment of the wrong man, with disastrous results not only to himself but to others of his kind. Even the fairness of honest confidential referees is not above suspicion, because some men are so much more enthusiastic than others. It is, we claim, possible to set up a machinery which will give as great security as the best, and much greater security than the average, private recommendation, with the further advantage that the Board has a much wider area of candidates to draw from than a private person. Some idea of the accuracy which can be attained may be gathered from the fact that in one well-defined area of practical employment the Board has suggested about fifty candidates in the last five years, and two, or at most three, of these have not proved entirely suitable. To attain this order of result you must have intimate personal contact with the student, and an estimate based on the knowledge, as a rule, of several persons who know him in various capacities, who will interest themselves in him, and apart from documents, give their views in conversation.

It results that the organisation, while broadly enough based to secure a fair supply of candidates, must be essentially *local and by universities*. The question has several times been suggested to me as to whether a central organization in London, which might cover a group of universities, would not be desirable. We are, I think, all of opinion at Cambridge that such an organisation would be productive of nothing but mischief, and would go far to destroy the confidence which has been created in existing organizations. Such a central bureau can be nothing but a register of qualifications; in fact, a registry office like any other, based on a card index. One result will be that the very class of work which it is most important to attract, that of the employer who is most unwilling that his requirements should be given any publicity whatever, will be lost from the first; or if not from the first, then directly the method of the bureau and the results attained are realized. They can be only approximate at best, and that is fatal. The aim of your organization must be to do much more accurate work than is possible in any such way. If I speak very strongly on this point, it is because I am persuaded, as the result of a fairly long experience, that it is the gist of the whole matter. Even as it is, owing to the multiplication of professional agencies of all sorts—with which in reality an organization such as we have in mind is not in competition—it is not easy to get the highly confidential and accurate nature of the work recognized by those who have no experience of it.

The connexion of the organization with the university must be so close, so intimate, that it partakes of all the dignity and prestige of a university institution. Its officers must be responsible to a properly constituted body which meets at set times for the transaction of business and the determination of policy, and they must be recognized quite clearly as university officials, and have a corresponding status. Our own organization secures this. The Vice-Chancellor is chairman *ex officio*. Agenda are, of course, submitted to him, all meetings are summoned by him, and immediate points of policy which may arise in the ordinary routine work of the office are referred to him. The Vice-Chancellor will also use the machinery of the office for such parts of his correspondence with public bodies as deal with the employment of the graduate, and the probable supply of men to fulfil given conditions. We have six members chosen by the Senate, on the nomination of the Council of the Senate, and the Council has always nominated men of high standing in the university. The next thing which must be secured is perfect sympathy with

your constituent bodies. Our constituent bodies are, of course, the colleges and the departments of university work. The colleges which contribute a certain minimum annual subvention have the right to send a member to the Board. As regards the departments, it is found in practice that a number of them are represented by the members already nominated. But we are allowed to co-opt a certain number of members, and this secures the necessary touch with the departments. How important the work is considered to be may be gathered from the fact that the Board includes four heads of houses, four members of the Council, and four professors.

There will remain a few co-opted places which, in the case of a university not situated in a manufacturing or industrial centre, perform a most valuable function, that of contact with the world of affairs. The possibility that prominent men of business, active or retired, should spare a few hours to come occasionally to Cambridge to discuss matters with us was at the outset regarded with some scepticism. But our members of this class always make an effort to be present, some at one time, some at another, according to the nature of the business to be transacted. One member who even in his retirement must be one of the busiest of our public men, invariably scans the agenda most closely, and attends when he thinks he can be useful, although it means spending only the necessary hour in Cambridge and leaving at once. We have found it very useful to have a prominent solicitor on the Board, and one member of this profession did, in the earlier and more critical days, work of exceptional value, the effect of which is still felt.

It will be gathered from the above remarks that the Board is essentially a working body. I wish to emphasise this very distinctly: for it is the habit of many committees organized for all kinds of objects to have a long and imposing list of names on their announcements, and to let the matter rest there, save perhaps for a preliminary formal meeting. I cannot too strongly deprecate this in the case of an appointments organization. To have an imposing list of names, and a small inadequately financed office which is expected to struggle on its own way, is not to have an Appointments Committee.

The precise constitution must be made to fit the particular place. I have made a good many inquiries as to existing practice, and find that there are very few universities which have anything like a real organization. Mr. Raper, of Trinity College, Oxford, was, I believe, the first person to do anything systematic in a

considerable way for the employment of graduates, and I think it was at his suggestion that the Oxford Appointments Committee was founded. This was in its earlier years, however, not strictly an official body, and dealt with scholastic appointments only or in the main. But in 1907 a statute passed Convocation creating an Appointments Committee in the sense in which I am now speaking; its constitution is very similar to that of our own Board. It is doubtless destined to a long and successful career.

When a university is young, and the number of students graduating in a year is small, any complex organization is clearly out of place, and the work can probably be better done through individual professors; in this case a small office would suffice which would merely advise as to the general conditions of careers, keeping a file of information, and especially a series of typical letters from old students in all parts of the world; these are much more valuable than any other means, for giving a clear picture of the advantages and drawbacks of the several kinds of employment. Our own Board works, of course, in the closest connection with the professors, demonstrators, college tutors, and others; but it would appear that when the work is on a small scale there is not exactly the same need for an organization which is, on the one hand an automatic memory for the departments, and on the other a kind of nervous system of which the departments and college staffs may be said to be the brain-centres.

From Harvard and Yale, to whose registrars and principals I am greatly indebted for information, come many very fruitful suggestions. Harvard sends a complete file of the papers and forms used in the work of the Appointments Committee. These forms seem to me to be the most generally suitable I have seen. We had ourselves worked out a scheme surprisingly similar, but those of Harvard are, I think, more useful for general purposes.

The experience of Harvard, and the development of its organisation seem to be so applicable to the conditions of many universities that I give some account of them. It must, however, be remembered that at the great American universities much temporary work is found for the poor student; not only tutorships, but various "odd jobs," the management of students' messes, clerical work, caring for furnaces and lawns, street-railway work, typing and shorthand, and so forth. It is said that no student loses caste from his employment in these activities; and I should think, judging by the men among ourselves who have to do a full day's teaching or other work while reading for their degree, that the work must have a valuable hardening effect on character. But there is the

grave objection that such work, even in vacation—for the vacation is a time of great profit to the work of a serious student—must greatly interfere with the main aim of a university career. In any case, it is important in dealing with Harvard and Yale to remember that this temporary employment was the origin of their appointments offices, which also appear to award bursaries. The associations of the old *Alumni* are also active in the work of appointments, which suggests a valuable possible development.

The Appointments Office at Harvard, then, was organised as an employment bureau in the winter of 1886–7, but did not deal with appointments as we understand them. In 1897 the Appointments Committee, with a permanent chairman, was established by the faculty of Arts and Sciences. In 1904 this Committee was dissolved, and the work entrusted to an Appointments Office, under a Secretary for Appointments. Although the Committee, composed of departmental representatives, ceased to exist, the co-operation between the office and the departments became closer, until in 1911 the office was placed under the direction of the Chairmen of the Divisions and Departments, or their representatives, controlled by the Dean of the Faculty of Arts and Sciences. This experience, showing a tentative organization, a period in which an office alone existed, and the final adoption of a complete organization properly adapted to its purpose, seems peculiarly instructive.

The case of the Glasgow Appointments Committee may also be generally useful. It is an official committee of the university, appointed by the Senate. It consists of the Principal, twelve of the professors, and a secretary, who is adviser of studies in Arts and a university lecturer. It reports annually to the Senate. The Committee, as thus organized, is a comparatively new body, and the volume of its work is therefore at present relatively small; but it appears to be growing on exactly the right lines, and gives evidence of a foundation well and truly laid.

In the University of Birmingham, students destined for the teaching profession are dealt with by the professor of education: those in engineering, metallurgy, mining, and chemistry go as "improvers" to works, the several professors helping to arrange this. The Dean of the Faculty of Commerce has an advisory Committee consisting of ten or twelve business men of the city. With these he confers as to the subjects of the curriculum and as to the best means of placing his students. The University of Wales is constructing an Appointments Committee which is to deal with pupils at schools, as well as with university students.

The suggestion has once or twice been made that the students

should have their representatives on the committee. Such a suggestion seems to imply an absolute misunderstanding of the functions of such a committee, which are to discuss privately in detail the manner of extending the employment of the graduate, to discuss successes and failures and the reasons for them. It should have in its hands a great body of information not at all suitable for distribution among students.

As to office organization little need be said. The principles of card indexing and vertical filing are elementary; with the vertical file one ought to be able to produce particulars of and correspondence with any given student out of two or three thousand in about fifteen seconds. But when I have discovered exactly where I can get a short course of instruction on cross-indexing of exactly the kind I want, I shall certainly take it or send a clerk to do so. The admission of a student to our register is strictly guarded. We make little or no use of open testimonials; certain persons only—the college tutors and the members of the Board—can nominate a student for admission, and the responsibility is fully understood. A student has the right to all information which may reasonably be regarded as public, and reasonable access to the permanent officials, but *no right whatever* to be told of any particular vacancy. Indeed, the appointment of a given man is usually discussed with the employer long before the office is authorized to inform him of the fact.

A useful part of our machinery is what I may call the "interview paper," on which the gist of the various conversations held with the student is noted. This is a great aid to memory; it serves to focus the interviews, and so to save much time; it is often better than a portrait for calling the student to mind.

Some method of codifying the experience of past students is desirable, and also some record of appointments not filled, with the reason. But it must be remembered that the danger of all mechanical systems is that they require a good deal of time and care, and if carried too far are a hindrance rather than an aid to efficiency. As an illustration of what may be done in the way of codifying experience, we took in 1909, at Sir William Mather's suggestion, a census of the employment of our engineering graduates, and Sir William drew up a report on this for the consideration of the Board. The result has enabled us to guide the young graduate with much greater certainty than before as to the exact nature of the practical experience which he will find most useful. We hope to extend this experiment to other fields.

A word as to publications may be of use. When our trial

venture, the Appointments Association, was started, part of the machinery was a journal called the *Appointments Gazette*. The policy of publishing such a journal was doubtful from the first. It was costly; it was misleading, as the most valuable information of all, that which was confidential, could not, of course, be published in it. An anonymous list of graduates desiring employment formed part of it; but publication at least once a week would have been necessary to keep this up to date, and when ever so little out of date it was positively mischievous. The *Gazette* is at present only published very occasionally, and then only with the view of giving the student in a convenient form the rules of the Board and a *précis* of information about such matters as appointments in the civil service. An attempt made by some prominent members of the University of Aberdeen is probably worthy of imitation. In a book, printed and published as cheaply as possible, they have collected a series of articles under the title, "*After Graduation, what?*" The difficulty is that information goes so quickly out of date. For example, in 1906 the *Guardian* published a useful series of articles entitled "*What to do with our sons.*" The articles are now published in book-form: but they are already seriously misleading. If the publication is revised at least once a year, the idea seems a good one.

The question of how to attract the proper kind of employer is difficult; but probably when a university is seated in a manufacturing or commercial centre, this difficulty will not be greatly felt. A good deal of the best employment will be local, and the organization if well conducted will soon be favourably known. Printed circulars do little good, and the same is true of letters unless addressed on a most carefully considered plan. Advertisement in the public Press seems to me a most dangerous expedient; in the first place, it will associate the organization in the public mind with the ordinary agencies; and in the second, there is a danger that public advertisement, so far from attracting the right class of employer will actually deter him from coming. The governing body of the university will probably insist on an annual report; the great daily papers will always publish an abstract of this. But the real extension of the work must be expected from former graduates, either out of pure goodwill or because they have themselves benefited; and most valuable of all, by recommendation from employer to employer; when this happens the work is in a good way. But I believe that it is only by a slow growth that an organization of this sort can be effectually established.

The position of the office is of some importance; it should be central, and as near as possible to the place in which the main

business of the university is transacted. It is a great gain that senior members of the university should have it at hand either that they may give advice or receive information.

The question of arriving at a complete estimate of the individual student is, of course, of paramount importance. In a sense the ideal Appointments Committee consists of one man who knows the student well; and in the case of a university with a small number of students this is apt to be realised by the professor or lecturer who has most to do with him. Individual recommendation of this kind must be better than anything which can be done by an office with a mere register. But there are a large number of appointments which demand a combination of qualities, and the scientific or linguistic expert may sometimes look at competence in his own subject too exclusively. I believe, too, that there is the greatest benefit in the independent judgment of those who, while knowing the student's record well, are not attached to him personally in quite the friendly relation which should exist, and usually does, between the undergraduate and his tutor. Where the tutorial system exists, as, for example, at Oxford, Cambridge, and Dublin, there is, of course, an ideal machinery ready to hand for an estimate of the student as he is, apart from examination records; and it is a machinery which works with wonderful accuracy. Where the tutorial system (by means of which each student is assigned a "tutor" who looks after his needs throughout his career, but who does not as a rule teach him) does not exist, some other means must be found. The Glasgow Committee's method may be widely useful. "The professors are frequently able to supply some information about the personal qualities of candidates; the increasing use of tutorial methods and of practical and laboratory work gives substantial assistance in this direction. Fellow-students also afford helpful impressions. Officers' Training Corps work, and work in the ordinary students' societies are other sources of knowledge. Also the Adviser of Studies in Arts has frequent opportunities of meeting a large number of men." The student must be not only "encouraged," as it is put by one university, but compelled to make himself known at the central office by the knowledge that nothing can be done for him if he does not.

The permanent officials will, of course, have to gain their experience; if cheaply, so much the more fortunate they. One of the most important adjustments will be the correction of the common view as to the amount of ability required in business life —ability to rise high that is, and to determine the relation between academic and what may be called practical ability. The common

view, I suggest, rates business ability too low. That there is a very marked relation between the two I am persuaded; but, as the mathematicians express it, the practical ability is a function of the academic, and of other variables. It is in the estimation of those other variables that the whole resources of an Appointments organization are taxed.

The organization must win the confidence of students, and this, even when its utility has become obvious and is widely known, is not so easy as may at first sight appear, owing to the fact that one generation of students succeeds another so rapidly; the work is, in a sense, always to do. Much may, I think, be accomplished if the reception of the student in the office, especially by the subordinates, is courteous, and if the secretaries or other officials take a broad view in discussing matters with students. It should be frankly recognized that everyone will not receive assistance, and when experience is still in the making the advice given will not, of course, be too dogmatic. One university college writes: "We had a small committee of some members of the teaching staff: students were encouraged to register their qualifications; so few responded to the invitation that the Committee discontinued its activity and has been dissolved." When at the end of 1899 steps were taken to found our old Appointments Association, a meeting was held in the Senate House, and a number of prominent men of business and members of the university addressed it. It might have been supposed that the galleries would have been crowded with undergraduates anxious to hear what hints Lord Rothschild, Sir Andrew Noble, or Sir George Gibb could give them as to their future career. I do not think there was one present; indeed, I believe I was almost the only unofficial member of the university there; I had little idea at that time of how absorbing an interest that meeting and its results would have for me. Nowadays we should easily command a large audience for any such meeting, and I cannot but feel that it is important not to be discouraged if at the outset students do not realize the full significance of what is being done for them.

I have kept the question of finance till last, but it is of great importance. Some form of financial help from the university itself will, I trust, in time be recognized as one of the urgent claims on its resources. Dr. W. N. Shaw pithily summed up the matter as follows: "We spend thousands of pounds in making it easy for students to come to us; surely it is reasonable to spend a small sum in making it easy for them to go away." The question next arises of charging a commission on appointments obtained. Opinion in almost all the universities I have con-

sulted seems to be strongly opposed to any such charge. The objections are obvious; it would be impossible to do the work with a reasonably balanced judgment if one realized at every moment that the very livelihood of one's subordinates depended on the filling of a certain number of places each year, by one means or another. The difficulty of recommendation is serious enough in any case, and cannot be properly done under economic pressure. Moreover, there are some classes of appointment, and those not the least valuable, on which the assessment of a commission would be most difficult. That the system would tend to destroy confidence must, I think, also be clear. In any case, the opinion of my own Board has been most emphatic, and many of its most distinguished members would have refused to give their time had the policy of commissions been adopted. Harvard and Yale are equally emphatic Harvard says that "the work yields a large indirect return"; Yale, "that it represents the capitalised goodwill of the university." A uniform annual registration fee, provided it be kept quite small, stands on another footing. It may be supposed to cover the bare cost of registration, and it is possible to make it distinctly understood that it gives no claim even to specific information, much less to an appointment. In practice we find that the students who have sufficient intelligence and goodwill to register regularly over a small term of years are those who are most frequently wanted by the office.

I desire to express my sense of the courtesy with which the universities of this country, of Canada, and the United States have responded to my request for information. I need not say that if these few remarks prove of use to any other university, I shall be most amply repaid. In conclusion, may I express the ardent hope that any organization should not be put together hastily and inconsiderately? A false start is much worse than no start at all. A clean slate is a most valuable asset; and once a start has been made on insufficient or ill-considered lines, it is very difficult to reinspire confidence. To start before one need, and in order to be in the fashion, is heavily to mortgage the future. It is much easier to make than to recover a reputation.

H. A. ROBERTS.

Second Paper.

The Students' Careers Association.

Some ten years ago the Secretary of the Central Bureau for the Employment of Women was asked to lecture at Newnham and Girton Colleges on "Openings for Educated Girls." Subsequently, lectures were also given at Holloway College, Bedford College, and Westfield College (University of London), and as far afield as Aberystwith (University of Wales). In every case very interesting correspondence with students followed. Mrs. Sidgwick, then Principal of Newnham, and always an encouraging friend to the Bureau, spoke of the need for the wider development of our work on lines which would stimulate individual originality and a greater diversification among the students in their choice of careers. We received many letters from graduates asking for information as to openings mentioned in the lectures; large numbers of girls visited us who had imagined that teaching was the only possible profession, and who, being anything but born teachers, had after a year or two at the work, either broken down in health, or emerged from the experiment with disappointed hopes and a depressing outlook on the future. Or, again, girls came to us who had answered specious advertisements from training establishments purporting to prepare students for various lucrative positions—this entirely without regard to the real demand for such workers, the result often being that the student, after having spent her last available £100 on such training, found on its completion either that the market was hopelessly overstocked, or that the training she had received was inadequate or unnecessary for the profession for which it undertook to prepare her. These cases came not in twos or threes, but in hundreds, and stimulated us to start upon fresh fields of investigation and research in order to meet the constantly growing demand.

I need not dwell in detail on the years which followed—suffice it to say that two years ago, after twelve years of hard work, the Executive Committee of the Central Bureau felt that the time had come to ask for the definite co-operation of the teaching world, the result being that a large and influential Consultative Committee was formed representing Universities, Schools, and Employment Bureaux, and the title "*The Students' Careers Association*" was adopted for this part of the Bureau's work. We made inquiries of all Universities of the Empire and have received replies which manifest keen interest in the new organization. Several Universities appoint Registrars who keep in touch

with their students after leaving College. Sometimes periodic conferences are held on Vocations and various subjects relating thereto, as is the case at the McGill University. Cambridge, as you have just heard, possesses a successful professional Registry for men. I believe Oxford also has one. But we suggest two things with regard to the preparatory work already being done:

First, that the professions of men are in a very different condition from those of women. Long usage has made clear the various paths open to them; the necessity for both their training and subsequent professions are by long centuries of slow development, generally acknowledged, and preparation for work is taken as a matter of course. For women it is far otherwise—their professional work is barely a hundred years old; the speed of its development is extraordinary, and brings with it peculiar difficulties; in many directions preparation is not clearly defined; special training of any sort is even now sometimes questioned, and future conditions of work are problematical. Far more investigation and research are needed than in the case of men's work, and vigilance is required to open up pioneer paths and to assure sound economic conditions. That women students should drift into work with the scantiest knowledge of what is before them, quite unaware of openings in other directions for which they may be specially gifted—is at least a grave waste of time and life. It will, of course, be understood that we start with the premiss that women are already in the professions, and will enter more into them. There may be something against their doing so, but that is not our question to-day.

Secondly, we suggest that even if a general Inter-University employment scheme were devised, either through a new organization or through existing University agencies, it would, as such, fall short of the widest need, and its usefulness would be curtailed or cramped accordingly. The influence of higher education we believe is urgently needed *outside University spheres* as well as inside. Especially in public work and in the industrial, commercial, and business world is the University woman needed and it is in spheres other than the teaching profession which are crying out for a supply of workers of some real educational achievement that their influence is of equally vital importance to the future.

Admitting these two points, what sort of an organization is needed?

Here we start with another premiss, *i.e.* that Society grows upon some scientific basis, by some scientific method. Neither basis nor method may yet be descried, but gradually they are

becoming visible. Scientific method involves differentiation of organism and function. Either our new organization is a real and necessary scientific evolution or it is not. We see the progression as follows in the life of a student :—

(1) School and University for educational preparation.

(2) Technical training, apprenticeship or other specialization.

(3) Vocation.—Work.—Life.

The "Students' Careers Association" seems to be the necessary link between numbers one and three, and *holds a function between them, which has been hitherto unrecognized.* We are taught that all evolution demands due recognition of the appropriate functions of the parts of an organism as its evolution proceeds. We hope to use our function in service both to Universities and to the larger professional and commercial world outside, in co-ordinating their efforts to a common end—"the utmost for the highest" in every form of work.

It has been suggested that each University should be a centre in itself for a Students' Careers Association. I heard it gravely suggested at a public meeting not long ago that every School should possess an Employment Bureau! Nothing could better show the inadequate conception popularly current of such an organization. The result would be that investigations into the same subjects would be inadequately carried on by large numbers of independent bodies at the same time, each unaware of what others were doing. The waste of time, strength, and money would be enormous, while the overlapping would ultimately have a grave effect on the general conditions of employment, information being refused from mere pressure of repeated and needless inquiry, as has not seldom happened in the industrial world. In a small country like England, one centre for investigation, research, and information may be sufficient, provided the channels for its diffusion are clear and easily accessible. It would be wasteful if, for instance, the Universities of Sheffield and Leeds, or those of Manchester and Liverpool, were to maintain separate organizations. A Central Association supported by all the Universities seems to us the best method for securing the highest degree of efficiency and economy. Each University will have a Correspondent or Registrar who will be thoroughly in touch with local needs, and in constant practical correspondence with the Centre. No rigid rules should be enforced, the system being as elastic and as capable of expansion as possible. Each country, or, in the case of very large countries, each province, will have its Central Office of the "Students' Careers Association," and all

countries will be in touch with each other through each Centre. The advantages of this intercommunication between all the Universities of Great Britain, and through the Centre with the Colonies, are obvious—they are specially valuable from the employment point of view of mobility of labour.

This is particularly important in occupations dealing with more highly educated sections of the community. Openings will be investigated and really known, and the result will be a healthy accession of new blood into each country. This movement will not be haphazard, considering the Colonies as mere health resorts for physically defective workers, but will be based on the solid ground of well authenticated demand. The adequate and immediate supply of workers of a capacity to meet, or even excel, the highest standard of the demand, has hitherto, we venture to think, been a difficulty with regard to the Colonies.

It will be realized that a great deal depends on the efficiency of each country's Central Office, on its capacity for research into the economic, geographical, and historical regions of employment, on its capacity for dealing with people, and on its ability to keep intelligent records and statistics. If such a body is starved, either from want of the right people to work it, or from lack of funds, the result will be similar to that of a University under similar conditions—it will be unable to fulfil its proper function. Both demand that freedom of action which is possible only when there is an absence of anxiety over ways and means.

Now to return to the practical work of the "Students' Careers Association," its aims and objects are set out in a few words, as follows :—

(1) To establish a definite connection between Colleges and Schools on the one hand, and the Associated Employment Bureaux on the other.

(2) That a Consultative Committee should meet twice yearly for discussion and interchange of ideas, and arrange to supply :—

(*a*) Employment Bureaux with up-to-date information on Educational matters, and to notify them of any changes that may have taken place in the Teaching world.

(*b*) Colleges and Schools with expert knowledge on all Employment questions, and to give them reliable and up-to-date information on all professions open to educated women, together with the necessary facts in regard to supply and demand, standard of salaries, training, age-limit, &c.

(3) By constant communication between the Educational world and Employment Bureaux, to prevent the drifting of women and girls into unsuitable or over-stocked professions.

(4) To consider any *new openings* that may have been investigated by Employment Bureaux, and to discuss their possibilities.

Forms of inquiry for students will be sent to any Head or Assistant Mistress desiring to join the Association. Each form should be filled up by the student desiring information, signed by the lecturer or teacher, and forwarded to the Central Bureau for the Employment of Women.

Twenty Universities of Great Britain are now affiliated to the Association, and about two hundred Schools; the number of the latter almost daily increasing. There is a large Committee consisting of representatives of Universities, of the Head Mistresses' Association, the Assistant Mistresses' Association, and the Employment Bureaux. There is, besides, a Roll of Technical Referees, these being experts in each profession who advise the Bureaux and also form part of a staff of lecturers organized by the Bureaux. Colleges and Schools requiring series of lectures or single lectures on careers for students, or subjects connected therewith, can be sure of getting well-qualified exponents of each profession, who know their subjects thoroughly and who have no other aim than to give a plain, unvarnished view of the special branch of work under consideration. Already many lectures have been given, and the reports received are in every instance most encouraging.

Questions dealing with vocational education and the tendency to press specialization on very young students are being discussed. In not a few cases, we have been able to persuade parents to send girls back to school before specializing, or to give them the great advantage of an extended education at a University, instead of insisting on a professional career at an age when choice is exceedingly difficult. We possess all available details of the best preparation for each profession, and Loan Funds by means of which students can help themselves to such training if necessary. Several loans have been recently granted to girls wishing to continue their University course for some special purpose. This co-operation of the "Students' Careers Association" with Universities seems to us the most economical as well as the most effective plan for producing the highest efficiency both from an educational and a technical point of view.

The Association considers that it is of great importance to

keep in touch with similar movements in other countries, and not only in the Colonies. We are in definite co-operation with the Inter-Collegiate Bureau of Occupations in New York, whose object is to help in the interchange of post-graduate students anxious to gain experience outside their own countries. With the Alliance Bureau in the same city for industrial workers we are also in touch. The Women's Educational and Industrial Union at Boston has an Appointment Bureau with which we co-operate. In Paris, Berlin, Hamburg, Magdeburg, and Vienna there exist Societies which have similar aims to our own, and with which we are in frequent communication. In Sweden, Holland, Denmark, Belgium, Italy, Switzerland, Greece, and Poland, we have also correspondents, who are usually Secretaries of Educational Employment Societies or who are wishing to start Associations such as the "Students' Careers Association."

The interesting address recently given by Dr. Shipley (Christ's College, Cambridge), at the Royal Colonial Institute, on the work of the Association for the International Interchange of Students, was an indication of the strength of this feeling, and the Conference which has just taken place will doubtless bring the important work of this Society into still further prominence.

All such developments are carefully noted by us, and the co-operation which we are seeking to achieve is becoming slowly less difficult, as the critical and sympathetic views of those with whom we seek to work are used with our own in making a common and well-thought-out basis of agreement. It would be a valuable step to progress if the proposed Central University Office about which we are to hear to-morrow could exist in close touch with our Central Bureau for Employment and the "Students' Careers Association." Such co-operation would solve many practical difficulties at once, and would tend both to economy and to the more thorough knowledge of our complex subject, from the educational and vocational points of view. We suggest, in conclusion, that these two views, which it has become the fashion to separate, are in reality one, and that to divorce them is to be in danger of maiming an individual made for social ends. The training of faculty, whether it be in the School, the University, or the Workshop, has a single aim, and for each section to be working in the dark, or at least independently of the other, will in the future be regarded as a foolish impossibility. We regard this educational question as second only to the great problem of heredity, which is now engrossing the attention of so many learned minds. A student may be but a humble worker in any one of the many callings now open to women, or she may become a

scientific discoverer, the composer of a symphony, or the mother of a genius. In any case it will not be without struggle and effort and discipline. It is while we realize these vital potentialities that we plead for a basis of order and orderly progression in whatever preparation we give; that the scientific method be followed throughout, and that all sections of the training of a citizen shall follow such method so far as we know it. For, as a modern philosopher has said: "It is better to be content with the fraction of a right solution than to beguile ourselves with the whole of a wrong solution. The former is at least a step towards the truth, and shows us the direction in which other steps may be taken—As Clifford puts it, 'scientific thought is not an accompaniment or condition of human progress, but human progress itself.'"

MARY G. SPENCER.

Discussion.

PROFESSOR T. HUDSON BEARE (Edinburgh) : I hope I shall be pardoned if I confine my remarks almost exclusively to the case of graduates who intend to devote themselves to a business career. The case of graduates who enter the learned professions is on quite a different footing : the avenues to these professions are strictly defined, and, as a rule, parents know the right procedure to adopt in order that their sons may make a successful start upon their future career, when they have completed their University training. Those graduates who propose to enter upon a business career, however, present a different case. As a rule the young man himself is quite ignorant of the right steps to take in order to get his foot upon the lowest rung of the ladder, and, from my experience, parents themselves rarely seriously consider, until they are face to face with the problem, what their son must do when his academic career closes. Naturally, the first thought is to consult the tutor or professor with whom the young man has been brought most closely into contact during the three or four years of his University life. Unfortunately, though such tutors or professors may be most willing to do all that lies in their power, and are always ready to give the best advice they can, they may, owing to the fact that they come but little into contact with the men who run great business concerns, or control large industrial organizations, be quite unable to bring into touch the young man seeking to make a start on his life's career, and the employer who is on the lookout for capable young men who may eventually be trained to take positions of responsibility and trust. It is just at this stage that a properly organized University Appointments Board becomes essential. Such a Board can become an intermediary between the employer and the expectant employee, and such a Board is free from any suspicion of that natural bias which may lead the professor or tutor to give testimonials which, to say the least, err on the side of excessive praise, and give too careless an analysis of the man's real abilities and character. The Board can not only examine the official records of each man's academic career, but it can also obtain from a number of teachers of widely different subjects confidential reports on the young man's capacity and character and his aptitude for certain lines of work. With this information before them, the Board is in a position to come to a fairly definite opinion as to the particular walk in life in which the young man is likely to be a success. Such Appointments Boards, however, can never do their work properly until

the business men in this country make up their minds to consult such Boards, and to disabuse their minds of the idea that a University career unfits a young man for business or commercial pursuits. I have frequently heard it said by business men: "Oh, yes, a University gives a good training for a professional career, but it is no good for those who are intending to follow commercial pursuits." All business men, however, do not take this pessimistic view of the value of a University training for young men who are to follow an industrial career. May I be permitted to give one illustration, which has recently come under my notice. I was approached by a well-known chemical manufacturer, who said: "I want two or three young men who have been trained in the engineering schools of one of our Universities; I do not care whether they have been trained for any special branch of engineering: what I want are smart, hard-working young fellows, and I will train them myself in the particular branch of engineering they will have to follow in my works." This is an illustration of the fact that some, at any rate, of our great manufacturers are realising the value of a University training.

The Chancellor of the University of Oxford, who occupied the chair yesterday, in the course of his address said that the preparation for certain professions, in which technical knowledge must be combined with breadth of mind and humanization of character to enable the student to grapple with the problems of life and to deal with men, seemed to be the special province of the older Universities. Lord Curzon no doubt was thinking of those men who entered the Civil Service, or one of the so-called learned professions: but, surely, if there is one person more than another who ought to be trained so as to be able to deal with men and to grapple with the problems of life, it is the man who directs great industrial enterprises, or who organizes and runs big manufacturing industries employing thousands of men and women; breadth of mind and humanization of character are even more essential to such men than to the politician or the government administrator. The younger Universities, therefore, must not only be ready to give the necessary technical and commercial training, but equally with their older sisters they must also be capable of giving to men who are to embark in commercial pursuits that breadth of mind and elevation of character so eloquently referred to by Lord Curzon. For the justification of my belief that the training given in a University does equip its graduates for the battle of life, no matter in what sphere the man's lot may fall, may I quote a passage from one of Bacon's

essays :—"For natural abilities are like natural plants, that need pruning by study; and studies themselves do give forth directions too much at large, except they be bounded in by experience. Crafty men contemn studies, simple men admire them, and wise men use them; for they teach not their own use; but that is a wisdom without them, and above them, won by observation." As Lord Curzon so truly said yesterday, business men require character and stability in the young men they employ, and it is precisely because, after long experience as a university teacher, I feel confident these qualities are fostered and developed by university life, that I appeal to the business men of our country to make greater use of the various University Appointments Boards, and to assist those Boards in the difficult task they have of starting the young graduates on their life's career, for a mistake at that stage may lead to disaster which can never be retrieved, whereas a wise choice may lead a young man to a career which may not only shed lustre on his university, but may bring untold happiness to many thousands of his fellow-men, for who can judge what the seed will eventually produce?

SIR GEORGE GIBB: It is often thought that the greatest interest of this subject is for the University, but I venture to think that its real importance is greatest from the point of view of the interest of the community. I have no claim to speak on it except as a business man who has taken some interest in the movement for bringing University students into closer and more direct connection with practical life, and mainly with that department of practical life which is concerned with industry and commerce. It seems to me a matter of quite national importance that an improvement should be made in the quality of recruits for business life. Business men search the world, and spend vast sums of money in discovering and developing new materials and new inventions, but surely improvements in the quality of the staff on whom the successful conduct of business depends should be pursued with even greater zeal than the improvement of materials, for men are more important than materials. And I do not know any source where we are more likely to find men of the better quality that is undoubtedly required than in the Universities.

Let us look at the subject also from the student's point of view. Until recent years the bulk of the students who went to the older Universities were men of comparative wealth, but nowadays the greater number of the students are dependent on employment for earning their living. They must have employ-

ment for their subsistence; but they also long for mental culture, without which the highest enjoyment of life is impossible. Now, they are prepared to take some risk in going to the University to acquire that mental culture, but they cannot take too great a risk. We must remember, and it is well to face the facts, that there is a certain risk to a young man in spending three years in University studies at a critical time of life, when many future competitors in the struggle of life are commencing their practical career. I am frequently asked, and I daresay many people are frequently asked by young men and their parents: "Should a young man who is going to enter commercial life go to the University?" My reply always is, "Certainly, if you can." A student must be able to afford it, but I have no doubt whatever as to the advantage in commercial life of the better training, the wider outlook, and the greater capacity that comes from the higher education. A man who takes a University degree does start three years behind the man who does not go to the University, but then, he very soon, according to my experience, makes up for that time, because his University training has made him a better man for his commercial work. It has also equipped him for the time when he may be called upon to fill the highest posts of commercial management. I had a conversation a few minutes ago with a very distinguished business man, and he expressed the opinion that too much attention was being paid now to the training of servants, and that the training of leaders was being neglected. There is a certain amount of truth in that, but I think that leaders may perhaps be left to look after themselves. All leaders in industry should have a liberal education, and should possess, if they can obtain it, a University education. But after all, the majority of men cannot be leaders; the majority must be servants, and what this movement is designed to do is to improve the quality of that great number of men who fill the intermediate ranks between the leaders whose abilities bring them necessarily to the front, and the vast mass of men who, of course, must be below the standard reached by those who have had the privilege of University education. The movement has already achieved great success, but it is not enough simply to constitute an Appointments Board and give that Board instructions to find well-paid posts for all graduates who want them. Something more must be done at the Universities and in business organizations. I think at the University it is necessary that the range of subjects offered for the choice of students who wish to get a University Degree should be enlarged. I do not mean to advocate that there should be any attempt to teach business subjects at the University. I

strongly deprecate too early specialization, and I should certainly deprecate any attempt to teach technical subjects at the University. What we want is mental training—the technical knowledge can come later, and had better come later. Speaking as a railway man, if I were offered the choice of a man who had been studying literary subjects, but had spent 60 per cent. of his time as a student on technical railway subjects at the University, and another who had been giving all his time to mental training and culture, I should unhesitatingly choose the latter. I do not think we should ignore the distinction between a University and a Technical School.

I notice that Mr. Roberts, in his very able paper, expresses an opinion adverse to the establishment of a central office for selecting and assisting candidates from all Universities or many Universities for employment, and I cordially agree with his view. I think it would be a disastrous step in this movement if any central board or office were established, unless merely for collecting and recording information. The body to discharge the duties of an Appointments Board must not attempt to cover too large a field. One would not dogmatize about the exact size. It might be possible to group a few Universities together, but I should greatly deprecate having one Board, or attempting to form one organization for all the Universities of England, as has been suggested. The very essence of this matter, in my judgment, depends on personal knowledge of candidates. You want the skill of an experienced secretary of an Appointments Board in the selection of students for employment, and also in the advice given to the students about employment. It is a very difficult task to give good advice to a student as to the career he should adopt, and it is a very difficult task to select the right man for any particular employment, and I have no doubt it is work which can well form the life work of an able man. He must specialize on that, and if he is shrewd and a good judge of men, he can make the work of an Appointments Board very successful and valuable in its results.

Just one word more on the business side. I have said that Universities must widen the range of their degree subjects, but business men must also alter their organizations. It is no use expecting to attract men of higher qualifications into business life unless business men are prepared to pay for them. They come possessing something that others do not possess, something of value, and that must be paid for by a higher remuneration, and by recognizing that the use to be made of a University-trained man should be based on the special qualifications he possesses. I

do not mean that he should get a privileged position, or any unearned claim to promotion, but the place he gets and the work to which he is put should be assigned on a distinct recognition that his mental training, if properly utilised, has a definite money value for business purposes.

If England is to maintain her commercial and industrial position, it can only be done, in my judgment, by raising the standard of qualification, and the character of the recruits for her industrial army. A radical change has taken place in the condition and needs of business life, which renders it absolutely necessary to employ a greater number of men of scientifically trained minds. The increased use, and the greater complications of machinery, and the employment of vast amounts of capital in most industries, have brought with them the necessity of employing staffs containing a larger proportion of men with trained minds. Problems connected with the relations of capital and labour grow more urgent and more difficult every day. When facing these problems we must patiently remember that our present conditions are largely due to causes for which the origins must be sought in the past. How much of the present labour unrest is due to the action of employers within the last fifty years? Is it not an accumulated debt? Employers of labour have been on the whole a very miscellaneous lot—good, bad, and indifferent. Would we be far wrong in thinking that if a higher standard of education had prevailed amongst the business men of the last half century, many of the troubles from which we are now suffering would not have arisen?

Let us then be careful about the training of the leaders and officers in the future industrial army of the Empire. On what influences do we rely? Surely the best influence to which we can look is that of education, and the highest type of education is that associated with University training.

THE RIGHT HON. SIR ALBERT SPICER, Bart., M.P.: May I in the first place say I have not had the privilege of seeing either of the papers that have been read this morning on this subject, although they were, I understand, sent to my office, so that the observations I have prepared have been prepared independently of those papers. Then, may I say that when I first received the invitation to speak this morning, I hesitated. I am not a University man. May I, without being egotistical, tell you, before I come to the subject, what training I have had, and what perhaps induced the Committee to ask me to speak.

I am simply a Matriculation Pass man of the London University; after Matriculation there followed eighteen months' study in Germany; then I plunged into business, and practically received the bulk of my training through having to begin at a very early stage to manage and control. During my business career of forty-seven years, I have had the opportunity of travelling for various reasons, but always with some special purpose, in Canada, Australasia, India, and South Africa. I would lay stress for one moment on this fact of a special purpose. I think our Universities might do a great deal in helping those who are sending their sons, not only from this country to travel through the Empire, but from different parts of the Empire to travel in the Old Country, by directing their attention to the fact that such journeys taken without preparation and without some purpose, very often do more harm than good. I would never let a young man go on one of those long journeys without setting before him some special purpose, some inquiries that he can make on subjects that would be useful to him in his future career. Then I have been connected with a business centred in London, with many branches in the provinces and different parts of the Empire, these branches being conducted on the basis of local self-government, subject to central control on questions of principle. During the same period I have tried to take my share in the public life of the country, both local and national, and I have had the good fortune of having as close friends a few men of University distinction and wide culture. But, my lord, let me say frankly, I have felt practically every day what I have suffered from not having had a wider and better preparation, and it is because I am so much in sympathy with the subject of this discussion, and so sincerely desirous of helping my successors, that I put away the feeling of diffidence that I had when the invitation came to me, and agreed accordingly to say a few words this morning.

To proceed,—my experience makes me bold to say that in the business life of this country we are more and more in need of better prepared and better trained men to occupy the positions of principals, of directors, of managers, secretaries, and heads of departments—men who would thereby have greater influence in directing the world's commerce. I rejoice, therefore, that this subject has been selected for discussion at this representative gathering of the Universities of the British Empire: and I rejoice further that the Universities are increasingly alive to the necessity, not only of training those who will enter professions, but those who will go into the various departments of manufacture and commerce, and who in these practical concerns will be responsible,

not only for carrying on the commerce of to-day, but who will play so large a part in the development of the new world.

It is not to be imagined that we business men minimize the great work done in the Universities for those entering professions. On the contrary, we are only too anxious that where the necessary time can be given, those entering the higher walks of commercial life should have a similar training. We realise to the full, in the cases of those who have had such a training, not only the pleasures that learning has entailed, but also the advantage that has come to them through being thus initiated in the study of men. The residential system of the older Universities is a wonderful factor in preparing men for their life's work. We fully appreciate the attitude of those who say, "do not let your Universities become factories for turning out specialists" (a University is not a technological institution), and who rightly say they would not exchange their *literæ humaniores* for a king's ransom, and we recognize that a man needs knowledge, not only as a means of livelihood, but as a means of life. But, on the other hand, we realize that much of the commerce and the manufactures of the modern world are on a scale that demand the leadership of highly trained, widely informed men—men of disciplined minds; and we want the assistance of the Universities in helping to create the sense of need in this respect as well as to provide a suitable training for such men.

In considering the needs, one's mind turns to those who will be called to take the lead in large business concerns, whose principals will be required, not only to superintend these concerns, but to take some part in the life of the district, and probably of the country. In the interests of such men post-graduate courses, I think, might be well applied to commerce, and the class of men referred to, who can give the extra time, might do a two years' course, such as is provided in Birmingham and Manchester.

Then there is another class of men who, after the University course, cannot for various reasons devote a further two or three years to post-graduate courses, but would be glad to give a certain number of afternoons and evenings to special study of commercial subjects, while engaged in the daytime in learning the practical side of business. For these I think our Universities should do something. I can speak in this connection from experience of the London School of Economics, which was helpful in one instance that would come under this category, and in which I was interested—a case of a young man who had taken an ordinary course at one of the older Universities, and who was requiring the

equivalent of a post-graduate course in a particular branch of commerce.

Then there is a third class to be provided for—those who cannot give the time to two courses, but who wish to concentrate on commerce from the first, as they can do at the Birmingham University and the Victoria University of Manchester. I have come into contact with some of the work done at Birmingham, and I can speak of it in the very highest terms.

Then I feel, my lord, that our Universities might also do something for commercial education by linking themselves up with those Chambers of Commerce which have undertaken such work, and, it may be, by drawing gradually the standards of those bodies up to their own levels, at the same time not commencing by insisting on rigid lines of procedure. Such insistence might involve the risk of losing the alliance of a generation of men strong enough in these matters to go on without University influence, but who in all probability would have achieved more in this direction with University co-operation and help. We must not forget that there is still a large class of commercial men who believe that business can only be learnt in business, and that college life unfits a man for a business career. You may lead these men to what I believe are better views, but you cannot drive them. In the past, and in too many cases to-day, you will not find the rank and file of business men making the same sacrifice, financially, for the education of their sons, and still less of their daughters, that professional men do. You of the Universities may do much to improve this state of things by a wise and broad-minded policy. The need for a higher training in business life is brought home to us by discovering that we have to look entirely to some part of Continental Europe for articles that we have not commenced to produce here. They are often in a branch of commerce where in respect of the ordinary, so to speak, simple articles, we hold a predominant position in the world's competition, but where in some of the specialities for which at the same time there is a large demand, we do nothing. And how has this come about? Because the occupants of the Continental private counting houses are more widely and better trained than the similar occupants of private counting houses here. The specialities in question are articles in whose production more elaborate machinery, and the application of wider knowledge and larger practice of chemistry are necessary. That knowledge is not so fully developed, or has not been obtained by the occupants of our departments at home as it has been by those abroad. It is because by observation and experience I have learnt the need of

better training, and because I desire that our successors may have the advantages of such training that I welcome the introduction of this subject, and have ventured to make these few remarks.

MISS OAKELEY, M.A. (King's College for Women): What I have to say, my Lord, will be extremely brief. I only wish to make one comment upon the interesting paper by Miss Spencer, with which I am on the whole in general agreement. I have great sympathy with the work of the Students' Careers Association; indeed, I may say I have a certain connection with it. I thought, however, that some statements in the paper might be understood in a certain way which perhaps was not intended, and upon which I should like to make a comment.

It does not seem to me that the valuable work of any central bureau in this matter of appointments, whether for men or women—at any rate I am speaking for women—can entirely do away with the need of Appointments Boards. It seems to me they are as much needed at the Universities and Colleges where there are women, in the interests of women, as apparently they are from what the former speakers have said, in the interests of men. The two needs, of course, are, on the one hand a personal knowledge of the students who desire appointments, and on the other hand the general knowledge which probably is most likely to be at the command of a central bureau. The personal knowledge, as was said by Sir George Gibb, is essential, and nothing can quite take the place of that which is gained by the staff or the principal of a college by watching the students in their class-rooms and outside their class-rooms—a kind of insight as to what they are fitted for, and whether they really have the qualities needed for the career upon which they may have set their hearts. Only through this personal knowledge can we have good hope of avoiding the disaster of students taking up careers for which they are not fitted, and finding this out too late. It therefore seems to me that though perhaps not all colleges can have organizations of their own, there must be something to take the place of these, some person or official—one of the existing officials, perhaps—who acts for the students, and who is of course in touch with the central bureau, and in that way takes the place of the registrar or correspondent referred to by Miss Spencer. I was a little afraid some slight misunderstanding might arise on that point.

MR. H. A. ROBERTS, M.A. (Cambridge): I have very few words to say. The position has been put very clearly by Professor Hudson Beare and by Sir George Gibb, whom we must all be

glad to see here as one of the pioneers in the application of higher education to practical affairs. It is probably well known to members of the Congress that Sir George speaks with a great weight of experience in this particular matter. One word more. I am certain that with a large, non-local organization you cannot get hold of the right type of employer, who is, after all, very shy and timid in these matters. Nothing but the most intimate personal knowledge—and, if possible, a knowledge of both sides—will enable you to fit men into the proper places.

THE CHAIRMAN: We have had an interesting discussion. A practical subject has been treated in a practical way on the foundation of Mr Roberts' actual experience. I declare the meeting adjourned.

THURSDAY, JULY 4.—Afternoon Session.

CHAIRMAN :

THE RIGHT HON. THE LORD KENYON, K.C.V.O., SENIOR DEPUTY CHANCELLOR OF THE UNIVERSITY OF WALES.

PROVISION OF COURSES OF STUDY AND EXAMINATIONS FOR OTHER THAN DEGREE STUDENTS, INCLUDING UNIVERSITY EXTENSION AND TUTORIAL CLASS WORK AND SPECIALIZED COURSES, BOTH OF A GENERAL AND TECHNICAL CHARACTER, FOR STUDENTS ENGAGED IN PROFESSIONAL, COMMERCIAL AND INDUSTRIAL PURSUITS.

FIFTH SESSION.

THE SECRETARY read a letter from Lord Haldane, greatly regretting that it was impossible for him to preside over this Congress owing to important public business that could not be postponed.

THE CHAIRMAN : I fear I am a very inefficient substitute for Lord Haldane, Chancellor of the University of Bristol, who desires me to read you this letter :—

DEAR LORD KENYON,

I am very glad that you are able to preside at the Congress to-morrow. May I ask you to convey to the members a message from myself. I am deeply sorry that public duties of the first importance prevent me fulfilling my engagement to be with them, duties which, of course, I could not foresee when I made it. I have to preside to-morrow over the sitting of the Judicial Committee of the Privy Council, the supreme tribunal of the Empire, and this I must do without fail.

I should have wished to be present on an occasion which marks a step along the path which must be travelled before the true relations between the Universities throughout the British Dominions can be established. That relation and the cause of these Universities are things which I have deeply at heart. Will you say this for me to those whom you address?

Believe me,

Yours sincerely,

HALDANE.

As I said, I am afraid I am an inefficient substitute, but I do represent a University, one of the younger ones, which is perhaps more intimately connected with the commercial life of these islands than any other; for the greater number of our pupils in Wales come from the elementary schools, and are educated by us more especially for professional and commercial life. I have a special interest in coming here to-day from the fact that this University of London in whose buildings the Congress is meeting, had as its Registrar of University Extension one, Dr. Robert Davies Roberts, who was also the Chairman of our Executive Committee of the Court of the University of Wales, and I had the advantage when I was first appointed Deputy Chancellor of coming into close touch with Dr. Roberts, and feeling the

influence which he brought to bear on University life. One of the things which he had most at heart was, I think, coupling the University up with commercial and industrial undertakings, and one of the last things which he impressed upon us was the formation of an Appointments Board which should bring the University into close touch with the merchants of this country, and with the Civil Service. His idea was (and we are trying to carry it out) that by establishing a bureau of that sort we could find places for our pupils in the industrial life and civil service of this country.

In Wales we have not gone so far, perhaps, as other Universities in promoting University Extension. Our extension lectures have chiefly been of an agricultural nature, because, of the three constituent colleges which form our University, two are almost entirely rural; but still we have done what we can, and I think the result, although agricultural life is slow to move, is surely advancing the cause of agriculture in our country. I believe that the members of this Congress are inspired by the desire to learn from each other. Many of us have learnt, by reading, of what has taken place in the Universities of the Dominion of Canada and other parts of this great Empire, but the fact that we come here to-day and meet in conference will, I hope, have some concrete result which will not merely end in talk and speeches, but will prepare the way for practical action in the future. (Hear, hear.) We must not stand still. We have to compete with other countries where education is certainly not at a lower level than our own, and I do sincerely hope that this great Congress may have this result at any rate, that those who are engaged in various kinds of work will in the future be educated as they may require, —fitted for the particular occupations for which they are destined —so that they may carry on the work with a true interest in it, and not merely be labourers carrying out other people's ideas. (Applause.)

THE SECRETARY: May I be allowed, my Lord, to follow up what you have said with regard to the services rendered to University life by the late Dr. R. D. Roberts by calling the attention of members of the Congress to the fact that this is the only session at which we are limited to the discussion of a single topic. This limitation of the work of the afternoon to the consideration of the aspect of University activity to which Dr. Roberts devoted his life was the only tribute which the Committee was able to pay to the memory of the man to whose zeal and energy the success of this Congress is due. The work that I myself have given to the organization of this Congress has been a tribute of

piety, an endeavour to carry into active being a project so very near to the heart of a dear friend. The Committee thought that perhaps the only way in which they could mark their appreciation of Dr. Roberts's services to the Congress was by devoting the whole of an afternoon to the discussion of the subject which absorbed the best of his energies of mind and body—popular education through the University.

I think possibly the Principal, who knows far more about the history of this Congress and about Dr. Roberts' work than I do, may be induced to add a few words to what I have said.

