

~~K/572~~
ROYAL COMMISSION ON UNIVERSITY EDUCATION IN LONDON.

FINAL REPORT

OF

T4.3124.N1t

E3

15704

THE COMMISSIONERS.

Presented to Parliament by Command of His Majesty.



LONDON:

PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE.

To be purchased, either directly or through any Bookseller, from
WYMAN AND SONS, LTD., FETTER LANE, E.C., and 32, ABINGDON STREET, S.W.;
and 54, ST. MARY STREET, CARDIFF; or
H.M. STATIONERY OFFICE (SCOTTISH BRANCH), 23, FORTH STREET, EDINBURGH; or
E. PONSONBY, LTD., 116, GRAFTON STREET, DUBLIN;
or from the Agencies in the British Colonies and Dependencies,
the United States of America, the Continent of Europe and Abroad of
T. FISHER UNWIN, LONDON, W.C.

PRINTED BY

EYRE AND SPOTTISWOODE, LTD., EAST HARDING STREET, E.C.,
PRINTERS TO THE KING'S MOST EXCELLENT MAJESTY.

1913.

Price 2s.

[Cd. 6717.]

ROYAL COMMISSION ON UNIVERSITY EDUCATION IN LONDON.

TABLE OF CONTENTS.

THE ROYAL COMMISSION - - - - -
ANALYSIS OF REPORT - - - - -
FINAL REPORT OF THE COMMISSIONERS - - - - -

Part I.

Preliminary, §§ 1, 2 - - - - -
Terms of Reference, § 3 - - - - -
THE WORKING OF THE PRESENT ORGANISATION OF THE UNIVERSITY, §§ 4-59 - - - - -
 Historical Retrospect, §§ 6-25 - - - - -
 1. The Present Relations of the Internal and External Sides of the University, §§ 26-37 - - - - -
 2. The Existing Combination in the University of a large number of Institutions differently related to it, and of different Educational Standard and Aims, §§ 38-59 - - - - -

Part II.

THE ESSENTIALS OF A UNIVERSITY IN A GREAT CENTRE OF POPULATION, §§ 60-115 - - - - -
 1. The Nature and Work of the University, §§ 60-86 - - - - -
 2. The Conditions necessary for the Realisation of the foregoing ends, §§ 87-109 - - - - -
 3. The Government of the University, §§ 110-115 - - - - -

Part III.

THE APPLICATION OF THE FOREGOING PRINCIPLES, §§ 116-375 - - - - -
 1. The Financial and Educational Control of Constituent Colleges and University Departments, §§ 116-120 - - - - -
 2. The Constitution and General Powers of the Faculties, §§ 121-124 - - - - -
 3. The Relation of the Faculties to Constituent Colleges and University Departments, §§ 125-132 - - - - -
 The Faculty of Arts, §§ 133-157 - - - - -
 The Faculty of Science, §§ 158-193 - - - - -
 The Faculty of Technology, §§ 194-216 - - - - -
 The Faculty of Economics, §§ 217-224 - - - - -
 The Faculty of Medicine, §§ 225-329 - - - - -
 Dental Education, §§ 318-329 - - - - -
 The Faculty of Laws, §§ 330-340 - - - - -
 The Faculty of Theology, §§ 341-343 - - - - -
 The Faculty of Music, §§ 344-347 - - - - -
 University Fees, §§ 348-354 - - - - -
 Summary of Additional Income required, § 355 - - - - -
 The Co-ordination of the Faculties, §§ 356-368 - - - - -
 The Visitor, § 356 - - - - -
 The Court, §§ 357-360 - - - - -
 The Senate, §§ 361-363 - - - - -
 The Academic Council, §§ 364, 365 - - - - -
 The Committee for Technology, § 366 - - - - -
 The Officers of the University, § 368 - - - - -
 The Convocation, § 369 - - - - -
 The Students' Representative Council, § 370 - - - - -
 Sites for the Central Buildings and for certain other University Institutions, § 371 - - - - -
 The University Libraries, Examination Halls, &c., §§ 372-374 - - - - -
 The Area of the University, § 375 - - - - -

Part IV.

THE RELATION OF THE UNIVERSITY TO THE REMAINING PROVISION FOR HIGHER EDUCATION IN LONDON AND THE HOME COUNTIES, §§ 376-415 - - - - -
 The Schools of the University, §§ 376-389 - - - - -
 The Area of the University for the Recognition of Schools, § 390 - - - - -
 External Degrees, §§ 391-407 - - - - -
 Colonial Examinations, §§ 401-407 - - - - -
 Registration of Students of the University, § 408 - - - - -
 University Extension Work, §§ 409-412 - - - - -
 Inspection and Examination of Schools, §§ 413-415 - - - - -

Part V.

SUMMARY OF RECOMMENDATIONS - - - - -
APPENDIX: REPRINT OF FOURTH REPORT OF THE COMMISSIONERS - - - - -
INDEX - - - - -

THE ROYAL COMMISSION.

EDWARD, R. & I.

EDWARD THE SEVENTH, by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas King, Defender of the Faith, to

Our right trusty and well-beloved Counsellor Richard Burdon Haldane, Our Principal Secretary of State for War;

Our right trusty and well-beloved Cousin and Counsellor Alfred, Viscount Milner, Knight Grand Cross of Our Most Honourable Order of the Bath, Knight Grand Cross of Our Most Distinguished Order of Saint Michael and Saint George;

Our right trusty and well-beloved Counsellor Sir Robert Romer, Knight Grand Cross of Our Most Honourable Order of the Bath; and

Our trusty and well-beloved:—

Sir Robert Laurie Morant, Knight Commander of Our Most Honourable Order of the Bath, Permanent Secretary to the Board of Education for England and Wales;

Laurence Currie, Esquire, Master of Arts of Trinity College in Our University of Cambridge;

William Symington M'Cormick, Esquire, Master of Arts, Doctor of Laws;

Edmund Beale Sargant, Esquire, Master of Arts of Trinity College in Our University of Cambridge;

Louise Creighton, Widow of the late Right Reverend Father in God Mandell Creighton, Bishop of London;

Greeting!

Whereas We have deemed it expedient that a Commission should forthwith issue to inquire into the working of the present organisation of the University of London, and into other facilities for advanced education (general, professional, and technical) existing in London for persons of either sex above secondary school age; to consider what provision should exist in the Metropolis for University teaching and research; to make recommendations as to the relations which should in consequence subsist between the University of London, its incorporated Colleges, the Imperial College of Science and Technology, the other Schools of the University, and the various public institutions and bodies concerned; and further to recommend as to any changes of constitution and organisation which appear desirable; regard being had to the facilities for education and research which the Metropolis should afford for specialist and advanced students in connection with the provision existing in other parts of the United Kingdom and of Our Dominions beyond the Seas:

Now know ye, that We, reposing great trust and confidence in your knowledge and ability, have authorised and appointed, and do by these Presents authorise and appoint, you, the said Richard Burdon Haldane (Chairman); Alfred, Viscount Milner; Sir Robert Romer; Sir Robert Laurie Morant; Laurence Currie; William Symington M'Cormick; Edmund Beale Sargant; and Louise Creighton, to be our Commissioners for the purposes of the said inquiry:

And for the better effecting the purposes of this Our Commission, We do by these Presents give and grant unto you, or any three or more of you, full power to call before you such persons as you shall judge likely to afford you any information upon the subject of this Our Commission; and also to call for, have access to, and examine all such books, documents, registers, and records as may afford you the fullest information on the subject, and to inquire of and concerning the premises by all other lawful ways and means whatsoever:

And We do by these Presents authorise and empower you, or any three or more of you, to visit and personally inspect such places as you may deem it expedient so to inspect for the more effectual carrying out of the purposes aforesaid:

Provided that should you deem it expedient, in the execution of this Our Commission to visit places outside Our United Kingdom, then the powers and privileges hereby conferred on any three or more of you shall belong to, and be exercised by, any one or more of you:

And We do by these Presents will and ordain that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any three

ROYAL COMMISSION ON UNIVERSITY EDUCATION IN LONDON

TABLE OF CONTENTS.

THE ROYAL COMMISSION	-
ANALYSIS OF REPORT	-
FINAL REPORT OF THE COMMISSIONERS	-

Part I.

Preliminary, §§ 1, 2	-
Terms of Reference, § 3	-
THE WORKING OF THE PRESENT ORGANISATION OF THE UNIVERSITY, §§ 4-59	-
Historical Retrospect, §§ 6-25	-
1. The Present Relations of the Internal and External Sides of the University, §§ 26-37	-
2. The Existing Combination in the University of a large number of Institutions differently related to it, and of different Educational Standard and Aims, §§ 38-59	-

Part II.

THE ESSENTIALS OF A UNIVERSITY IN A GREAT CENTRE OF POPULATION, §§ 60-115	-
1. The Nature and Work of the University, §§ 60-86	-
2. The Conditions necessary for the Realisation of the foregoing ends, §§ 87-109	-
3. The Government of the University, §§ 110-115	-

Part III.

THE APPLICATION OF THE FOREGOING PRINCIPLES, §§ 116-375	-
1. The Financial and Educational Control of Constituent Colleges and University Departments, §§ 116-120	-
2. The Constitution and General Powers of the Faculties, §§ 121-124	-
3. The Relation of the Faculties to Constituent Colleges and University Departments, §§ 125-132	-
The Faculty of Arts, §§ 133-157	-
The Faculty of Science, §§ 158-193	-
The Faculty of Technology, §§ 194-216	-
The Faculty of Economics, §§ 217-224	-
The Faculty of Medicine, §§ 225-329	-
Dental Education, §§ 318-329	-
The Faculty of Laws, §§ 330-340	-
The Faculty of Theology, §§ 341-343	-
The Faculty of Music, §§ 344-347	-
University Fees, §§ 348-354	-
Summary of Additional Income required, § 355	-
The Co-ordination of the Faculties, §§ 356-368	-
The Visitor, § 356	-
The Court, §§ 357-360	-
The Senate, §§ 361-363	-
The Academic Council, §§ 364, 365	-
The Committee for Technology, § 366	-
The Officers of the University, § 368	-
The Convocation, § 369	-
The Students' Representative Council, § 370	-
Sites for the Central Buildings and for certain other University Institutions, § 371	-
The University Libraries, Examination Halls, &c., §§ 372-374	-
The Area of the University, § 375	-

Part IV.

THE RELATION OF THE UNIVERSITY TO THE REMAINING PROVISION FOR HIGHER EDUCATION IN LONDON AND THE HOME COUNTIES, §§ 376-415	-
The Schools of the University, §§ 376-389	-
The Area of the University for the Recognition of Schools, § 390	-
External Degrees, §§ 391-407	-
Colonial Examinations, §§ 401-407	-
Registration of Students of the University, § 408	-
University Extension Work, §§ 409-412	-
Inspection and Examination of Schools, §§ 413-415	-

Part V.

SUMMARY OF RECOMMENDATIONS	-
APPENDIX: REPRINT OF FOURTH REPORT OF THE COMMISSIONERS	-
INDEX	-

THE ROYAL COMMISSION.

EDWARD, R. & I.

EDWARD THE SEVENTH, by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas King, Defender of the Faith, to

Our right trusty and well-beloved Counsellor Richard Burdon Haldane, Our Principal Secretary of State for War ;

Our right trusty and well-beloved Cousin and Counsellor Alfred, Viscount Milner, Knight Grand Cross of Our Most Honourable Order of the Bath, Knight Grand Cross of Our Most Distinguished Order of Saint Michael and Saint George ;

Our right trusty and well-beloved Counsellor Sir Robert Romer, Knight Grand Cross of Our Most Honourable Order of the Bath ; and

Our trusty and well-beloved :—

Sir Robert Laurie Morant, Knight Commander of Our Most Honourable Order of the Bath, Permanent Secretary to the Board of Education for England and Wales ;

Laurence Currie, Esquire, Master of Arts of Trinity College in Our University of Cambridge ;

William Symington M'Cormick, Esquire, Master of Arts, Doctor of Laws ;

Edmund Beale Sargant, Esquire, Master of Arts of Trinity College in Our University of Cambridge ;

Louise Creighton, Widow of the late Right Reverend Father in God Mandell Creighton, Bishop of London ;

Greeting !

Whereas We have deemed it expedient that a Commission should forthwith issue to inquire into the working of the present organisation of the University of London, and into other facilities for advanced education (general, professional, and technical) existing in London for persons of either sex above secondary school age ; to consider what provision should exist in the Metropolis for University teaching and research ; to make recommendations as to the relations which should in consequence subsist between the University of London, its incorporated Colleges, the Imperial College of Science and Technology, the other Schools of the University, and the various public institutions and bodies concerned ; and further to recommend as to any changes of constitution and organisation which appear desirable ; regard being had to the facilities for education and research which the Metropolis should afford for specialist and advanced students in connection with the provision existing in other parts of the United Kingdom and of Our Dominions beyond the Seas :

Now know ye, that We, reposing great trust and confidence in your knowledge and ability, have authorised and appointed, and do by these Presents authorise and appoint, you, the said Richard Burdon Haldane (Chairman) ; Alfred, Viscount Milner ; Sir Robert Romer ; Sir Robert Laurie Morant ; Laurence Currie ; William Symington M'Cormick ; Edmund Beale Sargant ; and Louise Creighton, to be our Commissioners for the purposes of the said inquiry :

And for the better effecting the purposes of this Our Commission, We do by these Presents give and grant unto you, or any three or more of you, full power to call before you such persons as you shall judge likely to afford you any information upon the subject of this Our Commission ; and also to call for, have access to, and examine all such books, documents, registers, and records as may afford you the fullest information on the subject, and to inquire of and concerning the premises by all other lawful ways and means whatsoever :

And We do by these Presents authorise and empower you, or any three or more of you, to visit and personally inspect such places as you may deem it expedient so to inspect for the more effectual carrying out of the purposes aforesaid :

Provided that should you deem it expedient, in the execution of this Our Commission to visit places outside Our United Kingdom, then the powers and privileges hereby conferred on any three or more of you shall belong to, and be exercised by, any one or more of you :

And We do by these Presents will and ordain that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any three

or more of you, may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment :

And We do further ordain that you, or any three or more of you, have liberty to report your proceedings under this Our Commission from time to time if you shall judge it expedient so to do :

And Our further will and pleasure is that you do, with as little delay as possible report to Us, under your hands and seals, or under the hands and seals of any three or more of you, your opinion upon the matters herein submitted for your consideration.

And for the purpose of aiding you in your inquiries We hereby appoint Our trusty and well-beloved John Kemp, Esquire, and Henry Frank Heath, Esquire, to be joint Secretaries to this Our Commission.

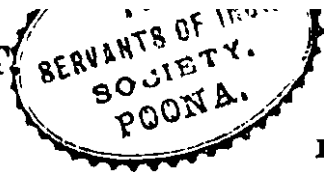
Given at Our Court at Saint James's, the twenty-fourth day of February, 1890, the thousand nine hundred and ninth, in the ninth year of Our Reign.

By His Majesty's Command,

(Signed) H. J. GLADSTONE.

By Warrant dated the 26th of May 1910, His Majesty King George the Fifth pleased to ratify and confirm the terms of the above Commission.

ANALYSIS OF REPORT



	Page
THE COMMISSION'S REFERENCE - - - - -	1
PART I.—PRELIMINARY - - - - -	1
ANALYSIS OF THE TERMS OF REFERENCE - - - - -	1
THE WORKING OF THE PRESENT ORGANISATION OF THE UNIVERSITY.	
The main grounds of the defective organisation are : (1) The present relations of the Internal and External sides. (2) The combination in the University of a large number of educational institutions differently related to it, of different educational standard and aims - - - - -	2
The latitude given to the Statutory Commissioners of 1898 was seriously curtailed owing to the necessity they were under of modifying the scheme of the Gresham Commission in such manner as to give effect to the provisions of the Schedule to the Act. These provisions, the result of a compromise, cannot be understood without reference to the history of the University	3
HISTORICAL RETROSPECT.	
The ideal of the founders of University College was apparently systematic instruction in a teaching institution, under the free guidance and inspiration of the teachers - - - - -	3
University College was founded, 1826, as the University of London, and was intended for those who were unable to enter Oxford and Cambridge from lack of means or excluded on the ground of religious belief - - - - -	3
King's College was founded in 1829 by persons who, while sharing the desire of the founders of University College to provide for those who could not afford to go to Oxford or Cambridge, considered it essential to maintain the tenets of the Church of England as a fundamental part of university education - - - - -	3
The foundation of King's College led to the division of the functions of a university between teaching institutions and an examining Board. The University of London was founded in 1836 to examine and confer degrees upon students of University and King's Colleges and other institutions in the United Kingdom, and afterwards in the Colonies, which were empowered to grant certificates of attendance - - - - -	3
The degrees of the University were thrown open to all, 1858 ; protest of the graduates and colleges, and reply of the Senate - - - - -	4
Royal Commission of 1888 (Selborne Commission) appointed to inquire " whether any and what kind of new university or powers is or are required for the advancement of higher education in London " - - - - -	4
Two petitions to Privy Council for charters were referred to the Commission : (a) From the Royal Colleges of Physicians and Surgeons ; (b) From University and King's Colleges (Albert Charter). Both petitions were the result of long agitation, and presented only after failure to obtain the consent of Senate and Convocation to application for a new charter for the University of London - - - - -	4
The cause of the petition of the Royal Colleges was the small number of university degrees obtained in proportion to the number of students and the opportunities for clinical teaching in London - - - - -	5
The petition of University and King's Colleges for the grant of the Albert Charter originated in the action of the Association for Promoting a Teaching University in London, whose object was at first the establishment of a teaching university in connexion with the existing University of London, but later the establishment of a separate university - - - - -	5
The Selborne Commission rejected both the scheme of the Royal Colleges and that of University and King's Colleges, but with regard to the latter they reported :—That the case for a teaching university was made out and there should be one university, not two ; that it was essential the University should be limited to institutions in or near London ; that colleges, such as University and King's should be called constituent colleges, and that institutions, such as medical schools, should be " associated " with the University ; that the Senate should be the governing body ; that the Faculties should be electoral bodies only ; that the Boards of Studies should have consultative functions only ; that certificates might be accepted in lieu of matriculation and intermediate examinations, but that final examinations for degrees should be the same for all candidates ; that there was no reason why a university, constituted as they suggested, should not continue to admit students to its examinations and degrees, irrespective of the place or manner of their education ; that the existing Senate and Convocation should be given reasonable time to consider whether they would apply for a charter on these lines - - - - -	5
A minority, consisting of Sir William Thomson, Professor Stokes, and Dr. Welldon, expressed doubt as to the possibility of combining a teaching with a purely examining university - - - - -	6
The Selborne Commission's conception of the teaching university necessary for London was the London University of 1836, with the limitation to London of the area for affiliated institutions, and with a differently constituted governing body which would bring the syllabus and the examinations into closer connexion with the teaching in affiliated institutions - - - - -	6
The Senate appointed a committee to which they referred their earlier scheme for reconsideration. After long negotiations with various bodies they adopted a finally revised scheme which differed from that of the Commission, in that it gave teaching institutions and teachers in them greater freedom of action, and included representatives of provincial colleges in the proposed university. This scheme was rejected by Convocation - - - - -	7
The petition of University and King's Colleges, for the grant of what was now called the Gresham University Charter was considered and passed by the Privy Council with modifications, but met with great opposition in Parliament and a new Royal Commission, known as the Gresham or Cowper Commission, was appointed in 1891, and reported in 1894 - - - - -	7
The Gresham Commission's conclusions were : (a) That there should be one university, not two ; (b) That teaching and External examination could be combined without injury to the students ; (c) That the Senate should decide whether Internal and External examinations	

HISTORICAL RETROSPECT—*continued.*

	Page
should be the same in whole or in part; (d) That Internal students should be permitted to present certificates "in lieu of a certain part of the earlier examinations leading up to a first degree"; (e) That the final examination for degrees should require the same standard of knowledge for Internal and External students, and be identical so far as identity was not inconsistent with their educational interests - - - - -	7
The evidence given on behalf of the Association for Promoting a Professorial University formed an important part of the new evidence taken by the Commission, and the scheme the association afterwards submitted was a return to the ideal of the founders of University College. This scheme was rejected by the Commission as impracticable since it would have involved the extinction of the special interests and characteristics of the existing teaching institutions - - - - -	8
The Gresham Commission decided that the problem was still that stated by the Commissioners of 1888, viz., how to co-ordinate the recognised teaching institutions of London under a central university - - - - -	8
They recommended the Administrative County of London as the university area and their list of institutions which should first be admitted does not differ materially from that of the Selborne Commission, except for the inclusion of colleges of theology and music, subjects not within the scope of the previous inquiry, and the exclusion of the "less authoritative" institutions of the Selborne Commission and the resident training colleges. They thought it undesirable to limit by precise terms the conditions for the future admission of Schools but enumerated certain points which the University should consider in deciding their claims. They considered that the representation and influence of institutions as such in the government of the University should be minimised; that the influence of the University over the institutions should be increased; and that a more distinct and important position should be given to teachers in university organisation. The teachers were to be brought together into faculties, and, acting through an Academic Council elected by themselves from their own members, were to regulate the teaching, examinations, and discipline of the University, subject only to the Statutes of the University and the Ordinances of the Senate - - - - -	8
They appear to have believed that if the teachers could in this way be brought to consider the subjects of their faculty from a university, and not an institutional point of view, their attitude of mind would re-act upon the management of the institutions; and that wise financial administration of central funds, which would relieve the colleges and institutions of the necessity for competition, would tend to a real unity of the University - - - - -	9
They recommended that a Standing Board should be appointed by the Senate to take charge of the interests of External students. The duties of this Board were to be as follows:—(i) To report to the Senate how far examinations for External students should be the same in whole or in part as those for Internal students; (ii) In so far as separate examinations might be decided on, to have the superintendence, regulation, and conduct of those for External students, and the nomination of examiners for appointment by the Senate; (iii) To give advice to External students for the prosecution of their studies - - - - -	9
Lord Reay thought the Commission's scheme open to various interpretations, and he appended a note to the Report stating the condition on which he thought the reputation of the new university would mainly depend, viz., the strictness with which the selection of teachers for appointment or recognition was made in every case - - - - -	9
Bishop Barry and Professor Sidgwick thought the combination in one university of the two distinct functions of an examining board and a teaching university neither possible nor desirable. But assuming this combination must be accepted, they agreed generally with the Commission's scheme for the organisation of the University - - - - -	9
The report of the Commission was followed by a period of controversy. Four and a half years later the Act of 1898 was passed, containing in a Schedule the terms of the compromise arrived at - - - - -	10

1. THE PRESENT RELATIONS OF THE INTERNAL AND EXTERNAL SIDES OF THE UNIVERSITY.

The defects in the present organisation of the University arising from the relations of the Internal and External sides are largely due to departures from the recommendations of the Gresham Commission, and originate in the provisions of the Schedule to the Act of 1898 - - - - -	10
The principal changes in the scheme of the Gresham Commission, made by the Schedule to the Act, and incorporated in the Statutes of the University were as follows:—(a) The Senate was reduced in size and its composition altered, and it was given all the executive powers of the University; (b) The Academic Council was reduced to the position of a Standing Advisory Committee of the Senate for Internal students; (c) A Council for External students, composed principally of the representatives of Convocation on the Senate, was placed in an equal position and with similar advisory powers. These provisions, as worked out in the Statutes, hamper, without restricting the executive powers of the Senate, by obliging it to invite and receive a report from one or both of these Standing Committees before making any decision affecting Internal or External students; (d) The Boards of Studies were to be appointed by the Senate, and might include persons other than teachers of the University, not exceeding one-fourth of the total number of a Board. Each Board might report to the Senate direct upon any matter relating to courses of study, provision for teaching or research, examinations, and the appointment of examiners, or the granting of degrees or certificates of proficiency. The Academic Council and the Council for External Students, before advising the Senate on any of these matters, were to invite and receive reports from the appropriate Boards of Studies - - - - -	10
The Academic Council and the Council for External Students having advisory powers only, and the executive authority being the Senate, neither Council can get anything done without the consent of the other, unless it obtains the support of members of the Senate independent of both. The result is that questions on which the two Councils are most divided are decided	

THE PRESENT RELATIONS OF THE INTERNAL AND EXTERNAL SIDES OF THE UNIVERSITY— <i>cont.</i>	Page
in the Senate by the votes of those who have been least able to consider the merits of the case - - - - -	10
The machinery of government has caused difficulties, delays and friction, so frequent and so serious as to have hampered progress and endangered the efficient working of the University. The reports of some of the University bodies confirm this. The Senate, in a resolution in 1908, asking for the appointment of a Royal Commission, expressed willingness to secure powers of delegation to its Councils, thus admitting the unsuitability of the existing machinery to deal with the administration of the Imperial College of Science and Technology - - -	11
The equivalence of standard in the degree examinations for Internal and External students, enacted by Statute 122, has proved impracticable, and is the cause of great difficulties - - -	11
The definition of Internal students contained in section 9 of the Schedule, which is reproduced in Statute 132, leads to difficulty owing to the provision contained in Statute 35 requiring the Senate to invite and receive reports from the Council for External Students, before deciding matters concerning such students - - - - -	12
The Academic and External Councils are dominated by incompatible ideals; the former believing that training in a university under university teachers is essential to university education; the latter that examinations based upon a syllabus afford "a guidance by test," which is a sufficient means of ascertaining that a candidate is entitled to a university degree - - -	12
The claims of the External side form the real ground of the defective working of the University, so far as that is due to the present relations of the two sides. They claim the function of the old University of London, <i>i.e.</i> to confer degrees upon examination alone, and also the function of the promotion of research and the advancement of science and learning. The latter they propose should be carried out in a series of institutes under direct university control, grouped as far as possible round the university headquarters, and governed by special committees of the Senate. The distinction made by the External side between the local and imperial functions of a university is inadmissible and its introduction would be injurious to the University. Every true university is not only local, but international - - - - -	13
2. THE EXISTING COMBINATION IN THE UNIVERSITY OF A LARGE NUMBER OF INSTITUTIONS DIFFERENTLY RELATED TO IT, AND OF DIFFERENT EDUCATIONAL STANDARD AND AIMS.	
The variety, and complete financial independence of the teaching institutions connected with the University, have prevented it from organising the higher education of London—a duty imposed upon it by Statute - - - - -	14
The University has no control over the teachers in its Schools, no power to prevent duplication of departments in them, or to insist on the abandonment of work better done elsewhere. Neither can it prevent duplication of institutions, <i>e.g.</i> , Schools of Engineering and Medicine. Representation of the University on the governing body of an institution is not a guarantee of co-operation - - - - -	15
The powers of the Senate over the Schools are :—	
(i) Visitation, a power not fully exercised - - - - -	15
(ii) The curricula prescribed for degrees. This power, though possibly beneficial for the weaker institutions, is generally felt to be too restrictive, and hampers the best teaching in the stronger Schools - - - - -	16
(iii) The recognition of teachers. This has been a beneficial power but there has been great difficulty in exercising it. To diminish the friction a system of probationary recognition has been introduced in institutions which are not Schools - - - - -	16
(iv) Inter-collegiate lectures—chiefly confined to the incorporated colleges - - - - -	17
This limitation of power over the greater teaching institutions makes it impossible to bring them into true academical relations with the University. Financial control by the University is essential for the organisation of the teaching with which it is concerned - - - - -	17
The difficulties arising from lack of control or influence over the Schools are accentuated in institutions with "recognised" teachers. These institutions have no common aim in their university work; they do not differentiate university from other students, and there is no co-ordination between them - - - - -	17
The Polytechnics are in competition with one another, especially in their day classes, and these compete with the day classes in the Schools of the University. They have suffered from their too rapid growth and success. They are institutions intended for non-university purposes; if they are to do university and non-university work they must differentiate their functions - - -	18
The passing of a university examination is no evidence of university training, yet the training is what is required for the work of university graduates in after life - - - - -	18
Some overlapping between different grades of institutions is inevitable and desirable, but it is dangerous, not only to the institutions, but to university education as a whole, to divert them from the work for which they were founded, and for which they are still needed - - - - -	18
The regulations and syllabuses imposed upon Internal students are so irksome that many are induced to take the External degree. The Internal examinations are becoming largely External in character owing to the necessity of providing tests suitable to institutions of different standards and aims. The only really Internal examinations of the University are the special intermediate examinations conducted at Schools of the University under Statute 119 - - - - -	19
The teachers are divided in opinion regarding the advantages and disadvantages of detailed syllabuses, and in consequence difficulties arise at meetings of Boards of Studies and Faculties. The division is emphasised by the distinction between incorporated colleges, Schools, and institutions with "recognised" teachers, and even by that between the University and the Imperial College - - - - -	20
The Acts incorporating University and King's Colleges were the result of a belief that a university in the true sense must itself be directly responsible for the teaching of its students from the time they enter, and they expressed the ideal of the founders of University College. These Acts give the University complete educational and financial control over all teaching of a university standard in both Colleges, and in all Faculties in which teaching is provided other than the Faculty of Theology. They have had a disruptive influence upon the working of the	

2. THE EXISTING COMBINATION IN THE UNIVERSITY OF A LARGE NUMBER OF INSTITUTIONS DIFFERENTLY RELATED TO IT, AND OF DIFFERENT EDUCATIONAL STANDARD AND AIMS— <i>continued.</i>	Page
University as contemplated by the Act of 1898 and the Statutes under it. The University, under that Act, was to be, on its teaching side, essentially a federal university; incorporation produced the nucleus of a single teaching university, thereby causing jealousy of the incorporated colleges. The impression that they obtain undue consideration is enhanced by the fact that, with the exception of the Imperial College, they are the largest and most important institutions in the University, and the only teaching institutions which have direct representation on the Senate. As a remedy, it is proposed that incorporation should be carried further	21
Other defects connected with the machinery of government :—	
(i) The limited power given to the Faculties by the Statutes	21
Some of them, particularly the Faculty of Medicine, have become too large for effective work, even within their limited sphere	22
Except through individual members, they have very slight connexion with the Boards of Studies, which are appointed by the Senate and report direct to it. The only connexion between the Faculties and Boards of Studies is that the Dean of a Faculty receives a copy of any report made by a Board of Studies within the Faculty. Mr. Pember Reeves' criticism of the Boards of Studies is that they pass over everyone "right to the Senate"	22
(ii) A small Faculty and a Board of Studies in that Faculty may consist of almost the same people, yet regulations necessitate separate meetings being held with an interval of seven days between them. More elasticity in the machinery is, therefore, required in the case of the smaller Faculties. The work of the Boards of Studies is generally considered good	22
(iii) The unequal academic standing of members of the Faculties leads to the less well qualified teachers having undue influence in university affairs. This inequality of standard is the result of the system of recognition which has been followed by the University. Statute 93, which prescribes the conditions necessary for recognition, makes no distinction between the qualifications to be required of the head of a department and those of a teacher in a subordinate position; this tends to lower the standard of university teaching	22
Statute 61, which deals with admission to the Faculties, practically prescribes inequality of standard, and large Faculties are the natural result	23
Larger University funds, wisely administered, would have reduced the evils engendered by the competition of Schools with one another	23
Lord Reay still agrees with the Gresham Commission Report, that financial means being so limited they should be used for levelling up existing institutions rather than for starting new ones	23
Institutions for research were, in the opinion of the Gresham Commission, to be established and supported by private munificence. The declared policy of the External side to found a series of special institutes, of which the Physiological Laboratory is the first, is in direct contradiction of this view	24

PART II.

THE ESSENTIALS OF A UNIVERSITY IN A GREAT CENTRE OF POPULATION.

1. THE NATURE AND WORK OF THE UNIVERSITY.

The nature of the provision required in London for university education and research must be considered before constructive proposals can be made. Much of the defective organisation can be traced to confusion of thought about what is essential and non-essential in university education. This confusion of thought is largely due to the success of the University of London as an examining body, and to the encouragement it gave to systematic study when there was no properly organised system of secondary schools, and but imperfect provision of institutions capable of giving a higher education at small cost	25
The development of modern universities is due to the growth of large towns and cities, whose wealth renders it easier to collect funds for the foundation of university institutions, and where the demand is chiefly for technical and professional instruction. In most cases they have developed through the gradual evolution of a complete group of Faculties in institutions originally founded for scientific and technological studies	26
<i>The Essentials of University Education.</i>	
The essentials of university education are : first, that students should work in constant association with their fellow students, of their own and other Faculties, and in close contact with their teachers; and that they should pursue their work when young and able to devote their whole time to it	26
Secondly, university work should differ in its nature and aim from that of a secondary school, or a technical, or a purely professional school. In the secondary school definite tasks are prescribed, knowledge is acquired while the mind is specially receptive, and pupils are mentally and morally trained by the orderly exercise of all their activities; in the technical or professional school theoretical teaching is limited and directed by the application of ascertained facts to practical purposes; in the university knowledge is pursued not only for the sake of information but always with reference to the attainment of truth	27
Thirdly, there should be close association of undergraduate and post-graduate work. Proposals which tend to their separation are injurious to both. A hard and fast line between the two is disadvantageous to the undergraduate, and diminishes the number who go on to advanced work. The most distinguished teachers must take their part in undergraduate teaching and their spirit should dominate it all. The main advantage to the student is the personal influence of men of original mind. The main advantage to the teachers is that they select their students for advanced work from a wider range, train them in their own methods,	

1. THE NATURE AND WORK OF THE UNIVERSITY— <i>continued.</i>	Page
and are stimulated by association with them. Free intercourse with advanced students is inspiring and encouraging to undergraduates. Finally, the influence of the university as a whole upon teachers and students, and upon all departments of work within it is lost if the higher work is separated from the lower	28
Special research institutes should not form part of the university organisation. No true analogy is offered by those established in Berlin, Leipzig, Paris or Brussels for the establishment of research institutes in London under university control	30
The establishment of a University Press, under full university control, is an essential function of the University	31
<i>University Education for Evening Students.</i>	
There are other things which, though not essential to the nature of a city university, the University may rightly be expected to do, e.g., it should offer as good education to its evening as to its day students. The cost, though greater than for day instruction, should be undertaken	31
<i>Technology.</i>	
Technological instruction should be included among the functions of a university, but it should not be of a narrow utilitarian kind. From the practical point of view of industrial progress the university treatment of technology as based upon a thorough grounding in pure science is of the highest value and importance	32
Advanced instruction of a specialised kind must be provided for occasional students who are already engaged in a profession or calling	33
<i>University Classes for Working Men and Women.</i>	
The University should be enabled to establish and maintain a special centre for work done in conjunction with the Workers' Educational Association, but to do this successfully it must first have provided satisfactorily for its own undergraduate and graduate students, and for its professoriate	33
<i>Degrees and Examinations.</i>	
The granting of degrees is one of the chief characteristics of a university, though not the real end of its existence. A degree should signify that a university education has been received	34
Tests imposed should (a) afford sufficient evidence of what they are intended to prove; (b) not interfere with, or injuriously affect, but if possible assist, the education which the University should give	34
Examinations are the main test in English universities. How far do they afford sufficient evidence of a university education (i) when conducted solely by external examiners, (ii) when conducted largely by the teachers of the students examined, and how far in each case are they injurious to the real education of the students, or can be made to assist its ends?	34
The sole test imposed on the External side is that of examination, and the lapse of time between the examinations is the only condition for securing the student's education. This test is one of knowledge only, not of education or of the quality of the work. A wide syllabus of prescribed subjects with an external examination as the test of the information acquired, inevitably tends to uneducational methods of work. It may be an incentive to work, but it is a fallacy to assume that self-education is achieved by any but the very exceptional man, or is induced by the examination	34
An examination, though far from being external, and though largely conducted by teachers, will be injurious to the students if based upon a syllabus too wide to be covered in the time allotted	35
A detailed syllabus and an external examination are inconsistent with the true interests of university education, injurious to the students, degrading to the teachers, and ineffective for the ends they are supposed to promote. A system of external examinations is based on want of faith in the teachers	36
The present Internal examinations are practically external owing to the number of institutions involved and the demands of the common syllabus	36
Degrees should not be awarded upon examination alone, but should, subject to proper safeguards, be practically the certificates given by the professors upon the whole record of the student's work	36
The University may continue to recognise work of a lower standard, or not done under conditions which guarantee that the standard is equal to its own, until there is general understanding of the true meaning of a university education. But this recognition must not hamper the development of the teaching over which the University has complete control	36
2. THE CONDITIONS NECESSARY FOR THE REALISATION OF THE FOREGOING ENDS.	
<i>First Condition—a previous sound General Education.</i>	
A sound general education, giving the power of accurate expression and orderly thought, must be the basis of university work. These intellectual qualifications, together with the formation of moral habits, must be accompanied by a wide range of study at school. This last requirement it was the intention of the original Matriculation examination to ensure. The growth of specialisation has tended to restrict the range of the Matriculation examination, and has altered its purpose so much that the securing of a sound general education has been lost sight of. This appears to render the Matriculation examination unsuitable for school purposes, or as a test of fitness for university study, a conclusion reached by the Scottish University Commissioners many years ago	37
Agreement with the opinion of the Consultative Committee that a good general education should be sufficient to secure admission to a university	39

2. THE CONDITIONS NECESSARY FOR THE REALISATION OF THE FOREGOING ENDS—*continued.* Page

- The lengthening of secondary school life would enable the pupils to acquire more knowledge of the subjects specially required for his future university course, but the growth of specialisation, and the increasing number of departments into which university studies are divided, make it impracticable for every student to have acquired the elements of all the subsidiary branches of knowledge necessary to his main purpose. The University must, therefore, make some provision for this instruction in the case of particular students - 39
- Agreement with the Consultative Committee's opinion that some specialisation in schools is desirable after the age of 16, and that it is of great advantage to the pupils to remain for two years after passing a general test at about the age of 16, whether they intend to proceed to a university or not. This additional two years would enable intending university students to make some definite preparation for the Faculty they propose to enter - 40
- To secure the full advantages of secondary education two school examinations should be established. The lower examination, taken by pupils about the age of 16, would test the possession of a broad general education; the higher, taken at about the age of 18, would test a general education carried further, together with specialisation in some direction. Provided the subjects taken in the examination were cognate to those of the Faculty he desired to enter, a student would be admitted at once on the higher school examination to more advanced studies without first passing an Intermediate examination except in medicine, where he would be excused the Preliminary Science examination. The higher examination would not, except in medicine, entitle him to shorten his university course. The University should exercise pressure upon students to delay leaving school till after passing the higher examination - 40
- A general agreement between the universities, requiring the higher school examination as a condition of matriculation, would no doubt cause schools, which at present cannot provide instruction beyond the standard of the lower school examination, to raise their teaching to the higher level - 40
- As first steps in the direction indicated, the University should cease to admit pupils in schools to its own examinations, including that for matriculation, and no student under 17 years of age should be registered as matriculated. These recommendations are almost identical with the conclusions independently reached by a Committee of the British Association - 41
- Evidence given, urging that 17 should be the minimum age of university entry for girls, and boys also - 41
- The University must retain some form of Matriculation examination designed for students of the age of 17 who are unable to enter through the normal avenue of the secondary school. This examination might be somewhat differentiated for the several Faculties - 42
- In the case of students of mature age it would be sufficient that the Faculty to which admission was desired should satisfy themselves, by means approved by the Senate, that the student was qualified by his attainments and ability to take a full course for a university degree. This privilege to be confined to those desiring to study under teachers of the University - 42

Second Condition—Homogeneity of University Classes.

- Students working in classes of the nature of the German seminar, must all be university students, *i.e.*, students whom the University would admit as candidates for its degree. This condition is necessary to secure the homogeneous body of students required to form the basis of a real university - 42
- Many regular day students in Schools of the University are not qualified for registration as undergraduates, and homogeneity in university classes does not exist. This is chiefly due to the inadequate provision for secondary education. Of other causes, one of the most important is the necessity the colleges have been under of providing professional education for students not intending to take a university course - 42
- The Royal College of Science, not originally founded or maintained as a university institution, is now a School of the University, but the number of students of imperfect general education sent by the Board of Education is a serious source of weakness - 43
- If the University must continue for the present to provide courses of instruction for students not qualified on entrance to read for a degree, these courses must be separate except for lectures from those followed by undergraduates. The Board of Education should support this policy by requiring that all candidates for Royal Scholarships and Free Studentships should be qualified for registration as university undergraduates. Candidates wishing to enter for these Scholarships and Studentships from technical schools and classes should be provided for by scholarships at other institutions - 43
- Insistence on the separation of students is not recommended in the case of courses recognised by the University, but for which it is neither financially nor educationally responsible - 43

Third Condition—a University Quarter.

- Constituent Colleges and University Departments should be grouped as near together as possible. There is practically no geographical problem connected with this centralisation of teaching in the case of whole-time day students. The creation of a University quarter would lead to economy in administration, to increased co-operation between different departments of study in the interests of new lines of work, to greater intercourse between students and teachers, and probably to a better public understanding of the University and its work - 44

Fourth Condition—University Hostels and Societies.

- The influence of the University over its students should be extended by means of residential hostels in the suburbs supported by special funds but under the general supervision of the University; and by encouraging the formation of University societies. Accommodation should be provided in the central University buildings for the Students' Representative Council, and other University societies, and headquarters for the Officers' Training Corps - 45

2. THE CONDITIONS NECESSARY FOR THE REALISATION OF THE FOREGOING ENDS—*continued.* Page

Fifth Condition—a University Professoriate.

In order to ensure that the work of the University is of the kind described the University must provide its own teaching, i.e., appoint, pay, pension and dismiss its teachers. The attempt to establish a body of university teachers of first rank by granting the titles of University Professor and University Reader to selected teachers has proved inadequate - 46

Sixth Condition—Professorial Control of Teaching and Examination.

The standard of a teaching university can be maintained only by the rigid exclusion of students unfit for university work, and the existence of a body of highly qualified teachers. The teachers should, under certain safeguards recommended later, have control of the education and examinations of their students - 47

Seventh Condition—Financial Control by University.

The University must have complete financial control of all the institutions within it. This control should be vested in a small Council or Senate acting as the supreme executive body of the University - 48

3. THE GOVERNMENT OF THE UNIVERSITY.

The supreme power of the University should be vested in a widely representative Court. The argument that a large and heterogeneous body would have no power is due to confusion of thought between legislative and executive functions. The Court would have final control over the Statutes, the admission of institutions as Constituent Colleges, and the recognition of others as Schools of the University - 48

The Senate should be so constituted as to be able to work out a carefully considered policy for the maintenance and development of university teaching. A large proportion of its members should be nominated by the Crown and not elected by other bodies, nor should it consist as to any large part of teachers. Sudden reversals of policy would be guarded against by the legislative control vested in the Court, and by its power of bringing public opinion to bear upon university policy - 48

The Academic Council should be a body of university teachers to which the Senate might delegate some executive functions, and so constituted, from an advisory point of view, as to ensure that the Senate should have before it the opinion of the University Professoriate upon any educational question affecting the University as a whole - 49

Much greater freedom of government should be provided for the reconstituted University, and to this end the Statutes should be simple and few, leaving as many things as possible to be settled by regulations and byelaws of the University - 49

An organisation applying to the best institutions the principles governing the organisation of universities of the professorial type everywhere else would ultimately be raised. For some institutions meantime a looser form of connexion must be provided and opportunity for graduation offered to the External student - 50

Any reconstruction less fundamental than that proposed would be useless - 50

PART III.

THE APPLICATION OF THE FOREGOING PRINCIPLES.

1. THE FINANCIAL AND EDUCATIONAL CONTROL OF CONSTITUENT COLLEGES AND UNIVERSITY DEPARTMENTS.

The Acts incorporating University and King's Colleges are valuable precedents, and illustrate the application of general principles to the special circumstances of particular cases - 50

Complete incorporation is the ideal to be aimed at, but something less than this will not be incompatible with university control of financial and educational policy in particular cases - 51

Constituent Colleges may be established by the University, but any educational institution which is strong enough in one or more Faculties, and which transfers to the University the financial and educational control of one or more of these Faculties, would become a Constituent College in the Faculty or Faculties concerned. An institution would not be considered strong enough to become a Constituent College in any Faculty unless able to provide a full course for the first and higher degrees awarded in that Faculty. The responsible teachers in these Colleges would be University Professors or University Readers - 51

A department dealing with a single subject of study, or a group of studies of less range than a Faculty, either established by the University or put under its control, would become a University Department of that particular study or group of studies. Its teachers would have the same status and powers as teachers of similar standing in Constituent Colleges - 51

2. THE CONSTITUTION AND GENERAL POWERS OF THE FACULTIES.

The Faculty is the natural basis of university organisation - 51

Though the constitution of the Faculties may vary in detail certain powers will be common to them all - 52

University control of the teaching is assumed in dealing with the teachers to be included in the several Faculties - 52

The constitution and the general powers and duties of all the Faculties - 52

Regulations should provide for the summoning and holding of joint meetings of two or more Faculties and of general meetings of all the Faculties - 53

3. THE RELATION OF THE FACULTIES TO CONSTITUENT COLLEGES AND UNIVERSITY DEPARTMENTS.

The freedom of the teachers is dependent upon the relation of the Faculties to the teaching and examinations. If this freedom is to be maintained, the functions of the Faculties and Boards of Studies with respect to courses of study and examinations for degrees must allow scope for initiative - 53

3. THE RELATION OF THE FACULTIES TO CONSTITUENT COLLEGES AND UNIVERSITY DEPARTMENTS— <i>continued.</i>	Page
The appointment of the best teachers under proper conditions would be secured by adopting the present rules for appointment to professorships in staffing Constituent Colleges and University Departments - - - - -	53
The powers of the Faculty with regard to courses of study and examinations - - - - -	53
The subjects of study within a Faculty should be organised in departments which may, if necessary, extend beyond an individual Constituent College, provided that any two Colleges between which a department is divided are in such proximity as to allow of effective supervision by a single head, who must be a University Professor, or, if the University has appointed as professor in that branch of study, a University Reader - - - - -	54
The head of each department in a Constituent College would himself interpret the general regulations of the Faculty relating to his branch of study, prescribe the course of study to be followed, the classes and lectures to be held, and have control of his department, laboratories and libraries, subject to the control of the delegacy of the College or delegacies of the Colleges in which his department was situated in matters affecting time-table, finance, discipline, and the like - - - - -	55
A subordinate teacher in a department should have power to approach the delegacy of the College in regard to courses of instruction he may be required or wish to give, and in regard to access to laboratories and libraries; and their decision should be final - - - - -	55
The examinations should be conducted by the head of each department, and under his direction by the other teachers in his department, but for public examinations one or two Assessors appointed by the Faculty would be conjoined with him - - - - -	55
The Assessors would have the right to refer to the Faculty any examinational matter upon which they disagreed with the head of the department; the decision of the Faculty, or in urgent cases, of the Dean, would be final - - - - -	55
Any delegacy of a Constituent College or University Department would have the right to appeal to the Senate against the decision of a Faculty on a matter of principle. The decision of the Senate, which would be final, would not invalidate the past action of the Faculty, but be a direction for their future guidance - - - - -	55
The heads of departments and other teachers in a Faculty attached to a Constituent College, together with the Assessors appointed by the Faculty, would form the Examining Board for public university examinations for degrees of candidates in that College - - - - -	55
Although the examinations in Constituent Colleges may vary from College to College, the standard for the degree will be secured by maintaining the standard of education leading up to it, and the standard of education will in turn be secured by maintaining the standard of the teachers and the fitness of the students to profit by the teaching. This last condition can be secured only by requiring the students to have received a proper preliminary education. Unless this view of the standard of a degree is recognised no effective organisation of the University is possible - - - - -	55
The Faculties will be assured by reports (a) from Boards of Studies that the range of study in a subject as treated by different teachers will broadly be the same, and (b) from its Assessors that the standard of the examinations and other tests is broadly the same - - - - -	56
Before admitting institutions as Constituent Colleges some test must be applied to ascertain if their standing justifies admitting them to the privileges proposed for their teachers. A rough, but sufficiently accurate test is supplied by the action of the present Senate with regard to the conferment of the titles of University Professor and University Reader - - - - -	56
THE FACULTY OF ARTS.	
Table showing the present teachers in the faculty of Arts to whom the Senate has granted, or would be prepared to grant, the title of University Professor or University Reader - - - - -	57
The institutions at present suitable for inclusion as Constituent Colleges in the Faculty of Arts are: University and King's Colleges, and possibly Bedford College - - - - -	58
The London Day Training College, subject to arrangements with the London County Council, might become a University Department of Education - - - - -	58
The estimates of the Academic Council for the additional provision required in the Faculty of Arts are based upon an assumed additional income of 90,000 <i>l.</i> a year for all the Faculties - - - - -	59
The Commission's estimates are based upon a consideration of the minimum with which it would be possible for a University Faculty of Arts to work. The minimum salary of a Professor in this Faculty is therefore fixed at 600 <i>l.</i> instead of 800 <i>l.</i> , but the higher rate should be adopted as soon as possible. The minimum salary of a Reader should be 300 <i>l.</i> - - - - -	59
The minimum salaries proposed for University Professors and Readers would not necessarily be paid to present holders of posts - - - - -	59
The additional financial provision required in University and King's Colleges - - - - -	60
The present buildings of King's College are unsuitable for a University College of the first rank, but the reorganisation of the University should not be delayed for the removal of the College - - - - -	61
No additional financial provision is necessary for the inclusion of the London Day Training College as a University Department of Education - - - - -	61
The staff of Bedford College is considerably below that necessary for a self-sufficing Constituent College in the Faculty of Arts, but the system of inter-collegiate lectures already established with University College might be extended, and departments at present in charge of a Reader or a lecturer should be linked up with departments at University College which are under the direction of University Professors. Subject to these conditions the College might be included as a Constituent College in the Faculty of Arts - - - - -	61
On the reconstitution of the University the new School of Oriental Studies should become a University Department of Oriental Studies governed by a delegacy of the Senate and under the complete educational and financial control of the University. The departments of Oriental Languages at University and King's Colleges should be abandoned and the oriental books in those colleges transferred to the library of the new School - - - - -	62

THE FACULTY OF ARTS—*continued.*

	Page
Arts and Science degree courses for evening students should not be given at University and King's Colleges or at the School of Economics	63
Mr. Sidney Webb considered that, owing to the wide area of the University and the large number of students to be dealt with, all evening work, except the highest, should be done, not in the University but in "mixed" institutions maintained by Local Education Authorities. Dr. Garnett shared this general conception of the University	63
Mr. Webb's estimate of the number of students for whom a university education will be required is greatly in excess of the proportion of university students in European countries where education is most fully organised and developed	63
The higher work of the Polytechnics should be encouraged by the University, but in the ultimate issue the University alone must decide what are the necessary conditions of university education. The University should itself maintain a College for evening students, thereby providing a standard for the evening work carried on under Local Education Authorities	64
The courses for evening students in the Faculties of Arts and Science should be provided near those in the Faculties of Laws and Economics, to allow of cross-combinations of study and of intercourse between teachers in the different Faculties. The West Central district has proved convenient for evening students, and the courses should be given within a short distance of the central University buildings where the students' clubs and societies will be situated	64
The Birkbeck College should become a Constituent College in the Faculties of Arts and Science for evening and other part-time students. It has a large number of evening students reading for degrees, and the numbers would be increased if the evening degree courses at King's College were abandoned as it is thought they should be	65
The Evening Constituent College would be reserved exclusively for part-time students to avoid a double burden of work being thrown upon the teachers, and the difficulties arising from a double use of laboratories. Teaching in the Faculties of Laws and Economics is not analogous. The chief colleges in those Faculties have, in consequence, been organised as day colleges	65
The reorganisation of the Birkbeck College as an Evening Constituent College would necessitate considerable changes in its government and staffing, and it is estimated that additional income amounting to at least 10,000 <i>l.</i> a year would be required for its establishment, but the results likely to accrue from the foundation of an evening University College of the first rank in the Faculties of Arts and Science would justify the cost	65
No estimate is made for additional buildings for the Faculty of Arts. The estimates submitted by the several Schools of the University would require modification if the University were reconstituted so as to enable it to adopt a considered policy for the Constituent Colleges in the various Faculties	66
King's College for Women is dealt with under the Faculty of Science	67
It is hoped that the governors of the East London College will be able to strengthen their staff in the Faculty of Arts so that the College may be qualified for inclusion as a Constituent College in that Faculty	67
The Royal Holloway College and Westfield College cannot be brought into closer union with the University than at present exists	67
None of the institutions which are not Schools, but have "recognised" teachers in Arts, are at present strong enough for inclusion as Constituent Colleges	67
Summary of the recommendations made in respect of the Faculty of Arts	68

THE FACULTY OF SCIENCE.