SIR HENRY MIERS (London): I am glad to have an opportunity of saying a few words as to the connection of the late Dr. Roberts with this Congress. I desire to remind the meeting of the large part he played in it. When in October, 1909, I suggested that this Congress should be held, and the idea was warmly taken up by the University of London, Dr. Roberts became a member of the Committee for the preliminary arrangements. Every new movement needs the driving power of an enthusiast: Dr. Roberts was enthusiastic in all that he undertook, and when I found him willing and anxious to throw himself heart and soul into this venture, and to devote his great gifts to it, his was the obvious name to suggest when some months later it was necessary to appoint an organizing secretary. From that time till his death in 1911 he devoted himself more and more fully to this work. He made it the crowning labour of his official life, from which he contemplated retirement when the Congress should be completed. For many years Dr. Roberts had been closely identified with the University Extension movement, of which he was one of the pioneers. He may almost be regarded as the personification of that movement. When the Extension system obtained full University recognition he felt that he had achieved the main purpose of his life. But his zeal and activity were unabated, and he took up the business of the Congress with all his old energy. At the time of his death he held all the strings of this undertaking in his hands, and his loss seemed irreparable. We were fortunate in securing in Dr. Hill a secretary who was able to take up the work where it was left by the death of Dr. Roberts, but, as he has already stated, he agrees with me in thinking that the successful organization of the Congress is mainly due to the devoted labours of the remarkable man who conducted its business through the initial stages.

PROVISION OF COURSES OF STUDY AND EXAMINATIONS FOR OTHER THAN DEGREE STUDENTS,

INCLUDING UNIVERSITY EXTENSION AND TUTORIAL CLASS WORK AND SPECIALIZED COURSES, BOTH OF A GENERAL AND TECHNICAL CHARACTER, FOR STUDENTS ENGAGED IN PROFESSIONAL, COMMERCIAL AND INDUSTRIAL PURSUITS.

Paper.

Prefatory Note.—The following pages are intended merely to provide a bare statement of facts as a basis for the discussion of the question in Conference. It will be obvious that they are written primarily from the point of view of the two Universities with which the writers are familiar.

Section I.—ORIGINS.

THE term "University Extension" has now acquired a specific connotation. It is used to denote a scheme organised by a University for the education of students who are unable to become matriculated members of the University itself. Its object is to bring University teaching within the reach of all who are qualified to profit by it, and to afford the opportunity for systematic education of the highest type. A minority of men and women can obtain this higher education at the Universities and University Colleges. The object of the University Extension system is to furnish, for those who are unable to avail themselves of these institutions, as many as possible of the advantages of University education. These advantages are: oral teaching; advice as to "sources" and methods of research; correction and criticism of essays; tests of proficiency by examination, and—not least important—informal intercourse between student and teacher, and between the students themselves. The University Extension lecturers are appointed by the Universities. They are, as a rule, men who have obtained high University distinction; they are specially selected for their competence as lecturers, and they form the staff of what is, in effect, a University College, maintained by the co-operation of some three hundred towns.

The detailed working of this system will be explained presently,

but it may be well to preface that description by a brief account of the origin of the movement. The idea of bringing the ancient Universities into closer touch with the masses of the people, and of extending more widely the opportunities of higher education, had been present to the minds of many University reformers in the past. As far back as 1650, William Dell, Master of Gonville and Caius College, Cambridge, urged the establishment of Universities or Colleges in every great town, and in his quaint manner suggested that "it may be so ordered that the youth may spend some part of the day in learning or study, and the other part of the day in some lawful calling; or one day in study and another in business as necessity or occasion shall require. . . . and if this course were taken in the disposing or ordering of Colleges and studies, it would come to pass that twenty would learn then where one learns now."

The phrase University Extension first became current in the discussions on University reform which preceded the appointment of the first University Commission of 1850. Before, and during the deliberations of that Commission, there was much discussion as to the possibility of extending the benefits of the Universities to classes which, at that time, were imperfectly represented among their students. The plans for University Extension submitted to the Oxford Commissioners included the establishment of new halls in the University; a larger permission to undergraduates to reside in licensed lodgings; the admission of students to the University without subjecting them to the expenses incident to a connection with a College or Hall; the abolition of religious tests on Matriculation and Graduation; the affiliation of various theological schools in provincial towns to the University; the provision of funds by the University for the establishment of professorial Chairs in Birmingham and Manchester, and the admission to graduation, without residence, of students who had regularly attended their courses of instruction. Several of these proposals have long since materialized. The last may be regarded as in a sense the parent of the idea of what is now specifically known as University Extension. Detailed suggestions in this direction were in 1850 laid before the University of Oxford by Mr. William Sewell, Fellow of Exeter College, and in 1855 before the University of Cambridge by Lord Arthur Hervey, afterwards Bishop of Bath and Wells. "Though it may be impossible," wrote Mr. Sewell, "to bring the masses requiring education to the University, may it not be possible to carry the University to them?" Lord Arthur Hervey proposed the appointment of four new professors, "who might

be called rural or circuit professors, each of them to give six lectures per annum in each of twenty towns." In Lord Arthur Hervey's interesting pamphlet we have the real germ of the University Extension system of to-day, but, for the moment, it remained uncultivated, for the sufficient reason that means of communication were at that time inadequate. And how entirely the University Extension system depends upon the modern railway system was demonstrated only too painfully by the recent coal strike of March–April, 1912!

But the idea which was current in the 'fifties fructified for the moment in a slightly different direction. A number of Oxford men were impressed by the lack of system in many of the Secondary Schools. "The education of the middle classes," wrote Dr. Temple (afterwards Archbishop of Canterbury) in 1857, "suffers from the want of any definite aim to guide the work of the schoolmasters, and from the want of any trustworthy tests to distinguish between the good and bad schools." As a result of the efforts of Dr. Temple, Sir Thomas Acland, the Rev. J. L. Brereton, and others, the University of Oxford was induced to establish a system of local examinations, primarily for the scholars of secondary schools. The example of Oxford was not only followed but bettered by Cambridge. If the Universities can properly be called upon to examine students who are not matriculated members of the University, why not teach them as well? This important development in the extra-mural work of the Universities was due to Professor James Stuart (now the Right Hon. James Stuart) of Cambridge. In 1867, Professor Stuart was himself invited to lecture in various towns in the north of England by the North of England Council for promoting the Higher Education of Women. Courses of lectures under their auspices were delivered at Leeds, Liverpool, Manchester and Sheffield, and about the same time Mr. Stuart was invited to lecture to the workmen employed in the London and North-Western Railway works at Crewe. In the course of the lectures, Professor Stuart devised most of the methods which have now become an integral part of the University Extension system, and which we shall explain presently. It is noteworthy that the demand for this extension of University teaching came, primarily, from those who were interested in the higher education of women, and, secondarily, from skilled artizans.

The next step was the official recognition of such extra-mural teaching by the University. This important step was taken by Cambridge, which, in 1873, appointed a Syndicate for the superintendence of local lectures. In 1876 a Society

was formed under the presidency of Mr. Goschen for the extension of University teaching in London, the Universities of Oxford, Cambridge and London having consented to appoint representatives upon a joint Board charged with the duty of supervising such teaching. In 1877 Mr. Jowett, then Master of Balliol College, urged upon the University of Oxford the importance of providing local lectures as well as local examinations, and in the following year Mr. A. H. D. Acland (now the Right Hon. A. H. D. Acland) was appointed as the first Secretary of the Committee charged with the organization of Extension Lectures. This Committee did some useful pioneer work, but it was not until the appointment of Mr. Michael E. Sadler (now Vice-Chancellor of the University of Leeds) in 1885 that Oxford began to regard Extension Lectures as a substantive part of the work which it was called upon to do on behalf of the nation at large. Such were the "origins" of the University Extension movement. In more recent times the work has been taken up by other Universities in the United Kingdom. It has also been carried on, with considerable modifications, in Australia, in the United States of America, and in several countries on the Continent of Europe. We may now pass to a description of the methods by which it works in England.

Section 2.—METHODS.

Early in the history of the movement, and largely under the superintendence of Professor James Stuart, the essential features of the University Extension system were introduced: (*a*) the Lecture; (*b*) the Class; (*c*) the periodical exercise or essay; (*d*) the final examination; (*e*) the syllabus.

(*a*) The Lecture lasts one hour, and is intended to be at once scientific and popular: based upon the results of the most recent research and yet within the comprehension of any intelligent adult. The qualities which go to make a successful lecture are, therefore, many in number, but the history of the movement shows that they have very often been found in combination.

(*b*) The class affords opportunities of more detailed study, and is naturally attended by fewer persons. It lasts from half an hour to an hour. Its main object is to elucidate difficulties which could not be fully dealt with in the lecture. In a few cases this is best achieved by some practical exposition or further explanation on the part of the lecturer: but, as a rule, the best classes are

those where the lead is taken by the students themselves. In some centres a lively discussion almost always takes place in the class, at others very few questions are asked, and the lecturer must have material of his own in reserve. A great deal depends on the character of the subject and on the personality of the lecturer, as well as on the capability of the students. There is much difference of opinion as to whether the class should precede or follow the lecture. On the one hand it may be felt that old difficulties should be cleared away before new ones are started, but on the other hand it is often found that a class after the lecture is keener than one before. Local arrangements, such as the hour of trains, must frequently decide the point.

(*c*) The paper-work appeals to an inner circle of students, who recognise the obvious truth that they learn far more if they attempt to put down their knowledge on paper. At the class the lecturer suggests subjects for essays or definite questions to be answered. The papers are then forwarded to him by post and returned to the students at the following class. The careful correction and annotation of the papers form an important part of the system, and by this means the lecturer is enabled to get into touch with the students individually.

(*d*) The final examination is taken by a still smaller number, and to it only those can be admitted who have attended the lectures and classes regularly and done the paper-work to the satisfaction of the lecturer. The examiner is appointed by the University, and care is taken to test both the stronger and the weaker candidates. Some of the questions are relatively easy, but every paper contains questions intended to test independent reading and individual thought.

On the joint result of the lecturer's and examiner's reports, a list of successful candidates is drawn up, arranged in two classes, and certificates are awarded by the University authority.

(*e*) The syllabus is intended mainly to show the prospective student the line of treatment to be adopted by the lecturer, but it also forms a convenient note-book with the chief divisions of the subject enumerated It is particularly helpful when many dates have to be given, or unfamiliar names or technical terms. An essential part of the syllabus is the list of authorities recommended by the lecturer for private study. The travelling library, sent by the University to each centre before the course begins, contains most of the important books recommended.

Certificates are not awarded on a course of less than ten lectures. The ordinary Terminal Certificate is common to all

English Universities undertaking Local Lectures, and is of two grades—pass and distinction. The regulations for other certificates vary at the different Universities. Attention is directed here mainly to those issued by Oxford, Cambridge, and London.

Cambridge has recently instituted a Terminal Certificate in Honours, which is awarded to those who obtain distinction on the term's work and in addition write a satisfactory essay upon some topic involving independent work.

Oxford, Cambridge, and London award Sessional Certificates for a course of study extending over a period of not more than two years, and including from twenty-two to twenty-five lectures. To obtain the Sessional Certificate in Honours a student must secure the mark of distinction in at least one of the Terminal Certificates, and in addition write a satisfactory essay upon some topic involving independent work.

Various advanced certificates are awarded for courses of study over a prolonged period, involving a high standard both in examination and paper-work. The most important at Oxford is called the Vice-Chancellor's Certificate, and at Cambridge the Affiliation Certificate. In addition to the ordinary University Extension work, it involves the passing of an examination in Mathematics and Languages, and it conveys definite University privileges. The holder is excused from the first public University examination (Responsions at Oxford, the Previous at Cambridge), and can be admitted to Degree examinations at the end of two, instead of the usual three, years. The privilege has not been widely used, but it has brought several capable students to the University and it forms a very valuable link between the Local Lectures and the ordinary University work.

The University of London has lately instituted a scheme of Diplomas in the Humanities, which constitutes a very important development of University Extension work. The scheme is designed to meet the requirements of students who, although they are not intending to graduate, have nevertheless a desire to carry the study of some subject to a high level. Under the Diploma scheme definite courses of study in a subject are arranged, covering a period of three years, the work of each year being tested by an examination. After the three years' work has been completed the student proceeds to a fourth year's work of a more specialized character, for which the preceding years have laid a sound foundation. The fourth year's work may be carried on either at a school of the University, or at some other institution approved by the University, or at a University Extension centre. At the end of the fourth year's course a final exam-

ination on the whole of the work done is conducted by independent Examiners, who have before them a report by the teacher on the last year's work of the student. A student whose work during the four years has been approved by the lecturers and tutors, and who has satisfied the several examination tests, is awarded a Diploma under the Seal of the University. The subjects in which Diplomas have so far been instituted are Literature, History, Economics and Social Science, and the History of Art.

A consideration of the University Extension method will show that the movement has had to keep in mind the needs of two different types of persons,—the earnest student, with more or less of leisure, and the man or woman engaged in the ordinary avocations of life. For the former, it provides varied opportunities of higher study ending in the definite affiliation link with the University. For the latter it offers a broad treatment of great questions within the comprehension of any intelligent adult. The continued success of the movement depends on its keeping stedfastly in mind the needs of both. Without a nucleus of earnest students using to the full the opportunities offered, University Extension would have to change its name and its ideals. Without its large general audience, it would cease to be self-supporting and to fulfil its primary function.

There are many educational movements which cater for the promising young man or woman who wants to get on in the world. University Extension is the only movement on a large scale which offers Higher Education for its own sake to busy men and women engaged in the ordinary occupations of life. Such persons have in countless cases found by its means the secret of a noble leisure and been stimulated to helpful service for the community.

Section 3.—ORGANISATION.

The organization of the work is two-fold: (1) central, and (2) local. The central work is supervised by a Committee known at Oxford as a Delegacy, and at Cambridge as a Syndicate, consisting of the Vice-Chancellor of the University, together with fifteen to twenty resident graduates appointed by the University. This Delegacy or Syndicate is responsible to the University for the whole conduct of the University Extension work. Its primary functions are to appoint lecturers, to approve courses, and to conduct examinations. Its official staff is in constant corre-

spondence with the local committees, one of which is established in every centre of University Extension teaching. The cost of a course of lectures varies according to the length of the course and the lecturer chosen, the minimum fee being fifteen guineas for a course of six lectures delivered by a lecturer on the B, or Supplementary Panel. The average cost of a course of six lectures is about £30. This includes lectures, classes, the correction of the periodical exercises, examination, a supply of syllabuses, the loan of a travelling library, and the travelling expenses of the lecturer.

Local centres[1] exist in nearly 300 towns. In each year, about 250 courses, or about 2,000 lectures, are delivered to audiences which average about 30,000 people.

The local organisation of such centres is conducted by a local body. This may be either a permanent body, such as the Education Committee of a County or Borough Council, a free library, a technical school, a literary or Mechanics' Institute, a Training College for Teachers, a Co-operative Society, or a Public Museum. More frequently the local organization is in the hands of a University Extension Committee formed *ad hoc*. It is exceedingly important that the Committee so formed should be thoroughly representative of the town and district, and as far as possible of all classes and interests in the community. In some cases voluntary committees are brought into official connection with permanent bodies and institutions by inviting the latter to appoint representatives upon the voluntary committee.

The local committee are required to give a guarantee to the University for the expenses of the lectures. Such a guarantee is generally obtained in one of the following ways:—Either (1) by obtaining from residents in the locality the promises of subscriptions, payable only in case of the sale of tickets not covering the cost of the lectures. This plan of a guarantee to be called up in the case of a deficit is not found to work satisfactorily. (2) By collecting promises to take tickets for the course. (3) By the formation of a society for the promotion of University Extension teaching, with a body of annual subscribers. The third plan has been proved by experience to be much the best for carrying on the lectures regularly.

The price of tickets for the course varies from 1s. for the course of twelve lectures to 21s. for the course of six. Cheaper tickets are as a rule offered to schools, to teachers, and sometimes

[1] These figures include Oxford and Cambridge only. For information as to the work of the other Universities, see Appendix to this paper, p. 283.

to those in receipt of weekly wages. Some centres have been able to accumulate a small surplus, which has been employed: (1) in providing scholarships and prizes to enable students to supplement their work in the local centre by a period of study at the Summer Meeting; (2) in the formation of a permanent local library, and the hire of a reading room for students; (3) in accumulating a local reserve fund.

In all the more highly organized centres there exists side by side with the local committee an association of students, which generally possesses its own organization, and occasionally its own permanent premises. These Students' Associations have proved to be of the highest utility in bringing together those who take seriously their work in connection with the University Extension courses. For a University Extension audience generally consists of two sections: (1) the general audience, consisting of men and women of all ages and all classes, who simply attend the lectures, and who vary in numbers from thirty or forty in small country towns to fifteen hundred in large industrial centres. The average audience is about a hundred and fifty. (2) A smaller body of students who attend both the lectures and classes, who write essays, and are encouraged to enter for the examination. These find in the lecturer a tutor who advises them in the choice of books, directs their private study, and corrects their written exercises.

Section 4.—THE SUMMER MEETING.

Early in the history of the University Extension movement it was realized by the promoters that there was one great flaw in the system. A University education means a great deal more than University teaching. It means, as regards the older Universities, the inspiration of the *genius loci*; a sense of comradeship; unimpeded intercourse between students and teachers, and between students and students. These things the peripatetic teacher cannot supply. It was in order to supply this lack that the idea was devised of bringing up for a short sojourn to Oxford or Cambridge the students who had passed through their Extension Classes.

In 1885 and in 1887, Dr. R. D. Roberts, then Assistant Secretary to the Cambridge Syndicate, arranged for the visit of four students from a Northumbrian mining district to Cambridge; but the idea of the summer meeting, as it is now under-

stood, was due mainly to Dr. Percival, Bishop of Hereford; Dr. Michael Sadler, then Secretary to the Oxford Delegacy and now Vice-Chancellor of the University of Leeds; Dr. Paton, of Nottingham; and Mr. W. A. S. Hewins.

In 1888 about one thousand students were brought together in Oxford during the month of August, and similar gatherings have been held in Oxford in 1889, 1890, 1891, 1892, 1894, 1895, 1897, 1899, 1901, 1903, 1905, 1907, 1909, and 1911. The meeting of 1909 was attended by about eighteen hundred students. A similar gathering was held in London in 1898, and after tentative experiments in 1890, 1891, and 1892, the Cambridge Syndicate arranged in 1893 a meeting similar in scope to those which had by that time become an integral part of the Oxford work. Further meetings were arranged by the Cambridge Syndicate in 1896, 1900, 1902, 1904, 1906, 1908, and 1910; that of 1904 taking place at Exeter, and that of 1910 at York.

The idea of the original promoters of the scheme was twofold: It was hoped (1) that many University professors and tutors who are precluded by their University avocations from taking part in peripatetic lecturing, might be induced to lecture during a short vacation course; and (2) that students from the scattered centres of Extension teaching might be brought into contact with great teachers and with each other. Both anticipations have been more than fulfilled. Statesmen, professors, and other leaders of thought have given lavishly of their time to encourage and stimulate the work of Extension students in vacation courses. Among these it is not invidious to mention statesmen such as Mr. Asquith, Mr. Balfour, the Marquis of Crewe, the late Marquis of Ripon, the Earl of Halsbury, Viscount Haldane, Earl Grey, Mr. Whitelaw Reid, Mr. George Wyndham, Mr. Birrell; Churchmen such as the Archbishop of York, Bishop Boyd Carpenter, Bishop Ryle (Dean of Westminster), the late Bishops Creighton and Paget, the present Bishops of Durham, Winchester, Chester, Hereford, Bristol, Oxford, Exeter, Ely, Birmingham; publicists and professors such as Dr. Butler (Master of Trinity), the Hon. G. C. Brodrick (late Warden of Merton), Dr. Caird (late Master of Balliol), Dr. Warren (President of Magdalen), Sir William Anson (Warden of All Souls'), Dr. Strong (Dean of Christchurch), Dr. Ward (Master of Peterhouse), Professors James Stuart, Sir Robert Ball, Sir George Darwin, Dicey, Dowden, Henry Jackson, Mahaffy, Sanday, Scott Holland, Sir Joseph Thomson, Vinogradoff, the late Professors Sir Richard Jebb, Maitland, Max Müller, Henry Sidgwick, Thorold Rogers, Verrall, and also the late Mr. Walter Pater,

the late Mr. Addington Symonds, Dr. Hodgkin, Sir Arthur Evans, Mr. Edmund Gosse, Sir Sidney Lee. These names have been mentioned to show that the Universities themselves, the Church and the State, have given of their best to provide intellectual stimulus for successive gatherings of University Extension students.

There remains the other point of view. Not only were Extension students to be brought into contact with some of the greatest teachers of the day, but to be brought into contact with each other. In the University Extension scheme there is one palpable weakness. Its strength, though great, is scattered and diffused; the different centres of teaching are distributed throughout the length and breadth of England, and in the nature of things the students of one centre can have little intercourse with those of another. Hence it is difficult to generate any effective *esprit de corps*. The students themselves cannot under ordinary circumstances realize that they are component parts of a larger whole.

But if these students were to be brought together, it was of supreme importance that they should meet under the peculiar conditions afforded by Oxford and Cambridge. Extension students were to be brought under the spell of the *genius loci* which does so much to mould successive generations of Oxford and Cambridge graduates. How potently this spell has worked everyone in the Extension Movement knows. Each fresh summer meeting has brought an accumulation of testimony. Now it is a Northumbrian miner who writes; now a Yorkshire weaver; now an elementary schoolmaster or schoolmistress; now a Lancashire cotton-spinner: all alike bear touching testimony to the influence exercised not only upon their work, but upon their outlook on life by the brief sojourn, not infrequently repeated year after year, among academic surroundings. Thus a teacher from the North of England wrote: "One needs to go to a summer meeting to realize what Extension work really is. . . . There we are made to feel that we are part of a band of workers scattered all over the country, but kept in touch by our work with our great mother the University." Or again: "The lectures were full of interest and information, but more important, to my mind, were those underlying principles which seemed to be at work everywhere, and which made the summer meeting so inspiring and helpful." And once a member of the Amalgamated Society of Engineers wrote: "When all classes meet on a common plane, as they did at Oxford at the summer meeting, I think that the benefit is largely reciprocal. One member of the community has the kind of knowledge which the other has

not. The summer exchange of ideas, facts, customs, social conditions, between class and class—which phrase I abominate, but use for lack of a better—and between nationalities, is extremely beneficial."

The last words point to a new development of Extension work at the summer meetings. In recent years foreign students have attended these vacation courses in increasing numbers. Thus, at the Oxford meeting of 1911 no less than 502 students came from abroad. Germany contributed 216, France 58, Austria-Hungary 34, Denmark 23, Holland 20, Switzerland 18, Belgium 16, Russia 16, Sweden 15, Norway 14, and Italy 8. In addition to the general lectures, special courses of instruction in the English language and in phonetics are arranged for the foreign students, and the University of Oxford has, in recent years, conducted, at the close of the meeting, an examination to test proficiency in written and oral English and has issued certificates on the result of the examination. The foreign students are for the most part teachers of the Higher, Secondary, and, in a few cases, Primary schools. In some cases they are assisted to attend by bursaries from their respective Governments, but more frequently they come on their own initiative. Their presence is welcome in many ways, and more particularly at the educational conferences, to which they are able to contribute varied experiences.

The instruction at the summer meeting has become more highly systematised and co-ordinated every year. Lectures on miscellaneous topics are rigidly excluded, and an attempt is made to illustrate some restricted theme or period from a large number of points of view. Thus the last Oxford meeting dealt with "The Place of Germany in World History, and the contribution of Germany to Literature, Theology, Philosophy, Science, Music, and Fine Art." The Cambridge meeting of this year is intended to illustrate the historical development and existing resources of the British Empire. Apart, however, from the lectures, the presence in Oxford or Cambridge of a large body of students drawn from all classes, and from all parts of the world, offers a convenient opportunity for the interchange of ideas on intellectual, social, and economic questions.

Section 5.—SPECIAL DEVELOPMENTS.

It is the strongest feature of University Extension that it tends to make its best students very soon dissatisfied with what, in

its original form, it had to offer. A demand was early manifested for more continuity of teaching than the system usually afforded. Local Committees, however, often found it difficult to make a second year's course financially self-supporting, and the demand, therefore, arose for a Local College, where class-teaching might be obtained of a more sustained nature than was possible in connection with the ordinary Extension lectures. Such a College, of course, needed considerable endowments, but these were forthcoming at some of the best centres, at first from private liberality and afterwards through municipal action. Local Colleges, as the direct result of University Extension work, were founded at Leeds, Liverpool, Nottingham, Sheffield, Reading, Exeter, and Colchester, and the three last continued to be connected with the movement by ties particularly close. The Colleges at Birmingham, Bristol, Manchester, Newcastle-upon-Tyne, Southampton, and the constituent Colleges of the University of Wales do not owe their origin to University Extension, but they are due to the same general movement towards Higher Education, of which University Extension itself is one of many manifestations. Owens' College, Manchester, the germ of the Victoria University of Manchester, was opened as far back as 1851, and Universities have also grown out of the Local Colleges at Birmingham, Bristol, Leeds, Liverpool, and Sheffield; the College at Newcastle-upon-Tyne is incorporated in the University of Durham.

It might have been supposed that after a Local College had been founded there would be no further need in the particular town for University Extension work. Experience, however, has falsified the anticipation. There are many people engaged in the ordinary occupations of life for whom the college classes are not adapted, and who are yet anxious for some opportunities of higher education.

Local Colleges, developing into Universities, have been by far the most important outcome of University Extension, but there are other special developments to which attention should be directed.

The Technical Instruction Acts of 1889, 1890, and 1891 put upon Local Education Authorities the duty of organising technical instruction within their areas. The University Extension system appeared to be well adapted for the purpose, and an enormous demand was suddenly thrown upon the Universities for qualified teachers in scientific and other subjects called "technical" and mainly suited to rural audiences. In the Session of 1891-2, no less than 221 such courses were arranged by Oxford

and 207 by Cambridge. The movement, however, died away almost as quickly as it had arisen, partly owing to the lack of proper organization in the small centres, and partly because the County Councils began to employ permanent teachers in horticulture and other technical subjects. The Local Authorities continued to give subsidies here and there to University Extension courses, but, till the Act of 1902 came into force, their range was limited to so-called technical subjects. That Act gave power to subsidize any form of education, and, under it, University Extension is in some cases managed entirely by the Local Authority. One valuable result of the outburst of 1891 has survived in some places—the provision of University Extension lectures for teachers in elementary schools. The County Council of Norfolk arranges every year one or more courses on the teaching of Science, History, or Literature, and the standard of the rural schools has been appreciably raised thereby. Summer classes, specially adapted for teachers, are arranged at Cambridge every year.

From 1894 to 1906 the Government gave credit for University Extension certificates under certain conditions to pupil teachers entering for the King's Scholarship examination. A large number of courses, designed specially for these students, were arranged during the period named by Oxford, Cambridge, London, and Victoria Universities. After the re-foundation of Manchester, Liverpool, and Leeds Universities in 1903–4, the work was continued by them for a time, but the withdrawal of recognition by the Board of Education in 1906 inevitably tended to the disappearance of the pupil teacher course. The Board were modifying their system of training, and soon took the step of abolishing the pupil teacher system altogether. University Extension courses are still given in Training Colleges and for uncertificated teachers outside the Colleges, and these students are better able to profit by the teaching than the younger students who attended under the old system. In recent years courses of lectures for Sunday School teachers have been arranged, notably by the University of Liverpool, and have been attended by large numbers.

Of the most important recent development of University Extension work we shall treat in the next section.

Section 6.—TUTORIAL CLASSES.

The University Extension movement has been warmly supported by all classes of society. Indeed, it is not too much to

say that, in many places, it has been one of the greatest unifying forces in the social life of modern England. From the very first it has had a specially warm welcome from the working classes. The mill hands of Lancashire and the miners of the North have been among its greatest supporters. The efforts of the Universities to influence working men have, however, not been so successful as it was at first hoped. An apprehension of this fact has led to a remarkable educational movement organized by the working classes themselves. At the Oxford Summer Meeting of 1903 there was formed "an Association to Promote the Higher Education of Working Men, primarily by the Extension of University Teaching," with Mr. Albert Mansbridge as Hon. Secretary. In 1906 the title was changed to "The Workers' Educational Association," which, according to the report presented to the annual meeting of 1911, consists of 1,541 organizations, including 543 Trade Unions, Trades Councils and branches, 184 Co-operative Committees, 261 Adult Schools and Classes, 22 University bodies, 19 Local Education Authorities, 110 Working Men's Clubs and Institutes, 97 Teachers' Associations, 91 Educational and Literary Societies, and 214 various societies, mainly of workpeople. The Association has engaged in many forms of educational activity, with one of which we are here specially concerned, viz., the system of Tutorial Classes.

As a result of a Conference at Oxford on August 10th, 1907, a Joint Committee was appointed to consider the Relation of the University to the Higher Education of Workpeople. This Committee consisted of seven members of the University nominated by the Vice-Chancellor, and seven representatives of working-class organizations nominated by the Workers' Educational Association. The Committee issued a full report in the following year and recommended, among other important changes, the establishment of Tutorial Classes beyond the limits of the University. These classes had already been commenced in a tentative manner in the winter of 1907–8, have since rapidly developed, and are now undertaken by almost every University and University College in England and Wales

The system adopted is in the main that which has long been familiar in University Extension work, but there are several special features. The number of the Class is limited to about thirty, and the members pledge themselves to attend regularly the twenty-four lectures and classes provided in each of three years and to write a certain number of essays on subjects prescribed by the lecturer. The subject of the course has generally been Economic History and Theory or Industrial History, but

some Classes have chosen English Literature or Natural History. The members are nearly all working men and women, many of whom are leaders of Trade Unions and other working-class organizations. The responsibility of admitting members and of managing all the local details rests in most cases with the Workers' Educational Association. In nearly every case the general management of the work and the appointment of the lecturers are in the hands of a Joint Committee consisting of an equal number of University men and of representatives of the Association.

There is a very general agreement as to the educational efficiency of the Classes on the part of lecturers and of inspectors appointed by the Universities. In the Session 1910-11 the Board of Education conducted an inspection of 14 Classes and issued a highly favourable report. There can be no question that most of the students, even in their first year of study, have derived real benefit and in many cases reached a standard which compares favourably with that attained in the Universities themselves. So many questions of importance affecting the whole movement have arisen that a Central Joint Advisory Committee has been formed representing all the Universities and University Colleges engaged in the work.

As will be readily understood, the greatest difficulty which has to be faced is that of finance. In the nature of things such Classes cannot be self-supporting, and help is sought from the Local Education Authorities. The Board of Education make grants on a definite scale, and generous assistance has been given by the Gilchrist Trustees. Even with all this help, a heavy burden is thrown on the University bodies, and in many cases the limit of their powers has already been reached. The responsibilities to their internal students are so great that it does not seem possible that there can now be any great development of the Tutorial Classes unless larger grants are available from national funds.

The extent of the movement at the present time will be shown by the current report of the Central Joint Advisory Committee. From that it appears that 103 classes were at work in the Session 1911-12. The number of members was about 2,500 and the average attendance of those who attended for at least fourteen hours was about 75 per cent.

The last few years have seen a further development of the Tutorial Class movement in the organization of Summer Classes. The first was held at Oxford in the summer of 1910 in the months

of July and August. Their object is to get special students to the University for a week or a fortnight, or possibly longer, and give them more detailed and individual instruction than is possible in a Tutorial Class. Great importance is attached to students reading essays individually with a tutor. In 1910 the Summer Classes were attended by between 70 and 80 students, in 1911 by 173 from both the Oxford Classes and the Classes of most of the other Universities. The Oxford Joint Committee is of opinion that these classes must become a regular institution, and look forward to their developing very much in the future. Even in the short time of a week or a fortnight a student, if he is individually in close touch with a tutor, can get help and stimulus for his year's work, and many more members of the teaching staff of the University can come into contact with Tutorial Class students than would be possible with Tutorial Classes alone. Efforts are being made at Oxford to arrange a system of scholarships that students may be able to come up for a month or two months at a time. The Summer Classes are among the most hopeful and encouraging parts of the Tutorial Class movement. This year three Universities are holding residential Summer Classes, Oxford (two months), Reading (two weeks), and Birmingham (three days), and six other Universities are holding week-end Summer Classes.

Section 7.—PAST AND FUTURE.

Looking back over the progress of University Extension during the past forty years, one reflection obtrudes itself, and raises a question which compels an answer.

When the University Extension movement was initiated in 1873 the condition of English education differed widely from that of to-day. Only three years had passed since the enactment of Mr. Forster's Education Bill. Not until 1870 had the State attended to the advice of Mr. Robert Lowe that it was time "to teach our masters their letters." Since that time the work of elementary education has been taken systematically and vigorously in hand. Mistakes have, of course, been made, and few people would be disposed to contend that elementary education, universal and gratuitous, has fulfilled all the roseate anticipations which were formed of it forty years ago.[1] Experience, how-

[1] Cf. *e.g.* Report of Poor Law Commission of 1909.

ever, has taught many lessons, and it is undeniable that the system of education is now more elastic and more adapted to the needs of the various types of children than it has ever been since the Act of 1870 was passed. Secondary education obtained little help from the State till 1902, but since that date the number of schools has rapidly increased. Technical instruction received a great stimulus from the Acts of 1889, 1890, and 1891, and has recently become more systematised. A large number of Institutes have been built, well equipped for technical and scientific teaching.

In these and other ways there has been an enormous development of educational opportunities during the last forty years, and it may well be asked if University Extension is as important to the community as it was when it was started. A little consideration, however, will show that the movement is still unique. Almost every other form of instruction designed for those beyond the school age is intended to help the professional student, *i.e.*, the young man or woman who wishes to advance in his or her business or profession and who needs instruction in certain definite subjects to make such advancement possible. Even the University itself must constantly bear in mind the professional needs of its students, while holding up the higher ideal of knowledge for its own sake. University Extension is concerned to a very limited extent with the careers of those who come under its influence. Those who attend the lectures have, in the material sense, very little to gain by doing so. They are adults engaged in the ordinary occupations of life, who seek some knowledge of the great movements of the past and present, of the noble literature of ancient and modern times, of the masterpieces of art, of the discoveries of science. Only a few of them have the leisure to become experts in any particular subject, but they are none the less anxious to know something of the world in which they live. University Extension has held out a helping hand to professional students and especially to those preparing for or engaged in teaching, but its main function is to appeal to the busy man or woman who would otherwise have little or no opportunity for Higher Education. It is this function which has given it vitality and which, we venture to think, will secure its permanence. The various certificates which can be gained by the students all have their value and importance. In particular, the definite University recognition of the higher certificates is to be prized and, if possible, to be extended; but the interests of the many must transcend those of the few. The great contribution which University Extension makes to modern

education is the provision all over the country of opportunities of higher study, permeated with the University spirit and yet within the reach of every intelligent adult.

J. A. R. MARRIOTT.
D. H. S. CRANAGE.

APPENDIX.

UNIVERSITY OF OXFORD.

Totals for the Twenty-six Years, 1886–1911.

Number of Centres in which Lectures have been given	618
Amount paid by Local Committees to the University	£144,375
Amount paid by Delegacy to Lecturers (Fees) [1] ...	£99,434
Amount paid by Delegacy for travelling expenses [2]	£18,904
Amount paid by Delegacy to Examiners ...	£5,282
Number of Lecturers employed	224
Number of Courses given	4,414
Number of Lectures given	36,873
Number of Students regularly attending Courses [3]	493,178
Number of individual attendances (estimated) ...	4,135,345
Number of persons examined [3]	26,353
Number of persons attending Summer Meetings (14 in number), generally held biennially ...	16,363

In order to arrive at a correct estimate of the amount raised for University Extension work by Local Committees, 20 to 25 per cent. would have to be added for local expenses (hire of halls, local printing, advertisement, &c.) to the first sum quoted above.

UNIVERSITY OF CAMBRIDGE.

Totals for the Thirty-eight Years, 1873–1911.

Number of Centres in which Lectures have been given	508
Amount paid by Local Committees to the University	£147,527
Number of Lecturers employed	214
Number of Courses given	3,786
Number of Lectures given	39,422
Number of Students regularly attending Courses	371,406
Number of Students regularly attending Classes	146,355
Number of Students regularly writing Papers ...	53,447
Number of Certificates awarded [4]	36,989

[1] For the years 1886–8 "fees" include travelling expenses.
[2] This includes some "Secretary's expenses" for the years 1886–8.
[3] Figures not recorded for 1886.
[4] For the first three years the numbers are only approximately known.

UNIVERSITY OF LONDON.

Totals for the Thirty-six Years, 1876–1911.

Number of Centres in which Lectures have been given	211
Amount paid by Local Committees to the University	£98,801
Number of Lecturers employed	268
Number of Terminal Courses given	1,871
Number of Sessional Courses (extending over three Terms) given	801
Number of Lectures given	39,827
Number of Terminal entries for all Courses	356,836
Number of Students regularly writing Papers	51,575
Number of Terminal Certificates awarded	39,030
Number of Sessional ,, ,,	6,854

UNIVERSITY OF MANCHESTER.

Totals for the Eight Years, 1903–1911.

Number of Centres in which Lectures have been given	67
Number of Courses given	171
Number of Lecturers (1912)	46

UNIVERSITY OF LIVERPOOL.

Session 1910–1911.

Number of Centres in which Lectures have been given	19
Number of Courses given	22
Number of Lectures given	228
Number of Students regularly attending Courses	2,716
Special Classes for Teachers	648
Average number of Students regularly attending Classes	32
Number of Lecturers employed	19

UNIVERSITY OF LEEDS.

Totals for the Eight Years, 1903–1911.

Number of Centres in which Lectures have been given	13
Number of Courses given	40
Number of Lectures given	250

University Extension work is also undertaken by the Universities of Birmingham, Sheffield, and Bristol.

Discussion.

In presenting his paper Mr. Marriott, M.A. (Oxford), after giving an account of the origin of the paper written by Mr. Cranage and himself, said : It is my privilege to be allowed to introduce to you the subject of the extra-mural work of the Universities, that is to say, the work undertaken by the Universities in respect of lectures, teaching and examinations, beyond their own geographical limits. As readers of papers and speakers are very properly restricted to ten minutes, I shall make so bold as to assume that everyone who hears me has read and mastered the paper contributed by Mr. Cranage and myself. I should like, however, with your permission, to add one word of explanation.

What do we stand for, we who are interested in and responsible for, the extra-mural work of the Universities? May I put it as briefly as I can by recalling to your memory the grave and earnest words addressed to this congress by Lord Rosebery at its opening meeting? Lord Rosebery made a solemn appeal—I can call it nothing less—to you, the representatives of the Universities of the Empire. He called upon you to give to the service of the Empire a sufficient supply of men of high character, and men of high capacity. Well, now, my point is this :—that you, gentlemen, cannot respond to Lord Rosebery's appeal. It would tax the resources, not of fifty-three Universities, but of five hundred Universities, to do what Lord Rosebery wants you to do in the sense in which modern conditions demand it, and for this very simple reason. Power—power political, power economic, and power social—has passed from the centre to the circumference. You may dislike this development or you may heartily approve it, but, whether you approve or disapprove, there is one thing you cannot do—you cannot ignore the facts. Nor can you fail—or you will fail at your peril—to face the consequences of the facts. The consequence with which I am immediately concerned is this : that all the Universities in the Empire cannot perform that function which Lord Rosebery so eloquently appealed to you to undertake, if you confine yourselves to the intra-mural functions of the Universities. It cannot be done. He wants you to train and to influence the men who are to govern the empire in the future. But, my Lord, the Universities need to train and to influence not the tens of thousands who even now become their matriculated students, but the millions who can never secure that privilege. That is the whole meaning, that is the root idea, of this extra-mural work which we are here to discuss this afternoon.

There is just one apprehension which is quite certain to be present to the mind of every academic person who listens to me. Forgive me if in a concluding word I attempt to remove it. It will be asked—it has been asked—I know the question so well that I will venture to anticipate it—it is asked: Is there not a very serious danger that the highest work of the Universities, their proper and legitimate work, may be impaired by this extension of their activities abroad? Can the Universities possibly continue to fulfil their highest functions, the advancement of the bounds of knowledge and the supply of the highest teaching, if at the same time they have to find resources and men for the education of those who are not of the academic fold? As time does not permit a detailed answer to the question I suggest, perhaps you will forgive me one touch of personal experience. I have been engaged myself for a quarter of a century in the intra-mural work of the University of Oxford. As College tutor and lecturer, and as a student of history and economics, I have been engaged continuously in that work. The work that I have been able to do there may have been infinitely poor and thin, but of this I am perfectly convinced that it would have been infinitely poorer and infinitely thinner if it had not been for the lessons that I have learnt by active participation in the extra-mural work of the University. You will observe that I lay stress on what I have *learnt* from that extra-mural work, not of what I have been permitted to teach. What I have learnt from our extra-mural students has been, I take leave to say it, of great value to those for whose teaching I have been responsible in Oxford itself, and of great value to my own studies in history and sociology. This is the point I desire to make: there is no antagonism between "Extension" work and other aspects of University activity, no contradiction between the subject set down for discussion this afternoon and the subjects you have discussed throughout the week. You have discussed many questions of high significance to the future of our Universities, but, I venture to say without fear of contradiction, that you have touched no question of higher moment for the Universities themselves, you have touched no question of such vital significance to the common weal of the Empire, as that which I have the honour to introduce to you this afternoon.

THE REV. W. TEMPLE, M.A. (Chairman of the Workers' Educational Association): In the period of ten minutes it is not possible to spend much time upon compliments, and I hope therefore that it will not be taken as any perfunctory statement when I say that

if it had not been for the work of University Extension the Workers' Educational Association would not have come into existence. We are anxious to give the full credit that is due to that movement, and to those who inspired it, for anything that the Workers' Educational Association has been able to do.

I should then like to take my start from the point already made by Mr. Marriott, which we may perhaps re-word in this way. It is the supreme function of the Universities, I suppose, to guide the thought of those who are to mould the destiny of the nation and of the empire. If that is to be done they must now be exerting their influence upon the working classes amongst others. The changes in the political situation have involved this as a demand upon the Universities if they are to continue to fulfil their national responsibility. I may mention a second point, also made by Mr. Marriott. The Universities themselves in their own work will not suffer from this; on the contrary, unless they do it they will get out of touch themselves with a great deal of what is most alive in the world about them, and therefore their own theorizings will be more abstract and useless even than most University theorizings are.

Now I come to the point specially represented by the Workers' Educational Association. While it is perfectly true, and must in justice and gratitude be said, that without University Extension work the Workers' Educational Association, as we know it, could never have been started, so it is true that without such help as the Workers' Educational Association, or some similar body can give, University Extension can never achieve the whole of its ideal. It needs supplementing from that side for a variety of reasons. Whether rightly or wrongly, there is a very great amount of suspicion of Universities on the part of a large number of working people. This suspicion is there, and if we are to get into touch with them there must be channels provided, through which they can be sure that their own opinions are really being represented. They feel that before there can be mutual confidence—and until there is mutual confidence there will be no real influence—their point of view must be represented.

The Workers' Educational Association came into existence in 1903. The climax of its work in relation to the Universities is due to the report of a Joint Committee, to which seven University members were appointed by the then Vice-Chancellor of Oxford, Dr. Warren, to sit with seven labour representatives. They recommended that a body similar to themselves should become a permanent part of the University machinery, "to establish and supervise tutorial classes in working-class districts." That meant

the establishment of a body composed of people capable of ensuring that the teaching provided was of high academic value—that is the task of the University members—and also of people capable of discussing and deciding whether the lecturers sent out were the kind of men who could establish a sympathetic relation between themselves and those among whom they were to work—that is the task of the labour members, who can also receive complaints. It was necessary to have someone on the Authority which supplies the teaching, to whom representations could be made. This is provided by these joint committees. A working man would not write to a University Board, and the Board would not pay any attention to him if he did. But if there are representatives of the working people themselves on the Committee supervising this particular work they will be able to receive any complaints, for their own people will be ready to write to them. Hence we believe in the necessity first, of organizing a real demand on the part of the workers, and, secondly, of securing that the working people themselves shall have a full share, an equal share with the representatives of the University, in the controlling of these classes. Whether that is desirable in other places than England must be determined by those who know the conditions. But in Australia the same suspicion existed, and the experiments made in England, which I brought to the notice of the Labour Ministry of South Australia, were regarded as providing a solution of their problems as well as ours.

There is one other point I should like to put. These classes of working people, who work to a real University standard, usually choose economics or economic history for their first subject of study. That I regard as thoroughly healthy, for I can imagine nothing more disastrous than to spread a veneer of culture over people by supplying them with a knowledge devoid of relation to their practical life, because there would be a danger that the result would be to create a number of superior persons—than which nothing more disastrous can be imagined. It is healthy that the first demand of the workers shall be for knowledge of a kind that bears vitally on their own lives. But we are also glad to know that the result of their study of economic subjects, and the acquisition of some real knowledge of these subjects, is to make the class demand afterwards a study of other subjects; learning something about economics makes them want to know something about other subjects as well. Thus there is no fear that the movement will be narrowed down to the study of one particular subject, though it almost invariably starts with the study of that subject.

The standard of work done is very high; it is real University work, done for the most part by people who have not attended any secondary school. That is an important fact to be borne in mind in the development of our educational system. These working men are capable of doing work of a University Honours standard. That means, not only that the duty rests upon the University of going out to meet these people, but that there is an opportunity of doing work of a kind that repays any effort that can be made.

May I recapitulate the four points I wish to impress upon the Congress:—

(1) If the Universities are to continue their work of training the governing classes, they are now bound to launch out into work for work-people.

(2) The Constitution of the Universities themselves will benefit by this contact with the leading movements of the time.

(3) It is no use for Universities unassisted to try to provide education for working people; they cannot know the requirements with sufficient exactitude; hence the need of the Workers' Educational Association and of Joint Committees.

(4) The fact that the classes usually take Economics in the first instance is thoroughly healthy, because it shows that the educational demand is in relation to the general conditions of life; but it is also to be desired that their study of Economics should lead them to study other things.

MR. ALBERT MANSBRIDGE (Secretary of the Workers' Educational Association): I desire first to pay my tribute to the memory of Dr. R. D. Roberts, who devoted the finest energies, along a distinguished career, to the cause of the education of the people.

It is generally admitted in these days that Universities should draw their strength from all worthy activities in the national life, and it is recognized that the activities of working men and women stand amongst the more important of them. It has, indeed, the most numerous adherents. The University Tutorial Class Movement is one of the contributions towards full and complete co-operation between working men and women as such, and scholars as such.

The University Tutorial Class consists of thirty adult men and women, pledged to study for three years, and not to miss a single attendance other than from unavoidable causes, and to write twelve essays in connection with each of the three sessions of twenty-four lessons each; together with one tutor, who must

be a fine scholar, and whose main business in life is the development of the subject with which he deals.

Its essential characteristic is Freedom. The students control the class, the justification for which is that they have devised for themselves regulations which are of greater severity than any which a University would have dreamed of asking them to frame. It is *the* class of the students—each student is a teacher, and each teacher is a student; the humblest is not afraid to teach, and the most advanced is willing to learn. There is a complete absence of distinctions; diplomas and degrees are not asked for, consequently there is no competition, but in actual fact an all-pervading comradeship.

With regard to attendance, the students have kept their pledges wonderfully. The percentage of attendances is often over 90 per cent. It is sometimes just on 100 per cent., which figure it has only fallen short of because of illness and overtime. The average percentage works out at 75 per cent., and this during a period in which there have been two General Elections and violent Labour unrest. Nearly 700 students have completed three years' courses. The average stands at just over fifteen such students in each class which has completed its three years' course. In towns, where labour is steady, such as dockyard towns, the average rises to twenty students who have completed a three-years' course. The students are almost entirely manual workers, and cover all manual trades; the textile and engineering industries make a big contribution, whilst representatives of less important occupations, such as pedlar, are numerous. The ages of the students range in the main between twenty-five and thirty-five, and there are several over sixty years of age. One man over seventy years of age has attracted the special commendation of Professor Vinogradoff. The Tutorial Class brought such a man for the first time into contact with scholars dealing with his subject.

As to the standard, it is true that most of the students have not attended evening schools, and have left the day schools at an early age—anything from ten to fourteen years of age. Although used to speaking, they are not so used to expression by means of the written word. Spelling is often defective, but it is not always very good amongst undergraduates. Those who have examined the essays written in the classes say that the improvement in technical detail seems to be miraculous. The essays written in eight classes were examined at the close of the first year at Oxford, and 25 per cent. of them were declared to be of a standard similar to those essays written by students who gain first-class Honours in the Final Schools of Modern History,

and some essays written in these classes are circulated amongst undergraduates working for the Final Honours Schools, in order that they may read and inwardly digest them. The workman-scholar has, through these classes, revealed himself, and vindicated the claims of his order, the noblest through the ages. The Board of Education, as stated by the readers of the paper, has through Professor L. T. Hobhouse and Mr. J. W. Headlam reported most favourably on the classes in the light of the claim that they are equivalent to an Honours Course in the same subject in a University.

Thirty-nine classes have now completed three years' work. A number of them have asked for, and been granted, fourth year's courses in a special division of their subject. One class has completed its fifth year's work, and its membership is largely intact. Universities are devising special facilities for advanced students. The University of Manchester has appointed an Adviser of Studies; the University of London is sending some of its students to the London School of Economics, and providing a Seminar and special tutors for others. The University of Oxford has always before it the question of drafting students to the University itself, and has devised a two months' Summer School, to which reference was made by the readers of the paper. That Summer School is, indeed, a most joyous occasion, and it is one of the most inspiring sights I have ever seen to see learned professors of world-wide fame, studying their subject from a new point of view with the help of working people. I need hardly say that, if any member of this Congress visits Oxford, he can be assured of a welcome at the Oxford Summer Schools.

The classes produce teachers as well as lecturers in innumerable British working-class institutions. It has been reported of educational movements in the past that men would go five or six miles to a lesson. We are able to report, in addition to this, that men will now go twelve miles to help their fellow work-people with their class work. The Class at Longton, in the Potteries, which has finished its fifth year's course, has, by the aid of its students, maintained educational facilities in ten mining villages of North Staffordshire throughout the winter, and not a penny has been paid to the tutors, who, though poor, have cheerfully borne their own expenses. A healthy Tutorial Class develops classes round about it.

The problems gather round the supply of Tutors—Finance, and the supply of Books—which last is largely financial. In regard to the supply of tutors, the Board of Education has pointed out that one or two weak or tactless teachers might give a serious

set back to the movement. It is true that we claim that, just as the tutor educates the students, so the students educate the tutors, and it is interesting to note that we have tried experiments in the education of tutors, sometimes successful, sometimes unsuccessful, but an actual University tutor gains in power almost at once after he has had a little experience in teaching a tutorial class. Such tutors not only discover facts, but a new spirit. They take back treasures to their own University. It is true to say that the supply of tutors has been more efficient and complete than was anticipated at the outset of the movement. With one or two notable exceptions, all the tutors have succeeded—some wonderfully so—and, as a direct result of the demand for tutors, men are being prepared for the work during their undergraduate or immediately post-graduate course. Tutors must be paid a wage that will enable them to continue the work with content, and a larger wage than has often been paid to Junior Lecturers in Universities. The working people who helped to devise the scheme said that a man should earn £400 per annum if he took five classes, and Oxford, at least, pays this amount.

The finance of the classes is arranged upon a triple basis—University, Board of Education, and Local Education Authority. There have been few private donations. Large moneys are needed, and, apart from the fact that Universities, recognising the value of the work, will be glad to devote more money to it, yet new Universities in England are starved (I could not help thinking of the pitiable amount which Principal Peterson spoke of, of £150,000 as the Treasury Grant to them), and some way, through the State or through the Local Authorities, larger finance must come to the movement; but, although finance in England follows very slowly, yet finance must, in the long run, shape itself according to the spirit of a people.

The supply of books presents a special problem, and arrangements have now been completed by which a Central Library has been established, the aim of which will be to circulate just at the points where they are needed expensive books of reference. The Library awaits its endowment, but, at the same time, it is getting on with its useful work.