Table showing the present teachers in the Faculty of Science to whom the Senate has granted, or would be prepared to grant, the title of University Professor or University Reader	68
The institutions at present suitable for inclusion as Constituent Colleges in the Faculty of Science are :—The Imperial College, University College, King's College, and, subject to the conditions laid down in the case of the Faculty of Arts, Bedford College. The East London College might also be included if further provision could be made there	71
The University Physiological Laboratory should not be maintained by the University as an independent research department, but might be transferred to the department of Physiology in one of the Constituent Colleges	71
The University Department of Eugenics should be kept in close touch with and proximity to a university teaching centre	71
The removal of the Brown Animal Sanatory Institution into closer proximity with the Royal Veterinary College and co-operation between them would be of advantage to both	71
Full consideration of the relations which should subsist between the Imperial College and the University is given under the Faculty of Technology. The main purposes of the Imperial College as shown by its charter are not only technological but scientific. It would be disastrous to the interests of university education, as well as to the highest technological study, if the Imperial College were not to form a part of the reorganised University. For these reasons it should become a Constituent College in the Faculty of Science as well as in the Faculty of Technology	71
The proposals of the Academic Council for the Faculty of Science, exclusive of ethnology, would involve an additional income of 11,400 <i>l.</i> They exclude a consideration of the needs of the Imperial College	72
The minimum salary of most professorships in the Faculty of Science should be not less than 800 <i>l.</i> ; in some cases 1,000 <i>l.</i> will be necessary. The minimum salary of a Reader should be 300 <i>l.</i> The reservation made in the case of the Faculty of Arts, that increased salaries should not necessarily be given to present holders, applies to the Faculty of Science also	73
No additional income is immediately needed to qualify the Imperial College for inclusion as a Constituent College of the University	73
Additional funds are needed by University College and King's College to raise the salaries of certain professorships to the proposed minimum	73

THE FACULTY OF SCIENCE—*continued.*

Page

- At Bedford College the same difficulties arise as in the Faculty of Arts, and should be dealt with in the same way pending a decision by the University as to the extent to which independent professorships should be attached to the college - - - - - 74
- The East London College might become a Constituent College in the Faculty of Science provided the Governing Body were willing to comply with the conditions of university management laid down, and if further provision could be made in respect of certain departments. Meanwhile the College would retain its status as a School of the University - 74
- King's College for Women is at present a partially developed University College in the Faculties of Arts and Science. None of its own teachers has the title of University Professor or University Reader - - - - - 74
- This College needs special consideration because it is already incorporated in the University. Its distance from the other Schools in the Faculties of Arts and Science prevents it from taking its proper share in the system of inter-collegiate lectures and also prevents it from being linked up with one of the Constituent Colleges in the manner recommended for Bedford College - 75
- The cost of establishing a Constituent College for women in the Faculties of Arts and Science in Kensington would be very great, and would be justified only if it were proved that a large number of students would otherwise be excluded from the University. An analysis of the students attending King's College for Women does not justify the expectation that a strong centre of the highest university teaching for women in these two Faculties could be established in Kensington - - - - - 75
- The London County Council suggested to the Senate in 1909 that the college should develop its Home Science teaching, and gradually abandon its other departments of work. With this suggestion the Commission are in agreement, except in so far as the teaching of certain subjects in the Faculties of Arts and Science may be necessary in connexion with Home Science and Economics. - - - - - 75
- The University should aim at the establishment of a University Department in this group of studies under the name of Household and Social Science, a title which describes better what is aimed at. Care should be taken to differentiate this subject from the Domestic Science now taught in the Polytechnics. The experience of some other universities shows that there is need for university instruction in this group of studies, but the exact range of subjects cannot now be determined - - - - - 76
- The lectures in literary and scientific subjects and instruction in music and the fine arts now given at King's College for Women should be transferred to the Extension Department if the University remains responsible for them - - - - - 77
- The women's department of Divinity should be continued, but would not be under the educational or financial control of the University - - - - - 77
- The South-Eastern Agricultural College at Wye should not be included as a Constituent College, both on account of its geographical position and because the main purpose of the college is, and must always be, the giving of practical instruction and advice to farmers and agriculturists. Comparatively few of its students could undergo the training required for a university degree, but it should encourage its better students to undertake the university course, and to continue beyond a first degree stage by making original research in agricultural science. This would be possible if the college remained a School of the University. The Governing Body should apply for an amendment of its scheme in order to comply with the conditions of university management laid down for Schools of the University. The question of its continuance as a School in the Faculty of Science or its transference to the Faculty of Technology should be decided by the Senate of the reconstituted University - - - - - 77
- The Royal Veterinary College, subject to certain conditions, might become the University Department of Veterinary Science. The Governing Body of the College applied recently to the Senate for admission as a School of the University, and subject to certain conditions the Senate were prepared to comply with the request. The Governing Body were unable to comply with all these conditions - - - - - 78
- The conditions necessary under the proposals of the Commission for its inclusion as a University Department go beyond those of the Senate. A committee of management of the College should consist, as to a majority, of persons appointed by the University, and the University should have financial and educational control of its teaching activities. Further, the College should abandon the teaching of chemistry and biology, and perhaps also physiology. So long as students of a lower standard of general education than that required of undergraduates were admitted to the college, the more intimate teaching of undergraduates should be conducted separately - - - - - 78
- The recent report of the Departmental Committee of the Board of Agriculture makes it the more important to bring the teaching of the Royal Veterinary College into the closest possible association with the University, and if this were done the number of well-qualified veterinary surgeons would, apart from the recommendations of the Departmental Committee, be still further increased - - - - - 79
- If the Royal Veterinary College is placed under the educational and financial control of the University, the Brown Animal Sanatory Institution, provided it can be moved into proximity with the Royal Veterinary College, should be placed by the Senate under the Committee appointed to manage the University Department of Veterinary Science at that College. The inclusion of the work of these two institutions in the Faculty of Technology rather than in the Faculty of Science is left to the consideration of the Senate after the reconstitution of the University - - - - - 79
- The reconstitution of the Birkbeck College as a Constituent College in the Faculties of Arts and Science for evening students is dealt with under the Faculty of Arts - - - - - 79
- For the reasons given under the Faculty of Arts, the Royal Holloway College should not become a Constituent College of the University - - - - - 79
- The relation of science departments in Medical Schools to the University is considered under the Faculty of Medicine - - - - - 80

THE FACULTY OF SCIENCE—*continued.*

	Page
Of the remaining institutions with teachers of the status of University Professor or Reader, three are doing excellent work each in a special way, though their purposes do not suit them for inclusion as Constituent Colleges, even if the funds necessary to enable them to qualify for this status were forthcoming	80
(i) The Goldsmiths' College is owned and maintained by the University and governed by a delegacy of the Senate. In the event of the University being ultimately unable to maintain the College, the Goldsmiths' Company, who presented the site and buildings to the University, would be prepared to release the Senate from the conditions embodied in the Deed of Gift, though they ask "that their approval be obtained for the purpose to which the University might propose to devote the property or the proceeds thereof if sold." It is therefore probable that they would consider any reasonable proposal for the future use of the buildings and land	80
The chief work of the College, and practically the whole of its day work, is that of a large day training college for elementary school teachers recognised by the Board of Education. Its remaining work is a survival of that carried on when the Goldsmiths' Company maintained the College as a technical and recreative institute	80
Owing to the provision by the London County Council of a new technical institute for South-East London, new work must be found for the Goldsmiths' College. The proposal that a University College should be established on its site is not justified by the demand for full university courses at the College, and the experiment of establishing an evening college in Arts and Science on the south side of the river is a matter for the future. The Commission's proposals for the Goldsmiths' College are contained in a later part of the Report	81
(ii) The School of Pharmacy of the Pharmaceutical Society does not appear to have had, and is never likely to have, any university students. There is therefore no reason for any connexion with the University	82
(iii) The aims and purposes of the Finsbury Technical College are not those of university study. It would gain nothing, and might lose much, if its students studied for university examinations, and it would be diverted from its true functions if included as a Constituent College or recognised as a School	82
Summary of the recommendations made in respect of the Faculty of Science	82

THE FACULTY OF TECHNOLOGY.

As already stated, technological studies should be included in a city university. The principles underlying the sciences rather than their application are needed by the masters of industry equally with the doctor and lawyer, and the methods and spirit of university work are necessary to permanent advance in the application of science to practical needs. The suggestion that a separate technological university in London having as its centre the Imperial College would best serve the interests of advanced education in technology is probably due to the belief that the University would remain more or less what it is now	83
The Departmental Committee on the Royal College of Science, after setting out the arguments for and against the independence of the Imperial College from university control, stated that if changes in the character and constitution of the University could be made which would render an amalgamation of the two institutions desirable, they would wish such modifications to be made and an amalgamation effected, and they suggested that a Royal Commission should be appointed to consider what the changes should be. The present Commission has been led by a consideration, not only of the questions raised by the position of the Imperial College, but also of the general defects in the present University, to recommend a reconstitution of so fundamental a character as to alter the whole position as it presented itself to the Departmental Committee in 1906	84
The views of the Governing Body differ somewhat from those of the Departmental Committee, and if some of their proposals were taken literally they would necessitate the establishment of a technological university under the control of the Imperial College as now constituted. The result would be :—	
(i) There would be two universities in London, each aided largely by the State. Two Royal Commissions and the Departmental Committee of 1906 have reported against such a measure.	
(ii) The technological work of the University of London would either be continued as at present, thus causing competition, if not hostility, between the two universities aided by the Exchequer; or all technological work would be excluded from the University of London. This would mean the abandonment or the transference to the other university of the engineering departments of University, King's, and the East London Colleges; perhaps also the department of architecture at University College and the possible transference of the Brown Animal Sanatory Institution. The difficulties of transferring these various departments would be very great.	
(iii) The technological university would either continue to include pure science as the Imperial College does now, in which case it would come into direct competition with the University of London in this Faculty, also aided by the Exchequer; or the Imperial College would have to abandon its pure science teaching and with it the continuance of the Royal College of Science. Apart from financial considerations this solution would be impossible.	
(iv) A separate technological university would either have to teach its students from the beginning of their course, thereby abandoning the aim of confining itself to advanced and research work; or it would have, at least so far as its London students were concerned, to leave this duty to the University of London and its institutions, with a prohibition against any higher technological work.	
These consequences of the establishment of a technological university in London are sufficient to prove the injustice and the unbusinesslike nature of the proposal	84
The Charlottenburg Technical High School at Berlin has no true analogy with the Imperial College.* The scope of the latter is much wider than that of Charlottenburg. Neither does	

THE FACULTY OF TECHNOLOGY—*continued.*

Page

- the University of Berlin contain departments of engineering such as those founded in connexion with the University of London long before the establishment of the Imperial College. Many Germans of standing now regret the exclusion of a technological faculty from their universities. The practice of including technology among university studies is not confined to England or to the United Kingdom generally but is to be found in all the universities of the Dominions - 85
- If the contention of the Imperial College is that the College differs from other schools of engineering because it ought in time, whatever its present practice, to devote itself solely to advanced work and research—to be a kind of super-university—then the analogy of Charlottenburg fails entirely, since the main work of that institution is undergraduate and its standard of admission that of the German universities. A super-university could not exist unless it could obtain and retain the services of the greatest living teachers in all its departments of study. This being impossible, the most advanced students would go wherever the best teachers could be found - 86
- The proposal to confine the College to senior and post-graduate students is of doubtful advantage to the highest education in technology. The supervision and influence exercised by teachers over the work of the students is desirable from the beginning of their university course. One Sub-Committee of the Imperial College expressly deprecated abandoning the first three years' work, and another contemplated the continuance of it and based their proposals upon that assumption - 86
- Rightly interpreted, the terms of the Imperial College Charter give a true description of the purposes it should continue to serve, *i.e.*, to "give the highest specialised instruction . . . and provide the fullest equipment for the most advanced training and research in various branches of science, especially in its application to industry," but this does not mean abandoning the more elementary work. The intentions of the Charter will not be realised unless the relations of the College and the University make possible the co-ordination of the highest technological work in London. The University needs fundamental changes before it can fulfil its part in co-ordinating and supervising this work, but much closer union of the College with the University is also essential to the proper provision of technological education - 87
- One immediate advantage would accrue to the College by closer connexion with the University, *viz.*, the raising of the standard of general education of students on admission - 87
- ut if the connexion of the College with the University is to be closer than in the past it must also be free to develop naturally on its own lines. This freedom can be provided for in all essentials within the terms of the conditions laid down for Constituent Colleges of the University, with certain modifications of detail - 88
- The constitution of the Governing Body of the Imperial College might remain much the same as at present, but the powers and duties of the Executive Committee recently established by the Governing Body should be transferred to a Statutory Committee of the Senate, appointed annually, consisting, as to at least three-fourths of its members, of men of affairs and experts; a bare majority to be appointed by the Senate; the minority to be appointed by the Governing Body of the Imperial College - 88
- The management and finance of the Faculty of Technology should be vested in the Committee for Technology subject to the sanction of the Senate to its annual budget. The sanction of the Senate should not be given or refused until after consultation with the Governing Body of the Imperial College and the delegacies or local committees of the other Constituent Colleges concerned - 88
- The appointment to Professorships and Readerships in the Faculty of Technology throughout the University would in future be made by the Senate upon the report of the Committee for Technology after this body had considered the recommendations of Boards of Advisors - 89
- The departments of pure science in the Imperial College should not be removed from the College, but the Committee for Technology should guard against the organisation and the development of these departments in a way detrimental to the Faculty of Science as a whole. The Committee should, therefore, consult the delegacies of other Constituent Colleges in the Faculty of Science before initiating new, or developing existing departments in that Faculty - 89
- The present Faculty of Engineering should be merged in one of larger scope, and its name changed to indicate this. Engineering will doubtless form the larger part of technology but provision must be made for the inclusion of other technological subjects. The proposed Institute of Technical Optics is one instance of this; another important subject is economic botany, and the growing application of science to industry will increase the demand for university departments of technological study - 90
- The constitution of the Faculty of Technology would differ from that of the Faculties of Arts and Science in order that the teaching should be kept in close touch with the various industries concerned. It should therefore include lay members with special scientific knowledge of those industries. Their functions should not be limited by Statute, but be dealt with by the Senate as experience may suggest - 90
- Table showing the present teachers in the Faculty of Technology to whom the Senate has granted, or would be prepared to grant, the title of University Professor or University Reader - 91
- The institutions at present suitable for inclusion as Constituent Colleges in the Faculty of Technology are: the Imperial College, University College, and King's College - 92
- The Academic Council state that their estimates for the Faculty of Technology are quite inadequate for its needs, but would furnish three Professorships and three Readerships. These posts would provide for specialist teaching and research in branches of engineering which are at present unprovided for or inadequately treated - 92
- The minimum salary of a University Professor in the Faculty of Technology is estimated at 1,000*l.*, and of a University Reader at 500*l.*, but these salaries would be dependent on the assignment by the University of the status of University Professor or Reader to the present occupants - 92

THE FACULTY OF TECHNOLOGY—continued.	Page
No additional income is needed to qualify the Imperial College for admission as a Constituent College in the Faculty of Technology	92
Additional funds are needed by University and King's Colleges to raise the salaries of certain professorships to the proposed minimum	93
If the Governors of the East London College were prepared to strengthen their department of Engineering sufficiently to qualify the College for admission as a Constituent College, and were also prepared to place the department under the management of the Committee for Technology in the way proposed for the departments of Engineering at University and King's Colleges, it might be included as a Constituent College in the Faculty of Technology.	
Meantime the College would remain a School of the University	93
Summary of the recommendations made in respect of the Faculty of Technology	93

THE FACULTY OF ECONOMICS.

Table showing the present teachers in the Faculty of Economics to whom the Senate has granted, or would be prepared to grant, the title of University Professor or University Reader	94
The School of Economics is the only institution which could be admitted as a Constituent College in the Faculty of Economics. A delegacy should be constituted from the present Governing Body, and the existing property of the School should be transferred to the Senate	95
The Academic Council recommend an expenditure of 3,000 <i>l.</i> a year in this Faculty on the provision of new Professorships and Readerships. These posts should be created as soon as possible, but the Commission's estimates are confined to the minimum salary necessary to establish the Faculty on a reasonably efficient basis	95
The minimum salary of a Professor in this Faculty should be 600 <i>l.</i> in the first instance and of a Reader 300 <i>l.</i>	96
The School of Economics estimate the need for further buildings and equipment at 31,500 <i>l.</i> together with an endowment of 10,000 <i>l.</i> for their maintenance	96
A well-equipped department of Ethnology is a necessary adjunct to the School of Oriental Studies about to be established, and the University Department of Ethnology might, at least for the present, be housed in the School of Economics if the University considered this to be the most convenient arrangement	96
The Goldsmiths' Library of Economic Literature, at present housed in the University buildings at South Kensington, should be housed within the School of Economics	97
The courses for evening students in this Faculty should be continued at the School of Economics. The organisation of this School has been skilfully adapted to meet the needs of its students of all classes. But in this School, as in other Constituent Colleges of the University, undergraduate classes, as distinct from lectures, should be confined to matriculated students, other students being provided for separately	97
Since the main teaching in this Faculty should be concentrated at the School of Economics there should be no immediate extension of the department of Political Economy at University College. Economics being, however, a subject of study for the first degree in Arts, instruction in it may properly continue to be provided at University College. The Professor of Comparative Law should also be retained at University College, at least until the University has been able to adopt a considered policy for the organisation of the Faculty of Laws	97
Summary of the recommendations made in respect of the Faculty of Economics	97

THE FACULTY OF MEDICINE.

The origin of the movement for reform in the Faculty of Medicine was dissatisfaction on account of the small number of London students who obtained a Degree. Consideration of this grievance is postponed till after a decision as to how this Faculty can be organised on a University basis	98
The Faculty of Medicine requires special treatment, because the test applied to the teachers in other Faculties cannot be applied here	98
Teachers of most of the Advanced Medical Studies do not satisfy the conditions required for the titles of Professor and Reader, and the University has not conferred them	98
It is denied that clinical teachers should comply with the conditions of employment as regards salary, time, &c., required in other Faculties. It must, therefore, be considered whether the standard required in other Faculties must be abandoned, or whether none of the existing Medical Schools can be admitted as Constituent Colleges	98
The questions arise: What is the nature of the clinical teaching the University should provide? Is it provided at present? If not, what changes are required? The proper organisation of a University Medical College will depend on the answers	98
The proper organisation of the Intermediate Sciences of anatomy, physiology, and pharmacology will also depend on the answers to these questions	98
The way of providing for instruction in the Preliminary Sciences of physics, chemistry, and biology requires a consideration of the whole medical curriculum and its relation to secondary schools	99
It must finally be considered whether, and, if so, how the University is to obtain the educational and financial control of one or more of the Medical Schools which is required in the case of institutions to be admitted as Constituent Colleges	99

Present Organisation of Medical Education in London.

The relation of the University of London to medical education before its reconstitution	99
The changes effected by the reconstitution were:—The Faculty of Medicine was constituted; Boards of Studies were appointed; Schools were admitted in the Faculty of Medicine; the distinction between Internal and External students was introduced; a Committee of Medical members of the Senate was formed	99

THE FACULTY OF MEDICINE—*continued.*

	Page
The changes did not accomplish much. The Faculty is too large for effective action. The Committee of the Senate and the Boards of Studies made improvements in the curriculum and examinations. The Medical Schools remained almost as detached from and as independent of the University and of each other as before - - - - -	100
The main difficulties of creating a University School of Medicine arise from the historical evolution of medical teaching in London - - - - -	100
Professor Starling's account of the history of the London Medical Schools - - - - -	100
The main defects in the existing system are :—Absence of University ideal ; subordination of teaching to examination ; waste of energy in hospital Schools - - - - -	102
To some extent the University may be to blame, but it has not had the means of assuming financial responsibility for medical education. It has confined itself to prescribing a curriculum and conducting examinations on a syllabus - - - - -	102
The Medical Schools have had the responsibility for medical education, and may claim that their interests should be considered in any reorganisation of medical education in London - - - - -	102
On the other hand they are almost as closely connected with Oxford and Cambridge and the Conjoint Board as with London University. They prepare indifferently for the examinations of all qualifying authorities for which their students desire to enter. Their teaching is subordinated to external examinations - - - - -	102

The Medical Curriculum.

The curriculum is divided into three parts : Preliminary, Intermediate, and Advanced Medical Studies - - - - -	103
The Preliminary and Intermediate Studies are not necessarily connected with a hospital, whereas most of the Advanced Medical Studies must be pursued where medical and surgical cases are - - - - -	103

Preliminary Medical Studies.

Statute 80 was intended to bring about concentration. The Statutory Commission of 1898, following the Gresham Commission Report, recommended concentration of the Preliminary, Intermediate, and some Advanced Medical Studies. The Senate attempted to bring about concentration, but the Scheme failed. Reasons for failure - - - - -	103
The reasons for concentration no longer hold good to the same extent as formerly - - - - -	103
The chief difficulty in arranging for adequate instruction in the Preliminary Sciences is the want of time - - - - -	104
The Board of Preliminary Sciences recommend teaching with special reference to future application - - - - -	104
The existing arrangements for science teaching are not satisfactory - - - - -	104
The Preliminary Sciences should be special subjects of the last two years of a secondary school course and be included in the higher school examination which would exempt from the Preliminary Science examination, give admission to the Faculty of Medicine and shorten the university course to four and a half years - - - - -	105
Evidence of the Association of Public Schools Science Masters that science teaching in some schools is of a high standard - - - - -	105
The Conjoint Board and General Medical Council now recognise schools for Preliminary Science - - - - -	105
The University will have to provide instruction for students who have not taken science at school - - - - -	105
The importance of scientific grounding - - - - -	106
The difficulty in the case of biology - - - - -	106

Intermediate Medical Studies.

The organisation of instruction in the Intermediate Sciences is postponed till after a consideration of the clinical instruction - - - - -	106
--	-----

Advanced Medical Studies.

This part of the curriculum is dealt with in the following order :—

- (1) Clinical instruction in the general hospital.
- (2) Clinical instruction in special hospitals—fevers and insanity.
- (3) Medical Science which must be taught in close connection with a Hospital Medical College—pathology. In this connection the Intermediate Sciences of anatomy, physiology, and pharmacology will be considered.
- (4) Medical Sciences which may be taught outside Hospital Medical College—public health and forensic medicine - - - - -

1. Clinical Instruction in the General Hospital.

The Gresham Commission did not consider the question of clinical instruction - - - - -	107
The question first raised before the Commission by Mr. Flexner - - - - -	107
Summary of Mr. Flexner's criticism of clinical instruction in London - - - - -	107
The principle underlying his argument is that university teaching can only be given by men who are engaged in the advancement of knowledge in their subject. The Commission have strongly insisted on this view - - - - -	108
Mr. Flexner's remedy for the defects he criticises is to reconstruct a Medical School on modern lines, which would provide a model to which the others would in time conform - - - - -	108
The system of organisation proposed is, speaking generally, the German system. This system was described by Professor von Müller - - - - -	109
Sir William Osler supports the view that a complete reorganisation is necessary and describes his plan of the "hospital unit," which corresponds generally to the German clinic - - - - -	109
This organisation admits of variation - - - - -	110
Sir William Osler introduced at the Johns Hopkins University the system of clerks and dressers which is distinctive of the English Medical School - - - - -	110

THE FACULTY OF MEDICINE—*continued.*

	Page
The essence of the contention is that the clinical teachers in a University Medical School must be University Professors in the same sense as the teachers of chemistry and physiology	110
If this is admitted, the rest follows. The "hospital unit" is simply the organisation required to enable the clinical professor to do his work of teaching and research, just as the professor of chemistry needs his laboratory, and the professor of history his library	110
It is not denied that the English physicians make use of the assistance which science can give them in the diagnosis and treatment of disease	110
But, it is contended, that if co-operation between the physician and the pathologist and other men of science is necessary for the diagnosis and treatment of disease, it is also necessary for the advancement of medical science; that co-operation does not exist in the Medical School so long as the physicians and surgeons do not give their time to attacking the problems of disease, and become the directing and controlling members of a group of men working for a common end	111
It is not denied that the English system of clerks and dressers is a most valuable training and ought to be continued. But it is said that the clinical demonstration is also a valuable and necessary form of teaching	111
Demonstrative teaching requires more time for preparation than the present teachers can give	111
Both kinds of teaching can be given by the Professor, but he will not have time to give all that is required	112
There is also room for men in active practice to teach	113
The two systems of teaching can be combined. Dr. Head's description of Clinical Professors' courses	113
Answer to the objection that the time for training is not the time for research	113
Answer to the objection that Professors would be specialists	114
The professional advantages of private practice	115
Private practice is a safeguard against forgetting the patient in the scientific interest in his disease	116
Professors should be allowed a limited amount of private practice	116
Summary of the foregoing argument	117
Proposals for Reform submitted to the Commission :—	
(1) That a hospital should be organised on the "unit" system but reserved for post-graduate work	117
This view cannot be accepted. The University must begin with the undergraduate, and its instruction must be continuous. The undergraduate course must be university education in quality and spirit and aim	117
(2) That individual professors should be appointed in a number of different Medical Schools from the members of the existing staff. That their clinics should be mainly though not exclusively post-graduate	117
This proposal, made by St. Bartholomew's Hospital Medical School, would not give the University even the beginning of an organised Faculty of Medicine	117
(3) That Professors should be appointed in different Medical Schools, and that two classes of students—university and non-university—should work together throughout most of their course, but that a final year of systematic training by the Professors should be provided for the university students	117
The main objection to this scheme, which was proposed by Dr. Head, is that it does not provide university education for anyone throughout his whole course	118
(4) That a whole hospital should be organised throughout into as many "units" as the beds will allow, but that the present physicians and surgeons should take the place of Professors	119
The defect of this proposal, made on behalf of the London Hospital Medical College, is that the present physicians and surgeons have neither had the right training, nor have the time to fulfil the duties of University Professors; and the expense of the scheme is prohibitive	119
Summary of conclusions with regard to clinical instruction	121
(2) Clinical Instruction in Special Hospitals.	
The Course in a fever hospital must be taken as at present in hospitals of the Metropolitan Asylums Board	122
The opportunity appears to exist of developing a great clinic of psychiatry and mental diseases in connexion with the County Council's new hospital for mental diseases at Denmark Hill	123
(3) Medical Science in the Hospital Medical College.	
(a) Pathology.	
A pathological department is necessary in every Medical College	123
Dr. Ritchie's account of the divisions of pathology and its place in the medical curriculum	123
Pathological and clinical laboratories	124
(b) Anatomy, Physiology, and Pharmacology.	
If clinical instruction is organised on a university basis the case for the concentration of the Intermediate Sciences loses its force, and the proper course is to provide for the teaching and study of anatomy, physiology and pharmacology in the Medical College along with the several branches of pathology, and in close proximity to the clinical work of the hospital	125
Meanwhile, the departments of anatomy, physiology and pharmacology at University and King's Colleges will be University Departments in Intermediate Medical Sciences	125
(4) Medical Science which may be taught outside the Hospital Medical College.	
(a) Hygiene or Public Health.	
This Science is less concerned with disease in the particular case than with the conditions of health in the individual and the community, and the causes and prevention of endemic and epidemic disease	125

THE FACULTY OF MEDICINE— <i>continued.</i>		Page
If more convenient the department may be established elsewhere than in the Hospital Medical College	- - - - -	125
The Lister Institute	- - - - -	126

(b) Forensic Medicine.

This subject also may be provided for apart from the Hospital Medical College	- - - - -	126
If the available materials in London are to be made use of the department ought to be brought into official relations with the police and with the coroners' courts	- - - - -	126

The Organisation of the Faculty of Medicine.

The chief obstacles to the organisation of a University Faculty of Medicine in London are the existing Medical Schools, and the system of making appointments to the staffs of the hospitals to which they are attached	- - - - -	126
There are more Medical Schools than are required for the education of the students	- - - - -	126
The reasons for the existence of so many Medical Schools are the desire to maintain the status and efficiency of the hospitals to which they are attached, and the professional advancement of the Medical teachers	- - - - -	127
The professional advantages of a position on the staff of a hospital	- - - - -	127
The present system of appointments to the staff of a hospital	- - - - -	127
The appointment of Clinical Professors will be injurious to vested interests	- - - - -	128
The effect of appointing paid assistants	- - - - -	128
The position and value of Associate Professors	- - - - -	129
The application of general principles to the Faculty of Medicine	- - - - -	129
The University must have educational and financial control of Medical Colleges	- - - - -	129
Arrangements must be made between the University and the governing bodies of hospitals'	- - - - -	129
Degrees in Medicine will remain open to students of Medical Schools which do not become University Medical Colleges, provided they comply with the conditions for the recognition of Schools of the University	- - - - -	130
Even if they are willing, the existing Medical Schools cannot all become Constituent Colleges	- - - - -	130
The great defect of the present system of medical education in London is the unnecessary multiplication of Schools for undergraduate teaching	- - - - -	130
There is room in London for a great development of post-graduate teaching and research, and a wider range of undergraduate study	- - - - -	130
The cost limits the number of University Medical Colleges to the number required for the university students	- - - - -	131
If a new hospital were placed at the disposal of the University it ought to be organised throughout on a university basis	- - - - -	131
It is undesirable to set up an opposition to the existing Medical Schools if some will consent to become Constituent Colleges	- - - - -	131
Dr. Head's scheme, in a modified form, might be accepted as a transitory provision	- - - - -	131
The number of Professors required and the number of students they could train	- - - - -	131
The whole School would be under the educational and financial control of the University from the first, but the whole hospital could not be organised on a university basis till the present clinical teachers retired	- - - - -	131
After the transition period, and even before that, some re-arrangement of the teaching would be required	- - - - -	132
In addition to professors' wards, beds would be required for the clinical instruction of the students before the final year	- - - - -	132
The total number of beds required is a question to be decided by professional and educational opinion	- - - - -	132
Provision must be made for the whole training of the students, and in London, where clinical material is practically inexhaustible, the university hospitals should be of ample size	- - - - -	132
The number of university medical students to be provided for at present, including Oxford and Cambridge students, is about 220. For this number three hospitals with enough beds for an annual entry of 75 students would be required	- - - - -	132
It would probably be unnecessary to provide for all the students at first	- - - - -	133
The system should be so introduced that it can be developed without waste	- - - - -	133
A post-graduate Constituent College might be established later	- - - - -	133
Special clinics should be established as funds are available	- - - - -	133
The vested rights of the present staffs of hospitals should be respected as far as possible, but the public interest is paramount	- - - - -	133
General terms of the arrangements to be made between the University and the governing body of a hospital	- - - - -	134
The property and income available for the Medical School should be managed by the University	- - - - -	135
Proposed payment by the University to the hospital	- - - - -	135
Board of teachers and committee of management of Medical College	- - - - -	135
Constitution of the Faculty of Medicine	- - - - -	135
Faculty should contain some members of the medical profession who are not university teachers	- - - - -	135

The Cost of Reorganising Medical Education.

Summary of evidence as to cost	- - - - -	135
The general conclusion of the Commission is that probably the whole income of a Medical College from fees and Board of Education grants will be required to organise pathology and the Intermediate Sciences on a university basis and to meet the expenses of administration	- - - - -	136
Oxford and Cambridge students increase the cost because they do not take the Intermediate subjects nor pathology in London	- - - - -	136

THE FACULTY OF MEDICINE—*continued.*

Page

If the general estimate is correct the additional income required for organising three clinical units in a Medical College would probably be 12,000 <i>l.</i> , or 36,000 <i>l.</i> for the three Colleges required for all university medical students in London	137
No reform which does not provide for the ultimate establishment of Constituent Medical Colleges will solve the problem of raising medical education to a university level, but the practical difficulties are great, and the exact method or line of advance may differ in detail from that outlined here	137

Examinations.

As in other Faculties the examinations will be conducted by the teachers subject to the supervision of Assessors in each subject. The student's record throughout his course should be one of the chief determining factors in graduation	137
---	-----

Question of a Single Portal.

Description of the scheme proposed by the Presidents of the Royal Colleges and Mr. Hallett	137
A decision on the Scheme is beyond the Commission's reference	138
The Scheme is of value only if it raises medical education	138
It is of more importance to raise the entrance to the curriculum than to provide for a single portal to the profession	138
The reasons given for a single portal are not convincing	139
A separate arrangement could be made between London and the Conjoint Board, but the present moment, when great educational reforms are being proposed, is not suitable	139

Grievance of the London Medical Student.

The old grievance of the London medical student is that he cannot get a degree upon reasonably accessible terms. Though properly qualified he is not entitled to call himself "doctor," and this is misunderstood and misrepresented to his prejudice	139
The Commission cannot deal with this grievance by considering the conditions upon which a university degree is obtainable elsewhere and providing an exact equivalent in London	140
The proper course is to make provision for real university education being open to all who are able to profit by it. The degree will follow in the ordinary course and the grievance will disappear	140
The difficulties of entrance to the university in the past have arisen from the want of connexion between the Matriculation examination and the secondary schools; the disinclination of the University to accept equivalents for the Matriculation examination; and the acceptance by the Conjoint Board and the General Medical Council of lower standards of admission to the curriculum	140
Women medical students, to whom the Conjoint Board examination was not open, have had no difficulty in taking the degree	140
The school examination as the entrance to any university is the only solution	140

Dental Education.

The evidence taken with regard to this subject	141
The question which concerns the Commission is how the University can best promote scientific study and training in dental surgery, as a branch of medical science	141
Limitations are imposed on the action of the University by the present state of the law as to dentists, and by the necessity of providing enough dentists for the requirements of the public	141
The result of the present state of the law is that, although registered dentists have a few privileges, they are practically unprotected against the competition of unqualified practitioners	141
One result of this is that a higher standard is impossible so long as the law remains unchanged. But if registration was made compulsory the standard would have to be lowered in order to provide enough dentists for the public needs	141
It follows that unless the present qualification is of a standard which ought to be accepted by the University for a diploma or a degree, by far the largest part of dental education in London must remain outside the sphere of university education	142
Description of curriculum for the L.D.S. of the Royal College of Surgeons	142
The connexion of London University with dental education is comparatively slight	142
Applications to the Senate for a first degree in dentistry which should not require a degree in Medicine and Surgery rejected	143
The degree of M.S. in Dental Surgery is an illusory concession	143
It is not clear why a medical degree should be required for a dental degree, because the dentist does not claim to practise Medicine, and the proper scientific basis for the best exercise of his profession does not require a knowledge of all the subjects necessary for general medical qualification	144
If, as is admitted, dental surgery is a profession which ought to be guided throughout by the application of scientific knowledge, all that has to be decided is what scientific training is desirable as a preparation for this calling, and the University may properly grant a degree to those who attain this knowledge	144
Not many would take such a degree, but as many as possible should be encouraged to do so. One dental department in a University Medical College would be enough	144
General dental education should not be separated from medical education, but it is unnecessary to provide for it in a University Medical College	144
The existing Dental Schools are sufficient for general dental education	144
The comparative advantages of Schools connected with a general hospital and independent dental hospitals and schools	144
Diplomas in dentistry are granted by provincial universities, but are not desirable in London	145

THE FACULTY OF LAWS.		Page
There ought to be a Faculty of Laws, but at present there is no body of teachers in this Faculty to whom the title, status, and salary of University Professors or Readers has been assigned or who have been recommended by a Board of Advisors for those titles. Absence of endowment is chiefly responsible for this. It would not be in the interests of the University or of the present teachers of law to confer the powers and privileges proper to a University Faculty upon the present Faculty	145	145
The teaching of law is not conducted in any separate institution, but there is a proposal to concentrate it at King's College. When money is forthcoming for the appointment of Professors and Readers the College where the teaching is concentrated will become a Constituent College in the Faculty of Laws	145	145
The evidence taken by the Gresham Commission on the subject of legal education made it possible to limit the evidence it was necessary to take. The Report of the Faculty of Laws supported by the evidence of Mr. Barrington raised the question of the recognition of University degrees in Law as exempting from part of the Bar examination, and the final examination of the Law Society. On this question witnesses were heard from Oxford and Cambridge	145	145
The Law Society were also asked to give evidence, partly on this question, and partly because they have introduced a new system of education since the Gresham Commission reported	145	145
It was not thought necessary to hear the Inns of Court or the Council of Legal Education. There is no reason to suppose the Inns of Court have changed their views since the reply they made to the invitation of the Statutory Commission of 1898 to become Schools of the University. Moreover, that is not a proposal which would be made now	146	146
A Faculty of Laws must, like other Faculties, consist mainly of Professors of the University and the University must have financial and educational control	146	146
The Inns of Court and the Law Society have powers and duties of a national character, with which the University has no claim to interfere. But the duty of the University to make provision for the scientific study of law is not limited by the requirements of those about to enter either branch of the legal profession. Legal instruction is required by many other classes of persons, but the University has also a part to play in the education of the professional lawyer	146	146
A purely professional training is necessary, but a university education is the best foundation for this	146	146
The public requires protection against unqualified practitioners in the case of solicitors as in the case of doctors. Therefore a solicitor must serve an apprenticeship; but it is doubtful whether the Law Society's final examination should be compulsory in all subjects. University education is required in other countries, and Parliament, which trusts the universities with the training of doctors, would probably trust them with the education of lawyers so far as they were willing to undertake it	146	146
In 1903 the Law Society established a law school of their own. In the provinces the Society provide for the education of their students by making grants to universities. In London they not only provide classes for their own examinations, but classes of their own for the External degrees of the University	147	147
In the case of the Bar there is not the same necessity for protecting the public. The Inns of Court leave the practical training for the practice of his profession to the student himself, and they might safely entrust his examination in theoretical subjects to a greater extent to the universities	147	147
The Readers and Assistant Readers of the Council of Legal Education do not form a University Faculty of Laws. It may be necessary to provide instruction for those who cannot get a university education, but this ought not to interfere with the development of legal study in the universities	147	147
Attendance at the lectures of the Council of Legal Education is not compulsory, but the examination is based on the lectures. This is right, but the examinations are compulsory, and thus interfere with the freedom of university teachers who ought to have the same right of examining on their own teaching	148	148
The whole body of law, including the law of England as it stands to-day, is capable of scientific treatment, and is a department of learning with which a university ought to deal. The most scientific treatment of it which a university can provide is the best foundation for professional work	148	148
The proposal to found a great School of Law in London has been made more than once, and has come to nothing. The real seat of learning is a university, and it is as the Faculty of a university that the scientific study of law should be carried on in its relation to other departments of learning. It will be of advantage to have some distinguished members of both branches of the legal profession on the Faculty of Laws	149	149
The Faculty of Laws should be a superior Faculty, and it should be necessary to take a degree in Arts or Science before proceeding to a degree in law. But the degree in law has long been a first degree in London, and a Faculty cannot be established at once; the time for a change should therefore be left to the discretion of the University. The instruction should be given as at present in the late afternoon and evening	149	149
The minimum salary of a Professor in this Faculty should be 800 <i>l.</i> , and of a Reader 300 <i>l.</i> In some cases, courses in special subjects would be short, and it would be of advantage to appoint men in active practice to the position of Associate Professors or Readers. The cost of establishing a Faculty of Laws would be 40,000 <i>l.</i> a year	149	149

THE FACULTY OF THEOLOGY.

The Faculty of Theology differs in an important respect from all the other Faculties, since all the "recognised" teachers in it are subjected to a religious test by the bodies appointing them	149
---	-----

THE FACULTY OF THEOLOGY—*continued.*

	Page
The University has made no appointments itself, nor has it awarded the title of University Professor or Reader to any of the "recognised" teachers - - - - -	150
When degrees in Divinity were instituted the Faculty was not constituted as a superior Faculty, and a degree in Arts was not made a necessary preliminary - - - - -	150
As a large part of the course in theological colleges has to be devoted to the general education of the student, the degree awarded by the University for the successful completion of a three years' course should be the B.A. rather than the B.D. The University should ultimately require a full Arts course and a first degree in that Faculty as well as a course in theology from all candidates for the B.D. Meantime the course for the B.A. examination might be confined to theological subjects, provided the course for the Intermediate examination were confined to subjects falling ordinarily within the Faculty of Arts. The degrees in Divinity would then again belong to a superior Faculty and the standard required of students for the B.D. would be higher than that required in the same subjects for the B.A. - - - - -	150
The constitution and purposes of the theological colleges are unsuitable for Constituent Colleges of the University, but those satisfying the conditions laid down would remain Schools of the University in the Faculty of Theology - - - - -	150
Although the degrees in Divinity should be those of a superior Faculty, it will probably not be possible to establish a Faculty of Theology under the conditions proposed for other Faculties until the University is able and willing to appoint professors to chairs free from any religious test, who could give complete courses for degrees in Divinity. If the University appoints Professors and Readers to give complete courses for degrees, the college where the teaching is given will be a Constituent College in the Faculty of Theology. Until this is possible a Board of Theology should be established which would include all the heads of departments in institutions recognised by the University as Schools in Theology - - - - -	150

THE FACULTY OF MUSIC.

Music has always been included among university studies, but in the ancient universities no Faculty of teachers has survived. Degrees in Music have until recently been awarded to external candidates merely on an examination which included the submission of an original composition - - - - -	150
The constitution of the present Faculty and Board of Studies in Music - - - - -	151
A university degree course is unsuitable for most students of music, who are, and probably always will be, persons intending to enter an executive branch of the profession - - - - -	151
The course of study at the three Colleges of Music are arranged without any regard to university requirements and there has never been any reality in either the University Faculty or Board of Studies - - - - -	151
A Faculty of Music of the kind that has hitherto existed in the University is unnecessary, and this view appears to be shared by the present Faculty itself. Neither is there any means of establishing a Faculty with the constitution and powers contemplated for these bodies, but the University should have power under its Statutes to establish a Faculty of Music in future if it thought this desirable and had the means of supporting the necessary professorships - - - - -	151
There should be Professors of Music, but they should belong to the Faculty of Arts, where their courses might be related to and supplemented by other studies - - - - -	152
The estimates of the Academic Council are confined to an additional 500 <i>l.</i> to be added to the existing endowment of the King Edward Chair, which should ultimately be converted into a full-time appointment, dealing mainly with the history of music. The policy indicated by them is sound, and nothing further is necessary - - - - -	152
Any formal connexion between the three Colleges of Music and the University is of no advantage either to them or to the University. The title of "recognised" teacher should be abandoned in music, equally with other subjects. External degrees in Music should be continued - - - - -	152

UNIVERSITY FEES.

The fees charged for full-time students in the institutions recommended for inclusion as Constituent Colleges are so much higher than those charged in the other institutions connected with the University that it might be said that true university education would be available only for the more well-to-do. It may justly be argued that students in London should not be called upon to pay more for a university education than those of corresponding means in provincial universities. No system of scholarships and free places would meet the difficulty - - - - -	152
The variation in the fees charged at Polytechnics for a full three years' course for day students is very considerable, and tends to a belief that the difference lies, not in the character of the course, but in a social distinction. Any organisation of the University, based or appearing to be based upon a segregation of students according to wealth, is disastrous to one of the most important social purposes for which a university exists. If a university is built up of colleges, some cheap and some expensive, either the cheap colleges give an inferior education or receive a larger share of aid from endowments or public funds. Both alternatives are objectionable - - - - -	153
Report A. of the Academic Council advocates the equalisation of fees all over London as the ultimate ideal, but unless the London colleges can attract large endowments like the University of Manchester or receive about the same proportion of aid from public funds no great reduction in the present fees is possible. The low fees charged in the Faculties of Laws and Economics constitute no argument; practically all the students in Laws are part-time students and the School of Economics, where nearly all the teaching in that subject is given, received in 1910-11 nearly 30 per cent. of its income directly or indirectly from the London County Council - - - - -	153
The percentage of income derived from fees at various colleges proves that any practicable reduction in fees would not reduce the London percentages to those of the provincial colleges - - - - -	153

UNIVERSITY FEES— <i>continued.</i>	Page
The establishment of uniform fees for the universities and a determination of their proper amount should be made part of a general consideration of the national provision for university education, a matter beyond the Commission's reference	154
The fees in the Constituent Colleges and University Departments should be reduced to an average annual fee of 15 <i>l.</i> for the full degree course in Arts, 20 <i>l.</i> in Science, and 30 <i>l.</i> in Engineering	154
The cost of reducing the fees of full-time matriculated students in the several Constituent Colleges considered	154
It is estimated that the total cost of reducing the fees for full-time matriculated students in the Constituent Colleges would require an additional income of about 13,500 <i>l.</i>	155
If the East London College were to be included as a Constituent College in any Faculty the uniform university fee should be charged but a bursary sufficient to reduce it to a net sum of 10 <i>l.</i> 10 <i>s.</i> should be awarded to each student genuinely resident within the area assigned to the College, provided the authorities are satisfied his financial circumstances warrant it. The area of the College for this purpose would be determined by the University	155
Three matters of importance in connexion with fees must be emphasised—	
(i) The University should adopt a fixed composition fee for the full degree courses given in Constituent Colleges and University Departments in each Faculty.	
(ii) The inclusive fee chargeable in Constituent Colleges should cover the cost of admission to the various societies grouped under the Students' Union of the College.	
(iii) The additional income of 13,500 <i>l.</i> which is estimated for a reduction of the inclusive fee for courses for a first degree in the Faculties of Arts, Science and Engineering would suffice only for the present number of students	155
SUMMARY OF ADDITIONAL INCOME REQUIRED.	
The total additional income required for salaries and maintenance of libraries and laboratories and the reduction of fees to university students amounts to 99,000 <i>l.</i> The capital sums required for the purchase of new sites for the University headquarters or for any Constituent Colleges, or for the erection of new buildings, have not been estimated. The difficulties of creating a University quarter would not be insuperable if a careful policy were steadily and consistently pursued	156
THE CO-ORDINATION OF THE FACULTIES.	
The machinery for co-ordinating the work of the Faculties and the government of the University as a whole must be provided for. For these purposes an Academic Council, a Senate, and a Court should be established	156
The organisation recommended provides for a division of the business and financial work on the one hand, and of the academic and educational work on the other between two bodies of experts, each specially qualified for their own work but kept in close touch with each other. The Senate will be concerned with administration and finance, the Faculties with education, and the Academic Council will act as the co-ordinating body	157
<i>The Court.</i>	
The legislative power of the Court would be its supreme function and, except by the interposition of Parliament, the only means of altering the constitution and government of the University. The Court would not be responsible for the original Statutes	157
The powers of the Court summarised	158
The Commission is in substantial agreement with Report A., of the Academic Council as to the constitution of the Court. The more important points of difference are :—	
(i) The representation of the teachers would be confined to the Deans of the Faculties ;	
(ii) Representatives of learned societies other than the Royal Society and the British Academy would be excluded ;	
(iii) There should be some representation of London boroughs ;	
(iv) The London County Council should appoint 30 persons instead of 13	158
A Statutory Commission would decide the length of time for which elected and co-opted members should hold office and other matters concerning membership would be provided for in the Statutes. A Court constituted in the manner suggested would in the first instance number about 200 members	159
<i>The Senate.</i>	
The powers which should be vested in the Senate are in the main those ascribed to the Council in Report A. of the Academic Council, but with two important differences—	
(a) The Faculties should have a larger degree of autonomy and responsibility than is assigned them in that Report ; and	
(b) They should have the power of appeal in certain circumstances to the Senate	160
Before making a decision the Senate should take the opinion of the Academic Council, not only on questions of appeal, but also on educational matters affecting the University as a whole. In certain cases where a difference of opinion arose between these two bodies there should be a power of appeal to the Court by a minority of the Senate	160
The action of the Senate in all matters of educational administration falling within the purview of the Faculties as defined by Statute should be judicial rather than executive	160
Summary of the powers of the Senate	160
The Senate should be a small body of not more than 15 members, the majority of whom should not be elected	163
The proposed periods of appointment of members of the Senate	163
Members of the Senate, other than those appointed <i>ex officio</i> , if absent without reasonable cause from three consecutive regular meetings, should vacate their seats	163

THE CO-ORDINATION OF THE FACULTIES—*continued.* Page*The Academic Council.*

As financial control means ultimately all other control, it is necessary to ensure that the Senate shall not take any action having a direct educational bearing on the University as a whole without inviting and receiving a report from a body representative of the teaching staff as a whole. For this purpose there should be an Academic Council, a body mainly advisory though certain executive functions might be delegated to it by the Senate. Upon certain matters the opinion of the Academic Council should always be taken - - - - - 163

The Academic Council should be a small body, so constituted as to include at least one member of each of the Faculties but not constituted on the basis of proportional representation. Pending the constitution of the Faculties of Theology, Laws, and Medicine, one teacher from the Schools of the University in each of these groups of study should be appointed a member - - - - - 164

The Committee for Technology.

Under the general supervision of the Senate a Statutory Committee of the Senate would be entrusted with the control of the funds available for the teaching of technology and for the general direction of the several departments included within the Faculty - - - - - 164

Other Committees of the Senate are dealt with later - - - - - 165

Central Staff.

Under the organisation proposed much that is now done centrally would in future be done by the Faculties. The permanent staff in the central offices of the University would therefore be considerably smaller than at present, and with the exception of the Vice-Chancellor they would probably all be concerned rather with the business and financial, than with the educational policy of the University - - - - - 165

THE CONVOCATION.

The constitution and powers of Convocation should be continued, but certain other persons should be entitled to be registered as members of Convocation, and some changes in the Statutes dealing with that body would be required - - - - - 165

THE STUDENTS' REPRESENTATIVE COUNCIL.

It has been recommended above that the Students' Representative Council should elect two members on the University Court. In addition they should have the right of access to the University authorities by petition with regard to certain matters - - - - - 166

SITES FOR THE CENTRAL BUILDINGS AND FOR CERTAIN OTHER UNIVERSITY INSTITUTIONS.

The most suitable and convenient quarter for the central University buildings is Bloomsbury. If the institutions suggested above were removed to that district it should be possible to create a University quarter which would probably do more than anything else to convince the London public that the University was a reality - - - - - 166

THE UNIVERSITY LIBRARIES, EXAMINATION HALLS, &c.

If the University were established in Bloomsbury a central University Library should be maintained which should supplement rather than duplicate the libraries of the Constituent Colleges, University Departments, and Schools. If, however, the University remained in Kensington there would be few arguments for supporting a central library. The libraries in Constituent Colleges and the central library should be available, under suitable conditions, for the use of all university students whether attached to a Constituent College or not, and the policy of the University should be to make its books as easily accessible as possible - - - - - 167

Special examination halls would not be needed for students in Constituent Colleges and University Departments, who would all be examined in their own Colleges and Departments. The same practice should be followed as far as possible for students in Schools of the University. The building of special rooms and laboratories for examination purposes would not be a matter of urgent necessity. Nor is there urgency for the separate provision of scientific laboratories for advanced work in the central buildings - - - - - 167

THE AREA OF THE UNIVERSITY.

The University has two areas at present, the smaller, in which institutions can be admitted as Schools, the larger, in which it can recognise teachers in public educational institutions. Mr. Sidney Webb would abolish the smaller and extend the larger area. If London is to have a real University, its area must be relatively limited, and under the organisation proposed for Constituent Colleges and University Departments the Administrative County of London is the largest that will admit of effective working. A larger area is proposed for the future recognition of Schools - - - - - 168

PART IV.

THE RELATION OF THE UNIVERSITY TO THE REMAINING PROVISION FOR HIGHER EDUCATION IN LONDON AND THE HOME COUNTIES.

THE SCHOOLS OF THE UNIVERSITY.

Many institutions in London, some of which are already Schools of the University, are doing sound work often under difficulty, and should not be left without encouragement and recognition. The problem is how best to link them up with the University, without lowering the standard of the University, and to encourage their development into true university centres wherever possible. The conditions laid down in the existing Statutes for the admission, visitation and removal of educational institutions as Schools of the University are generally suitable so far as they are applicable to the altered circumstances in view, but certain further conditions are necessary - - - - - 169

THE SCHOOLS OF THE UNIVERSITY—<i>continued.</i>	Page
Apart from Constituent Colleges and University Departments all educational institutions connected with the University should have the status of Schools of the University, though the conditions for recognition would vary in different cases - - - - -	169
The ultimate aim of the University, and of the authorities responsible for "mixed" institutions in which a group of departments doing university work may be recognised as a School, should be their separate establishment as independent university centres, which would in time become Constituent Colleges if within the Administrative County of London, or parts of a new university for south-east England if outside that area - - - - -	169
Mr. Blair's views are that broadly it is inconsistent with the intentions of the Charity Commission to admit, as Schools of the University, Polytechnics working under their schemes - - - - -	169
It would be neither legitimate nor desirable to transform the London Polytechnics into institutions devoted to university education. Their main objects were to be recreative and technical, and chiefly for the benefit of evening students, though other subjects and day instruction were not excluded. If their teachers are engaged in giving day instruction for university examinations, they will probably lose interest in the work for which they were, or should have been, primarily appointed, and the inclusion of other than university students in their classes will tend to lower the standard of work. For these reasons, the claim of Battersea Polytechnic to become a general University College or a School is not supported - - - - -	169
The schemes of the Charity Commission do, however, justify a considerable amount of evening university work, especially if technical in character, but probably few if any students will be able to complete a degree course in technology of real university standard by evening work alone. The recent reports by representatives of the Royal Technical College, Glasgow, on evening degrees in technology, bear directly on this problem, and the present proposals are consistent with the views therein expressed. The present general work of the Polytechnics should be continued, and, in those cases only where conditions are satisfactory and circumstances demand it, should separate groups of departments for evening university students be developed, which should ultimately be distinct both in government and finance from the parent body - - - - -	170
The additional conditions to be imposed upon Schools of the University - - - - -	171
The University should cease to recognise individual teachers and all institutions connected with the University other than Constituent Colleges and University Departments should be Schools - - - - -	172
The teaching of mental diseases to university students in Medical Schools which are not Constituent Colleges should be given by teachers holding appointments in the Medical School itself - - - - -	172
The principal teachers in Schools of the University should be grouped according to the Faculties to which their subjects of study belong, and unless the University has appointed them to the post of Associate Professor, or Associate Reader in a subject for which there is no University Professorship, they should not be members of the University Faculties - - - - -	172
Degree courses in Schools of the University must, as heretofore, conform to a general syllabus with reasonable provision for optional alternatives. The university examinations must also be general examinations of the kind now held for Internal students. The Special Intermediate examinations conducted under Statute 119 should be discontinued - - - - -	173
The principal teachers in the Schools of the University in Arts should constitute a Board of Arts Studies, and the same with each group of teachers in the studies included in other Faculties. These Boards, with the assistance of Committees, would prepare the curricula and syllabuses of the courses for degrees. The Committees of each Board would have the functions of the present Boards of Studies. The examinations would be conducted by Boards of Examiners consisting mainly, as at present, of teachers in the Schools, together with at least one external examiner in each subject to be appointed by the Senate - - - - -	173
The first Schools of the reconstituted University - - - - -	173
Which of the remaining institutions where there are now "recognised" teachers would be able to qualify as Schools of the University cannot now be decided - - - - -	174
There is little need at present for day courses in Engineering for university students in Polytechnics. Some concentration of this work should be possible without real inconvenience to students. A satisfactory standard would then more easily be ensured - - - - -	174
It is both a slow and a costly process to build up an institution for higher education of the standard required for a School of the University, and this should be realised by the authorities of "mixed" institutions - - - - -	175
THE AREA OF THE UNIVERSITY FOR THE RECOGNITION OF SCHOOLS.	
The area of the University for the recognition of Schools should be extended in the way suggested by Mr. Sidney Webb, but the parts of Berkshire and Bedfordshire included in the present 30-mile radius belong to the areas of University College, Reading, and the University of Cambridge, respectively, and should therefore be excluded from the area of London University - - - - -	175
EXTERNAL DEGREES.	
The real cause of the controversy over External degrees has not been the question whether these degrees were or were not desirable in themselves, but the question of the government of the University, and in particular the control of the examination of External students - - - - -	175
There is no educational reason for entrusting the administration of External degrees to the graduates of the University. The ground on which the claim of Convocation to this control was based was the argument that the graduates possess a special interest in the reputation of the degrees, and are therefore less likely to allow any fall in their standard. But if by standard is meant the measure of the difficulty of obtaining a degree, a uniform standard for university degrees is a chimera. It has already been pointed out that the educational significance of merely passing an examination can never be very great, and what significance it does possess depends entirely on the care with which the examination is related to the actual course of study pursued. This is a matter for teachers, not for persons whose only qualification is that they have passed this kind of test themselves - - - - -	176

EXTERNAL DEGREES—*continued.*

	Page
The relation of the examination to the actual studies pursued can be only roughly approximated when the candidate's facilities for study and means of education are unknown. The best kind of examination for external candidates, therefore, is one based upon the average studies of a group of students whose means of education and facilities for study are known, and which are of the kind most generally available for such candidates. Such an examination is provided in the general examinations to be conducted jointly by the teachers and external examiners for students in Schools of the University - - - - -	176
If external candidates are to be admitted as candidates for degrees they should be admitted to these general examinations, not to separate examinations specially devised for them under the supervision of persons who have no necessary acquaintance either with teaching or examining. The claim of Convocation to control External examinations is rejected - - - - -	177
The real question to be considered is whether, and under what conditions, external candidates should be admitted to examinations for degrees. The demand for external tests does not correspond to the real need of candidates, which is the need for better education, for a truer understanding of its real meaning, and for adequate provision of the best teaching at a cost within their means. These needs are not satisfied by external examinations and degrees granted on their results. External degrees are not only apt to encourage the desire for a degree rather than the desire for education, but to foster the belief that the teaching of a weaker institution is university teaching, and that to read books and make prescribed experiments either with a private tutor or alone are university education. They also encourage students in training colleges to prepare simultaneously for external examinations and for their future profession. This evil does not end even with the training college. The student is often unable to do more than pass the Intermediate examination at college, and the first years of his professional life are hampered by preparation for the final examination - -	177
Mr. Acland is strongly opposed to teachers in schools working for External degrees, and in the broader national interests the sooner the demand for these degrees can be so reduced that the degrees themselves can be abolished without hardship the better it will be for schools and teachers. When the University is enabled to offer the highest university education at a really moderate cost, as part of a national policy, the demand for External degrees will begin to fall away. Meantime they must continue, and the University of London, as their originator, must remain responsible for their award - - - - -	178
In consequence of the regulations of the University for the attendance of Internal students, many of them are forced to take the External degree, and others are prevented from registering as Internal students at the beginning of their studies. There appears to be no reason for maintaining these regulations, except in medicine and technology, nor the statutory distinction between Internal and External students, for all students other than those in Constituent Colleges and University Departments would take the same examination - -	179
First degrees in Medicine and Technology should be granted by the University only to those who have undergone a course of at least three years, given either in a Constituent College, a University Department, or in a School of the University. Many witnesses have urged the abolition of the External degree in Medicine. Every school of medicine in the kingdom is connected with a university, and there is no hardship in the requirement that medical students should graduate in the university in which they have studied - - - - -	179
The reason for excluding Engineering is somewhat different. The number of subjects a student in Engineering has to study during his course is so great that the University is unable to require examination in them all, and includes some of the ancillary subjects as alternative options. A student may, therefore, graduate in Engineering without having studied or passed any test in an important part of the course. In Engineering and other technological studies no practical examination of satisfactory range can be devised and no adequate test is possible unless the student's record is included as part of the test - - - - -	180
Examinations in Music must be purely External, and the Senate should appoint an expert Committee to advise as to the regulations for the examinations and as to the examiners appointed to conduct them - - - - -	181
With the exception of examinations in medicine and technology, candidates should with certain limitations be admitted to all the general examinations for degrees of the University irrespective of their place or manner of education - - - - -	181
The general supervision of the curricula and examinations for degrees for students in Schools of the University and other students except those in Constituent Colleges and University Departments should be entrusted to a Committee appointed by the Senate - - - - -	181

Colonial Examinations.

The limitation of examinations to the United Kingdom would end the practice of holding examinations for degrees of the University in the Colonies. This practice is detrimental to education in the Colonies where they are held ; they have hampered, and continue to hamper, the effective organisation of the local system of education. If the University of London carries its examinations into those countries which are endeavouring to establish teaching universities in place of those now confined to examining, not only will those efforts be frustrated, but curricula planned for the needs of students in this country will be imposed on candidates whose needs and circumstances are likely to be very different - - - - -	181
In view of the importance attached by the Council for External Students to the holding of London University examinations in the Dominions and Colonies, close inquiry is necessary into the attitude of the overseas Dominions to the question of External examinations, and the extent to which they have been used - - - - -	181
In those countries which have no university education, or where it is provided under conditions which lay more stress upon examinations than upon courses of study, students incline to take the London External examination even though similar tests are available in their own universities. An examination of the statistics relating to the London University examinations in the self-governing Dominions shows that in those countries where the provision of teaching universities is satisfactory, and where the true meaning of a university is understood, the demand for the External degree tends to disappear - - - - -	181

EXTERNAL DEGREES—continued.	Page
The Matriculation examination is the only one which has been used to any considerable extent and it is only in the West Indies and in Ceylon that any considerable number of candidates have entered for the London examinations. In Ceylon there is no institution of full university rank, and in the West Indies none of university rank at all - - - - -	184
The University may do far more in future than it has in the past to help and encourage education in distant parts of the Empire, but it will not be by sending out examination papers drafted for English candidates. It could probably arrange to assist a Colonial Government in the conduct of examinations planned and conducted solely in the educational interests of the Colony. It could help with advice and experience, issue such certificates as it thought right, and determine how far, if at all, these certificates could be accepted in lieu of the tests required of English students - - - - -	184
The University should in future refuse to grant an examination for matriculation even in countries with no university until the Government concerned stated that the holding of such an examination was not considered detrimental to their educational policy. With this safeguard, colonial centres for matriculation might perhaps be continued, though the effect of External examinations in Ceylon makes the wisdom of it doubtful - - - - -	185
The wisdom of the arrangement whereby the Ceylon Government awards its scholarships upon the results of certain London University examinations is open to question, as appears from a report of the Board of Education to that Government in 1909 - - - - -	185
It is doubtful whether even the Matriculation examination should be held outside the United Kingdom, and if it is held it should be confined to students intending to take their university course in England. None of the higher examinations should be held - - - - -	186
 THE REGISTRATION OF STUDENTS OF THE UNIVERSITY.	
The passing of the Matriculation or other alternative examination should not qualify automatically for registration as a student of the University, but anyone who had passed such an examination should make formal application to the University according to the conditions laid down - - - - -	186.
An annual registration fee for undergraduate students should carry with it membership of certain University, as distinct from College, Societies - - - - -	186
Pupils in schools should in no case be registered as undergraduates, and the period of study for a degree should be calculated from the date of registration - - - - -	187
Graduate students should be registered and pay the annual fees while attached to a Constituent College, a University Department or School of the University. Other graduates would be registered on furnishing satisfactory evidence each year that they were studying for a further degree - - - - -	187
 UNIVERSITY EXTENSION WORK.	
The work of the Board to Promote the Extension of University Teaching under the Statutes of the University was originally of a pioneer character, but under a further Statute it almost immediately took over other important duties from the Universities of Oxford and Cambridge, in which the University appears to have had great success - - - - -	187
In 1908 the Senate established diplomas in certain subjects to be awarded for a four years' course of work tested by examination. But the conditions under which ordinary Extension lectures have been given, their necessary maintenance in most cases out of the students' fees, the fact that most of the lecturers have not been university teachers, and that the majority of the students have not been prepared to do serious work, make it impossible for a university standard to be reached in most cases. This constitutes the real defect of the Extension system. With all its limitations, however, it is work of great value which should be extended and strengthened - - - - -	187
Another side of the University's Extension work is of a more uniformly high standard. The high standard of the work of the tutorial classes given in connexion with the Workers' Educational Association is due partly to the fact that nearly all the teachers are men actually engaged in university teaching, but quite as much also to the spirit animating the students. The financial support given by the Board of Education and the London County Council enables the classes to be kept small, another condition conducive to thoroughness of teaching. It appears also that the University is able to exercise proper control over the classes held within its area - - - - -	188
The University should consider the work connected with these tutorial classes as one of its most important services to London, and it should provide a suitable building conveniently situated as a visible centre for the movement. The Goldsmiths' College is admirably adapted for the purpose and should be used in the evenings, on Saturday afternoons, and on Sundays as the chief university centre for tutorial class students - - - - -	188
The Senate should appoint one, or possibly two, suitably constituted Committees to supervise the two sides of the Extension work of the University, but the duty of supervising the conditions of entry to the University should not be entrusted to them - - - - -	189
 INSPECTION AND EXAMINATION OF SCHOOLS.	
The University should cease to inspect schools, but the close co-operation already established between the inspections of the Board of Education and the examinations of the University should be continued until the proper organisation of school examinations has been decided. For the present the University must continue to conduct school examinations, and so long as it does so the work should be supervised by a special Committee of the Senate composed largely of teachers from the various types of school examined - - - - -	189
 PART V.	
SUMMARY OF RECOMMENDATIONS - - - - -	189



FINAL REPORT.

TO THE KING'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,

We, the Commissioners appointed to inquire into the working of the present organisation of the University of London, and into other facilities for advanced education (general, professional, and technical) existing in London for persons of either sex above secondary school age; to consider what provision should exist in the Metropolis for University teaching and research; to make recommendations as to the relations which should in consequence subsist between the University of London, its incorporated Colleges, the Imperial College of Science and Technology, the other Schools of the University, and the various public institutions and bodies concerned; and, further, to recommend as to any changes of constitution and organisation which appear desirable; regard being had to the facilities for education and research which the Metropolis should afford for specialist and advanced students in connexion with the provision existing in other parts of the United Kingdom and of Your Majesty's Dominions beyond the Seas, humbly report to Your Majesty as follows:—

PART I.

PRELIMINARY.

1. We have already, on four occasions, reported to Your Majesty the evidence we have taken in the course of our inquiry, and we have also made an interim report on the conclusions we arrived at on the question of the desirability of obtaining a site at an early date for the erection of central buildings for a University of London reconstituted as Parliament might sanction after considering our Final Report. Along with this Final Report we submit to Your Majesty another volume containing the remainder of the oral evidence taken by us, together with some written communications submitted to us. Evidence and Interim Reports.

Besides the sittings held for the purpose of hearing evidence, we held 72 sittings for deliberation and discussion, and latterly for considering our Final Report.

2. In addition to the evidence we have taken, we have had before us a large number of books, Parliamentary Papers, and other printed documents, bearing not only upon the University of London but also upon university education generally, both in England and elsewhere. We have also specially considered the history of the University of London as far as appeared to be necessary for the purposes of our inquiry. In this connexion we have had before us the Reports of two former Royal Commissions and the evidence taken by them; the Report of the Statutory Commission of 1898; and also a large amount of additional historical information. The late Sir William Allchin kindly undertook, at our request, to continue his "Account of the Reconstruction of the University of London," and Parts II. and III. were written expressly for our assistance. We deeply regret that his work was cut short by death, but his widow, Lady Allchin, was good enough to place at the disposal of the Commission the copious materials which Sir William had collected and arranged for the completion of his "Account," and we desire to express our sense of the great debt we owe to his indefatigable labours for a large body of information which otherwise we could scarcely have obtained. Documents consulted.

THE TERMS OF REFERENCE.

3. We think it will be convenient that we should state concisely what we conceive to be the duties imposed upon us by the terms of Your Majesty's reference to us. Analysis of terms of reference.

I. We are to ascertain by inquiry the following facts:—

- (1) How the present organisation of the University of London works.
- (2) What provision the University of London makes at present for University education—general, professional, and technical.

It is implied that we should ascertain this, because we are expressly directed to ascertain—

- (3) What other facilities for advanced education (general, professional, and technical) exist in London for persons of either sex above secondary school age.

II. We are to determine by consideration and inquiry :—

What provision should exist in the metropolis for university teaching and research.

In deciding this question we are to keep in mind, among other things, that London is the capital of the Empire, and that it may be right to provide there special facilities for education and research for specialist and advanced students in connexion with the provision existing in other parts of the United Kingdom and of Your Majesty's Dominions beyond the Seas.

III. When the facts referred to in I. have been ascertained, and the questions to be considered in II. have been determined, we are to make recommendations with regard to the following matters :—

What, if any, changes in the constitution and organisation of the University are necessary—

- (a) To ensure that the University will work harmoniously and well.
 (b) To enable the University to make, manage, and develop the provision for university education and research which in our opinion is necessary or desirable.

These recommendations should, among other things, lay down what relations should subsist between the University of London and its incorporated colleges, the Imperial College of Science and Technology, the other Schools of the University, and the various public institutions and bodies concerned.

The two fundamental questions of the reference appear to us to be :—

- How does the present organisation of the University of London work? and
 What provision ought to be made in London for university teaching and research?

Our task may therefore be shortly stated as follows:—To examine the existing provision for university education in London in the light of what we think ought to exist, and to make practical recommendations towards the realisation of the ideal.

THE WORKING OF THE PRESENT ORGANISATION OF THE UNIVERSITY.

Causes of defects in present organisation.

4. After the most careful inquiry we have been able to make into the whole organisation of the University, we have come to the conclusion that it is fundamentally defective, and as at present constituted is not calculated to promote the highest interests of university education in London; nor do we think it is capable of developing on the present lines into a University such as London ought to have.

The two main grounds of the defective organisation appear to us to be :—

- (1) The present relations of the Internal and External sides of the University.
 (2) The existing combination in the University of a large number of institutions differently related to it, and of different educational standard and aims—incorporated colleges; independent Schools of the University, both general, professional, and technological; and “mixed” institutions in which a limited number of the teachers are recognised for University purposes.

In addition to the difficulties which arise from these two main grounds, a number of defects in the present machinery of government have been brought to our notice which lead to difficulty and delay in carrying on the business of the University.

The want of money is not exactly a defect of organisation, but it is clear that some of the difficulties which arise from the second main ground we have mentioned might have been overcome, or at least greatly reduced, if the University had been in possession of substantial funds, and had wisely administered them with these ends in view.

Limited powers of Commissioners under Act of 1898.

5. The University of London Act, 1898, under which the present Statutes were made, empowered and directed the Commissioners appointed by the Act to make Statutes and regulations for the University of London in general accordance with the scheme of the Report of the Royal Commission of 1892, commonly called the

Gresham Commission. The Statutory Commissioners were given a certain amount of latitude. They had power to modify the scheme of the Gresham Commission as they might think expedient after considering the changes which had taken place in "London education of a university type" since the date of the Report of that Commission, and also after considering any representations made to them by the Senate, or Convocation, or any fifty graduates, or any body or person directly affected.¹ But, on the other hand, their discretion was seriously curtailed because they were directed by the Act to modify the scheme of the Gresham Commission so as to give effect to the extensive and detailed provisions of the Schedule to the Act. These provisions were the result of a compromise between several conflicting interests and views which cannot easily be understood without some reference to the history of the University, and particularly to the Reports of the Royal Commissions of 1888 and 1892.

The constitution of the University can be understood only by reference to its history.

HISTORICAL RETROSPECT.

6. The ideal of the founders of University College seems to have been systematic instruction in a teaching institution, under the free guidance and inspiration of the teachers; this they regarded as the necessary basis of university education. The ideal was abandoned for a time under the stress of political difficulties, and of the necessity for compromise in order to obtain the legal right of conferring degrees; but, more or less clearly discerned, it has always persisted as the fundamental impulse of recurring movements for the establishment of a teaching University in London. When University College was founded in 1826 as the University of London, it was intended to be a University for those who were unable to enter the national Universities of Oxford and Cambridge either because they lacked the means or because they were at that time excluded on the ground of their religious belief. But there were many persons of influence who regarded it as essential to maintain the theological doctrines of the Church of England as a fundamental part of university instruction, and who yet shared the desire of the founders of University College to provide university education for those who could not afford to go to Oxford or Cambridge. This led to the foundation of King's College, and as no one at the time contemplated the possibility of more than one University in London, this foundation barred the way to the grant of a Charter to University College empowering it to confer degrees. The almost inevitable compromise was the disruption of the functions of a University, and the establishment in 1836 of an Examining Board with the title of the University of London. This Board was "to perform all the functions of the Examiners in the Senate House of Cambridge." The examinations and degrees were open only to students of University and King's Colleges, and such other institutions in the United Kingdom, and afterwards in the Colonies, as might be empowered by the Crown to grant certificates. The opportunity for founding a real University of London was gone, and with it was lost the chance of attracting financial endowments, such as the provincial universities have not failed to obtain. The new University had no educational work to carry on which could appeal to the public for support. It was financially in the position of a Government department, for although the examination fees approximately balanced the expenses, the Treasury was responsible for any deficit, and the University had no interest in the matter. Moreover, even if money had been placed at its disposal, a mere examining board was clearly not in a position to use it with knowledge and wisdom for the purpose of directing and controlling the educational policy and development of the colleges. The colleges themselves of course might obtain financial support, which they did to a limited extent. But neither of them had the prestige of a university, nor could claim to represent London. Like a host of other metropolitan institutions, their work appealed only to the limited range of the special friends and supporters of each of them. The compromise was welcomed by University College as a satisfactory solution of the difficulty, and King's College got all it can have expected. It does not appear to have been realised by the colleges at the time that the grant of certificates of attendance and good conduct was an altogether insufficient link between them and the University, or that the common syllabus and examinations, which were the only link between the colleges themselves, although exacting from inferior institutions a higher standard of work than they might otherwise have attained, must ultimately prove a bar to all real progress in the best institutions. Practically from the first

Foundation of University and King's Colleges.

Foundation of University of London.

¹ University of London Act, 1898, sec. 4 (1).

Degrees
opened to
all, 1858.
Protest of
graduates.

the Senate was content to rely on a syllabus and an examination, but it was not till 1858, after a large number of institutions all over the country, some of which were very far from being of university rank, had been admitted to the privilege of affiliation, that the degrees of the University were thrown open to all. The graduates protested, and so also did all the more important of the affiliated institutions. In particular the Senate of University College drew up a weighty and able defence of collegiate training.¹ But in fact a real university training had never been exacted, and the mere omission from the new Charter of the clause which threw open the degrees to all comers would not have restored the lost ideal of the founders of University College.

Senate's
reply.

7. The Senate answered the protest of the graduates and the colleges in a report prepared by Mr. Grote and Mr. Warburton. They pointed out that at Oxford and Cambridge the University and the colleges were in the closest unity and identity, "the functions of the former being alternated among the members of the latter," while in London there was no such connexion. The collegiate system at Oxford and Cambridge, they said, was a vigorous reality, while the collegiate system of the University of London was a mere name without any effective principle of unity. They said, however, that although London University must be different from Oxford and Cambridge, they were far from admitting that it need be inferior to them. The main and capital test of comparison which they recognised was the intellectual value of their degree—the standard of mental proficiency and learning which it represented; and judging by this test, they said they were not afraid to declare that the University of London was fully on a par with Oxford and Cambridge. But subject to the main test of the standard of the degree, the national efficiency of the University would be measured by the number of students it graduated, and they thought it was "for the University to proclaim the comprehensive principle that while testing "by strict examination the amount of acquired knowledge, and requiring reasonable "evidence of antecedent continuous study, it" would "no more tie down the deserving "student to a few privileged colleges than to a particular religious creed." It appears from the subsequent action of the University that the "reasonable evidence of antecedent continuous study" which the University required was obtained by the establishment of an Intermediate examination at least one year after matriculation, and one year before the final examination.

The Report of the Senate just referred to shows clearly enough why it was that in applying for a new charter the University did not seek to remedy the existing defects by changing the relations of the University and the colleges, though short of an entire reconstruction of the University it is not apparent what remedy could have been devised.

Royal Com-
mission of
1888.

8. The Royal Commission of 1888, of which Lord Selborne was Chairman, was appointed to inquire "whether any and what kind of new University or powers is "or are required for the advancement of Higher Education in London," and two petitions to the Privy Council for charters of incorporation were referred to it, together with the petitions in support of and in opposition to them.

Petitions
referred to
Commission.

The first petition referred to the Commission was that of the Royal Colleges of Physicians and Surgeons, praying that the Presidents of the two Colleges and 23 Fellows of each College should be incorporated under the name of "the Senate of Physicians and Surgeons," with power to grant degrees in medicine and surgery. The second petition was that of University and King's Colleges, which prayed for a charter incorporating a body of persons appointed in the manner described in the petition to be a University in and for the London district, with power to grant degrees in the Faculties of Arts, Science, and Medicine, and to add other Faculties.

Origin of
movement
for Royal
Commission.

9. The appointment of the Royal Commission was of course not the beginning of the movement which led to the presentation of these petitions. On the contrary, it was rather the culmination of a long agitation which arose from several different motives and was supported by different bodies of persons. As the surrender of a charter or the acceptance of a new charter by the University of London required the consent of both the Senate and Convocation, the first, and natural, course for the promoters of any movement involving a change in the University was to endeavour to obtain the assistance and support of these two bodies. It was only after failure in this direction that the alternative course of applying to the Crown for a charter establishing a new University altogether was adopted.

¹ *Appx. to 3rd Report*, p. 423. ;

10. The movement which led to the petition of the Royal Colleges arose from the dissatisfaction felt by the medical teachers in London at the very small number of university degrees obtained by their pupils in proportion to the large number of students and the opportunities for clinical teaching. It was not until they had failed to enlist the sympathy and assistance of the Senate and Convocation that they pressed upon the Royal Colleges the plan of applying for a charter empowering them to confer degrees. Having regard to the facilities offered to medical students at other universities, the grievance of the London Medical Schools was a real one; but, from the point of view of university reform, there was not much to be said for a proposal to substitute one examining body for another with the express object of providing a degree upon easier terms.

Cause for
Petition of
Royal Col-
leges.

11. The movement which resulted in the presentation of the petition of University and King's Colleges for the grant of what was then called the Albert Charter, originated in the action of the Association for Promoting a Teaching University in London. On more than one occasion Convocation had pressed upon the Senate the desirability of reform, but nothing came of these representations. The Association was formed in May 1884, and its main object was the organisation of university teaching in London by the establishment of a University with Faculties of Arts, Science, Medicine, and Laws, in which examinations should be associated with teaching under the direction of the same authorities, and a substantive voice in the government of the University should be conferred upon those engaged in the work of university teaching and examination.

Origin of
Petition of
University
and King's
Colleges.

12. The original plan of the Association for accomplishing this end was to establish what would have been practically a separate teaching University for London; although they thought and proposed that it should be made one with the existing University by being brought under one head and otherwise related to it by rather slender bonds. Members of the old Senate were to be on the Governing Body. "There might be one Chancellor, with two Vice-Chancellors." "Convocation might accept the graduates of the Teaching University as full members." "The Teaching University might, so far as is practicable, find a place of meeting at Burlington House, together with the existing University." That was all. There were to be separate degrees and separate examinations, at least to begin with, and the students in associated institutions might go in for either.

Policy of
Association
for Promot-
ing a
Teaching
University.

But this plan was soon abandoned by the Association itself; and practically all other schemes proposed for a teaching University for London, including those of Convocation and the Senate, were either schemes for a separate University altogether or schemes for reconstituting the existing University so as to enable it to undertake the duties of a teaching University for London. The latter differed from each other principally with regard to the constitution of the governing bodies and the measure in which various interests were represented upon them. The Association ultimately gave its adherence to the scheme of University and King's Colleges, and presented a petition to the Privy Council, which, although it did not refer by name to the Albert Charter, was in substance a petition in support of it.

13. The original objects of the Association had, meantime, been accepted in general terms both by the Senate of the University and by Convocation on condition that they should be carried out by the existing University, and both these bodies appointed Committees and prepared schemes. This took a considerable time, and the proceedings did not promise a result which appeared to the teaching colleges in any degree acceptable. Moreover, the action of the Royal Colleges precipitated matters. So after Convocation had rejected one scheme and adopted another as the basis of conference with the Senate, and after the Senate had prepared a third as a basis of conference with the Committee of Convocation, the petition of University and King's Colleges was presented to the Privy Council in July 1887. The Royal Colleges presented their petition late in the same year; but before the hearing came on the Government announced their intention of referring the whole question to a Royal Commission, which was accordingly appointed on the 2nd May 1888.

Action of
Senate and
Convoca-
tion.

14. Lord Selborne's Commission had before them all the schemes referred to above, including those of Convocation and the Senate, and in framing their own scheme they selected from them such provisions as they approved. They rejected the scheme of the Royal Colleges, and also that of University and King's Colleges; but they reported that the case for a teaching University was made out, and that

Recommen-
dations of
Selborne
Commission.

there should be one University for London and not two. They also reported that it was essential that the University should be limited to institutions in or near London. Such colleges as University College and King's College, which gave academical instruction upon a complete system and an adequate scale in all the Faculties, should, they thought, be called "constituent Colleges," while institutions such as the Medical Schools, which were limited to the studies of a single Faculty, should be "associated" with the University in respect of that Faculty. They referred to a large number of other institutions, with the intention, no doubt, that some of them should be "associated" with the University, while those of a less authoritative kind should be co-ordinated under it as their natural head. They indicated the lines on which they thought the Senate should be constituted, and said the Faculties should be electoral bodies only, and should "consist exclusively of professors and recognised public teachers" belonging to associated Colleges and institutions. The Boards of Studies were to have consultative functions only and to be elected by the Faculties with the addition of one examiner, and one or perhaps two representatives of Convocation. They thought a definite value should be given to the training and teaching of students who go through the prescribed course at Constituent Colleges or associated institutions, and that certificates might be accepted in lieu of the matriculation and intermediate examinations, but that the final examinations for degrees should be the same for all candidates. They added that they saw no reason why a university, constituted as they suggested, and capable in their opinion of supplying the wants of higher education in the metropolis, should not continue to admit to its examinations and degrees all students, wherever and in whatever manner they might have acquired their knowledge. Finally, they recommended that the Senate and Convocation should be given time to consider whether they would apply for a charter extending the functions and duties of their University to teaching, and otherwise granting powers to the University in accordance with the suggestions contained in their Report.

Note by
minority.

15. Three members of the Commission, Sir William Thomson (afterwards Lord Kelvin), Professor Stokes, and Dr. Welldon, appended a note in which they expressed their doubt of the possibility of effectually combining the functions of a teaching and of a purely examining university in the University of London, and said that on this account they would have preferred the establishment of a new teaching University for London, leaving it to the London University to continue to discharge its present functions. If, however, it must be assumed that there was to be only one University for London, they thought that the change in the constitution of the London University recommended in the Report was as good as could be desired.

Selborne
Commission's
idea of
a teaching
University.

16. In order to understand this Report it is necessary to note carefully what the Commission meant by a teaching university. All the schemes they had before them, including the Albert Charter, carefully refrained from interfering with the autonomy of the Colleges or other institutions which were to be associated with the University. Similarly, the Commission's own proposal was that such institutions as they referred to "should be co-ordinated under a University as their natural head," which would "encourage them to do the work for which they were best fitted, and "reward their work when efficiently done with the public stamp of recognition." In this way they thought the cause of education in the metropolis might gain a great impetus, and the result would be that even from the less important of the institutions "a considerable supply of well-qualified candidates for degrees might probably "be obtained." They said it was no part of the original conception of the existing London University that it should be a mere examining body without direct connexion with any teaching institutions, and that if no institutions had been affiliated to it except University College, King's College, and any other institutions of the same character which might have been established in London, the results would probably have been different. It is clear that, with the one difference of limiting to London the area within which institutions might be admitted to affiliation, their conception of the teaching university necessary for supplying the wants of higher education in the metropolis was simply the London University of 1836, with a differently constituted governing body, which would be able to bring the syllabus and examinations into closer and more continuous connexion with the teaching in the affiliated institutions. But in our opinion the ideal of a teaching university was already lost when the necessity arose of federating more than one institution by the external bond of a common examination, which, because it is common to all, must

always be to some extent external to each and can never demand much more than the weakest institution can give. The Commission may have been right from their point of view in considering that the duties which they proposed for the new teaching University were not inconsistent with the existing system of admitting all comers to the examinations. But it must be remembered that their conception of a teaching university was one which introduced no principle of unity into the several institutions associated together, and gave the University practically no control over them either financially or educationally. It was still an external examining body, improved to some extent by giving the teachers a voice in the determination of the common syllabus. It is true the Commission adopted without comment the proposal of the committee of the Senate that the University should have power to teach by professors and lecturers of its own, attached or unattached to particular colleges or institutions, and to receive endowments for that purpose; but even if funds had been available this would still have left the associated institutions entirely independent of each other.

17. In consequence of the Report of the Commission the Senate appointed a committee to which they referred their earlier scheme, and directed them to consider the reconstitution of the University on the lines of the Commission's Report. After long negotiations with the various bodies concerned with higher education in London, the Senate adopted a finally revised scheme which in some respects gave the teaching institutions and the teachers in them greater freedom of action than was provided by the scheme of the Commission, but departed from it by including representatives of provincial colleges in the proposed University. The assent of Convocation was, however, necessary to any alteration in the constitution of the University, and Convocation rejected the Senate's scheme. The petition of the Colleges for the grant of what was now called the Gresham University Charter was thereupon considered by the Privy Council, and it made considerable modifications in the submitted draft.

Senate's revised scheme.

Rejection of scheme by Convocation.

18. There was, however, great opposition in Parliament to the grant of the Gresham Charter. An Address was presented to the Crown praying that the Royal Assent to the proposed charter should be withheld until it had been remitted for further consideration and report, either to the late Royal Commissioners or to such other persons as might be appointed. The Government decided to appoint a new Royal Commission under the chairmanship of Lord Cowper, to which the Gresham Charter was referred, and which was therefore commonly called the Gresham Commission. The Commission was issued on the 30th April 1891.

Gresham Commission appointed, 1891.

19. The Gresham Commission reported on the 24th January 1894. They had taken a large and important body of fresh evidence bearing upon the question whether there should be two universities in London or only one; and they came to the conclusion by a large majority that there should be only one, and that the establishment of an efficient teaching University for London could be best effected by the reconstruction of the existing University.

Report of Gresham Commission.

After a careful examination of the question of the relation of Internal and External examinations the Commission arrived at the conclusion, though not without the important dissent of Bishop Barry and Professor Sidgwick, that "the two functions of examining without teaching and examining as well as teaching" could be combined in one university without injury to either class of student. They thought that the difficulties were not so formidable as to lead them to disregard the grave disadvantages which would result from the creation of a second university in London, and the manifest advantages to be gained from uniting the teaching institutions of London with a university of acknowledged standing and reputation. As to the best mode of uniting the two functions, they thought that considerable freedom of action should be allowed to the University, and that the Senate should have power to decide whether the examinations for External and for Internal students should be the same in whole or in part. They thought it "desirable to give a certain amount of individuality to institutions and their teachers by permitting Internal students to present certificates from the institutions to which they belong in lieu of a certain part of the earlier examinations leading up to a first degree"; and as to the opinion of the Commissioners of 1888 that the final examination for degrees ought to be the same for all candidates, they said: "With this we so far agree as to think it essential that the final examination for degrees should require the same standard of knowledge for both classes of students, and should be identical so far as identity is not inconsistent with the educational interests of either class." (Paragraph 11.)

General conclusion of Gresham Commission. (a) Teaching and examining Universities to be combined.

(b) Equivalence of standard for Internal and External examinations.

This final qualification practically left the whole question open. Indeed the view they took that special examinations in the colleges should be limited to the earlier examinations leading up to the degree is rather difficult to understand having regard to the conclusion they arrived at on the question as to how far examinations ought to be conducted by the teachers themselves. As to this they said :—

“On a general review of the evidence laid before us on this subject, it would appear that the stress laid by witnesses on the importance of placing examinations in the hands of teachers has been in proportion to the extent to which they were regarding the higher and more progressive departments of study, and the effect upon the individual minds of the taught, rather than the conditions to be imposed upon pass students, or the necessity of exacting for the professions a rigidly uniform standard of qualification.” (Paragraph 9.)

Association
for Promot-
ing a Pro-
fessorial
University.

20. Although the Commission arrived at the same conclusion as the Commission of 1888 on the question of whether there should be one university or two, their plan of reconstructing the existing University was very different. In reaching it they were no doubt largely influenced by the evidence given on behalf of the Association for Promoting a Professorial University, which formed an important part of the new evidence they took. This Association was founded soon after the appointment of the Commission, and a paper containing proposals for the formation of a professorial University, which had been adopted by the Association at a meeting held on the previous day, was handed in to the Commission by Professor Weldon. These proposals were afterwards worked out in a scheme of organisation of a new University for London which was adopted by the Association in March 1893 and sent to the Commission after the conclusion of evidence.¹

21. With this one exception, all the schemes for a teaching University for London, whether in connexion with the existing University or not, were based upon the plan of associating together in some manner existing colleges and teaching institutions without interfering with their internal or separate teaching arrangements. The scheme of the Association was, in fact, a return to the ideal of the founders of University College, for it proposed the establishment of a teaching University for London largely upon the lines of the Scotch or German university. Long before the formation of the Association, in June 1892, the views it supported were advocated by individual professors of University College, and evidence was given on these lines by Professor Ray Lankester before the Commission of 1888. That Commission, however, does not seem to have attached much importance to his views, as there is no reference to them in their Report. The Gresham Commission heard a number of important witnesses on this subject, and they were apparently much struck by the evidence and not a little attracted by the idea of a university framed on these lines. Nevertheless, they rejected the scheme as impracticable; for, although in its later form it did not insist so rigorously on the idea of the absorption of all existing institutions of academic rank in the new University as in its first presentment to the Commission, yet it necessarily went a long way in this direction. The Commission felt that they could not, with any hope of a practical result from their Report, recommend the destruction of existing institutions and the building up of a new university out of their ruins. They say in paragraph 18 of their Report :—

“From the evidence given in support of these proposals we have derived on many points great advantage and assistance; and the Scheme, considered in the abstract, presents some evident advantages in the direction of coherence, efficiency, and economy. But we are unable to accept it as a satisfactory solution. The Scheme would in large measure involve the extinction of the special interests and characteristics of the existing teaching institutions; the necessary delay would be fatal at the stage which has now been reached; and we have not been informed of one important institution which has professed its willingness to fall in with the proposal.”

Recommen-
dations of
Gresham
Commission.

22. The Commission therefore came to the conclusion that the problem was still that which was stated by the Commissioners of 1888, namely, how to co-ordinate the recognised teaching institutions of London under a central University. They recommended as the area of the University the Administrative County of London, and they enumerated in paragraph 24 of their Report the institutions which they thought should, in the first instance, be admitted. The list does not materially differ from the enumeration given by the Selborne Commission in paragraph 12

¹ See Gresham University Commission, Appendix to Minutes of Evidence, 1894, App. 58, Paper No. 6, p. 118.

of their Report, except that it includes colleges of Theology and Music, subjects which were not brought within the scope of that inquiry, and does not include institutions such as the Birkbeck Institution and the City of London College, which the Selborne Commission referred to as "less authoritative" institutions, or the resident training colleges, the work of which appeared to them inconsistent with the position of Schools of the University. With regard to the future admission of Schools they thought it undesirable to limit by precise terms the conditions which must be fulfilled, though they enumerated certain special points to which they considered the University should have regard in deciding upon their claims. But the manner in which they proposed to deal with the question of the reconstitution of the University shows how great an influence the evidence of the Professorial Association had on their minds. They took the view that the representation and influence of institutions as such in the government of the University should be minimised; that the influence of the University over the institutions should be increased; and that a more distinct and important position should be given to teachers in university organisation. This last point was the main one. It is here that they appear to have found what they regarded as a basis for internal union in the University which would ultimately annul all injurious particularity in the associated institutions. The teachers of the University, whether appointed by the University or recognised in the various Schools, were to be brought together into Faculties, and, acting through an Academic Council elected by themselves from their own members, were to exercise the most important executive functions in regulating the teaching, examinations, and discipline of the University, subject only to the Statutes of the University and the Ordinances of the Senate.