The fear of politics is not wholly dissipated, but it is true that the students have everywhere pursued their studies in the spirit of education, and have left the advocacy of their creed or party for other times and other places.

Lord Rosebery said: "We require honourable, incorruptible, strenuous men." We claim for the Tutorial Class movement that it creates and reveals such men, and, at the same time, gives to

ordinary men what is more important—the power to select the right men. Lord Curzon bore testimony to the effect it had upon tutors of the University of Oxford—in his lordship's eyes, the very centre of all things pertaining to Universities. The Principal of the University of London gave, as his opinion to the British Association, that the classes would affect the teaching of English in Universities, and Professor Pollard, speaking to the Historical Association, said that working people were forcing historians to study the lives of the ordinary people. Working men, he said, were not interested so directly in the Literature and Art of Greece, as in how the common people lived. We feel, after five years of the work, that it has strengthened the teaching of Social Science and History, and, to a smaller degree, Literature, in the Universities of England.

It may be that some of you are delegates from Universities which exist in favoured places, where it is possible for every boy and girl of brains and character to get University education. Even so, in some way or other, men and women fitted for industrial avocations, and who mature late intellectually, will need your help, and you will need theirs. The right activity of industrial labour will give them mental and spiritual gifts which you will profit by drawing to yourselves. In England, we talk of a Highway of Education, but, when that Highway is complete, we shall still need the bypaths of the Tutorial Classes.

It only remains for me to say that the Universities of England and Wales have, almost without exception, recognized the value of these classes, and the majority of them have Joint Committees, consisting of an equal number of workpeople and of representatives of the University, and I hope it may be possible, in some Universities of the Empire at least, that the whole question may be considered by such Joint Committees similarly constructed. If such Joint Committees declared that there was nothing to be done, still, at all events, the association of workpeople and the Universities will have had good effect, and the desire for the welfare of the Universities should be deeply imbedded in the hearts of the whole population, even of those who are not fitted for University education. The Universities have likewise constructed for their common purpose a Joint Committee, which is, I believe, the only body in Great Britain which is composed of all the Universities and University Colleges of England and Wales. I think I may safely speak for that body and say that any University which desires to have copies of the papers which are circulated to its members will be welcome to them, and the Central Joint Committee, 14 Red Lion Square,

Holborn, London, W.C., will place itself at the disposal of any University which desires information.

It is a matter of satisfaction to me to-day to rejoice in the fact that Overseas Universities of the Empire, through their association with the federation of the Workers' Educational Association, have directly aided this work. We refer to the Universities of Melbourne, Sydney, and Adelaide, and to McGill University. They have helped, not so much by the intrinsic value of their subscriptions—useful as those are—as by the spirit which has prompted them to come over and aid this movement.

Even though, as Lord Curzon desires, the Universities of the Empire are to look to Oxford and Cambridge as the hills from whence cometh their help, some of us suspect that they are not the only hills, but there are others of exceeding beauty and power, and not the least among them are many of the Universities of the Empire represented at this Congress. Speaking as I may in following Mr. Temple, my President, and as an official of a great organization of working men and women and scholars, I wish the Universities of the Empire increasing strength and power.

MISS J. D. MONTGOMERY: You have heard those who know every detail of the history and organization of the extra-mural work of the old Universities; and you have heard also of the wonderful and splendid work that they are doing amongst a special section of our fellow citizens—by a slight anticipation I include women in that word "citizens"—and I feel that the great honour done me, of allowing me to speak to-day, must be owing to the fact that the organizers of this Congress have felt that the picture would not be quite complete without the local secretary's point of view. That point of view is necessarily conditioned a good deal by local circumstances, but nevertheless there is a great deal common to all of us; and I feel that I can best utilise the ten minutes allotted me by speaking of my own personal experience. I recognise that the personal note is not worthy of the dignity of this Congress; but on the other hand, I feel that it would be great presumption on my part to address such an audience on general principles. Therefore I deliberately choose what seems to me the lesser of two evils.

I speak to you as a secretary with twenty-five years' experience behind me. That is a long time, and I have seen many changes come over the movement, and the students, during that term.

I should like to begin by asking, What is the result in the local centres of the establishment of University Extension work?

First of all, it provides, as nothing else does so adequately, a platform wide enough to accommodate men and women of all religious and political views, of all ages, of all occupations, and of every social standing; and it brings these people together without any compromising of each person's individual views. I submit that if you can bring people face to face and show them how much of human nature there is in those from whom they differ most widely in opinion, you have done much to remove mutual suspicion, and to make common action possible. I also submit that this is an educational work of no small value; and those who know the difficulties of public and private life in provincial cities and country districts can appreciate the value of such work.

Secondly, the University Extension movement does very valuable work in first creating, and then keeping alive, a demand for higher education in addition to technical and professional training. I may instance the growth of our own University College at Exeter. I think it is true to say, that it would probably never have come into existence if the ground had not been previously prepared by many years of active University Extension work; and it is certainly true that many of our best students at first were those whose appetite had been whetted by the excellent teaching received from the lecturers sent out by the old Universities.

And now I want to become more intimately personal, though I feel as though I were almost going to betray the secrets of the confessional. There are a large number of students to whom University Extension work literally brings new mental and even moral life. It is difficult for an audience such as this to realize the colourless monotony of the lives of a very large number of people in our cities and country districts. I am not speaking now of those whom we classify as "the poor," though the people I am thinking of are often poorer; but I am thinking of men and women, some of gentle birth, and some not, but all possessed of an education and a culture which make them able to appreciate and desire more teaching. It is very difficult for those more happily placed to realize how largely these people are excluded by narrow means from many of the best interests life has to offer. They are cut off from foreign travel; living in provincial towns, they cannot see the highest form of drama, nor hear the best music, nor see the best pictures, and they never come into contact with a master mind. They are, indeed, able more and more to get the best books nowadays; but these men and women are often somewhat dispirited, and need the hand and voice of a

living teacher to guide and stimulate them to further work; and these they find, not only in the Lecturers, but also in their fellow-students. They are brought into contact with those who have like aspirations, and whose ideals are the same as theirs; and they are encouraged to pursue those studies which once were very dear to them. The study they are thus encouraged to carry on reacts on the home life. This I know from personal experience, because after twenty-five years' work, as secretary, I find many old students bringing their sons and daughters to attend our lectures.

I suppose I may assume that in this audience no one supposes that University Extension means listening to a lecture once a week. That is only the starting point. It means previous and concurrent and subsequent reading and study. It means a very animated discussion in the class, and a cheerful heckling of the lecturer. It means constant discussion between the students themselves, and, in a well-organized centre, frequent meetings of the Students' Association, which also keeps alive intellectual interest between the courses of lectures. This is the good cheer that University Extension brings to many of our sorely overburdened fellow-citizens, who are tried by constant anxiety and narrow means, and who are cut off from many of the higher joys life has to give.

What may we say of the possible national effect of University Extension work? We know that we are living in days when old institutions of every kind are carefully scrutinized, and very closely examined, as to their usefulness. Is it nothing to the life of the nation that during the last forty years many thousands of our people have been learning that the Universities are a national asset; that they are not the privilege of any one class, but that they have a message for the highways and byways—especially the byways—of the country? I think that is a distinct national benefit. University Extension has also a national effect in this way: if we ask ourselves what is one of the highest messages that University teaching has to bring, shall we not say that it is a protest in favour of study for study's sake, and not for any immediate financial gain? It is, in fact, a protest against that spirit, that growing spirit, of materialism, which I think is observable in our national life. I am not speaking of materialism as a scientific system, or a philosophy of life; but of that growing practical materialism in daily life, which looks for immediate results, and financial gain, which knows "the price of everything and the value of nothing," unless it can be put in terms of money. The spirit of University teaching stands as a protest against all

that, and I believe that this is realised by our University Extension students in the centres. I am quite sure that many people who have not thought about the subject will say: "Surely any good system of teaching could do all this for people." I think not. I daresay it may seem a rather sentimental and fantastic idea to many of you who have had the privilege of University training, perhaps at an age when you hardly understood all that it meant, and you will scarcely be able to appreciate the fact that our University Extension students very much value the ideal link with the old Universities, slight as it is; but I am very glad of it, because it stands for much which is very valuable in our national life. It means that our students have a reverence for the past, and a sense of the continuity of our national life, and that they are conscious that though knowledge may come by teaching, wisdom can only come by true education; and it means that they appreciate the fact that the firmest basis for mutual sympathy is a mutual search for truth and sound knowledge. All these things are valuable, and are symbolized to our students by the one fact that they are brought into personal touch, by means of a living teacher, with the old Universities, which they suppose, and I hope with truth, maintain all these high traditions.

This practical materialism of which I have spoken is a matter of very grave concern to all of us who know much of the life of our fellow country people. It is serious from this point of view, that it excludes that "Vision," without which we know that "the people perish." I, for one, hope that a very much larger number of our people will learn to "see visions" and "dream dreams," because we know "the dreams that a nation dreams, come true." We must desire that by means of this and other kindred educational work such dreams may lead to their own realization, which they can do, by united effort helped by mutual sympathy and search after true knowledge.

There is one other thing I should like to say. If there are any of the fifty-three Universities of the Empire represented here which have not yet considered this question of meeting the needs of those who are outside their own immediate influence, may I earnestly plead with them to give some thought to this question? I feel very strongly that, as Mr. Marriott has said, no University, however many students it gathers within its walls, will ever be able to meet this national and imperial need. It must be done by the sending out of teachers to those who will never be able to come up to the Universities themselves, and I should like to assure you it is work well worth doing; and on this point

at least I may claim to have some knowledge and some right to speak.

PROFESSOR LAURIE, LL.D. (Melbourne): As a delegate from one of the Universities over the seas I rise to express the satisfaction we must all feel at the great record which has been placed before us to-day of work done by the University Extension movement and by the Workers' Educational Association. We have listened to references to Great Britain almost exclusively. Some complimentary reference has been made to Australia, and of Australia it may be said that it has made a certain essay in this direction. The Universities of Australia may boast of this to begin with, that they leave nothing untried to make the way clear for the diligent and able student from the lowest rung of the ladder up to the highest position he can take in the University. That is something to be proud of, but, in addition to that, the University Extension movement was begun in Australia some years ago; it still remains in New South Wales, Victoria, and South Australia. There are differences in the conditions. For instance, in New South Wales there is a small Government grant; in Victoria we have done without it; but in both cases there is a balance to credit. What has been the result? The result has been that many excellent lectures have been given in literature, in history, in economics, and in science. No doubt there are degrees in the excellence of these lectures; some may be of a more popular kind; but if I were to pick out those lectures which have been of the greatest value to the community I should take those lectures in science given in the University by University Professors or Lecturers, and which have attracted large audiences, sometimes composed of teachers who could pass on to others the knowledge thus attained. There have been lectures in chemistry, biology, hygiene, which are both of theoretical and practical importance.

But when I have said these things in praise of the work accomplished in Australia by the University Extension movement, it remains to be added, that we have scarcely touched the workers. From beginning to end they have not come in to these lectures and to the discussions which ought to, but do not always, follow; therefore we have not done the work of which the speakers on this platform have boasted so proudly. An attempt has been made recently in Victoria to form an Association on the lines of the Workers' Educational Association, but I regret to say that for the present this attempt has failed, so far as social subjects, economics, and political subjects are concerned; the workers in

Australia are apt to believe that they can teach a great deal to the rest of the community, including any teachers whom the University can bring forward. Instead of educating our masters, as was proposed some time ago, our masters think they can educate us, and are not disposed to postpone their meetings at the Trades Hall or their political meetings, which are very frequent, in order to attend any lectures in history or politics. Either the working classes are right in the view they take of their own knowledge, or they are not. If right, the process ought to be reversed. Instead of Mr. Temple's view being carried out, the workers ought to teach the rest of the community. If wrong, they are not in a happy disposition to listen to any proposal made to teach politics, or sociology, or history, to them. This may be overcome, but at the present moment, so far as Australia is concerned, there is not sufficient driving force either on the part of the Universities or the working classes to accomplish work which seems to have been successfully done here. The position may change, but that is the position to-day in Australia, and I think it worth while to supplement the remarks made by telling you frankly and freely what it is. Perhaps the experience of other Universities in other parts of the Dominion may be different. At any rate the problem is one that presents itself not only to British Universities, but to those all over the globe.

DR. BARRETT, C.M.G. (Melbourne): I came to Europe impressed with the comparative failure of the University Extension system in Australia. I realised that it was the weak point in the University organization, and determined to understand the Oxford movement with a view of seeing if it could be adapted to Australia. But on the way to Europe I spent two days at that remarkable experimental University, Wisconsin, where the extension movement has been pushed on a scale and to a degree hitherto unknown in any portion of the globe, and I propose to give an outline of that most interesting development.

The University of Wisconsin bases itself on a tripod,—research, instruction, and popularization. By popularization is meant the conveyance of information obtained by the researcher and others to the people of the State. The three functions are regarded as co-equal and are entrusted to men of equal rank but different temperament. The result is that there has been established an Extension department, separate from the rest of the University, presided over by a Dean and staffed on a scale that makes the mouth of an Australian University Governor water. The sum spent is £25,000 per annum, and there are thirty-one clerks and

stenographers in the office, apart from the educational officers. All the difficulties that Mr. Mansbridge has raised about books, etc., do not exist in Wisconsin, because any citizen who wants a book has only to write to the Extension department, and he gets it by paying the cost of transit one way. The Extension department says in effect to the people of Wisconsin (2½ millions in number): "Whatever information you want you can have; we keep a staff for the purpose. We have a bureau of universal information, and what you desire you can have. But in addition we will provide courses of study which we think will help you. We should like you to come to the University for four, six, or eight weeks in the summer, and we will then give you the information necessary for your particular occupation." Furthermore, the University sends from the Agricultural Department officers to visit the people on the farms, to prepare analyses of the soils of these farms, to inspect their herds, and to give them advice as to the best methods of meeting their problems. Trains are run conveying lanterns and other apparatus for lecturers who visit centres where the farmers collect from many directions, and instruction is given on the spot. I was informed that the provision of lectures at the University was not enough. It was personal contact with the men living in their own districts which was essential to the complete development of their scheme. The British idea of the Extension teacher as an inferior University officer is a mistake. The fact is recognized at Wisconsin by the insistence that every year the Research officer, the Instruction officer, and the Popularisation officer shall spend a period under the same roof engaged in pieces of research, so that they are acquainted with one another and know what work is being done.

This whole-hearted attempt to convey information is just as important as research. What is the use of obtaining information if it is to be filed away and not applied? All that has been done in Wisconsin has been based on the central idea of making the lives of the people better and more useful. What has been the result? The State of Wisconsin and the University are practically synonymous. The State will vote any reasonable sums of money wanted. The people are behind the University in every forward movement, and you have the spectacle of legislation conducted with the technical advice of University Professors. A Professor of Economics in the University of Wisconsin is in charge of the Parliamentary Reference Library. If you are a member of the legislature and wish to draft a Bill, say, on the management of main roads, you go to the Library and inquire, "What has been done on the main roads problem in other

countries?" The staff is set to work, and in a few days a precis is prepared and handed to the legislator. This practice of utilising the expert for purposes of ordinary administration is pursued in other directions. It is an extraordinary spectacle. The end of it has not yet been seen, but it is so great an experiment that I defy any sensible man to visit Wisconsin without being profoundly impressed. I am quite aware of the difficulty of transplanting novel features from one country to another. It is, however, my intention to examine the Oxford movement and, on my return to Australia, to endeavour to improve the Extension system, to try to put it on its proper basis and to obtain from University and State a clear realization that popularization in the proper sense of the term is an essential part of the work of educated men.

PROFESSOR DARNLEY NAYLOR, M.A. (Adelaide) : I am somewhat ashamed that Australia should be looming so largely at this moment, but my friend, Dr. Laurie, made statements which I do not want to controvert, but which I should like to modify, with regard to my own State, South Australia. I wish to tell you one fact. I am not going to touch upon politics, but it is a fact that last year we had to face a commission appointed by the Labour Government. Mr. Temple visited us, and I do not think that I am exaggerating when I say that he exercised over that Labour Government a very good and valuable influence. The result was that just before I left Australia that Labour Government added £4,000 a year annual grant in perpetuity for our University. That shows what Labour will do for us, and how highly it values such work as we can carry out.

I merely want to emphasise one other point. In my humble opinion one of the great forces of international co-operation in the future will be found in the co-operation of the working men throughout the world, and it is of the utmost importance, if we are to reach the great ideal of University co-operation, that we should educate in the highest and best sense the men who may, sooner than some expect, bring into existence a United States of Europe.

F. C. FORTH (Principal of the Municipal Technical Institute, Belfast) : The papers and addresses just given have been so admirable that one hesitates to ascend this platform to add anything to what has been said, but there are one or two points that impressed me as worthy of further reference on this occasion.

The speakers have told the meeting of the progress being made in connection with the University Extension movement, but ex-

cellent as is the work already accomplished, I venture to say that the movement has not yet done more than touch the fringe of the work that lies before it.

I, myself, am connected with an institution which has annually on its rolls over 6,000 students, and I believe that the extension movement is scarcely known amongst that large number of individuals.

This institution deals with purely technical subjects—providing instruction rather than education—in other words, the programme is mainly of a professional character. I am satisfied, however, that there are many of the students who would be glad to have the opportunity of participating in the broader and more general educational facilities which a University Extension system can supply.

The increasing extent to which Schemes of Co-ordination between Universities on the one hand, and Technical and other Higher Educational Agencies on the other, are being brought into operation is steadily creating a closer union between the Universities and the great body of the population. Such co-ordination is doing much to remove that lack of sympathy and that absence of a good understanding between educational authorities and industrial communities, referred to by Professor Smithells in the paper which he read yesterday. But even when schemes of co-ordination have realised their fullest possibilities there will still remain a wide field for the operations of the University Extension movement. To many people, lack of means and the restrictions imposed by industrial employment render attendance at the regular courses of a University an impossibility. To such persons the University Extension movement makes available, at hours when workers have leisure, a grade of education which does not fall within the programmes of evening technical or other evening institutions.

Reference was made by one speaker to the fact that working people—by which I take it artisans are meant—are somewhat suspicious of University lectures, and I can confirm that by my own experience. There is no doubt, however, that the efforts of the Workers' Educational Association are tending effectively to remove these suspicions, and to place Universities and University education in a new light before those who are participating in the Workers' Education Movement.

I would venture to offer the suggestion to the leaders in extension work, that in the interests of the movement, greater publicity is desirable in regard to the objects they have in view. The aims of the University Extension are only known to the

merest fraction of the public at large, and in the minds of those who have some knowledge of what is being done, the movement is associated almost entirely with Cambridge, Oxford, and possibly London. Much more might be done by University authorities to utilise existing educational agencies to further their work. It is desirable also that something should be done to secure greater thoroughness in the carrying on of the work done in individual lecture courses. Taking the enrolment for any given course of lectures, it will be found that many students are exceedingly ill-prepared by previous education, for gaining advantage of the information given. If, in issuing programmes, some indication were given of the educational preparation necessary to secure reasonable benefit from the course, the result would be to secure much more regular attendance from those who are enrolled, and much more systematic work.

The possibilities of University Extension work are without question much greater now than when the movement was started, because many more persons of education are available, and for that reason the movement deserves the support of everyone who possesses in any degree opportunities for furthering its advancement.

THE REV. D. H. S. CRANAGE (Cambridge) : My function is a very humble one, to reply to the discussion in the few moments left.

I must say, to use the expression of the speaker, my mouth watered when I heard of the wonderful University of Wisconsin. We have all for many years past been trying to get a small portion of the £25,000 a year given in that one State. I am sure the information given to us is of great value. I only hope that we shall have further information from other parts of the world, and especially, in a Congress of this kind, from our own Dominions. You may have noticed that the paper which Mr. Marriott and I have drawn up is somewhat *jejune* in its references to colonial work and that of other parts of the world. Speaking for myself, the reason is that we have very little information. Not long ago I received an interesting pamphlet from the University of Sydney describing some experiments which had taken place in that district, but I hope those who are engaged in experimental work in connection with this movement will be kind enough to furnish the representatives of the older Universities at home with information which will be helpful in further development.

One point I think is worth emphasising. We have heard of University Extension in general, and of its most recent product, the Tutorial Classes movement. I am anxious that the delegates

from a distance should not go away with the idea that there is any rivalry or proper want of co-ordination between these two systems. We want both. They are sisters, going hand in hand, and I am sure that the representatives of the Workers' Educational Association will agree with me that University Extension must still go on and flourish even if Tutorial Classes become more numerous. Some of the most successful of the ordinary University Extension centres are those where working men are predominant, where almost the whole audience consists of them. I am thinking of a mining village in the county of Durham, New Herrington, which has never omitted to take one and sometimes two courses of Extension lectures every year for some time past. The audience is composed of working men and women to the extent of 90 per cent. At Seaton Delaval, in Northumberland, we had a course attended by 180 people; 35 stayed to the class afterwards and asked questions; 23 wrote the weekly papers, and 15 were examined at the end and obtained certificates, and almost all of them were miners. I had the privilege of being present when the certificates were distributed to the students, and it was interesting to see these young miners come up and obtain their certificates issued by the University.

Of course there are discouragements in the work from time to time. One has not been referred to this afternoon, but I feel it to be a great one, and in almost every meeting I address now I bring it forward, because I feel so seriously about it: the prevalence all over the country of the passion for amusement. I may be unduly pessimistic in bringing this forward, but when I am told in every town that almost the greatest drawback to University Extension is the passion for amusement of all kinds in all classes, I think those who are seriously minded should try their utmost, not to kill amusement, but to put it in its proper place, which is not the first place.

One point further is worth making in connection with the remarks of the last speaker. He said the centres ought to be more vigorous locally. Of course they ought, we are all agreed, and are anxious to make them so, but do remember that there are at this moment all over England hundreds of men and women who are devoting their lives to the advancement of this work without any pay or reward. I never heard of a single local secretary being paid for doing this work, and we ought gratefully to recognize on an occasion like this the splendid and self-sacrificing labours of our local representatives all over England. May I refer to one centre which always has a warm place in my heart, a small, sleepy agricultural town, where for fourteen years past there have

been twelve-lecture courses, both afternoon and evening, and where all classes have been got hold of. That work is mainly due to the enthusiasm and perseverance of one person, and I have often thought that if that one person were to go the movement would come to an end. I asked the question one day, and the reply was, "A few years ago we should have said yes, but now we say no. The movement has now got hold of all classes, and, if she were to depart, it would have a serious effect on it, but the work would still go on and be successful." I would commend that instance to those who are often discouraged by difficulties. Go on, and after a time it will be said of your centre as of that one – the movement has now got too firm a hold to disappear even when you are taken away.

I cannot conclude these few remarks without one word of warm testimony to the work of my predecessor, Dr. R. D. Roberts. It would be ungrateful of me to stand here without saying what an enormous amount this movement owes to his care and enthusiasm. The special work we have been considering in part of our discussion, that among working men, owes to him more than one can say. If you will read his little book, "Eighteen Years of University Extension," you will see that he was the pioneer of this work in the villages of Northumberland and Durham. Just after his death I was attending a meeting at Seaton Delaval, and one or two were overcome with grief at the thought of their kind friend being taken away from them.

I need hardly say I have mentioned only one or two of the points that have cropped up during the discussion, but I venture to conclude with the words which Mr. Marriott and I use at the end of our paper: "The great contribution which University Extension makes to modern education is the provision all over the country of opportunities of higher study, permeated with the University spirit, and yet within the reach of every intelligent adult."

FRIDAY, JULY 5.—Morning Session.

CHAIRMAN.

THE RIGHT HON. THE LORD STRATHCONA AND MOUNT ROYAL, G.C.M.G., G.C.V.O., D.C.L., LL.D. CHANCELLOR OF THE UNIVERSITIES OF ABERDEEN AND MCGILL.

I.

THE ESTABLISHMENT OF A CENTRAL BUREAU; ITS CONSTITUTION AND FUNCTIONS.

II.

THE POSITION OF WOMEN IN UNIVERSITIES.

III.

REPRESENTATION OF TEACHERS AND GRADUATES ON THE GOVERNING BODY OF A UNIVERSITY.

Sixth Session.

The Chairman : Delegates and Representatives of the Universities of the British Empire, ladies and gentlemen,—In the first place I desire to thank you for the opportunity you have afforded me of taking part in your Congress.

As Chancellor of two of your Universities, one of them among the older schools of learning in these islands, and the other, one of the greatest in the Dominions beyond the Seas, I take a keen interest in a gathering which, for the first time in the history of our race, has brought together for common action the two sets of Universities which mine respectively exemplify—sets differing widely in their traditions as well as in the problems of education that confront them, yet essentially one in their Imperial Mission, and in the spirit necessary for its achievement.

In opening this last session of your deliberations I would congratulate you not only upon the practical value of what you have already done, but even more warmly upon the promise which it holds for the future. The Congress, I understand, has not been without some stimulus to teaching and research within the many separate departments of learning which you individually represent. It has also succeeded in collecting, in a form more clear and full than has hitherto been available, a wealth of information upon methods of organization and discipline. But above all it has quickened a feeling of the community of those interests and ideals with the guardianship of which you have been entrusted upon all, save one, of the continents of the world. We may surely hope that as the Congress has suggested the possibility, so it may lead to the firm establishment of a closer co-operation among your various institutions, widely separated as they are, yet all of them indispensable to the spiritual welfare of our Empire and our race.

The pioneers of that Empire, we do well to remember, have often been men who owed little or nothing to Universities, and in most cases the first settlers, who followed them, were equally devoid of the experience of academic discipline. It is all the more remarkable that among the national traditions which they continued in the lands of their exile, none has been more persistently followed or more generously endowed than that of the higher education. In no part of the world has any Anglo-Saxon community been organized without almost immediately proceeding to the erection of a College or a University. Take the history of the Universities of the North American colonies. The oldest of them all, Harvard, founded in 1636, is only fifty-three years younger than Edinburgh, and thirty-five years younger than

Dublin; and before the Declaration of Independence the American Colonies had added to Harvard no fewer than six others. Canada began in 1788, with the establishment of King's College, Nova Scotia, and when I went to America now seventy-five years ago, there were only three more—Dalhousie, McGill and Toronto. There followed during the rest of the nineteenth century, Laval, Queen's University Kingston, and the University of Manitoba; and in the twentieth century the new Provinces of the Far West continue the succession with Alberta, Saskatchewan and the University of British Columbia. It is an inspiring story, full of the instincts of our people for the higher education, full of proofs of the indispensable part which the Overseas Universities have discharged and must continue to discharge in the material and spiritual development of our Empire. But no less valuable a share in that development has fallen to the Home Universities, whose graduates, like those of my own University of Aberdeen, are found all over the Empire, as University administrators, teachers and leaders in research. The bonds which link us across the seas to each other are of the most intimate and personal character.

The subjects which you are to discuss to-day are of the highest importance. Of one of them I can speak from long practical experience. It is thirty years since we founded in McGill a separate Department for Women, which resulted later in the establishment of the Royal Victoria College, Montreal, an integral part of the University. I am pleased to see present, as a delegate from McGill, Miss Hurlbatt, Warden of Royal Victoria College, and to know that she will contribute to the discussion of the position of women in the Universities.

I am interested also in the proposal to form a Central Bureau, on the functions of which Dr. Parkin is to speak. In its growing period, McGill University has greatly benefited by an active interchange of views with her sister Universities, and is indebted to them for help and co-operation, especially in the choice of professors. We can therefore testify from experience to the certainty of benefit to all the Universities from the establishment of such a Bureau as is proposed. Ladies and gentlemen, I wish for you a happy and a profitable session.

THE ESTABLISHMENT OF A CENTRAL BUREAU: ITS CONSTITUTION AND FUNCTIONS.

Paper.

In every department of public life our British people are now being compelled to think in terms of the Empire. Isolation and complete independence of action become every year more impossible and more undesirable. In political relations, in naval and military matters, in questions of trade and commerce, in organization for religious and social purposes, to mention only a few of the main aspects of national life, frequent consultation between representatives of different parts of the Empire has become a necessity—vigorous attempts at co-ordination are being made—reorganization to meet new national conditions is admitted to be an imperative need.

Our Universities cannot expect to escape this great movement of evolutionary development. Enormous national interests of an extremely varied kind are entrusted to them. Just as our nation is gaining a wider range of experience in the principles of government and the arts of administration than any other nation in the course of human history, so our Universities are doing their work under a variety of conditions without precedent. The Universities represented at this Congress are responsible for the higher educational interests of countries which cover about one-fifth of the world's area and nearly one-fifth of its population.

Here at the centre, some with their ancient traditions and splendid history of past service, others with their modern energy and practical aims, all with a constantly widening field of effort around them, are essential power-houses for the creation and storage of national force and influence. From them comes a large proportion of the men who carry on the work and determine the character of our national institutions. To them we must largely look for the training, the research, the intellectual stimulus, or whatever else will lead us further along the paths of national progress.

To find the just mean between the claims of ancient learning and those of modern science—to widen the range of University work without losing its highest inspiring spirit, are objects that open up questions which will demand the best thought of the ablest minds of our generation.

No less important is the work to be done by the Universities at the extremities of the Empire. There they have a threefold task. They are especially bound to assert and maintain amid

extremely practical surroundings the traditions of cultured scholarship. They have fresh continents to deal with which offer unlimited fields for research in a hundred directions, and for the application of scientific knowledge under new conditions. They have to look ahead and make timely provision for the higher and varied educational needs of immense prospective populations.

The importance attached to the University in the future development of our new dominions is exemplified by the fact that at the present time four separate provinces in Canada are spending millions of dollars in founding and endowing provincial Universities, while in the older provinces great sums of public and private money are being spent in the enlargement of existing institutions. In Australia likewise the only two States hitherto without Universities are busy in founding them.

In South Africa a sum of half a million pounds sterling, given privately, not to mention the public support which is sure to follow, is awaiting use for the establishment of a teaching University to supplement the work of the University colleges and their examining centre.

When we turn from the self-governing dominions, we find that in India the Universities we have established are dealing with one of the most difficult and perplexing of educational experiments—the adaptation of Western learning to the Eastern mind and to the needs of Eastern life. This same experiment is now being extended to China by the foundation of one English University at Hong Kong, and a second in Chinese territory.

The demand which is arising in South Africa among a limited class of the negro population for higher education, and which is now chiefly satisfied by sending students to America and England, will be more usefully and safely done if the necessary arrangements are made to train the negro in his own continental environment, and an effort is now being made at Lovedale to this end.

Thus, in addition to the growing needs of our own people, our Universities are confronted to-day with those race problems which are admitted to be among the most difficult in the world.

All this represents a wonderful range of experience and experiment in educational organization. Are we utilising this experience and recording its results in any adequate way, so that the lessons learned and the progress made in different parts of the Empire may be at the service of all? There can only be one answer to the question. We are not even attempting to do so. The old Universities go on their way without any complete information about what is being done in the new; the new have to feel their own individual way along the untried paths of

development, with little consultation between each other, and little ready opportunity to learn from the old.

Engaged in a common task, the Universities lack the means for common and concentrated effort, for the comparison of experience, and for the ready exchange of ideas.

It seems to many thinkers on this question that a Central Bureau, the first duty of which would be to collect University information from every part of the Empire and put it in a suitable form for easy distribution to the Universities of the Empire, would be supplying a great need.

If there were means to let its field of study ultimately cover the Universities of the whole world, so much the better; but for the moment it will be better to confine our attention to our more immediate wants.

In my judgment this Bureau should be created by the Universities themselves and remain under their exclusive control.

Other countries recognize the need for the close study of University questions and the co-ordination of University interests, attaining these ends by methods suited to their circumstances.

In Germany this work is carried out by the State. So far as I am able to judge, this method produces a degree of uniformity which is not in accord with our English prepossessions.

There are in the United States two important voluntary associations for a similar purpose, which meet in annual conference. One is the National Association of State Universities, in which every State University in the Union is represented; the other is one which includes most of the larger Universities not directly depending on State support. These associations are doing for the United States what we hope this Congress, at periodical gatherings, will do for our Empire. Outside these associations there are other agencies working towards the same end. The administration of the Carnegie Pension Fund, in carrying out its work, has found it necessary to devote much time and thought to the study of University education. The bulletins which it issues from time to time are models of careful investigation, of sober statement, and of helpful suggestion. These studies, and the methods adopted for the appropriation of the funds at their disposal by the Carnegie Trustees, who include the leading educational men of the Continent, are doing a much-needed work in establishing genuine University standards on a sound basis throughout North America. The Bureau of Education at Washington, again, is maintained by the Federal Government and is under the charge of a Commissioner, whose duty it is to collate information on all kinds of educational questions, and distribute it freely in his annual or semi-annual reports.

Neither a Bureau supported by private munificence nor one directed by the State would meet our needs. Individuality and independence rather than uniformity constitute the characteristic note of British Universities, and anything that tends to unnecessary uniformity would be open to strong objection. But this characteristic of marked individuality makes more necessary some special effort for mutual understanding, and for that some central organization is required.

A Year Book.

The simplest way in which this effort can be made will probably be by the production of a University Year Book, which would give in clear and concise form all essential information about each University of the Empire, and the opportunities which it offers for general or special training. It would record from year to year the progress made by each, changes of staff, new work undertaken. It would give the latest University statistics. It might find room for papers discussing University problems of general interest. In a more condensed form it might keep our own Universities informed about the position and progress of foreign Universities.

The experiment of creating a Central Bureau which, in consultation with the Universities, could produce such a volume, should probably be made at first on a very simple basis.

An efficient secretary, with adequate University experience, and having the necessary clerical assistance, could do the work under the direction of a Committee of this Congress. Office room could probably be secured at slight expense in some of the University buildings of London. The whole annual cost, including secretarial work, printing and postal expense, would not exceed £1,200 or £1,500. Contributions of £50 per annum from say ten of the greater Universities at home or in the dominions, of £25 from twenty smaller Universities, and smaller sums from those which could not contribute so much, would furnish an adequate financial basis on which to begin. There is reason to hope that, should further assistance prove necessary, it may be obtained from outside bodies, interested in University development.

While thus assigning the first importance to the production of a Year Book to supply the missing link between our Universities, I must go on to mention wider fields of opportunity for the Bureau to do useful work.

Appointments.

Universities can no more afford to waste time and power than other institutions of the State or business establishments. Economy of working power depends on organization. A Central Bureau would make such economy possible for many purposes. Take, for instance, the question of appointments. If all Universities agreed to give notification to the Central Bureau of Professorships or Lectureships that were to be filled, and under what conditions, a bulletin from the Bureau could distribute this information throughout the University world, and so the whole field of possible applicants could be reached at once without the infinite individual trouble that must now be taken by any University which has a post to fill.

Cambridge and Oxford already find it advantageous to maintain appointment boards, which are constantly consulted by those who wish to fill educational posts. The Universities of the Empire might well follow the example in carrying out the same idea on a much wider scale.

Exchange of Professors.

The temporary exchange of professors and other teachers between different countries has now become recognized as an educational advantage. A regular system of such exchange has been arranged between Germany and the United States, and France and the United States. Oxford and Cambridge men are frequently asked to give courses of lectures in the great Universities of the United States, and a distinguished American student of history has just given a similar course at Oxford. There is a whole range of subjects in which a similar occasional exchange of professors throughout the Empire would prove of great advantage in widening the outlook of the teachers themselves, and of those whom they instruct. History, Economics, Geography, Geology, Astronomy, and Anthropology, may, I think, be safely suggested as subjects which would unquestionably lend themselves to such treatment with common advantage to all concerned. A Bureau could do great service in acting as an intermediary in effecting such exchanges.

Exchange of Students.

Still more important is the question of student migration from one University to another. This has a double aspect. There will always be a flow of students from the extremities of the

Empire to its centre. On many lines of thought and research the studies of the new worlds can never be complete without acquaintance with the old. That flow towards the centre is likely to increase with the growth of Universities at the circumference, since these last create a larger and more varied student constituency, a portion of which will always be anxious to widen its range of study and experience.

We find at Oxford, for instance, that the Rhodes Scholars have drawn many other students in their train. I believe that there are more Canadians there at present who are not Rhodes Scholars than those who are. To Cambridge, Edinburgh, London, and the more technical colleges, students from the dominions come freely.

Now looking at this movement, which is sure to increase, is it not extremely desirable that it should as far as possible be turned in right directions—that the students coming from abroad should have some means of getting that full information and sound advice which will guide them most directly, and with the least expenditure of time and trouble, to the centres in this country where they can best get what they need?

But an outward flow of students has of late set in, and is also sure to increase. Considerable numbers of English youths, looking to a career out of these islands, now go to the greater Canadian Universities, under the belief, which seems justified, that it is an advantage to a student to get his college training in the country where his life's work must be done. The idea is one that is likely to spread, and extend to the Universities of other dominions. To such students it would be a great boon to have in this country some centre where they could get accurate information about the opportunities for higher education in the country to which they wish to go.

University Calendars are perplexing things, and a student does not always get readily from them the help that he needs for his particular case. More than that, few students have within their reach the Calendars which cover the whole range of University opportunity.

Now a Bureau such as I have in view, in consultation with the various institutions, ought to be able to frame statements which in every given line of study would cover the field about which a student wishes to know. In the outer parts of the Empire it could give information about the Universities of the motherland, and the opportunities that each offered for the students' work. In this country it could supply parallel information about the courses of study open to men and women in the Universities in

the dominions; about the cost of living; the conditions of residence; and all those other particulars that a student would need who is looking forward to a life in a new country.

It ought to be possible for a student at Melbourne or Sydney, Toronto or Montreal, Auckland or Capetown, to know clearly how the work he has been pursuing at his own University can be best articulated with that to which he comes at a home University. In the same way, students going from the mother country, or others passing from dominion to dominion, should be able to take up their work at the new centre as nearly as possible where they left it off in the old. To all these ends the Bureau could give much assistance.

A Matriculation Standard.

Whether a common matriculation standard can be established which will receive recognition in every University of the Empire is a subject for careful consideration. It is certainly a thing to be aimed at, and my observation leads me to think that agreement could be obtained except in the one particular of Greek. Even if the demand of the great Universities made this common standard somewhat higher than the existing standard of smaller institutions, it would establish an ideal towards which all could aspire.

In institutions so individual and independent as are most of our British Universities, any suggestion of standardizing work is not likely to meet with ready acceptance; but I cannot help thinking that much remains to be done in this direction to facilitate that easy movement of students from University to University which takes place in Germany, the work done and duly tested in one being freely accepted in all others.

Large and Small Universities.

The Universities represented at this Congress may be classed under two heads—great and well-endowed institutions which aim at covering as wide a field as possible of humane studies and scientific research, and smaller institutions which aim at giving a liberal education within a more limited range. It seems to me of the utmost importance that this distinction should be clearly recognised, and that each class of institution should endeavour to place itself in a true relation to the other. Intimate co-operation between the two will produce the best results. This can best be obtained by frequent and friendly consultation. What we need is a steady effort in our new and smaller Universities towards high standards and complete efficiency in the limited

range of work that they undertake without attempting to do what is beyond their reach; while at the same time our great Universities should recognize this efficient work at its full value, provide what is supplementary to it, and adapt their tried machinery to meeting fully the new and increasing demand for higher work.

Division of Work.

There is one other point to which a Congress of British Universities, and any agency for united action which it may establish, should direct its inquiries. In large departments of culture and training our great Universities can challenge comparison with any in the world. But no single institution, however great, can adequately cover the whole wide range of human knowledge. Taken together, our Universities should not shrink from the attempt. It is not too much to ask that in every field of learning which adds to national efficiency, one or other of our great Universities should be in a position to give to all comers from every part of the Empire the last word of progress in that field.

This implies subdivision of labour and a certain degree of specialization as between the greater Universities. To a considerable extent this already takes place more or less unconsciously. But if the highest efficiency is to be reached, and the highest ideal of national usefulness is to be attained, it should be done as a matter of policy and as the result of frank consultation. A Congress such as this might well initiate a movement in this direction; a Central Bureau would facilitate progress in reaching the desired end.

Necessary for Continuity.

It is to be hoped that this is only the first of many similar gatherings of those who represent the Universities of the Empire, and the vital interests which are committed to their care. The discussions that have taken place will have shown the wide range of problems which are common to all, even though modified in each case by local circumstances, by past history, or by varying ideals, and the need that exists for consultation. To carry on the work initiated by the present Congress—to maintain its connection with any that follow, to furnish a channel of free communication in the intervals, a Central Bureau such as I have suggested seems a necessity, and I think all will agree that there are strong grounds for pressing the proposal upon the consideration of the Congress.

George R. Parkin.

Discussion.

MR. CYRIL JACKSON, M.A. : Perhaps it is suitable that I should be one of the speakers on this subject, representing, as I do, Perth, West Australia, which is the baby among the Universities taking part in this Congress. I have myself felt very strongly the need of some such centre of information as has been sketched by Dr. Parkin. The Government of West Australia frequently applies to me for information on matters educational, knowing that since I ceased to be in their Education Department I have held other education posts, and when the new University of Perth was at last being crystallized by Sir Newton Moore, I was asked to advise as to its formation. Western Australia is as isolated as it can be. Melbourne, Sydney and Adelaide are connected by railway, but in Perth we are cut off from every other part of the Empire which contains a University. One thing which Dr. Parkin has said in his paper appealed to me very much : he said that calendars are puzzling to students—he might have said to everybody. I know that I started off by going round some of the English Universities, collecting their calendars, in order to discover an ideal constitution for the Perth University, but I found them very perplexing indeed. Having myself been a student of one of the oldest Universities—the University of Oxford—and being a member of the Senate of the University of London, I was sure of one thing—that neither of our constitutions would work in Perth, West Australia. It was extremely difficult to know how to get the best information to enable one to work out a practical constitution for a new University. I visited various Universities to find out how their constitutions were worked, and discussed their arrangements with leading professors and others. Eventually we had to appoint a special Organizing Secretary to go round the Universities of the United Kingdom, to find out where the shoe pinched, and to report also on the most up-to-date curricula and methods of examination. Now, had there been a Central Bureau, we should have got much of this information from that Bureau—I do not mean the whole information about each University, but we should have learned the right kind of University to go to and the right person in each to consult on particular subjects. In this way we should have saved an enormous amount of time, and should have obtained the information we required much more quickly and better than we were able to do. We all hope that new Universities will spring up throughout our great Empire, and that the highest education may be placed within reach of an ever-increasing number of people in its remotest parts.

There is another thing always happening in a remote University. It has to go outside for many of its appointments. If we had a bureau here in London, with a man at the head who was in touch with all the Universities, and who could say, "I think the man you want is to be got at such and such a University," we should save an immense amount of difficulty in finding the right people. I have often been asked, for example, for men for University Extension lecturing, and I am perfectly incompetent to give the advice my Government seeks. Again, supposing a Professor of Geology, or some other branch of science, is wanted, it is very difficult to know where such a man is likely to be found. One cannot possibly know all the staffs of the various Universities in England, and one has to do the best one can by writing to friends and going to the Board of Education. Now Dr. Parkin has just said he was against our putting ourselves under a Government department. I quite agree: the Universities must manage things for themselves. The Board of Education is not able to specialize on this particular department and cannot do for us what a separate bureau could do. The Board of Education has other things to think of, and though it may contain some of the best intellects in the country, they have their own work, and the Board cannot be expected to do what a bureau with an efficient head could accomplish for those seeking information.

Dr. Parkin has touched on all the points which I had hoped to discuss. In the speech in which he introduced his paper this morning, he has hinted at one great service a bureau would render to individual settlers. One knows of families going to the Colonies who feel the difficulties that arise with regard to the education of their children. I have been frequently asked what kind of secondary education there is in my own State, and it is a very important question indeed; but intending colonists should also know whether there are University facilities for their children, because, as Lord Strathcona and Dr. Parkin have said so well this morning, there is no doubt whatever that we are awaking to the fact that University education is not for the select few only, but has got to be extended much more widely than has ever been thought necessary before.

There is one other thing mentioned by Dr. Parkin on which I should like to say a word, and that is the question of specialization in Universities. I understand that at one of the meetings which I was not able to attend it was stated that Universities cannot specialize. Though a University may take the whole field of education, I think it must always have some amount of specializa-

tion. One knows that if one is looking for a man in any particular branch of learning, one's mind does turn to one particular University rather than to another, chiefly owing to the presence in it of some great teacher, and one looks to that University to provide the best and most up-to-date man for the vacant post. There can be no doubt but that Universities do in fact have their specialities; surely it would be an advantage if a bureau could tell one where there are special fields of learning, because though it would be a difficult task for the head of a bureau to suggest that one University was better than another, he could say there are certain Universities with certain professors from whom the best up-to-date information on certain subjects is to be obtained. I believe this bureau would be of the greatest help in all such questions as these, and though sitting here as a representative of a very young University, I cannot but feel there would also be an advantage even to older Universities in getting from the younger many kinds of information. I should very cordially support on behalf of the youngest of the Universities a proposal to have some Central Bureau whose business it would be to advise.

PROFESSOR ANDERSON STUART, M.D. (Sydney): I shall be very brief, and I shall be the briefer because I agree *in toto* with what has already been said. We cannot help having a bureau: it is a matter of evolution. As a living organism requires a circulatory apparatus and a nervous system, so this Central Bureau is to be the University nervous system and circulatory apparatus. I gather that the members of this Congress have made up their minds that in some form or other they are going to have a bureau, and I shall start from that point of view.

I heartily agree with what the previous speaker said. After thirty years' experience in the Antipodes I can tell you it is a most difficult thing to get a good professor, and it sometimes leads to a good deal of bad blood. We shall avoid the bad professor and the bad blood when we have a good bureau.

Next, I suggest that we take immediate steps to get this bureau, because I think it is the one immediate good thing this Congress is going to do now that we have the Overseas delegates with us. In a short time many of them will have gone. I suggest that a Committee be appointed immediately, not to consider the possibility of a bureau, but to carry it into effect. We might well take Dr. Parkin's paper as a basis for consideration. I do not say it is perfect—I never saw the plan to which no objection could be made, but I never saw one so bad that it could

not be licked into shape in committee. Let this scheme be taken as a commencement, and surely it should be possible to produce some workable scheme for the bureau.

Next, this Committee should be more or less temporary, because you cannot expect all these people to remain long in London, and yet the Committee must be here.

And now as to the number of the Committee. Big Committees are a nuisance; as a rule they result in a great deal of deliberation and very little work, but if you had a Committee of a dozen we might then have six for the British Islands and six for the Overseas Dominions. There can be no trouble with that arrangement because they are equal. Of the six for the British Islands one would be for Scotland, one for Ireland, one for Wales, and three for the predominant partner. Of the three for England I think it would be fair to give one to the ancient Universities of Oxford and Cambridge between them, and two amongst the numerous Universities outside. The Overseas Dominions might have one for India, one for Australia, one for New Zealand, because it is a Dominion too, one for Canada, and one for the Crown Colonies generally. That would make up a dozen people, and that would be enough to get a good discussion, and the work done promptly.

Then it should be the business of the Executive Committee to appoint a permanent Committee which will be a Consultative Committee sitting always in London, and it should be the business of the permanent Committee to find a Director -a paid Director, no honorary service—who would make it his life work to be the Executive Officer of the Bureau.

As to the names of the Committee, I have no suggestion to make—the afternoon meeting should do that. With regard to the expense, there should be no trouble about that. None of the Universities would object to pay their contribution, and Dr. Parkin tells me that he knows pretty well where to lay his hand on the necessary money to carry on the work of the temporary Committee until the permanent Committee has been brought into existence.

MR. H. E. BARFF, M.A. (Sydney): A meeting of the Australian representatives was held yesterday, when I was requested as a representative of the senior Australian University, and one who has been connected for a good many years with its administration, to bring before the Congress these Resolutions which will be proposed this afternoon. They are very much in accord with the proposals made by Dr. Parkin, and those suggested by Professor Stuart, who was unfortunately unable to attend our

meeting, though they differ somewhat in details. The motion is as follows :—

I.—That an Empire University Bureau be instituted in London with the following objects :—

1. To supply information as to—
   (*a*) Facilities for students and the resources of the various Universities and their specialization in various directions, and also entrance requirements and arrangements for admission *ad eundem statum*, including recognition of work done and examinations passed;
   (*b*) Facilities for interchange of University teachers of senior and junior grade.
2. To facilitate the making of University appointments.

II.—That such Bureau be instituted by the appointment of a Board of Management consisting of eight members, of whom four shall be representatives of Great Britain and Ireland, one the representative of Canada, one of Australasia, and one of South Africa and one of India.

III.—That the necessary expenditure, estimated at £1,500 per annum, be borne by contributions from the various Universities.

I should state that these Resolutions were drawn up before the Australian delegates had had an opportunity of seeing Dr. Parkin's proposals, so that they come quite independently.

I have a letter from the Agent-General for Western Australia, who was unfortunately unable to attend the meeting, in which he speaks cordially in favour of the proposal. He says :—

"I regret very much that I am unable to attend your meeting of the Australian delegates to-day owing to the fact that I have to be present at the Royal Show at Doncaster. It seems to me, however, that it is particularly in the interests of the Overseas Universities that something in the way of a permanent body should be established as a result of this Congress, somewhat on the lines which I advocated at last night's dinner. The advantages, from an educational as well as an Imperial standpoint, of a central channel of communication between all the Universities of the Empire are to me strongly apparent, and such an institution could be put to great practical uses in the selection of professors and organizers of new Universities, as well as in keeping the most remote Universities in touch with all modern educational

movements. It has occurred to me, therefore, that a Resolution somewhat on these lines would give effect to these ideas :—

> 'That with the object of facilitating inter-University communication within the Empire, the Chairman of this Congress, together with (here add names) form a permanent committee with a permanent secretary, and that if necessary each University represented in this Congress contribute towards any expenses which may be incurred.' "

I understand that the time allowed for the discussion of this subject has now closed, otherwise I should have liked to say a few words upon the value of the proposed Bureau, to the Universities overseas, particularly in regard to the matter of University appointments, and to the assistance which I hope it will give to the junior members of the Colonial Universities' staffs in placing their qualifications before electing bodies in Great Britain and other parts of the Empire, a course which under existing circumstances is now rendered impossible in many cases by difficulties of time and distance.

THE CHAIRMAN having intimated that he would be obliged, shortly, to leave the meeting, in order that he might meet Mr. Borden, the Canadian Premier, and that he wished to hear the opening of the debate upon the Position of Women in Universities, a subject in which he took great interest, Dr. Parkin was called upon to reply.

DR. PARKIN, C.M.G. : The only thing which would have made a reply necessary would have been a speech from someone opposed to the idea of the formation of a bureau. There are a few, perhaps, who qualify their desire for a bureau. Their opposition, so far as I have learned in conversation, depends upon a feeling of dislike to anything that looks like standardizing of Universities. There is nothing more remote than this from the intention of those concerned in its promotion. We want to centralize information, and draw from every part of the Empire the experience that has been gained, to find out how far standards are equivalent, how far recognition can be given, and in every possible way ensure that the student may easily reach the goal of his desires. Our plan is very simple, very straight, very direct; there is no idea of trying to make all Universities alike or trying to direct anybody. Even in the matter of a common matriculation, the basis of a liberal education is almost similar all over the world. I could frame to-day a system of matriculation which, outside one or

two subjects, would be accepted by every University in the world. One might require a little more scientific knowledge, another might lay more stress on classics, but it would be the simplest thing in the world to frame a matriculation examination with two or three alternatives, and then to get the acceptance of one or other of these alternatives by various groups of Universities, so that a man going to another part of the Empire would find a University which was ready to admit him on the strength of the examination which he had already passed. Again in regard to the matter of appointments, our object is merely to centralise information about our intellectual resources and so minister to the higher needs of the Empire. It is also of the utmost importance that everyone should know where good or new work is being done. Someone said yesterday that a great objection to the deliberate specialization by Universities was the difficulty of finding the right man. Where the right man happens to be there is natural specialization. Is it not important that we should have some centre where we can readily learn where the great man in any subject is to be found? Everybody ought to know instantly where the specialist is, and the Central Bureau would distribute this information round the world. Then if a University does specialize on any particular subject, the circumstances under which its work is carried on should be announced to the world. When a benefactor anywhere has given largely to forward a special subject at any centre, this also should be made known as quickly as possible.

That is what we want out of our bureau. We would make it a connecting link between all our world-wide experiences. It will be a kind of clearing house. We want to share ideas with every corner of the Empire.

It is no use saying more on details, because we have had no opposition. I only trust that all who are interested in this subject will be here this afternoon to give their best judgment to assist us in placing this scheme on a basis which will commend it to every University throughout the Empire.

THE POSITION OF WOMEN IN UNIVERSITIES.

Paper.

AMONG the many aspects of University life with which this Conference is dealing there is not one, I think, which is likely to suggest more far-reaching questions than the branch of the subject which has been entrusted to me, "The Position of Women in the Universities."

The beginning of the twentieth century finds women firmly established in most of the Universities of the Empire, and with few exceptions their teaching, their prizes, and their degrees are open to women. This unbarring to them of the gates of the citadels of learning is, however, but of recent occurrence. It was not till 1878 that any British University admitted women to degrees. The change is a momentous one, and it has profoundly affected social conditions, yet it has been accomplished in less than half a century and despite the fact that at first it was desired by but few women and was dreaded by most men.

It does not lie within the scope of this paper either to propound or to attempt to answer the question as to what the forces were which lay behind this movement, which enabled it, despite the opposition of public opinion, to prevail.

It is interesting, and at the same time curious, to note that women were never excluded with the same rigour from Continental Universities as they met with in the English ones. For instance, in the eleventh century we have the celebrated Trotula, in the Medical School of Salerno,[1] writing specially, but not exclusively, on the diseases of women. In the seventeenth century at Padua we have the case of a Venetian lady, Helena Lucretia Cornelia Marcinus,[2] who in the year 1678, after she had completed with spirit and energy the customary exercises in the School of Philosophy, was presented with the title and the robes of "Master" in the presence of a public audience in the Cathedral Church. A few days previously, before the leading men of the States of Padua and of Venice, she disputed, first in Latin and then in Greek, against a Greek who had posted up a notice that he would defend certain philosophic theses. Before the date of her departure from Padua, the honoured bearer of her academic titles, she, appearing in her academic dress, questioned, according to usage, in the College Hall, two young men who were candidates for their "Degree." After she had furnished

(1) *The Universities of Europe in the Middle Ages.* Rashdall. Vol. II. p. 86.

(2) *Facciolati, de Gymm. Patav.* Syntagmata XII., p. 91. Quoted in Latin by Rashdall. Vol. II., part ii. Appendix XV., p. 745.

earnestly, and not by way of show and pretence, all these proofs of her ability, the academic body in Padua, who are styled "Recuperati," resolved to hold a public demonstration in her honour. She willingly attended, and, having thanked the whole academic body in Latin prose, she recited Greek verses in honour of the city magistrates, who presided over the assembly. In the eighteenth century we find a woman holding the Chair of Anatomy in the Bologna Institute.[1]

We also find that in the eighteenth century several ladies graduated at the Italian Universities, notably Bologna, where Madame Laura Bassi[2] held the Chair of Natural Philosophy, and where she received the degree of Doctor. She was evidently a very remarkable woman, as celebrated for her benevolence as for her mental attainments, which were of an exceptionally high order.

The Spanish Universities appear also to have been open to women in the Middle Ages. Mr. Ulick Burke, in his *History of Spain*,[3] says, "Nor were the students, either of Medicine or of Arts, confined to the sterner sex; and we may possibly plume ourselves less upon the liberality and extent of our progress in modern England when we read of the fair scholars and doctors who graduated in the schools of Cordova, and brought their skill and their science to the bedsides of their Moslem sisters in the day of sickness."

Dr. Rashdall tells us that it is said that from Salamanca Isabella the Catholic summoned Dona Beatrix Galindo to teach her Latin, long before the Protestant Elizabeth put herself to school under Ascham.[4]

There is no evidence that the University of Paris ever closed its doors to women after the manner of Great Britain. Dr. Rashdall tells us that "the Medical woman question was fought out there in a medical prosecution directed by the Medical Faculty at Paris against a woman who had cured the Royal Chancellor and many others for whom the Physicians could do nothing."[5] This prosecution does not, I fear, seem to indicate much friendliness on the part of the University of Paris to women doctors. But perhaps it was not so much the question of sex that was involved as the fact that the women had achieved results which lay beyond the skill of the Medical Faculty. The women made

(1) *Women and English Life.* Vol. II., p. 237.
(2) *Dictionary of Universal Biography.*
(3) *History of Spain.* Ulick Burke. Vol. I., p. 265.
(4) *The Universities of Europe in the Middle Ages.* Rashdall. Vol. II., Part I., p. 79.
(5) *Ib.* Vol. I., p. 418. Note 2.

themselves objectionable in Paris, as Paracelsus did in Basle, by showing a power of healing which the other doctors lacked.

It must not, however, be assumed that because women were excluded from the Universities in England they were therefore untouched by the great intellectual revival which had been stimulated by the Renaissance, in which their sisters on the Continent participated so freely. On the contrary, the attainments of many women of the sixteenth century in England would not disgrace even a University graduate of the twentieth; to give but one instance, Lady Jane Grey, if we are to believe Sir Thomas Chaloner, was well versed in Hebrew, Chaldee, Arabic, French, and Italian.[1]

We must now for a moment glance at a somewhat strange and inexplicable phase of the movement which we find so strongly developed in the eighteenth century, the strong dislike of, and antagonism to, allowing women to become possessed of knowledge. Molière makes Clitandre give expression to sentiments which would, no doubt, have found general acceptance at the time.[2] He speaks approvingly of women of a former age who did not read much, and "whose library was a thimble, thread, and needle." "I do not wish," he says, "to behold the unseemly passion of making her learned in order to become learned. She should when questioned pretend to be ignorant; . . . in short, I wish her to hide her studying." This idea that if a woman had the misfortune to know anything she must sedulously conceal it, seems now almost too strange to be believed, did not the writings of the eighteenth and the early part of the nineteenth centuries give such abundant proof of its existence. To select one from scores of similar passages: Lady Mary Wortley Montagu says that "a young woman must conceal whatever learning she attained with as much solicitude as she would hide crookedness or lameness."[3] George Meredith, in *Diana of the Crossways*,[4] says of Lady Wathin, that "brains in a woman she dreaded and detested: she believed them to be devilish," which apparently indicates that this strange cult of ignorance in women did not lack adherents even in the latter half of the nineteenth century.

To attempt to examine the reasons for this "dread and detestation," felt by both sexes alike, to the possession of knowledge by women would lead us too far from the main subject of this paper, but the investigation would not be devoid of interest.

In 1775, when the feeling was dominant that women must

(1) *Women and English Life.* Vol. I., p. 134.
(2) *Femmes Savantes* Act II., Sc. VII.
(3) *Lady Mary Wortley Montagu. Her Times.* Pp. 479.
(4) *Diana of the Crossways.* Chap. XXXVI., p. 327.

at all costs be shielded from the dread contagion of learning, Mrs. Elizabeth Montagu made the astounding announcement to Mrs. Barbauld of her desire to endow a College for the Higher Education of Women, at the same time asking her to become Superintendent.[1] Mrs. Barbauld was not unnaturally shocked at such a suggestion, and she administered what she doubtless regarded as a well-merited rebuke to Mrs. Montagu. She strongly deprecated the establishment of an institution in which women would "be taught in a regular systematic manner the various branches of science," and she concluded by saying, "thefts of knowledge in our sex are only connived at while carefully concealed, and if displayed punished with disgrace." Mrs. Montagu's ardour was quenched by this rebuff, and almost a century elapsed before the proposal to establish a women's college was again revived. It was not till 1848 that a College for the Higher Education of Women, Queen's College, Harley Street, was opened. This was followed by the establishment of Bedford College in the following year. Miss Davies points out that these Colleges were only in a general sense pioneers in the movement for opening Universities to women, as there is no evidence that they aimed at being attached to any University.[2] A more definite step with a view to gaining admission for women to the Universities was taken in 1856, when a lady wrote to inquire whether she was eligible for admission to the diploma of Medicine of the London University.[3] The opinion of counsel having been taken on the matter, the lady was informed "that the Senate, acting upon the opinion of its legal adviser, does not consider itself empowered to admit females as candidates for degrees."

The question was again raised in 1862 when another lady asked to be admitted as a candidate at the next examination for matriculation, and she was informed that "the Senate as at present informed sees no reason to doubt the validity of the opinion given in 1856." It was not until 1878 that the degrees of the University of London, the pioneer in the movement, were actually opened to women.[4]

(1) *The Emancipation of English Women* Lyon Blease. Pp. 61–62. Aikin's *Life of Barbauld*. Vol. I., pp. 16. 17.

(2) *Thoughts on Questions relating to Women*. Emily Davies. P. 159.

(3) *Ib*. P. 161.

(4) It appears that New Zealand is really entitled to the honour of leading the way, the University having opened its degrees to women in 1874. As New Zealand did not return the paper of queries sent to it, this information was not available when this paper was written.

Both London and Cambridge admitted women to sundry examinations before admitting them to the regular examinations for degrees, and the London Colleges (King's, University, &c.) now Colleges of the University had lectures for women, as Cambridge had, before the degree examinations were open to them.

Meanwhile, women's colleges had been established at Dublin and at Cambridge. My own College, Alexandra College, was founded in 1866,[1] and from its inception has included Fellows and Professors of Trinity College, Dublin, on its staff. Girton College was incorporated in 1872. The first Residence for women students at Newnham was opened in 1871. The first Hall was founded in 1875, and it was established as a College in 1880. Women were admitted in 1872 to the examination for the Classical and Mathematical Triposes at Cambridge, and they were formally admitted to all Honour degree examinations in 1881, though the degree is not conferred on women. In Oxford Lady Margaret Hall and Somerville College were opened in 1879, St. Hugh's College in 1886, St. Hilda's Hall in 1893. The Society of Oxford Home-Students has existed since 1879. These five societies were formally recognized by the University in 1910, and their students are registered under the Delegacy for Women Students. All the Degree Examinations in Arts and in Music were opened to women between 1884 and 1894, but women do not matriculate or receive degrees. They were admitted to responsions and to most of the final honour schools from 1884 to 1886, though, as in Cambridge, they do not receive degrees.

The first of the residential Universities to admit women to degrees was the University of Dublin, which opened its degrees to them in 1904. Women have received generous treatment at the hands of the Irish Universities. So far as I have been able to judge from the statistics furnished to me by the different Universities of the Empire, the National University of Ireland,[2] and Queen's University, Belfast, accord greater privileges to women than are granted to them by any other University. Women sit on the Senate of both these Universities, and in the National University six women hold professorships. To Ireland also belongs the distinction of having led the way in admitting women to the examinations for Medical Degrees. In 1877, when all other Colleges in the United Kingdom were closed to them, the Royal College of Physicians in Ireland—then the King's and Queen's

(1) Mrs. Carmichael Stopes draws attention to the foundation of the Edinburgh Association for the University Education of Women in 1866, which began its work in the winter of 1867–8, and adds that in Edinburgh Colleges similar to Queen's College, London, were founded by 1846. No mention of these is made by Miss Davies in *Questions relating to Women*, and as this information was not supplied by Edinburgh in response to questions, it has not been embodied in this paper.

(2) The Charter of this University contains the clause: "Women shall be eligible equally with men to be members of the University, or of any authority of the University, and to hold office or enjoy any advantage of the University."

Colleges—opened its examinations to women, and Miss Eliza Louisa Walker Dunbar was admitted a Licentiate of the College.

With regard to the appointments held by women in the Universities, with the exception of the National University of Ireland, it does not appear from the answers that I have received that women hold any appointments of the highest rank. It is a matter for regret that however brilliant a woman's attainments may be, no niche, except a small and inferior one, can be found for her in a University. The knowledge that good posts in the Universities are rarely, if ever, given to women must have a depressing effect on the higher branches of their work, and it cannot fail also to be a loss to the Universities to be obliged, either by written or unwritten laws, to exclude on the ground of sex candidates whose qualifications may be of the highest.

Several of the learned societies also still exclude women, despite the fact that work of a very high order of merit has been done by women in various subjects. The doors of the Royal Society, the Geological Society, and the Chemical Society are still closed to women, a disability which discourages effort on their part to raise their work to the highest level.

The number of women lecturers and professors employed in the Universities seems disproportionate to the number of women students in them. The highest percentage of women teachers is found at the University College of Wales, Aberystwyth, where the percentage of women employed on the staff of the University is 11·6. Armstrong College, University of Durham, comes next with 11·4. At Melbourne University it is 10, at Royal Victoria College, McGill University, 9.6. At Bristol University the percentage is only 1·4, which is strange, as apparently the University sprang out of classes and lectures originally started for women, for which a council of ladies was responsible. These classes led in 1876 to the establishment of University College for the education of men and women. In 1909 the College was transformed into the University of Bristol.

The Scotch Universities appear to be rather less generous in the treatment of women in the matter of appointments than those in other parts of the kingdom. At St. Andrews there is but one woman on the staff to ninety-five men. In Edinburgh there are no women teachers, but several women assistants. In Aberdeen there are three women assistants to forty-three men.

It is satisfactory to note that all the Universities, with the exception of two, say that the women entrants give evidence of having been as well prepared as the men. In several cases it is stated that they are better prepared.

The list of societies formed by women in the Universities is an encouraging one, as it shows that women are endeavouring during their College days to get some knowledge of the great questions which will confront them in the outer world, and that they have realized that College has important lessons to teach in addition to those which are learnt from books. The Societies include Clubs for the Discussion of Social Problems, Students' Christian Unions, Political Science Clubs, Fabian Societies, Economic Societies, Education Societies, Suffrage Societies.

A fair amount of social service work is undertaken by the women students, but in many instances it seems scarcely proportionate to the number of women who are in the Universities. It must, however, be borne in mind that the strain of University work is in itself a heavy one; it is, therefore, perhaps scarcely reasonable to expect that students so engaged can have a large amount of either time or energy to devote to outside work. All the same it is disappointing to find that Universities exist in which the women students undertake no social service work of any kind, as information furnished to me shows to be the case.

The number of women engaged in post-graduate and research work is, on the whole, encouraging, as the following examples show :—

	Percentage of Women engaged in Post Graduate and Research Work	Total Percentage of Women Students.
Leeds	31	20
Manchester	18	22
Birmingham	33	40
University College, London	23	33
Liverpool	18	49

It should be noted that the figures in col. 1 represent the absolute percentage on the total number of research students, but as the number of men students in these Universities considerably exceeds that of women students (*vide* col 2), it is satisfactory to find that the share of research and post-graduate work done by women is quite proportional to their number.

At Girton College, Cambridge, a Girton College Fellowship, a Pfeiffer Fellowship, and a J. E. Cairnes Scholarship are held for purposes of research or study, and a considerable number of students are engaged in research work in the University or in the College.

At the University College of North Wales, Bangor, the number of men and women engaged in post-graduate and research work is almost equal, but the numbers are small—eight men and seven women. Newnham has four fellowships (besides a travelling

studentship) intended for women engaged in work of research or the advancement of learning. Over ninety past and present students have done, or are doing, post-graduate work of a scientific or literary character, but as statistics were not available with regard to the numbers, I am unable to give the percentage.

These figures are satisfactory, when it is borne in mind, as has been already indicated, that women can rarely find in a University a post which ensures them a competence and thus enables them to pursue research work untrammelled by the anxiety of having to earn a livelihood; and it must further be remembered that few women are free from domestic duties of one kind or another, which intellectually have a distracting and dissipating effect.

To help women to pursue advanced work the Federation of University Women has founded a Fellowship. The first Fellow, Miss Caroline Spurgeon, was elected a short time ago.

This society has drawn up a long list of women who are engaged in research work, which ought to go at all events some way towards disproving the oft-repeated reproach that though women can absorb they have no originality and they cannot create. The names of Madame Curie, Selma Lagerlof, winner of a Nobel Prize, Lydia Rabinowitsch and Catherine von Tussenbrock, the distinguished pathologists; Sophie Kovalevsky, the mathematician; the four women who have gained Beit Fellowships[1] for medical research, cannot comfortably be made to fit with this theory.

I should like to conclude by reviewing for a few moments the influence that the presence of women in the Universities has had on those institutions, and the influence that University life has had on women.

Professor Patrick Geddes[2] considers that women accepted University conditions as they found them in too docile and uncritical a spirit, and he asks, "Is it too much to look forward to a view of the higher education of women which will develop feminine common sense for real life instead of the present widely current one of memorizing academic misunderstandings for the sake of momentary distinctions?" Without being at all prepared to fully endorse Professor Geddes' sentiments, it is possible for a woman now to say what thirty years ago no woman who had

(1) The names of the Beit Fellows are:—
1909. Ida Smedley.
1910. Annie Homer.
Frances Mary Tozer.
1911. Elizabeth Thomson Fraser.

(2) *Women and Education. University Degrees and the Place of Women in the Universities.* Pp. 153-4.

the higher education of women at heart could have ventured to give expression to, lest it should have been construed into an admission of women's incapacity for University work and a demand for easier courses. We can now afford to say that we welcome the establishment in many of the Universities of new diplomas and degrees, and of the broadening and developing of the University courses, without fear lest our appreciation of these changes, or our desire for them, should be attributed to our inability to grapple with Classics and Mathematics. This spirit of greater freedom and elasticity in the courses has, no doubt, been largely fostered by the presence of women in the Universities. At Birmingham we find a special diploma for Social Study; at Liverpool, for Social Science; at Dublin, Birmingham, Manchester, St. Andrews, and Aberdeen, for Public Health; and the course of Home Science at King's College, London. By the introduction of these courses an effort is being made to give to the individual the training most suited to his, or her, requirements, and best calculated to prepare the student to deal with the practical every-day needs of modern life.

Now as regards the effect of University life on women themselves. It has fostered, if it has not created, a different ideal of womanhood, of which the professional woman is the expression. "The old order" has changed, but it has not passed away wholly unlamented. Clitandre finds kindred spirits even in the twentieth century who mourn the exit of the women of other days, and who seek to find in the women of to-day the characteristics of a past generation, forgetting that we do not find in different types the same perfections. Looked at from the broad standpoint of the progress of the nation and the development of women themselves, there can be but little doubt that the effects of the opening of the Universities to women have been wholly good.

A new aristocracy has arisen among women, the aristocracy of intellect—the sole passport of admission to which is the value of work done. This raising of the dignity of women's work has been of incalculable benefit to them. Till quite recently women of the upper and middle classes felt, and were made to feel,[1] that to work was a "disgrace," and when women were obliged to earn a livelihood the avenues open to them were few and narrow, and women of the better classes trod them with a sense of shame and humiliation. How different is the position now; women are filling well remunerated posts which it is an honour to hold, such

(1) See Charlotte's reason for accepting Mr. Collins' proposal of marriage. *Pride and Prejudice*, p. 116. Macmillan.

as those of Wardens and Principals of Colleges, Heads of Hospitals, Doctors, Factory Inspectors, Insurance Commissioners, posts in the Labour Exchanges, and so forth. Then in connection with the administration of the Poor Law, how excellent is the work which women are doing as Guardians! Again, in all philanthropic work the share taken by them is a large and important one, and in no field which they enter is the training of their intelligence more needed than it is in this.

Professor Huxley said in 1882, "Twenty years ago I thought the womanhood of England was going to the dogs," but he adds, "I observe a wonderful change for the better, due chiefly to their having more pursuits, more to interest them and to occupy their time and thoughts."[1] We shall most of us doubtless agree with Professor Huxley that wider knowledge has brought to women a broader and deeper sense of duty and of responsibility, and a quickened realization of citizenship, which has made them better members of society, and there are probably few who would care to deny that this wider outlook of women is to a great extent the outcome of their admission to the Universities.

H. M. WHITE.

(1) *Life of Huxley.* Vol. II., p. 46.

APPENDIX.

The statistics in the accompanying table have been compiled from information supplied by the different Universities and Women's Colleges in the Empire.[1]

The following questions were sent to fifty-six Universities and Colleges, and replies were received from forty-seven.

THE POSITION OF WOMEN IN THE UNIVERSITIES.

HISTORICAL ASPECT.

Question.

(1) What was the date (*a*) of the admission of Women to the University?

(*b*) of Foundation of a Women's College in connection with the University, if such College exists?

(2) Does the College hold any recognized position in connection with the University? *e.g.*, Is it affiliated?

(3) Were the original arrangements identical for Women and for Men as to—

(*a*) Curriculum, (*b*) Lectures, (*c*) Examinations, (*d*) Degrees. Or were separate arrangements made for Women in any department of University work, such as the Anatomy School?

(4) Have any important changes been found desirable for Women Students?

PRESENT POSITION.

(5) What is the proportion of Women to Men on the teaching staff of the College or University?

(6) (*a*) In what departments are Women Teachers employed?
(*b*) Do Women hold any appointments of the highest rank?

(7) Are the Women Teachers, as such, represented on the Board of Studies, or equivalent body, of the College?

(8) Where Women hold appointments are they in the same position as Men as regards (*a*) Salary, (*b*) Pensions?

(9) In what proportion are the Women to the Men Students?

(1) Dr. Michael Sadler, in a special report published by the Education Department in 1897, gave full particulars of the arrangements made for the admission of women to the chief Universities in the British Empire and in foreign countries. I had drawn up my questions before I had the opportunity of seeing his paper.

(10) Do the Women entrants give evidence of having been as well prepared in the Schools as the Men?

(11) What number of Women are pursuing—

(*a*) Arts Courses towards graduation,

(*b*) Science Courses towards graduation,

(*c*) Honours Courses either in Arts or Science?

(12) What is the proportion of Women to Men engaged in

(*a*) Post-graduate,

(*b*) Research Work?

Special Diplomas.

(13) What Special Diplomas are granted by the University?

(14) In what proportion are the Women to the Men Students in the Course for Diploma in Education?

(15) What is the number of Women following the course in

(*a*) Home Science,

(*b*) Social Economics,

(*c*) Law,

(*d*) Other Special or Technical Courses?

Student Activities.

(16) What Societies for the study of Social Problems exist among present Women Students?

(17) Is any Social Service work undertaken or supported, either wholly or in part, by present Women Students?

(18) What College Societies have a Membership

(*a*) of Women Students only,

(*b*) of Men and Women Students?

(19) Does a Students' Council exist, and if so, what measurement of self-government is entrusted to it?

(20) Are past or present Students directly represented on the Governing body of their College?

(21) What proportion of former Women Students have obtained appointments on the staff of the College?

(22) General Information.

University or College.	Date of admission of Women to University.	Date of foundation of Women's College.	Proportion of Women to Men on the Teaching Staff of the University.	Do Women hold any position of the highest rank in the University?	In what proportion are the Women to the Men students?	Do the Women entrants give evidence of having been as well prepared as the Men?	Proportion of Women to Men engaged in post-graduate and research work.	Special Diplomas granted by the University.	Societies for the study of social problems among present Women students.	Social service work undertaken or supported, wholly or in part, by present students.
ENGLAND AND WALES —										
Birmingham University	From foundation.		4%	No	40%	Yes	33%	Social Study, Public Health Training.	Fabian Society, Christian Union.	
Bristol University ...	From foundation of University College in 1876.		14%	No	26%	Yes, better	12·5%		Christian Union, Guild for Social Study.	Factory Club, University Settlement.
Cambridge University:-					About 1 10					
Girton College ..	Admitted informally to Tripos Examination, 1872; Formally, 1881.	1869	2 women demonstrators	No	All women	Yes		Agriculture. Geography.	Christian Union, Society of the Annunciation, Debating Musical, G. C. Parliament, Mathematical Suffrage and Anti-Suffrage.	University Settlement. Missionary Settlement.
Newnham College[1].		Hall of Residence, 1871, College 1875		No	All women			Public Health. Tropical Medicine.	Fabian Society, Cambridge Ladies' Discussion Society, Debating Society, Political Club, Christian Union, Society of the Annunciation, Suffrage Society.	University Settlement. Assistance in work of C. O. S.
Durham University :—										
Armstrong College ..	1884		11·4% (8 to 62)	No	27·5%	Yes	14%	Education		University Settlement.

[1] As Newnham College is not a college of the University, though recognised by the University, those of its staff who admit members of the University to their lectures or demonstrations cannot be formally recognised as University teachers. The direction of the students' work in Newnham College is in the hands of women; also a considerable portion of the lecturing and private tuition.

Leeds University ...	From foundation of Victoria University, 1887. Leeds University, 1904.		6%	No	1 : 4	Yes	31%	Education	Society for discussion of social questions.	Help in Girls' Club.
Liverpool University ...	Admitted from foundation of University College, 1881; Liverpool University, 1903.		Arts 7% Science 4%	No	Arts 11% Science 32% Medicine 3%	Yes			Christian Union, Fabian Society.	Victoria Settlement.
London University:—										
Bedford College	1878 "School of University," 1898.	1849		No	All women	Yes	40 women		Christian Union, Society for discussion of social questions.	University Settlement.
Royal Holloway College.	1878 "School of University," 1898.	1883		No	All women				Christian Union.	University Settlement, Girls' Club
King's College for Women	1878	1878		No	All women			Home Science (granted by College)	Home Science Discussion Society	Guild in connexion with women's settlement.
University College ...	1877		8% in College		532 women 1,058 men		23%		Critical Society	Working Boys' Club, Elementary Schools.
Westfield College ...		1882							Social Club for discussing social problems.	Guild of Play, Factory Girls' Entertainments.
Manchester University	1883	1887	3·5%	No	About 2 : 7 (340 women, 1,250 men)	Yes, better on the whole.	18%	Education, Public Health, Dentistry.	Sociological Society, Christian Union, Economic Society.	University Settlement.
Oxford University* ...	First opening of Examinations, 1884, Recognition of 5 exisiting societies, 1910, Registration of resident students, 1911.	Recognised Societies of Women Students, Lady Margaret Hall, 1878 Somerville Coll., 1879 St. Hugh's Coll., 1886 St. Hilda's Hall, 1893 Society of Oxford Home Students, 1879.	2 women appointed for Geography and Education	No	About 1 : 10			Geography, Education, Economics, Anthropology, Rural Economy, Classical Archaeology, Public Health, Ophthalmology.	Christian Union, Fabian Society, Suffrage Society.	University Settlements.

* No information was supplied from Women's Colleges in Oxford, but a memorandum was sent to the Congress by the Delegacy for Women Students cf. p. 445.

University or College.	Date of admission of Women to University.	Date of foundation of Women's College.	Proportion of Women to Men on the Teaching Staff of the University.	Do Women hold any position of the highest rank in the University?	In what proportion are the Women to the Men students?	Do the Women entrants give evidence of having been as well prepared as the Men?	Proportion of Women to Men engaged in post-graduate and research work.	Special Diplomas granted by the University.	Societies for the study of social problem among present Women students.	Social service work undertaken or supported, wholly o in par t, by present students.
Sheffield University ..	1905		3·7%	No	2 3			Architecture, Education, Modern Lang. Teaching, Public Health.	Christian Union. Sociological Society.	
University of Wales:—										
Aberystwyth College..	1884	1872	11·6%		194 women 256 men (=43% women)	Yes	9 women 11 men		Christian Union.	Work in connection with Y.W.C.A.
Bangor College ..	1884		8·8%		100 women 220 men (= 31% women)	Yes	7 women 8 men	Agriculture	Christian Union.	
Cardiff	From foundation			One-Professor of Education				Education	Christian Union.	Help in University Settlement.
SCOTLAND:—										
Aberdeen University ...	1892		Three women assistants.	No	308 women 721 men (=30% women)			Public Health, Agriculture.	University Sociological Society.	
Edinburgh University...	1892		Several women assistants.		689 women 2,791 men (=20% women)				Christian Union.	
Glasgow— Queen Margaret's College.	1892	1883	2% 3 women, 148 men.	No	25% 662 women, 2,005 men.	Yes, better. (In 1911, 50·2% of women and 42·9% of men passed entrance.)	14% 5 : 31	Education		University Settlement.
St. Andrew's University	1892		1% 1 woman, 95 men.		42% women, 213 : 297	Yes (except in Latin and Greek).	14% 2 : 12	Public Health, LL.A.		
IRELAND:—										
Dublin—Trinity College	1904		1 woman lecturer.	No	18%	Not so well in Latin and Mathematics.		Education, Economics, Public Health.	Christian Union, Social Service Union.	Bursary fund, Tenement house work.

National University ...	1908			Yes				Public Health.	Christian Union, Suffrage Society.	Some social work done by Christian Union.
Queen's University, Belfast.	(Queen's College, 1882.) 1909	6 women professors, 1 lecturer. 2 women assistants.	No		25%	Yes, perhaps better.				
CANADA :—										
Acadia University, Wolfville.	1880				22%	Yes			Y.W.C.A.	
Alberta University, Strathcona.	1908				16%	Yes	1 : 2		Y.W.C.A.	
Dalhousie University, Halifax.	1881				25%	Yes				
Laval University, Quebec.	No woman has applied for admission.									
Manitoba	Since foundation.	1 woman.			33%	Yes				Help in University Settlement.
McGill University, Montreal—Royal Victoria College.	1884	7 : 66 (=9·6%)	1899	No	30% 147 women, 319 men.	Yes	26%			
Mount Allison University, Sackville.	1862				26% (85 women, 245 men)	Yes				
New Brunswick University, Fredericton.	1885	None			20%	Yes			Political Science Club.	
Queen's University, Ontario.	1872	None		No	260 women	Yes	20%			
Saskatchewan University.	1909	No women		No	16% 28 women, 150 men.					
Toronto University :—										Settlement work.
Trinity College ...	1866	No women			33%	Yes				
Victoria College ...	1877				31%	Yes				
Toronto University ...	Examinations 1878, Lectures 1884.	2 women are associate professors. Some women assistants.			1910–1911 : 1,018 women 3,094 men (about 25%)	Yes				University Settlement. Y.W.C.A.

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University or College.	Date of admission of Women to University.	Date of foundation of Women's College.	Proportion of women to men on the Teaching Staff of the University.	Do Women hold any position of the highest rank in the University?	In what proportion are the Women to the Men students?	Do the Women entrants give evidence of *having been* as well prepared as the Men?	Proportion of Women to Men engaged *in post-graduate and research work.*	Special Diplomas granted by the University.	Societies for the study of social problems among present Women students.	Social service work undertaken or supported, wholly or in part, by present students.
McMaster University, Toronto	1891		No women		25%	Yes	10%			
AUSTRALIA :—										
Adelaide University ...	1889		No women		25%	Yes		Education, Commerce, Music, Applied Science.	Christian Union.	Club for factory girls.
Melbourne University ...	1879		10%	No	25%	Yes	33%		Christian Union.	Club for factory girls.
Queensland University ...	1909		5%	No	25%	Yes		Education.		
Sydney University ...	1884			No	12%		36%	Public Health, Economics, Education, &c.	Christian Union.	University Settlement
INDIA :—										
Allahabad University ...	1887	3 affiliated Colleges.	No University Teaching staff.		57 women, 4852 men	Yes			Christian Endeavour Society.	School for natives.
Bombay University ...	1883	15 affiliated Colleges.	No women	No [1]	2·53%					
Calcutta University ...	1876	1879		No	Very few women.					
Madras University ...	1887	4 affiliated Colleges.	No University Teaching staff.		Less than 1%					

[1] Since this paper was read Miss M. Ashworth, Indian Educational Service (retired) writes that Mrs. John Anderson is a Fellow of Bombay University and a Member of the Senate.

N.B.—For information relating to New Zealand cf. Appendix VIII., p. 449.

Discussion.

MRS. SOPHIE BRYANT, D.Sc.: Perhaps the truest thing that could be said as to the position of women in Universities is that there is no difference in their position from that of men; women take their place as members of the University simply, without privilege and without reservation. I am old enough to remember when this began. I was in the gallery of the old University of London, in Burlington Gardens, when the Chancellor of the day, Lord Granville, announced the startling fact that the Senate had decided to apply to the Crown for a new Charter admitting women to all degrees and offices in the University. I venture, therefore, first, to make my modest boast for this University of mine, the University of London in which we are met; and I hope to be forgiven for doing so, because, looking back to those early times, there comes to me that sense of delight which came to the late Victorian woman when the first step was taken to open the Universities of the British Empire to women. There is no brighter chapter in the history of that great reform than the chapter which records the completeness of that first concession and the cordiality with which it was acclaimed by the whole body of graduates. There never was, I suppose, a more chivalrous body of men than the graduates of this University in the eighties.

Miss White has told us an interesting fact, and I can confirm it: the position of women with regard to professorships and administrative offices is better in Ireland than anywhere else. It is best in that very new University which is called by its enemies the Catholic and by its friends the National and Democratic University of Ireland. There is a history behind that fact which is interesting to us in London. The new Irish University is the immediate descendant of the Royal University of Ireland, an examining body modelled on the University of London as it then was. The University of London had opened its degrees to women not long before the establishment by Parliament of the Royal University. Irish women asked to be admitted to the benefits of the Act, and they were admitted by Parliament to all the privileges with one exception: they were not allowed to be members of Convocation. That, of course, was the Parliamentary touch. In this University we have had everything open to us from the date of the Charter of 1878. It is interesting, however, to note that the Crown did not use its rights of nomination to the Senate in favour of women; for more than twenty years there were no women on the Senate. A late effort was made by the Crown in

the beginning of this century, and a very distinguished lady—the first I think in distinction amongst our guests here to-day—was then nominated by the Crown. No woman holds that position on the Senate to-day. I mention this because it seems to me interesting, but I do not make a grievance of it. As a matter of fact the Crown knows very little about women; by the Crown, of course, I mean the State. Women are known in public matters only so far as their opportunities allow them to be known, and, as regards the academic women, the acquaintance of the Crown with them is slight.

Within the University itself we are satisfied with our position and its possibilities. We are certainly strong on many of the Boards, and we are treated individually with as much attention as each in her human wisdom shows herself to deserve. When I was a member of the Senate, I was conscious of carrying as much weight as I could put into my arguments; and I have no doubt that is the experience of us all. We are satisfied with the position we have; there is no privilege and no disability; and we should be sorry to change it. Personally I should be very sorry if any suggestion were adopted requiring a certain number of seats to be reserved for women on the Senate, or on special Councils. Regulations of that kind may be necessary in ruder communities—even such dignified communities as Educational Committees and County Councils. It is the custom in this country to decree that so many women shall be appointed on Education Committees. This is justifiable because there are interests—those of women and girls—which require to be guarded by the presence of representative women who understand them. But in a University—a community which reflects the ideal of the republic of learning, and is open to all without distinction of sex—it is better for us to utilise our opportunities and make our way by our own merits solely.

In view of the progress in learning made by women during the last thirty years, and throughout the Empire, it is interesting to inquire whether there is much differentiation of studies as between men and women. Up to the present such differentiation as exists appears to be mainly the result (i) of difference in previous education, and (ii) of difference in the kind of occupation taken up. Men take science in greater numbers, but then they require science for many of their occupations in after life. Women lean to humanistic studies, but then these are more useful in the great occupation of teaching and other occupations which to an increasing extent are open to them. It is an interesting question whether there is now enough evidence to show that women have

a stronger interest in humanistic studies than men. I am inclined to think they have. They certainly do well in moral science studies. It is natural, moreover, that this should be so. That is not, of course, a reason for saying it is so; but, if there is anything in heredity, it would not be surprising that women should in the long run show greater interest—I will not say greater ability—in humanistic studies. The fact, if it be a fact, may be connected with an observation which strikes me more and more the longer I continue my work of education, namely, that girls in school are much more social than boys—more social in the strict sense of being more disposed to merge their individual interests in the interests of the community to which they belong. If that is a characteristic of girls, it must be a characteristic of women. I think it worth while to say this, because we are on the eve of a time when we shall see women taking an effective part in the sphere of social service work—both unpaid and paid—which is now being enlarged. And when I wonder whether women will have an effect upon the Universities in developing further variety in studies, it occurs to me that, for one thing, the studies of the Universities will be moulded by the demand of women for the kind of education which will fit them best for their share in this social service work. I say the demand of women, but of course the demand is not the demand of women, but of the needs which are implicit in the community.

There is another sphere of service which demands attention. I see in the very interesting brown book which has been issued by the Board of Education that in two of the Colonies steps have been taken to recognize Household Science as a subject of University education. In Toronto they have a B.A. Degree in Honours for Household Science, and one of the Universities of New Zealand has a degree in Science for Home Science. This is a matter into which we in Great Britain should inquire further. I do not make any statement as to the desirability of such a course in such a University as this. I have not made up my mind about it. There is a danger that if every kind of practical subject is taken up by the University the study of some subjects may become too doctrinaire. There are other institutions, of University rank but more technical in purpose, which may be better suited for studies so deeply immersed in the practical and concrete. However that may be, the problem of Home Science is a matter of great interest—of just as much interest to men as to women. The only difference is that it does concern women specially in that it belongs to that sphere of activity to which nature and custom have alike assigned them.

At this point in the proceedings SIR JAMES DONALDSON, Vice-Chancellor of the University of St. Andrews, took the chair, vacated by Lord Strathcona.

MRS. SIDGWICK: I confess it would not have occurred to me, unless I had been specially invited, to speak on this question to-day, not because I do not think it is an important one—I think it is an exceedingly important one—indeed, many here know I have given a large part of my live to promoting University education for women—but because as far as this Congress is concerned, it is one already decided. Most of the questions the Congress has to discuss are questions of policy on which they wish to compare notes, or to promote joint action, but the question of the admission of women to Universities is practically decided everywhere. There are no Universities of importance, I think, in the British Empire which do not give educational facilities to women. I do not of course, mean that women are yet completely satisfied; they would like in some cases to have a little more than they have got. Take, for instance, the University with which I have had most to do—the University of Cambridge. The University of London, at that time an examining body, was, as Mrs. Bryant has told us, a pioneer in giving degrees to women, but Cambridge was the pioneer among residential Universities in giving educational facilities to women, and for more than thirty years it has guaranteed the result by certificates showing that the standard of a degree in Honours has been attained under the required conditions as to residence. Women have therefore the education and the equivalent of a degree; but naturally they still desire the title which is so valuable in school prospectuses. Women have, however, everywhere the substance, and outstanding questions are, I think, questions which each University must settle for itself, and in which conference with other Universities can be of little assistance.

Another reason why I feel some difficulty in speaking is that Miss White and Mrs. Bryant have covered the ground so completely that they have left me very little to say. There are, however, one or two points which in the course of the discussions of the last few days struck me as having a special aspect in the case of women. One is the question of hostels. It is quite clear, I think, that for women even more than for men, there should be residential hostels at Universities, because it is more difficult for women students than for men without such arrangements to get the full advantage of that intercourse between students, that influence of students of different kinds on each other, which is so

important a part of the advantage of University education. It is natural, perhaps, therefore, that it is women students and their friends who have been the leaders in introducing hostels for students in Universities other than Oxford and Cambridge. At Oxford and Cambridge the whole system of the place, of course, requires colleges; but there are women's hostels at a great many of the provincial Universities, and in many cases they have preceded men's hostels.

Another point which should not be lost sight of is the question of numbers. I feel practically certain that in the mother country at least women will always be in a minority at Universities. There are various reasons for this, but one very obvious one is that there are not so many women wanting to prepare for professions as there are men, and I think there never will be. There might be an exception in such colleges as are much frequented by those preparing for the profession of elementary teachers, who are sent to the college by the Government, but apart from this, women are, and I think will be, greatly in the minority. This fact must affect various arrangements for them, and it affects one of the questions brought before this Congress, namely, the bureaux for the after careers of students. Mr. Roberts was emphatic in speaking of the great importance of having such a bureau in each University, rather than having a central one, and spoke convincingly. But if this is true as regards men, it does not follow that it is true as regards women, because the number of women who want posts is so very much smaller, and an efficient bureau cannot be run for a very small number. The difficulty is two-fold. First, the labour of inquiring about possible openings and getting into touch with employers is almost as great when the possible candidates for posts are few as when they are many; and, secondly, when for any special post a rather exceptional person is wanted, the probability of finding her at any given moment among a comparatively small number, not selected with a view to it, is of course small. I think, therefore, that for women a central Students' Careers Association, like that so well described in Miss Spencer's paper, and so admirably managed by her—a central bureau which keeps in close touch with the women's colleges—is the best.

There is another question concerning women's work at Universities which is apt to lead to a good deal of discussion, a question Mrs. Bryant touched on. It is the question whether special lines of study should be developed at Universities for women which are not required for men. My own belief is that, though women will distribute themselves differently from men among the sub-

jects of study offered by Universities, there are few, if any such subjects required for women only. If there are any, each University will no doubt find out its own local needs.

Altogether, interesting and important as is the subject of University education for women, I do not think it is one which at the present moment calls for separate treatment in a way that need occupy the practical attention of the Congress. Women, without being considered separately, will profit along with men by any useful outcome of its deliberations.

MISS E. HURLBATT, M.A. (McGill) : As women are now admitted to degrees at all British Universities with the exception of Oxford and Cambridge, it follows that they are concerned as well as men in the subjects of discussion at the various sessions of this Congress. There are, however, one or two subjects on the programme which demand some special consideration as they concern women.

In connection with the second subject discussed on Tuesday morning, "Inter-University arrangements for post-graduate and research students," it will be remembered that representatives of the Overseas Universities urged the necessity of increasing the facilities for students to proceed to the Home Universities for higher work, the increased facilities to include greater accessibility of information as to University regulations and conditions of work, simplification of regulations, greater elasticity in the conditions under which such students should be admitted, and the adoption by all Universities of regulations similar to those contained in Statutes 112 and 113 of the University of London.

I should like to say that experience at McGill University suggests the very great importance of all this to women students. I believe I should be right in saying this also on behalf of the women of Toronto and Queen's Universities, but as there is present to-day a Canadian visitor of great educational experience (Miss Addison), who is officially connected with one of the Colleges of Toronto University—a University which has a thousand women students—I will not venture to refer to that University, but I hope that Miss Addison may send in her name as a speaker.

Some of our women graduates, all who aspire to University employment, seek, of course, to carry their studies beyond the standard of the first degree. Many of them would like to go to Oxford or Cambridge, or some other of the Home Universities, but there are the difficulties of distance, of expense, and of knowing exactly what the Universities will require of them. For reasons referred to during Tuesday's discussion, they are much

attracted to the Universities of the United States, and it always seems to be possible for a woman of ability and with a good record at McGill to obtain a Fellowship for post-graduate work at *e.g.* Columbia University or Brynmawr College—especially the latter. Canadian women students owe a great debt of gratitude to such Universities and Colleges.

Now women graduates of Canada seeking University employment find so little opportunity at home that their best hope of success lies in entering the Colleges to the south of the line. They therefore find it an advantage to work for their second degree in the country in which they will later seek employment. There is a considerable drift of women graduates of the greatest ability into the service of the Republic. It is, as with men, a matter of very practical importance to have a degree to show for any post-graduate work done. I will not enlarge upon this, which was fully dealt with by Principal Peterson, and forcibly emphasised by Professor Allen of Manitoba.

But there is one aspect of the question, as it affects women, to which I must not fail to refer. As men and women are at a practical advantage if they are able to show possession of a Ph.D. Degree, and at a practical disadvantage if for post-graduate work done they are unable to show that they possess a well-recognized higher degree, so also do women who may have taken the highest honours at Oxford or Cambridge, and who do not obtain the degrees of those Universities, suffer a real and serious disability in Canada and in the United States. However well individual Principals of Universities may know the value of attainment reached (and Universities of Canada and the United States are alive to the value of Oxford and Cambridge Honours work), it is not to be expected that the Governing Bodies of Universities will be satisfied with the qualification unless indicated by the degree, neither can it be a matter of surprise if they hesitate to staff their institutions with those who do not present to the world the hall mark of the great institutions at which they have studied.

The second matter to which I would refer is that which was the first subject for discussion on Wednesday: "The relation of Universities to professional and technical education." I think it may be said that the speakers made out a strong case for the inclusion of these studies within the Universities. Indeed, one of the great features of modern University development has been the inclusion of such subjects, organized in distinct faculties. I think we must expect to see in the course of time the same development in respect of subjects of study pursued by women for certain

definite purposes in relation to work which they are called upon to perform.

The social and economic arrangements of society will in all probability continue to allot to women tasks hitherto undertaken by them. But they will perform them under new conditions. There will arise vocational employments for women for which specialized training will be required. It may be said that they have already arisen, as for example in the case of Home Science, which in the United States, if not in Great Britain, already offers the highest remuneration of any work in which women can engage. That such studies should be carried on within the borders of the University, and gradually be raised to a high status, seems to me to be only a matter of time, and to be justified on the same grounds as urged in the case of such subjects as agriculture and engineering. The question arises over this matter of time, and I should be inclined to say that the time must come slowly, with the gradual development of scientific foundation and scientific method of work and the gradual creation of a supply of teachers of the subjects involved qualified to rank with professors in other faculties.

Thirdly, with regard to the subject of residential facilities, including colleges and hostels. I should like in passing to remark upon what appears to me to be a disability suffered by the Women's Colleges of Oxford and Cambridge. The latter, although they make use of University lectures and laboratory facilities, still themselves provide a large amount, probably an increasing proportion, of the teaching required for their own students. These Colleges have neither a share in the Government grant now made to the Home Universities, nor have they the old endowments, which in the case of the old Collegiate foundations of Oxford and Cambridge Universities relieve the latter of the need of State support.

I believe that residential facilities in the form of Colleges and Hostels are needed for men as well as for women, but experience in the McGill University has shown me—if demonstration were needed—of how great service a woman's college, well equipped and well endowed, can be to the student body, men and women. I do not know whether it is fair to plead that in new Universities, as yet unsupplied with residence facilities, the first large effort should be devoted to the women, rather than equal help given to men and women in this matter; but this may safely be said: that a well-endowed women's college within a co-educational University can be an agent of the greatest possible service to the men and

women students alike, if it is wisely utilised for the social and educational relaxations as well as for the more serious purposes of the student life.

There is one respect in which an endowed College for Women can be of special service, and again I will venture to illustrate my meaning by reference to the college with which I have the honour to be associated, and which owes its creation to Lord Strathcona's generous foresight and care, not only for the women students, but for the welfare of the University of which he is Chancellor. Thanks to the generous provision of the founder, it has been possible to maintain several well-paid appointments for women teachers. Not only is the residence and general college life enriched thereby, but since the College is within and governed by the University, their women are not merely College tutors, but members of the various departments of the University teaching staff, having assigned to them classes either of women or of men, or of men and women together, as the requirements of individual departments may determine from year to year; that is to say, a certain proportion of women teachers, ranking from tutor to assistant professor, is assured to the University staff, and it is assured, not by any artificial enactment that there must be so many women on the staff—they are there because endowment has made it possible, but they are ranked according to their individual claim to distinction. There can be no serious difference of opinion as to the advantage of the presence of women with men upon the staff of a University which admits men and women as students. It is not always possible to arrive at the best means of achieving the appointment of a proportion of women to the staff, but until Universities have acquired the habit of thinking of women as possible suitable candidates for teaching appointments, it is of immense value to have endowment for such appointments as described.

In conclusion, there is one matter upon which I should like to touch briefly. During the first session of this Congress, Professor Waldstein referred to the great advantage gained by students from attending from time to time the lectures of some great teacher within their University, though his lectures might not be within their prescribed course, and much stress has been laid throughout the Congress upon the value of University life as offering students opportunity of enlarging their outlook. I would plead—and this is not a plea on behalf of women students alone, but for men and women equally—for all who would be and who should be scholars, that the demands of the curriculum and time table should not be such as practically to deprive them of

much of this opportunity, and that the requirements of attendance at lectures (now so heavy in many Universities) should not be such as to lead inevitably to dependence of the student upon the teacher's preparation of his mental food, and the consequent lessening of intellectual effort. Nor are these mere platitudes. They are matters of practical experience brought into evidence every time the Calendar of a University reveals additional hours demanded in this or in that subject, without reference to the course as a whole. The requirements of individual subjects are exacting; lack of specialization in some degree-courses presents real difficulty, but the first consideration should be the student's course as a whole, and modifications made without regard to this fail to safeguard the interests of good work. Indeed, the danger is great in the specialized course, where the necessity of independent work on the part of the student should be even more jealously guarded. The alleged modern vice of superficiality may be actually encouraged instead of checked by University regulations that neglect these considerations, and the Universities may thereby actually fail to secure for intellectual work the abundant energy, the great and evident power of activity of the students who come under their influence.

The measure of the influence of University life upon national life is exactly the measure of its capacity to make men and women who come under its influence respond to the high standards of truth and self-control, and the capacity of the Universities to wield this influence depends largely upon their preserving the conditions of study which make the worship of truth in work a practical possibility.

MISS PHŒBE SHEAVYN, D.Litt. (Manchester): I should like to say a few words on Miss White's paper with regard to two points. I think it is perhaps a little misleading to group together those engaged in post-graduate work and those engaged in research work. Post-graduate work includes work for various diplomas, and for the degrees of M.A. and M.Sc. In the University of Manchester, which I have the honour to represent, there is always a sharp distinction drawn between work for a diploma, or Master's degree, and work which is of the nature of research, consequently the figures quoted on page 330 in the paper, in so far as they refer to the University of Manchester, include only such students as are engaged in definite research.

The second point to which I would like to draw attention is that these statistics are unluckily misleading in another particular.

We have presented to us in this table the percentage of women engaged in post-graduate and research work. It is not clear what is the percentage meant, but if you turn to the tables at the end of the paper you will see that it is the percentage of women as compared with men. Now it is obvious that this must vary according to the relative numbers of men and women students as a whole. In my own University there are four times as many men students as women; in some Universities quite half the students are women. The only satisfactory form of statistics would compare the number of post-graduate women with the number of undergraduate women.

There are many other subjects suggested by Miss White's masterly paper, but as I know there are others anxious to address the Congress, I will content myself with these two small points.

ARCHDEACON CUNNINGHAM, D.D. (Chairman of the Council of Girton College): It seems to me, looking back at the past, that the battle of women's education has been won; access has been obtained to all the Universities. Although women have not attained full membership in the University to which I belong there is no pressing need to make an effort for the removal of the disabilities that remain.

The question for the future, all over the world, is that of organizing residential colleges. In Cambridge we have two such colleges; they are not merely residential, for they supply a great deal of tutorial work, and the carrying on of that tutorial work is of the highest importance. Much attention is now being given to tutorial work in many Universities where hitherto they have been content with lecturers and professorial teachers. And we have reached an important period of transition. The Colleges, so far as Oxford and Cambridge are concerned, were founded by those who desired that the woman's movement should be started and go on, and who as generous pioneers provided facilities for women students. But while it was inevitable that the women's colleges should be started in this way, they cannot continue indefinitely to be controlled by patrons from the outside. It is important that these colleges should stand on their own feet and be self-sustaining, self-governing institutions. The natural development would appear to be that the government should be by their own staff, and this is true; but another point, which may easily be neglected, seems to me to be of even greater importance. The whole body of past students should have a real say in the government of these residential colleges. These former students are in touch with actual life, and the more the colleges are kept in

close contact with women's work in the world, the better will they discharge their duties as colleges for preparing women to do that work. I want to lay very great stress on this point, because it is desirable, when any new institutions are being formed, that this matter should be kept in view. We in Cambridge are always in danger of being obsessed by a stereotyped examination system. Cambridge has many merits, but it has this standing defect, and the atmosphere may easily affect the women's colleges unless there is a corrective. It would be unfortunate if women's education in Cambridge should be obsessed by the besetting sin of the place; it is to the outside body, of those who have passed through the women's colleges, that we look to bring an influence to bear so that tutorial work may be carried on in such a fashion as to give women's education an opportunity of developing under the shadow of the old University, but still on lines that are not always rigidly laid down by the University curriculum.