The Commission appear to have believed that if the teachers of the University could in this way be brought to look upon the teaching and advancement of their own group of subjects—the subjects of their faculty—with reference to the whole of London, and from the point of view of the University rather than from that of any single college or institution, it might not unreasonably be expected that their attitude of mind would react upon the management of the institutions. If at the same time, by wise financial administration of the central funds of the University, the several colleges and institutions could be relieved of the pressing necessity for competition, then perhaps a real unity of the University might be attained.

Intended effect of recommendations.

23. With regard to the External students, the Commission recognised that their share in the University consisted as before in the right of admission to degree examinations so framed as to be consistent with the nature of their education. They recommended that a Standing Board should be appointed by the Senate, constituted as it thought fit, to take charge of the interests of External students. The duties of this Board were to consist in reporting to the Senate as to how far examinations for External students should be the same in whole or in part as those for Internal students. In so far as separate examinations might be decided upon this Board was to have the superintendence, regulation, and conduct of those for External students, and the nomination of examiners for appointment by the Senate. The duty was also laid upon the Board of giving advice to External students for the prosecution of their studies.

Proposed Board for External students.

24. No one can read the note appended to the Report by Lord Reay without feeling that the Commission believed they were providing a scheme in which the University and its institutions would not be separate units with different aims, but have the one common object of promoting the organisation of university teaching in London. Yet Lord Reay thought, and no doubt with much reason, that the scheme was open to various interpretations, and that success was possible only on the conditions he pointed out. The condition on which he thought the reputation of the new University would mainly depend was the strictness with which the selection of teachers for appointment or recognition was made in every individual case. They would constitute the Faculties; the Faculties would elect the Academic Council, and that Council would inevitably determine the character of the University. He therefore thought it essential that the Academic Council should be representative of the highest development of English learning and science. Bishop Barry and Professor Sidgwick dissented from the assumption that it was possible or desirable to combine in one university the two wholly distinct functions of an examining board and a teaching university, and the notes they appended to the Report are of great weight and interest. They did not dissent from the scheme of the Commission as far as the organisation of the teaching side was concerned.

Note by Lord Reay.

Notes by Bishop Barry and Professor Sidgwick.

Act of 1898.

25. Bills were introduced in 1895 and 1896 to give effect to the recommendations of the Gresham Commission Report, but it was not till after more than four and a half years of conflict that the Act of 1898 was passed, containing in a Schedule the terms of the compromise arrived at by the several parties who claimed to be interested. It is an indication of the weariness of the two main parties in this long-drawn out controversy that they both declared that the compromise, to which ultimately they rather hurriedly agreed, involved no surrender of principle. Yet it will be seen how many of the present difficulties arise from the terms of this Schedule.

1. THE PRESENT RELATIONS OF THE INTERNAL AND EXTERNAL SIDES OF THE UNIVERSITY.

The relations of the Internal and External sides.

26. We return to the working of the present organisation of the University and must now consider the relations of its Internal and External sides.

We cannot express any opinion as to how the constitution of the University proposed by the Gresham Commission would have worked because it was never tried. Those defects in the present organisation of the University which arise from the relations of the Internal and External sides are undoubtedly in large measure due to departures from the recommendations of the Commission, and have their origin in provisions contained in the Schedule to the Act of 1898.

The machinery of government.

27. First, as regards the machinery of government. The principal changes in the scheme of the Gresham Commission which were made by the Schedule to the Act, and are incorporated in the Statutes of the University, were as follows:—The Senate was reduced in number from 66 to 56, and its composition was greatly altered, the chief alteration being that the representatives of Convocation were increased from 9 out of 66 to 17 out of 56, while the representatives of the teachers were reduced from 22 out of 66 to 16 out of 56, and those of the Crown and Government Departments from 8 to 4. The Senate, constituted in this manner, was given all the executive powers of the University. The Academic Council, which under the scheme of the Gresham Commission was to have been the executive of the Faculties, was reduced to the position of a Standing Committee of the Senate for Internal students of the University. A Council for External students, composed principally of the representatives of Convocation on the Senate, was placed in an equal position and with similar advisory powers. It is described as a Standing Committee of the Senate for those students of the University, whether collegiate or non-collegiate, who are not Internal students of the University. Moreover, as these provisions are worked out in the Statutes, they hamper, without restricting, the executive powers of the Senate, by preventing it from deciding anything affecting Internal or External students without inviting and receiving a report from one or both of these Standing Committees.¹ The Boards of Studies, which under the scheme of the Gresham Commission were expressly intended for the assistance of the Academic Council, and were to be elected by that body and the Faculties, were, under the provisions of the Schedule, appointed by the Senate, and might include persons other than teachers of the University, not exceeding one-fourth of the total number of a Board. The Statutes provided that each Board might report to the Senate direct upon any matter relating to courses of study, provision for teaching or research, examinations, and the appointment of examiners, or the granting of degrees or certificates of proficiency,² while they also required that the Academic Council and the Council for External Students before advising the Senate upon any of these matters, should invite and receive reports from the Boards of Studies dealing with the studies concerned.³

Effect of the equal balance established.

28. The Academic Council and the Council for External Students are each supposed to have the management of their own side of the University. Yet, since their powers are advisory only, and the executive authority is the Senate, neither Council can get anything done without the consent of the other, unless it can obtain the support in the Senate of the members who are independent of both. The Senate is not an independent and impartial body, but is mainly constituted of the persons who represent the interests of the two sides of the University. Most of the independent members consist of the representatives of the Crown, the Inns of Court, and other public bodies, who have not the opportunity of following questions through all

¹ Statutes 33 & 35.

² Statute 105.

³ Statute 104.

their stages before they reach the Senate ; and it is almost impossible for them to master the masses of detailed and often unimportant business which come up from the Committees and Councils. It follows that questions on which the Internal and External Councils are acutely divided are often decided in the Senate by the votes of those members who have had the least opportunity of acquainting themselves with the merits of the case.

29. We have heard evidence which has convinced us that the machinery we have described has caused difficulties, delays, and friction, so constant in their recurrence and so serious in their extent that the progress of the University has been gravely hampered and its efficient working endangered. The Master of the Rolls—a representative of Convocation on the Senate—three former Vice-Chancellors of the University, the Principal of King's College, the Provost of University College, Professor Caldecott, a member of the Academic Council, and the late Dr. Wade, a member of the Council for External Students, have all given evidence in support of this statement.¹ The criticisms and suggestions made in the main Report and in Report A. of the Academic Council,² in the Report of the Council for External Students,³ and in that of the Finance Committee of the Senate,⁴ the opinions expressed in the Report of the Faculty of Medicine⁵ and in that of the Faculty of Engineering,⁶ further confirm what we have said. Finally, the Senate itself, in a resolution adopted *nemine contradicente* in 1908 asking for the appointment of a Royal Commission,⁷ expressed its willingness to secure powers of delegation to its Councils, and to that extent admitted that the existing machinery of the University was unsuited to deal with the administration of so large and important an institution as the Imperial College of Science and Technology.

Difficulties and delay produced.

30. Secondly, as regards examinations. Section 12 of the Schedule, which is given effect to by Statute 122, provides that—

Difficulties arising from Statute 122.

“Unless the Senate either generally by regulation or as to a particular subject by order otherwise determine, separate examinations shall be held for internal and external students respectively, . . . but the degrees conferred shall represent, as far as possible, the same standard of knowledge and attainments.”

The principal difficulty here, although arising from a provision of the Schedule, is not entirely due, as in other cases, to a departure from the recommendations of the Gresham Commission. The Commission said that the final examination for degrees should be identical for both External and Internal students “so far as is not inconsistent with the educational interests of either class,” whereas the Schedule provides that separate examinations shall be the rule instead of the exception ; but the Commission also said that these examinations should require the same standard of knowledge in both cases, and it is this requirement which causes the difficulty.

31. The efforts of ten years to carry out this provision appear to us, from the evidence, to have convinced the University itself that anything of the kind is impracticable. At first, under the influence of Boards of Studies which advise both the Academic and the External Council, attempts were made to modify the External examination schedules so as to make them correspond as nearly as possible to examinations on the Internal side, and a common examination was arranged in the Faculties of Medicine, Theology, and Laws. In these Faculties there are special reasons at present why an External examination might be expected to meet the requirements of the case, and yet the evidence is that even in these Faculties common examinations have only been agreed upon with difficulty owing to the necessity for the separate consideration of every point by the two Councils. In other cases identity even in the nature of the test has been found impossible, and an example was given us of the effect of requiring a thesis for the M.A. degree which reduced the External candidates from 65 in 1904 to eight in 1906.

¹ *Appx. to 1st Report*, Cozens Hardy, Qs. 960-1 ; Roscoe, Statement, § 2, p. 174 ; Bishop of Exeter, Q. 1545. *Appx. to 3rd Report*, Hill, § 30, p. 59, Qs. 6787-822. *Appx. to 1st Report*, Headlam, Statement, §§ 11-16, 44-6, pp. 80 and 86 ; Foster, Statement, §§ 20-21, 41, pp. 135, 139, Qs. 1963-5. *Appx. to 2nd Report*, Caldecott, Q. 3370 ; Wade, Statement, § (6), p. 78.

² *Appx. to 2nd Report*, App. VII. (x), p. 257 ; § 60, p. 287 ; § 78, p. 292.

³ *Appx. to 2nd Report*, App. V., column 2, p. 234.

⁴ *Appx. to 3rd Report*, App. IV., p. 381.

⁵ *Appx. to 2nd Report*, App. VII., p. 334.

⁶ *Appx. to 2nd Report*, App. VII., p. 344.

⁷ Senate Minutes, December 1908, 669.

32. Both the Council for External Students and the Academic Council in the Reports they submitted to us express the opinion that Statute 122 is unworkable. The External Council say :—

“ If . . . those in authority on the Internal side of the University wish to continue the present system of the teacher examining his own pupils, at present in force in other Faculties, two sets of examinations will still be necessary ; experience has shown that in these circumstances it is impracticable to enforce equality of standard”¹

The Academic Council in their main Report, as well as in Reports A. and B., criticise this Statute, and so do the Faculties of Science and Engineering, and by implication the Board of Studies in Chemistry.² This evidence was confirmed by many of the witnesses—among others, Dr. Russell Wells, the Chairman of the External Council ; Dr. Kimmins, Mr. Loney, and Dr. Waller, all of them members of that Council.³

Equivalence of standard unnecessary.

33. There are, indeed, so many different ways, and there is so wide a range of subjects, in which a particular degree may be taken in modern universities, that any strict equality of standard in the knowledge and attainments of students taking the same degree is impossible. President Eliot has pointed out that no one of the degrees given by Harvard University “ has any definite signification in regard to subjects of study or specific achievements.”⁴ This is equally true of both the Internal and the External degrees of the University of London, and we therefore think that any attempt to equate Internal and External degrees with each other is hopeless. We may add that we think it unnecessary.

Difficulties arising from Statutes 35 and 132.

34. Thirdly, as regards the students. Section 9 of the Schedule defines Internal students of the University as “ students who have matriculated at the University, and “ who are pursuing a course of study approved by the University in a school or schools “ of the University, or under one or more of the recognised teachers of the University.” This definition is reproduced in Statute 132, which also defines External students as “ all other matriculated students.”* The consequence is that a matriculated student of the University who is studying in a School of the University, but who does not happen to be following a course of study approved by the University, is technically an External student. This would not in itself, perhaps, be a matter of great importance ; but under Statute 35 the Senate is obliged to invite and receive a report from the Council for External Students before coming to a determination “ upon any matter relating to External students,” and since External students may be students in Schools of the University or under the Appointed Teachers of the University, it has been claimed that the Senate must consult the External Council before allocating funds either for the endowment or remuneration of Appointed Teachers or for the encouragement of research.

Difficulties removable only by legislation.

35. So far we have referred to the difficulties which arise from the relations of the Internal and External sides under the Statutes. Some are of quite minor importance except as affording occasions of difference, but none of them can be removed by amendment under the ordinary procedure for that purpose, because, as we have seen, they are all based on provisions in the Schedule to the Act of 1898 to which the Statutes must give effect. They could all be removed by an Act reconstructing the University. But we are convinced that the cause of the difficulties which arise from the relations of the two sides lies much deeper than mere provisions of the Statutes. The evidence shows that the Academic and the External Councils are dominated by incompatible ideals. The one side believes that training in a university under university teachers is an essential and by far the most important factor in a university education, while the other side believes that examinations based upon a syllabus afford “ a guidance by test,” which is an adequate means of ascertaining that a candidate has attained a standard of knowledge entitling him to a university degree. We have been told that these different points of view are constantly opposed to each other in

Incompatible ideals of Academic and External Councils.

¹ *Appx. to 2nd Report*, App. V., III., p. 232.

² *Appx. to 2nd Report*, Academic Council Report, (xi), p. 257 ; Academic Council Report A., VI., § 37, p. 278 ; Academic Council Report B., (3), p. 293 ; Academic Council Report, Appendix K., pp. 337 and 344 ; Academic Council Report, Appendix L., p. 374.

³ *Appx. to 2nd Report*, Wells, Q. 4199 ; Kimmins, Q. 4333 ; Loney, Q. 4470. *Appx. to 3rd Report*, Waller, Q. 6649.

⁴ Eliot, *University Administration*, pp. 165-7.

* The definition was amended in 1907 on account of the incorporation of University College, but the alteration is not material.

the Senate; that many matters thus become the subject of controversy which ought not to be so; that questions of grave importance have been decided by narrow majorities, and that policies which have been adopted and acted upon have been suddenly reversed. If the functions of the two sides were clearly defined and each Council left to attend to its own affairs subject to the general control of an independent Senate, it is obvious that much of the difficulty and friction which at present exist might be removed; but everything would depend upon what functions were assigned to each side. If the Council for External Students were given the control of the syllabus and examinations for candidates for External degrees they would have all the functions of an examining university, which is the ideal for which they stand. They would have all the powers and duties of the old University of London, of which the Senate said in 1858, "it neither teaches, nor supervises, nor maintains discipline, nor exercises authority over students: its functionaries are in no way connected, except by accident, with any College." They might still, of course, be given the assistance of the advice of Boards of Studies, which they admit is necessary in order to keep their syllabus up to date. Yet such an arrangement would not satisfy the claims which have been put before us by the representatives of the Council for External Students.

36. Whatever may have been intended or foreseen at the time when the compromise embodied in the Schedule to the Act of 1898 was arrived at, it is clear from the Report submitted to us by the Council for External Students what the claims of the External side are now. In our opinion it is these claims which, far more than anything else, form the real ground of the defective working of the University in so far as that is due to the present relations of the Internal and External sides. The Council for External Students claim the function of the old University of London "to hold forth to all classes and denominations both in the United Kingdom and elsewhere without any distinction whatsoever an encouragement for pursuing a regular and liberal course of education"; a purpose which is imported into Statute 3 from the Charters of the old University, and which, of course, means the conferring of degrees upon examination alone. But they also claim the function of the promotion of research and the advancement of science and learning "in the United Kingdom and elsewhere," which is not a function mentioned in the Charters of the old University, and which Statute 3 does not give them; neither is it referred to in Statute 35, as a matter on which the Senate must consult them before acting. The functions of the Internal side they describe as "the more local object of furthering these ends within the Metropolitan area, and of organising and extending higher education therein." They claim as the work of the External side everything that has hitherto been done by the University for the promotion of research and the advancement of science and learning "other than for purely local needs." They say the work of the Council for External Students is at least as much concerned with academic interests as that of the Academic Council; and they propose that in future it should be called the Imperial Council and that the Academic Council should be called the Metropolitan Council. They refer to the work of the University on its metropolitan side as that of helping and encouraging the colleges already in existence in London and elsewhere, to which, they say, "the teaching up to the stage of the Bachelor's degree in most subjects may be very well left, the University not fettering itself by undertaking financial responsibility for them." They admit that "it is most essential that Teaching should not be divorced from Research, and that in every school of the University the teachers and students should be actively encouraged not only to promulgate what is at present known in their subject, but also to extend the bounds of knowledge." Nevertheless, the proposals they make are quite inconsistent with this end. What they call "the true University work, not of undertaking teaching up to the Bachelor stage, . . . but of advancing research and higher learning," they propose should be carried out in a series of Institutes under the direct control of the University, as far as possible grouped round the headquarters of the University, because, they say, "if attached to different Colleges of the University they would inevitably tend to be regarded as local institutions." These Institutes they propose should be governed by special Committees of the Senate. "Provision must be made," they say, "for securing, first, that the number of Senators on the Committees is sufficiently large to keep the Committee in touch with all sections of opinion, and secondly, that the teachers of the University are adequately represented, but do not constitute such a majority as to make the Committee merely representative of local needs." "The neutral ground," they say, "of a central institution presents a rallying point for

Claims of
Council for
External
Students.

Reforms
proposed by
External
Council.

“ the general University as distinguished from the Sectional and Collegiate ideal, and
 “ affords the connecting link between the local and the Imperial sides of the
 “ University.”

37. The witnesses on behalf of the Council for External Students explained when they gave evidence that they did not intend to claim that the work which they describe in their Report as “ the Work of the External Side in Promoting Research “ and the Advancement of Science and Learning,”¹ was exclusively the work of the External side, but that it was the work of the University, on the Senate of which the External and Internal sides are about equally represented;² and they claimed that it was part of the compromise which preceded the Act of 1898 that the two sides were to meet on common ground “ at the apex of the educational pyramid.”³ We are not concerned at the moment with the question of what provision ought to be made by the University for research and the advancement of science and learning ; or with the rights and wrongs of controversies as to vested interests in the government of the University ; but simply with the working of the present organisation as affected by the claim of the External side to be specially interested in advanced work, a claim based on the distinction they make between an imperial and a local university. We refer to the whole tenor of their Report as showing that what they regard as the local functions of the University are special, limited, and inferior to those which they describe as imperial, and which they assume to be their particular concern. It is a distinction which we do not admit, and we consider it is injurious to the University that it should be introduced. Practically all the functions of the University of London, or of any university, are local, except the function peculiar to the University of London of examining and conferring degrees upon candidates whom it has not taught. But at the same time every university which achieves its end and attains its proper status is also imperial, or rather it is for all the world. This is not a question of historical accident but of the nature of things, although it is true that the original type of university in the Middle Ages, the *Studium Generale*, meant a school of general resort, a “ school that “ attracted or at least invited students from all parts, not merely those of a “ particular country or district.” We cannot pursue this question further here, but we think we have said enough to show that the attitude of the External side of the University towards the proper work of the Internal side makes the nature of the relations between them a grave defect in the present organisation.

Universities both local and international institutions.

2. THE EXISTING COMBINATION IN THE UNIVERSITY OF A LARGE NUMBER OF INSTITUTIONS DIFFERENTLY RELATED TO IT, AND OF DIFFERENT EDUCATIONAL STANDARD AND AIMS.

Independence of Schools of the University a defect.

38. The variety of teaching institutions connected with the University as its Schools, and their complete financial independence of each other and of the University, involve difficulties which have prevented the University from carrying out the duty of organising the higher education of London imposed upon it by the Statutes. The University has representation on the Governing Bodies of only 8 out of its 29 Schools.— Representation of one institution on the Governing Body of another is not, however, always effective in ensuring that the interests of the institution represented are considered ; and the absence of this particular form of connexion would not perhaps have been important in itself, if the University had been given a voice in the appointment of the teachers in its Schools. — In fact the University has no voice in the appointment even of the heads of departments. The Schools can appoint whom they please ; they can give their teachers the title of Professor or Reader without consulting the University ; and even if the University finds itself unable, after the appointment, to recognise the teacher as a university teacher of his subject, the School may still retain his services, and the teacher is still able under the Statutes to submit his students for the university examinations, provided the outline of his course of instruction is approved. Even negotiations between the University and its Schools as to questions of this kind have been far more difficult than they otherwise would have been because the constitutions of the Schools themselves are in some cases of a vague and indeterminate character. This has notably been the case with

¹ *Appx. to 2nd Report*, p. 228.

² *Appx. to 2nd Report*, Wells, Q. 4257.

³ *Appx. to 2nd Report*, Kimmins, Qs. 4264–5 ; Wade, Q. 4496 and Note.

regard to the Medical Schools, which, when the University was reconstituted, and indeed up till quite recently, were little more than proprietary institutions conducted by physicians and surgeons, though we think they have been well conducted in the interests of the hospitals with which they are connected and also in the interests of the purely professional education of the students up to the standard required for qualification. In form this condition of things has, we understand, been remedied in the case of those Medical Schools which receive grants from the Board of Education; but the change in constitution has been too recent, and possibly not sufficiently far-reaching, to produce any real effect upon their essential character.

39. The independence of the Schools is not confined to the appointment and control of their teachers, it extends to their whole financial and educational policy. The University has no power to prevent them from wasting money by the duplication of departments which are already sufficient to meet existing needs, or to insist upon the abandonment of work which is being better done elsewhere. Each institution naturally thinks of its own traditions and work, each is anxious to bulk as largely as possible in the University, and each is afraid that any proposals for organisation based upon a consideration of the needs of London as a whole, and having as their purpose the concentration of effort at the points where it will produce the greatest effect, may result in their activities being restricted and their importance proportionately reduced. The Finance Committee of the University expressed the opinion that first among the difficulties which are more directly due to the present organisation of the University "is a want of better co-ordination of existing resources;" and they say, "A considerable amount of overlapping in teaching and the resulting waste in expenditure would be obviated by a closer and more organic union between the University and certain of its Schools, and in particular by further incorporations."¹ For example, there are four Schools of the University in Engineering, each of them covering with greater or less completeness all the branches of study in that science, though only one of them has as many students as can be accommodated. Some duplication of undergraduate instruction is probably necessary, but not so much as this. Then there are 12 Medical Schools attached to hospitals which have in the aggregate 4,900 beds, sufficient to provide clinical instruction for an annual entry of more than 500 medical students, though the actual entry each year is only from 250 to 300, all of whom could be amply provided for on the present system with 3,000 beds. Of these 250 to 300 students not more than 80 to 90 read for the degree in Medicine of the University of London. Until both King's and University Colleges were incorporated in the University, each of them maintained distinct departments of Architecture, with a double staff and double equipment, although the number of students who entered the two departments could easily have been provided for in one. After the foundation of the Imperial College of Science and Technology, the Governors of that College proceeded to make plans for the enlargement of their Engineering department at a cost of 100,000*l.*, without any serious attempt to consult the University, of which the Imperial College is a School, in order to avoid the possibility that the provision they were about to make might duplicate that already existing at University and King's Colleges.² They appear to have thought that the silence of the University representatives upon the Governing Body of the College was sufficient evidence that the University was satisfied with their intentions—in itself a proof that the representation of one institution upon the Governing Body of another is not a sufficient guarantee of co-operation between the two. Many other cases of the lack of organisation of higher education in London might be instanced, but the examples already given will suffice to show how little can at present be done to co-ordinate even the Schools of the University.

40. The powers which the Senate has over the Schools are as follows:—

It has the power of visitation,³ which, however, it has exercised in the case of only some of them. It has never visited the Medical Schools or the Imperial College of Science and Technology. But the power of visitation, even if fully exercised, is not a substitute for a voice in the formulation of policy as—

Powers of Senate over Schools.
(i) Visitation.

¹ *Appx. to 3rd Report, Finance Committee Report, p. 381.*

² Article VIII. of the Charter of the Imperial College requires the Governing Body to "enter into communication with the University of London with regard to the co-ordination of the work of the Imperial College with the work of the University and its other Schools and for the purpose of carrying out or facilitating such co-ordination may enter into such arrangements either by way of transferring or exchanging Departments of instruction or otherwise and upon such terms as may be agreed upon between the Governing Body and the University."

³ Statute 76.

occasion arises. Visitation can take place only at considerable intervals of time, and after it has been made the Senate has no power to impose its recommendations upon the Governing Body of a School. A case recently occurred in which, after a School had been visited, the reply of the Governing Body to the recommendations of the Senate gave little more than academic assent to them. It is true that the Senate has power to remove any institution from being a School of the University, subject to an appeal to the Visitor;¹ but it is obvious that this is not a real power in the case of a great corporation, and that if friction were to arise with an important educational institution, such as St. Bartholomew's Hospital, or the Imperial College of Science and Technology, it would not be possible for the Senate to remove it from being a School. Both the Governing Bodies and the teachers of the Schools have naturally grown to be proud of their own institutions and are unwilling to part with their control in the interests of the University as a whole. The Governing Bodies of some Schools, though they appreciate the privilege of their connexion with the University, do not appear always to realise that the privilege entails corresponding duties. They are unwilling to grant the University a voice in the appointment of teachers, or to raise the scale of teachers' salaries, or to reduce the amount of work expected of their teachers when the University considers it excessive. All these are points which were raised in the recommendations made by the Senate to the School above referred to, on the occasion of a recent visitation.

(ii) Curricula.

The curricula which it prescribes for degrees is another means the University has of influencing its Schools, but the more progressive among them feel this to be a restrictive and undesirable influence rather than an educational advantage; for the curricula are prepared without any special regard to the particular lines along which individual Schools are working, and are in all but form detailed syllabuses for examination. We have had evidence from a number of the professors that the common syllabus of instruction prescribed by the University hampers the best teaching;² and the representatives of the Imperial College of Science and Technology lay great stress upon the restrictions which the University of London imposes by its curricula and, in their view, cannot avoid imposing. They say:—

“The demands made for B.Sc. instruction modify profoundly the nature of the courses which any professor considers essential for industrial efficiency, and this fact, the Governing Body submits, obstructs the efforts it is making to bring science and industries together.”³

It appears, therefore, that this power over the curricula, by which the University can exercise a real influence on the Schools, though possibly beneficial hitherto in maintaining an average standard, especially for the weaker institutions, has been far from beneficial in its effect upon more advanced work done in the stronger Schools. A far more important factor in maintaining a high standard of teaching is the character of the teachers themselves; but, with a few unimportant exceptions, the University has no control over their appointment.

(iii) Recognition of teachers.

Again, the University can grant or withhold recognition of a teacher, and this has undoubtedly been a beneficial power, but there has been great difficulty in exercising it. The recent action of the Senate in reviewing all the teachers of the University in order to determine which of them were entitled under the Regulations of the University to the rank of Professor or Reader has revealed the fact that a very large number of teachers “recognised” by the University could not be recommended for these titles. In practice, the refusal of recognition has often caused much friction, and, to diminish this, a system of probationary recognition has been introduced in connexion with institutions which are not Schools of the University, in order to avoid disqualifying the students in them from taking the Internal examinations. We are informed, however, that the University has sometimes awarded full recognition to teachers whom it would never itself have appointed, or even have recognised, had they been on the staff of a School of the University.⁴ Yet it is a more serious matter to recognise a weak teacher in one of these institutions than in a School of the University, where his responsibility would be less.

¹ Statute 77.

² *Appx. to 3rd Report*, Univ. Coll. Professorial Board, Mem., pp. 412-14. Ramsay and Foster, Q. 9678 ff.

³ *Appx. to 3rd Report*, Imperial College of Science and Technology, Statement, §§ 2-4, pp. 133-4.

⁴ *Appx. to 2nd Report*, Academic Council Report A., § 27, p. 273.

The University has been able to use its powers under Statute 80, in connexion with the early part of a degree course, by providing instruction in the preliminary and intermediate portions of the medical curriculum at its two incorporated colleges to which the Medical Schools of University College, King's College, Charing Cross, St. George's, and Westminster Hospitals send their students. The University also has power under the same Statute, by negotiation, and with the goodwill of the Schools, to do something towards the organisation of advanced instruction by a system of inter-collegiate lectures,¹ but this has not been possible to any great extent outside the incorporated colleges. We have been told that in a few cases the teachers themselves have been unwilling to co-operate in inter-collegiate courses of lectures, partly from the fear of losing the students' fees, and partly from the fear that the prestige of their students' successes might be shared with teachers in other institutions.²

(iv) Inter-collegiate lectures.

41. We are convinced that it is not possible to organise a great university merely by giving a number of independent institutions with different aims and different standards a formal connexion with a central degree-giving body which has practically no control beyond the approval of syllabuses for degree courses, the recognition of individual teachers, and the conduct of degree examinations. We agree with Professor Hill, lately Vice-Chancellor of the University, that "the power to control teaching" "is of more importance than the power to test it by granting degrees,"³ and that the experience of the last ten years has shown that it is not possible, as the Selborne Commission, and apparently also the Gresham Commission, thought it would be, for "the greater teaching agencies of the metropolis to be brought (without interfering with their independence) into true academical relations, upon proper terms, with the one existing university" (Report of 1888 Commission, § 17, p. xii., Report of 1892 Commission, § 3, p. x., and § 20, p. xix.). "Almost every independent institution," Professor Hill says, "pursues its own separate policy,"⁴ and the evidence put before us by the authorities of unincorporated Schools affords repeated confirmation of this view.

Powers of Senate inadequate.

42. The power of the purse is indeed the most important means of control which the University should possess if it is to organise the teaching with which it is concerned. All the other modern universities except Wales and Durham are masters in their own house in regard to the assignment of State and municipal grants, because the university is one and not a congeries of many units. In London, on the other hand, public funds have hitherto been given, almost of necessity, to each of the independent institutions actually doing the work and responsible for the expenditure upon it. The colleges were older than the University and could not be left at the mercy of a Senate which, though it might have distributed State and municipal aid with care, had no responsibilities towards them or their existing interests.

Importance of financial control.

43. All the difficulties that arise from the lack of control, or even influence, over the Schools of the University are increased in the case of institutions in which individual teachers have been recognised. In these cases the University has not even the power of visitation. The London Polytechnics, and the institutions which may be grouped with them, such as the Finsbury Technical College and the West Ham Municipal Technical Institute, cannot be considered to have a common aim in university work in the sense that they have made any attempt to differentiate university from other students, or to arrange even their day courses so as to avoid competition between different institutions. We understand, however, that the London County Council has recently been considering the problem of co-ordination in connexion with the London Polytechnics, and since the Council makes them large grants in aid, it possesses the leverage which the University lacks.

Lack of control over institutions with "recognised" teachers.

44. The co-ordination of the university work done in certain London elementary training colleges would not have been a matter of practical importance, even if anything of the kind had been possible or to be desired, for not more than a single teacher has been recognised in any one of them, except at the Goldsmiths' College, which is maintained by the University. With this exception, therefore, there is no question of the students in these colleges entering for Internal degrees. In certain other institutions where there are "recognised" teachers, such as the School of the Pharmaceutical Society, there are not, and apparently there never have been, any Internal students of the University.

Training Colleges, &c.

¹ Statute 80.

² *Appx. to 3rd Report*, Hill, Statement, § 31, p. 60.

³ *Appx. to 3rd Report*, Hill, Statement, § 14, p. 57. ⁴ *Appx. to 3rd Report*, Hill, Statement, § 17, p. 57

Competition
caused by
Polytech-
nics.

45. The Polytechnics, however, are in competition with each other, especially in their day classes for mechanical and electrical engineering, and this competition is endowed, in the absence of any considered policy, by both the State and the Local Authority. More than this, the day classes in the Polytechnics are in competition with the Schools of the University, and yet, with existing facilities for communication in London, there is, in our opinion, no serious geographical problem for students who have their whole time to give to study. The Polytechnics charge fees ranging from 12 to 18 guineas a year for a full course, while the fees at Schools of the University vary from 50 guineas downwards. Since they all offer courses for university degrees, the student is likely to believe that all the courses are of equal value. In fact they are not. University students in the Polytechnics, no less than their teachers, are working in institutions intended for non-university purposes, with aims which have been described by the Charity Commissioners as "the promotion of the industrial skill, general knowledge, health and well-being of young men and women belonging to the poorer classes," and which in the main, and for the majority of their students, are not those of a university. In these circumstances it is inevitable that the degree examination rather than the course of instruction should appear the important matter, an attitude which is encouraged by the large proportion of the students who take the External examinations and attend only so much of the instruction as they think necessary. The passing of a university examination is no evidence that a student has received a university training, yet the training is what the young men and women need who are destined to do work for which university graduates are required. The teacher who gives a part, or even the whole, of his time and energies merely to holding classes in preparation for university examinations is not on that account a university teacher; for the university teacher is not only concerned with imparting knowledge, but also with training the minds of his students, and inducing a critical and inquiring temper. The student may acquire much knowledge from his teacher; but if that is all he acquires he will not have had a university training, and if that is all his teacher can give he is not a true university teacher. The university teacher should be chosen because his powers are of the kind to fit him for university work; in so far as he is well fitted to do that work, he is not the kind of teacher that is best suited for the major part of the work to be done in Polytechnics. One machine cannot satisfactorily produce simultaneously two such different articles as the skilled craftsman or artisan and the trained university student. If the Polytechnics are to do both things they must differentiate their functions; one department must confine itself to doing university work, and others to teaching foremen and craftsmen. The University has been able, we understand, to do something to improve the conditions under which its "recognised" teachers work in the Polytechnics; but it has no means of defining either the extent or the direction of the university work they should undertake, or of laying down clearly the conditions under which a true university training can be acquired or given.

Danger in
rapid growth
of Poly-
technics.

46. The Polytechnics have suffered in all their work from the rapidity of their growth and the success they have achieved. There is grave danger, as appears from the memorandum and evidence of Mr. Blair,¹ that the Polytechnics may fail from the absence of a clear objective, that the desire to add subject to subject and class to class may lead to a waste of public money and to a dissipation of the energies of the teachers; but if this is true of their work as a whole it is especially true in regard to university work. Some overlapping between different grades of institutions is inevitable, and perhaps even desirable, in order to furnish opportunities for the student who for one reason or another has been obliged to depart from the normal course. But when to avoid hardship in one direction, institutions have been diverted from the work for which they were originally founded and for which they are still needed, and when they have been induced to undertake university work without due consideration of the necessity for it, or of their ability to do it efficiently, a position has been reached which is not only dangerous to these institutions themselves, but to university education as a whole. Already an active and successful technical college has been transformed into one of the weaker Schools of the University, and this example has led no less than four other institutions of the polytechnic type to put forward claims for similar recognition. This fact alone affords clear evidence of the need for some readjustment of the relations between Polytechnic institutions and the University.

¹ *Appx. to 1st Report, Blair, Qs. 1-197, and Appendix I., p. 196.*

47. The absence of a sufficiently high standard for the "recognition" of those teachers who are heads of departments; the impossibility of securing that the staff of "mixed" institutions should be free to devote their time to university work; the difficulties caused by including in the same classes students who have not reached the university standard of matriculation with those who have; the interpretation of Statute 130 as meaning that evening students, who are in paid employment during the day and have less time for study than day students, should therefore also receive shorter courses of instruction than day students; and, what is perhaps still more important, the absence of any power in the Senate to control appointments to teaching posts in the unincorporated Schools, or to prevent these Schools from unnecessary competition with each other, either by lowering fees or by duplicating departments of study—all these involve elaborate and irksome regulations as to the length and scope of courses of study for degrees, division of interests and a hesitating policy among the teachers, and a complete failure to organise and weld into a properly co-ordinated whole the higher work of teaching and research which it is the main purpose of a university to promote.

Unsatisfactory conditions on teaching side summarised.

48. Regulations prescribe the minimum length, in hours, of all approved courses, whether for day or evening students, and in order that a student may be admitted to an Internal examination he must attend four-fifths of the minimum number of hours allotted to the course in each subject of the curriculum. Elaborate rules define the number of hours' supervision by a "recognised" teacher required at every course given in a workshop or a laboratory. The scope and standard of each course are defined by detailed syllabuses which determine not only the instruction to be given, but the examinations to be held; and in consequence the initiative of the teacher and his power to break new ground are diminished. So far-reaching is the cumulative effect of these regulations and syllabuses that, as we have been informed by many witnesses, the teachers are now hampered in the treatment of their subjects almost as much as they used to be before the reconstitution of the University, when all their students were preparing for an external examination; and that the examinations themselves are becoming more and more external in character owing to the necessity of providing tests suitable to a large number of institutions of different standards and aims. It has become impossible to allow the degree of liberty and personal initiative which is desirable in the case of university teachers of the highest rank, and which can safely be permitted even to junior teachers working under the supervision of a distinguished head of a department. Not only are the best teachers hampered, but even good students in the best Schools of the University are induced by irksome regulation of their course of study, which they do not find necessary or beneficial, to abandon the Internal side and take the External degree.

Irksome effects of regulations and syllabuses.

49. It may be said that the only really internal examinations conducted by the University are those special intermediate examinations conducted at Schools of the University under the terms of Statute 119—examinations which are expressly arranged to follow the teaching instead of the teaching following the examinations, as is the case with external examinations. The power granted to the Senate under this Statute "to hold any Intermediate examination or some part thereof for the students of any School of the University jointly with the Governing Body of such School" is a result of the recommendations of both the Selborne and the Gresham Commissions. It was claimed before those Commissions on behalf of the teachers that examinations must have a bad effect both upon the teaching and upon the students unless care is taken to secure that they afford full scope to the teacher to handle his subject in the way and along the lines which seem to him best. We have seen that the two Commissions do not appear to have arrived at the same conclusions as to the relation of examination to teaching, though they both recommended that the teachers should have a predominant control over those examinations of their students which preceded the final examination for the degree. We have already expressed a doubt as to whether the same standard of knowledge for a degree can by any means be secured in the case of all candidates. Whether the device of a single general examination is the best means of securing such uniformity as may be desirable, is a question which will be discussed more fully later; but it may be said here that in so far as a claim can properly be made out by the teachers for bringing the examination of their students into close touch with their own teaching, we think it applies even more imperatively in the higher ranges of a subject than

Need for, and present impossibility of, really internal examinations.

in the more elementary. There is room for different methods of handling the early as well as the advanced stages of any given study; but it is more particularly his advanced students whom the professor is anxious to lead along the lines of thought which he is himself following, and which are certain, if he is a productive worker, to lie outside the range of published books and articles. From the purely educational point of view, therefore, and without regard to the question of whether it is necessary to secure a uniform standard of knowledge from all the candidates for a particular degree, it is even more important that the final examinations should follow the course of teaching than that the earlier and more elementary tests should do so. Yet the general trend of the regulations made necessary by the variety of the institutions connected with the University, and the conditions under which the students work, have in fact tended more and more to put the examinations out of touch with the work of the best teachers.

50. It must not be supposed that the detailed syllabuses are felt as a restriction by all the teachers. To those who are less original in their outlook, and to those whose conditions of work demand long hours of teaching to many classes of students, the guidance given by a prescribed syllabus is often felt to be helpful. It has been pointed out to us that in existing conditions the syllabus may be a means of ensuring that some important aspect of a particular subject not hitherto included in the curriculum shall receive due attention; but this is, after all, only another way of saying that when a university is made up of institutions of different standards and aims the syllabus is a necessary means of maintaining a reasonable level of efficiency.

Division of interests and policy among teachers.

51. Both views here indicated are represented upon the Boards of Studies and the Faculties of the University, and this leads to differences of opinion which would not exist if the body of teachers were more homogeneous in character. It also tends to dishearten and keep from the meetings those teachers who, because they are progressive and original, should have a commanding influence. The body of university teachers is thus divided against itself; and the division is emphasised by the distinction between Schools of the University and institutions in which there are "recognised" teachers, by the more recent distinction between incorporated colleges and unincorporated Schools, and even by the distinction between the University as a teaching organisation on the one side and the Imperial College of Science and Technology on the other. Although it was constituted as a School of the University, the Imperial College has from the beginning regarded itself as an independent foundation with aims as high as, if not higher than, those of the University itself, and with duties to perform which in the opinion of some are inconsistent with the ideals of university government as usually understood. The consequent division of interests and policy among the teachers in the Faculty of Engineering was clearly revealed in the evidence given before us by its representatives.

Realisation by Senate of need for reconstitution.

The development of the University since its reconstitution under the Act of 1898 has thus emphasised rather than reduced the divisions between the teachers, and between the teaching institutions which were brought into connexion with it. Even if the constitution had not been complicated by the essential duality introduced into the scheme by the necessity for holding both Internal and External examinations, and by entrusting the supervision of the one to the teachers, and of the other to the representatives of Convocation, subject to the complete and detailed control of both by a Senate upon which both were equally represented, it would not, in our opinion, have been possible for the University successfully to organise itself and perform its proper functions without some reconstitution. It was no mere accident which united the Senate in an appeal to the Government to appoint a Royal Commission with a view to considering what measure of reconstitution was necessary in order that the Imperial College of Science and Technology might be incorporated with the University.

Indirect results of Acts of Incorporation.

52. The Acts which incorporated University and King's Colleges were the result of a belief, on the part of those who desired to see a great university in London, that no university in any real sense of the term is possible unless it is itself directly responsible for the teaching of its students from the time they enter the university. These Acts were an expression of the ideal which inspired the founders of University College in 1826, which led to the formation of the Association for a Professorial University in 1892, but which had been overlaid by the controversies and compromises

of three generations. The effect of these Acts of Incorporation* is to give the University complete educational and financial control over all the teaching of a university standard in both colleges and in all Faculties in which teaching is provided other than the Faculty of Theology. All the funds applicable to these purposes were transferred under the authority of the Acts to the University. The Senate makes an annual grant to each of the two incorporated colleges of such a sum as it thinks fit after a consideration of the accounts of the colleges for the preceding year and the budgets of estimated expenditure for the succeeding year. The Senate of the University has recently demonstrated the reality of its control by twice refusing to accept the budget submitted by one of these colleges. Until the budget is accepted, no payments provided for in that budget can be made by the delegacy of that college. Yet these Acts have undoubtedly had a disruptive influence upon the working of the University as contemplated by the Act of 1898 and the Statutes made under it. The University that Act contemplated was, on its teaching side, essentially a federal University. The incorporation of University and King's Colleges in effect produced the nucleus of a single teaching University, to which many financially independent colleges and institutions were federated; and in consequence the Schools which remain unincorporated have been inclined to believe that the impartiality of the central supervisory body has been impaired. This leads to a good deal of jealousy and hinders the harmonious working of the University. The representatives of the unincorporated Schools have the impression that the incorporated colleges obtain undue consideration; and the impression is enhanced by the fact that the incorporated colleges are by far the largest and most important institutions in the University, except the Imperial College, which, however, is limited to the Faculties of Science and Engineering. It is also enhanced by the fact that these colleges are the only teaching institutions which, under the Statutes, have direct representation on the Senate.

53. It is said the incorporated colleges should cease to be specially represented on the Senate, or else the other Schools of the University should also be equally represented. And it is answered by the incorporated colleges that to give the unincorporated Schools representation on the Senate would be to put the financial control of University and King's Colleges in the hands of Schools which still maintain entire control of their own finance. The fact that only University and King's Colleges are incorporated, and that their finance alone is under the control of the University, no doubt makes their administration appear to be governed by collegiate rather than university interests. Yet it is obvious that the University financial administration must be confined to the colleges themselves, because all the other Schools are financially independent. It would clearly be a retrograde measure to separate the colleges from the University and re-establish them in their old position of independent colleges, especially as there is evidence that they have actually been brought into closer relation to each other as the result of incorporation. Co-ordination of their work has already been facilitated and jealousy between them diminished. The better course would seem to be that recommended by the Academic Council and the Finance Committee of the University, namely, to carry the process of incorporation further;¹ but this matter will be considered later.

Incorporation should be carried further.

54. There are other defects in the present organisation of the University which it will be convenient to consider together, for, although they are not all traceable to one or other of the two main grounds we have been considering, they are all connected with the machinery of government.

Other defects of organisation.

The Statutes made under the Act of 1898 give little power to the Faculties except as electoral bodies. Under Statute 68 they must consider and report to the Senate upon any matter referred to them, and may also do so upon any matter relating to courses of study, provision for teaching or research, examinations or the granting of degrees or certificates of proficiency in the subjects comprised within the

(i) Power of Faculties too limited.

* In a Memorandum appended by the Professorial Board of University College to their Report submitted to the Commission (*Appx. to 3rd Report*, p. 429) a full account is given both of the movement for the incorporation of University College and of the scheme for carrying it out. This scheme was in substance given effect to by the Act of 1905, though some of the details were modified. Subsequently a scheme for the incorporation of King's College was arranged on similar lines and embodied in the King's College Transfer Act, 1908. A short account of the provisions of the Act, as carried out by the Statutes made under it, is given in the Report of the King's College Delegacy prepared for submission to the Commission (*Appx. to 2nd Report*, p. 189).

¹ *Appx. to 2nd Report*, Academic Council Report, §§ 9-19, pp. 265-9. *Appx. to 3rd Report*, Finance Committee Report, p. 381; Edgar, Qs. 8381-2, 8409-25.

Faculty. But some of them have become such large bodies that they are unsuitable for effective work even within the limited sphere assigned to them. This is specially true of the Faculty of Medicine with some four hundred members, but it also applies to the Faculties of Arts and Science, and perhaps also to that of Engineering. Moreover, except through their individual members they are scarcely connected at all with the Boards of Studies, which are appointed by the Senate, and can report direct to that body. The Boards of Studies also report in many cases to the Academic and External Councils, which are obliged to consult them before reporting to the Senate upon many matters, but they cannot report to the Faculties. The Dean of the Faculty receives a copy of any report made by a Board of Studies within the Faculty ; but this is the only link of connexion, and as there is no means of ensuring that time will be given to the Faculty to intervene, it cannot act as a co-ordinating authority. Neither can the Academic or External Council always co-ordinate the proposals of the different Boards, because the Boards often report direct to the Senate. Mr. Pember Reeves, the Director of the London School of Economics, who has had wide experience of administrative business both in this country and New Zealand, said in evidence :—

“What is so troublesome, of course, is that the Boards of Studies come over the heads of the Faculties, over the heads of almost everybody, in fact, right to the Senate, and a great deal of time on the Senate is passed in wrangling and worrying about something or other which has been done by a Board of Studies.”¹

(ii) Present machinery unsuited to small Faculties.

55. In the case of the smaller Faculties, such as those of Economics and Laws, a different kind of difficulty arises which is referred to by Professor Cannan. He pointed out that in the case of the Faculty and Board of Studies in Economics :—

“They consist of almost exactly the same people, so the fact of there being two Boards would not give any trouble, if it were not for various regulations which compel an interval of seven days between a decision of one and a decision of the other and that sort of thing. We sometimes propose to hold the Faculty meeting immediately after the Board meeting and pass the same thing with no further trouble. But we are told that something must be done at one time by the one, and something must be done at another time by the other. Constantly we have two separate meetings of practically the same people to pass the same thing. We want a good deal more elasticity in order to get over these difficulties. Of course, the constitution itself may be bad. We do not express any opinion upon that, but it seems to me that it appears bad chiefly to the people who are trying to work it on the Senate and the Academic Council.”²

Notwithstanding these defects of machinery the general opinion is that the work of the Boards of Studies has been good.

(iii) Unequal academic standing of members of Faculties.

56. The large size of some of the Faculties appears to us to be a far less evil than that which arises from the unequal academic standing of their members. This inequality is directly due to the second of the main causes of the defects in the organisation—the combination in the University of a large number of institutions differently related to it and of different educational standards and aims ; but it is also in part due to the action of the Statutory Commission of 1898, and, after them, of the Senate of the University in the exercise of their discretionary powers of recognising teachers, and admitting them as members of the Faculties. It is also partly caused by the terms of Statutes 93 and 61, which deal with the recognition of teachers and their admission to the Faculties. We have been told that the Senate has shown a tendency to be lenient in the recognition of teachers,³ in some cases because it has been felt that to make distinctions would be invidious,⁴ and in other cases because the refusal to recognise a particular teacher would have been a hardship to students in the institution where he taught by preventing them from taking the Internal degree.⁵ Again, Statute 93, which prescribes the terms upon which recognition is to be granted, makes no distinction between the qualifications to be expected of a teacher who is at the head of a department, and a teacher who holds a subordinate position. The consequence is that recognition is claimed for a teacher in sole charge of a subject in a small School, or in a Polytechnic, on the ground that his qualifications are as good as those of some other “recognised” teacher who occupies only a subordinate position

¹ *Appx. to 3rd Report*, Pember Reeves, Qs. 7051, 7055. ² *Appx. to 3rd Report*, Cannan, Q. 7162.