MISS ADDISON, B.A. (Toronto): For a few moments I should like to speak of the Household Science course in the University of Toronto. It includes not only honours in Household Science proper and in Science, but also six subjects of the pass course in the first year, and at least three subjects throughout the second, third, and fourth years. These are chiefly languages, of which English must be one. As the University of Toronto confers the degree of B.A. on those taking scientific courses, so it confers the same degree on those taking Household Science, which has its rank as one of the honour courses in Science.

There is one aspect of the subject which has not, I think, been mentioned, and that is the very valuable contribution women may make to research work in the chemistry of foods, especially in regard to the effect of foods upon health and sickness. For such work a higher grade of instruction and a more extensive equipment of laboratories are necessary than are feasible in a school of technology. The course in Household Science opens to women two occupations for which they are naturally adapted—the one, administrative and practical, that of the dietitian; the other, scientific, that of analyst of foods. To obviate the difficulty of offering in one course instruction which will fit the student for two such different lines of work, the University of Toronto provides two courses, one in which the hours required for pure science throughout the course are a little less than twice those given to household science, while in the other they are three times as many. The physics, botany, zoology and chemistry in both

courses are much the same, but in the latter there is more biology, bio-chemistry, and physiology.

More and more the hospitals, both of Canada and the United States, are considered incomplete without a dietitian in charge of the diet kitchen. She is responsible for seeing that the instructions of the physicians with regard to food are carried out, she lectures to the nurses on the elements of the chemistry of foods, trains them in invalid cookery, and requires of them practical demonstrations of their ability to send out hot, well-cooked, well-served meals, each of which is adapted to the special need of the individual patient.

The occupation of the analyst of foods is in its infancy. As yet there are but few posts in which the woman specialist in physiology is found in the laboratory of a university or of a physician doing research work in foods. Such posts, however, will increase, and there can be little doubt but that in the future women will be employed in government offices where foods are analysed and tested.

REPRESENTATION OF TEACHERS AND GRADUATES ON THE GOVERNING BODY OF A UNIVERSITY.

Paper.

THE title of the subject on which it was proposed that I should write a paper is a good one for general discussion, but when I began to think on what I was to say on it I found myself in some perplexity. I thought the most appropriate course for me to take was to relate my experiences on the topics suggested, but our Scottish Universities have no one governing body, and so the question assumed this form in my mind: What part can the students, teachers, and graduates take in the working or management of a University? I can thus deal with three University bodies, whose duties are clearly defined.

I.—STUDENTS' REPRESENTATIVE COUNCIL.

In some of the earliest Universities, as in Bologna, the students at first managed everything connected with the University. They paid the professors, they engaged and dismissed them. They handled the entire finances of the institution, and for this purpose they appointed one of themselves to be at the head of the entire business, whom they called rector. Sometimes they appointed two rectors. This state of affairs speedily passed away, but a tradition of the relation of the students to the rector remained throughout the centuries, and it was through this connection that the Students' Representative Council arose. By the Universities (Scotland) Act of 1858 the election of rector was placed in the hands of the students. Their behaviour towards the rector was in many cases peculiar. They elected him with enthusiasm, but when he came down to deliver his inaugural address sometimes the very students who had elected him refused to give him a hearing, and drowned his voice with every kind of uproarious noises. Most of the students themselves became ashamed of these riotous proceedings, and at the tercentenary celebration, held in Edinburgh, they resolved to make it certain that the visitors from distant parts should receive a hearty welcome, and that no disturbances should take place in any of the meetings which might then be held. They were completely successful. The union of this band of students became a Students' Representative Council, and the other three Universities formed similar councils. That of the University of St.

Andrews was founded in 1885, and the object of it was stated to be: "(1) To represent the students in all matters affecting their interest; (2) to afford a means of communication between the students and the University, as well as the general public; and (3) to promote unity among the students." Four years after this a clause was inserted in the Universities (Scotland) Act of 1889 giving power to the Commissioners "to lay down regulations for the constitution and functions of a Students' Representative Council in each University, and to frame regulations under which that council shall be entitled to make representations to the University Court." They, in consequence, passed an Ordinance establishing a Students' Council in each University, and defined their duties thus: "(1) The Students' Representative Council shall be entitled to petition the Senatus Academicus with regard to any matter affecting the teaching and discipline of the University, and the Senatus Academicus shall dispose of the matter of the petition, or shall, if so prayed, forward any such petition to the University Court, with such observations as it may think fit to make thereon. (2) The Students' Representative Council shall be entitled to petition the University Court with regard to any matter affecting the students other than those falling under the immediately preceding sub-section." The students annually elect members to this Representative Council according to regulations framed by themselves and approved by the University Court. These Representative Councils have been of great benefit to the Universities, and to the students themselves.

(1) They teach the students habits of business. The students learn how to conduct themselves at meetings. They are impressed with the sense that they must submit to all the regulations which they themselves have made, and a spirit of order prevails which reaches even to their behaviour in all their classes.

(2) The unseemly conduct prevalent at rectorial elections is disappearing. It has disappeared altogether in the University of St. Andrews, probably because the number of students is not so great as in the other Universities, and because in electing a rector they have always paid regard to the part which the nominated persons have played in literature, science, philanthropy, or in similar spheres of action, and not to their political eminence, as in the other Scottish Universities.

(3) It is a great advantage for the Principal of the University to take into his counsels the chief officials of these Representative Councils, and they help him in many ways to understand the feelings of the great body of students and to promote their welfare both socially and intellectually.

II.—Teachers.—Senatus Academicus.

The Senatus, in all the Scottish Universities, consists of the Principal of the University and all the professors actually teaching. A professor ceases to be a member of Senatus after he has resigned his chair, and no one can become a member of Senatus except by becoming the Principal or a professor. The various faculties consist solely of professors teaching the subjects belonging to the special faculty. The powers of the Senatus are defined by the Act of Parliament, 1889, to be: "To regulate and superintend the teaching and discipline of the University." For a very long period the professors in the University were the only persons that taught in it. There were no lecturers, and no assistants but such as were occasional and private, but in recent days numerous lectureships have been established, and the Senatus has power to institute Boards of Studies, into which they may elect lecturers along with professors. The special duties of these Boards is to discuss before the end of each winter session syllabuses of the subjects and books which each professor or lecturer proposes for the work of his class for next academical year. These are submitted afterwards for approval to the respective faculties.

There can be no doubt that the Senatus and the lecturers are pre-eminently fitted for the work that has been assigned to them, and no one has, as far as I know, raised any questions as to the propriety of the arrangement.

III.—Graduates.

All the graduates of a Scottish University are members of the General Council of the University, along with the Chancellor and the members of the University Court past and present. The function assigned to this Council is "to take into their consideration all questions affecting the well-being and prosperity of the University, and to make representations from time to time on such questions to the University Court, who shall consider the same, and return to the Council their deliverance thereon."

It will be observed that the powers of the Council are limited to giving advice. This seems to me reasonable. It is but fair that the graduates should have the opportunity of expressing their opinions on all matters connected with the University, and of discussing them fully together in a regular assembly; but it would not be reasonable that such a body should propose new legislation or should interfere with the work of the University Court or control it in any way.

IV.—University Court in Scottish Universities.

The Court approaches to the idea which is contained in the words "The Governing Body" in the proposed form of the title of this paper, but its functions differ in some respects from the functions performed by a governing body, which will be seen by a statement of the powers which it possesses.

The Court was instituted by the Act of 1858, and to a large extent it acted as a Court of Appeal. It could review all decisions of the Senatus Academicus, and be a Court of Appeal from the Senatus, whenever a professor or any member of the University made such an appeal. It also had to watch over the conduct of the professors in the performance of the duties assigned them, and it might, with the sanction of the Privy Council, pronounce censure, suspension, or deprivation. These powers have been continued and somewhat enlarged by the Universities (Scotland) Act of 1889. The right of nomination or presentation to any professorship, which formerly belonged to the Senatus, was transferred by it to the University Court, and the Court was empowered to administer and manage the whole property of the University, to appoint professors whose chairs may come into the patronage of the University, and to appoint examiners and lecturers. The constitution of the University Court is such that the students, the Senatus, and the General Council take part in electing the members of it. The students elect the Rector, who is Chairman of the Court, and the Rector elects some one who sits as his Assessor in the Court. The Senate elects three members of its body to be members of the Court, and three other members of the Senatus sit in it *ex officio*.

The General Council elect the Chancellor of the University, who is, however, not a member of the Court, but he appoints an Assessor to sit in it. The General Council elect four Assessors or members, and the Provost of St. Andrews and the Lord Provost of Dundee are *ex officio* members of the Court. The Court is thus a representative body. It is needless to say that its members have not much to do as representatives, that there are no parties in the Court, and that all of them take an interest in the whole concerns of the University.

The arrangement has this peculiar advantage, that the various bodies make a point of electing men who have shown special capacity for the management of University affairs. There is no restriction in the selection. The members of the Court need not be graduates, or have been connected with the University in any way. They have distinguished themselves in quite different spheres of action, and they thus bring to bear on the management

of the University much practical wisdom and a wide intellectual view. Thus, the present University Court of St. Andrews University consists of a member of the House of Lords, a member of the House of Commons, an educationist, a professor of divinity, a professor of anatomy, a professor of Greek, a professor of English literature, a professor of Materia Medica, a doctor, a headmaster of a secondary school, a distinguished agriculturist, a lawyer, and two provosts.

After the expiration of the Commission the University Courts succeeded to their legislative functions. The Courts alone can frame or alter Ordinances in regard to the working of the University. In this way they can make great changes.

The Court of each University has to submit its Ordinances to the Senatus and the General Councils for their opinions, and they are bound to consider any statements which may be laid before them by these bodies, but they are not bound to adopt any of their proposals.

The Ordinances can become law only after they have been before Parliament, and have received the sanction of the University Committee of the Privy Council, which can reject them or delete clauses in them, but cannot alter them.

At the same time, in preparing an Ordinance dealing with educational matters the Court always consults the Senatus before it frames the Ordinance. The Court seems to me a body particularly fitted for the work that has been assigned to it by Parliament. It is not too large to prevent the sense of a common interest pervading all its members, and generally there is great harmony and earnestness in pushing forward schemes which are good for the whole University.

If I were to discuss the relations of students, teachers, and graduates to the Governing Bodies of other Universities than those of Scotland, I should find myself surrounded by difficulties. The practice and nomenclature are widely different in most of them. I select four as examples, Oxford, Cambridge, London, and Manchester. Thus in Oxford probably Convocation is the body which should be called the Governing Body, but its powers are fettered by so many restrictions that the title might be disputed. It corresponds to the General Councils of the Scottish Universities, consisting as it does principally of graduates. It has no power of initiation, and can accept or reject any proposed measure put before it, but cannot amend. It seems to me questionable whether such power should belong to any large body such as Convocation.

The great mass of graduates or students know very little of the

inner working of the University. Most of them take very little interest in the doings of the University, and have no opportunity of considering carefully its various requirements. In fact, the public are indifferent to what goes on in Universities, except when some extraordinary event draws the attention of the world to it.

In Cambridge the Legislative Body of the University is called the Senate. Like the Oxford Convocation, it consists almost entirely of graduates. The Governing Body in the University of London is also called the Senate, and consists of fifty-four persons, who may or may not be graduates of the University. Sixteen of them are elected by the graduates and sixteen of them by the professors or lecturers. The others may or may not be either teachers or graduates, but I have no information as to the actual number of teachers on the Senate.

The Governing Body of the University of Manchester is called the University Court. It is a large body consisting of representatives of various interests. Six of them are representatives elected by the Senate The Senate is defined as consisting of the Vice-Chancellor and the professors of the University, and some others, who are members of the Boards of Faculties (that is, the teachers). Two are representatives of members of Boards of Faculties, who are not members of Senatus.

Ten representatives are elected by Convocation, which consists of the Chancellor, the Vice-Chancellor, the Pro-Vice-Chancellors, the members of the Senate, the members of the Board, or Boards of Faculties, the University Fellows, and the registered graduates of the University.

In such a body it is likely that there will be a considerable number of members who will not trouble themselves with the business of the University, and certainly will not give that attention to the proposals which are submitted to them, which would render their presence at a meeting useful.

The obstacles to action which such bodies have to encounter become apparent at once, and in the four Universities referred to Councils of small size have been established, which alone possess the power of initiating proposals for the improvement of the University, and no proposal can be laid before the Governing Bodies until it has first received the sanction of these Councils. But these small Councils must be hampered greatly by the control which men not teaching in the University, and ignorant of its working, such as are many of the graduates, can exercise over them.

This state of matters raises important questions as to the

government of such Universities which cannot be discussed in this paper. They are occupying the attention of University reformers in the various Universities, and they can be settled only after the most careful consideration of the needs of the time and the requirements of the different institutions.

J. DONALDSON.

Discussion.

R. S. HEATH, D.Sc. (Birmingham): In the ancient Universities described by Sir James Donaldson the traditions of comparatively remote times (modified, no doubt, by modern Acts of Parliament) still govern the conduct and policy of the Universities. In contrast with these, the newer provincial Universities exhibit all the phases of the evolution of Universities from the foundation of a College to the many and varied activities of a modern University within the memory of many of those here present; indeed, within the last *ten years* nearly all the problems of University organization and administration have been reconsidered by independent groups of men, and the results of their deliberations embodied in the charters of the Universities of London, Wales, Birmingham, Manchester, Liverpool, Leeds, Sheffield and Bristol.

The important problem we are now discussing, the part taken by teachers and graduates in the management of a University, is one of the most momentous of those questions which have had to be reconsidered, and various solutions have been reached. I cannot do better than relate briefly the history of this question in my own University of Birmingham. Mason College was founded and opened in 1880 with four professors, a staff which was increased during the next session to nine professors and two lecturers. The governing body consisted of eleven trustees, six being appointed by the founder and vacancies filled by co-option, five by the Town Council. Nine of these trustees formed the Acting Council, who controlled everything—elected the professors and kept them in their place. There was a historic scene in the Council in the following year. Two of the professors waited on the Council to advocate a modest scheme of government on the purely teaching side, whereby the professors were to be constituted an Academic Board to organize the curriculum, time-tables, examinations. The scheme found no favour with the Council,

who were new to their office and very full of their own importance: the professors were rated like schoolboys, told that the Council had no intention of acting as mere rent-collectors to furnish money for the professors to spend, and that they had better go back to their teaching and leave the administration of everything to their superiors! All the same, in 1883 the Council found out the necessity for such an Academic Board, and it was duly appointed to "assist in the preparation of the calendar, conduct the sessional examinations, make arrangements for the examination of students under sixteen desirous of entering the College, to exercise jurisdiction over the students with regard to their attendance and conduct, and generally to act under the superintendence of the Council in regulating and co-ordinating the various departments of the College." The minute-books of the Board were submitted to the Council month by month for confirmation or emendation. I remember that when I first entered the College, the Board was in the habit of keeping *two* sets of minute-books, one for their own use and an expurgated version for submission to the Council! Nevertheless, the inevitable consequences began to show themselves: the Council became more and more dependent on its Academic Board, and in 1890 (ten years from the opening) the Council invited the then Chairman of the Board to become the permanent Principal of the College. He consented to the appointment on condition that he had the right of attending all meetings of the Council and its committees. Two years later the Medical School of Queen's College was transferred to Mason College after prolonged negotiation, and a condition was inserted in the transfer that the Dean of the Medical School should also have the right of attending meetings of the Council and its committees. Thus two professors, from that time onwards, took a part, and an increasing part, in the management of the University.

In the meantime, it was becoming more and more obvious that the governing body was too small and narrow. The eleven members of the Council were a coterie of personal friends, excellent men in their way, but not representative of the town as a whole, with no bonds of connection with the other educational bodies of the neighbourhood; and in 1897 an Act of Parliament was obtained setting aside the original Foundation Deeds, vesting the ultimate power in a large Court of governors, and increasing the Council to twenty-five members, of whom five were professors, giving representation to County Councils, grammar schools, and other educational organizations in the city. At the very first meeting of the new court the movement for creating a University

was started, which culminated in the Royal Charter of 1900. The University Court was made very large and representative: the guild of graduates and the guild of undergraduates appointed certain members; the Midland Institute, the technical school, the grammar schools were represented by their chief officers, *ex officio*. Seeing that many headmasters of secondary schools were made governors, the demand of the professors for equal privileges could not be resisted, and therefore every professor was made a governor *ex officio*. The University was organized under four Faculties: Science, Arts, Medicine, and Commerce, with Deans to preside over them. Each Dean became *ex officio* a member of the Council, so that now there are seven members of the Senate on a Council of thirty members.

The position was safeguarded with a proviso that at no time shall the members of the Senate who are members of the Council exceed one-quarter of the whole Council; so that if at any future time a further member of the Senate (*e.g.*, the Dean of a new Faculty) shall become a member of the Council, he shall be counter-balanced by three new lay members. At the same time, the quorum of the Court for ordinary business was fixed at eighty, so that the professors could never be a majority of those present. In working, the Court has been found to be rather unwieldy; it has, therefore, degenerated almost entirely into a formal confirming body. I never remember a live debate on any subject, and, unfortunately, it is not well attended. A short time ago the quorum for ordinary business was reduced by special statute with the consent of the Privy Council to forty members, and it often happens that the professors are in a majority of those present. However, no great calamity has followed this change as yet!

In the administration of a University there are many questions which are obviously best managed by the Senate and Council respectively. Everything relating to regulations and curricula leading to different degrees, the co-ordination of courses into time-tables, the award of degrees, scholarships, and prizes, the appointment of external examiners, the attendance and discipline of students, belongs, I think, essentially to the work of the Senate. On the other hand, matters relating to estates, buildings and their repair, University servants, accounts, the receipt and payment of moneys, belong to the jurisdiction of the Council.

But there are two crucial matters on which the customs of Universities vary: (1) the appointment of members of the staff, (2) the management of the finances of the University. Now I do not hesitate to say that the control of the finances of the University should rest entirely within the purview of the Council

with its preponderance of lay members. Teachers are not usually expert financiers; at any rate, their appointments are made on other grounds, because they are scholars, investigators, teachers, experts. In large cities it is easy to command the services of public men skilled in municipal and other administrative work, including finance, to serve on the Council and Committees, and to these men, able and impartial, is best left the control of the finances. I am quite aware that to give the financial control, gives at the same time the final decision on most matters of University policy involving the details of purely academic arrangements; but there are no changes in University policy, no developments in new directions which do not ultimately depend on finance, and the final decision, yea or nay, must rest with the financiers. In my own University, all the recommendations of the Senate on educational policy and developments are required to be submitted to the Council for their acceptance or rejection. In practice, the details of such proposals are usually criticized only from the financial point of view; the ultimate financial decision rests with a finance committee on which *no* member of the Senate has a seat and a vote, though the President and Vice-President usually attend the meetings, and professors are frequently called in to explain and advocate their proposals. Moreover, the decision of the finance committee comes up for ratification by the whole Council, on which five members of the Senate have seats and votes, so that the views of the teaching staff are well ventilated.

On the other hand, in selecting members of the staff, I feel strongly that the Senate contains the experts who know most about the qualifications of the candidates, and their nomination should not be interfered with by the Council, except for very good reasons and in rare instances. Again, I may describe the procedure of the University of Birmingham. Nominally, the appointment of all members of the staff rests with the Council; but what actually happens is this: the applications for a post are in the first instance referred to the Faculty to which the post belongs for a report. Sometimes the Faculty makes private inquiries, and induces some applicant to come forward who did not send in an application. The members of the Faculty make exhaustive inquiries about candidates from all sorts of people who have special knowledge of their qualifications and personal characteristics; a selected number are called up to be interviewed formally and informally, and ultimately a selection of two or three candidates is nominated to the Senate and Council. But the Faculty *need* not nominate more than one candidate, or in nominating more than one they may express a strong opinion as

to their order of merit. In appointing to a professorship the Council have the report of the Faculty and Senate before them; they usually interview all the candidates nominated, and then proceed to make the appointment. But in no single instance that I remember has the Council's final decision conflicted with the recommendations of the Faculty and Senate.

DR. MICHAEL SADLER, C.B. (Leeds): Sir James Donaldson and Dr. Heath have drawn us towards one conclusion: that whatever may be the differences of function in different parts of University machinery, the real governing body of the University should be made and kept sensitive to the various needs which, as a University, it is set up to interpret and to serve. It should be sensitive, also, to those different kinds of experience which will help it in the discharge of that task; sensitive to the knowledge of its own graduates, not least those who have only just become graduates, and from whom we can learn so much as to the real condition of the institution in which we work; sensitive to the public opinion of the local or provincial community which it serves; sensitive to the needs of the organised central State; and sensitive to the great tradition of learning, and to the educational judgment and experience of its teaching staff.

As Sir James Donaldson hinted, it is not easy to learn from a perusal of statutes or calendars where the real governing body of a University resides. It has been my good fortune to be admitted into the confidence of seven different Universities, and in each the real centre of gravity of government has been different, and in none of them has it, so far as I am aware, been disclosed in print to the casual inquirer.

It may be said that one of the tasks of a modern University is the reconciliation of the academic and the business mind. We must attempt to draw together and to unite the great tradition of learning and the great tradition of creative business. The ideal relationship between them is one of co-ordinate jurisdiction and of mutual deference.

In devising an adequate representation of the teaching staff upon the governing bodies of a University, we should not overlook the great body of valuable experience of the members of the assistant staff. One of our problems is to bring the experience of professors and assistants alike into loyal and imaginative co-partnership in the interests of learning and of education.

Turning to another point, I have myself so much reason to be grateful for having been allowed to work in intimate concert with

women in Universities and other business that I could wish that we had more women on the Senates or Councils of Universities.

PROFESSOR CAPPON, M.A. (Queen's University, Ontario): I should not venture at the end of a long sitting to take up your attention, Mr. Chairman, if I had not a strong desire to put before you some practical points, which have been suggested by an experience of twenty-five years as a University professor. I am afraid that the name of the University I have the honour to represent is not at all so familiar to most of you as that of McGill, whose work and progress have been so frequently referred to at our meetings, as they well deserve to be. Nor can I claim that our University at Kingston is equally distinguished by that general amplitude of equipment in many directions which is more easily obtained by an institution situated as McGill is in a large manufacturing centre like Montreal, and liberally supported by a group of very wealthy and public-spirited citizens. I rejoice in their patriotism and appreciate its effects, both in show and substance, as highly as any one, even though Queen's, I am sorry to say, does not share in the distinguished and munificent patronage which our chairman of to-day, Lord Strathcona, bestows so freely on McGill. But for all that, Queen's is not a small University, nor, perhaps, of less importance in the general development of Canadian life. In fact, I believe we are, in the actual number of regular students, the larger of the two Universities. We train a large percentage of the teachers for the English-speaking provinces of Canada, and our school of mining is one of the most flourishing schools of practical science in the country, and stands in close relation to the great mining and engineering interests of Ontario.

But the influence of Queen's on Canadian life is not adequately represented by such facts or statistics. The topic we are at present discussing is the representation of graduates in the government of a University. Well, one of the most distinctive features in the life of Queen's is the intimate and vital connection which has always existed between the University and its body of graduates. I have never known a University which drew so ready and assured a support from the general body of its graduates, or one in which the reciprocal influence of the one on the other was closer and greater. Perhaps the very fact that Queen's, which is situated in one of the smaller cities of Canada, has had no particular support from financial magnates, and only a very limited aid from the Government of the province, has aided in developing an unusual sense of responsibility in its graduates.

But it is not so easy to explain precisely how this influence works and by what different and sometimes informal ways it reaches the centres of our University life. It certainly does not work altogether, or even mainly, through the formal representation which the graduates as a body receive on the governing board and the proportion of members which they elect to the University Council, for the gentlemen thus elected do not for the most part have any particular contact with graduate sentiment or opinion, or any regular way of consulting it. A better and really more effective channel for this influence is found in the more or less intimate relations which the officials and the staff of the University in general maintain with the graduates outside the walls. The professors meet the graduates frequently at conferences, lectures, and gatherings of various kinds, and are always ready to hear their views and to discuss matters with them. In this connection I might even mention that we find our University *Quarterly* of great service; amongst its other functions as an organ for the discussion of current events and literary, philosophic and scientific subjects, it has this function also of keeping the constituency informed on points of academic policy and administration. In these ways the University is brought into vital and intimate contact with the national life as represented by the educated classes of professional and scientific men. One result of this has been to bring the work of the University into very direct relation with life and even with what I may call national sentiment. This tendency shows itself in many ways, as, for example, in the special lines of activity and research taken up by our departments of economics and history. As to its influence on the curriculum, I do not hesitate to say that it has been decidedly in the direction of maintaining the highest possible standard in the courses, the teaching, and the examinations; indeed, my experience is that the graduates are in these matters as jealous as the keenest of the professors. On the other hand, I may notice that there is little in this influence to foster the remoter forms of research and erudition. Outside of the departments of philosophy and Biblical exegesis, in which post-graduate work is more easily organized, we need a special staff of professors for such work.

Of course, this close connection between the University and its graduate constituency has a reciprocal character. In its turn the University reacts steadily on this constituency outside its walls, mainly, I think, in the way of creating a liberalizing and reconciling turn of thought which gives free but careful treatment to the problems of the time. It is by this vital current of thought

which continues to flow between the University and its constituency that Queen's has attached herself most distinctively to the national life.

Every University will naturally seek to develop what is distinctive in its life and work, and in Queen's we have recently been trying to find a form of organization in which this connection between the University and its graduates might be fully developed and work in a regular way. At present our constituency, the active part of it at least, has formed itself by a kind of natural growth into a number of district Associations, called Alumni Associations, throughout Canada. These Associations meet at least once a year and have always as their guests one or two of the professors, from whom they hear both in private conversation and in the more formal way of platform or after-dinner speeches what is going on at the University. We are now proposing to give every Association with a membership of fifty or over the right to elect a special representative from the district to the University Council. It is intended that such representatives shall meet their district Associations before the meeting of the Council to hear what information they may desire and what suggestions they may have to make regarding the affairs of the University. Then after the meeting of the Council they will report to their Associations. The Council has only advisory powers, but under this new organization its influence would certainly be increased, and its reserve power as a support and a safeguard would be very great indeed. At any rate, the scheme, I think, is worth trying as a means of maintaining in a rapidly increasing and widely distributed constituency intimate relations between the University and its graduates.

There is another point I wish to put before this Congress, however briefly and crudely I may have to do it. One of the difficulties I experience as the head of a department (English Language and Literature) in which there are about five hundred students is to find well-trained assistants. In Canada we still continue to draw a certain proportion of our University professors from the Old Country, especially in such subjects as classics, philosophy, and literature. There is no doubt that the atmosphere of the Old Country is more favourable to the production of pure scholarship than the more public and calculating ambition which is apt to get hold of our youth. A certain artistic disinterestedness is necessary for the production of the true breed of scholars. But while the tone and scholarly quality of the Old Country scholar who comes to us are in general excellent, it is too often the case that his capacity for teaching and managing classes

is inferior, and what natural capacity he may have is almost always undeveloped. This is particularly true, I think, of the men from Oxford and Cambridge, who as a rule have had no training in teaching and have come up under a system where a tutor talks at ease to two or three students. I do not for a moment mean to underrate the merits of the tutorial system as a method of training scholars, but, of course, there is little or nothing in it to prepare a teacher for working with a class of, say, forty or fifty students. Canadian students expect their professor to have his information well organized for class teaching, and to give it out in a clear and even interesting form, with the logical development and proper relief for important points which are such aids to comprehension. Perhaps some may think the student is asking too much here, more than is good for him even. But we live in an age when practical and technical interests are prominent, almost predominant, and the teacher of literary and philosophic subjects has often, therefore, to create, from the very beginning, the interest which should be felt in his work. That interest is not, as much as it used to be perhaps, something given to him. The Canadian student, at any rate, is not content with brief hints, however pregnant, nor with fine desultory touches, nor with an extract read to the accompaniment of half-extemporized comments. He wants, for his general daily food at least, something more carefully organized. Even such elementary matters as the management of the voice and the organization of class-work on its mechanical side might be worth the attention of those seeking appointments in Colonial Universities. A born teacher, of course, with a natural aptitude for his work will always succeed on any terms and by his own methods, but the average man is likely to labour painfully for some years and with some discredit to himself, for want of a little practical training for his profession.

And I would like to tell you that in Canada the Old Country scholar seeking a University appointment has now to compete, not only with the born Canadian, but with the well-trained graduate of Harvard and other large American Universities. The latter has usually the degree of Ph.D., which has the advantage of being a well-defined and recognized standard for University appointments. He has been trained under teachers who make class-teaching and lecturing a science, he has learned how to use his voice, and has become familiar with the best methods of organising class-work and habituated to them. He is very well trained indeed on the business side of his profession. I do not mean to over-rate that side; I know that the finest element in

education is not that which is given by an external system, or even by the subtler art of logical organization; but, after all, some practical knowledge of the work of teaching is desirable even in a University professor. Might it not be possible for great Universities like Oxford and Cambridge, which send teachers to all parts of the Empire, to provide some brief practical training—I would keep clear of long courses in the psychology and history of education—at any rate for those who intend seeking University appointments in the Colonies? What I have said on this point, I may add, is not said in any critical spirit, but—like much else that I have spoken or written—solely in what I conceive to be the interest of Imperial unity.

THE CHAIRMAN (Sir James Donaldson): I am not going to use my privilege of summing up the results of the speeches on the last paper, but I cannot close the meeting to-day without saying that this Congress has been a complete success. Those who have arranged it have acted in the most kindly manner to all who have come to it. All will acknowledge that we have had splendid discussions which will be of great use, and we have also had grand receptions at the Mansion House and elsewhere, with beautiful music, and other delights. We have, therefore, every reason to be gratified, and we desire to express our hearty thanks to those who suggested the Congress and to those who have carried it out. We feel that we are under particular obligations to the Principal of the University of London, under whose auspices we have met, and in a very special manner to Dr. Hill for his kind, considerate thoughtfulness, and for managing everything with such perfect regularity.

Another feeling arises within me which I think you will all share. It is that, while the papers and the enjoyments have been all that could be wished, yet, after all, the best thing about it is that we have seen and become acquainted with each other. Gentlemen and ladies, we are brothers in carrying on the work of a grand vocation, and it so happens that the task that Providence has assigned us is a delightful one. I have had sixty years of experience, but as I look back I remember nothing but enjoyment, nothing but satisfaction in dealing with excellent young men and women who have devoted their minds to their studies. After they leave us we can follow their careers with pleasure. They renew our life in their various spheres of influence, and they have in that way justified all the trouble that was taken with them. I come into close contact with these students, and I may say in that connection that in this Congress two of the Vice-

Chancellors who have taken a prominent part in the meetings of the Congress are old students of mine, and amongst those who have ably occupied this platform I remember some as little boys. Such a fact is a source of pure joy. It is occurrences like these that make our occupation a very pleasant one indeed, but we have also to remember that it is also a very important one, and we put it in this way as a general conclusion : what we do with these young men and women is to aim at giving them a harmonious and full development of the powers of their mind, and at bringing every faculty into healthy activity. We have been speaking of University extension, but the best extension is through the agency of our students. All these young men and women are centres of spiritual energy, exercised beneficently over the whole country. We bestow an immense blessing on the community when we send out good men who can influence their congregations, influence their schools, and influence the future merchants. We have had some few failures, but the great majority of the students possess these powers of influence, and I think we may feel very satisfied that we are members of a profession which can produce incalculable good for mankind.

Well then, in that case, all the delegates who have come here should remember that we are working together in one noble enterprise, and that we are in the strongest sense sworn brothers striving together for the realisation of all the highest aims of man ; and if we are sworn brothers in such an effort, you may be sure that you will have a hearty welcome if you visit any of the Universities in Britain. The pity is that we have seen so little of each other, the blessing is that we have had the opportunity of seeing something of each other, and I hope this opportunity will be renewed—as we should say in the words of our Scotch song, "Will ye no come back again?" I wish you all prosperity in your different spheres.

THE HON. DEVAPRASAD SARVADHIKARY, M.A. (Calcutta) : On behalf of the representatives of India I desire to associate myself very heartily with every word that has been said by the Chairman. I would only ask leave to correct a slight mistake of our venerable chairman. Not only are we sworn brothers, but sworn brothers and sisters in the Great Cause. I particularly desire to make this correction because that Cause is finding great expression and expansive action in India—which is not merely a land of cobras and cholera, as it has been the fashion in some quarters recently to pretend, for scaring away great workers, but

a land in which University education, and some other matters of which we hear little in this country, are making great progress.

As I have already told the Congress incidentally, theoretically at least, and largely practically, we give women and men equal facilities for University education of all kinds, and our graduate representatives on the Senate of our University are elected by the suffrages of women voters as well as men.

It has been a matter of the greatest pleasure for us to be able to come to England and to give some little account of what is being done in India. I am glad that through your courtesy the Indian representatives have taken an active part in the work of the Congress; I particularly desire to associate myself with what has been said of Dr. Hill, whose temper we have tried to upset but have not succeeded. He has given great satisfaction to all, in spite of all the strain and worry he has had to undergo. At the end of five years—I hope you will make it three—when this Congress meets again, I hope we shall have Dr. Hill again to pilot us in difficult waters. The Congress has been in every way a success; we have seen each other, heard each other, and devised means to carry on the great work that has been outlined. This gathering will indeed be a great thing for this Empire to remember and profit by, and I am sure the opportunity of real consolidation here offered will be fully availed of.

MEETING OF DELEGATES

ON THE

AFTERNOON OF FRIDAY, JULY 5.

SIR DONALD MCALISTER, K.C.B., VICE-CHANCELLOR AND PRINCIPAL OF THE UNIVERSITY OF GLASGOW, WAS CALLED TO THE CHAIR.

It was RESOLVED :—

(1) That in the opinion of this Congress it is desirable that arrangements be made for summoning a Congress of the Universities of the Empire at intervals of five years.

(2) That the Home Universities Committee of this Congress be invited to arrange for an Annual Meeting of representatives of the several Home Universities.

(3) That in the opinion of this Congress it is desirable that the Universities of the various Dominions of the King overseas should arrange for periodical meetings of their representatives.

(4) That a Committee of this Congress be now appointed to take steps for the formation in London of a Bureau of Information for the Universities of the Empire.

(5) That the Committee consist of fourteen members, of whom seven shall be nominated by the Home Universities Committee of this Congress and seven by the Universities overseas, viz., for Canada, two; Australia, one; New Zealand, one: the Cape, one; India, one; other parts of the Empire, one.

(6) That the Congress of the Universities of the Empire offer their cordial thanks to Dr. Hill for his earnest and devoted labour for its success.

APPENDICES

SUMMARY OF RETURNS OF INFORMATION SUPPLIED BY THE SEVERAL UNIVERSITIES BEARING UPON THE SUBJECTS DISCUSSED AT THE CONGRESS

TOGETHER WITH A FEW QUOTATIONS FROM OFFICIAL PUBLICATIONS

APPENDIX I.

ARRANGEMENTS FOR POST-GRADUATE AND RESEARCH STUDENTS.

UNIVERSITY OF BIRMINGHAM.

There are a few (two or three) post-graduate students working in the various departments of the University, such as Engineering, Metallurgy, Geology, but the numbers are always small.

On the other hand, advanced students of the University frequently go abroad for the purpose of completing their knowledge of foreign languages, and every year the University nominates to the Commissioners for the 1851 Exhibition a candidate for a research Scholarship. In nearly all cases these Scholars reside in one of the Universities of the Continent during the tenure of their Scholarship.

UNIVERSITY OF BRISTOL.

No Inter-University arrangements for post-graduate or research students have been made, but the ordinances make liberal allowance for the recognition of degrees of other Universities for the purpose of attaining higher degrees by research in the University.

UNIVERSITY OF CAMBRIDGE.

Advanced Students are of two kinds: those who are admitted to a Course of Advanced Study, and qualify for a degree by passing a Tripos Examination; and those who are admitted to a Course of Research, and qualify for a degree by means of a dissertation; but the conditions of admission to the University are the same for both classes of students.

Each application for admission as an Advanced Student must be made to the Registrary of the University, and must be accompanied by (i) a diploma or other certificate of graduation at a University; (ii) a statement as to the course or courses of (*a*) advanced study or (*b*) research, which the applicant desires to pursue, together with such evidence of qualification, attainments, and previous study as he may be able to submit; (iii) a certificate or declaration that the applicant has attained the age of twenty-one years.

In exceptional cases persons who do not present a diploma or certificate of graduation may be admitted as Advanced Students, provided they give such evidence of special qualification as may be approved by the Degree Committee of the Special Board of Studies with which the proposed course of advanced study or research is most nearly connected.

The Registrary communicates each application to the Chairman of the Special Board of Studies with which the proposed course of advanced study or research appears to be most nearly connected. Applications for admission to courses of advanced study are considered and decided by the Chairman of the Special Board; applications for admission to courses of research, and exceptional applications from persons who do not present a diploma or certificate of graduation, are considered and decided by the Degree Committee of the Special Board.

The application will not be granted unless it appears (i) that the course or courses of advanced study or research can conveniently be pursued within the University; and (ii) that the applicant has produced adequate evidence that he is qualified to enter upon the proposed course or courses.

Before anyone is finally admitted as an Advanced Student, and allowed to count residence or claim other privileges, he is required to become a member of a College or Hostel, or a non-collegiate student. The conditions under which advanced students are admitted to a College vary with the practice of the different Colleges.

If the application for admission to the College is granted, the student is required to deposit caution money (usually £15), which is accounted for and the balance of it returned when he removes his name from the College boards. Students qualified to be admitted as Advanced Students of the University are admitted members of a College without examination, and have in the College (though not in the University) the *status* of Bachelor of Arts.

An Advanced Student is not allowed to count any term before that in which he has matriculated unless he has satisfied the Council of the Senate that his matriculation was deferred for grave and sufficient cause.

An Advanced Student who has been admitted to a course of advanced study, and has, after the first day of the term in which he was so admitted, kept two terms by residence, may, in his third or any subsequent term of residence up to the tenth, be a candidate for the more advanced parts of any of the Tripos Examinations; but in order to obtain a degree he must attain the standard specially prescribed.

UNIVERSITY OF LEEDS.

The University has supplied particulars of the post-graduate students who have come to the University during the last six years (Sessions 1906–07 to 1910–11 inclusive). The subjects selected for study include Agriculture, Botany, Chemistry, Dyeing, Education, Engineering, English Literature, Geology, Leather, Mathematics, Philosophy, Physics, Sanitary Chemistry, Zoology; and the students have come from the following Universities and Colleges :—

Aberdeen.	Durham.	Munich
Basel.	Edinburgh.	Oxford
Berlin.	Glasgow.	Paris.
Birmingham.	Ireland.	St. Stephen's Coll., Windsor.
Calcutta.	Liverpool.	
Cambridge.	London Univ.	Strassburg.
Carlsruhe.	London Royal Inst.	Tokio.
Darmstadt.	Manchester	Zurich.
Dresden.		

Statistics are not available as to the number of post-graduate students who have gone from the University of Leeds to other Universities during the last few years. The University Scholars, holders of the Gilchrist Studentship in Modern Languages and the 1851 Exhibition Scholarships frequently proceed to some Continental University for the purpose of undertaking advanced study or research.

UNIVERSITY OF LIVERPOOL.

No definite inter-University arrangements have yet been made for post-graduate and research students. Many Liverpool graduates, especially those in the Faculty of Science, proceed to Continental Universities for further study. The choice of a University in each case is generally made under the advice of the Dean or the Head of the Department concerned, and depends upon the subject of study to be pursued, and the reputation of the teachers of that subject in the foreign Universities. The choice also depends, to some extent, upon the financial circumstances of the student.

Encouragement is given in the University of Liverpool to graduates, and other persons possessing suitable qualifications, to study for higher degrees and diplomas; and facility is afforded for carrying out original investigation. Certain departments of the University are entirely devoted to post-graduate teaching and research work. Advanced study and research are among the conditions of tenure of all Fellowships awarded in the University, and of almost all the post-graduate Scholarships and Studentships.

UNIVERSITY OF LONDON.

Under the present Statutes of the University as re-constituted in 1900 special provision is made for Graduates of other Universities who desire to proceed to the Higher Degrees of this University. The Section of the Statutes in question reads as follows :—

113. Provided also that the Senate may admit as Internal Students and as Candidates for any of the higher degrees (except in Medicine and Surgery) without their having previously taken any lower degree the following persons (that is to say) :—

(1) Graduates of Universities approved by the Senate for this purpose;

(2) Persons who have passed the examinations required for a degree in some University approved as aforesaid;

At the present time (May, 1912), 91 students (67 men and 24 women) are registered as preparing for Higher Degrees under this Section of the Statutes. They are studying for the following degrees :—D.D. (3); M.A. (24); D.Lit (1); LL.D. (3); D.Mus. (2); D.Sc. (28); D.Sc. in Engineering (2); and D.Sc. in Economics (28); and their work is carried on in various Colleges and Institutions of the University.

The degrees or corresponding qualifications for registration under the Statute were obtained in the following Universities :—

Aberdeen	1	Jena	1
Belfast	1	Leipzig	1
Berne	1	Lille	1
Bombay	2	Liverpool	3
Calcutta	4	Louvain	1
Cambridge	27	Madras	1
Cape of Good Hope	2	Manchester	8
Columbia	1	Melbourne	1
Dublin	2	New Zealand	2
Durham	4	Oxford	11
Edinburgh	1	Peking	1
Glasgow	2	St. Andrews	1
Heidelberg	1	Sydney	2
Hungary	1	Wales	6
Jassy	1		

Regulations have been approved by the Senate for the direction of these Students. As a general rule they pursue a Course of Study including supervision of their research work extending over at least two years, and their progress is attested by Certificates from their Colleges or Teachers presented to the University at the end of each term.

It is not possible to give any statistics or other information as to Graduates of this University who have proceeded to other Universities to prepare for Higher Degrees. But it is well known that a large number of the Graduates of this University are studying in Universities at home and abroad.

VICTORIA UNIVERSITY OF MANCHESTER.

This year 51 students are pursuing post-graduate research work in the University other than those preparing for the degree of Master in Arts or Science. Of these 30 obtained their degree in Manchester. The others are from various Universities in England, Scotland, the Continent of Europe or the Colonies. For several years there have been some students engaged in such research from Australia and the other Dominions, but the number is at present small. The majority of the students of this University who have taken post-graduate work at other Universities have gone to Germany.

Research degrees have been instituted by the University, open to graduates or persons who have passed the degree examination of other approved Universities, and under certain conditions to candidates not so qualified.

Graduates of approved foreign or Colonial Universities who have attained a degree substantially equivalent to that of the Master's degree in this University, and are recommended by the Faculty concerned, are allowed to become candidates for the degree of Doctor of Letters or Science after a course of study or research of at least two years in this University, provided that they do not proceed to the Doctor's degree until four years have elapsed from their taking their first degree at the approved University. The degree of Doctor of Letters or Science is conferred only on such as have distinguished themselves by special research or learning.

A somewhat similar arrangement applies for the degree of Master of Arts, Science or Technical Science, the period of research for each of these degrees being two years.

A number of research Fellowships, tenable for from one to three years, of the value of from £50 to £150 a year, are awarded by the University, together with certain research Fellowships, enabling properly qualified students to pursue a course of research in the University without payment of fees.

UNIVERSITY OF OXFORD.

Members of certain other Universities at home and abroad may be admitted to the University of Oxford as "Junior" or "Senior" Students under certain conditions, and by being so admitted become entitled to certain privileges as set forth below.

"Junior Students" (1) reckon the Term in which they are matriculated as their fifth Term for all purposes of provisions respecting University standing; (2) are exempted from Responsions and an Additional Subject at Responsions; (3) can take the degree of B.A. after a residence of eight Terms (instead of twelve) provided that they have passed the Second Public Examination, obtained Honours in the First or in the Second Public Examination, and (except in the case of Indian students) shown a sufficient knowledge of Greek. A "Junior Student" who has not taken Honours cannot take the B.A. degree until he has resided for twelve Terms.

An Indian Junior Student is entitled to offer English and an Oriental Language in place of Latin and Greek in Pass Moderations, and an Oriental book in place of the examination in Holy Scripture.

"Senior Students" (1) reckon the Term in which they are matriculated as their fifth Term for all purposes of provisions respecting University standing; (2) are exempted from all parts of Responsions and the First Public Examination, and from any preliminary examination of the Second Public Examination; (3) can take the degree of B.A. after a residence of eight Terms (instead of twelve), provided that they have obtained Honours in the Second Public Examination, and (except in the case of Indian students), shown a sufficient knowledge of Greek.

The Universities whose members may be admitted to these privileges include :—

United Kingdom: London, Durham, Manchester, Liverpool, Leeds, Sheffield, Birmingham, St. Andrews, Glasgow, Aberdeen, Edinburgh, and Wales.

Indian: Calcutta, Punjab, Bombay, Madras, Allahabad.

Colonial: Cape of Good Hope, Sydney, Adelaide, Melbourne, New Zealand, Toronto, McMaster (Toronto), McGill, Tasmania, New Brunswick, Nova Scotia (King's College, Windsor, Dalhousie University, and Acadia University), Mt. Allison College (Sackville, New Brunswick), Manitoba, Queen's College (Kingston, Ontario).

Members of the following Universities may be admitted to the status of Colonial Junior Student :—

Malta, Laval (Quebec), St. Joseph's College (New Brunswick), Bishop's College (Lennoxville), Ottawa, Saskatchewan.

The conditions for admission to the status of "Junior Student" are broadly that the candidate must have pursued at his University a course of study extending over two years, and must have passed all the examinations incident to that course. For the Colonial Universities, mentioned above (except the University of the Cape of Good Hope, for which there is a special decree), these two conditions are all that are necessary, but candidates from American Universities and Universities within the United Kingdom are required to have attained at their examinations a certain standard determined by decree of Convocation, and members of Indian Universities must have passed the examinations for the degrees of Bachelor of Arts or Bachelor of Science.

The conditions of admission to the status of "Senior Student" are that the candidate must have pursued at his University a course of study extending over three years, and have taken Honours in the final examination incident to the course.

The standard at examinations incident to their University course which is required from candidates for Junior status who are not members of Colonial Universities, and the definitions of what constitutes "Honours" in the case of candidates for Senior status, and of what may be accepted as evidence of a sufficient knowledge of Greek, are determined for the various Universities concerned by decrees of Convocation.

Individual members of Universities other than those mentioned above may be admitted to the status of Junior or Senior Student by a special decree of Convocation. All applications for special decrees are considered by the Hebdomadal Council, which decides in each case whether the evidence submitted to it is such as to warrant the introduction of a decree.

The proper method of procedure is for the candidate to send in to the Registrar of the University, who is the Secretary of the Council, through the society to which he belongs, or intends to belong, an application for the desired status, accompanied, in all cases, by the Calendar (or Catalogue) of his University, and by a complete official record of the candidate's course of study thereat.

Any person, not under the age of twenty-one years, who has obtained a degree in Arts, or in Philosophy, or in Science, in some other University, may under certain conditions, be admitted to a two years' course of advanced legal study as a candidate for the B.C.L. degree.

Such candidates are required to occupy themselves for seven Terms at least after their admission in the study of Law under the supervision of the Board of the Faculty of Law. They may take the Examination for the B.C.L. degree not earlier than the eighth and not later than the twelfth Term from their matriculation, and, if they obtain Honours therein, may supplicate for the Degree provided that they have kept Statutable residence for eight Terms.

Any person who desires to avail himself of these privileges should matriculate in the Michaelmas Term, and should, either before or directly after matriculation, apply to the Board of the Faculty of Law, through the Assistant Registrar, for admission to a course of advanced legal study. With his application he must send :—

(1) Evidence of age.

(2) Evidence of his degree.

(3) The Calendar (or Catalogue) of his University.

(4) Evidence of his qualifications to pursue with profit an advanced course of legal study.

UNIVERSITY OF EDINBURGH.

It is not easy to give complete statistics as to post-graduate students coming to this University. About half a dozen post-graduate students are admitted annually as "Research Students" or "Research Fellows" (so far an honorary title, their lines of study being as a rule Scientific or Medical, but sometimes also Philosophical, Historical, or Literary).

Then there are certain post-graduate courses, and the numbers attending these in 1910–11 were as follows :—

Class of Protozoology, 8 in winter, 10 in summer.
Class of Diseases of Tropical Climates, 9 in winter, 9 in summer.
Public Health Laboratory, 5 in winter, 3 in summer.
Class of Tropical Hygiene, 5 in winter, 7 in summer.
Class of Science and Teaching of History, 13 last summer.

Regulations have been approved for Special Study and Research, under which graduates of Scottish Universities or of other Universities recognised by the University Court, or other persons who have given satisfactory proof of general education and of fitness to engage in some special study or research, may be admitted to prosecute study or research in the University.

Research students may offer themselves for the D.Sc. degree under conditions prescribed in the regulations.

No statistics are being given as to the classes which qualify for degrees in Law and Divinity, though they are in a sense post-graduate, as candidates for these degrees must be graduates in Arts.

No statistics are available as to post-graduate Students going from the University.

UNIVERSITY OF GLASGOW.

None of the University courses are specially marked off for post-graduate work, but there are many courses of a higher or supplementary nature which are taken alike by graduates and undergraduates. For the higher degrees in Arts and Science (D.Litt., D.Phil., D.Sc.) further class attendance is not obligatory, but in many cases prospective candidates pursue research work

in the University Laboratories and Libraries. Often graduates in Arts (M.A.) attend additional classes with a view to obtaining Honours in a particular group of subjects. Graduates in Medicine may obtain the Higher degrees of M.D. and Ch.M. without further attendance. Arts graduates may proceed to the Examinations for B.D. degree after a prescribed three years' course in Theology. Approximate number of Research students in Glasgow University is at present 20. A fair number of our graduates and students in the various Faculties study for a time in Universities on the Continent. Both at home and abroad the work of Research Students falls largely under scientific heads. In Glasgow University there are a number of Scholarships that form useful aids to Research Students and others.

Carnegie Scholars and Fellows prosecute Research in the University Laboratories and Libraries. The subjects chiefly taken up in Glasgow are Physics, Chemistry, Physiology, Pathology, Botany, Zoology.

UNIVERSITY OF ST. ANDREWS.

The number of post-graduate (or, as it is preferred to call them, *graduate*) Students coming to this University from other Universities, or going from this University to other Universities, has not been large, and statistics cannot readily be given. The Scholarships provided in the University are confined strictly to those who have been students of the University. One series of Scholarships, called the Guthrie Scholarships—at present five in number—is awarded by competition to students of the University, who must continue their studies either at the University of Oxford or at the University of Cambridge, or (with the consent of the Trustees) at some foreign University. If after two years of general study a Scholar desires to enter upon the professional study of Divinity, Law, or Medicine in a Scottish University, he may do so with the sanction of the Trustees. These Scholarships are open two years out of three to Candidates who attain distinction in Classics, and one year out of three to Candidates who attain distinction in Mathematics. As a general rule, the Candidates go to Oxford or Cambridge University, but cases have occurred in which they have by permission of the Trustees gone to foreign Universities.

There are also Berry Scholarships in Arts, Science and Divinity, six in number, tenable for one year. The holders of these Scholarships are expected to carry on Research work in the University of St. Andrews, but it is possible for the University Court to grant permission to the Student to hold the Scholarship while carrying on research work at some other University. The Scholarships have been held by Students at Oxford, Cambridge, London, the British Schools at Rome and Athens, and elsewhere.

The University nominates Candidates for Science Research Scholarships placed at the disposal of the University by the Royal Commissioners for the Exhibition of 1851. One such Scholarship falls vacant in every second year. The holders as a rule study at Continental Universities or Institutions. The Scholars have generally been Students of Chemistry or of Zoology.

QUEEN'S UNIVERSITY OF BELFAST.

(*a*) In Arts no students have, as yet, come from other Universities to this University for post-graduate work. Two students have this year gone to Paris to pursue post-graduate work.

(*b*) In the Faculty of Science a few of our best graduates have gone to other Universities to continue study and research work. The majority of these have been holders of the "1851 Exhibition Research Scholarship." Physicists have generally gone to the Cavendish Laboratory, Cambridge, and

chemists to University College, London, or to a German University. At present the "Purser Student" is pursuing a course of study in Mathematical Science at Paris. The choice of a place of study has been generally determined by the eminence of the teacher under whom the work was to be carried on, and by the chances of obtaining an opening to a career of teaching work of University type.

(*c*) In the Faculty of Medicine, graduates proceeding to one or other of the higher degrees in Medicine or in branches of Science related to Medicine, may, and most frequently do, carry out their post-graduate work in other Universities or Institutes at home or abroad. Many of our graduates, with a view to medical service abroad, take courses in Tropical Medicine in London or Liverpool. The same holds good for research students in other branches of Medical Science. Every facility is offered for similar work to be carried out here by graduates of other Universities. It is impossible to give the numbers of such research students.

(*d*) In the Faculty of Commerce there are at present two students reading for the degree of B.Sc. who have been excused the Intermediate Examination in virtue of a Final Degree Examination at Trinity College, Dublin.

UNIVERSITY OF DUBLIN.

By Grace of the Senate Nov. 10, 1911, the Degree of Bachelor of Science was instituted.

"The qualifications for this Degree shall be research and advanced study in any important branch of Mathematical, Experimental, Natural or Applied Science.

A Graduate of the University of Dublin, having obtained Moderatorship in Mathematics, Experimental Science, or Natural Science, may present himself for the Degree of Sc.B. one full year after graduation, provided he shall during that year have devoted himself to any important branch of Mathematics, Physics, Natural or Applied Science, both by advanced study and by research.

A Graduate of any other approved University who possesses a Degree the equivalent of Moderatorship, having spent a full year in residence in the University of Dublin, and having during that time pursued one of the branches of Mathematics, Experimental or Natural Science, by advanced study and by research, shall be eligible to present himself for the Degree of Sc.B."

Provision is made for advanced study in Physics, Engineering and the other Schools of the University, *cf.* the Calendar.

UNIVERSITY OF MELBOURNE.

It is difficult to give any definite information on this point. There is no organized movement. Every case is an individual one, and the student's choice of a University to which to go is governed, of course, by the line in which he proposes to specialize, and the fame of the teaching therein. Probably nearly a dozen students *per annum* go from this University to Europe for post-graduate work.

Students also come to this University for post-graduate work, but they are few in number and cannot be classified. Most have been drawn by the grant of special research scholarships for which the Government gives £2,000 per annum to the University. So far as the post-graduate work is used to secure a higher degree, the higher degree is usually taken out in the University in which a degree is already held.

UNIVERSITY OF SYDNEY.

The post-graduate work in the University of Sydney is chiefly carried on by its own graduates. There are five scholarships tenable by graduates for post-graduate work in the University of Sydney, varying in amount from £50 to £70 for one year.

There are also four Macleay Fellowships of £400 a year, which are awarded by the Linnean Society of New South Wales to graduates of the University for research work in the University. These may be renewed from year to year as long as the holder is doing good work.

The University also appoints annually a number of junior demonstrators for a period of one year, part of whose duty is to carry out research work under the direction of the professor.

In addition to the Rhodes Scholarships and the Scholarships awarded by the Royal Commissioners of the Exhibition of 1851, two Scholarships of £150 a year, tenable for two years, are awarded annually to enable graduates to obtain post-graduate instruction in other Universities.

In selecting his University the student is generally guided by the reputation of the professor of his subject under whom he desires to study. The following Universities were selected by 32 post-graduate scholars during the last few years :—Cambridge (Mathematics, Physics, Geology, Philosophy, Anatomy, and Theology, &c., 17); Oxford (Classics, Philosophy, Law, 4); London (Medicine, Chemistry and Engineering, 4); Jena (Classics, 3); Cornell (Engineering, 2); McGill (Engineering, 1); Columbia (Education, 1).

UNIVERSITY OF NEW ZEALAND (Wellington).

There has been no instance of a graduate coming from any other University to the University of New Zealand for post-graduate work. But occasionally graduates from other Universities have come to New Zealand for the study of special points in connexion with the fauna and flora, geology, &c., of the country. These have been assisted by the University Professors, and have utilised the University laboratories.

With reference to graduates of the University of New Zealand proceeding to other Universities, in the first place there is a Science Research Scholarship awarded to a graduate of this University in every alternate year by the Commissioners of the 1851 Exhibition. Since 1892 ten New Zealand Graduates have availed themselves of this Scholarship. In practically all cases the Scholarship has been held at a British University; occasionally a Scholar has gone abroad for some portion of the time. Moreover, the Rhodes Scholarship offers opportunities to New Zealand graduates for further study at Oxford.

For the past three years a Medical Travelling Scholarship has enabled a distinguished Medical Graduate to do post-graduate work at a European University.

But, apart from specific cases of this kind, every year a few New Zealand graduates come to Britain for post-graduate work, in Science, or in Literature, or in some one of the professional faculties. Such graduates go generally to some one of the modern British Universities, and occasionally one goes to Cambridge. Medical graduates frequently go to London, in order to take the examinations of the Conjoint Board. Occasionally one takes the M.D. of the London University, but more frequently Medical Graduates go to Edinburgh for additional degrees. Graduates in Arts, who are entering the Ministry, occasionally go to a Scottish University for the purpose of obtaining a degree in Divinity, such Degrees not being conferred by the University of New Zealand.

UNIVERSITY OF THE CAPE OF GOOD HOPE (Cape Town).

Practically all our graduates proceed to professional studies, and nearly all holders of degree scholarships proceed to Europe. Rhodes Scholarships are restricted to Oxford, the Ebden Scholarship to Cambridge; most others are unrestricted. Medicine and Law are the most popular post-graduate studies. Applied Science is gaining favour as a post-graduate study. Classics, Modern Languages, History, Education, are also receiving attention from graduates going abroad. The majority of graduate students going abroad either have University scholarships or rely on private means, though some, in a second year abroad, may become in some measure beneficiaries of the Universities in which they are studying.

QUEEN'S UNIVERSITY (Kingston, Ontario).

There are post-graduate courses in this University in Science and Philosophy. Students from other Universities occasionally take these Courses, mainly the one in Philosophy.

Students from this University in considerable numbers attend others, mostly in foreign countries, chiefly the United States, Great Britain, and Germany. Of the American Universities, Harvard, Chicago, Johns Hopkins, Columbia, Yale, and Wisconsin seem to be those generally preferred. In England, Oxford and Cambridge are most attended, and in Germany, chiefly Berlin, Heidelberg, and Leipzig.

UNIVERSITY OF TORONTO.

The number of post-graduate students in the Session 1910-1911 is made up as follows:—for the Degree of Master of Arts, 111; for the Degree of Doctor of Philosophy, 31; for the Degree of Doctor of Medicine, 2; for the Degree of Civil Engineer, 1.

Of the candidates for the Degree of Doctor of Philosophy two came from the University of Nebraska, two from the Agricultural College, New Hampshire, one from the University of the State of New York, one from Dalhousie University, Nova Scotia, and one from the State University of Pennsylvania.

For the Degree of Master of Arts, two were from McMaster University, Toronto, and all the other candidates for this and the other Degrees mentioned were graduates of this University.

The number of students going for post-graduate work to other Institutions varies considerably. In the Faculty of Arts there are always a number of students at Oxford. At the present time we have about a dozen. The Courses which attract them to Oxford are those in Classics and History. Cambridge meets the wishes of those who have followed Physics, while among the American Universities, Harvard, Columbia, and Chicago attract most of the students in Arts. Germany draws a number of students in Medicine, but a greater number in Science. Edinburgh, London, and Johns Hopkins always have a number of our graduates in Medicine, while Glasgow, Edinburgh, Oxford, and Cambridge attract Theological students who have graduated in Arts.

The Flavelle Travelling Fellowship and the Rhodes Scholarship take successful candidates to Oxford. For the most part the successful candidate for the 1851 Exhibition Science Scholarship proceeds to Germany, although Harvard and Cambridge have had representatives of this University.

American Universities offer substantial inducements in the way of Scholarships and Fellowships, but the determining factor in most cases is

the equipment and the character of the teachers in the subjects in which the student is interested. Another factor which determines the choice of a student is the facilities for obtaining post-graduate Degrees, especially the Doctorate, on the basis of the recognition of the Bachelor of Arts or other Degrees of this University.

McMASTER UNIVERSITY (Toronto).

We have been sending students for post-graduate work to Chicago, Illinois, Harvard, Yale, and other United States Universities. Only the Rhodes Scholars have gone to England.

McGILL UNIVERSITY (Montreal).

No exact record is kept as to how many McGill graduates take post-graduate courses elsewhere, and we have no details regarding the course of study they follow in other institutions. Roughly speaking, probably about 25 or 30 have entered the graduate schools at other Universities during the past five years to prosecute their studies, with a view, as a rule, to obtaining a Master's or a Doctor's degree. The subjects studied are a continuation, as a general rule, of the advanced work which they took in their honour course at McGill, such as English, Modern Languages, Philosophy, Economics, History, Chemistry, Physics, Zoology, Mathematics. Apart from Rhodes Scholars at Oxford, and other graduates, who have numbered over a dozen within the past few years, the majority of these post-graduate students go to one or other of the following Universities: Harvard, Yale, Columbia, Cornell, or Chicago. Not infrequently the choice of a Graduate School is determined by the scholarships obtainable, but in many cases the determining feature is a reputation of the School in the particular branch in which the student wishes to prosecute his studies. In every case the student is guided in his choice by descriptions of the courses offered, and what these courses lead to. The calendars of these different Universities contain more or less specific information regarding the post-graduate courses given, and intending students are thereby enabled to map out, in a general way, a scheme of study even before they enter.

UNIVERSITY OF BISHOP'S COLLEGE (Lennoxville).

Probably an average of one or two students a year. Several have gone to Oxford and Cambridge; in the former case the Rhodes Scholarships enable us to send a student at certain intervals; in the latter case financial help, such, for example, as is given at Emmanuel College, Cambridge, is an attraction.

UNIVERSITY OF NEW BRUNSWICK (Fredericton).

We do not attempt any considerable amount of post-graduate work. Several graduates each year take up post-graduate work elsewhere. They almost invariably go to Harvard, Chicago, or Columbia Universities.

The conditions which determine the selection of an institution for post-graduate work are the opportunities for specialization afforded by a large number of courses in each subject, the opportunities to win scholarships and the desire to secure a Doctor's degree of recognised worth.

UNIVERSITY OF MOUNT ALLISON (Sackville).

The post-graduate students in attendance at our Institution are for the most part our own students. Many of our graduates take post-graduate courses at Harvard.

UNIVERSITY OF ST FRANCIS XAVIER'S COLLEGE (Antigonish, Nova Scotia).

Every year about a dozen students, after receiving the Degree of B.A., enter upon the study of Law, Medicine, and Engineering. An occasional student goes to Germany or the United States for post-graduate work in Science.

UNIVERSITY OF ALBERTA (Strathcona).

As yet we have no students who have sought post-graduate courses except with ourselves. Next year we shall probably have men seeking post-graduate courses.

Generally speaking, two things influence a student in selecting a University to attend. First, they are influenced by the special courses offered in the work which they require. Secondly, by the fact that the University gives them recognition for the courses done, and admits them to a degree on completing the post-graduate work. Most Canadian students go to the American or German Universities for the two reasons mentioned.

UNIVERSITY OF MANITOBA (Winnipeg).

Statistics as to number of post-graduate students are not available. None at present come to the University of Manitoba, though several of our own graduates have spent a year or more in experimental research before proceeding to some other University. The degree of M.A. may be obtained by graduates of three years' standing on presentation of a satisfactory thesis.

Our students have pursued graduate work in the Universities of Chicago, Princeton, Harvard, and Cornell in the United States, and Cambridge in England; Rhodes Scholars, of course, go to Oxford.

It is very probable that the distance of the University has some influence on the choice, and fellowships have also in some cases been inducements. The possibility of obtaining the degree of Ph.D. in three years of post-graduate work is in nearly every case a chief determining factor in the selection of a second University.

It is quite probable that ignorance of what the English Universities offer in regard to post-graduate work leads students to consider solely the advantages offered by the United States Universities. Many of these latter secure the names of the graduating students before the close of the session, and mail to them descriptive pamphlets, with courses of study, scholarships available, and other information.

Students in many Canadian Universities find it a difficult matter to secure any similar information about Universities in the United Kingdom.

UNIVERSITY OF BOMBAY.

As this University has no special arrangements for post-graduate or research students, it is not in a position to offer any exchange in the matter. Taking the various Master's degrees it appears that in 1910 there were 28 candidates for the M.A. in Languages, 23 in History, 7 in Philosophy, 1 in Mathematics, 14 in Chemistry, and 1 in Natural Science; in Law there were 5 candidates, and in Medicine 3. The Indian Institute of Science has recently been opened at Bangalore for the purpose of post-graduate work and research. Most of those who go to England go either for

the Bar, or for the Indian Civil Service, or for the Indian Medical Service, or with a technical scholarship; those who go for technical purposes affect Manchester a good deal, while those who go for the I.C.S. nearly all go to Cambridge.

The University has no special accommodation for research students. There is a Springer Research Scholarship, founded in 1908, worth £80 per annum, and tenable for two years, to be awarded alternately for a scientific subject and for a literary subject connected with Indian Archæology and Epigraphy; the present science scholar is working in the Institute of Science at Bangalore.

In this country of long distances the system has been adopted of having colleges scattered about at great distances from each other; the University prescribes the courses and examines the results. Each College generally teaches every subject in the curriculum. It has recently been proposed that an attempt should be made to centralise the post-graduate courses, the University itself taking charge of them; and it remains to be seen whether anything will come of the proposal. The initial difficulty is that there are no funds for the purpose.

UNIVERSITY OF CALCUTTA.

There are no inter-University arrangements for post-graduate and research students so far as the Calcutta University is concerned, and statistics as to the number of post-graduate students coming to and going from this University are not available. A small number of students of this University, mostly graduates, proceed to England almost every year, where they join the British Universities to complete their education. The major portion of these graduates betake themselves to the study of Law in the several Inns of Courts, and eventually come out as Barristers-in-Law. A few proceed to the Universities to continue their studies in Arts or Science, but they are usually allowed to supplicate for the Bachelor's degree Examinations. To help these students the Government of India places at the disposal of the Calcutta University a scholarship in every third year, which entitles the holder to an allowance not exceeding £200 *per annum*, payable from the date of his arrival in England, and tenable for three years. The scholar is elected by the University from among its graduates, and each scholar is provided with a free passage to and from England. Scholars are expected to reach England before the opening of the October term at the Universities of Oxford or Cambridge, to one of which Universities they are required to proceed.

The Calcutta University, however, provides for post-graduate study or research in Literary or Scientific subjects for its own graduates. For the encouragement of post-graduate study in the Faculties of Arts and Science it has founded twelve scholarships of Rs 32 a month, called the "Jubilee Post-Graduate Scholarships," which are awarded annually on the results of the B.A. and B.Sc. Examinations. Only the first man in the First Class Honours list in any subject is entitled to the scholarship, and each recipient of the scholarship is required to prosecute a regular course of study for the degree of Master of Arts or Science, either under one or more University Lecturers or in a College duly affiliated for the examination in the subject which he takes up. Other studentships and prizes and medals are awarded with the object of encouraging research.

Definitely arranged courses are prescribed by the Calcutta University for post-graduate study in Arts, Science, Law, and Medicine. Besides duly affiliated Colleges with adequately equipped laboratories and museums there are University Readers and University Lecturers in the various Arts and Science subjects, as well as a University Professor of Economics, to impart instruction in these courses of study, and to help students in preparing themselves for higher degrees.

UNIVERSITY OF MADRAS.

The University of Madras has very recently made Regulations providing for University studentships, not exceeding eight in number, to enable graduates of the University to undertake research in any subjects in the Faculties of Arts, Medicine, and Engineering. No grants have as yet been made. It is understood, however, that such studentships will be tenable at institutions affiliated to this University only. No information is available as to the number of graduates of this University who are continuing their studies at other Universities.

PANJAB UNIVERSITY (Lahore).

The Panjab University has no scheme of its own of this kind.

The Government of India, however, provides scholarships for distinguished graduates to continue their studies in British or other foreign Universities.

RHODES SCHOLARSHIPS.

These Scholarships were founded under the Will of the late Cecil John Rhodes; they are open to Colonials, Americans, and Germans, and to no others. He desired that "in the election of a student to a Scholarship, regard shall be had to (1) his literary and scholastic attainments; (2) his fondness for and success in manly out-door sports, such as cricket, football, and the like; (3) his qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness, and fellowship; and (4) his exhibition during school-days of moral force of character, and of instincts to lead and to take an interest in his school-mates."

The value of each Colonial and American Scholarship is £300 a year; that of each German Scholarship is £250 a year.

Mr. Rhodes states in his Will that he establishes the Colonial Scholarships because he believes that the education of young Colonists at one of our residential Universities will "broaden their views," and "instruct them in life and manners," and "instil into their minds the advantage to the Colonies as well as to the United Kingdom of the retention of the Unity of the Empire."

He directs that the Colonial Scholarships be filled up in accordance with the following table :—

Total No. appropriated.			To be tenable by Students of or from	No. of Scholarships to be filled up in each year.
South Africa ...	24	9	Rhodesia	3 and no more.
		3	The South African College School in the Colony of the Cape of Good Hope.	1 and no more.
		3	The Stellenbosch College School in the same Colony.	1 and no more.
		3	The Diocesan College School of Rondebosch in the same Colony.	1 and no more.
		3	St Andrew's College School, Grahamstown, in the same Colony.	1 and no more.
		3	The Colony of Natal	1 and no more.
Australasia ..	21	3	The Colony of New South Wales...	1 and no more.
		3	The Colony of Victoria	1 and no more.
		3	The Colony of South Australia ..	1 and no more.
		3	The Colony of Queensland	1 and no more.
		3	The Colony of Western Australia ..	1 and no more.
		3	The Colony of Tasmania ...	1 and no more.
		3	The Colony of New Zealand ...	1 and no more.
Canada	6	3	The Province of Ontario in the Dominion of Canada.	1 and no more.
		3	The Province of Quebec in the Dominion of Canada.	1 and no more.
Atlantic Islands ...	6	3	The Colony or Island of Newfoundland and its Dependencies.	1 and no more.
		3	The Colony or Islands of the Bermudas.	1 and no more.
West Indies ...	3	3	The Colony or Island of Jamaica ...	1 and no more.
Total ...	60		... ...	20

The Trustees have extended that table by assigning Scholarships in Canada to the following additional Provinces:—Nova Scotia, New Brunswick, Prince Edward Island, British Columbia, Manitoba, and the North-West Provinces (Alberta and Saskatchewan alternatively). To each of these Provinces three Scholarships will be appropriated, one being filled up each year. The conditions of selection vary in the different Colonies. For Cape Colony the Scholarships were bequeathed to individual schools.

It may be said generally that in those Colonies where there are Universities a candidate for a Rhodes Scholarship (1) must have been, for at least two years, a member of a University; (2) must either have passed Responsions or an equivalent examination, or be qualified to claim the status of Colonial Senior or Junior Student; (3) must have completed his eighteenth, and not exceeded his twenty-fourth, year; and (4) must be a British subject and unmarried. More precise information as to the conditions that prevail in the different Colonies may be had on application to the Secretary. The Scholarships are tenable for three years.

American Rhodes Scholarships are awarded two years out of every three. Thus there will be elections in 1913 and 1914, but none in 1915. In each year in which there is an election, one scholar is elected from each of forty-eight states or territories of the Union to which Scholarships are assigned. As the Scholarships are tenable for three years, ninety-six is, under normal conditions, the maximum number of American Rhodes Scholars in residence at any one time.

By a codicil to his Will, Mr. Rhodes, in view of the order issued by the German Emperor making instruction in English compulsory in German Schools, and because he believes that "an understanding between the three great Powers will render war impossible, and educational relations make the strongest tie," establishes fifteen Scholarships at Oxford, of the yearly value of £250 each, for Students of German birth, to be nominated by the German Emperor for the time being.

These Scholarships are tenable for three consecutive years. In most cases, however, German Rhodes Scholars do not retain their Scholarships for more than two years.

The Trustees appointed under Mr. Rhodes's Will were the following:—The Earl of Rosebery, Earl Grey, Viscount Milner, Alfred Beit, Esq., Sir Lewis Lloyd Michell, Bourchier Francis Hawksley, Esq., Sir Starr Jameson. Of these, Mr. Alfred Beit has since died. The remaining six are the existing Trustees.

The London Offices of the Trust are Seymour House, Waterloo Place, London, S.W.; and letters should be addressed to The Secretary, The Rhodes Trust, at that address. The Oxford Secretary to the Trustees is F. J. Wylie Esq., 9 South Parks Road, Oxford.

ROYAL COMMISSION FOR THE EXHIBITION OF 1851.

Science Research Scholarships.

The Scholarships are intended, not to facilitate attendance on ordinary collegiate studies, but to enable Students who have passed through a College curriculum and have given distinct evidence of capacity for original research, to continue the prosecution of Science with the view of aiding its advance, or its application to the industries of the country. The Scholarships are of £150 a year, and are ordinarily tenable for two years, the continuation for the second year being dependent on the work done in the first year being satisfactory to the Scholarships Committee. Candidates are recommended by the governing bodies of the Universities and Colleges to which Scholarships are allotted, and the recommendations are considered and decided upon by the Scholarships Committee. The Candidate must be a British subject. The Candidate must have been a *bonâ fide* student of Science in a University or College in which special attention is given to scientific study for a term of three years.

A Scholarship may be held at any University in England or abroad, or in some other institution to be approved of by the Commissioners. Every Scholar is, in the absence of special circumstances, required to proceed to an institution other than that by which he is nominated.

The principal work of a Scholar must be a research in some branch of Science, the extension of which is important to the national industries.

The following is a list of the Universities and Colleges at present included in the Scheme:—

1. University of Edinburgh.
2. University of Glasgow.
3. University of St. Andrews, including University College, Dundee.
4. University of Aberdeen.
5. University of Birmingham.
6. University of Bristol.
7. University of Leeds.
8. University of Liverpool.
9. University of London.
10. Victoria University of Manchester
11. Armstrong College, Newcastle-upon-Tyne.
12. University College, Nottingham.
13. University of Sheffield.
14. University College of Wales, Aberystwyth.
15. University College of North Wales, Bangor.
16. University College of South Wales and Monmouthshire, Cardiff.
17. Royal College of Science for Ireland.
18. Queen's University of Belfast.
19. University College, Cork.
20. University College, Galway.
21. McGill University, Montreal.
22. University of Toronto.
23. Queen's University, Kingston, Ontario.
24. Dalhousie University, Halifax, Novia Scotia.
25. University of Sydney.
26. University of Melbourne.
27. University of Adelaide.
28. University of New Zealand.
29. South African College, Cape Town.

Probationary Bursaries.

It has frequently appeared to the Commissioners, when considering recommendations made for appointments to Science Scholarships, that a Candidate, although successful in obtaining class distinctions as a student, has had insufficient opportunity of showing whether or not he has the power to carry on independent research. In some cases the Commissioners have on

this ground felt compelled to decline to confirm the nomination of a Candidate; in other cases they have appointed such a Candidate to a Scholarship with the risk that he might not prove qualified for research, as has occasionally happened.

The Commissioners are prepared to award probationary Bursaries, in certain cases, where the nominee of an institution invited to recommend a Science Scholar appears not to be immediately qualified for a Scholarship, but gives promise of becoming so, after a year's experience of research work.

An institution nominating a Candidate for a Bursary will not be entitled to nominate a Candidate for a Scholarship in the same year, the Bursary, which in the ordinary course, if the holder's work is satisfactory, will lead to a Scholarship, being reckoned as a Scholarship awarded for the year in which the Bursary is awarded.

A Bursary is tenable for one year, and is of the value of £70.

Industrial Bursaries.

The scheme of Industrial Bursaries is designed for the assistance of young men who, after a course of training in a University or approved Technical College, desire to take up Engineering, Chemical, or other industrial work.

These Bursaries are intended, not to facilitate the continuance of collegiate studies by means of post-graduate work, but to enable suitable applicants to tide over the period between their leaving College and obtaining remunerative employment in industry.

The value of the Bursary will depend on the circumstances of the holder, but will as a rule not exceed £100 a year.

A Bursar will be elected in the first instance for one year, but the tenure of his Bursary will ordinarily be prolonged for a second year provided that the Commissioners are satisfied with the work done by the Bursar during his first year.

The list of Institutions which at present have the right to recommend for Bursaries includes Universities, University Colleges, and Technical Colleges of Great Britain and Ireland.

A post-graduate Scholarship in Naval Architecture of the value of £200 per annum, tenable for two years, is awarded by the Institution of Naval Architects from funds provided by the Royal Commissioners.

The object of the Scholarship is to enable British Subjects under the age of 30 who have passed with marked distinction through a course of study in Naval Architecture in a University or College recommended by the Institution of Naval Architects and approved by the Commissioners to carry on research work in problems connected with the design and construction of ships and their machinery, and to investigate the development of the shipbuilding industry at home or abroad.

GILCHRIST STUDENTSHIPS.

The Gilchrist Trustees award Studentships in Modern Languages to the value of £80, tenable for one year, on the nomination of the Universities of London, Manchester, Liverpool, Leeds, and Wales, to enable the selected students to follow abroad a Course in preparation for the profession of Modern Language Teacher. The awards are made annually.

BRITISH SCHOOL AT ROME.

In the early part of 1911 the Royal Commissioners for the Exhibition of 1851 resolved to establish a system of Travelling Scholarships in Architecture, Sculpture, and Decorative Painting on lines somewhat similar to those of the French Prix de Rome, and in the course of their inquiries they were advised to make the Scholarships tenable in Rome. They accordingly approached the Archæological Institution known as the British School at Rome, and arrangements were about to be made with that body for providing facilities for the Commissioners' Scholars during their residence in Rome when information was received that the site of the British Pavilion, erected from the design of Mr. Lutyens for the Exhibition of Rome, had been offered by the Italian Municipal Authorities to Sir Rennell Rodd, the British Ambassador, to be used for the purposes of a British Institution of national interest. The Commissioners saw an opportunity not only of acquiring a building for the use of their scholars, but also of rendering a substantial service to the higher education of this country, and accordingly with the concurrence of the British School at Rome they intimated to Sir Rennell Rodd that if the site in question were made over to them, they would be willing to purchase and adapt the building for the purposes of an enlarged British School at Rome, which should be made thoroughly representative of Art as well as Archæology.

Sir Rennell Rodd, who had in the first instance offered the site to the British School at Rome, subsequently with their concurrence made arrangements with the Italian Government for the transfer of the site to three nominees of the Crown. Shortly afterwards Colonel Charlton Humphreys, the head of the firm of contractors who built the Pavilion, and to whom it will revert at the close of the Exhibition, generously undertook to present the building to the Commissioners.

Thereupon the Commissioners, with the co-operation of the British School at Rome, who throughout had acted in a liberal spirit, showing a due sense of the public interests involved, approached various bodies interested in Art, notably the Royal Academy, the Royal Institute of British Architects, and the Royal Society of British Sculptors, with a view to enlisting their support in the scheme, and being met with favourable replies, proceeded to the work of drawing up a constitution for the new British School.

As to the objects of the new School, it is intended to provide a centre in Rome where advanced students of Art and Letters may carry further those studies on which they have been engaged in the art schools and universities of this country. Existing Scholarships in Art enable a student to travel abroad for a short time, and gain what inspiration he can from brief periods of study in the great art centres of the world. But it is of the greatest importance that a student should be able, by prolonged study in the atmosphere of a great art centre, to gain a thorough knowledge of the principles underlying the work of the great masters, and by that means to prepare himself for original work in the domain of art he has chosen. Such an opportunity for study and research in Archæology and History is already present in the existing Institution at Rome, and the union of these two forces—Art and Letters—is not the least important feature of the new scheme. It is essential that some measure of guidance and supervision should be available for the students during their residence abroad, and it is the object of the school to meet these needs rather than to be in any sense a teaching institution.

The Commissioners propose to award three Scholarships annually, one in Architecture, one in Sculpture, and one in Decorative Painting, and as the Scholarships will ordinarily be tenable from two to three years there will be from six to nine Scholars of the Commission always in residence. The School will, however, have accommodation for students holding Scholarships in the gift of the Royal Academy and the Royal Institute of British Architects

and other bodies, as well as for students of Art and Archæology pursuing their researches in and about Rome.

The Commissioners believe that a hostel is an essential part of the scheme. Living in Rome has of recent years become more expensive for young students working alone, and it was one of the objects of the Commissioners in promoting the scheme to relieve their scholars from material worries of any kind. The living accommodation at the hostel will necessarily be limited, but it is anticipated that the studio, library, and other working accommodation of the building will be sufficient for as many students of Art and Archæology as may be expected to make use of it.

The first Director of the new School will be Dr. Thomas Ashby, the Director of the present British School at Rome, and Mrs. Arthur Strong will, it is hoped, continue to give her valuable services to the School as Assistant-Director under the faculty of Archæology. It is proposed to enlist the services of eminent artists who may be able to pay occasional visits to the School in order to assist and advise the Art students as occasion arises; but from the nature of the work and the high standard laid down for the Scholarships, *it is not at present considered necessary to provide for the* permanent retention of an artist's services in the School.

The following is quoted from the Memorandum for intending students :—

"XXIII. The Committee may admit as Students of the School—

(1) Holders of travelling fellowships, studentships, or scholarships at any University in the British Empire.

(2) Travelling Students sent out by the Royal Academy, the Royal Institute of British Architects, and other similar bodies.

(3) Other persons who shall satisfy the Committee that they are duly qualified to be admitted as Students.

XXIV. No person, other than a Student of the British School at Athens, shall be admitted as a Student who does not intend to reside at least three months in Italy. In the case of Students of the British School at Athens an aggregate residence of four months at the two Schools will be accepted as alternative to three months' residence at the School at Rome.

XXV. The Committee may admit as Associates of the School those who satisfy the same requirements as Students, but whose term of residence is less than three months.

XXVI. Students and Associates will be expected to produce recent certificates or recommendations from some person holding a recognised educational position.

XXVII. Students and Associates of the School will be expected to pursue some definite course of study or research, and to submit to the Director in each season a report upon their work for the information of the Committee.

XXVIII. Persons wishing to become Students or Associates are required to apply to the Secretary. They will be regarded as Students from the date of their admission by the Committee to October 1st next following; but any Student admitted between June 1st and October 1st in any year shall continue to be regarded as a Student until October 1st of the following year.

XXIX. The Committee may elect as Honorary Students or Honorary Associates such persons as they may from time to time deem worthy of that distinction.

XXX. All Students and Associates shall have a right to use the Library of the School and to attend all lectures and public meetings held in connection with the School, free of charge."

BRITISH SCHOOL AT ATHENS.

This School (founded in 1886) gives to British Students of Greek Archæology and Art the opportunity of pursuing their researches in Greece itself, with command of the means which the recent great advances of the science have rendered indispensable.

Athens is now an archæological centre of the first rank. The architecture of Greece can nowhere else be studied to such advantage; and the concentration in the Athenian museums of treasures of Antiquity found in Greek soil during the last few decades of years has made a personal knowledge of those museums in the highest degree desirable for Hellenic scholars.

The student requires two auxiliaries when working in Athens. First, the command of an adequate library; and second, the advice of trained archæologists residing on the spot, who follow the rapid advance of the science, due to new discovery and the rearrangement of old materials.

These advantages are now provided for French, German, Austrian, American, and British archæologists. By means of these Schools many excavations on Greek soil have been carried out; and those conducted in Cyprus, in the Peloponnese, in Melos, in Crete, and, finally, in Sparta and Northern Greece by the British School during the past twenty-four Sessions are an encouraging proof of the work that may be done in the future if the School be adequately supported. The *Annual of the British School at Athens*, an archæological periodical of recognisedly high standing, affords an opportunity for the publication of the Students' more important results.

Students are admitted free of charge. They are required to pursue some definite course of Hellenic study or research, residing for the purpose not less than three months in Greek lands,[1] and at the end of the Session to write a report of the work they have done. Applications from intending students should be made to the Secretary, John ff. Baker-Penoyre, Esq., 19 Bloomsbury Square, W.C., who will also give full information.

[1] In the case of Students of the British School at Rome, an aggregate residence of four months at the two Schools will be accepted as alternative to three months residence at the School at Athens

APPENDIX II.

TECHNICAL AND PROFESSIONAL EDUCATION.

UNIVERSITY OF BIRMINGHAM.

The equipment for technical education in Engineering (Civil, Mechanical and Electrical), Metallurgy and Mining, is very complete, and a large number of students every year compete for Degrees in the University in these subjects.

These Degrees are recognised by outside Bodies, such as the Institution of Civil Engineering, under certain conditions, and the Public Works Department of the India Office.

In association with the University there are Training Colleges for Men and Women preparing for the profession of elementary teachers. A considerable number of these students compete for University Degrees, and their studies in the subjects of Education (Psychology, Logic and Theory of Education) are recognised as part of the qualification for a Degree.

In addition, there is a well-organized department for the training of Secondary Teachers who are already Graduates of some University. The course lasts for one Session and leads to the Secondary Teacher's Diploma. Roughly speaking, half the time of the students of this Department is spent in actual teaching in selected Secondary Schools of the District, under the personal supervision of the Head Master and Head Mistress. The rest of the time is occupied in attending lectures on Educational Theory and Methods of teaching Specific Subjects.

UNIVERSITY OF BRISTOL.

The University of Bristol educates for elementary and for Secondary Teaching, for the professions of Medicine and Dental Surgery, and for the various branches of Engineering. It gives a diploma in public health and testamurs in Social Study and Journalism. It is organizing military education as an avenue to commissions in the Regular Army, the Special Reserve, and the Territorial Force.

UNIVERSITY OF CAMBRIDGE.

Degrees are granted in Divinity (B.D., D.D.), Law (LL.B., LL.M., LL.D.), Medicine and Surgery (M.B. and B.C., M.D., M.C.).

In addition to Degrees, which are for the most part conferred only on its own members, the University grants four Diplomas, which are open to persons not members of the University. There are (1) the Diploma in Agriculture; (2) the Diploma in Geography; (3) the Diploma in Public Health, and (4) the Diploma in Tropical Medicine and Hygiene. The University also grants three other Diplomas which are restricted to members of the University. These are (1) the Diploma in Anthropology; (2) the Diploma in Forestry, and (3) the Diploma in Mining Engineering.

The examination in Preliminary Architectural Studies is not at present associated with a Diploma, but a candidate is entitled to a certificate that he has passed the first or second or both Parts of the Examination, provided always that he has graduated previous to the granting of such certificate. The examination consists of two Parts, Part I. dealing with the mathematical and scientific principles on which the practice of Architecture is based, and Part II. comprising the History and Theory of Architecture, and the Allied Arts.

A considerable number of students who leave the University at the end of each academical year subsequently take Orders. Hitherto only a comparatively small proportion of these have read theology as undergraduates, or have received any other special preparation for the clerical profession—sometimes because their choice is not made until late in their academical career, but more often in consequence of a deliberate preference for some other subject of study. An attempt is, however, now being made to ensure by means of the *Divinity Testimonium* that most Candidates for Ordination shall have begun their preparation during their undergraduate course, even if they are mainly occupied by studies other than theological.

As the ordinary student who begins residence at 19 years of age is only 22 when he takes his degree, he also has a year to spare for special preparation before he is of age to be ordained. This time is sometimes spent at one of the diocesan theological colleges, but it may be spent at Cambridge, either at Ridley Hall, or at the Clergy Training School.

The Board of Indian Civil Service Studies makes provision for those selected candidates for the Indian Civil Service who pass their probationary year at Cambridge.

Of late years the University has contributed a considerable number of candidates for commissions in the Army, and a system of Military Instruction has been organized by the University. The Board of Military Studies are in direct communication with the War Office, and the Universities are recognised as sources from which a supply of officers may be drawn, not only for the Regular Army, but for the Special Reserve of Officers, and for the Territorial Force.

The Training of Teachers at the University is under the management of the Teachers' Training Syndicate, whose work may be conveniently referred to under three heads:—(1) Examinations; (2) the Training College for Schoolmasters (Primary Department), and (2*b*) the Training College for Schoolmasters (Secondary Department)—all recent developments of educational activity.

The Teachers' Training Syndicate was established in February, 1878, in order to promote the education of persons intending to be teachers in the theory and practice of their profession. Under its superintendence lectures are given, and examinations are held by the University, in the theory, history, and practice of education, and in practical teaching; a certificate of proficiency in both theory and practice being awarded on the results of these examinations. The two departments of the Training College have also recently come under its direct management.

UNIVERSITY OF DURHAM.

A Licence (L.Th.), and Degrees (B.D., D.D.), are granted in Theology. Degrees are also conferred in Law (B.C.L., D.C.L.); Medicine (M.B., M.D., B.S., M.S.) The B.Sc. Degree may be taken in (*a*) Pure Science; (*b*) Agriculture; (*c*) Engineering, Naval Architecture, Mining, and Metallurgy. Diplomas are granted in Theory and Practice of Teaching, in Public Health, and in Dental Surgery.

UNIVERSITY OF LEEDS.

The University of Leeds confers upon its matriculated students, who have attended the prescribed courses and passed the requisite Examinations, Degrees in Arts, Science, Law, Medicine, Surgery, Dentistry and Commerce. There is no special degree for students in Technology, but they are admitted to both the ordinary and Honours degrees in the Faculty of Science, after qualifying themselves, by attendance and examination, in both Pure and Applied Science. Thus the B.Sc. degree may be obtained by students in the Applied Sciences of Mechanical Engineering, Civil Engineering, Electrical Engineering, Mining Engineering, Gas Engineering, Fuel and Metallurgy,

Agriculture, Colour Chemistry and Dyeing, and the Chemistry of Leather Manufacture, as well as by those who have graduated in Pure Science, including Mathematics, Physics, Chemistry, Zoology, Botany, Physiology, and Geology.

Facilities are also given to students who are preparing to enter upon a commercial, industrial or professional career, but are unable to follow complete degree courses. Classes are provided to meet their special requirements, and, as a rule, a Diploma may be obtained, at the end of their course, after satisfactory attendance and examination. Thus the classes in the School of Commerce afford helpful preparation for a Mercantile life; those in the Chemistry Departments qualify for the Associateship of the Institute of Chemistry and other distinctions, as well as for the practice of an Analytical Chemist; the Arts and Science Courses are attended by members of the Day Training College of the University, to qualify them to enter the teaching profession; the School of Medicine, with Hospital Practice, provides the necessary training for Medical men, Surgeons and Dentists; the Classes in Law are suitable to the needs of students preparing for the practice of a Barrister or Solicitor; and the Technical Departments are equipped to supply efficient preparation for the employments of Civil, Mechanical, Electrical, Gas, Coal, and Metallurgical Engineering, Cloth and Leather Manufacture, Dyeing, and Agriculture.

UNIVERSITY OF LIVERPOOL.

The degrees and diplomas of the University in all professional subjects (Architecture, Civic Design, Education, Engineering, Law, Medicine, and Science) are recognised by the Authorities of the profession concerned as conferring privileges by exemption from the whole, or part, of the professional training, or articles, required from candidates who have not graduated in an approved University. The University has recently instituted a degree in Commercial Sciences.

UNIVERSITY OF LONDON.

Degrees are granted in Theology (B.D., D.D.), Law (LL.B., LL.D.), Medicine and Surgery (M.B., B.S., M.D., M.S.), Science, Engineering and Economics (B.Sc., D.Sc.). In the Faculty of Medicine there is a special M.S. Degree in Dental Surgery; and the M.D. Degree is granted in the following Branches:—Medicine, Pathology, Mental Diseases and Psychology, Midwifery and Diseases of Women, State Medicine, Tropical Medicine. In the Faculty of Science special Degrees are granted in Agriculture and in Veterinary Science; and in the Faculty of Engineering there are special Degrees in Mining and Metallurgy. Degrees in the Faculty of Economics and Political Science (including Commerce and Industry) are taken by students preparing for commercial, industrial, or administrative work, insurance, banking, railway, and similar appointments.

Teachers prepare for the post-graduate Diplomas in Pedagogy (Teacher's Diploma, and Higher Diploma in Pedagogy), and it has recently been decided to include Education as a subject for the M.A. Degree.

The Imperial College of Science and Technology, which is a School of the University, prepares students for appointments in Science and Engineering, including Mining. Engineering training is also provided at University College, King's College, East London College, and several Institutions of the University.

Among the Schools of the University there are six Theological Schools and eighteen Medical Schools, of which one (Royal Dental Hospital and London School of Dental Surgery), is devoted to the teaching of Dental Surgery, and another (the South-Eastern Agricultural College, Wye), is devoted to Agriculture. One School (the London Day Training College) is devoted to the training of Teachers.

The teaching of law is carried on under a joint scheme at University College, King's College, and the London School of Economics.

Education is also provided for students preparing for the Commissions in the Regular Army allocated by the War Office to the University.

VICTORIA UNIVERSITY OF MANCHESTER.

The majority of students are engaged in professional training—that is, training for a profession as apart from general mental training and culture. The main professional occupations for which provision is made are Teaching, Medicine, Law, Theology, Chemistry, and Engineering. There is also a Faculty of Commerce intended specially for those who intend to enter business. In addition to these a large number of students are training for technical industries, and since 1905 they have been included in the Faculty of Technology. Arrangements have been made for preparation for the Public Services, and might be extended with advantage, though difficulty is experienced in view of the conditions of examination as regards Indian Civil Service and First Class Clerkships. The training given seems well adapted for appointments in the Consular Service and Indian Police. Graduates from the University have also from time to time obtained appointments under the Board of Trade or in the Patent Office and other Government Departments. There seems, however, to be a strange reluctance on the part of students of this district to take appointments abroad.

UNIVERSITY OF OXFORD.

The University grants degrees in Medicine (including the sub-Faculty of Surgery) (B.M., B.Ch., M.Ch., D.M.), Law (B.C.L., D.C.L.), and Divinity (B.D., D.D.). These are termed "superior" Faculties, that is, the attainment of a degree in Arts is a "Condition precedent" for entrance upon them.

Diplomas are granted in Geography, Education, Economics and Political Science, Scientific Engineering, and Mining Subjects, Anthropology, Forestry, Classical Archæology, Rural Economy, Public Health and Ophthalmology.

Instruction in Military Subjects is given in connection with the Officers' Training Corps and in preparation for University Commissions in the Regular Army.

Women are not admitted to the Degrees, but are admitted to all the Diplomas except those in Scientific Engineering and in Forestry.

UNIVERSITY OF SHEFFIELD.

The University offers exceptional facilities for the study of Engineering and the Metallurgy of Iron and Steel. Sheffield, being a great centre of the steel industry, the University is favourably situated for the prosecution of such studies. The Departments of Engineering and Metallurgy are equipped with the most modern appliances.

The work in these Departments is supervised by a Committee, which includes representatives of the large works, and so a relation is maintained between instruction and the industries.

New buildings are in course of erection for laboratories for work in non-ferrous metallurgy.

The Department of Coal Mining is in close touch with the coal industry of the South Yorkshire and North Derbyshire Coalfields. New buildings are being erected for the better accommodation of the Department, which is supervised by a Committee representative of the Coal industry.

The University provides, in addition to courses at the University, local lectures by members of the University staff in mining villages. It organises and inspects classes held in the villages by local teachers, and generally performs the functions of a consultative body for mining education in its area.

Professional education is provided for the Medical profession in the Faculty of Medicine, and for the Legal Profession in the Faculty of Law.

UNIVERSITY OF WALES.

The B.Sc. Degree (with M.Sc. and D.Sc. Degrees) is granted in Pure Science, Applied Science, and various branches of Engineering, viz., Civil, Mechanical, Electrical, and Mining Engineering—and also in Metallurgical Science, *Agriculture and Rural Economy, Forestry. Degrees in Laws* (LL.B.), Divinity (B.D., D.D.), and Medicine (M.B., B.Ch.), a Diploma in Public Health, and a Certificate and Diploma in Education are also granted.

UNIVERSITY OF ABERDEEN.

The Degree of B.Sc. is granted in Applied Science and in Agriculture. A Diploma is also granted in Agriculture. Degrees in Law (B.L., LL.B., LL.D.), and in Medicine (M.B., Ch.B., M.D., Ch.M.), and a Diploma in Public Health are also granted.

UNIVERSITY OF EDINBURGH.

Degrees are granted in Divinity (B.D., D.D.), and in the Faculty of Science (B.Sc. and D.Sc.), in Pure Science, Engineering, Public Health, Agriculture (B.Sc. only), Forestry (B.Sc. only). Schoolmasters' Diplomas are awarded. Education is also provided in Military Subjects for the preparation of Students for University Commissions in the Regular Army.

UNIVERSITY OF GLASGOW.

This University supplies courses of study and confers degrees in Medicine, Law, Divinity, Science (Pure Science, Engineering, Mining, Public Health, and Agriculture). The Agricultural course is given in co-operation with the Glasgow and West of Scotland Agricultural College.

In the Arts Faculty a large number of teachers for elementary and secondary schools receive a University education. The practical part of their training is given by the Glasgow Provincial Committee, whose work is carried on under the Scotch Education Department mainly by public grants.

In the Arts Faculty also a certain number of students are training for social and civic work, taking courses in Economics, Political Philosophy, and Social Economics.

UNIVERSITY OF ST. ANDREWS.

The ordinary graduating courses of the University provide technical and professional education for Teachers, Engineers, Clergymen, and Medical Practitioners. The University does not at present give a full qualifying Course for Graduation in Law, but it provides Courses of Lectures in Scots Law and Conveyancing in University College, Dundee, which are taken by young men qualifying to become members of the legal profession, either as Solicitors or as Advocates. Students of the University in the Advanced Courses of Scientific Instruction given in the Chemistry, Natural History, and Engineering Departments are trained for Technical and Research posts (including administrative posts under Government Departments—*e.g.*, Fisheries Departments, &c.).

The St. Andrews Provincial Committee for the Training of Teachers, which acts under the Scotch Education Department, is not officially related to the University except that the University Court appoints four Members, and that the University teaching is to some extent accepted as part of the work demanded of a Student in training for the teaching profession, while the Student in training may take a University Degree side by side with the special technical instruction provided by the Provincial Committee to fit the Student for the duties of a Teacher.

Training is provided by the University for students preparing for University Commissions in the Regular Army.

QUEEN'S UNIVERSITY OF BELFAST.

The Queen's University of Belfast has recognised the Municipal Technical Institute, Belfast, as a College in which students of the University may pursue courses of study qualifying for a degree or a diploma of the University. The teaching in the following subjects is recognised :—Mechanical Engineering, Electrical Engineering, Textile Industries, Applied Chemistry and Design, none of which is taught in the University.

The Royal College of Science for Ireland, in Dublin, is similarly recognised as a College in which students proceeding to a degree of the University in the Faculty of Science may obtain instruction in Agriculture.

There is a Faculty of Commerce in the University which aims at providing a University curriculum which may serve as an introduction to Commercial Life and Administration. There is also an evening course for a diploma in commercial subjects.

The Faculty of Law gives instruction which is recognised as a partial qualification for the profession of Barrister and Solicitor in Ireland. The rules of the Honourable Society of King's Inns provide that a student may obtain credit for his First Year's Legal Education by attending a continuous and complete course upon the lectures of each of the Professors in the Law School in the University. Queen's University is one of the prescribed Universities in which persons who attend lectures and pass examinations in the Faculty of Law during two academic years, may be admitted as solicitors after four years' service. The degree of LL.B. of the Queen's University of Belfast is held by the Law Society to be a ground of exemption from the Society's Intermediate Examination.

UNIVERSITY OF DUBLIN.

Degrees are granted in Dental Science, Engineering, Obstetric Science, Surgery (Bachelor and Master in each case), and in Medicine, Laws, Divinity (Bachelor and Doctor in each case).

The professional schools are as follows :—Divinity School, Law School, School of Physic, School of Engineering, the Indian and Home Civil Service School, the Army School (which prepares University candidates for Commissions in the Regular Army), and the School of Agriculture.

NATIONAL UNIVERSITY OF IRELAND.

The following Degrees are granted :—Bachelor of Agricultural Science (B.Agr.Sc.), Master of Agricultural Science (M.Agr.Sc.); Bachelor of Laws (LL.B.), Doctor of Laws (LL.D.); Bachelor of Medicine (M.B.), Bachelor of Surgery (B.Ch.), Bachelor of Obstetrics (B.A.O.), Bachelor of Science, Public Health (B.Sc., Public Health), Master of Surgery (M.Ch.), Master of Obstetrics (M.A.O.), Doctor of Medicine (M.D.), Doctor of Science, Public Health (D.Sc., Public Health), Bachelor of Dental Surgery (B.D.S.), Master of Dental Surgery (M.D.S.); Bachelor of Engineering (B.E.), Bachelor of Architecture (B.Arch.), Master of Engineering (M.E.), Master of Architecture (M.Arch.), Bachelor of Commerce (B.Comm.), Master of Commerce (M.Comm.).

UNIVERSITY OF ADELAIDE.

Degrees are granted in Law (LL.B., LL.D.), Medicine and Surgery (M.B. and B.S., M.D. and M.S.). In conjunction with the South Australian School of Mines and Industries, the University provides for a Diploma in Applied Science in addition to the B.Sc. Degree. Candidates may obtain the Diploma in Mining, Metallurgy, Electrical Engineering, or Mechanical Engineering. Graduates obtain the B.Sc. Degree and Diploma of the University, and the Fellowship of the School of Mines and Industries.

In conjunction with the Government Agricultural College, provision is

made for students to obtain the Degree of Bachelor of Science with Agriculture. Part of the course is taken at the University and part at the Agricultural College.

By arrangement with the Education Department candidates in training as State School Teachers have the privilege of attending the University free of cost to the State. The Department does not allow these students to remain long enough to obtain a degree, but many of them subsequently do the additional work required, and graduate. Further, Teachers in the city and suburban schools may attend all University lectures and take examinations free of cost.

The Technical School in Perth, Western Australia, where, as yet (1911), there is no University, is affiliated to this University. The curriculum in Mathematics, Physics and Chemistry, &c., is recognised, and students attending lectures and practical work at this School are enabled to present themselves for the University examinations and obtain the B.Sc. degree.

This University was the first in Australia to provide a Commercial Course. A Diploma of Associate in Commerce of the University of Adelaide is granted (A.C.U.A.).

UNIVERSITY OF MELBOURNE.

The professional education of those desiring to enter on the professions of Law, Medicine, Dentistry, Veterinary Science, and Engineering, is obtained through this University. In the first four cases where registration is essential to practice the education can only be got at the University. In the case of Engineering there are other means of qualifying for the practice of various branches of the profession.

The University has no direct relation to education for the public service. It has a great influence on the standard of secondary education generally through its public examinations, and in this way indirectly influences the education of candidates for the public service.