³ *Appx. to 1st Report*, Ramsay, Q. 2333.

⁴ *Appx. to 1st Report*, Headlam, Statement, § 69, p. 89.

⁵ *Appx. to 2nd Report*, Bennett, Q. 2955.

in another School; and this tends to lower the whole standard of university teaching. It is not enough to look merely to academic qualifications; regard must also be had to whether the teacher is doing university work, and to whether or not he is responsible for the character of the teaching. Teachers recognised under the conditions just described, have, we are told, little or no intercourse, except at the meetings of the Boards of Studies, with the men and women who are devoting their lives to university teaching and research, yet their numbers give them an influence in university affairs out of all proportion to their real weight. There is, moreover, no direct instruction in the Statutes that "recognised" teachers shall be competent to do original work; and since the same qualifications are demanded of all "recognised" teachers, this applies even to the heads of departments in Schools of the University, who should certainly be qualified in this way. The consequence has been that too often the success of the teacher in preparing his students for the university examinations has been the main consideration, while in the case of teachers in the Polytechnics, where a great deal of work besides that for the University has to be done, qualifications other than those which concern the University have influenced the appointing bodies.

As to admission to the Faculty, Statute 61 provides:—"In admitting Teachers to be members of Faculties the Senate shall take care that as far as possible all sections of Teachers are represented." This practically prescribes inequality of standard; and large Faculties are the natural result because there is no valid ground for exclusion.

57. We have seen that the financial independence of the Schools is a great obstacle to a better organisation of the teaching side of the University. The Schools are not only in a position to disregard the recommendations of the University with respect to the selection of teachers, the scale of their salaries and the conditions of their employment, but they are almost driven for the purpose of self-preservation into the kind of competition which results in inferior teaching, duplication, overlapping, and consequent waste. If larger funds had been at the disposal of the University, and had been wisely administered, these evils might have been greatly reduced. Our attention has been specially directed by Lord Reay to the views of the Gresham Commission on this point.¹ He referred to the following passage in paragraph 22 of their Report:—

Possible effect of large University chest.

"Having regard, however, to the necessity so frequently adverted to by the witnesses of a more systematic grouping and co-ordination of educational means, we should deprecate any action which would tend to an undue multiplication of centres of instruction. The evidence points strongly to the conclusion that for some time to come the most effectual method of promoting higher education in London will be by completing and supplementing the resources of existing institutions, and even in some cases by limiting to one or more centres (in the manner pointed out by the Commissioners of 1888, in paragraph 8 of their Report) teaching which is now given with inadequate resources and to inadequate numbers in various institutions."

Lord Reay went on to say:—

"That is still my opinion with regard to the present situation; that as the financial means which are available are so limited, whatever means there are should be used rather to level up existing institutions, both with regard to their equipment, their plant, and the salaries of their professors, than to start new institutions, which to a certain extent establish a rivalry which is not desirable. I lay great stress on that financial policy to be observed for the present. And I also think the Cowper Commission, at page xxi, were quite justified in what they said: 'But we are of opinion that the action of the University should tend towards consolidation and unification, and that no assignment or allocation of funds at the disposal of the University should be made to any institution, except under conditions which would maintain full control by the University over the facilities provided by means of the common purse.' I think that a great deal can be done, and more than has been done, I admit, with regard to inter-Collegiate lectures; arrangements between the various Colleges to have no overlapping, and to make the best of the various resources which are at present available at the Colleges; and I need not say that what is said at the bottom of page xxi by the Cowper

¹ Appx. to 1st Report, Reay, Q. 2068.

Commissioners is still more true now : 'If, in accordance with our recommendations, the University should be reconstituted on a teaching basis, we trust that the support given to the University from the public funds will be largely increased, and a sum adequate to the needs of the case be placed annually at its disposal.'

The Cowper or Gresham Commission was not in any way hostile to the establishment of institutions for research. On the contrary they say :—

"At the same time we are of opinion that any institutions which may be established for the purposes of research should be open, under proper regulations, to the teachers in the University and to other persons qualified to carry out the investigations for which the institutions are designed. We are of opinion that institutions thus conducted would not in any degree tend either to affect injuriously the course of ordinary teaching, or to discourage the spirit of research, in the University Schools; but would, on the contrary, promote throughout the University and its allied institutions that zeal for the advancement of knowledge which is the highest mark and aim of University training."¹

But it is plain that the Commission looked to private munificence for the establishment and support of such institutions as are here referred to and regarded the financial support and development of the Schools as the primary duty of the University.

Effects of
small income
available.

58. Two specific instances have been brought to our notice in which the influence of the University over its Schools was extended by means of a grant of money, while in another case its influence would have been extended over a third School but for its inability to make a grant. In the first case the University was able to use a portion of the grant of 10,000*l.* a year made to it in 1902 by the Technical Education Board of the London County Council so as to secure for the Senate the appointment of the Director of the London School of Economics although the endowment offered was less than half the salary paid by the authorities of the School; and quite recently they were able to make an arrangement under which an annual income of 200*l.* a year towards the establishment of a department of Ethnology was guaranteed by the Governors of the School in return for the establishment of a readership in Ethnology by the University. Bedford College recently asked the University to appoint a Reader in Ancient History to teach at University and Bedford Colleges, the authorities of Bedford College providing a moiety of his salary.*

59. On the other hand, when the authorities of St. Bartholomew's Hospital approached the University in 1908, before the completion of the new Institute of Pathology in their Medical School, and asked whether the University would assist the School under Statute 79 "by the allocation of funds" "for the remuneration of teachers and the equipment of" the School, and in particular for the endowment of research studentships, the University was forced to reply that it "had not at present funds to provide research studentships." "The representatives of the School pointed out that it was desirable to devise some means of bringing the University into closer touch with its Schools"; but the Senate did not see their way to do more than support an "approved appeal" to be made by the School for funds to found the studentships in question.² Had the University not already been pledged to the support of the Physiological Laboratory in the University buildings the reply might have been a different one. During 1908 the contribution from the University chest to the Laboratory was 400*l.*, and during 1909-10 and the following year upwards of 840*l.*, though the University became possessed in 1909 of a new Institute of Physiology connected with University College which we believe is one of the best in the world. The University Physiological Laboratory is the first example of the series of special Institutes which we have seen it is the declared policy of the External side to found, in contravention of the financial policy recommended by the Gresham Commission as an essential condition of the successful working of their scheme. It thus appears that, although additional funds at the free disposal of the University could with advantage be used to reduce to a minimum the defects which arise from the present organisation of the Internal side of the University, there is no guarantee that they would be applied for that purpose so long as the existing relations of the External and Internal sides continue.

¹ Gresham Commission Report, § 23, p. xxii.

² Senate Minutes, February 1909, 1400 ff., and *Appx. to 5th Report*, St. Bartholomew's Medical School Statement, § 63, p. 67.

* The same College also asked the University to appoint a Reader in Greek, the College providing the full salary.

PART II.

THE ESSENTIALS OF A UNIVERSITY IN A GREAT CENTRE OF POPULATION.

I. THE NATURE AND WORK OF THE UNIVERSITY.

60. We have described what appear to us to be the main defects in the present organisation of the University, and we think it must be clear from what we have said that the University cannot work well so long as the present relations of the Internal and External sides continue as they are now, and also that the form of connexion between the various teaching institutions which were brought within the scope of the University by the Act of 1898 has failed to bring about the unity of purpose and effort which the Gresham Commission hoped might be attained under their scheme. This is partly because their proposals were not adopted. Their intentions were to a considerable extent frustrated by the compromise contained in the Schedule to the Act referred to, though we realise that this compromise represented the utmost that could be achieved at the moment, and that without it no reconstitution of the University could have taken place. Two changes made by the Schedule in the Commissioners' recommendations were especially unfortunate. First, a form of government was adopted which they did not recommend, and which in our opinion was not suitable for the purpose of giving their scheme a fair chance of success; and, secondly, the University was connected, by means of the recognition of individual teachers, with a large number of institutions of a different educational standard from those the Commission intended to include. The failure, however, is only in part due to these causes, for experience has shown that the Gresham Commission were mistaken in believing it was in any way possible to organise a homogeneous university by connecting a number of financially and educationally independent institutions with a central degree-giving body endowed with the limited power and influence possessed by such a university as they proposed.

Summary of existing defects.

61. We now proceed to consider the nature of the provision we think should be made in London for university education and research. This appears to us necessary before we can make constructive proposals for the proper organisation of the means of higher education which already exist, or offer recommendations with regard to the additional provision that is needed. We must inquire what are the ends to be kept in view; what are the essential things which the University of London must do if it is to be the highest kind of educational institution; and, further, what are the conditions necessary for the attainment of these ends.

Necessity for considering nature of provision to be made.

62. Much that is defective in the present organisation of the University of London can be traced ultimately to confusion of thought about what things are essential to university education and what things are non-essential. For example, whatever importance may be attached to examinations, an examining board can never constitute a university; and, again, technical instruction and advanced courses of study may be multiplied indefinitely without providing university education. Of course, any educational institution may be called a university; but, as Dr. Rashdall says, "the name has got to be associated with education of the highest type: to degrade the name of a University is therefore to degrade our highest educational ideal."¹ We do not mean, however, that what we call non-essential things ought not to be provided, but only that they can be done without a university, although some of them can be better done by a university and in as close connexion as possible with the work which only a university can do. The history of the rapid growth of university institutions in this country during the last thirty years would no doubt explain much of the confusion of thought to which we have referred, but a large part of it is due to the history of the University of London itself, to the undoubted success which it achieved as an examining body, and to the beneficial effects of the encouragement it gave to systematic study at a time when there was no properly organised system of secondary schools, and but a very imperfect provision of institutions capable of giving a higher education at a small cost.

Confusion of thought as to essentials and non-essentials.

¹ Rashdall, "Universities of Europe in the Middle Ages," Vol. II., Part II., p. 714.

Development
of modern
English uni-
versities.

63. The University of London may well be called upon to do many other things besides those which are strictly essential to a university, and what these things are will depend in the main on the needs arising from the present state of education in this country. On the other hand, a wise decision as to what it is essential for the University of London to do must have regard to the demands which have come to be made upon the modern universities in England as the result of their historical development. It is no accident that all the modern universities of England have been established in great centres of population. In these centres are practised to a far greater extent than in rural areas those professions and callings for which the intellectual training given by a university has always been needed. In cities, moreover, many new occupations have developed which require a highly trained intelligence and which would find no scope apart from the manufacturing or commercial activities of the nation. There is, therefore, a demand for well-educated young men and women in the cities, and parents living and working in them come to know of it. But the conditions which have produced the demand have yielded the supply. In the large cities of England the number of students qualified to undergo a university training and desirous of having it, if it can be provided at a moderate cost, has been relatively large, because the provision for secondary education, imperfect as it has been even there, is in many cases less deficient than in the country districts. And, finally, in the cities, where wealth is made and distributed and capital accumulated, it has been found easier to collect the large funds required for the foundation and maintenance of university institutions, in the absence of adequate financial support by the State. Many young men and women whose parents could not have afforded the cost of educating them at Oxford or Cambridge have attended the classes and laboratories of the modern universities, and have found in them either the general training or the special professional equipment which they needed for their work in after life. It has therefore naturally come about that the modern universities are situated in centres of dense population, and that they have included technical and professional subjects in their curriculum to a far greater extent than the older universities. These facts must necessarily affect the conception of the proper functions of a city university. Young people of moderate means cannot afford to continue a general education up to the age of 21 or 22 without regard to the nature of their work in life. Modern universities, like those of the Middle Ages, are therefore more obviously schools of preparation for professional life than the Universities of Oxford or Cambridge, though we think inquiry would show that a larger proportion than is sometimes supposed of the students of the older universities have a definite professional purpose in going to them. The demand for higher technical instruction made itself felt throughout the Western world in the second half of the nineteenth century, when the modern universities of this country were coming into existence. It is possible that if the organisation of secondary schools in England had been more advanced, and if there had been, as there was in Germany, a large number of universities with a settled scope and policy, the demand might have been met here as it was in Germany, by institutions distinct from the universities. But in England, the need for a greater knowledge of science, both for itself and in its practical applications, preceded in the main the consciousness of the need for the highest instruction in history, or philosophy, or literature. Speaking generally, it may be said that in nearly every case the development of the modern English universities is the gradual evolution of a complete group of Faculties in institutions originally founded for the pursuit of science and technology. Perhaps it is yet to be proved whether the definite professional outlook of some of the modern English universities is consistent with the wide intellectual training which university education has always been understood to imply. We have no doubt, however, that any branch of knowledge which is sufficiently developed and systematised to be capable of scientific treatment may be taught and studied in such a way as to form part of a university education. The *differentiæ* of university education do not consist in the nature of the particular subjects studied, or in their difficulty or abstruseness, but rather in the nature and aim of the students' work, and in the conditions under which it is done.

The Essentials of University Education.

Necessity for
intercourse
between stu-
dents and

64. In the first place, it is essential that the regular students of the University should be able to work in intimate and constant association with their fellow students, not only of the same but of different Faculties, and also in close contact with their teachers. The University should be organised on this basis, and should regard it as

the ordinary and normal state of things. This is impossible, however, when any considerable proportion of the students are not fitted by their previous training to receive a university education, and therefore do not and cannot take their place in the common life of the university as a community of teachers and students, but, as far as their intellectual education is concerned, continue in a state of pupilage, and receive instruction of much the same kind as at a school, though under conditions of greater individual freedom. It is good that the students should be brought together if only in this way, and Newman, writing in 1852, even went so far as to say:—

between students and teachers.

“I protest to you, Gentlemen, that if I had to choose between a so-called University, which dispensed with residence and tutorial superintendence, and gave its degrees to any person who passed an examination in a wide range of subjects, and a University which had no professors or examinations at all, but merely brought a number of young men together for three or four years, and then sent them away as the University of Oxford is said to have done some sixty years since, if I were asked which of these two methods was the better discipline of the intellect, . . . which of the two courses was the more successful in training, moulding, enlarging the mind, which sent out men the more fitted for their secular duties, which produced better public men, men of the world, men whose names would descend to posterity, I have no hesitation in giving the preference to that University which did nothing, over that which exacted of its members an acquaintance with every science under the sun.”¹

Nevertheless, this is only one side of the question, and in any case Newman does not refer to the kind of student life that can be reproduced in London. But for this very reason it is the more essential that in such a University as London can have the students and teachers should be brought together in living intercourse in the daily work of the University. From the time the undergraduate enters the University he should find himself a member of a community in which he has his part to play. The teaching and learning should be combined through the active and personal co-operation of teachers and students.

65. The main business of a university is the training of its undergraduates, and it is clear that university study will be best pursued if the students, or at any rate a large proportion of them, are of an age when fresh intellectual impressions and habits of mind are easily formed, and if their main purpose during the period of their student life is the training which they hope to receive from the university. A university education is most effective when it is given before the struggles and preoccupations of life in the world have begun. It is a training which ought to make great demands both upon the intellectual energy and upon the time of the student; on his energy, because he is learning the methods of independent work carried on in an inquiring spirit; on his time, because mental habits cannot be formed rapidly, nor if the mind is distracted by other cares and interests, and because, if he is to get more from the instruction of the class-room or laboratory than notes in preparation for an examination, a considerable amount of leisure is essential for independent reading, for common life with fellow students and teachers, and above all for the reflective thought necessary to the rather slow process of assimilation.

Students should be young and give their whole time.

66. In the second place, the work done in a university by teachers and students should differ in its nature and aim both from the work of a secondary school and from that of a technical or a purely professional school. In the secondary school it is expected that a knowledge of many things should be acquired while the mind is specially receptive, and during this stage of education definite tasks are rightly prescribed. But even more important than knowledge is the moral and mental training needed for later success in study or in life, which the pupils gain by the orderly exercise of all their activities demanded in a well arranged school. In the technical or professional school the theoretical teaching is so closely connected with the requirements of the art to be acquired, or the profession or calling for which the pupil desires to prepare himself, that it is limited and directed largely to the application of ascertained facts to practical purposes, or it may be to the preparation for a qualifying examination.

Work of secondary and technical schools differs from that of a university.

In a university the aim is different, and the whole organisation ought to be adapted to the attainment of the end in view. Knowledge is, of course, the foundation and the medium of all intellectual education, but in a university knowledge should be pursued not merely for the sake of the information to be acquired, but

¹ Newman, “Idea of a University,” p. 145.

for its own extension and always with reference to the attainment of truth. This alters the whole attitude of the mind. Scientific thought becomes a habit, and almost incidentally intellectual power is developed. Modern universities are called into existence principally by the social need for professional training, and probably most of the students enter the University with a purely utilitarian object; but they should find themselves in a community of workers, devoted to the pursuit of knowledge for its own sake, and tenacious of this ideal against all external pressure of material and social advantages. Academic instruction is primarily purely theoretical and scientific, and yet it is not only the best training for the conduct of life, but also the best, if not the necessary introduction to all those professions and callings of which it may be said that practice and progress are closely connected and constantly reacting on each other. Its effect in relation to the profession or calling which the student has in view is that he brings to it not only the discipline, training, knowledge, and resourcefulness he has acquired, but also the intellectual mastery of the principles involved which enables him throughout his life to appreciate and apply all advances in science that bear upon it.

Description
of university
teaching.

67. The following description of university teaching given by the inspectors of the Board of Education in a Report of 1910 appears to us to agree in substance with what we have said, and in some respects to express our meaning in greater detail and completeness:—

“We may assume,” they say, “that university teaching is teaching suited to adults; that it is scientific, detached, and impartial in character; that it aims not so much at filling the mind of the student with facts or theories as at calling forth his own individuality, and stimulating him to mental effort; that it accustoms him to the critical study of the leading authorities, with, perhaps, occasional references to first-hand sources of information, and that it implants in his mind a standard of thoroughness, and gives him a sense of the difficulty as well as of the value of truth. The student so trained learns to distinguish between what may fairly be called matter of fact, and what is certainly mere matter of opinion, between the white light and the coloured. He becomes accustomed to distinguish issues, and to look at separate questions each on its own merits and without an eye to their bearing on some cherished theory. He learns to state fairly, and even sympathetically, the position of those to whose practical conclusions he is most stoutly opposed. He becomes able to examine a suggested idea, and see what comes of it, before accepting it or rejecting it. Finally, without necessarily becoming an original student, he gains an insight into the conditions under which original research is carried on. He is able to weigh evidence, to follow and criticise argument, and put his own value on authorities.”¹

Need for
associating
undergradu-
ate and post-
graduate
work.

68. In the third place, it is essential that the higher work of the University should be closely associated with the undergraduate work. Proposals which tend to their separation take two forms. On the one hand, it is proposed that the bulk of the undergraduates should be distributed over a large number of centres, most of which would be limited to instruction in one or two Faculties only, while the teaching of the University Professors in the more central colleges should be organised with primary reference to the needs of the post-graduate or advanced student, and should provide for undergraduates, if at all, only as a secondary and entirely subordinate consideration. On the other hand, there is the proposal of the Council for External Students, to which we have already referred, for the creation of a series of institutes for research and higher learning to which the best students would pass from the colleges and other institutions where they had received their undergraduate training. Neither of these proposals commends itself to us as a desirable policy, and both of them appear to involve a half-conscious admission that the great majority of the students who at present take the bachelor's degree of London University do not receive a university education at all. But this is the greatest evil which results from the present organisation of the University, and the one which it is most important to remove in the interests of higher education in London.

No one suggests that research should be divorced from teaching, but for various reasons proposals are made for organising the higher and more advanced work of the

¹ Board of Education. Special Report of H.M. Inspectors on Workers' Educational Association Classes (1910). Quoted in Statement submitted by the Governors of the London School of Economics. *Appx. to 3rd Report*, p. 94.

University separately from the undergraduate work in a way which must tend in this direction. We agree with the view expressed in the Report of the Professorial Board of University College that "any hard and fast line between undergraduate and post-graduate work must be artificial, must be to the disadvantage of the undergraduate, and must tend to diminish the supply of students who undertake post-graduate and research work."¹ Even in those cases where it is necessary to provide for research departments which, because of their specialised work, are unsuited for the admission of undergraduates, they will be stronger and more effective if they are in close proximity to departments where undergraduate work is done.

69. Teaching will, of course, predominate in the earlier work, and research will predominate in the advanced work; but it is in the best interests of the University that the most distinguished of its professors should take part in the teaching of the undergraduates from the beginning of their university career. It is only by coming into contact with the junior students that a teacher can direct their minds to his own conception of his subject, and train them in his own methods, and hence obtain the double advantage of selecting the best men for research, and getting the best work out of them. Again, it is the personal influence of the man doing original work in his subject which inspires belief in it, awakens enthusiasm, gains disciples. His personality is the selective power by which those who are fittest for his special work are voluntarily enlisted in its service, and his individual influence is reproduced and extended by the spirit which actuates his staff. Neither is it the few alone who gain; all honest students gain inestimably from association with teachers who show them something of the working of the thought of independent and original minds. "Anyone," says Helmholtz, "who has once come into contact with one or more men of the first rank must have had his whole mental standard altered for the rest of his life." Lectures have not lost their use, and books can never fully take the place of the living spoken word. Still less can they take the place of the more intimate teaching in laboratory and seminar, which ought not to be beyond the range of the ordinary course of a university education, and in which the student learns, not only conclusions and the reasons supporting them, all of which he might get from books, but the actual process of developing thought, the working of a highly trained and original mind.

Advantage to undergraduates of professorial teaching.

70. If it is thus to be desired that the highest university teachers should take their part in undergraduate work, and that their spirit should dominate it all, it follows for the same reasons that they should not be deprived of the best of their students when they reach the stage of post-graduate work. This work should not be separated from the rest of the work of the University, and conducted by different teachers in separate institutions. As far as the teacher is concerned it is necessary that he should have post-graduate students under him. He must be doing original work himself, and he often obtains material assistance from the co-operation of advanced students. Their very difficulties are full of suggestion, and their faith and enthusiasm are a perennial source of refreshment and strength. He escapes the flagging spirit and the moods of lethargy which are apt to overtake the solitary worker. There can be no question of a higher class of teachers than the professors of the University, or the whole position of the University will be degraded. On the other hand, a university teacher of the highest rank will naturally desire to have as his post-graduate students those students whom he has already begun to train in his own methods, though his laboratory or seminar will, of course, be open to students who come from other universities, and to some perhaps who come from no university at all, as well as to some who come from other teachers of the University of London. There must be a great deal of give and take, and students may often gain by studying under more than one teacher of the same subject; but that is an entirely different thing from separating the higher work from the lower. We do not think it would be possible to get the best men for University Professorships if they were in any way restricted from doing the highest work, or prevented from spreading their net wide to catch the best students.

Advantage to teachers of retaining the same students for higher work.

71. It is also a great disadvantage to the undergraduate students of the University that post-graduate students should be removed to separate institutions. They ought to be in constant contact with those who are doing more advanced work than themselves, and who are not too far beyond them, but stimulate and encourage them by the familiar presence of an attainable ideal.

Advantage of associating junior with advanced students.

¹ *Appx. to 3rd Report, App. VII., p. 411.*

Influence of the University as a whole.

72. Then, again, there is the influence of the University as a whole upon all departments of work within it. The advance of knowledge is not along single lines of special research alone. The sciences have all been developed out of the ordinary knowledge of common experience by the gradual substitution of completeness and accuracy for vagueness. Research is often spoken of as if all of it was the highest kind of work, and it is often assumed that a student's education has reached its goal when he is said to be doing original research, and that if he attains to this it does not matter what his previous training has been. But, in fact, there are all degrees of value in research, and much that is dignified by the name, however laborious and praiseworthy it may be, is directed to narrow issues and problems of quite secondary importance because the student lacks a broad and liberal education and a wider point of view. Even men of great eminence in their own department of knowledge have been known to apply the conceptions which are valid within the range of their particular science to problems which can never be solved by means of them. All the sciences are fragmentary when viewed in relation to the whole range of experience. They pass over into each other; they require to be supplemented, corrected, extended; even their most fundamental presuppositions may have to be reconsidered in the light of discoveries in other fields of investigation, and as the result of the re-thinking and re-conceiving of existing knowledge. It is impossible for any but the greatest minds to gain mastery over more than a small part of human knowledge; but in addition to the mastery of a part it is possible to acquire a general conception of the whole, a sympathetic understanding of the ideas which guide the work of other men, an almost instinctive sense of the bearing of other branches of knowledge on one's own special work, and a just appreciation of its possibilities and limitations. All these ends are best achieved by a university which takes the whole realm of human thought and knowledge as its own, associates its teachers and students together as closely as the conditions of their work will allow, and so forms a community with one spirit and one aim, which in course of time will develop an individual character and create traditions that will affect the minds of all who come within its influence.

Special research institutes should not be maintained out of general university funds.

73. The Medical Committee of the British Science Guild supported the proposal for the establishment by the University of central laboratories of post-graduate character as a further provision for the post-graduate worker and teacher,—research institutes such as the Collège de France, the Instituts Solvay of Brussels, and the Forschungsinstitut of Berlin, of which, they say, the only example in London is the Physiological Laboratory of the University. It will be evident from what we have already said that we think this policy would be full of danger to the development of the University. The recent movements in Berlin and Leipzig for the foundation of research institutes independent of the university, though indirectly connected with it through the investigators in the institutes being in some cases professors in the university, offer no true analogy for the proposal to set up in London under university control and with university funds institutes devoted solely to research. It has yet to be seen whether the German experiment will be successful, but so far as it has at present developed, the intention seems to be partly to provide for special investigations of a longer and more elaborate kind than those which can be undertaken by university students or teachers, and partly to undertake work in branches of knowledge which fall outside the ordinary scope of the university or technical high school as organised in Germany. The Kaiser-Wilhelms-Gesellschaft is an association of rich men and societies who have contributed large sums for the encouragement of research in the widest sense, either in connexion with or independently of existing academies and scientific institutes throughout the kingdom of Prussia. One of its aims is to prevent the exploitation of research in the interests of individual capitalists; another is to supplement existing agencies for investigation and to undertake work for which no provision has yet been made. It has, for instance, co-operated with the Chemische Reichsanstalt to build a great Institute of Chemistry at Dahlem, near Berlin, to be called the "Kaiser-Wilhelms-Institut"; it has purchased and taken over the maintenance of the biological station at Rougiro on the Mediterranean, which was founded by the late Dr. Hermes; it has made grants in aid to various investigators—one of them an archæologist; and it has set aside a sum of money for the production of facsimiles of Egyptian sculptures likely to be of use in the study of ethnology. Like the Carnegie Institution of Washington, it is an independent trust for the advancement of knowledge, and has no relation to our present problem.

To set up specialist research institutes at this stage within the University would be an attempt to build the steeple before the church is roofed. Nor do the Collège de

France and the Instituts Solvay afford a better model for the guidance of those who are concerned with university organisation. The French and the Belgian institutions referred to are independent of the Universities of Paris and Brussels* and are more analogous to the laboratories of our own Royal Institution, or Lister Institute, than to the Physiological Laboratory at present established in the University buildings. In a great city like London, we believe there is room, as there is in Berlin and in Leipzig, for important independent research institutes which may incidentally offer advanced students of the London and other Universities opportunities for making investigations of a special kind; but institutes of this type, however necessary in themselves, do not, and in our view should not, form a part of the university organisation, and certainly do not justify the establishment by the University itself of institutes at a distance from, and without close connexion with, its other activities. Indeed, so far as research is concerned, no beneficial results have accrued from Statute 74, which permits the University to recognise "any institution founded " for the promotion of science or learning " within the University area " as a School " of the University for the purpose of research or the cultivation of any special " branch of science or learning." It is obvious that the University can exercise no influence over the conduct of a purely research centre such as the Lister Institute, or over a special professional school like that of the Pharmaceutical Society, both independent in every real sense of the University, and with purposes of their own which are not university purposes. We trust that students or graduates of the University may be found within their walls, but they will reap no advantage from a formal connexion of the institutions with the University. We believe that what the University requires from institutions such as those named, is the same kind of convenience of access and general co-operation in the interests of learning that it looks for from the national museums, or the collections of learned societies. Formal bonds of connexion would do nothing to assist the teachers and students of the University in making the full use they will and ought to make of the unrivalled opportunities for special study these institutions afford.

74. On the other hand, we are strongly of opinion that provision should be made by the University itself for the publication of the investigations which are carried out under its auspices by its teachers and its senior students. The benefit which a university can confer on the world of learning depends largely upon the influence that it has upon other universities and learned bodies. Shorter scientific contributions are perhaps best made known by publication in the recognised periodicals devoted to the subjects to which they relate, but the publication of longer original works cannot be made upon a commercial basis, and unless a university can assist its investigators by bringing their labours to the notice of other workers in the same field, not only will its own students and teachers be discouraged, but the advance of knowledge, which it is one of the chief purposes of a university to achieve, will be delayed because other workers will be ignorant of what has already been done or attempted. The establishment of a University Press under the full control of the University itself is, therefore, in our opinion, an essential function of the University.

A University Press.

University Education for Evening Students.

75. It is not impossible for students who unfortunately cannot give their whole time to study to receive a real university education, provided sufficient care is taken to give them the best teachers and suitable conditions for their work. We have received a great deal of evidence as to the enthusiasm and admirable work of many evening students, and we think that in a city of the size of London there is a number of men and women rather older than the average student, with a keen desire for learning, whose circumstances prevent them from devoting their whole day to study, and for whose needs the University should make provision. They will need great patience and strength of purpose, if they are to receive from evening study the same kind of training that the full-time student receives. At the best they will lose something which those who are more fortunate will get. But while they may suffer from the pressure of material cares, we are assured that they gain immensely from their zeal, their experience of life, and the maturity of their intellectual development. The number of students may be relatively small who have the necessary physical and

Necessity for some evening instruction of highest university standard.

* The only connexion of the Collège de France with the Sorbonne is that it is housed in the same block of buildings. The connexion of the three Instituts Solvay with the University of Brussels is a nominal affiliation which means less than the recognition of the Lister Institute as a School of the University.

intellectual vigour, and who would be prepared to spend the longer time that we think would generally be found necessary to complete (in the evening) the full course of study for a first degree. Nevertheless, we believe the attempt to give them an education as good as that offered by the University to its day students is well worth making. It is an experiment that has never yet been carried out consistently, and one that must prove more expensive than provision for work of the same character in the daytime, but we think the University of the metropolis should undertake it. The chief teachers engaged in this work should do no class teaching in the daytime; they should have the same qualifications as the other professors of the University; like all university teachers they should be appointed by the University; they should receive the same salaries, and have the use of libraries and laboratories as well equipped as those available for day teaching. It is of the greatest importance that the laboratories, and especially those for more advanced work, should be reserved exclusively for evening students, so that apparatus they have set up should not be shifted or disarranged to make room for day students. This arrangement will be relatively more costly than day instruction, for the laboratories and apparatus will for the most part not be available for use in the daytime; but if evening students are really to be given the same advantages as those provided for the ordinary day students, it is necessary. In the Faculty of Economics and in some legal subjects, courses of the kind we mean, and given in the way we contemplate, are already provided by University College, King's College, and the School of Economics. Similar provision should be made in an equally convenient situation for degree courses in the Faculties of Arts and Science. We hesitate to recommend the establishment by the University of an evening centre for technology, at any rate until after the success of the instruction in the other Faculties has been assured; partly because of the great expense that would be involved, but mainly because we are of opinion that a full course in engineering, of the kind which the University ought alone to provide, could not be given in the evening only, unless it were extended over so many years that students would probably be unwilling to undertake it.

These difficulties are less serious, however, in the Faculties of Arts and Science, and we shall make recommendations later as to the establishment of a College of the University in the Faculties of Arts and Science for evening students only (*see* paragraphs 144-151). The great centres of day instruction such as University, King's, and the Imperial Colleges should not attempt to offer undergraduate courses in the evening for a first degree in these Faculties, though for the present it may be desirable to continue the existing arrangements in the Faculties of Economics and Laws.

Technology.

Technology
should be
included
in the
University.

76. There is nothing in the functions of a university as we have described them which ought to exclude technological instruction; but it must not be of a narrow utilitarian kind. If only those technological problems were studied which appeared likely to involve an immediate financial or material advantage, the point of view from which the inquiry, however recondite, was made would destroy the university spirit, and would not in fact be likely to open up the path to their solution. The difficulties that present themselves to manufacturers or merchants seldom afford an indication of the true nature of the problems to be solved. They are generally secondary in their nature, and a direct attack on them is likely to be as empirical as the symptomatic treatment of disease. It is the recognition of this truth which has led to the paradoxical assertion that the value of any study varies inversely with its usefulness; but in fact the value of a particular study arises not out of the matter which is treated, but out of the manner in which it is handled. Even from the point of view of technology we think Sir Walter Raleigh is right when he says in his Address on the Meaning of a University: "The standard of utility is a false and mischievous standard, invented by short-sighted greed, and certain, if it is accepted, to paralyse and kill the University that accepts it. It cultivates the branches for profit, and neglects the root. You cannot apply the test of utility to knowledge that is living and growing. The use of knowledge is often the application to practical ends of knowledge that has ceased to grow. It is the timber, not the growing tree, which serves for ships. Some of the conclusions of scientific study can be utilised, but who shall say which of them? How can we be free to ask questions of the world, if we are told that we must ask no question the answer of which is not certain to be immediately profitable to us? We ask the question because we do not know

“ the answer. The answer, if we are so fortunate as to find it, may be disconcerting and strange. Then we must ask more questions.”¹

77. This view of the attitude which a university should assume towards utility does not prevent it from being useful to the industries, indeed it will be more useful to them if this is its spirit than if it merely thinks of those strictly trade purposes which it is the necessary and useful end of polytechnics and technical institutes to promote. The Governing Body of the Imperial College have represented to us strongly their fears that the academic temper of the University is likely to hamper their efforts to “ deal with the higher instruction for industrial purposes especially “ in relation to industry ”—a duty expressly laid upon them by the Charter of their incorporation. We think, however, that what they fear is rather the imposition of particular procedures upon them by the University, acting under the pressure of other faculties, and that, provided freedom of initiation can be secured to them, they would endorse the protest against a narrow utilitarianism. We are convinced that the spirit of their professors and of their teaching is the same as that which imbues a university, and that they are only asking to be allowed to express it in their own way.

University attitude not utilitarian yet useful to industries.

78. Both the history of educational organisation and a right view of the methods of university work appear to us to justify the inclusion of professional and technological studies within the University; and this being so, it is neither possible nor desirable to withhold the advantage of the highly specialised work being done in the University laboratories and class-rooms from those already engaged in a profession or calling, who need to supplement their knowledge in particular directions. Although it may be true that the first and most urgent call upon the University is that made by its regular students, it could not hope to retain the sympathy and support of the community to which it must look for material as well as moral assistance, if it refused help and guidance to men and women who, though the days of regular study were past, wished to keep abreast with the demands made upon them by their professions. A university in a great centre of population must be prepared to provide advanced instruction of a specialised kind for all classes of the community who are willing to receive it. A great deal of this work must be done in the evening, and for this purpose the great day colleges of the University should be used.

Specialised instruction for occasional students.

University Classes for Working Men and Women.

79. There is, however, one class of adult student for whom the University should, in our opinion, make further provision than that just indicated, though they will also, no doubt, benefit by some of the evening courses given in the day colleges. We refer to the large and increasing body of workers whose needs and desires have found expression through the Workers' Educational Association. We have been greatly impressed by the remarkable progress already made by that Association under the inspiring guidance of its general secretary in arranging classes of a university standard for working men and women. We are even more impressed by the true spirit of learning, the earnest desire for knowledge, and the tenacity of purpose which have been shown by the students. These men and women desire knowledge, not diplomas or degrees, and we think that no university, and above all no city university, would justify its existence that did not do its utmost to help and encourage work of this kind. Such work is not essential to a university in the narrower sense of being a condition of its existence, but it is essential in the broader view, which lays upon a great seat of learning the duty of using its talents to the utmost, and offering its treasures freely to all who can benefit by them and sincerely desire to do so. In the branches of study which have proved most attractive to these students the benefit is reciprocal. The intimate personal knowledge the workers have of many important social and economic problems throws a light upon the history of industry, and on the relation of Capital to Labour, which is of inestimable value to the teacher and investigator. Systematic inquiries have been conducted that would have been impossible without the active and intelligent assistance of the workers, and we understand that some of the students themselves have made independent investigations under the guidance of their tutors. We think, therefore, that the University of London should be so organised and endowed as to enable it to establish and maintain a special centre to be identified with the work done in conjunction

Centre for Workers' Educational Association.

¹ Sir Walter Raleigh, “The Meaning of a University,” 1911, p. 11.

with the Workers' Educational Association, and to serve the social as well as the intellectual needs of its students. In a later Part of our Report (*see* paragraph 411) we shall explain how we think this can be done. But we must point out here that although we think this special provision should be made by the University itself, the University will not be in the position to undertake this important work successfully unless it has previously obtained the means of providing satisfactorily for its own undergraduate and graduate students, and for its own professoriate. Unless the University has a distinguished and properly paid body of teachers who will constantly be sending out able and well-trained young graduates, the supply of teachers necessary for the conduct of the rapidly increasing number of classes for working men and women will fail at its source. The stronger the University can be made for its primary duties, the better it will be able to help forward this new and hopeful movement.

Degrees and Examinations.

Granting of degrees incidental to a university.

80. The power of granting degrees is one of the chief characteristics of all universities, although it is not the real end of their existence. The great majority of the students enter the university only for a few years, and graduation is for them the culmination of their university career. In earlier times the students of a Faculty were apprentices to a profession, and when they became masters they entered the rank of teachers and were required to teach for a time. This rarely happens now; the teachers are a specially appointed class, and the bulk of the students leave the university immediately after graduation. The university fulfils its end for the nation and the world partly by the advancement of science and learning, but partly also by sending out into many of the different paths of life a constant stream of men and women who have been trained by its teaching and influenced by its life.

Signification of a degree.

81. The object of going to a university is, or ought to be, to obtain a university education; and the degree ought to signify that this end has been attained. It is required for practical purposes as the sign and guarantee of a university education. At the present day the pass degree is the public certificate of the university that the student has complied with such conditions as may be prescribed with regard to residence, instruction and course of study, and has satisfied the tests which the university imposes in order to ascertain that he has profited to a reasonable extent by the opportunity he has had. The honours degrees certify that he has acquitted himself with greater or less distinction, and the higher degrees that he has pursued a further course of study and satisfied additional tests. Degrees, however, are not only certificates, they are also distinctions; and the hope of academic distinction excites emulation and rivalry which, although not the highest motives, are powerful incentives to sustained effort and self-denying exertion not easily dispensed with.

Examinations as a test of university education.

82. It is obvious that the tests imposed ought to be designed for the purpose of affording sufficient evidence that the object has been attained which is certified by the degree. Two things, then, must be kept in view in fixing what the tests should be. First, they should be fair tests affording sufficient evidence of what they are intended to prove; and, secondly, they should not interfere with or injuriously affect, but should, if possible, assist the education which it is the real end of the university to give. In English universities the main test employed is that of examination. We must therefore consider the question how far that test affords sufficient evidence of a university education (i) when conducted solely by external examiners, and (ii) when conducted largely by the teachers of the students examined; and how far in each case it is injurious to the real education of the student or can be made to assist its ends.

Defects of a purely external examination.

83. On the External side of the University of London, which continues the system of the old University, the only test imposed is that of examination, and the only condition for securing the education of the student is the lapse of time between the examinations, during which he may apply himself to study on the lines of a prescribed syllabus, with or without instruction. Such examinations are necessarily conducted by examiners who, except by accident, have had nothing to do with the instruction of the candidates, and the questions must be so framed as to be fair to candidates who have been entirely dependent upon private study. What, then, does the examination test? All that is provided is a syllabus, and all that the examination can profess to test is a knowledge, at the time of the examination, of the subjects prescribed by the syllabus, because the candidate may get his knowledge

in any way he likes. He may work hard and well, and he may have the best instruction, but the test of the examination affords no sufficient evidence of this. As far as it tests his knowledge or information alone, it can obtain evidence only of memory, and not even of lasting memory, because, in the case of some subjects at any rate, cramming is the most successful way of preparing for the test, and it is notorious that a good coach can enable a candidate even to dispense with cramming more than fragments of a subject prescribed. In some subjects the questions are more in the nature of tests of capacity than of memory, but, as Mr. Hartog points out, in order to afford evidence of capacity the standard of marking in the case of these subjects would need to be much higher than in the case of tests of memory. Whether it is reasonable or not to accept 30 per cent. of the full marks when you are testing memory, it is clear that if the question is intended to test a candidate's capacity to do a thing the percentage of marks required ought to be much higher. "A boy who can only do right five addition sums out of ten cannot add. A person who reads a thermometer accurately five times and inaccurately five times cannot read a thermometer. A person who understands nine-tenths of the words in an easy passage in a foreign language, with or without the use of a dictionary, but is at sea in regard to the meaning as a whole, has not brought his knowledge of the language to a useful point."¹ No doubt the successful candidates for External examinations have to work hard. We do not suggest that the examinations are easy to pass; the large percentage of failures is sufficient evidence that they are not. But the large number of failures also proves that a wide syllabus of prescribed subjects, with an External examination as the test of the information acquired, inevitably tends to uneducational methods of work, and that far too many of the candidates are only "having a shot at it," because there is a fair chance of scraping through a rather indiscriminating test with a minimum amount of knowledge and a turn of good luck. It is not an answer to say, as one witness said,² that the intellect is strengthened by overcoming difficulties; that if a man has the resolution and strength of purpose to attain a standard of knowledge by himself, equal to that attained by another man with assistance, the former is the stronger man; that if he has mastered great books by the greatest men he will have come into communication with bigger minds than any who are likely to be his teachers, and that his teachers can do him good only by assisting him more readily to come into communication with those bigger minds. Even then we think the intellectual cultivation is likely to be one-sided and defective; but there is a fallacy in the assumption that self-education is achieved by any but the very exceptional man, or is induced by the examination. No doubt the degree is an incentive to work, and there are very few who can dispense with some incentive; but the External examination does not test the quality of the work. It can be more effectively and more easily prepared for by means that are not really educational. It is in spite of, and not by means of, the so-called principle of guidance by test, if the great majority of the candidates do not belong to the class which Newman describes as "those earnest but ill-used persons, who are forced to load their minds with a score of subjects against an examination, who have too much on their hands to indulge themselves in thinking or investigation, who devour premiss and conclusion together with indiscriminate greediness, who hold whole sciences on faith, and commit demonstrations to memory, and who too often, as might be expected, when their period of education is passed, throw up all they have learned in disgust, having gained nothing really by their anxious labours, except perhaps the habit of application."³

84. Even in the case of a true university where the students have had the opportunity of obtaining a university education, a purely external examination conducted by examiners who have nothing to go upon but the syllabus prescribed for the course of instruction, can afford evidence of nothing more than we have already described. But the failure will be greater; because the object is not to test the knowledge of candidates at the time of the examination, but whether students have profited by the opportunity they have had of obtaining a university education. Hardly anyone now defends a purely external examination as a proper test of university teaching. The University of New Zealand, one of the last of the universities to retain this form of examination, adopted under the influence of the old University of London, is at present agitating for reform. But even when an examination is far from being purely external, and is largely conducted by the teachers, the method of teaching a

Too wide a syllabus has effect of an external examination.

¹ Hartog, "Examinations in their bearing on National Efficiency," 1911, p. 16.

² *Appx. to 3rd Report*, Moulton, Qs. 10,091, 10,105. ³ Newman, "Idea of a University," p. 149.

subject may be perverted, and the educational value of studying it may be lost, if it is based upon a syllabus too wide for any student to overtake in the time allotted. "In the preparation for this examination, instead of facts, the memory is charged with generalised formulas, with expressions and solutions which are derived ready-made from the tutor. The first principle of philosophical, nay of intellectual, training, viz., that all should be educed from the pupil's own mind, is here inverted; all is poured into him by his teacher. The teacher does as much, and the pupil as little, as possible. The utmost that the student can acquire from the system is that he has learned to write in the newest style of thought, and to manipulate the phrases of the last popular treatise."¹

Effects of external examinations upon teachers and students.

85. We are convinced that both a detailed syllabus and an external examination are inconsistent with the true interests of university education, injurious to the students, degrading to the teachers, and ineffective for the attainment of the ends they are supposed to promote. The insistence on a system of external examinations is always based upon want of faith in the teachers. Even the so-called Internal examinations of the University of London are practically external, because of the large number of institutions involved, and the demands of the common syllabus; and the syllabus is a device to maintain a standard among institutions which are not all of university rank. The effect upon the students and the teachers is disastrous. The students have the ordeal of the examination hanging over them and must prepare themselves for it or fail to get the degree. Thus the degree comes first and the education a bad second. They cannot help thinking of what will pay; they lose theoretic interest in the subjects of study, and with it the freedom, the thought, the reflection, the spirit of inquiry which are the atmosphere of university work. They cannot pursue knowledge both for its own sake and also for the sake of passing the test of an examination. And the teachers' powers are restricted by the syllabus; their freedom in dealing with their subject in their own way is limited; and they must either direct their teaching to preparation for an examination which is for each of them practically external, or else lose the interest and attention of their students. Indeed, the best teachers are apt to lose their students' attention either way, for if they teach unreservedly by the syllabus their own interest must flag, and consequently that of their hearers also. We shall make recommendations which will dispense with the necessity of the syllabus, by ensuring the appointment of teachers who can be trusted with the charge of university education. Teachers who can be trusted with this far more important and responsible duty can also be trusted with the conduct of examinations, in so far as they are accepted as proper and necessary tests for the degrees of the University. But examinations, even when conducted by the teachers of the University, and based upon the instruction given by them, ought not to be the only tests for the degree. It is not right that the work of years should be judged by the answers given to examination papers in a few hours. It cannot be fairly tested in this way. However conducted, such examinations are an insufficient and inconclusive test of the attainment of a university education; and when account is taken of individual idiosyncracies and the special qualities which examinations favour, and when allowances are made for the accidents which inevitably attend such limited and occasional tests, it appears to us only fair that due weight should be given to the whole record of the students' work in the University. If the academic freedom of the professors and the students is to be maintained—if scope for individual initiative is to be allowed to the professors, and the students are to profit to the full by their instruction—it is absolutely necessary that, subject to proper safeguards, the degrees of the University should practically be the certificates given by the professors themselves, and that the students should have entire confidence that they may trust their academic fate to honest work under their instruction and direction. There is no difficulty whatever in the University providing for such control, regulation, and publicity as will be an adequate guarantee of impartiality, and of such a measure of uniformity as may be considered desirable.

Examinations should not be the sole test for a degree.

Practical necessity for recognising work of lower standard.

86. We have described in brief the things which, in our opinion, a university must do—the things which it is essential should be done if there is to be a university at all, and also those things which the University of London should do, if it is to serve adequately the needs of the great population at its doors. It may be that a place can properly be found for teaching which, although good and useful of its kind, falls short of the high standard we have described, and that such teaching

¹ Mark Pattison, "Philosophy at Oxford," "Mind," Vol. I., 1876, p. 93.

should receive university recognition, though it cannot be accepted as university teaching in the full sense of the term. When an understanding has once been reached of what university teaching really is, and of what it can do for a man, we believe students, no matter how poor they may be, will refuse to be satisfied with anything less good than the best. For the moment, however, this understanding is not general; there is confusion in the public mind between a university education and a university degree. People believe that everyone who has the latter has in some way or other also had the former, and that the examinations that have been passed are a proof of it. This belief is, of course, a mistaken one, but it exists; and so long as it is strongly and sincerely held, it will be expedient for the University to continue to grant recognition to work which may be of a lower standard, or which is not done under conditions which guarantee that the standard is equal to its own. If teaching of this kind is recognised, it must be in such a way that it will not hamper the development of the teaching for which the University is able to assume complete responsibility. We shall explain later how we think this may be done (see paragraphs 378-385).