It has no very direct relation to technical education at present. Provision is made for the recognition of certain courses which may be taken at selected technical colleges, provided the usual University examinations are passed, but this is largely a dead letter. It is hoped to bring the University into closer relations with technical education; and with this object a committee to supervise courses at technical colleges and to advise as to appointments thereat, has been appointed by the Education Department, and the University is well represented thereon.

UNIVERSITY OF SYDNEY.

The four Faculties of the University include Law, Medicine, with a Department of Dentistry attached, and Science, including (*a*) Pure Science; (*b*) Engineering (with three sub-departments, viz.: (i.) Civil; (ii.) Mining and Metallurgy; (iii.) Mechanical and Electrical; (*c*) Veterinary Science, and (*d*) Agriculture.

UNIVERSITY OF NEW ZEALAND.

The Technical or Professional Faculties in which the University of New Zealand confers degrees are:—Engineering (Mechanical, Electrical, Civil, Mining, and Metallurgical), Architecture, Agriculture, Medicine and Surgery, Dentistry, Law, Commerce, Music, and Domestic Science, besides a Diploma in Journalism. The teaching of these branches is distributed over the four affiliated Colleges, some predominating in one, some in another.

UNIVERSITY OF THE CAPE OF GOOD HOPE.

The Cape University is entrusted by Parliament with the examinations, in whole or in part, required for admission as Attorneys, Surveyors, and Barristers. The various certificates and diplomas of the University are also of recognised value in the teaching profession and in the admission of candidates for the Christian ministry in the different churches.

QUEEN'S UNIVERSITY (Kingston, Ontario).

The University has professional Schools as follows:—(*a*) Medicine; (*b*) Applied Science (School of Mining), including Courses in Engineering, Mining, and Applied Chemistry; (*c*) Education, including the professional training of teachers of higher primary and secondary schools in the theory and practice of school work; (*d*) a Theological College (Queen's Theological College), which has now replaced the Theological Faculty, and is affiliated to the University.

UNIVERSITY OF TORONTO.

The University relates itself to technical and professional education through its Faculties of Medicine, Applied Science, Forestry and Education, as also through its affiliated Institutions, from which students come for examination and admission to degrees in the University. These Institutions are Osgoode Hall (Law School), the Ontario Agricultural College, the Ontario College of Pharmacy, the Royal College of Dental Surgeons, the Ontario Veterinary College. A large number of graduates in Arts are found in the higher positions of the Civil Service in the Provinces and the Dominion, for which they have received their training in such Departments as Mathematics, Physics, Actuarial Science, Chemistry, Geology, Mineralogy, Political Science, in the Faculty of Medicine, in the Faculty of Forestry, in the Department of Public Health, and in the Veterinary College.

McMASTER UNIVERSITY (Toronto).

The University prepares students for specialist work in the teaching profession and for entrance into Law, Medicine, &c.

McGILL UNIVERSITY (Montreal).

The Faculty of Applied Science is an integral part of the University. A high standard of entrance qualifications is exacted, especially in mathematical subjects, and the undergraduate body enjoys the same privileges and is subject to the same control as students in the Faculty of Arts. There never was much danger that this work would be developed in Montreal apart from McGill, and the University is thoroughly in line with the position that the inclusion of technical education in the programme of the University is beneficial to both. There is really no reason in the nature of things why engineers should not be as cultivated men as doctors or lawyers. On the American continent the view is almost universally held that the University best fulfils its reason for existence by relating itself to every department of public service which calls for leadership, and for which preparation can best be obtained in an institution where the various departments of knowledge are shown in their essential interconnection. Instead of the division, however, into the Faculty of Arts and the Faculty of Applied Science, it might be better to call the former the Faculty of Arts and Sciences, and the later the Faculty of Engineering. The present nomenclature disguises the fact that the Faculty of Arts is concerned also with such Sciences as Physics, Chemistry, and Biology, and a wrong dualism is encouraged which leads students, and the general public as well, to regard Arts as one thing and Science as another.

The latest development that the University has undertaken in connection with technical education is its School of Agriculture. This forms one of the departments of Macdonald College, and is represented by a Faculty of Agriculture, which holds the same relation to the University as do the other Faculties. It should perhaps be stated here that Macdonald College is an incorporated College of the University, and that the graduation curriculum in Agriculture is controlled by the Corporation, although other teaching (such as short courses on agricultural topics) is arranged for by the authorities of the College itself. A third branch of Macdonald College is the School of Household Science.

With reference to professional education, it is sufficient here to enumerate the Faculty of Law, the Faculty of Medicine, and the School for the Training of Teachers at Macdonald College, the Conservatorium of Music, and possibly also the various affiliated theological Colleges which are grouped round the University seat in Montreal. More recently an attempt has been made to establish a Department of Commerce, leading up, in the first instance, to a Diploma on the completion of a modified form of the first two years of the curriculum in the Faculty of Arts.

Very little can be said on this head except in connection with the Faculty of Law, and in regard to municipal and other forms of engineering. It may be noted, however, as a special feature that the Civil Service Examinations are now held at McGill as a centre, by arrangement with Ottawa.

LAVAL UNIVERSITY (Quebec).

No student is admitted to the study of Theology unless he has the permission and approval of his Bishop. Every student of the diocese of Quebec must also have passed with success both the Examinations of the Faculty of Arts, or qualify during his first term. The courses in Theology are not open to the public; but any priest may be admitted.

Students in the Law School do not need to be matriculated (inscrits), but they must attend lectures regularly. The courses are private, but any advocate or notary may be admitted. Students who propose to practise Law must as a condition previous to studying in the University, have obtained the degree of Bachelier in the Faculty of Arts, or have passed the entrance examinations of the Barreau or of the Chambre des Notaires.

In Medicine students need not necessarily be inscrits, but they must be regular at lectures, and must have passed the examination of the College of Medicine of Quebec, which is required as a previous condition for the practice of Medicine from those who have not been Bachelier in examinations of the Faculty of Arts. The courses in Medicine are not public; but any Doctor or Surgeon may be admitted.

The Central Preparation School is organised up to preparing the pupils for the different schools of Surveying, Forestry, Engineering, &c. Students must be at least 16 years old, and must afford a certificate of primary intermediate studies or pass the special examination of admission to that school.

Students in the Land-Surveying School must have passed with success the examination of the Central Preparation School, or have been admitted by the Board of the Land-Surveyors' Corporation of the Province of Quebec.

Students in the Forestry School need to be at least 18 years old, and to pass a competitive examination of admission. This competition is organised to allow the students to attend the Course of Forestry, and to facilitate the distribution of Scholarships granted by the Government of the Province to 10 pupils of that school.

The following Degrees and Diplomas of a professional character are granted:—Bachelier, Licencié, Docteur en Théologie; Bachelier, Licencié, Docteur en Droit; Bachelier, Licencié, Docteur en Medicine; Bachelier ès Lettres; Certificat d'études de Droit commercial, Bachelier ès Sciences appliquées, and agricoles; Bachelier and Docteur en Médecine vétérinaire; Diplôme d'Ingénieur civil and Diplôme d'Ingénieur forestier; Certificat d'études d'Arpentage, Diplôme d'Arpenteur stagiaire; Diplôme d'enseignement secondaire moderne; Certificat d'études primaires intermediaires; Diplôme d'études primaires superieurs; Diplôme académique; Diplôme d'enseignement ménager.

UNIVERSITY OF BISHOP'S COLLEGE (Lennoxville).

The Arts Course is so arranged as to lead up to the different professions, *i.e.*, the first two years of the Arts Course are devoted to general education; in the last two years undergraduates are permitted to specialize, both in the Honour and the Ordinary Courses, in the subjects most likely to fit them for their professional training.

UNIVERSITY OF NEW BRUNSWICK (Fredericton).

This University gives three technical courses all leading to the degree of B.Sc. The three courses are Civil Engineering, Electrical Engineering, and Forestry.

UNIVERSITY OF MOUNT ALLISON COLLEGE (Sackville).

There is a Faculty of Applied Science in this University. Graduates in Arts of the University under certain conditions can graduate in the Law School of Dalhousie College in two years from the time of entrance.

UNIVERSITY OF ST. FRANCIS XAVIER'S COLLEGE (Antigonish, Nova Scotia).

This institution endeavours to give its young men a sound preparatory education which will enable them to enter upon the study of any of the learned professions, or to pursue advanced work in any of the sciences.

Considerable stress is laid upon the necessity of students realising the duties they owe to society and the public life of this new and growing country.

UNIVERSITY OF ALBERTA (Strathcona).

There is a Department of Applied Science in the University, specializing in the branch of engineering for which there is a demand in the Province. The Matriculation in this course requires advanced mathematics beyond the ordinary Matriculation.

A Faculty of Agriculture is in course of development; a Faculty of Medicine and a Faculty of Law will be established in the near future. In the meantime the Province has handed over to the University Examining Board the conduct of the examinations for admission to some of the learned professions, and steps are being taken to put the examinations for all the professions under the University's control. For example, a Medical Doctor practising in the Province must pass before the University Board, and on receiving a certificate of his right to registration from the Registrar of the University, the College of Physicians and Surgeons must register him as a duly licensed practitioner, subject only to the payment of such fees as the College of Physicians and Surgeons may require.

UNIVERSITY OF SASKATCHEWAN (Saskatoon).

The University offers courses in Agriculture, and is making preparations for the establishment of the usual Professional Schools.

UNIVERSITY OF MANITOBA (Winnipeg).

The University of Manitoba offers instruction in Civil and Electrical Engineering, and confers degrees in those professions.

The University examines and confers degrees in Law, but provides no instruction.

The University also examines and confers degrees in Medicine, Pharmacy, and Agriculture, but the instruction in these courses is provided in colleges affiliated to the University.

Graduates in Divinity of the affiliated denominational colleges have the same rights and privileges as other graduates of the University, and are members of the University Convocation.

UNIVERSITY OF BOMBAY.

The University holds Degree Examinations for the Medical, Legal, and Engineering Professions. It grants a degree in Agriculture also, and it is just proposed to create a degree in Commerce. It offers every year three Scholarships for technical studies in England.

CALCUTTA UNIVERSITY.

The Calcutta University provides for professional education in (i.) Law; (ii.) Medicine; (iii.) Engineering.

(i.) *Law.*—Students for the Bachelors' degree in Law have to prosecute a regular course of study in Law in some duly affiliated College for three academical years. A Bachelor of Law of this University is entitled to practise as a pleader or a Vakil at the High Court and the Courts subordinate to it. The Provincial Judicial Service is also open to these Bachelors of Law, where they serve as Munsiffs and Subordinate Judges. A few among them are also promoted to District and Sessions Judgeships for meritorious services.

(ii.) *Medicine.*—Students who take up Medicine have to undergo a course of training in the different branches of Medical Science in the Calcutta Medical College for six years, with a view to obtaining the degree of Bachelor of Medicine.

(iii.) *Engineering.*—Civil Engineering.—The University imparts instruction in Civil Engineering through the Civil Engineering College, Sibpur, which is the only Institution affiliated to this University in Engineering. The B.E.'s generally enter the Public Service as Assistant Engineers.

The Civil Engineering College also provides for technical education. It has its Mechanical and Apprentice classes, and has several technical and Mechanical Schools in different Mofussil centres duly affiliated to it. These technical Schools are not, however, recognised by the University, but are under the control of the Education Department of Government.

PANJAB UNIVERSITY (Lahore).

The Panjab University maintains and controls a Law College, and the Examinations in the Faculty of Law are accepted by H.M. Judges of the Chief Court as qualifying for enrolment as legal practitioners. There is no other Law College in the Province.

Graduates of the Medical and Training Colleges and students of the Engineering College who pass the prescribed University examinations in the Medical, Teaching, and Engineering Faculties, are accepted without further examination for employment in the Public Service in the Medical, Education, and Public Works Departments. The institutions referred to are, however, maintained by Government.

APPENDIX III.

INTERCHANGE OF TEACHERS.

Leeds reports that the Professor of Law gave a course of Law Lectures at the University of Sheffield in the Session 1910–11, under the auspices of the Yorkshire Board of Legal Studies.

London reports that under the scheme of Advanced Lectures organised by the University a large number of scholars from other Universities, including Continental Universities, have delivered Courses of Lectures in the University. The Lecturers under this scheme for the Session 1911–12 have included M. H. Bergson (Member of the Institute and Professor of Philosophy at the Collège de France), Rt. Hon. Ameer Ali, M. H. Fromageot, Prof. Macleod (Professor of Physiology in the Western Reserve University, Cleveland, Ohio), and M. H. Poincaré (Professor of Mathematical Astronomy in the University of Paris). In the case of Physiology a Panel of Lecturers has been constituted which includes Teachers in many Universities at home and overseas, the inclusion of any Teacher implying his readiness to communicate the results of his research work in a Course of Lectures when a favourable opportunity presents itself.

Manchester reports that while there is no regular system of interchange of University Teachers, members of the junior staff of the University have frequently been appointed to professorships in Universities, both in England and in the Colonies, and members of the staffs of other English and Colonial Universities have been appointed to professorships in Manchester.

Toronto reports that no session passes without some Lectures from distinguished University Instructors from the United States or Europe.

McGill reports that there is very little to remark under this head, except in connection with its relations to the McGill University College of British Columbia. Occasional lectures and short courses have been interchanged with Toronto, especially in Medicine, and more may be done along this line in the future. But members of the McGill staff have actually gone to Vancouver, British Columbia, to take subjects such as Mathematics, Classics, and Modern Languages; and this session a definite interchange is being carried out by which a member of the McGill classical staff has taken work at Vancouver, while the Professor of Classics there has come to Montreal to fill his place. Such interchanges, as well as the University's connexion with and control of the examinations at Vancouver, help to keep it in close touch with the standards of teaching there.

Manitoba reports that the only interchange of Teachers which has so far been carried out has been with the University of North Dakota in the United States. This University is about 150 miles distant, and is the nearest University. The interchange has been carried on for one year, but will be continued. The interchange consists of short visits with lectures, conferences, &c., on special and general subjects, such as organization of Departments and laboratories, methods of teaching and research.

Note.

An interesting scheme for the exchange of Professors is that between Columbia University and Berlin University, which came into operation in the Session 1906–7. The Columbia University Quarterly (Vol. IX., No. 2, March, 1907, page 182), states that the scheme, during its first year of trial, has proved eminently and encouragingly successful.

"It has been successful from the academic point of view, in that each of

the professors—Professor Schumacher here, and Professor Burgess in Berlin—has attracted to his public lectures a very considerable body of regular students, and, what is of even more importance, has conducted a seminary for advanced students which has proved highly satisfactory. The exchange has been successful, too, from a broader point of view. Each of these ambassadors of civilization has been able to reach non-academic audiences; each has addressed dozens of learned societies and social clubs in New York, in Berlin, and in other cities of the United States and of Germany. To a large extent the success of the experiment has been due to that part of the Columbia-Berlin plan which was most novel, and which aroused, in advance, most doubt—to the arrangement that each of the visiting professors should deliver his message in the language of his hearers. Professor Schumacher has shown himself a master of English speech; Professor Burgess has been praised by the German newspapers for the excellence of his German.

One of the chief purposes of the exchange, the promotion of a better understanding between the two countries through the establishment of intimate personal relations between their leading scholars, has unquestionably been attained. Professor Burgess writes that he has made many friends in Berlin. All of us who have learned to know Professor Schumacher will testify that he leaves many warm friends in New York."

The following quotations from later numbers of the Columbia University Quarterly refer to the scheme :—

Vol. X., 1907–08, page 210 (March, 1908) :—"The extra-academic significance of the exchange of professors between the Prussian universities and Columbia is even more evident in this, the second year of the experiment, than in the first. As was noted in the Quarterly a year ago, the first Roosevelt professor delivered many addresses outside of Berlin, and not a few in Berlin outside of the university, while the first Kaiser Wilhelm professor extended his activities not only over the Greater New York and its environs, but across the continent. The second incumbent of the chair at Columbia is covering the same area, and, as is noted elsewhere in this number, the demand for his services in all parts of the country is even more insistent. In Berlin, the public and private hospitality with which Professor Burgess was almost overwhelmed showed that the German people realised the importance of his mission. In New York during the past winter, the public dinners given to celebrate his return and Professor Leonhard's presence indicate a growing perception on the part of our countrymen that the exchange of professors affords an opportunity to establish a better understanding and friendlier relations not merely between the savants on either side of the Atlantic, but also between the people of the United States and of Germany."

Vol. XI., 1908–09, page 217 (March, 1909) :—"The Trustees have appointed Professor Otto Jespersen, of the University of Copenhagen, professor of English Philology in Columbia University for the Academic year 1909–10. Professor Jespersen's visit marks the beginning of a new stage in the development of closer relations between American and European universities. The establishment of exchange professorships between the United States and Germany has proved so successful, that there seems every reason for its extension to other countries. That we have much in common with the Scandinavian peoples, otherwise than racially, it is unnecessary to say. The influence of Scandinavian upon the English language and English literature has been greater than that of any other modern tongue excepting German and French. This gives an especial interest to the views of Danish scholars upon these subjects. In Norway and Sweden, as well, much has been done in recent years which is of importance for English scholarship."

APPENDIX IV.

RESIDENTIAL FACILITIES.

UNIVERSITY OF BIRMINGHAM.

There is a University Hostel for Women students, accommodating about 60 residents, under the charge of a Warden appointed and paid by the University; but there is no such Hostel for men.

A list of suitable lodgings, however, is prepared and kept by the Secretary of the University, and parents and students are strongly recommended to choose their lodgings from this list. But the University does not refuse permission for students to reside elsewhere with the cognisance of their parents.

UNIVERSITY OF BRISTOL.

For Women:—

Clifton Hill House, Hall of Residence, accommodating 22 students.

Callender House, shortly to be added to the above, accommodating 18 students.

Two recognised Hostels for Training Students, accommodating 52 students.

One private Hostel for Training Students, accommodating 12 students.

For Men:—

Two private Hostels for Training Students, accommodating 79 students.

Control over lodgings for Training Students is exercised as required by the Board of Education.

Arrangements are being made for control over lodgings occupied by other students.

UNIVERSITY OF CAMBRIDGE.

Residence, if it is to count towards the keeping of a term, must be (1) in a College or Hostel; (2) in licensed lodgings; (3) with the student's parent or parents; (4) in his own or in his hired house, or with his relatives, or in exceptional cases with persons other than his relatives. In any case the place of residence must be "within the precincts of the University," which are defined as extending two miles and a half from Great St. Mary's Church, "measured in a direct line." To count residence for a day it is necessary to sleep in Cambridge the following night, except in the case of the day of final departure for the vacation.

Rooms in College are usually assigned to freshmen as far as possible, according to the order of their application for admission; but in most Colleges the Scholars have the first choice. Furniture in College rooms can usually be taken by valuation from the preceding tenant.

Licensed lodgings are taken by the Tutor for those students who cannot at first have rooms in College. These are officially inspected by the University every year. Lodgers are subject to the same University and College regulations as residents in College.

In the case of an Advanced Student residence may be allowed under special conditions approved in each case by the Lodging Houses Syndicate, on application from the Head of the student's College or Hostel, or in the case of a non-collegiate Advanced Student from the Chairman of the Non-Collegiate Students Board.

UNIVERSITY OF DURHAM.

Residential facilities are carefully attended to at Durham. None are existent at Newcastle.

UNIVERSITY OF LEEDS.

All registered students who are not living with relatives or friends are required to reside at some Hall of Residence or Hostel approved by the University, or in registered lodgings, or lodgings which are approved. But certain members of the Court have built a Hall for the accommodation of 30 men students. A University Hall for Women has also been established at which all women King's Scholars who do not reside with their parents or guardians are required by the regulations of the Board of Education to reside. The Hall is open also to other Women students in the University. Lodgings are placed upon the register after a Committee has been satisfied in regard to the suitability of the Housekeepers and the sanitary and other conditions of the houses. A member of the Junior staff has been appointed supervisor of students in lodgings, and it is his duty to see that all the prescribed conditions have been fulfilled.

UNIVERSITY OF LIVERPOOL.

A Hall of Residence for women has been established in connection with the University, under the care of a resident Warden. The Hall has accommodation for thirty-two students, and is recognised by the Board of Education as providing accommodation for women students in training.

A Hall of Residence for men students, managed by the Training College Board, has been established for many years. It is under the control of a resident Warden, and is recognised by the Board of Education as providing accommodation for seventeen men students. Apart from these two small Halls, no residential provision is made for students. A list of suitable lodgings is officially kept; but no control is exercised over undergraduates who live in lodgings, nor are they compelled to reside only in lodgings on the official list. The control over the keepers of such lodgings is slight. The majority of students live at home, or with relations. Hardly any women students are in lodgings.

UNIVERSITY OF LONDON.

The importance of the provision of residential facilities for students is fully recognised in the University. Definite action on the part of the Senate of the University has so far taken the form of the recognition of Hostels which have been established by Colleges or by independent authorities. The Hostels so far recognised by the University in this way are :—

University Hall of Residence, Chelsea.
University College Hall, Ealing (for men students of University College).
College Hall, Byng Place (for women students).

Some of the Colleges of the University provide residence for their students in direct connexion with the Institution. These include :—

Royal Holloway College.
Bedford College for Women.
Westfield College.
London School of Medicine for Women.
Wesleyan College, Richmond.
South-Eastern Agricultural College, Wye.

At Goldsmiths' College, the Training College for Teachers, conducted by the University, a number of Hostels have been established in connection with the College, some of them by the Local Education Authorities, by whom students are sent for preparation for the teaching profession.

VICTORIA UNIVERSITY OF MANCHESTER.

There is no accommodation for the residence of students within the University precincts. Students not living at home or with some responsible relative or friend are recommended to reside at one of the licensed Halls, particulars of which are given below. They are all situated within about a mile of the University. At the Halls, students receive the benefit of social intercourse and of tutorial help and supervision. A list of registered lodgings is kept by the Bursar and the Tutor for Women students, who furnish information to applicants.

Halls licensed for Residence of students :—

I. *For Men.*

Dalton Hall, Victoria Park. Established 1876.
Hulme Hall, Victoria Park. Established 1881.
Lister House, 71 Nelson Street. For residence of senior medical students.

II. *For Women.*

Ashburne Hall, Fallowfield. Established 1899.
Victoria Church Hostel, Victoria Park. (Langdale Hall.)

UNIVERSITY OF OXFORD.

Residence, or as it is defined by the University Statutes, *victum sumere et pernoctare*, must either be (1) within the walls of a College or Hall; or (2) in lodgings which have been licensed by, and are as to sanitary and other arrangements under the supervision of the Delegates of Lodging Houses; or (3) under special circumstances, and with leave of the Delegates, in a house not licensed as a lodging-house.

In any case, the place of residence must be "within the University," that is within a mile and a half of Carfax.

A list of licensed lodgings, with the prices of the several sets of rooms annexed, is published from term to term, and may be seen at the Porters' Lodges of the Colleges, or at the office of the Delegates of Non-Collegiate Students (the Examination Schools). Any member of the University can obtain a copy of the list on application at the Office of the Delegacy of Lodging Houses (Clarendon Building, Broad Street, Oxford).

Most Colleges and Halls prefer that their Undergraduates should reside during their first two or three years within their walls, but rooms cannot always be provided for all applicants, and in most cases leave to reside in lodgings can easily be obtained. After three years, or sometimes two years of residence, Commoners are usually required to move into lodgings; Scholars are sometimes allowed to keep their rooms for a fourth year.

Women students who desire to take the University Examinations in Arts or in Music must, while resident in Oxford, have their names in the books of one of the five Recognised Societies of Women Students and comply with the regulations of the Society and of the Delegacy for Women Students. No student may reside in a lodging house which has not been approved by the Delegacy.

UNIVERSITY OF SHEFFIELD.

A list of registered lodgings is provided for men students who come from a distance. Some attempt is made to supervise students in lodgings.

Women students not residing with their parents or friends reside at the University Hostel, Ashgate Road, Sheffield, which is recognised by the University.

UNIVERSITY OF EDINBURGH.

Most of the students who do not live with parents or relations reside in lodgings. The Students' Representative Council keeps a register of desirable lodgings. There are a few residential Halls. It will be observed that these are not under the control of the University.

UNIVERSITY OF GLASGOW.

Queen Margaret Hall of Residence, near the University Buildings, is devoted to the accommodation of Women Students, but its capacity is limited, and a list of private lodgings is kept, all the rooms in the list having been inspected and approved by the mistress of the College, or by ladies acting as her deputies.

A similar list of lodgings for Men Students is prepared annually by a Committee of the Students' Representative Council, but there is no inspection or approval of the rooms.

There is a special Residence, also near the University buildings, for students in Divinity and Arts intending to be Ministers of the Church of Scotland. It is under the auspices of the General Assembly of that Church. It cannot accommodate more than 19 students.

Two Hostels for medical students have recently been established by an influential Committee, but their accommodation is not great, and further developments are in contemplation.

Thirteen students are provided for in the University Students' Settlement Society, founded in 1889 for carrying on Social, Educative, and Religious work in one of the poorer districts of the city.

The great majority of the students reside either with their parents or guardians or in private lodgings, and are subject to no disciplinary restrictions.

UNIVERSITY OF ST. ANDREWS.

As regards Men Students there is no official residence in connection with the University, and they generally occupy private lodgings. As regards Women Students, University Hall, the Residence for Women Students, has hitherto accommodated about 50 Students. The accommodation has just been increased. Women Students are not obliged to enter the Residence Hall, but may reside in private lodgings. A general supervision is exercised over the lodgings occupied by Students, chiefly with a view to seeing that they are in good sanitary condition, &c. A number of Women Students reside in private lodgings, and there is at least one Hostel carried on, as a private venture, for Women Students.

QUEEN'S UNIVERSITY OF BELFAST.

The University is non-residential, and there are no Hostels attached. Students select their own lodgings, and there are no arrangements by which the University exercises any control over the lodgings occupied.

UNIVERSITY OF DUBLIN.

Residence, as a part of Academic discipline, is not enforced in the University of Dublin, nor is it necessary in itself for keeping Terms. Yet for professional students, residence either in the city or in the College is indirectly necessary.

Chambers in the University for Men Students are granted by the Provost on application from the Tutor of the Student who proposes to reside. Most of these Chambers are intended to accommodate two students, in which case each student in occupation pays only half rent and half deposit.

In the year 1908 the house and grounds, now known as Trinity Hall, were acquired by the University, and established as the official residence for those Women Students who do not reside with their parents or guardians. The adjoining house and grounds have lately been purchased by Mrs. Griffith, and presented to the University, in memory of her brother, Frederick Purser, M.A., F.T.C.D.

UNIVERSITY OF ADELAIDE.

There are no residential colleges connected with the University, and the University does not exercise any supervision over lodgings occupied by the students.

The Act of Incorporation contains provision for the affiliation of colleges and for the "licensing and supervision of boarding houses intended for the

reception of students," but the University is not allowed to make statutes which shall affect the religious observances in such colleges or boarding houses.

UNIVERSITY OF MELBOURNE.

Three Residential Colleges have been established by the Anglican, Presbyterian, and Methodist Churches respectively, and have been affiliated to the University. Each of the Colleges is open to members of all religious denominations. The total number of students which the Colleges can take into residence is less than 250. The College trustees are required to obtain the approval of the University to the plans of any buildings they may propose to erect, and are prohibited from receiving students who do not become matriculated within six months of entering into residence; but apart from this the University exercises no control over the Colleges.

Power exists to license lodging-houses, but has never been exercised.

UNIVERSITY OF SYDNEY.

There are four Residential Colleges for students of the University, three for men and one for women. The three men's Colleges are connected with three religious denominations, Church of England, Roman Catholic Church, and the Presbyterian Church. The Womens' College is unsectarian. The University does not exercise any control over private lodgings occupied by undergraduates.

UNIVERSITY OF NEW ZEALAND (Wellington).

None of the Affiliated Colleges has any residential buildings; but all of them, to a greater or less extent, are doing something in the direction of establishing residential hostels, indirectly connected with the College, for male and female students, separately. Students residing in these hostels are under the disciplinary control of a warden or matron, as the case may be. But considerable numbers of students live in lodgings over which the College exercises no direct control, though, of course, professors and their wives frequently help or advise students in the matter of lodgings.

UNIVERSITY OF THE CAPE OF GOOD HOPE (Cape Town).

At most of the University centres the majority of the students are resident only for the purpose of, and during the period of, study. In all these centres there are hostels, not directly under University control, but under the control of local College authorities, working in connection with the Union Department of Education. Private students are under no supervision.

QUEEN'S UNIVERSITY (Kingston, Ontario).

There is a residence accommodating a limited number of women, but it does not furnish room for more than a small proportion of those in attendance. The others live in boarding-houses, but men and women students are not allowed to lodge in the same house.

The University provides a specially approved list of lodging houses from which students may make selection of those in which they wish to reside.

UNIVERSITY OF TORONTO.

The University has three Residences providing accommodation for about 150 men, without restriction as to Faculty. University College has two Residences for Women Students. There is in process of erection a Men's Residence in connection with Victoria College, which has already two Residences for women. Trinity College has Residences for both men and women, and St. Michael's provides accommodation for a number of its Men Students. The University provides a list of houses which have been inspected and approved by the authorities of the Y.M.C.A., as also a list of houses which have the approval of a Committee of Ladies from the Faculty.

McMASTER UNIVERSITY (Toronto).

A Residence for Women is contemplated, but none exists at present. There is an approved list of lodging-houses.

McGILL UNIVERSITY (Montreal).

The Women Students of the University may reside in the Royal Victoria College. There is also a residence at Strathcona Hall controlled by the Y.M.C.A. of McGill, and furnishing accommodation for some 60 students. The provision of residences is one of the needs of the immediate future, and it may be mentioned here that the recent gift of some twenty-six acres of ground contiguous to the University buildings affords room for hope that something will be done in that direction before very long. Meanwhile the Registrar's office keeps a list of lodgings occupied by the undergraduates, although the University does not attempt to exercise any direct control in this connexion.

UNIVERSITY OF BISHOP'S COLLEGE (Lennoxville).

Residence within the College is the rule, and characteristic of the system of education followed in Bishop's College, the common collegiate life being regarded as a training of great importance. There are two residences, the Arts Building and the Divinity House, with rooms for students, Reading Room, Common Room, and large Dining Hall. Only in the case of students whose parents or guardians reside at such distance from the College as to admit of regular attendance may this rule be dispensed with.

UNIVERSITY OF NEW BRUNSWICK (Fredericton).

No residence is provided. The University has no direct control over lodgings occupied by undergraduates.

UNIVERSITY OF MOUNT ALLISON COLLEGE (Sackville).

The new Residence is a handsome stone building of four storeys, with a large two-storey ell in the rear. It has been planned to promote in the highest degree the comfort and convenience of its occupants.

UNIVERSITY OF KING'S COLLEGE (Windsor, Nova Scotia).

The residential system, which is an important feature of College life, is modelled on that of the English Colleges. Provision is made in the College Residence for men. Residence is kept by attendance at lectures and chapels. Suitable boarding-houses approved by the President are assigned to the Women Students. Non-resident students are admitted to lectures.

UNIVERSITY OF ALBERTA (Strathcona).

There is one University Residence on the University Grounds, and a second in the course of construction. The general plan is for a complete residential system without compulsory residence, however. The University Residence, and the Residence of the Affiliated Colleges house practically all of the students, at present, excepting those living at home in the city where the University is situated. Students' lodging-houses must be approved by the University authorities.

UNIVERSITY OF SASKATCHEWAN (Saskatoon).

The University is providing residential facilities, and the affiliated Colleges are also making similar provision. Students are required to live in approved lodgings.

UNIVERSITY OF MANITOBA (Winnipeg).

Several of the affiliated Colleges provide residences for some students, but cannot provide for all. There is no supervision over students in private houses.

UNIVERSITY OF BOMBAY.

From the statistics supplied by the University it appears that the proportion of students for whom hostel accommodation is provided in affiliated Colleges varies with the different Colleges, the maximum being reached in the case of Deccan College (for 184 students out of 212 on the Roll).

UNIVERSITY OF CALCUTTA.

Every student reading in an affiliated College with the object of appearing at a University examination, who does not reside with his parents or other legal guardian, or guardian approved by the Principal of his College, must reside either in his College or in lodgings approved by his College. The following classes of lodgings are approved by a College :—(*a*) Non-Collegiate Hostels, that is, hostels under external management; (*b*) Messes attached or unattached; (*c*) Private lodgings.

A Collegiate Hostel is a Boarding House for students which is under the direct and exclusive control of one College, which is regarded as an integral part of that College, and which admits only those students who are reading in that particular College. The management of a Collegiate Hostel is entirely in the hands of the Governing Body of the College to which it belongs. There is in every such Hostel a Resident Superintendent, and, if necessary, one or more Assistant Superintendents.

A Non-Collegiate Hostel is a Boarding House for students under external management. A Non-Collegiate Hostel is not recognised unless the individual or individuals responsible for the finances of such hostel can give reasonable guarantee for its continued maintenance. Such hostels may admit only the following classes of boarders :—(1) Students of any Affiliated College; (2) Tutors of such students; (3) Schoolboys reading in recognised schools who are nearly related to students residing in such hostels, and whose parents or guardians desire them to live with or under the direct supervision of such students. Boarders belonging to classes (2) and (3) are not admitted without the sanction of the Students' Residence Committee.

Every Non-Collegiate Hostel is (*a*) under the supervision of a Manager, and (*b*) under the general control of a Visiting Committee, both approved by the Students' Residence Committee. The Visiting Committee is composed of three persons, of whom at least two are representatives of the College or Colleges concerned.

A mess is a temporary Boarding House formed by a combination of students who desire to share expenses. A mess has not necessarily any fixity or location for a period longer than one academic year, nor does the responsibility for its finances rest with the College or Colleges to which its members belong. Students not otherwise provided for by the Regulations live in messes provided or approved by the College authorities.

Every Collegiate Hostel must obtain a certificate of recognition from the University. All other hostels and all messes must obtain annually, within such time as the Syndicate may determine, a Licence from the University.

Upon the recommendation of the Principal of his College, a student may be permitted to live in his own residence or hired lodgings, provided that (1) if he is under 18 years of age he shall be accompanied by a tutor approved by his parents or other guardian, and (2) in any case the Students' Residence Committee is satisfied that he can be permitted so to live without detriment to his health, studies or character.

PANJAB UNIVERSITY (Lahore).

There are Hostels in connection with all the Colleges affiliated to the Panjab University. The general rule is that students who do not live with near relations should reside in a hostel. The residential facilities are at present all but sufficient for all students. Hostels are annually inspected by Committees appointed by the Syndicate.

APPENDIX V.

APPOINTMENTS BOARDS.

UNIVERSITY OF BIRMINGHAM.

While there is no Appointments Board in existence in the University, applications are constantly received for Graduates to fill vacancies.

In the matter of Secondary School teachers this duty is undertaken by the Professor of Education, and up to the present he has had no difficulty in finding suitable places for his Diploma students. In the same way the Professors of Technical subjects arrange for their Graduates to proceed to Works, Civil Engineering Offices, Metallurgical Works and Mines as the case may be, on easy terms after leaving the University.

UNIVERSITY OF CAMBRIDGE.

There are two organisations in Cambridge for supplying members of the University with information about appointments and giving them facilities for obtaining them : (1) The Scholastic Agency, which is concerned with scholastic appointments only, and (2) The Appointments Board, which is concerned with appointments of all kinds. These organisations are quite independent of each other, and it should be observed that entry on the register of one does not, as is sometimes supposed, carry with it membership of the other.

The Scholastic Agency was established in the year 1884 by Professor W. J. Lewis, with the object of providing Cambridge men in search of scholastic appointments with a convenient and inexpensive means of obtaining them. But although intended mainly for members of the University, it has always opened its register to other applicants without restriction of degree or place of education. Since its commencement it has received upon its books over 5,500 candidates, and at the present times about 230 names are on the lists. The Agency has been instrumental in filling vacancies on the staffs of most of the great public schools, and of many grammar schools; it has also supplied masters to a large number of the best preparatory schools; and it possesses a large and increasing connection in the Colonies. The business is conducted under the control of a committee consisting of University officials and members of the staffs of the principal Colleges. The Office of the Agency is at the Mineralogical Museum, Free School Lane.

The Cambridge Appointments Association originated in a meeting held in the Senate-House on November 4th, 1899. In 1902 the work of the Association was recognised by the University, and the Association was superseded by the University Appointments Board.

Past and present members of the University are eligible for registration as candidates for appointments. The register of the Board is divided into two parts : (*a*) For Miscellaneous Appointments; (*b*) For Scholastic Appointments. The Fee for registration is, in respect of each part of the register, 5s. a year, or a single sum of £1 1s. for a period of five years. A candidate for registration may apply to have his name placed on either section of the register, or on both sections. In the latter case he must pay the fee for both sections. No commission of any kind is charged for appointments obtained.

The registor consists of undergraduates, Bachelors of Arts and junior Masters of Arts, who join the organisation with a view to obtaining assistance in the choice of a future career. In order to be placed on the register it is necessary to apply to the Secretary, who will furnish a form to be filled in by the candidate. No candidate is accepted without a nomination, which may be obtained either from a member of the Board or from a Tutor of

his College. The nomination has subsequently to be confirmed by the Board. A candidate's application for registration should not, in general, be deferred beyond the October Term of his third year at latest. It is most desirable that each candidate should be as far as possible personally known to the Secretary, and should have more than one interview with him. A hasty interview in the last days of his career at the University can at best be only partially satisfactory.

The Board has mainly in view appointments connected with the following departments of work:—The Army, Navy, and Diplomatic Services; the Home, Indian, and Colonial Civil Services; other appointments in India and the Colonies; Law and Medicine; Journalism and Literary work; Banking, Accountancy, and Insurance work; work on Railways in connection with both the administrative and the engineering staff; Shipping and Shipbuilding; Commerce and Technical Industries; Agriculture, Mining, Surveying, and Engineering; Lectureships in University Colleges, and Scholastic Work.

The Office of the Appointments Board is in the University Offices, St. Andrew's Street, Cambridge.

UNIVERSITY OF LEEDS.

An Appointments' Register has been established by the University of Leeds with a view to assisting past and present students to obtain teaching or professional appointments, secretarial work, and so forth. Information concerning vacant posts is obtained by circularizing governing bodies of schools, public authorities, and private employers desirous of securing the services of persons of either sex who have received a University training. Such information is distributed to suitable candidates, who are afterwards put into communication, if desired, with the authorities with whom the filling of the post rests. Besides this University Appointments' Register, departmental registers are kept by the Heads of the Technological departments, who take a personal interest in finding places for their students.

UNIVERSITY OF LIVERPOOL.

An Appointments Committee, of which an Officer of the University acts as Secretary, has been in existence for the last four years, and through it an organized effort is made to secure suitable appointments for graduates. A nominal fee is charged for registration, and personal references are required in each instance from members of the staff.

UNIVERSITY OF LONDON.

An Appointments Board was constituted by the Senate in 1909, composed of Members of the Senate and six other persons. Students and graduates who are seeking appointments register their names in the books of the Board, for which an annual fee of five shillings is charged, no further fees or commissions being payable by students and graduates on obtaining appointments through the Board. The number registered in 1909–10 was 154, and in 1910–11, 188, and for nine months of 1911–12, 162. Graduates in all Faculties, with the exception of Theology, have availed themselves of the work of the Board, but at present the largest numbers are from the Faculties of Arts and Science. The appointments obtained are educational, scientific, industrial, legal and commercial. The experience of the past three years has shown the importance and magnitude of the work of the Board, and it is expected that its work will develop considerably in the near future. All communications should be addressed to the Secretary of the Board at the University at South Kensington. Some of the Colleges of the University have organizations for the purpose of securing appointments for their students.

VICTORIA UNIVERSITY OF MANCHESTER.

Definite arrangements for advice as to the after-career of students is under consideration at present. No difficulty as a rule is found in placing our students who have had definite training of technical or professional character, but this does not always apply to teaching appointments which may quite possibly have to be treated separately from other appointments.

A list of graduates who desire employment of various kinds, and of appointments offered, is kept in the University Office, but further provision is required in order to deal with this subject adequately.

UNIVERSITY OF OXFORD.

The Oxford University Appointments Committee was constituted in 1892, every College supplying one member. In 1902 two additional members were added, elected as its representatives by the Hebdomadal Council. In June, 1907, it was officially recognised by the University, and, together with its Consultative Committee, contains representatives of every College as well as several business men of eminence.

The Committee receives notice of :—

(1) Scholastic Appointments in Universities, Public and Private Schools, and as private Tutors.

(2) Administrative Posts, at home and abroad, of which the majority are in Government service, and for which the Committee are asked to recommend Candidates.

(3) Openings in Banking and Commercial Houses at home and abroad.

It is therefore in a position to be able to recommend members of the University of Oxford for all kinds of Educational, Literary, Administrative, or Business posts, permanent or temporary, and it keeps a list of those candidates who wish to be Masters, Tutors, Examiners, Secretaries, Editors, Sub-Editors, Reviewers, Leader-writers, Librarians, &c., or to enter the various branches of the Home or Colonial Civil Service, or of business life. As the Committee does not aim at making a profit, the fees charged to successful candidates are necessarily very much lower than those of Agencies working for private gain. Any member of the University may be entered on the Register on payment of a fee of 2s. 6d., and candidates for appointments are strongly advised to enter their names as early as possible in their last year at Oxford. The Office of the Committee is in the Old Clarendon Building, Broad Street, Oxford.

UNIVERSITY OF SHEFFIELD.

A register of the after-careers of Graduates and Associates is kept. There is no Appointments Board; but every effort is made to secure appropriate appointments for old students.

UNIVERSITY OF EDINBURGH.

The University has instituted an Appointments Committee to assist and advise students and graduates in obtaining educational and other posts. Among the public services for which application may be made through the Committee are at present (1) Egypt and the Sudan Civil Service; (2) the Indian Educational Service; (3) Indian Public Works Department; (4) Post Office Engineering Department; (5) Agricultural Appointments under the Government of India and under the Colonial Governments.

A Register is kept of Members of the University who desire to obtain places in the above services or educational or other posts at home. The Committee obtain as far as possible, the testimony of Professors and Lecturers to whom such candidates may be personally known. They also furnish

information if desired to Schoolmasters and others who may desire to find suitable applicants for work.

Candidates for the Home and Indian Civil Service who desire advice as to the course of study should apply to the Conveners of the Appointments Committee (Professor Hardie and Professor Lodge) or to the Official Advisers of the Faculty of Arts.

UNIVERSITY OF ABERDEEN.

The Senatus has instituted an Appointments Committee to assist students and graduates to obtain appointments of various kinds. The Committee has divided itself into sub-Committees, dealing with Educational Appointments, Appointments open to Women, Government Appointments, and Foreign and Colonial Appointments respectively. The first two sub-Committees are prepared to receive the names of those looking out for educational and other appointments, with statement as to their qualifications, and the nature of the appointments they desire to obtain. These sub-Committees do not undertake to look out for appointments, but will do their utmost to further the interests of suitable applicants, and hope that, as their existence and functions become widely known, they may receive applications and intimations of vacant posts from the outside, which will be brought before those who have enrolled their names.

UNIVERSITY OF GLASGOW.

An Appointments Committee was established in 1903. It consists at present of 13 members of Senate, and one Lecturer who acts as Secretary. Its purpose is to obtain information about posts (both temporary and permanent) suitable for students and graduates, and to spread this information amongst likely candidates. It also acts as a nominating body for those posts to which a nomination is required.

Intimation is regularly received of vacant posts in academic and Government services; and a fair number of candidates enter for these each year. Recently an effort has been made to find openings for graduates in commercial and industrial life. A considerable number of temporary posts have also been obtained for students during the College vacation.

In addition to the work done through the Appointments Committee, the Professors in the different departments (*e.g.*, Engineering, Mining, Naval Architecture, Medicine, Divinity, &c.) are a ready means through which many graduates are "placed" in suitable spheres of work.

UNIVERSITY OF ST. ANDREWS.

There is in existence an Appointments Committee to aid Students in obtaining appointments after they have completed their University Course. This Committee has not hitherto done very extensive work, but it receives intimations of vacancies from official sources, such as the Educational Departments of Scotland, England, and the Colonies, and sundry Government Departments besides Schools and private Firms or Companies, and endeavours to put Students in communication with the Bodies responsible for appointments.

QUEEN'S UNIVERSITY OF BELFAST.

An Appointments Board is in existence, consisting of members of the Governing Body, and the Deans of the various Faculties. A Register is kept of vacant appointments of which the University has been apprised, and of graduates or others who are looking for appointments. It is too early as yet to express any opinion as to the success of the work of the Board.

UNIVERSITY OF DUBLIN.

A University Appointments Association has been formed, under the sanction of the Board of Trinity College, with the object of assisting Students and Graduates of the University to obtain appointments and employments at home and abroad.

The Executive Committee of the Association keep a Register of Students and Graduates desiring appointments, with a record of their qualifications. They collect and supply to those who register, information as to posts vacant, either at home or in the Colonies, in the various branches of the Civil Service, in Medicine, Engineering, Scholastic work, &c.; and endeavour to place applicants in communication with Boards, Firms, Agencies, &c., who desire to find men to fill such posts.

NATIONAL UNIVERSITY OF IRELAND.

No Appointments Board has been established, but this is in contemplation.

UNIVERSITY OF MELBOURNE.

Nothing in the nature of an Appointments Board exists, but individual Professors take a very active interest, in many cases, in seeing the graduates in their particular school suitably placed.

UNIVERSITY OF SYDNEY.

There is no Appointments Board, but many appointments are obtained by graduates on the personal recommendation of their professors.

UNIVERSITY OF NEW ZEALAND (Wellington).

There is no Appointments Board connected with the University or any one of the Colleges, nor is there any formal organization for aiding students in their after-careers. Every member of the Teaching Staffs and Governing Bodies interests himself directly in assisting ex-students whenever occasion arises.

QUEEN'S UNIVERSITY (Kingston, Ontario).

The University keeps record of its Graduates and makes effort to assist them, when possible to do so, in securing appointments and promotion. This Department of University work is undergoing reorganization at the present time, as it is felt by the Governing bodies that the welfare of the Institution requires a more intimate connection with those who have graduated and gone out into the world.

UNIVERSITY OF TORONTO.

There is no regular organisation for rendering assistance to graduates of the University, but in the Faculty of Arts something is done by individuals, either of the administrative or teaching staff. In Applied Science more is done, because constant applications are being made to the officers of that Faculty for men to fill positions. The same is true of the Faculties of Education and Forestry.

McMASTER UNIVERSITY (Toronto).

The Chancellor and Deans act unofficially as an advisory board respecting appointments.

McGILL UNIVERSITY (Montreal).

We have no Appointments Board, but the Deans and Professors in the different Faculties are always on the look out for positions for the members of the Graduating Class.

UNIVERSITY OF NEW BRUNSWICK (Fredericton).

No Appointments Board exists but incidental work in placing graduates is done.

UNIVERSITY OF ALBERTA (Strathcona).

The problem has not yet arisen in this University.

UNIVERSITY OF SASKATCHEWAN (Saskatoon).

Nothing has been done so far.

UNIVERSITY OF MANITOBA (Winnipeg).

The University has no special systematic arrangements with regard to the after-careers of its students.

UNIVERSITY OF BOMBAY.

Nothing is done with regard to the after-careers of students.

UNIVERSITY OF CALCUTTA.

Nothing has been done so far by the Calcutta University with regard to the after-careers of its students. Under the rules of Government, however, the Syndicate is empowered to nominate a small number of distinguished graduates for appointments in the Provincial Civil Service. There is no Appointments Board in this University.

PANJAB UNIVERSITY (Lahore).

There is no Appointments Board in connexion with the Panjab University and no special steps are taken to keep a record of the after-careers of its students, but, as already stated (p. 407), many of the examinations, *e.g.*, those of Law, Medicine, Teaching and Engineering, are themselves passports into the corresponding branches of the Public Service.

APPENDIX VI.

UNIVERSITY EXTENSION COURSES, &c

UNIVERSITY OF BIRMINGHAM.

A Committee of the University, consisting of about ten of the Professors, organise lectures in localities, popularly known as Extension lectures.

Tutorial classes for working people.

The University has taken its share of work in connexion with the Workers' Educational Association, and is now carrying on five Tutorial classes in and around Birmingham. These classes extend over three consecutive sessions of not less than 24 hours each, and they are attended by, as a rule, from 20 to 30 students. Steps are being taken to add other tutorial classes in the five counties lying around Birmingham.

Social Study.

For several years past the University has conducted a very successful course in Social Study, and has issued a Social Study Diploma. The requirements for the Diploma fall under three heads :—

(i.) University courses, including such subjects as Industrial History, Economics, Theory, and Practice of Social life, Sanitation, Poor Law administration.

(ii.) Visits of Observation of the administration of Poor Law, Education and Justice, Sanitation and Hygiene and Industrial conditions.

(iii.) Practical work in the office. Visits in connection with Charity Organisations and other Social Agencies, School and Club Work.

Among positions now filled by holders of the Birmingham Diploma may be mentioned those of Organising Secretaries of Charity Organisation Societies, Almoner at a hospital, Assistant Manager and Registration Clerks at Labour Exchanges, Social welfare workers at great factories, Assistants on Guilds of Help and the like, and Secretaries of Philanthropic Societies.

During the session 1910–11, 25 students attended the whole or a considerable part of the prescribed work for the Social Study Diploma.

Town Planning.

Recently, a Lectureship on the subject of Civic Design and Town Planning has been established in the University, and the Lecturer has now completed his first Session. The course includes lectures and demonstrations followed by exercises in the Drawing Office, and has been attended by about 30 students, some of whom were already attending courses on Civil Engineering, whilst the rest consist of Architects and Social Workers.

UNIVERSITY OF BRISTOL.

Extension Lectures are given as required, being arranged by an executive committee of Senate. Extra-mural courses on History and Economics are given to Working people at low fees. Courses of lectures are given to nurses preparing for the examinations of the Central Midwives Board.

A Testamur in Social Study and a Testamur in Journalism are granted.

UNIVERSITY OF CAMBRIDGE.

The purpose of the Local Lectures and Classes (popularly known as "University Extension") is to provide the means of higher education for persons of all ranks and of both sexes engaged in the regular occupations of life.

The method of teaching adopted at the beginning was in its main features the same which has been pursued ever since. That method has four characteristic features—the lecture, the class, the weekly paper-work, and the examination. The lecture presents the subject in broad outline; and the courses consist usually of twelve weekly lectures, each lecture occupying an hour. In order to enable students to follow the lecture readily, and to carry away the substance of it, a printed syllabus in pamphlet form is prepared beforehand by the lecturer for the use of students. This syllabus gives an analysis, a logical abstract of the lecture, with such quotations or statistics as the lecturer thinks it expedient to print, and a list of text-books or other authorities on the subject. For about an hour preceding or following each lecture the class is held, when the lecturer goes more into detail. Students are invited to ask questions, and the lecturer explains difficulties. The class enables the lecturer to become personally acquainted with some at least of the students, and to help them individually. At the class questions are given out by the lecturer, on which the students write short essays. These weekly exercises form an important part of the system. The lecturer revises the essays and returns them with his comments at the next class. Lastly there is the examination. This is held at a short interval after the close of the course. The examiner is a different person from the lecturer, and is specially appointed for the purpose. A list is issued of those who have passed the examination, arranged in alphabetical order. Those, however, who have done specially well are indicated by an asterisk.

The majority of the courses have been given in the evening. The audiences have included persons drawn from all ranks of society and of the widest diversity of previous education and training.

Certificates are awarded in connexion with these courses, which state that the student has not only attained a particular standard of knowledge, but has also pursued a regular course of organised work under University superintendence.

UNIVERSITY OF DURHAM.

Provision of Courses of study and examination for other than degree students is made at Armstrong College, by the holding of evening lectures and classes, and in the Normal Department.

UNIVERSITY OF LEEDS.

Extension courses in Arts, Science, Literature and Economics are provided by the University under a special scheme managed by an Advisory Committee, including representatives of the University, the West Riding Education Committee, and the Workers' Educational Association. Three such courses were given during the session 1910–11, with an attendance of 120, 240, and 870 respectively. This Committee also arranges for Tutorial Classes for the benefit of working people whose occupation prevents them from attendance on systematic teaching at the University itself. The students pledge themselves to attend over three winter sessions, during which meetings of two hours' duration are held weekly, and each class is limited to about 30 persons. A scheme is also in operation under which short introductory courses are given to Working Men's Clubs and similar organizations.

The largest branch of Extension lecturing is connected with the Agricultural Department of the University; nine lecturers devote a considerable portion of their time to this work. During the past sessions courses of lectures, aggregating upwards of 720 lectures, were given in the three Ridings of Yorkshire on Agricultural, Horticultural, and Farriery subjects, together with courses on Dairy Work and Poultry Keeping.

UNIVERSITY OF LIVERPOOL.

The following courses for special diplomas and certificates are provided by the University:—

Diploma in Education.
" " Architecture.
" " Civic Design.
" " Public Health.
" " Tropical Medicine.
" " Veterinary Hygiene.
Diplomas in Special Subjects in the Faculty of Medicine.
Diploma in Dental Surgery.
" " Engineering.
Certificates in Separate Subjects in the Faculty of Arts.
Certificate in Architecture.
" " Civic Design.
" " Engineering.

The School of Social Science and of Training for Social Work, established by the joint action of the University, the Central Relief Society, the Victoria Settlement for Women, and the University Settlement for Men, provides courses of lectures in the following subjects:—Social Ethics; The State and Education; Social Psychology; Nature and Growth of Society; Social and Industrial History; Civic Administration; History and Administration of the Poor Law; Administration of Charitable Relief; The Town and its problems; Industrial Conditions; Social Problems in Relation to Children; The Problem of Poverty; Account-keeping for Charities. In addition to the foregoing, the School has made special provision for those who are unable to avail themselves of the lectures of the regular courses. A special course of lectures was given on Social Problems to the students at St. Aidan's Theological College; on Social Agencies and the Industrial Classes to the Probationer Nurses of the Queen Victoria District Nursing Association, attended by between 15 and 20 nurses; special lectures to teachers in training at the Liverpool Technical College of Domestic Science, attended by between 30 and 40 teachers in training. Evening classes, attended by 26 students, were held during the winter for Relieving Officers.

A special Diploma is issued to students who are successful in the examination at the end of two years' systematic study. The teachers of the School consist of members of the University staff and of others specially qualified for the work. Forty-five students registered during the session 1910–11, of whom eight entered for the First Year Diploma Course, and four for the Second Year Course: the remainder took selected courses of lectures.

The Department of Town Planning and Civic Design has been established as a department of the School of Architecture, under the control of a member of the University staff, who is Associate Professor and Lecturer. The University grants a Certificate and a Diploma in Civic Design.

Special Courses of Evening Lectures are given at the University by members of the University Staff.

UNIVERSITY OF LONDON.

The University Extension Board of the University of London was constituted in 1902 to carry on the work of organizing University Extension lectures in London which had hitherto been under the direction of the London Society for the Extension of University Teaching. Since the transference of the work to the University several new and important developments have taken place.

(*a*) There are now three distinct schemes of study for students who are not working for a degree :—

(1) *Diploma Courses.*—The institution of instruction-courses for a University Diploma in the Humanities arose from an extension of the Scheme for the Chancellor's University Extension Certificate in the Humanities, which was instituted in November, 1905. The Senate have now established four Diplomas—in History, in Literature, in Economics and Social Science, and in the History of Art. In each case a three years' course of study is required, together with a fourth year of more specialized work, and a final examination. The Diploma regulations require that at least 40 hours' instruction shall be given to the student each session, that the student shall attend the course regularly, shall do regular paper work to the satisfaction of the Lecturer, and shall pass an examination on the work of each session.

(2) *Ordinary University Extension Courses.*—The Board arrange courses of lectures of terminal and sessional length at the request of local centres. Short courses are also arranged when required. A feature which is characteristic of the work in London is the arrangement of a great number of sessional courses which tend of necessity to more continuous and educational work on the part of the students. From the statistics given below, it will be seen that the number of sessional courses is considerably in advance of terminal and short courses.

(3) *Tutorial Classes.*—A notable development of University Extension work in recent years has been the arrangement of Tutorial Classes for Working-people. These classes are directly under the supervision of a Joint Committee, which includes University representatives and representatives of Labour organisations. The classes are limited in size in order that the teaching may be more personal and tutorial than is possible in lectures delivered to large audiences.

The number in each class is not allowed to exceed thirty, and the students agree to attend for a three years' course in order that their study may be of a continuous nature, and pledge themselves to attend regularly during the session and to write a given number of essays on subjects set periodically by the tutor, unless prevented through unavoidable causes.

The subjects which are now being taught in Tutorial Classes are the Theory of Economics, Economic History, Sociology, General History, and Literature.

(*b*) *Specialised Courses of Instruction* form an important feature of the Board's work. The Board have arranged for some time past courses of lectures on the Art of Lecturing, which are largely attended by students who wish to become proficient lecturers. Considerable success has attended these courses, and they have now become a permanent feature of the work of the Board.

In addition to these courses, series of lectures have been arranged from time to time for students engaged in teaching. Courses have been delivered to members of educational institutions on various aspects of psychology in relation to the work carried on by such institutions, and during the last session a course of lectures was delivered on "Psychological Ethics in an Educational Setting," to an audience composed entirely of training college students. The courses have been uniformly successful, and further developments in this direction are anticipated.

The most important of the specialized courses arranged by the Board is the Holiday Course for foreigners held annually during the month of August, and attended by students of many nationalities, and numbering over 250 each year. Lectures are delivered and classes are held by experienced lecturers, and exercises in practical phonetics form one of the most important features of the courses. Excursions are arranged for the students to various places of interest in and around London, and every opportunity is afforded for obtaining adequate knowledge of English. This year an additional course (Anglo-French) has been arranged at Ramsgate. An Examination, both

written and oral, is held at the end of the course. Certificates of attendance and of proficiency in English are awarded to students who fulfil the required conditions.

(*c*) Certificates. The certificates which are awarded under the regulations required for the various courses of lectures under (*a*) (1) and (2) above fall into five groups :—

1. Terminal Certificates (Pass, Merit, and Special Distinction).
2. Sessional Certificates.
3. Sessional Certificates in Honours.
4. Vice-Chancellor's Certificate of Continuous Study.
5. Diplomas in the Humanities.

They are each awarded on the result of the examination held at the end of the course to which the name of the certificate refers, and necessitate regular attendance on the part of the student together with the writing of an adequate number of weekly or fortnightly papers for the lecturer.

The Vice-Chancellor's Certificate of continuous study is awarded to a student who obtains four Sessional Certificates and satisfies certain conditions as to the groups of subjects in which the certificate is taken. The scheme of study for Diplomas in the Humanities has been referred to above.

No technical or professional certificates are awarded unless the certificates in connection with the courses referred to in (*a*) above be regarded as coming within this category. A certain amount of professional value attaches to Certificates such as these.

(*d*) Statistics.

STATISTICS OF COURSES AND ATTENDANCES, 1910–1911

Subjects	Courses.				Attendances.			
	Sessional	Terminal	Short	Total	Sessional	Terminal	Short	Total
Architecture ...	4	3	1	8	[illegible]	769	85	751
Art, Italian ...		4		5		135		198
" English ...		1				151		151
Arts and Crafts ...		1		1		42		40
Civics and Town Planning	2	4		6	63	156		219
Economics ...	4			4	99			99
Education ...		1		1		23		23
Egyptology		1		1		167		167
Geography ...	2			2	55			55
Greek Language ...	2			2	8			8
History :								
General ...	6	2	1		482	161	79	722
Social ...	1	1			63	65		130
Industrial ...	2				146			146
Greece (Tutorial Class Students).			1	27			560	560
India ...			1				53	53
London ...			7				1,498	1,498
Pageant Courses ...			4				543	543
Lecturers Training Course.	1			1	33			33
Literature	12	1		13	1,798	85		1,883
Music		1		1		60		60
Psychology		2		2		237		237
Sociology		2		2		77		77
Other Sciences	3			3	143			143
	(39)	(16)	(15)	(80)	(3,146)	(1,832)	(2,818)	(7,796)
Tutorial Classes :—								
Economics, Theory ...	1			1	30			30
" History ...	7			7	213			213
History : English ...	2			2	82			82
" Industrial ...	2			2	57			57
Political Institutions	3			3	96			96
Sociology	1			1	33			33
Totals	55	46	15	96	3,617	1,832	2,818	8,267

(e) University Extension lectures are delivered at various institutions, connected with the University and also at local Centres, where the lectures are arranged at institutions which have no direct connection with the University. For instance, the greater number of History Courses for the Diploma in History are arranged at University College, an incorporated college of the University, and several of the courses in Literature are arranged at King's College, also an incorporated college of the University. Courses are also occasionally arranged at Schools and Institutions connected with the University.

VICTORIA UNIVERSITY OF MANCHESTER.

A committee of the University has for many years conducted Extension Courses on a system generally similar to those adopted in the older Universities.

A scheme for the conduct of Tutorial classes for work-people is now in full operation. The results so far have been very satisfactory, and the work is likely to extend.

The institution of special courses and of a certificate for those engaged in Social Work is under consideration.

The Certificates and Diplomas given for technical and professional subjects are very varied in character. The term "Diploma" is usually applied where the work undertaken is of a Post-Graduate character followed by an examination. Among the Diplomas are those of Public Health, Veterinary State Medicine, Psychological Medicine, and for Teachers. The term "Certificate" is usually used for a course generally similar to a degree course, but sometimes of a less exacting character or with an entrance examination of lower standard. There are also certificates given in some cases for work of a more popular kind, as the Certificate for Biblical Knowledge and the Certificate for Sanitary Inspection.

UNIVERSITY OF OXFORD.

There is an increasing demand, on the part of adult students who are prevented by various reasons from becoming members of the University, for systematic instruction in History, Literature, Natural Science, Political Economy, and other branches of knowledge. But, in order to meet the needs of such students, this instruction must be offered in the towns where they reside, at hours which permit of their convenient attendance, and at a cost which is not prohibitive to persons of narrow means. The system of engaging peripatetic instructors began in the 'sixties, and for many years was carried on in an informal manner. But as the demand for such teaching steadily increased, the advantage became apparent of having some central organization, to which the local societies which required Lecturers might apply. Accordingly, the University of Cambridge empowered in 1873 an official Syndicate to draw up a list of Lecturers, and to enter into negotiations with such Local Committees as might require their services. In 1878 the University of Oxford adopted the same arrangement, entrusting the administration of the scheme to a committee of Delegates of Local Examinations. In 1892 the University transferred the work to the control of a new Delegacy "for the extension of teaching beyond the limits of the University."

Since that time the system, which is now commonly known as University Extension Teaching, has steadily grown, and the following figures, up to and including the Session 1910–1911, show the extent to which the Oxford branch of the work has developed since its inception.

Number of centres in which lectures have been given, 620.

Number of lecturers employed, over 200.

Number of courses given, 4,414.

Number of lectures given, 36,873.
Number of persons attending courses, 493,178.
Number of students examined, 26,352.
Fifteen summer meetings have been held, at which 16,363 persons have been present.

The local arrangements for the Lectures are usually made by a committee formed for that purpose, but are sometimes introduced as part of the educational programme of an established institution. At Reading, a University College has been established. This College largely owes its origin to the action of Christ Church, that Society having elected the first Principal to a Studentship for the purpose of deepening and systematizing University Extension work there. In all cases the local organisers guarantee to the University authorities the amount of the Lecturer's fee and railway expenses. The fees vary, according to the standing of the Lecturer engaged, from £54 12s. to £25 15s. for a Course of twelve Lectures. These charges include Lectures, Classes, the correction of a limited number of periodical exercises or essays, the loan of a travelling library of standard books required for the Course, sixty copies of a printed syllabus of the Lectures, examination fee, certificates, and a prize. The Lecturer's railway expenses, which are divided among the towns which he visits during the Term, are not included in the above fees. When a Lecturer is invited to deliver more than one Lecture in a town on the occasion of each visit, the charge for such additional Lectures is at a reduced rate. Courses may be arranged of any length, but no examination is allowed on less than six Lectures. The local organisers find that the total cost of each Lecture of the Course, including all local expenses of room-rent and advertisement, varies from £5 to £6.

The method of teaching adopted at the University Extension Centres is the outcome of many years' experience. Each Lecture of the Course lasts about an hour. The Lecture is either preceded or followed by half an hour of more informal instruction, during which opportunities are given for the students to question the Lecturer on any points of difficulty needing further explanation. At the end of each Lecture, the Lecturer gives out questions on which the students write essays. These essays are sent to the Lecturer by post, and returned by him with corrections at the next Lecture. When the Course is over, an examination is held on it. Entrance to the examination, which is open to men and women, is optional, but confined to those students who (i.) have attended at least two-thirds of the Lectures and Classes; (ii.) have written at least two-thirds of the weekly or fortnightly essays to the satisfaction of the Lecturer; and (iii.) are at least fifteen years of age. Those candidates who acquit themselves particularly well in the examination receive a mark of distinction, but no student is eligible for distinction who has not been specially recommended for it by the Lecturer on the ground of excellent work done during the Course.

Examinations are permitted on all courses of six lectures and upwards. Each student successful in an examination held on a course of less than ten Lectures receives a copy of a list of the successful students at the Centre in two classes, viz., pass and distinction. The list records the names of the Centre, Lecturer, and Examiner, together with the subject of the Course, &c.

The following Certificates are issued under the sanction of the Delegacy :—

Terminal Certificate. Given on courses of ten or twelve lectures.

Sessional Certificate. Given on courses of twenty-four lectures.

Sessional Certificate in Honours. As above, plus one mark of distinction and a special essay.

Affiliation Certificate. (Or Higher Certificate of Systematic Study.) Given on a sequence of courses comprising ninety-six lectures, plus a general examination on the subject-matter.

Vice-Chancellor's Certificate. Given on the same conditions as Affiliation Certificates, plus an examination in elementary mathematics and two languages.

From the list issued by the Delegates, any Local Committee may choose its lecturer and subjects. The Courses are delivered on various topics, but at present the majority of the lectures are on historical, scientific, or literary subjects. The audiences vary in numbers and composition. Occasionally they rise as high as 900 to 1,000, generally they consist of about 100. Most of the audiences are representative of the chief occupations and interests of the town. Sometimes, however, they consist almost entirely of ladies. At a few Centres, chiefly in the north of England, the audiences are made up almost wholly of working men.

An integral and important part of the Extension System is the "Summer Meeting" (Vacation Course) which is held biennially at Oxford, the intervening meetings being generally held at Cambridge. It lasts about a month, this period being divided into two parts, usually of ten days and a fortnight respectively, for the benefit of those who cannot stay for the whole meeting. About 1,000 University Extension and other students are present at each meeting. They attend Courses of Lectures which are delivered by Professors, Resident Tutors, University Extension Lecturers, and others. Advantage is also taken of the presence of so many students to hold conferences on the practical details of University Extension work.

Tutorial Classes.

Under a special statute passed in October, 1908, the Delegacy has appointed a Standing Committee, consisting of seven Delegates and seven representatives of the working classes to establish and supervise Tutorial classes in working class districts. Fourteen such classes were at work in the session 1910–11, and the reports are most satisfactory. The students pledge themselves to a three years' course of study, the classes meet once a week for two hours from September to April, and each student writes an essay every fortnight.

UNIVERSITY OF SHEFFIELD.

The needs of students not taking degree courses are provided by courses for Certificates or Diplomas in Medicine, Engineering, Iron and Steel Metallurgy, Mining, Architecture, Law. Particulars of these courses will be found in the Calendar.

University Extension Lectures, Tutorial Classes for working people, and Popular Lectures, are also given.

Four courses of Free Extension Lectures were given, at which the average attendance per lecture was 146, 131, 100, and 43 respectively.

At 11 Popular Lectures, the average attendance per lecture was 295.

Three courses of Tutorial Classes were held; and the numbers of students attending were 36, 32, and 26 respectively.

UNIVERSITY OF GLASGOW.

Courses of evening lectures are given for Mining students who do not aim at a degree.

Candidates for membership of the Chartered Accountants Society are required to take some University classes, even though they may not seek a degree.

Evening lectures (along with tutorial instruction) on Economic, Social and Civic questions have been given for some years at the University, and mainly by University teachers under the management of a joint Committee of representatives of Charitable and Settlement societies, and this scheme is to be enlarged and put on a more permanent footing under a Social Study Board to which the University has appointed representatives.

UNIVERSITY OF ST. ANDREWS.

The University undertakes no special Classes for Students other than Degree Students. The Gifford Lecturer on Natural Theology gives a course of Lectures normally every year, to which all may attend, whether Students of the University or not. The University also carries on Examinations for an L.L.A. Diploma and Title for Women which may be obtained on examination by those who have not been matriculated Students of the University, and who have not studied or been in residence in any University.

The Courses of Study in the University besides being adapted to the requirements of Degree Examinations, are drawn up so as to prepare Candidates for Civil Service Examinations, especially those for the Indian Civil Service.

QUEEN'S UNIVERSITY OF BELFAST.

An Advisory Committee, appointed by the Senate, consisting of members of the Senate, members of the General Board of Studies, and persons co-opted on the ground of practical knowledge of the educational requirements of the community, has charge of the University Extension Scheme for the City of Belfast. Under this Scheme lectures have been instituted on English Literature, French, Psychology, and Geology, and the entries for these lectures were as follows during 1911-12, the first session in which an Extension Scheme has been in working order :—

Course I. (Shakespeare's Tragedies)	51
Course II. (English Literature of 18th Cent.)	51
Course III. (French Phonetics)	53
Course IV. (Social Psychology)	40
Course V. (Geology)	29

Besides the University Extension Lectures proper, a Holiday Course for teachers was held in the summer of 1911, at which lectures were delivered to teachers upon the teaching of French, of Geology, and of Geography, and a course was delivered in Elementary Psychology as applied to Education. The Academic Council also arranges for courses of lectures of a semi-popular nature to be delivered in the evenings by Professors and Lecturers of the University. Courses have been delivered under this arrangement upon French Phonetics, Modern Psychological Movements, Irish and Economic subjects. The University Lecturer in Economic History conducts by an arrangement with the Workers' Educational Association, a class in the University for working men interested in Economic problems, and acts as general adviser in the practical carrying out of the Society's educational schemes. The University has also instituted a course of evening lectures for a Diploma in Commerce; by attendance upon these lectures for two sessions, and passing the prescribed examinations, students may obtain the Diploma in Commerce.

There are no courses in Sociology, Civics, or Administration, though the latter subject is treated in a course on Descriptive Economics which is included in the evening Diploma course. A course on Political Science, open to students not reading for a degree, is common to the Faculty of Arts and the Faculty of Commerce.

UNIVERSITY OF ADELAIDE.

In addition to the ordinary degree work, the members of the staff annually deliver courses of Extension Lectures at the University.

The Professors also devote the May and August short vacations to giving courses of lectures in country centres. Requests from Western Australia for lectures are also acceded to when possible.

In order to bring the University into closer relationship with students in the country, a number of local centres have been established. The centres are controlled by local committees, and, in many cases hundreds of miles from the City, candidates are enabled to present themselves for the various public examinations held by the University. There are now 34 centres in active work throughout the State.

Lectures in many of the subjects of the Arts and Science courses are given in alternate years in the evenings. By this means many students who cannot attend during the day are enabled to qualify for a degree in Arts or Science.

The University grants a Diploma in Commerce, and all the lectures in connexion with the course are given at night. The curriculum includes a course in Political Economy. There are no special tutorial classes for working people, but working men and others attend such classes in Electrical Engineering and Physics, &c. For instance, members of the staff of the Engineer-in-Chief's Department of the State attend the courses of lectures on Railway Engineering, Hydraulics, &c., and special facilities are provided to enable them to do so.

All the courses of lectures of the University are open, with a few exceptions, to the public, but non-graduating students must be able to satisfy the lecturers that they are likely to benefit by the instruction.

UNIVERSITY OF MELBOURNE.

University Extension Lectures are annually delivered in a number of centres, under the auspices of the University Extension Board. Generally speaking, the courses consist more of semi-popular lectures than of lectures the object of which is definite, steady instruction. Courses of the latter character are, however, arranged from time to time in special subjects, and sometimes for special audiences. Nothing has been done in the way of providing Tutorial Classes.

Courses for a number of diplomas are provided by the University, but they do not differ greatly from degree courses.

They may be divided into two classes, those in subjects in which there is no corresponding degree, and those in which a degree can be obtained. The diplomas of the first class are valuable and sought after, those of the second class are looked upon as inferior degrees, and every student who can do so takes the degree course.

The diplomas in the first class include those of Education, Public Health, and Analytical Chemistry, and those in the second Agriculture, Mining, Metallurgy, and Architecture. The diploma in Music and the Licence in Veterinary Science should strictly fall into the second class, but they are sought by a fair number of students. They are all granted after a course pursued in the University. No courses have been provided in Political Science, Sociology, Civics, Administration, &c.

UNIVERSITY OF SYDNEY.

The University Extension Board offers tutorial classes and courses of lectures from three upwards to local committees and institutions throughout the State.

It also provides instruction by both methods at the University and elsewhere in the City as required. There is a system of evening lectures which provides instruction in all the subjects necessary for the degree of Bachelor of Arts, but with limited options. The University gives no degree or

diploma in Pharmacy, but those who wish to become pharmaceutical chemists are required by the Pharmacy Board to attend courses of instruction at the University in Chemistry, Botany, Materia Medica, and Therapeutics. The University examinations in those subjects qualify, *pro tanto*, for the diploma of the Pharmacy Board.

A diploma in Economics and Commerce is granted after attendance upon three courses of evening lectures, each course consisting of 90 hours instruction. The subjects included in the course are: Economics, Accountancy, Business Methods, Organization and Enterprise, Technology of Commercial Products, Banking, Insurance and Exchange, Commercial Law and Commercial Geography.

There is also a diploma in Military Science which is granted after the student has completed courses in Military History, Strategy, Tactics, and Imperial Defence, Military Topography, Military Engineering, Military Law and Administration.

UNIVERSITY OF NEW ZEALAND (Wellington).

No Extension lectures are provided in connection with the University of New Zealand. The question has been raised from time to time, and attempts have been made to organise such courses. But up to the present these attempts have failed, chiefly owing to the paucity of persons available as lecturers, that is, outside the ranks of the University Teachers, whose own work is too exacting to permit of their taking up external lecturing.

Each of the four Affiliated Colleges has on its books a considerable number of students who are not aiming at any degree. Arts or Science classes are attended by school teachers with a view to qualification under the Education Department. Students attend Science classes with a view to pursuing some research (under Government or otherwise) connected with the industries or the fauna and flora of the Dominion. Students attend professional classes with a view to obtaining diplomas offered by individual Colleges, as in Engineering, Mining, and Music, or qualifications in connection with some external body, such as the Institute of Accountants, the Institute of Surveyors, &c., or bare admission to a profession such as the Law.

In addition, there is always a certain number of students (mostly women) attending lectures for their own instruction and culture, without any ulterior object of a practical nature.

The University courses are recognised by various bodies, from the Government downwards, such as those already mentioned. There are no special courses in Political Science, Sociology, or Civics. Some of the Colleges from time to time organize lectures of a popular character on scientific or literary subjects for the benefit of the general public.

UNIVERSITY OF THE CAPE OF GOOD HOPE (Cape Town).

The University, as such, has no Extension Courses, but such courses have been organized in some of the Colleges on their own initiative. The University, however, exercises a wide influence throughout South Africa by means of its Junior and Senior Certificate Examinations for Schools, and by means of the Music Examinations which it carries out through examiners appointed by the Associated Board of the Royal Academy of Music and the Royal College of Music.

QUEEN'S UNIVERSITY (Kingston, Ontario).

There is in this University a system of extra-mural work which includes, first, lecture courses by members of the Staff; and, second, essays and exercises which are sent out from the University by instructors who act under the supervision of the head of the Department in which the Student is taking classes, these exercises being regularly corrected, criticised, and returned to the Student; third, the use of the Library and directions regarding systematic reading; fourth, the use of Laboratory material when necessary for the work that the student is doing; fifth, summer classes, conducted during the months of July and August, for the purpose of giving personal instruction to those who can attend at that time, but whose business prohibits attendance at other periods of the year.

Every effort is made to keep the extra-mural instruction up to the standard, both in character and quantity, of that given to intra-mural students. The same examinations are set for degrees, the same system of marking is adopted, and, as far as possible, the teaching is similar.

UNIVERSITY OF TORONTO.

The University has no special forms of University Extension Courses, although it provides after regular lecture hours courses of instruction adapted for the most part for teachers in the Public Schools, also during the summer it conducts a Session of about six weeks. For both of these Courses the basis of instruction is usually the First and Second Year in the Faculty of Arts, although in the Summer Session, with the co-operation of the Education Department of the Province, instruction is given in Elementary Science, Art and Physical Training. During the Session courses of lectures are given under the auspices of local organisations at various points throughout the Province by members of the staff. During the present Session a course of lectures open to the public was delivered on the subject of Town Planning.

McMASTER UNIVERSITY (Toronto).

Courses are open to approved students who may not be pursuing courses for degrees. This refers to all courses, including Sociology, Political Economy, &c.

McGILL UNIVERSITY (Montreal).

There is very little to report in the way of Extension Work. The distances between the various cities in Canada are too great to cover successfully and economically any such schemes as those which are so much in vogue in the Old Country. And in Montreal itself, provision is now fortunately made outside the University to meet the needs of the classes which have benefited by the Extension Movement elsewhere. Reference may be made to the Commercial and Technical High School founded under the direction of the Protestant Board of School Commissioners of the city of Montreal, and also to the great institution for technical education (Ecole Technique) recently established by the Quebec Government, as well as to the Ecole des Hautes Etudes Commerciales de Montreal. The University profits by every opportunity given to it to help in the direction of the teaching given in these institutions, and many of its graduates have already found service in the ranks of their teaching staffs.

Reference should also be made to the thoroughly successful course of evening lectures on Economics offered by Dr. Leacock during the last two years. These have attracted considerable numbers, and have proved in every way successful.

The remarkably successful scheme of travelling libraries which is operated from the McGill University Library as a centre, and which has proved an invaluable boon to villages and other communities all over Canada, may be described as a form of extra-mural work.

As to Sociology, Civics, &c., the merest beginning has been made, for while the Alumnae Society of McGill has for many years been interested in Girls' Friendly work, Neighbourhood Guilds, &c., it is only of recent years that the University Settlement has taken root under Professor Dale, and much educational as well as other work is now being done there.

UNIVERSITY OF BISHOP'S COLLEGE (Lennoxville).

Students who have special objects in view, or those who cannot keep continuous residence, may, with the approval of the Principal, attend particular courses of instruction without becoming regular students. Lectures in Political Science and kindred subjects are given in connection with the Course in Philosophy. Courses of public lectures on various subjects have also been given, but as we are situated in the country the attendance has not been large; members of the McGill Staff have given us valuable assistance in these lectures.

UNIVERSITY OF ST. FRANCIS XAVIER'S COLLEGE (Antigonish, Nova Scotia).

This institution has for two years conducted a six weeks' course of summer lectures in Chemistry, Physics, Biology, English, Latin, French and Mathematics. About a hundred young men and women, mostly teachers, attended these Extension Courses. A feature of these Summer Sessions was a number of evening lectures or "talks" on questions of general interest given by leading men.

UNIVERSITY OF ALBERTA (Strathcona).

The University has been carrying on University Extension Lectures in various parts of the Province, mostly of a literary character. A rapid development of this work along scientific lines is expected as soon as the work of the University becomes more organized.

UNIVERSITY OF SASKATCHEWAN (Saskatoon).

The University conducts Extension Work in Agriculture, holds Institutes for farmers, short courses for farmers' sons, and courses for women, and in other ways stimulates an interest in scientific agriculture. This year £4,000 was expended for this purpose.

UNIVERSITY OF MANITOBA (Winnipeg).

The Faculty of the University has inaugurated an extensive series of individual lectures on subjects in Science, Engineering and Arts, which are delivered free of charge in any town in Manitoba during the winter months. Popular lectures on many subjects are also given frequently in Winnipeg.

Regular Extension Classes have been organised in Winnipeg during the last two years in English Literature and Economics. Special Courses of lectures to Music Students, medical practitioners, and other special professions have from time to time been offered.

The only continuous courses have been in English Literature and Economics. The number of students in a course has been as high as 65, though usually much smaller.

UNIVERSITY OF BOMBAY.

The University does not undertake Examinations other than those leading to degrees.

UNIVERSITY OF CALCUTTA.

The Calcutta University has no scheme for providing for the needs of students not working for degrees. No University Extension Courses are prescribed by it, nor does it provide for tutorial classes for the benefit of working people. It prescribes courses on Political Science, Sociology, &c., for its Degree Examinations, but such courses are not for the benefit of students who are not working for Degrees.

PANJAB UNIVERSITY (Lahore).

The Panjab University has not yet undertaken the provision of courses of study such as those indicated, but it has under consideration a proposal for the appointment of University Lecturers whose lectures will not necessarily be confined to the subjects and courses prescribed for Examinations.

APPENDIX VII.

EXCHANGE OF PUBLICATIONS AND INFORMATION.

UNIVERSITY OF LEEDS.

The Leeds University Calendar is sent to a large number of other Universities both at home and abroad in exchange for similar publications of those Institutions. A Committee of the Senate was appointed in December last to consider and report on the question of reprinting original papers by members of the staff, with the view of circulating them amongst other Universities on some system of reciprocity.

UNIVERSITY OF LIVERPOOL.

No official arrangements for the exchange of publications between the University of Liverpool and other Universities are made. The Heads of Departments, however, are in the habit of forwarding copies of the publications of their Departments to the Heads of the corresponding Departments in other Universities. There is no formal organization for the systematic exchange of publications.

VICTORIA UNIVERSITY OF MANCHESTER.

The establishment of a central University Bureau would probably serve a valuable purpose:

(i) As bringing into closer contact the persons engaged in teaching and in carrying on research in the various Universities, and affording an opportunity of consultation to those separated by distance but carrying on similar lines of investigation.

(ii) By the establishment of an Information Bureau or Reference Library, through which particulars regarding discoveries and contributions to knowledge might be interchanged or obtained.

If care were taken to constitute the Bureau so as to inspire confidence, before long it would probably not only secure the free interchange of special information from the Universities of the Empire which agree to support it, but it might also gain similar support from Universities outside the British Empire and learned institutions throughout the world. The University regularly issues a number of publications.

UNIVERSITY OF SHEFFIELD.

The Calendar of the University is sent each year to the Universities in the British Empire.

UNIVERSITY OF GLASGOW.

Nothing general is being done in the direction of the exchange of publications. With a view to possible exchange, each successful candidate for a higher degree is required to furnish such number of copies of his Thesis as the Senate may fix, either printed or multiplied in typewriting. There was some exchange of Theses, etc., with the Universities of Russia.

UNIVERSITY OF ST. ANDREWS.

The University Library has made arrangements for exchange of publications with other Universities and Institutions. The number of such Institutions is about 150.

QUEEN'S UNIVERSITY OF BELFAST.

No official steps have yet been taken by the University in the direction of the interchange of publications. The interchange of publications between research workers in this University and those engaged in similar work elsewhere has, up to the present, been carried out by the workers concerned. The establishment of a Central University Bureau, dealing with such an interchange, would undoubtedly be of value.

UNIVERSITY OF MELBOURNE.

The University issues none but official publications, the chief of which, the Calendar, is exchanged with all the leading English-speaking Universities, with a great many other Universities and with a great many other institutions.

The papers which result from post-graduate or research work are published through outside agencies. A great many science papers are published by the Royal Society of Victoria, and others by the journals serving particular branches of learning or particular professions.

UNIVERSITY OF SYDNEY.

From time to time a volume of Reprints of Papers from the Science Laboratories of the University of Sydney is issued for private circulation and sent in the way of exchange to academic and scientific institutions throughout the world.

UNIVERSITY OF NEW ZEALAND (Wellington).

The University of New Zealand, being an examining body, does not issue any publications except its Calendar. Nor have the Affiliated Colleges hitherto published any works beyond those which are necessary for conveying official information. It may be mentioned, however, that many of the researches published under the auspices of the New Zealand Institute are the work of University professors; and in this way the publications of the Institute partly compensate for the want of a University Press.

UNIVERSITY OF THE CAPE OF GOOD HOPE (Cape Town).

The University, as such, confines its attention to official publications, the Calendar and the University Gazette.

QUEEN'S UNIVERSITY (Kingston, Ontario).

The exchange of publications consists mainly of, first, Calendars, announcements regarding courses and work, and, secondly, of the University Quarterly.

UNIVERSITY OF TORONTO.

The University exchanges with the Universities throughout the world, or with a selection of them, the "University Studies," numbering about 100, as these are published. These are sent out by the Librarian, and all exchanges are sent to him for the benefit of the University. About 150 annual Calendars, together with the volume of Examination Papers, are sent

out from the Registrar's Office. Many of these exchanges are sent to Washington, where, through the courtesy of the Smithsonian Institute, they are distributed throughout the United States, and, until recently, to the Universities in Europe. The exchange list covers about 400 Institutions.

McMASTER UNIVERSITY (Toronto).

Although the University has but few publications, it would welcome a Central University Bureau.

McGILL UNIVERSITY (Montreal).

The following is contributed by the Librarian of the University, Mr. C. H. Gould :—

In 1896 McGill University began to issue University papers on a plan of which the essential features, borrowed from Columbia University, were :—

(*a*) That all the papers issued should have been written by members of the University staff, and should embody the results of original research.

(*b*) That the author should make his own arrangements as to publication, being free to send his papers to any journal of standing he might choose.

(*c*) That of every paper thus published, two hundred separates should be struck off for the use of the University Library.

The Library, of course, paid for and became the owner of these separates, which were then provided with a special cover and issued as University Papers. The papers were arranged in series, a series for a Department, and were exchanged with other Universities, Learned Societies, and Libraries, for publications of a similar nature.

It was intended that the University Papers thus issued should embody the original contributions made to Science and Literature by every Department of the University, so that, taken together, they should represent the contributions to knowledge made by the University as a whole year by year. Unfortunately, this intention was never fully realised. Owing to the inadequacy of the grant, the number of papers offered early in each fiscal year was usually more than sufficient to exhaust the funds for a twelve-month. After the grant had been thus exhausted, the offer of additional papers had, of course, to be declined.

The first result was unfortunate. The distribution of a part of the work of the University staff, without any explanation that much more remained undistributed, must have caused misconception among recipients as to the true extent of the research work undertaken and accomplished in the University. Nevertheless, (*a*) the papers actually issued, going, as they did, to Universities, Learned Societies, and great Libraries all over the world, were of undoubted value as an advertisement. (*b*) They brought in many excellent exchanges, some of the best of which came in return for single series, *e.g.*, publications of the Botanical Garden in return for botanical papers; of an Engineering Institute, for engineering papers; and so on. (*c*) There was no reluctance on the part of writers to contribute to the University Papers, because such action on their part did not interfere with their access, through a journal of their own selection, to the circle of readers they most wished to reach.

The plan above outlined is, in the first place, very economical. The cost of the results obtained seems trifling if compared with the expense that must be incurred by a University which makes itself responsible for both printing and publishing the papers of its departments. But the plan also possesses at least one disadvantage : papers which are in every case reprints cannot always be exchanged with institutions that possess the journals containing the original articles. The larger the library or academy, the more likely

it is to possess such journals, and, therefore, the less likely is it to wish to enter into exchange relations with institutions that have nothing but reprints to offer. This fact, at times, precludes an exchange with the very bodies whose publications are most desirable. Still, the convenience of being able to refer to a well-known series seems to weigh greatly with important institutions; so much so as to induce them, at times, to exchange publications that are worth much more than the ones they receive.

Even were this not so, the disadvantage just referred to might be entirely obviated by the occasional issue, in various series, of a paper or bulletin which had never before been published, and could therefore be obtained only in the way of exchange. This need not happen often enough to enhance materially the average cost of the University Papers; yet it would greatly increase their value for purposes of exchange.

McGill University never attempted to exchange with all the Universities and all the Learned Societies of the Empire. Occasionally, however, its proposals to exchange with some of the more important of the former were declined.

Should it be found impracticable to arrange for an exchange between Learned Societies and all the Universities of the Empire, it might be possible for certain Universities in different parts of the Empire to act as repositories for others situated within a convenient radius. In this case each repository might receive all the publications of the Societies and of the Universities of the Empire (and, indeed, of other bodies as well), and might undertake to lend them, on request, to any institution within its particular district.

UNIVERSITY OF BISHOP'S COLLEGE (Lennoxville).

The University receives publications from several of the Universities in Canada and one or two in the United States.

UNIVERSITY OF ALBERTA (Strathcona).

The University's publications as yet are very limited. An arrangement has been made for exchange with one or two of the large American Universities. The Canadian Universities have not yet arranged for interchange of publications in a formal way.

UNIVERSITY OF SASKATCHEWAN (Saskatoon).

The bulletins on Agriculture are sent to institutions exchanging with the University, and its reports to a number of Universities.

UNIVERSITY OF MANITOBA (Winnipeg).

The University of Manitoba has no publication as yet except the Annual Calendar and others of a similar nature. The Professors privately exchange their own published papers.

UNIVERSITY OF BOMBAY.

The only publication issued by this University is its annual Calendar, copies of which are sent to all the prominent Universities.

CALCUTTA UNIVERSITY.

The Calcutta University Calendar is supplied to a number of foreign Universities in exchange for a similar publication from them.

APPENDIX VIII.

POSITION OF WOMEN IN UNIVERSITIES.

UNIVERSITY OF BIRMINGHAM.

All the Faculties of the University are open to women on precisely the same terms as to men, and about one-third of the students are women. They attend the same classes as men in all branches of University work, though in the Faculty of Medicine there are a few classes attended by women only under the direction of a Lady Lecturer.

The women have a separate club and separate student organisations.

There are no special courses for women only.

UNIVERSITY OF BRISTOL.

No distinction between women and men is made in any statute, ordinance, or regulation of the University, except that men may matriculate as early as sixteen, while women must be at least seventeen. There is a separate residential hall for women students, and separate hostels and tutorial houses for women elementary training students.

There are also separate common rooms for women students, and the women students are under the supervision of a Lady Tutor.

Statistics show that the majority of women students prefer Arts to Science, the most favoured subjects being English and Modern Languages; but this is probably mainly due to the requirements of the Elementary teaching profession.

UNIVERSITY OF CAMBRIDGE.

Women students are admitted (1) to the Previous Examination, (2) to the Tripos Examinations, and (3) to certain Examinations in Music. They are also admitted (4) to the examinations connected with the Training of Teachers, and (5) to the Diplomas in Agriculture and Geography. Girton College, founded in 1869, and Newnham College, founded in 1871, are the principal Colleges for women in Cambridge. The Cambridge Training College for Women Teachers, founded in 1885, provides a professional training to educated women who intend to teach.

UNIVERSITY OF DURHAM.

The residence of women students attending lectures in Durham, and at the Newcastle Colleges, is subject to the conditions prescribed by these bodies.

UNIVERSITY OF LEEDS.

All the Degrees and Courses of study are open to women on the same terms as men, and women are eligible for any office in the University and for membership of any of its constituent bodies. Separate Common Rooms are provided for men and women students, but in the class rooms and laboratories men and women students work side by side, and no separate instruction is given. A large proportion of the women students are King's Scholars, and their power of selecting subjects is therefore confined within strict limits. Roughly speaking, two out of every three women students pursue courses of study for a degree in Arts rather than in Science, and of those women students who present themselves for Honours a large proportion attend the courses required for the Honours School of Modern Languages and Literatures. A teachers' class on Science in Relation to the Household has recently been instituted.

UNIVERSITY OF LIVERPOOL.

The position of women in the University is shown by the 27th section of the University Charter, which runs as follows:—"Women shall be eligible for any office in the University and for membership of any of its constituent bodies, and all degrees and courses of study in the University shall be open to women, subject to such conditions and regulations as Statutes of the University may prescribe." Women students are at liberty to attend any course of study in the University, and no separate courses of study are provided for them. The women students have their separate Common Rooms; but there is no separate instruction provided for them, except in Anatomy, and Clinical Medicine and Surgery, nor are there separate Colleges. Statistics show that, with the exception of a few students who take a medical course, practically the whole body of women students take courses in either the Faculty of Arts or the Faculty of Science. Of the subjects in these Faculties the most popular with women are English Literature, English History, and Geography in Arts, and Botany and Zoology in Science.

UNIVERSITY OF LONDON.

The Statutes of the University prescribe that no disability shall be imposed on the ground of sex. There are usually one or more women members of the Senate of the University, and membership of the Faculties, Boards of Studies and Committees is open equally to men and women. In the arrangement for the teaching of students the two systems of dual education and of separate education are recognised in the University. To some of the Colleges, *e.g.*, University College, London School of Economics, both men and women students are admitted, and work together in the class rooms; King's College for Women, Royal Holloway College, Bedford College for Women, Westfield College, and the London School of Medicine for Women have courses for women only. A special department of Home Science has been organized at King's College for Women. Theological Schools and the other Medical Schools are restricted to men students.

All the examinations of the University are open to women, but it is found in practice that there are practically no women candidates for the examinations in Theology, in Law, or in Engineering.

As indicating the relative numbers of men and women who proceed to Degrees, the following statistics for the year 1911 may be of interest :—

1911. Faculty.	Internal Students.		External Students.		Total No. of		Total.
	Men.	Women.	Men.	Women.	Men.	Women.	
Degrees in :—							
Theology	11	0	27	0	38	0	38
Arts	49	133	152	128	201	261	462
Laws	9	0	23	0	32	0	32
Music	0	0	1	0	1	0	1
Medicine	82	26	49	1	131	27	158
Science	139	57	201	34	340	91	431
Engineering	74	0	45	0	119	0	119
Economics	13	1	11	1	24	2	26
Totals	377	217	509		886	381	1267
Diplomas in — Pedagogy		54					94

VICTORIA UNIVERSITY OF MANCHESTER.

Women are now admitted on equal terms to all courses, including those in Medicine, in the University, and women are eligible for all degrees and appointments. The women students regularly attend the same classes as men. A special portion of the building is, however, assigned for their use, including Common Room, etc., and there is a special Tutor for women students, who undertakes the supervision of matters of conduct and discipline, and gives advice to students. At present the women students usually prefer the subjects included in the Faculty of Arts, such as English Literature, Modern Languages, and Classics.

Up to the present no courses have been established in Domestic Science.

UNIVERSITY OF OXFORD.

Women are not eligible to be matriculated as members of the University, but by a series of enactments, the first dating from 1884, they are admitted to all University Examinations in Arts and Music.

In 1910, a Statute was approved by Convocation which constituted a Delegacy for Women Students, provided for the recognition by the University of Societies for the reception of women students for Academical Study, and conferred upon students on the books of Recognised Societies a privileged status as Registered Women Students. At the same Convocation the existing Societies of Lady Margaret Hall, Somerville College, St. Hugh's Hall (now College), and St. Hilda's Hall were admitted by decree, and the Society of Oxford Home-Students by statute, to the privileges of Recognised Societies.

The Delegacy for Women Students is composed of the Vice-Chancellor and Proctors, nine other members of Convocation, and nine women, one of whom, the Principal of the Society of Oxford Home-Students, serves *ex officio*, two are nominated by the Vice-Chancellor and Proctors, and six—two of whom must be Principals of Recognised Societies—are appointed by an Electoral Board composed of women engaged in teaching or administration in connection with Registered Women Students.

The Delegates are responsible :—

(1) For keeping a Register of Women Students whose names are on the books of one or other of the Recognised Societies.

(2) For approving Hostels and Lodging-houses for the residence of Registered Women Students.

(3) For making arrangements for the admission of women to University Examinations in Arts and Music.

(4) For making regulations, subject to the approval of Convocation, as to the Examinations which qualify women for admission to the above-named Examinations.

(5) For the control of the Society of Oxford Home-Students.

The name of any student may be removed from the Register either by the Delegates or by the Governing Body of the Society to which she belongs; and if a student's name has been removed, she cannot, until it has been replaced, be a candidate in any University Examination in Arts or Music. No woman may be registered unless she is a student of a Recognised Society, and such students must, when residing in Oxford, reside either (1) in the buildings of a Recognised Society, or (2) in a lodging-house or hostel approved by the Delegates, or (3) in a private house with the permission of the Governing Body of her Society. No woman residing as a student in Oxford may enter her name for any University Examination in Arts or Music unless it is on the Register.

The Delegates exercise control over Lodging-Houses through a Committee, and have made a regulation that no woman student may reside in a house in which there is an undergraduate member of the University as a lodger. The number of Registered Women Students residing in Lodging-Houses is small : in Hilary Term, 1912, it is 23 in a total of 363.

Under the regulations of 1911–12 for the admission of women to University Examinations in Arts, women may substitute for responsions or for one of the examinations statutably equivalent thereto any one of certain specified examinations in Arithmetic, Algebra or Geometry, and two of the languages, French, German, Greek, Latin, Italian. They may proceed to any of the Final Honour Schools, except that of Natural Science, without passing any Intermediate Examination as prescribed for members of the University.

Besides the Examinations in Arts and Music a number of University Diplomas are open to women under the conditions prescribed for each. Thus women can obtain Diplomas in Geography, Education, Economics and Political Science, Anthropology, Classical Archæology, Rural Economy, Ophthalmology, and Public Health.

Four of the Societies, Lady Margaret Hall, Somerville College, St. Hugh's College, St. Hilda's Hall, are residential Colleges. Each has its own Governing Body, which is responsible for internal discipline, conditions of admission, the education of the students, finance, and the awarding of scholarships. Each Society has a resident Principal and a tutorial and administrative Staff. As a rule only students reading for Honour Examinations and University Diplomas are admitted. Nearly all the students reside within the walls, and take a course of study extending over three or four years. Inquiries as to any of these Societies should be addressed to the Principal of the College or Hall. The fifth Society, the Society of Oxford Home Students, is under the control of the Delegacy, which by Statute is responsible for the appointment of a Principal and of a Committee, the majority of whose members are Delegates, which acts as the Governing Body. The students reside with their parents or other relations, or in private families, or in a few cases in lodgings. St. Frideswide's, Cherwell Edge, is a Hostel approved by the Delegacy for the reception of Roman Catholic Home-Students. The regulations as to discipline, payment of fees and conditions of admission are made by the Committee under the authority of the Delegacy. The majority of the students are preparing for University Examinations. The Society offers special facilities for poor students, and for those women who

have already studied in other Universities and come to Oxford for a short period of further study. Inquiries as to this Society should be addressed to the Principal, Oxford Home-Students, 5 South Parks Road, Oxford.

Nearly all the University and College lectures and laboratories are available for women students whose names have been entered through the Office of the Association for the Education of Women in Oxford, on the Council of which all the five Recognised Societies are represented. The names of Registered Women Students are entered by their Principals. The direction of the students' work is almost entirely in the hands of women tutors, most of whom are members of the staff of a College or Hall. They form a joint staff which is also available for the tuition of Home-Students. Members of the University undertake a considerable part of the teaching, and in some cases act as tutors. The general system of education is that of lectures open to both sexes, and separate classes and private instruction, but some lectures are delivered by the women tutors which do not appear in the University lists, and are attended by women only.

The Office of the Association in the Clarendon Building is open in Term. and correspondence is attended to during the year. General inquiries as to facilities for education should be addressed to the Secretary of the Association, *not* to the Registrar of the University, or to the Secretary to the Delegacy for Women Students.

The Statistics as to women students who obtained Honours in Classical and Mathematical Moderations and in the Final Schools during the last years are as follows :—

Moderations.	1909	1910	1911
Classics	12	8	7
Mathematics ...	2	3	3
Final Schools.			
Literæ Humaniores	4	3	4
Mathematics ...	1	0	0
Natural Science ...	6	4	4
Jurisprudence ...	0	0	1
Modern History ...	14	22	35
English Lang. & Lit.	19	22	22
Modern Languages	15	11	9

The Class Lists of the Schools of Theology and Oriental Studies contain no names of women in the years 1909–11.

UNIVERSITY OF SHEFFIELD.

Women are eligible for any office in the University and for membership of any of its constituent bodies. They are admitted as students on the same conditions as men. There is no separate college for women, neither do they receive separate instruction. A special course in Domestic Science has been prepared by the University.

UNIVERSITY OF EDINBURGH.

Women are admitted to graduation in all the Faculties, and to classes in all the Faculties save that of Medicine.

Women Medical Practitioners are now admitted to the University Course on the Physiology of the Brain and Nervous System for the Diploma in Psychiatry.

Women appear to prefer modern languages as an honours subject in Arts graduation, *e.g.*, at the recent graduation examination, only one woman obtained a place in the Classics honours list, but there were twelve women in the modern languages honours list.

In respect of the admission of women to degrees in Medicine, it is provided that:—

So long as within the Faculty provision is not made for the instruction of women in any subject qualifying for graduation in which provision is made for the instruction of men, it shall be in the power of the University Court to admit to graduation women who have received the requisite instruction in that subject in any University of the United Kingdom, or in any Indian, Colonial, or Foreign University recognised for the purpose by the University Court, or in such Medical Schools or under such teachers as may be recognised for the purpose by the University Court: Provided always that every candidate for graduation shall produce evidence of having satisfied the conditions laid down in the Regulations for Degrees in Medicine with respect to the Preliminary Examination, and shall be examined in all the subjects necessary for graduation by the Examiners of the University.

UNIVERSITY OF GLASGOW.

Women are admitted to study and graduation in all the Faculties, on exactly the same footing as men. There are separate buildings (called Queen Margaret College) for women students, but many of them are taught—either in "mixed" or separate classes—in the main buildings at Gilmorehill. Women show a preference for Modern Languages. No special courses of study for women have been established in subjects like Domestic Science.

UNIVERSITY OF ST. ANDREWS.

Women have since 1892 been admitted to the University in all the Faculties—Arts, Science, Medicine and Divinity—upon the same footing as men. There is no separate College for Women, and there are no separate courses of study. Women students attend the same Classes as men students (except that there are separate dissecting rooms for men and women Medical Students), and are admitted to all the Degrees on the same footing as men. A number of women students take Honours in Modern Languages, but it cannot be said that women students generally at St. Andrews prefer Modern Languages. A large number have taken Honours in Classics, in English, in Mathematics, and in Economics. There are no special courses of study for women students, such as Domestic Science. Statistics have not been prepared to show the Honours Degrees taken by women students. As regards the Ordinary Degrees there has hitherto been little or no division of the degrees according to special branches of study, although a number of options are possible.

QUEEN'S UNIVERSITY OF BELFAST.

There is no separate College for women in the University, and they receive instruction in the same classes as the men. No separate courses of study for women have been established, but the women students show a decided preference for English Literature, Modern Languages and Science. There is a Women's Students' Hall in the University, managed by a Committee, elected by the women students, under bye-laws approved by the Academic Council. This Hall provides women students with lockers, reading, writing, and sitting rooms, and a tea room.

UNIVERSITY OF DUBLIN.

Women students are now equally admissible with men students to Lectures and Examinations, and to the privilege of reading in the Library. They are equally subject to the College Discipline and Statutes.

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