2. THE CONDITIONS NECESSARY FOR THE REALISATION OF THE FOREGOING ENDS.

87. We now turn to a consideration of certain pre-existing conditions that must be satisfied if the University is to work in the way it should. We have said that a university works by the co-operation of its teachers and students in study and investigation, a process in which the student is trained to learn in an inquiring spirit, and the teacher is assisted in his endeavours to advance knowledge by the effort to communicate it to others, and by the stimulus which the youthful doubts and enthusiastic labours of his best students afford him. This co-operation, however, cannot be effectively realised unless certain conditions have been fulfilled. In the first place, a sound general education is an indispensable basis of the undergraduate student's work. It is no doubt possible for a considerable amount of knowledge of a specialised kind to be acquired upon a relatively meagre groundwork of general education; but for the ordinary student a point is reached sooner or later, and more often soon than late, where all further advance is hampered, if not entirely prohibited, unless he has acquired the power of accurate expression and orderly thought. These are the two intellectual qualifications which, stated in its most general terms, it is the aim of a sound general education to give, and if they do not exist a large part of the benefits of a university training will be lost. These intellectual qualifications, together with the moral habits acquired at school—diligence, perseverance, regularity, the self-control which enables work to be done in spite of disinclination—have always been of the same value as a fitting preparation for university education. But it is more important now than it used to be, that they should be accompanied by a wide range of study at school, at an age when retentive memory and receptivity of mind enable a large store of information on a number of different subjects to be acquired. Professor Pringle Pattison has recently pointed out¹ that the idea of the old university curriculum was that of a *common* course of studies—a course intended to familiarise the student with the most characteristic products of the human mind in three of its great attitudes, literature, philosophy and science; but that under the combined influence of the lengthening of the school age and the increased demands of professional training, the time for the general or common course of study tends to be reduced to a vanishing point. It may be impossible wholly to make good the loss, and we have much sympathy with Professor Pringle Pattison's plea for the academic protection of philosophy. Where time and money allow of it, a wide course of university study is greatly to be desired; but what we wish to point out here is that the wide range of information to which we have referred, and which may be acquired at school, is not lost or useless, even if the subjects specially studied at the university are rather limited in range, and have special reference to the future profession or occupation of the student. The method and spirit of university study throw back a reflected light upon all the possessions of the mind, and, by calling them into the service of awakened intelligence, widen and enrich the effect of the special studies pursued.

Sound general education an essential basis for university training.

Further, the intellectual training and moral discipline given at school are not inconsistent with the inclusion of certain subjects which will be of use in connexion with a subsequent professional training. In this way a constantly expanding university curriculum, in the case, for example, of medicine, may be lightened in its earlier stages with advantage to the best education of the students.

¹ Pringle Pattison, "The Specialising of the Arts Degree," 1911, p. 13.

Matriculation examination of London University.

88. It was undoubtedly the intention of the Matriculation examination of the University of London as originally designed, with its large number of compulsory subjects, to ensure that the undergraduates should have received a liberal education of wide range. In the course of time, however, the character of this examination has been profoundly modified. At the present day candidates are required to pass in only five subjects, of which three may be selected from a large number of options, whereas originally they were expected to pass in nine, all of which were compulsory.¹ This change has no doubt been due in part to the growing specialisation of university studies and the inclusion of new branches of knowledge within the university curriculum. Both these facts have encouraged a reduction in the number of compulsory subjects in the Matriculation examination, and the addition of new optional subjects leading up to particular university studies. On the other hand, the range of the secondary school curriculum has itself been greatly widened in recent times by the inclusion of new studies and by new methods of teaching the older subjects. The curriculum of secondary schools receiving aid from the State is required by the Board of Education to make adequate provision for manual instruction, singing, physical exercises, and organised games, while in schools for girls provision is made for practical instruction in domestic subjects. Instruction in science must include practical work by the pupils, and modern languages are now taught largely by the oral method. Some beginning has also been made in applying this method to the teaching of Latin and Greek. For none of these purposes is a general written examination by itself a suitable test. The result is that whereas the Matriculation examination was originally at least as wide as, or even wider than, the curriculum of the good secondary schools then existing, it is in its present form, and as taken by any given candidate, much narrower than the range of studies now generally adopted.

Two views as to object of Matriculation examination.

89. We think this fact is largely responsible for the growth of the theory that the Matriculation examination should test, not so much the general education of the candidate, as his acquirement of certain kinds of knowledge necessary as a foundation for the particular university course he intends to follow. This theory represents a different view of the purpose of the examination, and if it is justified it leads inevitably to a variation of the examination according to the needs of the different faculties. The present arrangement of the examination permits this variation though it does not insist upon it, and to that extent represents a compromise between the two views; but the compromise has almost completely lost sight of a sound general education as the end to be secured, and has very little relation to the curricula of secondary schools. That factor seems to survive only in the requirement that each candidate must pass in English, elementary mathematics and a foreign language. We think that the Consultative Committee of the Board of Education, in their recent Report to the Board on examinations in secondary schools, are justified when they say:—
“ the External examinations usually taken in secondary schools cannot be said to give more than an uncertain indication of the candidates' real mental powers. Some candidates are at their worst in examinations, and in any case when judgment is based on one examination effort, mistakes are sure to be made.”² This fact alone appears to us to make the Matriculation examination unsuitable for school purposes.

Matriculation examination no guarantee of sound general education.

90. The evil effects of an external examination such as that for matriculation upon the work of both pupils and teachers in schools have been admirably described in the Report of the Consultative Committee. They are analogous to those connected with the External university examinations with which we have already dealt. But apart from all the objections to purely external examinations from the point of view of the schools, there is the added objection from the side of the University that an external examination, such as that for matriculation, now affords no guarantee of the liberal education and general training which form a far more important preliminary to university education than the acquirement of a definite standard in particular subjects of study.

Scottish University Commissioners' views on entrance to the University.

91. A similar conclusion was arrived at many years ago by the Scottish University Commissioners of 1889, and is explained in their Report of 1900. After describing the regulations they had made ten years previously with regard to entrance to the University, they say:—

“ We believe this to be the best arrangement that could be made in the present condition of Secondary Education in Scotland. But we should think it far from satisfactory if it were to be regarded as final and permanent. The

¹ University of London. Regulations for Matriculation, Nov. 1839.

² Cd. 6004, p. 80.

object of all such arrangements should be to secure that before he begins his University course a boy should have been for a certain number of years under good and trained teaching. This cannot be secured by a mere examination, although an examination at the end of the school course may be a very useful test of his training. We do not consider that either an Entrance examination or a Certificate which can be obtained in single subjects can be an adequate test of school training; and we do not think it desirable that the Junior Classes should be a permanent part of the University equipment. In both these respects, therefore, the regulations we have framed may be usefully revised, when good secondary schools have been made available throughout Scotland. But at present we must be content to guard the graduation classes by an examination test irrespective of school training, and to leave to those young men who are not able to pass it, and who have not the means for preparing themselves at a good school, the opportunity which the Junior or Middle Classes have hitherto afforded for fitting themselves for the proper work of the University. In the meantime it is obviously of the utmost importance that the Preliminary examination should in practice be conducted with special reference to the object which it is intended, however imperfectly, to attain. But this cannot be secured by any external regulations. It must depend on the good sense and experience of the examiners. To ensure that a uniform standard should apply to all the Universities, we instituted by Ordinances Nos. 13 and 43 a joint Board of Examiners to conduct the Preliminary examination; and for the purpose of combining on this Board the best attainable experience, we prescribed that it should consist not of professors only, but partly of professors and lecturers and partly of additional examiners to be appointed by the University Courts.

“It has been observed that there has been a considerable diminution in the number of University students since these regulations came into force. This was, to some extent, an inevitable result of the introduction of a new system, and it was not unforeseen. If the Preliminary examination, as now worked, does no more than exclude the unfit from the Arts course, it does nothing but good. On the other hand, it is evident that by the adoption of too exacting a standard or too rigid a system of marking, it might serve to exclude from the Universities young men who were fitted to profit by them. This would be a great evil; and its possibility gave us much concern in the preparation of our scheme. But we were satisfied that neither the risk of excessive severity nor that of undue laxity could be effectually obviated by specific regulations imposed on the examining body by Ordinance. The best safeguards are the judicious selection of examiners by the University Courts, the supervision of the Joint Board, and the guiding and correcting influence of the Senate and the Court. If we had thought it necessary to embody in our Ordinance any direct instruction to the examiners, it would have been no more than an expression of what is plainly implied in the purpose and object of the examination. It must be kept in view that it is not intended as a test of superior acquirement. It is a condition of admission to the University, and it defeats its object if it keeps out anyone who ought to be allowed to come in. It ought not, therefore, to exact from candidates who have been reasonably well taught any special preparation or effort, but ought to be ‘such as a scholar of fair ability and proper diligence may at the end of his school course come to with a quiet mind, and without a painful preparatory effort tending to relaxation and torpor as soon as the effort is over.’¹”²

92. We agree with the Consultative Committee in thinking “that a good general education should be sufficient to secure admission to a University,” and provided the spirit and methods of university studies are such as they ought to be, and furnish the student with a purpose and a responsibility in his work through the emphasis that they lay upon the pursuit of knowledge for its own sake, we believe he may be trusted to acquire the necessary acquaintance with those ancillary subjects requisite to the mastery of his main line of study which his school curriculum may not have given him. There is evidence, however, that the length of the school life of the secondary schools of the country, which is increasing under the influence brought to bear in this direction by the Board of Education, will gradually diminish the necessity for this in any but exceptional cases. It is not meant that the teaching

Some overlapping between school and university work inevitable.

¹ Quoted by Matthew Arnold in “Higher Schools and Universities in Germany,” 1874, p. 59.

² Scottish Universities Commission, General Report, pp. xiii-xiv. (Cd. 176.) 1900.

of the elements of a subject is improper in a university. The constant growth of specialisation in all directions and the increase in the number of separate departments into which university studies are divided, make it frequently impracticable that every student entering upon his course should have acquired the elements of all the subsidiary branches of knowledge requisite for the adequate pursuance of his main purpose. Incidentally, and for particular students, universities must provide such instruction as may be required in subjects in which some knowledge is needed as an instrument in pursuing higher studies. But the method of study will not be the same as that followed at school, and universities should certainly not continue to give to large numbers of their students instruction of an elementary kind in subjects which they would more properly have learnt at school. We also agree with the Consultative Committee and the Association of Assistant Masters that after the age of 16 some measure of specialisation is to be desired in schools and that it will be a great advantage to their pupils, whether they are going to the University or not, to stay for another two years after passing the general test which the Committee hope to see imposed at about the age of 16.¹ If this longer stay at school were to become more general it would enable those pupils who are going on to the University to make some definite preparation for the Faculty they intend to enter. This appears to have been in the mind of the Consultative Committee when they said that though they thought a good general education should be sufficient to secure admission to the University, they also agreed "that it should not bind the University to admit " students indiscriminately to all courses of study. Some differentiation based upon " the subjects in which the students had shown reasonable proficiency might well be " made when the time came to settle the course of their University studies. Yet " even here considerable latitude should be allowed, and it should not be assumed " that a student who wishes to follow some particular course of study must " necessarily have shown any previous proficiency in it."

Two grades of school examination desirable.

93. The broad general education which it was the aim of the Matriculation examination as originally planned to secure, and the elasticity which is now provided by the large number of options in the existing examination, should be attained by means of two grades of school examination conducted in the interests of the schools and closely related to their curricula.² The lower grade taken by pupils about the age of 16 would test the possession of a broad general education, while the higher grade to be taken about the age of 18 would be of a more specialised character. The lower examination, if passed at the necessary standard, should for the present be sufficient evidence of educational fitness for the University, but students with no higher qualification than this would be required during at least their first year to obtain the necessary foundation for more advanced courses by supplementary studies which would not be required of those who had taken the higher school test. Provided the subjects of the examination he had taken were cognate to those of the Faculty he desired to enter,³ the higher school examination would admit the student at once to more advanced studies without the interposition of an Intermediate examination except in the Faculty of Medicine, where it would take the place of the Preliminary Science examination. Except in medicine the higher examination would not entitle him to curtail the length of his university course. The nature and range of the supplementary studies required of the student entering on the lower examination would depend, of course, upon the Faculty which he desired to enter. The University should, however, exercise pressure upon students to delay leaving school until after the higher examination has been passed, though for some time there are likely to be many candidates for admission to the University coming from schools that cannot provide suitable instruction beyond the standard of the lower school examination. There are also likely to be from time to time exceptional cases of students who would gain by an immediate transference to university methods of work, but the University should draft its regulations for admission with a view to making the higher school certificate, which should not be taken till two years after the lower examination, the normal qualification for registration.⁴ If the universities of the country were to agree to require the higher school examination as a condition of matriculation, we have little doubt, with the experience of Scotland before us, that the schools would very soon reach the necessary standard.

Higher school certificate as normal qualification for matriculation.

¹ *Appx. to 3rd Report*, Association of Assistant Masters, Statement, p. 157 and Q. 8196 ff.

² *Appx. to 1st Report*, Webb, Qs. 564-93. *Appx. to 2nd Report*, Miss Taylor, Q. 5517. *Appx. to 3rd Report*, Spenser, p. 184 ff. and especially Qs. 8789, 8937-41 and 8956-65.

³ *Appx. to 1st Report*, Headlam, Statement, § 36, p. 84. *Appx. to 2nd Report*, Busk, Qs. 4948-55; Gollancz, Qs. 5303-4. *Appx. to 3rd Report*, Acland, Qs. 7381-4.

⁴ *Appx. to 3rd Report*, Acland, Q. 7389; Association of Assistant Masters, Qs. 8241-3; Spenser, Qs. 8949-55.

Whether the University should be responsible for school examinations, or whether it should conduct them as the agent of a central authority responsible for these examinations throughout the country, or whether the central authority should itself conduct the examinations with the assistance of examiners selected from the staffs of the several universities, are questions which have been explored by the Consultative Committee of the Board of Education and are under the consideration of the Board themselves. It does not lie within the terms of our reference to make recommendations as to the best means of attaining the ends which a growing body of opinion desires. We are, however, directly concerned to see a solution of the problem reached which will ensure a proper standard of entry and which, as regards finance, will relieve the University from the necessity of depending upon the fees of its Matriculation examination for the support of its own proper work. Until this necessity is removed the establishment of a school examination in the true sense will be difficult. In any circumstances the influence of the University will ultimately be paramount in regulating the standard of proficiency in special subjects to be required of students for admission to the degree courses in each Faculty, but the secondary schools are similarly entitled to arrange their curricula in the interests of all classes of their pupils, and the school examinations must be based on these curricula. The central education authority, on the other hand, is concerned to see that its grants to the schools and to the universities are effectively used, and in the ultimate issue it is that authority which must provide for the co-ordination of secondary schools and universities, and must give the necessary assurance to the universities that the pupils seeking admission to their degree courses have reached the required standard of education.

94. As first steps in the direction indicated the University should cease to admit pupils in schools to its own examinations, including that for matriculation, and no student should be registered as matriculated until he has attained the age of 17. These recommendations are almost identical with the conclusions that were independently reached by a strong Committee of the British Association (Section L), which submitted its final report to the Association in 1912. After considering a large body of evidence the Committee expressed the opinion:—

Minimum age of matriculation, 17.
Opinion of Committee of British Association.

“(1) That students should not be prohibited from taking the Matriculation examination or its equivalent as soon as they are 16, but they should not ordinarily be allowed to enter a university for a degree course below the age of 17.

“(2) Universities should not provide instruction for the purpose of preparing candidates for matriculation.

“(3) Students for degree courses should not be admitted to universities or their constituent colleges until after they have passed the Matriculation examination.

“(4) A university examination subsequent to matriculation should not be allowed to become a school examination.

“(5) There should be two school-leaving examinations conducted conjointly by the universities or by a representative examining board:—

“(a) Suitable for pupils of about 16 years of age;

“(b) Suitable for pupils between 18 and 19 years of age.

“The earlier examination (a), representing a good general education, and of the same standard as the present London Matriculation, or similar examinations, should be accepted for matriculation and for admission to professional courses as those examinations are at present.

“The later examination (b), of the same general standard as the Intermediate B.A. or B.Sc. examination of the University of London, but not necessarily of the same character or substance, should not be designed primarily for those who intend to proceed to a university, and should admit of some degree of specialisation. Under certain conditions, it might be accepted by universities as excusing students from any further examination between their entrance into the university and their degree examination. Only those pupils who have passed the more elementary examination (a) should be admitted to the higher examination.”¹

95. We have been strongly urged by the Association of Head Mistresses to make 17 the minimum age of entry to the University for girls, and we have been impressed

Evidence as to age of entry.

¹ Proceedings of British Association, Dundee, 1912, Section L. Final Report of Committee on Overlapping between Secondary Education and that of Universities and other places of Higher Education.

by the reasons put forward in support of the proposal. We think that boys also are not, as a rule, fit to begin university studies, as we understand them, until they are over 17. This opinion is endorsed by Mr. Sidney Webb, Dr. Bennett, the Chairman of Convocation, Mr. A. H. D. Acland, the Association of Assistant Masters in Secondary Schools,¹ and by the Principal of the University,² who thinks indeed that "Matriculation examinations should be designed to suit the capacity of average pupils not less than 17 years of age." We agree with this view.

Matriculation examination retained for exceptional cases.

96. It is obvious that some form of Matriculation examination must be retained for those unable to approach the University through the normal avenue of the secondary school. This examination should be designed for students of the age of 17, and for the present, at any rate, its requirements might differ somewhat in the case of the different Faculties, but we agree with the Consultative Committee that the interests of the secondary schools require that the test of general education, *i.e.*, the lower school examination, should be applicable a little earlier than this. The more thorough and systematic intellectual training given by the secondary school furnishes in itself a justification for a small differentiation in the age of admission to the examination.

Matriculation test for older students.

97. Another class of student always likely to be represented in a modern university remains to be considered. We refer to students of mature age, who discover a desire or need for a university training after they have already spent some years in the business of life. Provided a student of this kind is prepared to submit himself to the discipline of a complete university training under professors of the University, it is unreasonable and useless to expect him to return to school studies in order to pass the Matriculation or some equivalent examination; moreover, to do so tends to lower the standard required of other students. Such exceptional cases would in our view be properly dealt with if the Faculty to which he desired admission were to satisfy themselves, by such means as the Senate might approve, that he was qualified by his attainments and ability to take a full course for a university degree.

But there are no grounds for granting this privilege to students who seek to obtain a degree solely by examination or by attendance at courses of instruction given by teachers who are not teachers of the University. Our object in advocating this special arrangement is not to make it easier for a student of mature age to obtain a degree, for this would be a preferential treatment to which he can make no claim, but to facilitate his access to the best training the University can offer.

More intimate work limited to university students.

98. A sound general education, however, is not the only necessary condition of the undergraduate student's work. In the more intimate classes of the University, of the nature of the German seminar, where the students learn to work with their teacher, and acquire the methods by which systematic investigation is undertaken, all the students should be university students, that is, students whom the University would be prepared to admit as candidates for its degree. This is of great practical importance, because it is a hindrance to the best university work if those whose aptitudes have not been trained and whose minds have not been informed by instruction in accepted knowledge are combined in the same classes with those who are qualified for work of this standard. The teaching is inevitably brought down to their level; besides, ill-prepared students cannot be inspired with the eager integrity of intellectual purpose which is the first and most essential characteristic of the scholar, a spirit which in many cases is more easily awakened by the consciousness of its presence in others than by anything the teachers can do. Unless this condition is observed it will be impossible to secure the homogeneous body of students which forms the necessary basis of a real university. If it is absent the work of the professors is dissipated and discouraged, and the progress of the undergraduates retarded.

Causes of low standard of education on admission.

99. We recognise that a considerable number of the regular day students at present in the Schools of the University are not qualified for registration as undergraduates of the University, and that the homogeneity of the university classes which we desire to see established does not for the moment exist. The chief cause for this is to be found in the inadequate provision for secondary education in the country; but we believe that when the universities are prepared to leave secondary education to the schools, the schools will rise to the standard which the universities demand.

¹ *Appx. to 1st Report*, Webb, Q. 585. *Appx. to 2nd Report*, Bennett, Q. 3149; Busk, Qs. 4948-55. *Appx. to 3rd Report*, Acland, Qs. 7389-424; Association of Assistant Masters, Statement, p. 157, and Q. 8192 ff.

² Miers, Address to Educational Science Section of British Association, 1911, p. 5.

Other causes have contributed, and one of the most important is the necessity the colleges have been under, up till now, of providing professional education for students who did not come with the intention of taking a university course, or were not sent to them for that purpose. The Engineering departments of the Imperial College (*i.e.*, the City and Guilds College), of University College, of King's College, and of the East London College, and the Mining department of the Imperial College (the Royal School of Mines) have all suffered in this way. The department of Pure Science of the Imperial College (the Royal College of Science) has been obliged to educate as best it could a number of students sent there by the Board of Education, though the Board have not required them to matriculate previously, or, until quite recently, to furnish any evidence whatever of a general education. We are aware that the action of the Board has been justified on the ground that the Royal College of Science was not founded or maintained as a university institution, but as a college intended originally to encourage students from evening schools and classes to continue their study of science, and to become in turn teachers in institutions of the kind from which they had come. These conditions, however, and the needs connected with them are now passing away; and the presence of large numbers of students who have had but an imperfect general education is a serious weakness in a college which is now a School of the University, and is directed by its Charter (granted in 1907) to "give the highest specialised instruction, and to provide the fullest "equipment for the most advanced training and research in various branches of "science, especially in its application to industry."

100. Steps should be taken to remove this anomaly as rapidly as possible, and we understand that the Governors of the Imperial College are already moving in this direction. If the University finds it inevitable for some time longer to provide courses of instruction for students who are not qualified on entrance to read for a degree, these courses, except perhaps the general lectures, should be separate in all respects from those followed by the undergraduates. In this way a minimum standard recognised by the University would be ensured for the students in the degree classes, and the standard of the degree to a greater extent secured if not raised. We refer in particular to the courses intended for students reading for a first degree. There is not the same objection to the inclusion of other students in classes of a more advanced or post-graduate type, for, as Mr. Webb pointed out, there is no practical danger that students will desire to take courses of this kind unless they are competent to profit by them. This is far from being the case with undergraduate work. The Board of Education should support this policy in the case of the department of Science in the Imperial College by requiring that all candidates for Royal Scholarships and Free Studentships should be qualified for registration as undergraduates of the University. If this condition were imposed it might be convenient to the Board, as it certainly would be desirable in the interests of the Imperial College and of a careful consideration of the claims of individual candidates, that the responsibility for awarding the Scholarships and Studentships should be entrusted, subject to such further conditions as the Board might think well to impose, to the University under the general powers described below. There can be no difference of opinion as to the wisdom, in present circumstances, of leaving, wherever possible, the selection of university scholars and free students to the teachers under whom they are going to study.

Royal Scholarships and Free Studentships.

We are aware that a considerable number of the existing Scholarships and Free Studentships are won by candidates belonging to the industrial classes who enter for them direct from technical schools and classes, and that our present proposals might deprive some of them of a stimulus and a reward which is now open to them, if, as is possible, they were unable to satisfy the required standard of preliminary education. But these students could now be better provided for at other institutions, of which there are many in the country, and money should be forthcoming for the award of the necessary scholarships to enable them to continue their education at one of these. The problem is indeed one which would have arisen sooner or later, independently of the appointment of this Commission, for it is the outcome of the grant of the Royal Charter to the Imperial College, and of the arrangements which were made at the time when the Board of Education transferred the management of the Royal College of Science to the Governing Body then set up.

101. Although the separation of students qualified by general education for university study from those not so qualified is a necessary condition of the best university work, and should therefore be the rule in all class and laboratory work for

which the University is fully responsible, we are not prepared to recommend insistence on this rule in the case of courses to which the University may grant recognition, but for which it is not financially or educationally responsible. The separation is always desirable, but in these cases we should be prepared to acquiesce in less stringent conditions.

Advantages
of centralisa-
tion.

102. Besides the necessity for a sound general education for all university students, and for homogeneity in the classes they attend, a third condition of satisfactory university work is that the teaching of the University in its several faculties should be concentrated as far as possible in one place. We think the aim should be to bring the Constituent Colleges and University Departments together in one part of London, and group them round the central buildings of the University when they are not actually within its walls. Complete centralisation will not be possible. We do not suggest, for example, that the Imperial College of Science and Technology should be removed from South Kensington. But the policy to be kept in view and followed as opportunity occurs ought to be that of centralisation, and not that of dispersal in different parts of London.

In our Fourth Report we have explained the necessity for the provision of central buildings for the headquarters of the University, principally because of the importance we attach to the recognition of the University as a great public institution. But what we have chiefly in view here is rather the academic importance of centralisation, which we think is necessary if the University as a whole is to exercise its full influence upon all its members, and especially upon its students. Both University and King's College made it a condition of incorporation that the University should, as far as its means and other duties permitted, maintain and develop the college as an institution in which wide academic culture might be secured by the variety of the subjects taught in different faculties. As they were consenting to incorporation in a University which consisted of a large number of separately managed institutions, the stipulation they made was a wise one, and perhaps all that could be insisted on at the time, but it is not all that can be done in future with the same end in view. London, as a whole, cannot be made a university town like Oxford or Cambridge, where the University dominates the town and may consist of many separate colleges without losing its unity and identity. But we think it is quite possible to create a university quarter in London, in which the university life and interests would grow and develop, and students and teachers alike would find themselves in the atmosphere of a great seat of learning.

In addition to the regular professional and degree courses of the existing faculties, new developments of learning and the exploration of questions lying on the boundaries that have hitherto divided different subjects of study lead from time to time to new groupings of subjects into courses to meet new requirements. The new department of Home Science and Economics, and the department of Imperial Studies which has recently been proposed, are examples of what we refer to, and there will doubtless be more such developments in future. So long, however, as the work of the University is dispersed in different parts of London, it will be difficult to arrange for the establishment of new departments of studies by re-grouping the existing teachers, though the power to do this is necessary if the University is to deal effectively with the demands of growing knowledge. The difficulty of making use of existing teaching and equipment will in turn lead to the establishment of separate institutions with independent administrative machinery and probably independent finance. Thus the present dispersion of effort and complication of government will constantly tend to increase. We think this is a mistake which would no longer be possible if the work of the University were properly organised, and a wide range of teaching and study, including practically all the highest teaching in Arts, Laws, and Economics, and a large part of the teaching of pure Science, were centralised, and carried on in such close proximity as to constitute a university quarter in London. All new developments of learning would then naturally be organised within the University, with greater efficiency and economy than in separate institutions. They would share from the first the spirit and traditions of the University, and would contribute to its development.

Geographi-
cal difficulty.

103. As against such centralisation it may be said that the great size of London raises a geographical difficulty which can be met only by providing separate colleges in different parts of the metropolis. The waste of time, the cost, and the strain of daily travelling, are great, and we do not desire to minimise them, but the question is whether they are avoided by the only alternative to centralisation which is practicable. University Colleges, adequately staffed and efficiently equipped, and providing a wide

enough range of study to secure academic culture for the students, are very expensive, and are not required for any large proportion of the population. Not more than three or four such colleges could probably be provided in London, or would be required for the students. Elementary education, and, to a large extent, secondary education, must be provided locally, and both technical and other higher education are required for evening students near where they live or work. But university education for those who can give their whole time cannot be provided in close proximity to the homes of more than a very small number of the students, because the proportion of university students to the population is so small that the area from which each college draws its students must be large. In London the students who attend a University College in the daytime may be divided into three classes. Those who come from a distance and must live in London during the University terms; clearly there is no difficulty with regard to these students. They can live where they like, and if they do not choose to live near the University they can select a suburb which is easily accessible by rail. Secondly, those who live outside London and travel daily; these students also can probably go to a central University as easily, and possibly more easily, than to a college intended for some less central district of London. Thirdly, there are the university students who live at home in London. This is the only class of students who presumably would be more conveniently provided for by colleges established in different parts of London. But only a certain number of even this class will be really near the college, and direct means of access by rail or otherwise to the central part of London will in many cases make it easier and quicker to go a longer distance to a central college than to attend a college expressly meant for their district. Moreover, many other considerations affect and complicate the question; and, as a matter of fact, it is found at present that London students are only to a small extent influenced in their choice of a college by its situation. The scale of fees probably affects the question more than anything else. But the subjects it is desired to study and many other things also have their weight. On the whole we think there is practically no geographical problem in the case of full-time day students of the University; but even if there is some inconvenience to a few, we think the advantages of centralisation more than counterbalance any inconvenience that could be obviated by the establishment or retention of University Colleges in various parts of London. We therefore think that the policy of the University should be to concentrate its teaching in one part of London as far as circumstances allow. The creation of a university quarter would lead to economy in administration, to increased co-operation between different departments of study in the interests of new lines of work, to greater intercourse between students and between teachers, and it may be hoped it would also lead to a better public understanding in London of the University and its work. The University would begin to awaken general interest, and this interest would be followed by greater private and public support.

104. There is, however, a fourth condition of sound university work. We refer to the need for providing healthy and interesting conditions of life for the students outside the University buildings. These conditions are more difficult to secure in great cities than in small towns, but for that reason the city university must care the more for them. When the modern universities were founded, little attention was paid to this aspect of their life, but experience has convinced them all of its paramount importance. English school education has long laid great stress upon the formation of character, and the importance of this is recognised with increasing force throughout our whole school system, elementary as well as secondary. We have a strong belief as a nation in the value of character, and this belief must not be forgotten in the planning of our modern universities. "The State," as Lord Rosebery said, addressing the University of Glasgow, "gives the university peace, protection, possibly endowment; in return, the university gives the State, or should give the State, picked men, and now also picked women. . . ." The university, he added, "is no doubt the source of supply for the learned professions, but outside and beyond it gives citizens not necessarily learned, who by training and by character influence their generation, and maintain directly or indirectly the tradition of the State. The work of teaching arts and sciences is going on everywhere, but a university such as this should aim at producing character, indirectly, perhaps, but none the less effectually." The needs that led to the foundation of the modern universities were, as has been indicated, practical and intellectual, and these needs remain with a growing sense of their urgency; but the universities could not be contented with a one-sided development in their students.

University
hostels.

The intellectual training of the students suffers if they become isolated units when they leave their class-rooms. The Board of Education have gradually been increasing their pressure on the universities to provide hostels for the students sent there to be educated and trained as teachers, and have made large grants towards the initial cost of buildings, no doubt because they have realised that good teachers must be something more than intellectual machines. They have also adopted the policy of urging that students in training should not be in a majority in any hostel. In a city like London, where the centrifugal tendencies are so great, it is even more necessary than elsewhere that the University should encourage the erection of hostels for as many of its students as possible. The hostels should mostly be placed in the suburbs, where fresh air and playing fields are to be had, and they should be so arranged as to attract students and junior teachers from different Faculties and from different institutions. We think the hostels should not be used as a means of strengthening the collegiate spirit, but, on the contrary, that they should be under the general supervision of the University, and should serve to promote a university *esprit de corps*. In a university of the kind we have in view, where the financial control will be centralised and the educational administration in the hands of the University Faculties, the loyalty of the students to their college should be subordinate to, if no less than, their loyalty to the University. We do not propose that the University chest should bear the burden of maintaining these hostels; but we are confident that the University could successfully appeal for special funds in support of a comprehensive scheme of the kind we have outlined, while some assistance could, no doubt, be obtained from the Board of Education towards the initial cost of those portions of the buildings which would be assigned to students in training as teachers. No doubt all University hostels would not be intended to serve the needs of students irrespective of their Faculty or place of study. The theological colleges, for instance, are nearly all residential, and the students in them must almost necessarily be segregated, though even hostels for theological students might well be open to other students. Provision already exists for small hostels near hospitals, where medical students holding hospital appointments can live during the tenure of their posts. These are exceptional cases, and need not interfere with the general policy of the University.

University
and College
Societies.

105. The majority of the students in London, however, will probably always be living at home, and for these in particular means must be found for intercourse with their fellows. They would gain immensely from the existence of a number of hostels in the suburbs, for the playing fields would be there, and there they would learn to know, as the guests of their friends in residence, the social side of university life. But this is not enough. The University should encourage the formation of central University Societies for registered undergraduate and graduate students of both sexes with certain rooms and halls to be used in common. We contemplated that the central University buildings referred to in our Fourth Report would provide the necessary accommodation for this purpose, as well as headquarters for the Officer's Training Corps. In these buildings the Students' Representative Council and other University societies could meet regularly, and the College societies could also meet from time to time in common session. In this way the students scattered through London for their studies would have a centre for common intercourse, while some of them would meet again under the university roof because they were residents in the hostels forming the outer ring of university institutions.

Conditions
of appoint-
ment of
university
teachers.

106. We pass now from the necessary conditions of the students' life and work to those which particularly affect the teachers, and which must exist if the University is to have the services of the best teachers, and to ensure the continuance of work of the kind we have described.

In the first place, it is necessary that the terms of their appointment and employment should be suitable. Experience has shown that the University cannot be certain of securing suitable conditions for the teachers when they are paid for by bodies over which it has no financial control. The first necessity is therefore that the University should provide its own teaching, by which we mean that it should appoint, pay, pension, and dismiss its teachers, and not leave these primary duties in the hands of independent corporations. With this control in its hands the University may be trusted—

- (i) to choose its staff for individual excellence from the widest possible field;
- (ii) to give them such remuneration including superannuation and such conditions of tenure as will free them from the pressure of material anxiety;

- (iii) to arrange that their teaching duties leave ample time for their own individual work ;
- (iv) to arrange that the libraries, laboratories, and other means of assistance provided for them are such as to permit of advanced work and research ; and
- (v) to give them a voice in the selection of their colleagues.

107. The Senate has given a clear proof that this is the present policy of the University in the rules it has adopted for its own guidance in granting the status of University Professor or Reader and in the selection of "Appointed Teachers." Action of present Senate.

The University has already made the attempt to establish a body of university teachers of the first rank by granting the title of University Professor, or University Reader, to selected teachers in its Schools ; but the result has only confirmed us in the conviction that the University could not rely upon a procedure of this kind as a means of securing an adequate and properly distributed university staff. In some cases the appointing bodies have objected to the conditions laid down by the University ; in others they have refused for their teachers the status offered them ; and the governing body of one of the most important Schools refused altogether to furnish the University with any particulars as to their staff, or to accept the status offered to certain of their teachers on the strength of their reputation in the scientific world. Quite apart, however, from these difficulties, the experiment, interesting and important as it has been, has revealed the fatal inherent weakness, that there is no possible means of bringing a university staff thus recruited into a due relation, as regards either its numbers or its distribution, to university needs. The University might find itself supplied with half a dozen professors of one subject and without a single professor or reader in another equally important branch of knowledge. One School might have the advantage of a University Professor at the head of most of its departments, and another might have none. University organisation cannot proceed on these lines, and the difficulties we have described can be removed only by placing the appointment of all teachers of the University in the hands of the University itself, or at least by giving the University an effective voice in their appointment. Arrangements might be made, for instance, under which the University and the governing body of a hospital would appoint the same person to a professorship or lectureship, and also to a position on the hospital staff. We shall explain later the arrangements we propose for the recognition of institutions whose teachers are not appointed and paid by the University (*see* paragraphs 376 ff) ; but we are of opinion that no teacher appointed by an independent body should be a teacher of the University. In this way alone will the University be provided with teachers who, like the undergraduates, will form a homogeneous body in respect of their qualifications and aim. The University will then have secured a standard, not only in its students attending undergraduate courses (as explained above), but also in the teachers under whom they will study. We believe that if these two standards are maintained, the standard of the degree will follow inevitably. Hitherto the tradition of the University has been to judge the standard of an examination by the percentage of passes or failures, a tradition inherited from the old examining University, where no other index was possible. The standard of a teaching university, however, cannot be measured in this way, for, if it is working properly, students will not present themselves for examination until they are ready, and the percentage of failures ought in consequence to be very low. The only means of maintaining a standard in a teaching university are the rigid exclusion of students who are unfit for university studies, and the existence of a body of highly qualified and productive teachers, organised in departments adequately equipped.

108. If the University is so organised as to provide the conditions necessary for its proper working in accordance with the principles we have described, the teachers of the University ought under proper safeguards to have control of the education and examination of their students, and the University ought to be so constituted as to give it them. It will be explained how this should be done in the next Part of our Report. The Professorial Board of University College say in the memorandum presented to us "that to secure freedom of the University teacher to teach as he thinks best, and not by a hard and fast syllabus, should be in the forefront of the problems to be solved by the present Commission. If freedom can be obtained for the teacher freedom for the learner will follow,"¹ and we think the Professorial Board are right.

Teachers' control over education and examination.

¹ *Appx. to 3rd Report, Appendix VII., p. 413.*

University
control of
finance.

109. The control of education and examination, in their executive aspects, should be entrusted to the teachers of the University, but they should not determine its educational policy, though that policy should be determined in the light of the expert advice which the teachers are peculiarly fitted to give. The control of finance, on which educational policy must in the ultimate issue depend, should be vested in a small Council or Senate acting as the supreme executive body of the University. By control of finance we mean a great deal more than the allocation of such sums of money for educational purposes as have been in the past or may be in the future at the free disposal of the University. If the University is to appoint and pay the teachers attached to the colleges which are in close connexion with it, it must obviously also have control of the whole finance of these institutions. The essential principles of incorporation exhibited in the Acts of Parliament transferring University and King's Colleges to the University must be extended to all the centres in which university education, as we have described it, will be given. "If the teaching in the various Faculties is to be both powerfully and economically organised, we believe," say the signatories of Report A of the Academic Council, "that college organisation, instead of dominating, must be subordinated to faculty organisation, due regard being had of course to the need for supplying the various parts of the great area of London with educational facilities."¹ Report A points out with cogency that the funds available for higher education in London have been, and still are, manifestly inadequate; and we may add that they can never be so abundantly forthcoming as to make it unnecessary to husband them to the utmost and to avoid extravagant duplication. Economical administration of limited funds is inconsistent with financial rivalry between independent institutions. University education can never be supplied at a profit; and, in the interest of the public, who must furnish so large a proportion of the necessary funds, it is essential that there should be unified financial control of all that teaching for which the University can properly make itself educationally responsible. For these reasons we think that the control of finance should be placed in the hands of the University.

3. THE GOVERNMENT OF THE UNIVERSITY.

Supreme
governing
body or
Court.

110. The supreme governing body or Court must, in our opinion, be of different constitution from the present Senate, which is modelled largely on the type of the constitution of the two older universities. These universities are not dependent upon public funds for their maintenance, and their history makes their government by teachers and graduates reasonable, or at least explains it. The city university is in an altogether different case, and we agree with Report A of the Academic Council in the belief that the modern city university cannot flourish if the population it mainly serves is indifferent to its welfare. "London," says that Report, "will not regard the University of London as an integral part of the City until the University is willing to entrust its supreme guidance to a body composed mainly of citizens." Several important witnesses² have also given evidence in support of the plan of placing the supreme power in the hands of a widely representative Court, while the only arguments advanced against it are those contained in Report B, which was signed by seven members of the Academic Council. These members think that "a body of the size and heterogeneous character proposed would have no real power," which would in fact rest entirely with the small executive. They further think the executive "could not take adequate cognizance of the complicated problems" of university education in London. We believe the first of these arguments is based upon a confusion of thought between legislative and executive functions. A large heterogeneous body cannot transact executive business, and for this purpose it would be powerless because inefficient, while the power would rest, as it ought to rest, with the executive body. But it will be able to make the voice of its constituencies heard in the general plan of organisation and policy, by its control over the University Statutes, over the inclusion of institutions as Constituent Colleges, and over the recognition of institutions as Schools of the University. Here its power is complete and final. Nor are we impressed by the argument that a small executive would be incapable of handling the manifold problems of university education in London. The Senate, as we think of it, will have the control of finance, and through finance of the details of educational policy; but it will not act without advice, and it will have all the facts presented by those best able to explain their significance before coming to a decision. We do not think it necessary that each Constituent or incorporated

Relation of
Court to
Senate.

¹ *Appx. to 2nd Report*, Academic Council Report, § 50, p. 281.

² *Appx. to 1st Report*, Rücker, Q. 709 ff.; Foster, Statement § 38, p. 139, Qs. 1994-8, 2003-8; Reay, Qs. 2071-4; Roscoe, Statement § 4, p. 174, Qs. 2503-6. *Appx. to 2nd Report*, Starling, Qs. 3291, 3299.

College should have a representative on the executive body, as urged by one witness,¹ if means are provided, as they should be, for the delegacies of these colleges to have direct access to the Senate, and for ensuring that the Senate shall not act in any matter affecting a Constituent or incorporated College without giving the delegacy in charge an opportunity of being heard. The presence of representatives of these colleges on the Senate, with a power of voting, would not only increase its size unduly but might encourage the continuance of historic jealousies, and detract from the judicial temper which should animate the chief executive organ of the University. For these reasons we shall propose in the following Part of this Report the establishment of a Court and a Senate so constituted as, in our opinion, to be able to achieve the end we have in view.

111. The Senate should not be in the main a representative body, and should not, as to any large part, consist of teachers. The teachers who have seats upon it should not be so elected as to represent particular studies or particular institutions, but merely to ensure a mutual understanding between the men of affairs and the men of learning. It is of the utmost importance that the Senate should be so constituted as to be able to work out a carefully considered policy for the maintenance and development of university teaching in the metropolis. Experience has shown that a body made up of representatives of a number of different interests is incapable of formulating a united plan of action, and all the members of the new Senate should therefore as far as possible be appointed for their personal qualifications as men of business knowledge and administrative capacity. With this end in view a large proportion of its members should be nominated by the Crown and not elected by other bodies, but all the members would be members *ex officio* of the Court. The view has been expressed² that the Court "should be able to turn out a Council"—by which is meant the body we have named the Senate—"of whose policy it disapproved." We should agree that this ought to be so if the executive body derived all its powers and functions from the superior body. We contemplate, however, that in London, as in the provincial universities, there should be a differentiation of function established under the Statutes and based ultimately upon the obvious fact that administration needs continuity of purpose and control, and the expert judgment which long-continued and constant work in the administrative field alone can give. An executive committee which was liable to dismissal at any moment would tend to lose its initiative, and might spend the greater portion of its period of office in learning its business. We think the legislative control which we propose to vest in the Court, and the means it will possess of bringing public opinion to bear upon university policy, will effectually prevent friction, while it will avoid the danger of sudden reversals of policy, which are more fatal in educational matters than in other departments of human activity.

Constitution
of Senate.

112. We shall also describe in Part III. of our Report the constitution and powers of the Academic Council. This Council should be a body of university teachers, to which the Senate might delegate such executive functions as it would not be wise to delegate to the Faculties separately. Its main duties, however, would be advisory, and it should be so constituted as to ensure that the Senate should have before it the opinion of the University Professoriate as a whole, expressed through its appointed representatives. The Senate should receive a report from the Academic Council before coming to a decision upon any educational question affecting the University as a whole which may arise—whether through an appeal by a Faculty; or from a delegacy entrusted with the management of a Constituent College or a University Department; or otherwise.

Academic
Council.

113. Finally, we think that if the University can be reconstituted so as to provide for all the things which we have described, as we believe it can be, it should be endowed, under the necessary Act of Parliament, with much greater freedom of government than the present University possesses, and with this end in view the Statutes should be simple and few, leaving as many things as possible to be settled by regulations and byelaws of the University. Its various Councils and Committees, Faculties and Boards of Studies, should have freedom to delegate their functions and duties in a very broad way. It should have freedom to arrange its teachers into such Faculties and to confer such degrees and other distinctions as it shall from time to time determine, subject only to a general power of appeal to Your Majesty's Privy Council by persons or bodies affected.

Greater
freedom of
government
desirable.

¹ *Appx. to 2nd Report*, Miss Edgell, Qs. 3606–11, 3629–33.

² *Appx. to 2nd Report*, Pollard, Note VIII., p. 301.

Looser connexion of other institutions with University. External students.

114. We cannot expect or hope that all the teachers and institutions at present connected more or less closely with the University will be able or willing to form a part of the University in the intimate way we have foreshadowed. For some a looser connexion must be provided; and the recommendations we shall make to this end will enable us to deal with another problem, viz., that of the External student. But if an organisation can be devised for the best Colleges and Schools, which would apply to them, as far as the circumstances allow, the principles which govern the organisation of universities of the professorial type everywhere else, the provision which at present exists in London for real university teaching and for the advancement of science and learning will be freed from the restrictions which now tend to reduce it to a level with much that is not of the same kind. A standard will have been established to which institutions which are for the moment excluded may ultimately be raised. The same degree may be obtainable by students in both kinds of institution; but the difference in the training that has preceded it in the two cases will be so obvious that the degree will tend to take its proper place in public estimation. No public teaching institutions will be excluded from the inner circle of the University that are able and willing to adopt its methods and ideals, and to entrust their educational policy to its management, unless indeed they are excluded by distance from a real share in its common life. If these last are strong enough they should become independent universities. But if they are not strong enough to stand alone they still have no claim to be included in a university with which they cannot become really one through the co-operation of either students or teachers.

No compromise possible on the essential conditions of university organisation.

115. So strongly indeed do we hold the view that the method of working we have described, and the conditions upon which alone such work can be done, are essential to the existence of a real University in London, and that such a University is a national and imperial as well as a merely local need, that it would be better not to interfere at all with the existing constitution than to attempt anything less fundamental. Any reconstruction worth the making must provide the University with at least a nucleus which may safely be trusted to grow and develop. The University will then avoid the gradual lowering of standards which has already brought it twice into a critical situation. We mean, of course, standards of teaching, not standards of examination.

PART III.

THE APPLICATION OF THE FOREGOING PRINCIPLES.

1. THE FINANCIAL AND EDUCATIONAL CONTROL OF CONSTITUENT COLLEGES AND UNIVERSITY DEPARTMENTS.

University control of finance and educational policy.

116. In this Part of our Report we propose to consider first, how the University is to be given the financial control, and the control of the educational policy of its Constituent Colleges and Departments, which it must have if it is to do its work properly. This control will, among other things, include the appointment of university teachers and the determination of the conditions of their employment. The principal university teachers will constitute the Faculties which will be the executive bodies entrusted with carrying out the educational policy of the University.

Incorporation of University and King's Colleges.

117. The incorporation of University and King's Colleges has furnished us with the guidance of actual experience in dealing with this problem, and the Acts which transferred them to the University are valuable precedents. We have already explained (*cf.* paragraphs 106-109) why the essential principles of incorporation, as exemplified in those Acts, must be extended to all Constituent Colleges and Departments of the University; but the Acts differ from each other in important respects and are useful illustrations of the application of the general principles to the special circumstances of particular cases. The circumstances with which the King's College Act had to deal were different from those of University College in three important respects, and this led to variations in the arrangements made which may have a bearing upon other cases of transfer. In the first place, a complete University Faculty (the theological department of the college) was not transferred to the University, but was continued under the control of the original corporation, and carried on in the same buildings with the Faculties that were

transferred. This necessitated certain arrangements for administration and discipline which did not arise in the case of University College. In the next place a portion of the buildings, both of King's College and of King's College for Women, was retained for the use of the theological department, and for the teaching of theology and religion. In the third place it was provided that King's College, and King's College for Women, which were practically two separate institutions, should be managed by one delegacy, though the Senate was empowered to establish a second delegacy for the Women's College if they thought it desirable to do so.*

118. The ideal to be aimed at is complete incorporation, such as is effected by the Acts referred to. We think this is best for the University, and also for every institution that comes in as a Constituent College or a Department of the University; because the fullest opportunity for the free development of the University in all its parts lies in the greatest attainable unity of interests and aims. The facts of each case must be considered, and the best arrangement made that can be devised for giving effect to the main end in view, either with or without the authority of Parliament as may be required. It will appear from the cases we deal with later that, for special reasons, it may be necessary to be satisfied in some cases with less than complete incorporation. But this will not be found to be incompatible with giving the University the ultimate control both of finance and of educational policy.

Future
policy as to
incorpora-
tion.

119. Constituent Colleges may be established by the University, but any institution engaged in doing university work in one or more Faculties which is strong enough in one or more of those Faculties to comply with the conditions for incorporation, and which transferred to the University the financial and educational control of one or more of the Faculties represented in the institution, would become a Constituent College of the University in the Faculty or Faculties in respect of which financial and educational control had been transferred. No institution should be considered strong enough to become a Constituent College in any Faculty unless it is able to provide a full course for the first and higher degrees awarded in that Faculty. The teachers in the Faculty or Faculties brought under the financial and educational control of the University would have all those powers and functions in relation to university government which are described in the present Part of our Report. The responsible teachers in Constituent Colleges would be University Professors or University Readers.

Constituent
Colleges.

120. If a department dealing with a single subject of study, or with a group of studies of less range than a Faculty, is established by the University itself, or is put under its financial and educational control, it will become a University Department of the particular study or group of studies to which it is devoted. Its teachers would have the same status and powers as other university teachers of similar status, and its students would rank with students in Constituent Colleges; but if any of them were candidates for a first degree of the University, and were studying other subjects in the degree course at a Constituent College, the teachers of the several subjects of the course would form the necessary examining board. This matter is explained in detail in paragraphs 126-130.

University
Depart-
ments.

2. THE CONSTITUTION AND GENERAL POWERS OF THE FACULTIES.

121. Before considering how much of the present provision for university education could be organised in accordance with the principles laid down in Part II. of our Report, it will be convenient to describe the constitution and powers of the Faculties. There is reason in the nature of things why the consideration of the organisation of the University as a teaching body should start from the constitution and functions of its several Faculties. The division and the grouping of the teachers into Faculties is the distinguishing mark of the organisation of universities as compared with that of other educational institutions—a characteristic which has its origin and justification in the circumstance that students are receiving at a university their final systematic preparation for one or other of the several occupations of life for which a university education is the necessary, or, at any rate, the most advantageous preliminary. Consequently there is, or should be, a natural grouping of the branches of knowledge which students pursue. There is also for the most part a closer relation between the several studies included within a Faculty, and a similarity in the point of view from which they are approached, which mark them off from the studies of another Faculty, and bring the teachers concerned with them into closer intellectual sympathy.

The Faculty
the basis of
university
organisation.

* The Senate has now established a separate delegacy for King's College for Women.

Faculties may require separate treatment.

122. The evidence we have received shows clearly that the several Faculties do not require exactly the same constitution, or even identical functions, to be assigned to each of them. We shall therefore approach the problem of university organisation from the standpoint of each in turn, after we have dealt with those matters which, in accordance with the general principles we have already laid down, are common to them all.

University control of teaching assumed.

123. In dealing with the teachers who might properly be included in the several Faculties, we shall assume for the moment that the necessary steps have been taken to give the University control of their appointment, and of the equipment without which they cannot do their work. We desire to make it clear at once, however, that unless and until this control is established the teachers concerned would not be included in the Faculty to which we have assigned them provisionally, and their departments would not become Constituent Colleges of the University or University Departments as the case might be.

Constitution, powers, and duties common to all Faculties.

124. We are of opinion that all the University Faculties alike should have the following constitution, powers, and duties :—

- (i) The Faculty should consist, either wholly or in the main,* of the University Professors (including Honorary and Associate Professors) of the subjects comprised within the Faculty; of the University Readers (including Honorary and Associate Readers) in subjects for which the University has not provided professorships; and of such other teachers and officers appointed by the University as the Faculty may co-opt. The Vice-Chancellor should *ex officio* be a member of every Faculty.

University Professors and Readers.

By a University Professor and a University Reader respectively, we mean a teacher in a Constituent College, or University Department, to whose post the title, status and salary of a University Professor or a University Reader may be assigned by the University. The status of a professor would always confer independence in the sense that his post would not be subordinate to that of any other teacher. The status of a reader would also confer independence in the same sense provided that there was no professor of the same subject. A University Reader would not be a member of the Faculty, *ex officio*, unless there was no University Professor of his subject in the University. The University should have the power to grant the title of Honorary Professor and Honorary Reader to its own teachers to whom the status and duties of a University Professor or University Reader have in exceptional cases been assigned, though the minimum salary of a professor or reader may not be attached to the posts they hold. We think the University should also have power to confer the title of Associate Professor or Associate Reader upon a teacher of the University whose duties are not those of a full University Professor or University Reader, provided he is otherwise qualified for the status of a professor or reader. Further, if the Governing Body of a School of the University (*i.e.*, an institution connected with the University other than a Constituent College or University Department) is prepared to place the appointment of one or more of its teaching posts in the hands of the University, and has attached to those posts the same conditions as to qualification, salary, and tenure as those adopted by the University for its own professors and readers respectively, we think the University should have the power of conferring the title and status of Associate Professor, and Associate Reader, on the teachers it appoints to those posts. Associate Professors would be members *ex officio* of the Faculty or Faculties to which their subject of study belonged, while Associate Readers would be members of their respective Faculties, *ex officio*, only if there was no Professor or Associate Professor of their subject in the University.

- (ii) The Faculty should have the power of appointing committees consisting of members of the Faculty, or of members of the Faculty together with other persons. Such committees would be appointed to act as Boards of Studies and for other purposes, and the Faculty should be able to delegate to a committee such of its own powers as it may think fit, and to empower any committee to delegate any of its powers to sub-committees of its own members. Two or more Faculties should have power to appoint joint committees, and each Faculty should have power to appoint committees jointly with other bodies.

* We shall explain under the head of each Faculty in turn which of these alternatives appears to us the more suitable to the Faculty in question.

- (iii) The Faculty should have the power to determine generally the conditions for the award of degrees, diplomas, and other distinctions within the purview of the Faculty.
- (iv) The Faculty should have the power to determine generally the course of study to be pursued by students of the University in the subjects within the Faculty.
- (v) The Faculty should be responsible for the conduct of the examinations of students in Constituent Colleges and University Departments of the Faculty.
- (vi) The Faculty should present to the Senate all candidates for the award of degrees, diplomas, and other distinctions within the purview of the Faculty.
- (vii) The Faculty should consider and advise the Senate as to the needs of the Faculty and as to the provision and organisation of the teaching within it.

Although the powers of each Faculty should be limited to matters concerning that Faculty, arrangements should be made to enable one Faculty to confer with another or with all the other Faculties; and for this purpose regulations should provide for the summoning and holding of joint meetings of two or more Faculties and of general meetings of all the Faculties.

The Faculties should be constituent bodies of the University.

3. THE RELATION OF THE FACULTIES TO CONSTITUENT COLLEGES AND UNIVERSITY DEPARTMENTS.

125. It will be convenient at this point to consider the extent to which the Faculty should control the teaching and examinations in the several Constituent Colleges and University Departments within it. It is clear that if a proper degree of freedom is to be given to the University Professors the crucial point in the organisation of the University is the relation of the Faculties to the teaching and examinations. If the academic freedom of the professors and students is to be maintained, the functions of the Faculties and Boards of Studies with respect to courses of study and examinations for the degrees of the University must be sufficiently general to allow scope for individual initiative on the part of the professors, and for confidence in their teachers on the part of the students. What is required is that the students, having attained a certain standard of training and knowledge before admission, shall pursue an approved course of study for at least three years under the direct personal influence of teachers of university rank, and shall be entitled to receive the university degree upon attaining, by means of university training, a standard of education prescribed in general terms by the University through the Faculty. That this standard has been attained should be certified by the teachers of each student, and should be ascertained by them by means of such evidence, including in most cases the test of examinations, as the University through the Faculty may prescribe. But in order that this ideal may be realised we must be certain that the teachers will really be of university rank. We have made recommendations as to the constitution of the Faculties and as to the staffing of Constituent Colleges and University Departments for the purpose of ensuring that the teaching and the general supervision of it shall be in the hands of men of the kind we intend. We think that the rules at present adopted by the University for appointment to professorships do in fact secure the appointment of the best teachers under proper conditions of appointment, and we propose that these rules should be of universal application in the Constituent Colleges and University Departments.

Relation of Faculties to teaching and examinations.

The powers of the Faculty with regard to courses of study and examinations should therefore be as follows:—

The powers of the Faculty.

- (1) It should prescribe the subjects of study for the degrees granted by the University within the Faculty. It should decide which are to be compulsory and which optional, and the normal amount of time to be given to each subject.
- (2) It should decide what is to be the length of the full course for the several degrees, subject to the minimum for each Faculty which may be imposed by the Senate, and subject in the case of the Medical Faculty to the requirements established by law.
- (3) It should prescribe in general terms the standard of knowledge required—but this it will do by indicating the range of study. The Faculty

of Arts will decide, for instance, whether the study of a modern language should include the whole of its literature, or only a period, or either alternatively. Similarly the Faculty of Science will decide whether the study of a science shall necessarily include certain parts of the science, and the Faculty of Technology will decide the necessary range of studies in engineering. But the Faculty will not indicate the range of any subject by means of a detailed syllabus, for this is a matter for the professor in consultation with his colleagues in the same branch of learning.

- (4) It should decide how far written, oral, and practical examinations should respectively form part of the test for the several university examinations, and how far the record of work done by the student during his course shall be taken into consideration together with, or in place of, the formal examination in any subject, and the manner in which this shall be provided for.

It should also draw up regulations for the meetings of Boards of Examiners (as explained below, paragraph 128) and for the preparation of the Pass and Honours Lists.

- (5) It should consider and endorse all Pass and Honours Lists submitted by Boards of Examiners. The Faculty should publish the lists referring to examinations other than the final examination for degrees, but all recommendations for degrees should be submitted to the Senate for their award.
- (6) It should appoint Assessors in the manner described below to co-operate with the heads of departments in the conduct of the public examinations of the University in such manner as the Faculty may decide.
- (7) It should receive a report from each of its Committees or Boards of Studies as to the courses of instruction proposed to be given in the Faculty each year.
- (8) It should give the decision in any case where a difference of opinion has arisen between the head of a department and the Assessor or Assessors appointed for the purpose of assisting in the examinations referred to above.

Powers and duties of the teachers.

Organisation of departments.

126. We have now to consider the powers and duties of the teachers. In the same way as the Faculty, which consists of the principal teachers of the group of subjects comprised within it, is thought of as extending beyond the lines of individual Constituent Colleges, so the several subjects within the Faculty should be organised into departments, which may, if necessary, extend beyond an individual college. Although, therefore, in the Constituent Colleges of the University the teaching should be organised in departments according to subjects, and a teacher of the rank of a University Professor should be the head of each department, and should have the supervision of all the teaching in the department, and be responsible for the work of its teachers, it does not follow that the department should be limited to the College to which the Professor, or head of the department, is attached; provided always that any two Colleges between which the department may be divided are sufficiently close to each other to allow of effective supervision by a single head.

If, therefore, in a Constituent College of the University there are teachers of a subject, but none of them is of the rank of a University Professor, there should not be an independent department for that subject in that College, but the teaching should be affiliated to and become a part of the corresponding department of another College where there is a teacher of the subject of the rank of a University Professor, and he should be made responsible for the work of the teachers in both Colleges. It would not be possible, however, to extend this system of linking smaller institutions to bigger ones except where their close proximity renders it feasible for the students to attend lectures at both and easy for the teachers in both to be in close and constant contact with each other. If there is no department with a professor at its head sufficiently near to admit of this, the University should either raise the department in question to independent status by appointing a professor to be its head, or it should abandon the department, for the existence of a professor elsewhere shows that the subject is not one that should be entrusted to a subordinate teacher. A merely formal supervision of an outlying department by a professor whose work lies miles away would obviously fail to produce the unity of spirit and control which is necessary. If, however, the department deals with a branch of study in respect of which the University has not yet appointed any professor, it should be in charge of a University Reader, and the Reader who is at its head should have the same powers as a University Professor.

127. The head of each department in a Constituent College of the University will himself interpret the general regulations of the Faculty in regard to his branch of study, and will himself lay down the course of study to be followed in his department, and the classes and lectures to be held by the teachers in it. The head of the department will have complete freedom, subject only to this degree of control on the part of the Faculty, that it may give directions as to the future scope of the courses given by him or under his supervision, if it finds that an adequate range of study has not been provided. The Professor, or if there be no Professor of the subject in the University the Reader, will have the control of his department, laboratories, and libraries, but will also be subject to the control of the delegacy of the College or delegacies of the Colleges in which his department is situated in all matters affecting time-table, finance, discipline, and the like. Any subordinate teacher in his department should be able to approach the delegacy of the College in which the department is placed in regard to any of the courses of instruction he may be required or wish to give, and similarly in regard to access to laboratories and libraries, and their decision should be final. We think this safeguard of the freedom of the junior teachers is desirable in order to provide against the possibility of a professor using his power in the tyrannical way in which we have heard it is sometimes used in foreign universities.

Powers of head of a department.

Control of delegacy over head of department.

128. Further, the head of each department, and under his direction the other teachers in his department, would be the examiners of the students attached to the department, but for the purposes of the public examinations one or two Assessors appointed by the Faculty would be conjoined with him. These Assessors might be the heads of departments dealing with the same or closely allied subjects in other Constituent Colleges, or they may, at the discretion of the Faculty, be teachers or other persons unconnected with any of the Constituent Colleges or University Departments. The Assessors would have the right to refer to the Faculty any matter affecting the examinations in which they disagreed with the head of the department, and the decision of the Faculty or in urgent cases of the Dean would be final. Any delegacy of a Constituent College or University Department should, however, have the right to appeal to the Senate against the decision of a Faculty, but since we desire to avoid encouraging appeals on matters of detail, the question referred should always be one of principle rather than a particular act, and the decision of the Senate, which would be final, should not invalidate the action actually taken by the Faculty in the particular case, but merely be a direction for their future guidance.

The examinations.

Assessors.

The several heads of departments and other teachers in a Faculty attached to a Constituent College, together with the Assessors appointed by the Faculty, would form the examining board for the public university examinations for degrees of candidates in that College, and at a meeting in common session would decide upon the Pass and Honours List to be submitted to the Faculty.

Constitution of Examining Boards.

129. It follows from all we have said that so far as the Constituent Colleges and University Departments are concerned both the courses of study and the examinations may vary from College to College, and that the single series of university examinations for a degree, whether Pass or Honours, will disappear. The plan of a single course of study and a single series of open examinations for a degree which owes its origin to the system of examinations introduced at Cambridge and Oxford in the last century were indeed abandoned in the University of London when it was reconstituted in 1900, for not only different courses of study but also different examinations were contemplated as the rule for Internal and External students respectively. The unity of the Internal examinations was further undermined by the provisions for Special Intermediate examinations in Schools of the University under the terms of Statute 119. Those who have been used to think of the general examination as the only possible method of testing candidates for degrees may perhaps fear that all guarantee for maintaining the standard of the degrees of the University has been abandoned under our proposals. To this we would reply that it is not possible by means of an examination to guarantee the maintenance of a standard for the degree except in the most general sense and within very wide limits. The standard of an examination in the same subject held from year to year can with the utmost care for details be maintained at only approximately the same level, and when it is possible for students to combine a series of subjects in hundreds of different ways this approximation is rendered far more difficult.

Special examination for Constituent Colleges and University Departments.

Maintenance
of standard.

130. The only way in which the standard of a degree can be maintained is, by maintaining the standard of the education which leads up to it, and a standard of education can be secured only by maintaining the standard of the teachers and by taking care that their students are fit to profit by their teaching. This fitness of the students can in turn be secured only by requiring them to have received a proper preliminary education. There will always be exceptional students who must be dealt with exceptionally, but this is true for the vast majority. Our whole scheme for the reorganisation of the University may indeed be said to rest upon the truth of this view. We have stated it repeatedly in the course of our Report, and we are convinced that unless its truth is recognised no effective organisation of the University is possible. Our plan, however, does in fact provide for a general supervision by the Faculty of the courses of study through the Boards of Studies and of the examinations through the agency of the Assessors it will appoint. The Reports of the Boards of Studies will show whether the range of study in a subject as treated by the various teachers in the several Constituent Colleges is broadly the same, even though the stress laid on different parts of it may be different and ought to be different in the hands of different teachers. It will be the duty of the Assessors to see that the examinations and other tests are broadly of the same searching nature in the several Colleges, and to report to the Faculty upon them immediately if there is anything which needs criticism and which the teachers are unwilling to amend. They will also report normally at the close of the session after the examinations have been held. There will be no temptation for the teachers in one College to lower their standard in order to attract students from other Colleges, because the Colleges will not be in financial competition as they are now, and if there were such a temptation the Assessors who would be teachers in another College, if not selected from outside the University, might be trusted to prevent it. We believe that in fact the standard of the university degrees would be much more constant and far higher under the system we have outlined than it has ever been hitherto. It could fall only if the University appointed inferior teachers, and if this were to happen no examination system could save it.

Test to be
applied to
existing
teachers.

131. If the Faculties are to be entrusted with the powers which we have set out above, and the teachers are to be freed from the restrictions imposed by the common syllabus of instruction and a general quasi-external examination, it is necessary to make sure that the teachers in the several institutions to be admitted as Constituent Colleges of the University are worthy of the trust that will be put in them. Some test must be applied to the existing Schools of the University in each Faculty, in order to ascertain if they are of such standing as to justify their admission to the privileges proposed for their teachers. A criterion has been supplied for the Faculties of Arts, Science, Laws, Engineering, and Economics by the action the University itself has taken with regard to the conferment of the titles of University Professor and University Reader.¹ It is true that on the incorporation of University and King's Colleges with the University, the Senate conferred the title of University Professor on certain heads of departments in those colleges, without first seeking the assistance of Boards of Advisors as they did in considering the claims of teachers in the other Schools, and of certain additional teachers at University and King's Colleges. We do not think this difference of procedure has made much difference in the final result. We intend to apply this test, which, though a rough one, is sufficiently accurate for our purpose, in considering under the head of each Faculty above mentioned the amount of university teaching of high rank at present existing, and the additions that must be made to it in order to fit particular institutions to become Constituent Colleges of the University in that Faculty. Of the remaining Faculties, that of Medicine, within which the Senate has granted the title of University Professor and University Reader only in the subjects of pathology and hygiene, will be the subject of far-reaching proposals which will render the application of the present test unnecessary, while the Faculties of Theology and Music will also call for special treatment.

132. We are now in the position to consider each of the existing Faculties of the University in turn, to decide which institutions are sufficiently provided with University Professors and Readers to become Constituent Colleges of the University, and to make recommendations as to the further provision necessary in order to enable any particular institution to cope with the more urgent needs for university education of the highest kind within the Faculty concerned.

¹ *Appx. to 3rd Report, App. II., p. 371 ff.*

The Faculty of Arts.

Existing Provision.

133. We find that the Senate has granted, or would be prepared to grant, subject to certain conditions, the title of University Professor to 24 teachers, and the title of University Reader to 18 teachers in the Faculty of Arts. It has postponed action in respect of those teachers who are attached to institutions aided by the London County Council, pending the Report of this Commission. These last-mentioned teachers are indicated by a star in the following list, which shows the distribution of Professors and Readers at present :—†

Professors
and Readers
in Faculty of
Arts.

University College :—

Professors :—

- 1 in Archæology.
- 1 in Architecture.
- 1 in Comparative Philology.
- 1 in Egyptology.
- 1 in English History.
- 1 in English Language and Literature.
- 3 in Fine Art.
- 1 in French.
- 2 in German (1 jointly with Bedford College).
- 1 in Greek.
- 1 in Latin.
- 2 in Philosophy.
- 1 in Æsthetics.

Readers :—

- 1 in Ancient History (jointly with Bedford College).
- 1 in Geography.
- 1 in German (jointly with Bedford and Westfield Colleges).
- 1 in Modern History.
- 1 in Logic and Ethics.
- 1 in Tibetan Languages.

King's College :—

Professors :—

- 1 in Classics.
- 1 in Education.
- 1 in English.
- 1 in History—Modern.
- 1 in Romance Languages.

Readers :—

- 1 in Ancient History.
- 1 in German.
- 1 in Psychology.
- *1 in Italian (jointly with Birkbeck College, South-Western Polytechnic and the City of London College).
- 1 in French.

London Day Training College :—

Professors :—

- 1 in Education.
- *1 in Experimental Pedagogy.

Bedford College :—

Professor :—

- [1 in German] (jointly with University College).

† In cases where two or more posts are held by a single teacher the second and later posts in the list are placed in square brackets.

Readers :—

[1 in Ancient History] (jointly with University College).

2 in English.

1 in Fine Art.

[1 in German] (jointly with University and Westfield Colleges).

1 in Greek.

In addition there is a Reader in English at the Goldsmiths' College, a teacher in German at the Birkbeck College who has been recommended to the Senate for the title of University Reader, and there was, till recently, a teacher in History who divided his time between the East London and Birkbeck Colleges, who had been recommended for the title of Reader.

The range of subjects taught at present.

134. The foregoing table is concerned with the standard of the teachers, but it suggests another test which is not without importance in deciding which institutions are capable of being brought within the University. No doubt the strength of the teaching in the main subjects in each Faculty, as measured by the rank of the teachers and the conditions under which they work, is the most important test to apply, but it is worth noticing that if the institutions were tested by the range of the subjects in which instruction is given the result would be very much the same.

It is in the course for the degree in Arts that the difference of range in the subjects taught in different institutions appears most clearly. Under the present regulations of the University a candidate for a Pass degree is required to take four subjects. Two of the subjects must be languages, and one of the languages must be either Latin or Greek. Subject to these general regulations, the range from which the candidate may select comprises the following 22 subjects :—

Ten languages :—

Latin.

German.

Sanskrit.

Greek.

Italian.

Hebrew.

English.

Spanish.

French.

Russian.

Other Arts subjects :—

History.

Economics.

Education.

Geography.

Philosophy.

Science and Arts subjects :—

Pure Mathematics.

Applied Mathematics.

Science subjects :—

Physics.

Geology.

Zoology.

Chemistry.

Botany.

There are 18 branches for the Honours degree in Arts, which are as follows :—

Classics.

Persian.

Indian Branch.

English.

Hebrew, &c.

Mathematics.

French.

Chinese.

Architecture.

German.

Italian.

Archæology.

History.

Spanish.

Philosophy.

Arabic.

Russian.

Psychology.

The enormous difference of range, apart altogether from the question of the standard of the teachers, which may exist between two institutions providing a complete course for the Pass degree is obvious. One institution may provide instruction in each of the 22 subjects given above, and in the 18 branches for an Honours course, while another may give instruction in, for example, Latin and English only, if it provides courses in two of the science subjects, or in one of them and in mathematics.

Constituent Colleges and University Departments in Faculty of Arts.

135. It is clear from the foregoing considerations that the only institutions which can be included at present as Constituent Colleges of the University in the Faculty of Arts are University College, King's College, and possibly Bedford College; while the London Day Training College might properly be constituted a University Department of Education within the Faculty. The inclusion of Bedford College and the London Day Training College would of course depend upon the governing body of the former, and upon the London County Council in the case of the latter being prepared either to transfer them to the University or to give the University educational and financial control over them. It might not be possible for the London County Council to effect a complete incorporation of the London Day Training College

in the University even if they desired it to become a University Department of Education. Any arrangement made with the University for that purpose would have to protect the interests of students resident in the Administrative County of London who might desire to become teachers in elementary schools. It might also be necessary that the County Council should retain a voice in the appointment, payment and conditions of service of the teaching staff of the Department, and with regard to the relations of the University Professorship of Education to the post of principal of the School. It does not seem impossible, however, for such an arrangement to be made consistently with the principles laid down for financial and educational control. The proposals we shall make later in connexion with university control over the work of the Imperial College may furnish suggestions that will prove useful in this case also.

Additional Provision required.

136. We have now to consider what additional provision is immediately necessary to render these four institutions taken together a reasonably efficient Faculty of Arts, and what further provision should be made as soon as possible independently of them, in order to meet the needs of the metropolis as the centre of the Empire. We do not desire to convey the impression that the further provision to which we refer exhausts the needs of the University in the Faculty of Arts, or that additional professorships, readerships, buildings, equipment and libraries, will not be necessary if the University is really to possess full means for the highest instruction in literary and philosophical subjects. The estimates of their needs submitted to the Academic Council of the University by its Schools in the Faculty of Arts amount altogether to an additional income of over 29,000*l.* a year for salaries, leaving the provision for administrative staff, for economics and for oriental languages out of account. No estimates were submitted by the East London College. In addition, the Schools estimate their needs for library maintenance at about 4,000*l.* a year. To this must be added a proportionate share in respect of this Faculty of a capital expenditure on building which in the aggregate is estimated by the Schools at nearly 1,000,000*l.**; the greater part of this proposed capital expenditure being in respect of University and King's Colleges. The Academic Council, after considering the various statements of the needs submitted by the Schools of the University, apparently realised that the immediate provision of sums of this magnitude was not possible. In making their own estimate of the more immediate needs of the University, they proceeded upon the assumption that an additional income of 90,000*l.* a year might be available for university purposes in future; and they allocated a sum of 10,000*l.* a year from this total to the Faculty of Arts excluding the department of Oriental Studies. They suggested that eight new professorships should be established at salaries of 800*l.* each, the subjects to be selected from a list of twelve given in their Report; and they recommended the establishment of twelve new readerships at salaries of 300*l.* a year each.¹ Compared with these reduced estimates, our own proposals may well appear meagre, but they are based upon a consideration of the minimum with which it would be possible for a University Faculty of Arts to do its work. We have made no proposals for the teaching of any new subjects beyond those already attempted or in contemplation, and we have estimated the necessary salary of University Professors at the minimum sum of only 600*l.* each in the Faculty of Arts instead of at the sum of 800*l.* each, which the Academic Council recommend, and which we think ought to be provided as soon as possible as the minimum salary of a full professorship. The University of Birmingham has fixed the salary of 700*l.* as the normal income of a professorship, and we think an additional 100*l.* for a professorship in the metropolis is not unreasonable in view of the increased cost of living which residence in the capital entails. We estimate the minimum salary of a Reader at 300*l.*

Estimates of
Academic
Council.

Basis of
Commis-
sion's esti-
mates.

137. In making this estimate of the minimum salaries of a professorship and readership respectively, we do not suggest that these salaries should be paid without consideration to present holders of existing posts. Some re-arrangement or delay may be desirable before particular posts are raised to the status of a University Professorship or Readership. This reservation is necessary because we have recommended in some cases the establishment of a full professorship in departments where the University has not seen its way to award the title of University Professor or

* The University Finance Committee estimate the more urgent needs of the incorporated Schools for buildings at 279,000*l.* See *Appx. to 3rd Report*, p. 383.

¹ *Appx. to Final Report*. Academic Council Report, Part II., § 18, p. 183.

University Reader to the existing teachers. In all cases, however, where the University would be prepared on other grounds to award this title to existing teachers, the minimum salary we have indicated should be allotted. We are aware that in many cases the salaries at present available for junior teachers are quite inadequate, and we hope that when means are forthcoming they will be raised, but the most pressing need is the establishment of satisfactory conditions for the heads of departments and their principal assistants.

With the limitations and reservations explained above, we think immediate further provision is necessary in respect of the teaching posts set out under the heads of the several institutions below.

(1) University College.

138. Additional funds are required to raise the salaries in the following professorships at University College to a minimum of 600*l.* :—

- (i) Professorship of Architecture.
- (ii) Professorship of Comparative Philology.
- (iii) Edwards Professorship of Egyptology.
- (iv) Professorship of Greek.
- (v) Astor Professorship of Mediæval and Modern History.
- (vi) Grote Professorship of Mind and Logic.
- (vii) Professorship of Philosophy.

Additional funds are also required for—

- (viii) Readership or perhaps a Professorship in Geography.
- (ix) Readership in Phonetics.

Further funds are also necessary for the support of the library. The Academic Council estimate that an additional grant of 2,000*l.* a year is necessary in order "to bring to a state of efficiency the libraries for which" the University "is financially responsible, and also to make certain grants to libraries belonging to Schools of the University."

(2) King's College.

139. Additional funds are required to provide for the following professorships at King's College with a minimum salary of 600*l.* each :—

- (i) Professorship of Ancient History.
- (ii) " " Education.
- (iii) " " French.
- (iv) " " German.
- (v) " " Greek.
- (vi) " " Italian.
- (vii) " " Philosophy.
- (viii) " " Romance Philology.

Additional funds are also required for—

- (ix) Readership in English.
- (x) " " Spanish and Portuguese.

We understand that the Senate of the University has recently decided to attach two new professorships to King's College for Arts subjects at salaries of 600*l.* each, but these have been allowed for in the above estimates. It will be noticed that provision is suggested for the division of the present professorship of Classics by the establishment of a separate chair in Greek and for a professorship of Italian at King's College, while no special provision for Italian is suggested at University College. Although the trust funds for the Barlow Lectureship in Italian are connected with University College, it might possibly be desirable that King's College should specialise in the Romance Languages, whilst University College would specialise in the Germanic Languages including English. This, however, is a matter upon which the University itself will have the best means of making a decision.* Meantime we are clear that provision should be made at one or other of these two colleges both for a professorship of romance philology and for professorships of Italian and Spanish with Portuguese, though in the first instance a readership in the last two languages would probably suffice. On the assumption that the study of the Germanic Languages will in the main be centred to begin with at University College, we have not thought it necessary to provide for more than an additional readership in the department of English at King's College. A large part of the

* The Senate have recently resolved that day teaching above the Pass standard should be given both at University and King's Colleges in English, French, and Romance Philology and Italian.—Senate Minutes July 10, 1912. Min. 4007.

salary of the Professor of English is derived from a grant made by the London County Council in respect of evening lectures, and we hope that this grant will be continued, although we have recommended that evening courses of instruction in preparation for degrees should in future be abandoned at King's College. Evening lectures and classes of an advanced kind suitable for teachers and persons engaged in other professions should, however, be maintained as heretofore. In addition to further provision for salaries at King's College, money is urgently required towards the maintenance of the college library.

The case of King's College raises, however, a problem more important and far-reaching than a mere question of salaries and equipment. The foregoing estimate of the immediate needs of the College in the Faculty of Arts is based upon the assumption that the college will remain in its present site and buildings. We are convinced that the present buildings are unsuitable for the purposes of a University College of the first rank, and, what is more serious, that they cannot be rendered suitable for such a college—still less for an institution which is to form such an important part of the University of London itself. If King's College could be removed as we recommend to the neighbourhood of University College (*cf.* paragraph 371), some economies might possibly be introduced into the staffing and library arrangements of both; but a removal, even when determined on, would necessarily take a number of years to complete, and we do not think the reorganisation of the University of London need or ought to wait for the accomplishment of this particular recommendation.

Present buildings of King's College unsuitable.

140. The London Day Training College is maintained by the London County Council; it is excellently equipped, and it has a highly efficient staff. The principal receives a salary of 800*l.* in his capacity as University Professor of Education, which is paid out of the annual grant of 10,000*l.* originally made to the University by the Technical Education Board of the London County Council for the endowment of certain professorships. We do not think that any additional financial provision is immediately necessary in order to justify the inclusion of this institution within the University as a University Department of Education. Since King's College also includes a department for the training of teachers for elementary schools some co-ordination of the work in this department with that done in the London Day Training College would no doubt be desirable if the London County Council consent to place their college under the financial and educational control of the University.

(3) London Day Training College.

141. The case of Bedford College raises difficulties of a special kind. Reference to the table in paragraph 133 above will show that the only teacher in the Arts Faculty of the college to whom the University has granted the title of University Professor is a teacher appointed and paid by the University itself, and shared by Bedford College with University College. The table also shows that two of the six teachers to whom the University has granted the title of University Reader are similarly shared with University College, one of these two, the Reader in German, being also appointed and paid by the University. From this it is clear that the staff of Bedford College would require very considerable strengthening before it could be included within the University of London as a self-sufficing Constituent College in the Faculty of Arts. The Governing Body of the college submitted an estimate of their needs in respect of the Faculty of Arts to the Academic Council, amounting to an additional sum of about 4,000*l.* a year, including 500*l.* for the library. If this additional income were available, it would not enable the college to provide teaching in any larger number of subjects of study than at present, so that the number of subjects taught in the Faculty of Arts would even then be little more than half the number for which provision is made at University College. It is obvious, therefore, that even with an additional income of about 4,000*l.* a year, Arts students entering at Bedford College would need to go elsewhere if they desired to study any of the ten subjects within the purview of the Faculty for which the college itself makes no provision. But the new buildings now being erected for Bedford College on the excellent site in Regent's Park, as well as the good and solid teaching done by the college in the past, mark it out as a natural university centre for women students in the Faculties of Arts and Science.

(4) Bedford College.

We think, therefore, that although the range of subjects taught at Bedford College is narrower than that provided at University or King's College, this fact should not in itself be a ground for refusing to include it as a Constituent College for women in the Faculty of Arts. How far it may be necessary when funds become available to

organise the instruction now given at Bedford College independently of that provided at other Constituent Colleges is a matter which the University will be able to judge in the light of the experience it will gather as time goes on. Meanwhile the close co-operation which has already been established between Bedford College and University College might be extended further. Three teachers are already working at the two colleges jointly, and the system of inter-collegiate lectures has been very successfully introduced in connexion with both colleges, arrangements which are greatly facilitated by their proximity to each other. Since the list in paragraph 133 above was determined the University has assigned a salary of 600*l.* to the professor of Mathematics from funds granted by the London County Council, and has decided to attach a new Professorship of French to the college with a salary of 600*l.* provided from the same source, while the college has raised the salary of the head of the department of History to 600*l.* from funds granted by the Board of Education. The salaries of the lecturers in Ancient History, Greek, and Philosophy will also be raised to 400*l.* from funds released by the institution of the University Professorship in Mathematics, and a lectureship in English Literature instituted at a salary of 300*l.* Further provision is also needed for library maintenance.

Pending the establishment of University Professorships at Bedford College in those departments where at any rate to begin with there would only be readers or lecturers in charge, it will be necessary to link up those departments with other departments at University College which are in charge of University Professors. The responsibility for supervising the courses of study and the examinations at Bedford College would in these cases rest with the professor located at University College, but he would have regard to the local necessities in framing the time-tables and arranging the courses to be given and would for this purpose act under the general management of the Bedford College local committee or delegacy (*cf.* paragraph 127). Subject to these conditions we think that Bedford College might be included as a Constituent College in the Faculty of Arts.

Proposed
School of
Oriental
Studies.

142. We have made no reference in the foregoing paragraphs to the instruction already given by University and King's Colleges in Oriental Languages, because Your Majesty's Government has decided to found a special School in London for Oriental Studies, and has referred the problem of its organisation to a Departmental Committee under the Chairmanship of Lord Cromer. An admirable home most conveniently situated has been found for the new School by the transference of the London Institution building to Your Majesty's Commissioners of Works, and we learn with satisfaction that the necessary repairs and alterations in the building will be made at the public expense to suit it for its new and larger purposes. The proprietors of the London Institution have agreed to the transfer of this fine site and building, together with the valuable library of the Institution, and we hope that the merchants of the City of London interested in our Eastern and African trade will contribute liberally towards the maintenance of a school which should serve their interests as much if not more than those of the public services. Your Majesty's Government have already promised an annual grant-in-aid of 4,000*l.* to the new School, but we understand that the total annual cost of maintenance will be about 14,000*l.*, so that 10,000*l.* a year will still be required.

University
control de-
sirable.

143. We are of opinion that on the foundation of this new School both University and King's Colleges should abandon their departments of oriental languages and should transfer their oriental books to its library, receiving in exchange some at least of the books dealing with other subjects, at present on the shelves of the London Institution. Further, on the reconstitution of the University in accordance with the general recommendations of our Report, the School of Oriental Studies should become the University Department of Oriental Studies governed by a delegacy of the Senate and under the complete educational and financial control of the University. The most convenient procedure would be for the School to be established under the Act which will be necessary for the reconstitution of the University; but should the passage of this Act unfortunately be so delayed as to make the independent foundation of the new School necessary, we hope that steps will be taken to make it clear in the deed of foundation that it is intended to transfer the School to the University so soon as the University is itself re-organised. The Departmental Committee presided over by Lord Reay was unanimously of opinion that the School should be incorporated in the University, and we have received evidence in the same sense from the Professorial Board of University College.¹ The Academic Council

¹ *Appx. to 3rd Report, App. VII., p. 422.*

recommended the policy of extending the process of incorporation,¹ and Lord Reay expressed the hope that we would “lay great stress on the Oriental School being “immediately incorporated in the University.”² Professor Hill pointed out that if the new School were made financially independent of the University, the same kinds of difficulty would arise in its management as have occurred in connexion with the Imperial College, while the professors of Oriental Languages at University and King’s Colleges who are now appointed by the University itself would be prejudiced by being transferred to an independent institution.³ We are in complete agreement with the general policy advocated by these witnesses, but we think it will be clear from the first Part of our Report that the new School of Oriental Studies ought not to be incorporated in the University until the University has been reconstituted.

144. We have now to consider the provision that ought to be made by the University itself for the instruction of those evening students in the Faculty of Arts who desire to take a full course of training with a view to graduation. We have said already (*cf.* paragraph 75) that the University ought to provide instruction of the highest kind for undergraduates in the Faculties of Arts and Science who are unable to devote their whole time to study, similar to that already provided at University College, King’s College, and the School of Economics in the Faculty of Economics. But Arts and Science courses for these students should not be given at any of the three institutions named, for they will be more than sufficiently occupied in giving evening courses of a specialised kind for what may be called professional purposes in the stricter sense. Mr. Sidney Webb, in the interesting evidence he gave before us as to the nature and scope of the University, expressed the opinion that it need not “devote any of its own funds to the promotion of evening “instruction. That, except perhaps in the highest branches and in special subjects, “it may well leave to the institutions catering specially for this need, and especially “to the several Local Education Authorities within its area, which are usually quite “willing to undertake the work, and which would, for the most part, readily respond “to any suggestions that the University made, either for extension or for improve- “ment.” His argument was based upon the enormous size of London and the surrounding area which sends workers daily to the metropolis. He pointed out that the population within the 2,800 square miles of the present thirty-mile radius of the University amounts to 8½ millions; and that if the whole of Kent, Sussex, Essex and Hertfordshire were included, the population would be 10 millions, and by the middle of the century might easily have risen to 15 millions. He expressed the opinion that if “Paris and Berlin, drawing from much smaller local populations, and exposed “each to the competition of a score of other universities in their own countries, have “each actually something like ten or fifteen thousand university students, we can “see that any equally effective London University might easily number 20,000.” From these considerations he drew the conclusion that both because of the cost of travelling that would be involved, and because of the physical impossibility of dealing with such large numbers in a central college or group of colleges, the work of the University must be dispersed throughout the area, and practically all but the highest work done in “mixed” institutions maintained by Local Education Authorities. This general conception of the University was shared by Dr. Garnett, the Educational Adviser of the London County Council, in the evidence and various memoranda he submitted to us.⁴

Proposed University provision for evening students.

145. It is possible that as the secondary education of the country improves and comes to be more widely appreciated, the numbers of qualified students seeking a university education in London may rise to the 20,000 Mr. Webb anticipates, though if it does, this would probably be largely due to the attractive power of a great university rather than to the requirements of the population of the London area, as the number Mr. Webb suggests is greatly in excess of the proportion of university students which is found in the European countries where education is most fully organised and developed. Paulsen,⁵ on the authority of Conrad’s statistics, gives the figure for the number of students attending the universities in Germany, and the countries of similar culture-conditions, as about one-half per thousand of the population. The official

Proportion of university students to population.

¹ *Appx. to 2nd Report*, Academic Council Report A, (vi), p. 256 and § 17, p. 269.

² *Appx. to 1st Report*, Reay, Q. 2130.

³ *Appx. to 3rd Report*, Hill, Statement, § 40, p. 63.

⁴ *Appx. to 1st Report*, p. 20, and p. 105 *ff.* and App. II., p. 215 *ff.*

⁵ Paulsen, *The German Universities*, p. 132.

returns¹ show that there were upwards of 57,000 matriculated students in the German universities in the *Winter-semester* of 1911-12, and that there were rather more than 16,000 students in the technical high schools and other professional schools of similar rank (excluding music). In other words, about 1·2 per thousand of the population in Germany were receiving education of a university standard, and if it be assumed that a similar proportion of the population in England 30 years hence were attending the universities that would give only about 15,000 students for the six counties which Mr. Webb includes in the area of the University, on the assumption that he is right in his estimate that the population will by that date (1941) have increased to 15 millions. At present, however, we are far removed from any such demand. The number of registered Internal students of the University at present is less than 4,000, and that figure includes many who are taking only part of a full course for a degree. Of the 3,316 Internal students in the session 1910-11, only about 800 were attending institutions other than Schools (including incorporated colleges) of the University, and of this 800 (the great majority of whom were evening students), under 700 were attending the eight "mixed" institutions or Polytechnics to which Mr. Webb referred. This gives an average of under 100 students apiece, but if the Birkbeck College, which Mr. Webb excludes from the category of polytechnics, be omitted, the number of Internal students at the remaining seven amounts to but 410, or an average of about 58 Internal students apiece. Most of the 410 students were in the Faculty of Science, which accounts for 318, of whom 294 were in four institutions; only 21 were students in Arts, of whom 18 were in one institution; and 71 were students in engineering fairly equally divided among six institutions, though two of them had only 7 and 8 students respectively.

Relation of
University to
Polytech-
nics.

146 The movement that Mr. Webb anticipates is therefore at present quite in its earliest stages, and has reached important developments in only three Polytechnics (excluding the Birkbeck College), and in the single Faculty of Science. At the same time, we think it of importance that the higher work of the Polytechnics should be encouraged by the University, provided conditions for carrying it on can be secured which will enable the students to obtain some of the essentials of a university education and not merely a means of preparation for an examination conducted by the University. Stated in these very general terms, there is probably no-one who would be found to disagree. The difficulties arise when the conditions come to be defined. The University is likely to take a different view of the matter from a Local Education Authority, or the governing body of a "mixed" institution who have to provide for instruction nine-tenths of which is below a university plane, and who employ teachers expected, quite reasonably, to do 30 hours teaching a week. We have referred already to these difficulties (*cf.* paragraphs 41-43, 107), and the correspondence between the Principal of the University and the governing body of an institution placed before us by Professor Hill is an excellent illustration of them.² In the ultimate issue it must be the University which decides what are the necessary conditions of a university education, and not the governing bodies of "mixed" institutions, or even Local Education Authorities, and if only for this reason we think it essential that the University should itself be responsible for the maintenance of a college for evening students. In this way only will it be able to show how evening students should be provided for, and be in the position to educate public opinion in the matter. But we do not contemplate that all the teaching of evening or part-time students should be provided by the University itself. We agree with Mr. Webb in the belief that as the general education of the community improves the legitimate demands may be greater than the University can supply, if indeed they are not so already. We think that Local Education Authorities are in a better position than the University to make those tentative experiments in the provision of university education out of which a new university centre may ultimately emerge, but the University should at least provide a standard by which these experiments may be measured and offer by its example an encouragement to others to be satisfied with nothing less than the best.

University
should pro-
vide a college
for evening
students.

Situation of
evening col-
lege.

147. It is important that the courses provided by the University in the Faculties of Arts and Science for evening students should be near those in the Faculties of Laws and Economics, because some students may desire to include subjects of study both in Arts and in Laws or both in Science and in Economics or in other

¹ Statistisches Jahrbuch für das deutsche Reich, 1912.

² *Appx. to 3rd Report*, Hill, Qs. 6946-7.

cross-combinations; because it is to be desired that there should be as much intercourse as possible between the teachers in different Faculties; because experience has shown that the West Central district is a convenient one for students who attend lectures and classes after their day's work is ended and before going home; and finally, because the courses should be given within a short distance of the central University buildings, where the students' clubs and societies will often be meeting, and where evening students and teachers could get a meal and mix with their fellows.

148. We think that the original purpose of the founder of the Birkbeck College, and the excellent work that institution has done for the education of evening students who desire a university training, mark it out as the natural seat of the Constituent College in the Faculties of Arts and Science for evening and other part-time students. The Goldsmiths' College Delegacy, in the statement prepared for presentation to the Commission,¹ expressed the view "that the University, in one of its own Colleges, should endeavour to show how evening work can be carried on under the "best conditions," but possibly they would not have contemplated using the Goldsmiths' College for this purpose had it not been that they are the body responsible for the management of a large institution which has had serious financial difficulties to face, and which, from its first foundation by the Goldsmiths' Company, has done the major part of its work in the evening. The reasons that we have given above for placing the evening work of the University in a more central position appear to us conclusive, the more so since the degree of success already achieved by the Goldsmiths' College with its evening classes in preparation for university examinations has not been very great, whilst the Birkbeck College has a large number of evening students reading for degrees, and might rely upon an increase in their numbers if the evening degree courses at King's College were abandoned, as we think they should be. We shall return at a later stage to the question of the use to which we think the Goldsmiths' College may more profitably be put (*see* paragraph 411).

Birkbeck College should be evening Constituent College.

149. It is not unreasonable to limit the provision of university instruction in such a college as we have in view to the needs of evening or part-time students, although the university courses in Economics given at the School of Economics and Political Science and those in Laws given at that School and at University and King's Colleges are available both for full-time and part-time students. The conditions in the Faculties of Arts and Science are not the same as those in the Faculties of Laws and Economics. In the two last named Faculties the majority of the students are part-time students, many of whom can attend lectures in the afternoon or even in the morning, and who have occupations that may be regarded as in a certain sense a part of their curriculum. In the Faculties of Arts and Science, on the other hand, the majority of the students are, and probably always will be, full-time students. The chief colleges in London in these Faculties have in consequence been organised as day colleges, and if evening courses were also to be given in them for the part-time students who are nearly all engaged during the day a duplication of all the principal professorships would be needed; for we do not think it suitable that the evening work should be entrusted to junior teachers, or that a double burden should be thrown upon the heads of departments. In these circumstances, and in view of the difficulties arising from the double use of laboratories, we think that a separate Constituent College for part-time students, who in fact will be mostly evening students, should be established in the Faculties of Arts and Science. The fees, moreover, that part-time students should be expected to pay for a full degree course would be lower than those for full-time students, and the admission of these last to the new college would set up a financial competition with the day colleges which it is most important to avoid in view of the growing contributions that are now made in aid of university education from public funds. According to the best opinion it is not possible for students who have only their evenings for study to attend lectures and classes on more than three days in each week, and we think therefore that the purpose for which the new evening college would be established should be safeguarded by requiring the special permission of the authorities for a student to attend lectures or classes on more than that number of days.

Exclusion of full-time students.

Fees for part-time students.

150. We have already described the conditions that should be observed in establishing an evening Constituent College (*see* paragraphs 75, 149), and we realise that considerable changes will be necessary in the government, in the organisation, and in

Reorganisation of Birkbeck as evening Constituent College.

¹ *Appx. to Final Report, App., III., § 22, p. 230.*

the staffing of the Birkbeck College before it can properly be admitted to this status. Above all, the cost will be very considerable, and the number of students possibly less than at present, but the attempt to found an evening University College of the first rank in the Faculties of Arts and Science is so important and likely to have such excellent results that we think the cost ought, if possible, to be faced. We desire to make it clear that the College buildings should not be occupied during the day time except by the teachers engaged in research and by advanced students who can spare the time in daylight hours to continue their studies beyond the first degree. The libraries and laboratories should be open for such purposes, but the ordinary lectures and classes for undergraduates should not be held in the day time unless there is evidence to show that a morning or afternoon hour would be more convenient to a class of students engaged in earning their living at the time when the usual evening courses were being given.

Estimated
cost of re-
organisation.

151. If it be assumed that the same subjects of study would be provided for as are at present included in the calendar of Bedford College, omitting Italian, hygiene, physical instruction, elocution, the secondary training department, and the art school; and if it be assumed that the salary of each head of a department would be 600*l.* and of the necessary assistants or Readers 300*l.*, and that the expenditure on laboratories and libraries would be 1,800*l.* a year more than at that college, we are of opinion that an income of not less than 20,000*l.* would be necessary.

When we turn to a consideration of the probable sources of income, we are faced with serious difficulty. The number of evening students taking degree courses at the Birkbeck College in 1911 was 255,¹ and if the standard of the instruction were raised as we have suggested, and if the similar courses now being held at King's College, Strand, were abandoned, an attendance of at least 350 students might fairly be expected.* Assuming that over both Faculties the average annual inclusive fee were 7*l.* 10*s.* and assuming an attendance of at least 350 students, the income from fees would be 2,625*l.*

Turning next to income from public sources, we find that at present the college receives an annual grant of 1,500*l.* from the City Parochial Foundation, of about 6,000*l.* from the London County Council, and of about 2,000*l.* from the Board of Education. It is certain that the grant from the Board of Education under their Regulations for Technical Schools would not be available. We do not know whether the City Parochial Foundation would be prepared to continue their grant to the Birkbeck College if its work were confined to university studies. On the other hand, we may perhaps assume that the County Council would be willing to place at least the present sum at the disposal of the University for the purposes of the college as reconstituted; and that the college, a university institution in the full sense of the term, might properly share in any funds in future available from the State in aid of universities.

It appears, therefore, that additional provision is needed at a cost of at least 10,000*l.* a year in order to establish an evening Constituent College in the Faculties of Arts and pure Science. It is possible that some further capital expenditure will also be needed in order to fit the present buildings for their new purpose, but seeing that there are over 1,000 evening students attending the college at present,† we think it may be assumed that the premises will be sufficient for some years to come though alterations may have to be made.

No estimate
made of ad-
ditional
buildings re-
quired.

152. We have made no attempt to estimate the need of further provision of buildings for the Faculty of Arts. The several Schools of the University, acting separately and without consultation with each other or with the University, have submitted estimates which amount in the aggregate to nearly a million sterling. It will be obvious, however, that if the University were re-organised so as to enable it to survey on a uniform principle and with a considered policy the needs of all its Constituent Colleges simultaneously, the estimates already submitted would need great modification. Indeed, no useful estimate can be made pending a decision as to the future site of King's College and of the central University buildings. When the reconstituted University is in the position to adopt a building policy for the Constituent Colleges in its several Faculties, it will desire to carry it out in con-

¹ *Appx. to 3rd Report*, Armitage-Smith, Q. 9870.

* There were 105 evening students at King's College in 1910-11 taking degree courses in the Faculties of Arts and of Science.

† There is ample provision elsewhere in London for non-university evening students.

formity with the relative urgency of the different needs, and we believe it will have no difficulty in finding benefactors who will be willing to provide the means. It is always easier to secure donations for buildings and land than endowments for teaching and maintenance.

Certain other Institutions connected with the Faculty of Arts.

153. The present teaching strength of the remaining "Schools" of the University in the Faculty of Arts does not appear to us to afford any near prospect of their being able to comply with the conditions necessary for Constituent Colleges. The case of King's College for Women, which is an incorporated School of the University in the Faculties of Arts and Science, raises a number of issues which, for the sake of convenience, we deal with together under the Faculty of Science (*see* paragraphs 172-178).

(a) King's College for Women.

154. Although we are of opinion that all the day teaching of the highest kind in Arts, Law and Economics, and a large part of that in pure Science should ultimately be concentrated in one district of London, we realise that this is a plan that will need time for its completion. Meanwhile we hope that the governors of the East London College will see their way so to strengthen their staff in the Faculty of Arts, and we may add (in anticipation) in the Faculty of Science also, that the college may shortly be qualified for inclusion as a Constituent College in those Faculties. We recognise to the full the generosity and enthusiasm with which the Drapers' Company have supported university education in London generally, and the patient determination with which they have raised the East London College mainly at their own charges from the status of a polytechnic to that of a vigorous and promising institution doing university work. But there is a great difference between this and the standard necessary for inclusion as a constituent part of a great university. Large additional funds would be necessary which the Drapers' Company might perhaps hesitate to devote to the purpose even were they able to do so, and when the funds were raised the Governing Body would be called upon to give the University the educational and financial control. We appreciate the gravity of the policy and the sacrifice that would be needed, but we believe the dignity and usefulness of the college would be so much enhanced that the proposal may well commend itself to those who have already done such great service to higher education. The question of the site of the college is a difficult and complicated one which might well be left to the careful consideration of the Drapers' Company in consultation with the authorities of the reconstituted University, if and when it is thought desirable to raise the institution to the status of a Constituent College.

(b) The East London College.

155. There are two other Schools of the University in the Faculty of Arts, the Royal Holloway College and Westfield College, to which no reference has yet been made in the present Part of our Report. We do not think either of these institutions is likely to wish to comply with the conditions we have laid down for Constituent Colleges. They are both residential colleges organised more upon the lines of the colleges of Oxford and Cambridge than on those of the Scotch or German universities which the University of London as reconstituted would resemble. The Royal Holloway College, moreover, is so far distant from London that it cannot hope effectively to give or gain strength either through its students or its teachers by a more intimate connexion with the University than it now possesses. We need hardly say that it is no less important that a Constituent College should add to the effective strength of the University than that it should receive support from it. The obligations are reciprocal. Westfield College, which is within the proposed area for the University (*cf.* paragraph 375), has aims and ideals which were admirably placed before us by the Lord Chief Justice and other representatives of the college;¹ but they are not consistent with its organisation as a Constituent College working in close co-operation and intimate co-ordination with the other Constituent Colleges of the University. Like the Royal Holloway College, Westfield College cannot be brought into a closer union with the University than at present exists.

(c) Royal Holloway and Westfield Colleges.

156. None of those institutions connected with the University which are not Schools but in which there are "recognised" teachers in Arts are at present sufficiently strong for inclusion as Constituent Colleges.

Institutions with "recognised" teachers.

¹ *Appx. to 3rd Report, Alverstone, Q. 8582 ff.*

Summary of
recommendations.

157. We are now in the position to summarise our recommendations in respect of the Faculty of Arts :—

1. The Faculty should consist of the Vice-Chancellor, the University Professors, the Honorary and Associate Professors, the University Readers and the Honorary and Associate Readers in charge of departments dealing with subjects of study in respect of which no University Professorship is in existence, and of such other teachers and officers appointed by the University as the Faculty may co-opt. We do not think that the Faculty of Arts need include other persons.
2. The head of every department in a Constituent College (*see* paragraph 119) or University Department (*see* paragraph 120) in the Faculty of Arts should be either a University Professor or a University Reader with the salary, conditions of appointment, and tenure which we have laid down as proper to university teachers (*see* paragraph 106).
3. University College and King's College should become Constituent Colleges in the Faculty of Arts. But in order to fit them to fill this position adequately further provision towards the cost of establishing University Professorships and Readerships and towards the maintenance of libraries is needed (*see* paragraphs 138, 139).
4. The London Day Training College should become the University Department of Education, provided the London County Council is willing to comply with the necessary conditions of university management (*see* paragraphs 116–120, 140).
5. Bedford College should become a Constituent College in the Faculty of Arts, subject to its compliance with the conditions as to university management we lay down. Immediate further provision is needed towards the maintenance of the library (*see* paragraphs 116–120, 141).
6. The East London College should become a Constituent College in the Faculty of Arts as soon as it has raised the necessary funds to enable it to comply with recommendation 2 above, provided its Governing Body is willing to agree to the necessary conditions of university management (*see* paragraphs 116–120, 154).
7. The Birkbeck College should be reconstituted so as to become a Constituent College in the Faculty of Arts for evening students, subject to its compliance with the necessary conditions of university management, and to its abandoning its present day work and all its evening work below a university standard. Additional income for maintenance is needed to enable it to fulfil this purpose, amounting to at least 10,000*l.* a year, in respect of the two Faculties of Arts and Science (*see* paragraphs 116–120, 148–151).
8. The new School of Oriental Studies should be established as the University Department of Oriental Studies. If the reconstitution of the University should be delayed, the instrument establishing the new School should make it clear that incorporation with the University when reconstituted is intended. Further provision for maintenance is needed for this School amounting to 10,000*l.* a year (*see* paragraph 143).

The Faculty of Science.

Existing Provision.

Professors
and Readers
in Faculty of
Science.

158. We find that the Senate has granted, or would be prepared to grant, subject to certain conditions, the title of University Professor to 40 teachers, and the title of University Reader to 36 teachers in this Faculty. Pending the Report of this Commission, it has postponed action in respect of those teachers who are attached to institutions aided by the London County Council. These teachers are indicated by a star in the following lists, which show the distribution of Professors and Readers among the several Schools and Departments of the University in the Faculty of Science† :—

University College :—

Professors :—

1 in Botany.

2 in Chemistry.

† In cases where two posts are held by a single teacher the second post in the list is placed in square brackets.

University College—*continued.*Professors—*continued.*

- 1 in Eugenics.
- 1 in Geology.
- 2 in Mathematics.
- 1 in Physics.
- 2 in Physiology.
- 1 in Zoology.

Readers :—

- 1 in Bio-Chemistry.
- 1 in Botany.
- 2 in Mathematics.
- 1 in Physics.
- 1 in Physiology (jointly with the Royal Veterinary College).

King's College :—

Professors :—

- 1 in Botany.
- 2 in Chemistry.
- 1 in Mathematics.
- 1 in Physics.
- 1 in Physiology.
- 1 in Zoology.

Imperial College of Science and Technology :—

Professors :—

- 2 in Botany.
- 2 in Chemistry.
- 1 in Geology.
- 2 in Mathematics.
- 3 in Physics.
- 2 in Zoology.†

Readers :—

- 3 in Chemistry.
- 1 in Mineralogy.
- 2 in Physics.
- 1 in Zoology (jointly with Guy's Hospital Medical School).

University Physiological Laboratory :—

Professor :—

- 1 in Physiology.

Readers :—

- 1 in Chemistry (jointly with St. George's Hospital Medical School).
- 1 in Psychology (jointly with Bedford College).

Bedford College :—

Professor :—

- 1 in Mathematics.

Readers :—

- 1 in Botany.
- 1 in Physiology (jointly with St. Bartholomew's Hospital Medical School).
- [1 in Psychology] (jointly with the Physiological Laboratory).
- 1 in Zoology (jointly with the Royal Veterinary College).

University Department in Meteorology :—

Reader :—

- 1 in Meteorology (lectures at School of Economics).

The East London College :—

Professors :—

- 1 in Chemistry.
- 1 in Physics.

Royal Holloway College :—

Professor :—

- 1 in Botany.

Reader :—

- 1 in Physics.

† The holder of one of these chairs is since deceased.

South Eastern Agricultural College :—

Professor :—

1 in Agriculture.

Reader :—

1 in Botany.

159. The foregoing list accounts for 36 University Professors and 21 University Readers (of whom five are shared with institutions which are not Schools of the University in the Faculty of Science). The remaining 4 Professors and 15 Readers are distributed among the institutions in the following table, none of which are Schools of the University in this Faculty :—

Royal Veterinary College :—

Professor :—

1 in Veterinary Pathology and Bacteriology.

Readers :—

[1 in Physiology] (jointly with University College).

1 in Veterinary Anatomy.

1 in Veterinary Hygiene.

[1 in Zoology] (jointly with Bedford College).

London Hospital Medical College :—

Professor :—

1 in Physiology.

Guy's Hospital Medical School :—

Readers :—

1 in Chemistry.

1 in Physiology.

[1 in Zoology] (jointly with the Imperial College).

St. Bartholomew's Hospital Medical School :—

Reader :—

[1 in Physiology] (jointly with Bedford College).

St. George's Hospital Medical School :—

Reader :—

[1 in Chemistry] (jointly with the University Physiological Laboratory).

St. Mary's Hospital Medical School :—

Readers :—

1 in Chemistry.

1 in Zoology.

Charing Cross Hospital Medical School :—

Reader :—

[1 in Zoology†] (jointly with Bedford College and the Royal Veterinary College).

London (Royal Free Hospital) School of Medicine for Women :—

Reader :—

1 in Physiology.

School of Pharmacy of the Pharmaceutical Society of Great Britain :—

Professor :—

1 in Chemistry.

Finsbury Technical College :—

Professor :—

1 in Chemistry.

Goldsmiths' College :—

Reader :—

*1 in Chemistry.

Birkbeck College :—

Readers :—

*1 in Botany.

*1 in Chemistry.

*1 in Geology.

*1 in Mathematics.

† This teaching has now been abandoned.

Northern Polytechnic :—

Reader :—

*1 in Chemistry.

South-Western Polytechnic :—

Readers :—

*1 in Geology.

*1 in Zoology.

160. A study of these lists makes it clear that the only institutions at present qualified for inclusion as Constituent Colleges of the University in the Faculty of Science are the Imperial College, University College, King's College, and, subject to the same conditions we have laid down in the case of the Faculty of Arts, Bedford College. If some further provision could be made at the East London College we think that institution might also become a Constituent College in the Faculty of Science. The University Physiological Laboratory is similarly qualified for inclusion as a University Department of Physiology, but in view of the considerations we have set out above (*see* paragraphs 68-73) we think the University should not continue to maintain this laboratory as an independent department devoted solely to research and advanced work, but that it might be transferred with its staff (if necessary) to the Department of Physiology in one of the Constituent Colleges. If this were done, economies in administration and maintenance would be effected, while specialisation in particular departments of study might be continued without incurring the disadvantages which arise from a separation of research from the routine work of university education. The excellent courses of special lectures hitherto given by teachers of the University and others would, we hope, be continued, and they would benefit by the larger amount of material, the increased equipment, and the greater number of assistants which the department would be able to supply. The Physiological Institute at University College already has two University Professors on its staff, and the present development of the science is so rapid and far-reaching that there is ample room for the work of three professors. If it were thought better, on the other hand, to transfer the work of the present laboratory to King's College, when new quarters are provided, there would then be a staff of two professors at each of the two Constituent Colleges.

Constituent
Colleges in
Faculty of
Science.

161. It is proposed, we believe, to house the University Department of Eugenics at University College; it should in any case be kept in close touch with and proximity to one of the university teaching centres.

University
Department
of Eugenics.

162. The Brown Animal Sanatory Institution, which is the oldest of all the departments of the University, having been founded in connexion with the University in 1852 under the will of Mr. Thomas Brown, is so specialised in character and has so long been situated in Wandsworth Road, Vauxhall, that it would probably not be easy to bring it into line immediately with the principles which should guide the University in dealing with research. If, however, it were possible to bring this institution and the Royal Veterinary College into closer proximity, and if arrangements could be made for co-operation between the two, it would be of advantage to both. This is a matter to which the University after its reconstitution should give close attention. We deal with the future status of the Royal Veterinary College below (*see* paragraphs 180, 181).

Brown
Animal
Sanatory
Institution.

163. At this point we are brought face to face with the question how the Imperial College ought to be related to the University, though we must postpone the full consideration of it for the present. This matter has been expressly referred to us, and is indeed one of the most important problems with which we have had to deal. Some reference has already been made to it in the preceding Part of our Report (*cf.* paragraph 77), and it is discussed at length under the heading of the Faculty of Technology (*see* paragraphs 194-203). The main purposes of the Imperial College as shown by its Charter¹ and as revealed in the proceedings of the Departmental Committee that led to its foundation, are "to give the highest specialised instruction and to provide the fullest equipment for the most advanced training and research in various branches of science especially in its application to industry." At the same time, it was the intention of the founders, as is clearly indicated in the same Article of the Charter, that the Governing Body should "carry on the work of the Royal College of Science," the purposes of which were

Relationship
of Imperial
College to
the Univer-
sity.

¹ Charter of Incorporation of the Imperial College, Article II'

not technological but scientific. We think the founders were wise in determining to include pure science besides technology within the purview of the institution for the reasons we give below (*see* paragraph 203), and that it would be disastrous to the interests of university education in London, as well as to the interests of the highest technological study, if the Imperial College were not to form a part of the re-organised University. For these reasons, we think the college should become a Constituent College of the University in the Faculty of Science as well as in the Faculty of Technology.

Additional Provision required.

Minimum provision necessary.

164. We have now to consider what additional provision is immediately necessary in respect of the four institutions named at the beginning of paragraph 160, and what further provision should be made as soon as possible independently of them. As in the case of the Faculty of Arts, and indeed in all the other Faculties, the further provision we recommend for the Faculty of Science will by no means satisfy all its needs. The demands of the future are sure to be specially great in the Faculties of Science and Technology. Further professorships, readerships, fellowships and scholarships will be necessary, as well as additional laboratory equipment and buildings, if the University is to serve adequately the needs not only of the London area, but also those of the country as a whole which are not elsewhere provided, and those of Your Majesty's Dominions beyond the Seas. But the first and most urgent necessity is so to establish the University that it may form a sound and efficient body of learning which will attract further endowments and support by the excellence of its work and the high standard of its teaching and investigations.

Academic Council's estimates.

165. The estimates submitted to the Academic Council by Schools of the University in the Faculty of Science would need an additional income of over 15,500*l.* for staff purposes alone.* In addition, they estimate their needs for laboratory maintenance at over 4,000*l.* a year, but no estimates under this head were submitted by the East London College, Westfield College, or the Wye Agricultural College. To these amounts must be added a proportionate share of the whole capital expenditure on buildings estimated at nearly a million sterling. The Academic Council, having considered these estimates, have reported to us that, if an additional income of 90,000*l.* were to be made available for all purposes, they would allot a sum of 14,700*l.* a year to the Faculty of Science, including a sum of 1,700*l.* for the University Physiological Laboratory. In addition they would assign 10,000*l.* for Research Professorships, a considerable part of which would probably be allocated to this Faculty. We have explained our views as to the future of the University Physiological Laboratory, and we have already said, that Research Professorships or departments should not be established out of general university funds independently of the teaching work of the University, though it may be desirable so to adjust the teaching duties assigned to particular posts as to relieve individuals in certain cases from the burden of routine teaching. The establishment of Research Professorships *eo nomine* would produce the impression that other professors would not be expected to make additions to knowledge. The Academic Council further suggest that seven new professorships should be established at salaries ranging from 600*l.* to 800*l.*, and twelve new readerships and lectureships at salaries of 300*l.* each. They assign 1,400*l.* a year to biometrics and eugenics, leaving a sum of 2,600*l.* for assistance and laboratory expenses in connexion with the various new posts proposed. Included in the above proposals, a sum of 1,600*l.* a year is allocated to the expenses of a department of Ethnology, but as the Senate have already arranged for the appointment of a Reader in Ethnology at the School of Economics, it will be more convenient to deal with this subject of study under the head of the Faculty of Economics (*see* paragraph 220). The proposals of the Academic Council would therefore, if ethnology were excluded, involve an additional annual income of 11,400*l.*, but they expressly say that they have not taken into consideration the needs of the Imperial College. They think, however, that their "proposals, if carried out, would " probably relieve the Colleges to some extent in respect of teaching already given in " the subjects dealt with, and the money so set free could be used to supplement " insufficient salaries in other subjects; and it might prove necessary to postpone " the establishment of some of the Chairs selected in order to provide further sums " to supplement existing salaries."¹

* No estimates were submitted by the Imperial College or the East London College.

¹ *Appx. to Final Report, Academic Council Report, Part II., § 11, p. 182.*

Salaries of
Professors
and Readers
in Faculty of
Science.

166. As in the case of the Faculty of Arts, we shall make no proposals in the following estimates for the establishment of new departments, but we agree with the Academic Council in thinking that the minimum salary of most professorships in the Faculty of Science should be not less than 800*l.*, and that in some cases a salary of 1,000*l.* will be necessary. In many cases this salary is already paid in the larger Schools of the University; in some cases indeed even more. The minimum salary of a Reader should be 300*l.*

We desire to repeat the reservation already made in the case of the Faculty of Arts (*cf.* paragraph 137) that our estimates of immediate needs are not intended as recommendations that increased salaries should necessarily be given to the present holders of the posts named, but only as an expression of our opinion that the posts should receive as soon as possible the full status of University Professorships or Readerships. We recognise also the need for improving the salaries of junior teachers in many cases, but we think this matter must be postponed for the reasons already stated (*cf.* paragraph 137).

With these limitations and reservations we think immediate further provision is necessary in respect of the teaching posts set out under the heads of the several institutions below.

167. The Imperial College has recently received additional grants-in-aid of 10,000*l.* a year from the Board of Education, and of 5,000*l.* a year from the London County Council. We understand that the Governors of the college are of opinion that these further sums will enable them, together with a sum of 150,000*l.* left to the college under the will of the late Sir Julius Wernher, to balance their income and expenditure for the next five years.* The college is so well equipped and so efficiently staffed that we do not consider any further provision is immediately necessary in order to qualify it for inclusion as a Constituent College of the University.

(1) Imperial
College of
Science and
Technology.

168. The existing professorships in the Faculty of Science at University College all carry salaries of over 600*l.*, while the salaries of some, *e.g.*, chemistry, physics, mathematics and physiology, are 1,000*l.* In order to raise the remaining chairs to a minimum of 800*l.* a year, additional funds are needed for the following professorships:—

(2) Univer-
sity College.

- (i) Professorship of Botany.
- (ii) " " Geology.
- (iii) " " Zoology and Comparative Anatomy.

Additional funds are also required for—

- (iv) Readership in Botany.
- (v) " " Chemistry.
- (vi) " " Geology.

The college committee estimate their needs in this Faculty at an additional 4,000*l.* a year, and we have no doubt this sum of money could be advantageously expended, but we do not consider it to be immediately necessary. Further funds are also necessary for the maintenance of the University Department of Eugenics which is located at the college. We understand that the necessary funds for buildings are likely to be forthcoming, and that 1,800*l.* a year is already available for the cost of the laboratory. The Galton Laboratory Committee estimate the necessary cost of maintenance at 4,000*l.* a year, so that a further 2,200*l.* will be needed when the building has been provided. The Academic Council propose in their report to assign a sum of 1,400*l.* a year towards the cost of maintenance, and we think this sum would probably suffice to meet immediate necessities. Additional money is also needed towards the maintenance of the various laboratories of the college in this Faculty.

169. Additional funds are required to raise the salaries in the following professorships at King's College to a minimum of 800*l.*:—

(3) King's
College.

- (i) Professorship of Botany.
- (ii) " " Chemistry.
- (iii) " " Geology.
- (iv) " " Physics.
- (v) " " Zoology.

Additional funds are also required for—

- (vi) Readership in Chemistry.
- (vii) " " Physics.

* A further sum of about 37,000*l.* has been set free for endowment by a recent gift from the Goldsmiths' Company towards the cost of the new buildings for Engineering.

We understand that the Senate of the University has recently decided to attach a new professorship of zoology to the college at a salary of 600*l.* An additional 200*l.* a year is therefore needed in respect of this chair. Funds are also urgently required towards the maintenance of the laboratories. The College Council estimate their needs at 2,000*l.* for this purpose.

(4) Bedford
College.

170. The same difficulties arise in connexion with the Faculty of Science at Bedford College, as in the Faculty of Arts, and we think they should be dealt with in the same way, pending a decision by the University as to the extent to which independent professorships should be attached to the college. The table in paragraph 158 above shows that one teacher in the Science Faculty of the college (the lecturer in Mathematics) has been granted the title of University Professor, and the Senate has since decided to allocate a salary of 600*l.* to this professorship. The table also shows that three of the teachers to whom the University has granted the title of University Reader are shared with other institutions, one of them with two other institutions. The Governing Body of the college, in their report to the Academic Council, estimated the need for additional salaries in the Faculty of Science at 2,385*l.* a year; but since that date they have received the endowment of 600*l.* a year for the Professorship of Mathematics, and with these funds, and other funds made available by the increased grant from the Board of Education, they have been able to raise the salaries of their staff, and thus reduce the amount of this item to 1,280*l.* a year. Subject to the arrangements we have proposed in the case of the Faculty of Arts, the immediate necessities of the case would therefore be met if the salaries of the heads of the departments of physiology and zoology were sufficiently raised to secure the full-time services of these teachers. The Governing Body of the college also reported to the Academic Council that they urgently needed a sum of 10,000*l.* for laboratory equipment (probably in connexion with the new buildings in Regent's Park), and a sum of 1,000*l.* a year for laboratory maintenance and assistance.

(5) The East
London Col-
lege.

171. We think that the East London College might become a Constituent College of the University in this Faculty, provided that the Governing Body were willing to comply with the conditions of university management we have laid down, and if further provision could be made in respect of the departments mentioned below. The table given in paragraph 158 above shows that the University has granted the title of University Professor to two teachers of the college in the Faculty of Science.

Additional funds are needed to raise the salaries of the following professorships to 800*l.* and to make them full-time appointments:—

- (i) Professorship in Botany.
- (ii) " " Chemistry.
- (iii) " " Geology.
- (iv) " " Mathematics.
- (v) " " Physics.

Additional income is also needed for assistant staff in the departments of botany and geology, and for laboratory maintenance, but the amount is difficult to estimate. Meanwhile the college would retain its status as a School of the University with the powers and privileges we describe in Part IV. of our Report.

(6) King's
College for
Women.

172. King's College for Women is at present a partially developed University College in the Faculties of Arts and Science located in Kensington Square. It was incorporated in the University by the King's College London (Transfer) Act, 1908, as a separate institution managed by the same delegacy of the Senate as that responsible for King's College. The college is to some extent provided with a separate staff of lecturers, but the professors and lecturers of King's College give a good deal of the more advanced instruction in the Faculty of Arts and some of the instruction for the Intermediate examination in Science. The students reading for the final examination for the B.Sc. degree go to King's College. The Senate have not awarded the title of University Professor or University Reader to any of the teachers, except those who are on the staff of King's College. The college also includes a department of music, a department of fine art, a department of divinity, and a department of Home Science and Economics, in support of which an endowment fund of 60,000*l.* has been raised, together with a sum of 30,000*l.* for the site and building of new science laboratories, and a further sum of

20,000*l.* for the establishment of a hostel, to be called the Queen Mary Hostel, in connexion with the department.

173. The case of King's College for Women needs special consideration because it is already incorporated in the University. It is an unfortunate result of the incorporation of King's College, though it may have been unavoidable at the time, that the University should have been committed to the maintenance of a separate School for women in the Faculties of Arts and Science in Kensington. The distance of the college from the other Schools in these Faculties makes it difficult for it to take its proper share in the system of inter-collegiate lectures—a system which we hope will be greatly extended in future. Distance also makes it impossible for the college to be linked up with one of the Constituent Colleges in the way we recommend for Bedford College. The arrangement by which lectures are given in Kensington by the King's College professors is inconvenient, and will become more so in proportion as King's College develops. The salaries paid for these lectures are inadequate, yet the other difficulties would not be removed by raising them. A continuance of the present plan would leave many of the principal teachers of the University with their interests and their time divided between two institutions which, if both are needed, ought to be free to develop on independent lines. If there is to be a Constituent College for women in Kensington it ought to be fully staffed and equipped in each Faculty with which it is concerned, but the cost of establishing such a college in the Faculties of Arts and Science would be so great that it would be extravagant to attempt it, unless an overwhelming case were made out, and the facts afford little evidence of this.

174. The total number of students attending King's College for Women during the session 1910–11 was 341, of whom only 99 were full-time students. Of these 99, 67 were reading for a degree, of whom 38 were future elementary school teachers in training. Of these 38, 10 were receiving their instruction at King's College. It appears therefore that there were 57 undergraduates reading for a degree at Kensington Square, of whom only 29 paid their own fees. The remaining 32 full-time students consisted of 21 undergraduate and post-graduate students of Home Science, 2 post-graduate students in the Faculties of Arts and Science respectively, and 9 students reading for the Matriculation examination. The other 242 students at the college were part-time students in Arts (89), or Home Science (19), or Music (11), or Fine Art (30), or Divinity (63), or teachers attending Saturday lectures aided by the London County Council (30). We do not think these figures justify the expectation that the University would be able to establish a strong centre of university teaching of the highest kind for women in the Faculties of Arts and Science in Kensington, even if the services of the King's College staff could be retained—a possibility as to which we are more than doubtful if the college is to remain in Kensington, having regard to the development of the work at King's College to which we look forward. The number of full-time day students at King's College for Women that comes from Kensington and the neighbouring districts is no larger than the number from the same area that goes to other Schools of the University farther away. Yet if the policy we have urged of concentrating the day work provided by the University, as far as possible in one district, is to be abandoned in a particular case, this can be justified only on the ground that a large number of students would otherwise be excluded. On the other hand, it would need an income of something like 20,000*l.* a year to establish the college independently of the King's College staff on a real university footing, even if the number of departments were no greater than that which we contemplate in the first instance for the Birkbeck College (*see* paragraph 151). Less than this the University should not be prepared to approve for an independently staffed Constituent College for women in the Faculties of Arts and Science. For these reasons we are convinced that there is no need for the University to maintain a separate college for women in the Faculties of Arts and Science besides Bedford College.

175. An application was made in May 1909 to the London County Council by the King's College Delegacy for a building and maintenance grant for the development of the college in a number of departments, so as to enable it to provide complete courses for the B.A. and B.Sc. degrees, to give training of a university standard to women in Home Science, and to develop the art school, the department of music, and the department of theology. But the Council took the view that the area of the site of the college was insufficient to provide adequate accommodation for all these departments, and suggested that it was a matter for the

Analysis of students at King's College for Women.

King's College for Women unnecessary as Constituent College in Arts and Science.

University Department in Home Science desirable.

consideration of the Senate whether it would not be in the interests of higher education generally that the college should aim at the development of the Home Science department and gradually abandon the other parts of its work. On the other hand, they suggested that the Senate should aim at securing that any further development of Home Science teaching in the University should for some time, at any rate, be localised at King's College for Women. The County Council stated that they were prepared to reconsider the question both of a building and a maintenance grant when the development of the Home Science department was more assured. In March 1911 the Senate of the University renewed the application for a grant-in-aid for the college, but the County Council decided not to proceed with the matter until the Senate was in a position to forward a statement of their policy as suggested by the Council. In March 1912, however, the Council considered representations made by the Senate as to additional assistance from the Council for the work of the University and the incorporated colleges during the academic years 1911-12, 1912-13, and 1913-14, and in the result they decided "that an interim grant of 1,000*l.* a year " for three years should be given to King's College for Women for the maintenance " of the home science department, in order to enable the college to carry on its work " while a complete scheme is being prepared." We agree with the London County Council that the development of a college of university rank with the wide range of subjects proposed by the delegacy of the college is not possible on the present site, but we go further than this and are of opinion that it is impracticable to attempt to establish such a college at all in Kensington. We think the University should concentrate its energies upon developing the Faculties of Arts and Science at Bedford and University Colleges in the interests of those women who desire a university education in these Faculties. We also agree with the suggestion made by the London County Council, that the University should abandon the teaching of subjects belonging to these Faculties at King's College for Women, except in so far as certain of them may be necessary in the group of studies described as Home Science and Economics, towards the endowment of which considerable sums have already been subscribed. The University should aim at the establishment of a University Department devoted to the study of the subjects referred to, but we think a better name than Home Science and Economics could be found to describe the course. Household and Social Science would perhaps better describe what is aimed at. We feel strongly that care should be taken to differentiate this subject from the Domestic Science now taught in the Polytechnics. The Senate has authorised the purchase of the leasehold of a new site for the college in the neighbourhood of the present buildings, but we think they would be well advised to place the new institution in the Bloomsbury district, where it would be in close proximity both to the site which we hope may be obtained in that neighbourhood for King's College, and to the central University buildings. If this were done it would be much easier to provide for the teaching of certain ancillary subjects without the necessity of establishing separate professorships, as would have to be done if the college were at a distance from the other teaching centres of the University. Even if the removal of King's College itself were delayed or were to prove impossible, co-operation would be much easier with an institution in Bloomsbury than with one in Kensington.

176. Whether the course of studies to be given in the University Department of Home Science and Economics should be confined to students who have already graduated, whether undergraduate courses should also be provided, and whether a degree or only a diploma should be granted at their conclusion, are matters which the University will best be able to decide. We think, however, that the experience of other universities, such as the Columbia University of New York and the University of Chicago, goes to show that there is a need for university instruction and guidance in this group of studies. It is not yet possible to determine the exact range of subjects which should be included, or their right relation to each other, but the problem in this respect is not unlike that which the universities have had to face, and have indeed not yet fully solved, in connexion with engineering. It is of the greatest importance, in our view, that the difficulties should be debated and a solution reached in the free intellectual atmosphere of a seat of learning, where the best brains and the highest scientific knowledge in each of the several studies concerned will be brought to bear upon the problem. It is only in this way that a properly balanced and co-ordinated curriculum can be worked out, by a re-grouping of studies already for the most part within the University field, but related to each other from a fresh point of view and dominated by a new common

purpose. This is exactly the kind of service to the community which a university can best perform.

177. We are doubtful whether the University should continue to bear the burden of supplying lectures in literary and scientific subjects or instruction in music and the fine arts for the ladies of Kensington who can devote only their spare time to them, or as finishing courses of study for girls after leaving school, but if this is thought desirable, their organisation and supervision should be transferred to the Department for the Extension of University Teaching with which we shall deal later (*see* paragraph 409).

Transfer of certain work to Extension Department.

178. The department of divinity, which is doing useful work in preparing candidates for the Archbishop's Diploma in Theology, appears to us to be on a rather different footing. King's College is a Church of England foundation. All tests both for students and teachers in its secular departments were abandoned before their incorporation in the University took place, but provision was expressly made in the first schedule to the King's College London (Transfer) Act, 1908, whereby the Senate was bound to "direct the delegacy . . . to arrange the time-table of " classes and other regulations . . . subject to the conditions following (that " is to say):—

Department of Divinity retained.

"(1) That no student shall be prevented by such arrangement from attending a daily service in the college chapel and a weekly lecture in theology if he so desire :

* * * * *

"(3) That every reasonable facility shall be given to students to attend courses of study approved by the senate for internal students and comprising classes held both in the theological and in other faculties."

We think that these conditions should continue to be observed at King's College for Women, and that opportunity should be given to the Council of King's College (Theological Department) to provide on the new site for the continuance of the women's department of Divinity, though this department would not be under the educational or financial control of the University.¹

179. The difficulty of geographical position, which apart from other considerations prevents the inclusion of the Royal Holloway College as a Constituent College of the University, applies equally to the South-Eastern Agricultural College at Wye. For this reason alone we should exclude it, but there are other reasons which confirm us in our decision. The main purpose of the college at Wye is and must always be the giving of practical instruction and advice to the farmers and agriculturists of the south eastern counties. Comparatively few of its students can be expected to submit themselves to the long and severely scientific training required for a university degree. Moreover, the college is to a great extent supported by the county councils of Kent and the neighbouring counties, which are largely represented on its Governing Body. These facts would probably make it specially difficult for the college to comply with the conditions as to university management which we contemplate in the case of Constituent Colleges. Nor would it be possible, in our opinion, to separate from the ordinary work of the college certain departments and to transfer them to university management. At the same time, it is desirable that the college should encourage as many as possible of its better students to undertake the university course and to continue beyond the stage of a first degree by making original investigations in the important sphere of agricultural science. All this would still be possible if the college were to remain a School of the University. The examinations which its students would take with a view to a degree would naturally be based upon the college curriculum, since this would be the only School of the University in the department of Agriculture, and they would therefore be Internal examinations in the true sense. The University after reconstitution would also doubtless assign the status of Associate Professor to the college professor of agriculture and of Associate Reader to the college teacher of mycology, and in the absence of a university chair of mycology, both these teachers would be members *ex officio* of the Faculty of Science. We have had before us the report of the recent visitation of the college made by the University, and we are of opinion that the Governing Body should apply at an early date for an amendment of its Scheme with a view to compliance with the conditions as to the constitution of the Governing Body, the organisation and tenure

(7) South-Eastern Agricultural College.

¹ *Appx. to 3rd Report, Headlam, Statement (4), p. 213.*

of the staff, and the like, which we lay down for Schools of the University (*see* paragraphs 378-385). We agree with the Senate that the terms of the Scheme are in these respects unsuitable for a School of the University. Whether the college should continue to be a School in the Faculty of Science, or be transferred to the Faculty of Technology is a question which may be left to the Senate of the reconstituted University to decide.

(8) The
Royal Vete-
rinary Col-
lege.

180. Of the remaining institutions contained in the list given in paragraph 159 above, there is one, the Royal Veterinary College, which might, subject to certain conditions, be admitted to the status of a University Department. The University has conferred the title of University Professor on one of its teachers and that of University Reader on four others. Two of the Readers, those in physiology and zoology, are, however, employed jointly at University College and Bedford College respectively. The Governing Body of the college applied recently to the Senate of the University for admission as a School of the University, and the Senate were prepared to admit the college subject to the fulfilment of certain conditions. The Senate made it the first condition of the admission of the college as a School that "A special Committee . . . be appointed to deal with educational matters; the Principal of the College (*ex officio*) and at least two representatives elected by the Teaching Staff to be on such Committee." Further "with regard to the assignment of definite funds for the disposal of the Committee referred to above and the institution of a separate balance sheet in respect of the educational work of the Institution . . . the Authorities of the College" were "invited by the Senate to report formally on the practicability of carrying this into effect, or to suggest any other means by which the educational side of the Institution may, in its government and finance, be made independent." (Senate Minutes, March 20, 1912. Min. 2349.) The Principal of the college replied on April 23rd, 1912, saying that the Governors thought there would be no difficulty in complying with five of the Senate's conditions, and that with regard to three others they were prevented from complying only by the present lack of means. With regard, however, to the question of independence for the educational side of the foundation in its government and finance, the Principal replied as follows:—"I am to say that the Governors are unable to suggest any means by which the educational side of the Institution, in its government and finance, could be made independent. In their opinion any attempt to effect such a separation between the clinical or hospital work of the College and its other functions would be disastrous to its efficiency as a teaching Institution." (Senate Minutes, May 15, 1912. Min. 2772.) It would, of course, be necessary for independence in government and finance to be established on the educational side of the institution before it could become the University Department of Veterinary Science, and the Principal's reply seems to make this difficult. We think, however, that the Governors were under some misapprehension as to the intentions of the Senate, for the separation of educational administration and finance that we advocate, and which the Senate appeared to desire, would certainly not be disastrous to its efficiency as a teaching institution, but on the contrary in the highest degree beneficial. Our own proposals, indeed, go beyond those of the Senate, for we think that if a closer connexion is to be established between the college and the University, the committee of management of the college should consist, at least as to a majority, of persons appointed by the University, among whom, however, the Principal and two of the other teachers might be included. It might not be practicable for the Governors of the college to transfer it completely to the University, but educational and financial control of the teaching activities of the institution should be assured to the University in accordance with the conditions laid down in paragraphs 116-120 above. Further, we think that the college should in future abandon the teaching of chemistry, biology, and physiology (including histology), as it has already abandoned the teaching of physics, and that the students in all these subjects should be sent to University College. The concentration of these preliminary subjects would not only result in increased economy of maintenance, but would set free accommodation which is urgently needed for the more advanced subjects of the curriculum. The only preliminary subject as to which, in our opinion, there might be some doubt is that of physiology, but seeing that the teacher of this subject at the Royal Veterinary College is also University Reader in physiology at University College, nothing but gain could result from concentrating his teaching at the latter place. The University Department of Veterinary Science would then be devoted to giving instruction in pathology (including bacteriology), anatomy, surgery, medicine, hygiene, and *materia medica*. If we assume that University Readerships would, in the first instance,

suffice for surgery and medicine, the salaries at present paid are sufficient to comply with the conditions we have laid down for posts of this status, but the University would have to consider whether it could on other grounds award this status to those teachers who have not already received it. If the departments of medicine and surgery were to be constituted full professorships, as they doubtless should be at the earliest possible moment, an additional income would be required. Some further income would also be required for the development of the library.

Finally, arrangements would be necessary to ensure that so long as students were admitted to the college upon a lower standard of general education than that required of undergraduates, the more intimate teaching of undergraduates should be conducted separately from that of less well-prepared students (*cf.* paragraphs 98–101).

181. The recent Report of the Departmental Committee appointed by the Board of Agriculture to inquire into the requirement of the public services with regard to officers possessing veterinary qualifications¹ points out that the demand for highly trained veterinary officers for the public services, both for administrative and research work, will almost certainly increase, and that at present the supply of suitably qualified candidates is inadequate. The Committee recommended accordingly that the Royal Veterinary College should reduce the minimum period of study from four years to three in the case of students possessing a suitable degree, and that the State should institute a number of scholarships for men with a university training of this kind. The Committee also reported that the courses at present provided for men after they have qualified "while of great value as far as they go, are not sufficient," and they accordingly recommended the institution of other State scholarships for the purpose of encouraging post-graduate work. We think these proposals make it the more important to bring the teaching of the Royal Veterinary College into the closest possible association with the University, and that if, as a result, a well-organised course of study for a degree in Veterinary Science could be provided under the financial and educational control of the University it would probably be possible for the best students at least to qualify for a post-graduate course of the kind desired by the Departmental Committee in their fifth year after entering the college. The course for students who had first taken a degree in Science would, on the other hand, occupy six years before they could qualify for one of the proposed post-graduate scholarships. Our proposals would not be a substitute for those of the Departmental Committee, but they would tend still further to increase the number of well-qualified veterinary surgeons.

Report of Departmental Committee on need for veterinary officers.

182. If the Royal Veterinary College can be brought under the educational and financial control of the University, then the Brown Animal Sanatory Institution, provided it can be moved into proximity with the Royal Veterinary College, should be placed by the Senate under the Committee appointed to manage the University Department of Veterinary Science at that College.

(9) The Brown Animal Sanatory Institution.

There would perhaps be some ground for including the work of both these institutions in the Faculty of Technology rather than in the Faculty of Science. In view, however, of their historic connexion with the last-named Faculty we hesitate to make this a recommendation, and we leave it to the consideration of the Senate after the University has been reconstituted.

183. We have already explained (*cf.* paragraphs 148–151 above) in connexion with our proposals for the Faculty of Arts that we think funds should be made available for the reconstitution of the Birkbeck College as a Constituent College in the Faculties of Arts and Science for evening students, and that the cost would amount to at least another 10,000*l.* a year in respect of these two Faculties. It is not possible to divide this sum accurately between the two Faculties.

University provision for evening students in Science.

Certain other Institutions connected with the Faculty of Science.

184. The remaining School of the University in the Faculty of Science is the Royal Holloway College. For the reasons we have already given (*see* paragraph 155) we think that the Royal Holloway College should not be a Constituent College of the University. The University has already granted the title of University Professor to one of the teachers of the college in the Faculty of Science and the title of University Reader to another. The University, after its reconstitution, would no doubt be willing

Royal Holloway College.

¹ Cd. 6575.

to grant the title of Associate Professor and Associate Reader respectively to these two teachers, and the former, though not the latter, would then become a member *ex officio* of the University Faculty.

Science
Departments
in Medical
Schools.

185. The teachers in the various Medical Schools to whom the University has already granted the title of University Professor or Reader are in charge of the departments of Science attached to those Schools. The proper relation to the University of departments dealing with Preliminary and Intermediate medical studies cannot, however, be determined apart from the problem of medical education as a whole, and we therefore postpone our consideration of this part of the question until we deal with the Faculty of Medicine.

186. Of the remaining institutions in which certain teachers have received the title of University Professor or Reader, three call for special notice here because they are all doing excellent work each in its special way, though we do not think their purposes suit them for inclusion as Constituent Colleges even if the large funds necessary to enable them to qualify for this status were forthcoming.

Goldsmiths'
College.

187.—(i) The Goldsmiths' College is owned and maintained by the University and governed by a delegacy of the Senate. The site, buildings and grounds were presented to the University in 1904 by the Goldsmiths' Company, who had carried on the college since 1891, as a technical and recreative institute. The Company contributed an annual grant of 5,000*l.* for eight years, but have since withdrawn it, and they have also contributed nearly 10,000*l.* towards repairs, alterations, and extensions of the premises. The buildings include a great hall which can accommodate 1,600 people, a dining hall, a library, a gymnasium, and a swimming bath, as well as lecture and class rooms, laboratories, and workshops. The upper floors of the new building, erected in 1907, contain a fine series of art studios. The buildings stand in a recreation ground of six and a half acres. The formal conveyance of the property provides—

“that the premises shall be held by the University for such charitable uses as the University shall with the consent of the Goldsmiths' Company from time to time or at any time by deed appoint and subject to such appointment and so far as any such appointment shall not extend then for the extension and diffusion of knowledge in connection with and under the control of the University.”

The Company have since informed the University that, “as an alternative” to certain proposals they had made, and also in the event of the University, after adopting those proposals “being ultimately unable to maintain the College,” the Company “would be prepared to release the Senate from the conditions embodied in the last paragraph of the Deed of Gift . . . , so as to enable the University to deal with the property in such manner and for such other purposes as the Senate, with the consent of the Company, should think fit.” They added in conclusion that, “In making their alternative suggestion the Company think it not unreasonable to ask that their approval be obtained for the purpose to which the University might propose to devote the property or the proceeds thereof if sold.” It appears, therefore, that the Company would be prepared to consider any reasonable proposal that might be put before them for the future use of the buildings and land. The Goldsmiths' Company are now providing, and have undertaken to equip hostels which will be leased to the college at a nominal rent, for some of the students in the training department, and the college has rented a second recreation ground adjoining its own from the London, Brighton, and South Coast Railway Company.

Present work
of the Col-
lege.

188. The chief work of the college and practically the whole of its day activities are those of a large day training college for elementary school teachers recognised by the Board of Education. The training department is approved by the Board for 515 “recognised” and 10 private students, and is the largest training college in the country. We are informed that there was an understanding with the Board of Education when the training college was instituted that it should not prepare its students for degrees, but should give a two-years' course of training to men and women who had passed the matriculation or some equivalent entrance test. With very few exceptions, which have been specially sanctioned, this arrangement has been maintained. We think a great university may quite properly endeavour to show how elementary school teachers can best be prepared for their profession on the basis of a good general education by instruction which, though of university standard, does not involve the expenditure of time and the strain which a full course for a university

degree entails. We hope that this work will be continued. The remaining work of the college is really a survival of the lectures and classes held mostly in the evening which were provided by the Goldsmiths' Company when they maintained the college as a technical and recreative institute. A certain amount of this work was continued by arrangement with the London County Council after the college was transferred by the Goldsmiths' Company to the University, but the new technical institute which the London County Council intend to provide for South-East London will render the maintenance of the building and engineering departments unnecessary. The University is therefore faced with the necessity of finding new fields of work for the college, a necessity which has been hastened and emphasised by the recent withdrawal of the annual grant of 5,000*l.* from the Goldsmiths' Company and the decision of the London County Council to remove their students from the training department. The Deptford Borough Council have petitioned the Senate, the London County Council, and this Commission for the establishment of a University College on this site, and the Borough Councils of Greenwich and Lewisham have supported their petition. The delegacy of the college informed us that this proposal has been repeatedly discussed, and in May 1911 the Principal of the University wrote a letter at the direction of the Senate to the Chairman of the London County Council, in which he said: "There appears to be at present no sufficient evidence of demand by day students for such courses" (viz., full courses for university degrees in Arts, Science and Engineering) "at the Goldsmiths' College, and there are no funds available to pay their cost." Whatever may be the case in future, we believe this to be an accurate statement of the present conditions, and in our opinion it is very unlikely that the University would ever be well advised to attempt the establishment of a day college at its own cost so far removed from its other work. The Academic Council say in this connexion: "The possibility of development of the day university work at the college in due co-ordination with the other work of the University must necessarily depend upon the provision of funds sufficient for the purpose,"¹ while the delegacy of the college go much further and express the opinion, "That the full development of University education in London, whenever it may be achieved, will include a Day College, or Day Colleges, with complete courses in Arts and Science, in South London, the Delegacy have no doubt; and, without suggesting that the demand is yet urgent, they venture to say that it will be, in the long run, an inevitable demand, and that no scheme of London education will be satisfactory which fails to take account of it."¹ We think, on the contrary, that the establishment of a really effective university giving teaching of the highest kind will set a standard which will make men hesitate in future to establish university centres in several Faculties at a distance from the other colleges of the University, unless indeed the distance is so great as to open out the possibility of the new centre developing in time into an independent university. We are clear, at least, that if experiments of this kind are to be made within the area of the Administrative County of London, they should not be made at the cost and risk of the University funds which will always be in demand for less hypothetical benefits. The question is therefore not one merely of funds, as suggested by the Academic Council. The plan upon which the University ought to develop is equally involved, and the plan we believe to be the only right one is inconsistent with experiments of this kind unless they are undertaken by the Local Education Authority or by private benefactors.

189. All the authorities that have considered the question are indeed agreed that at the moment the establishment of a day University College is impracticable at the Goldsmiths' College. The delegacy of the college and the Academic Council have both expressed a desire, however, to see the college developed so as to become an Evening School of the University in the Faculties of Arts and Science. We agree with the delegacy, as we have said already (*cf.* paragraph 148), that it is desirable the University should endeavour to show, in one of its own colleges, how evening work can be carried on under the best conditions. If there were ample funds available for such experiments, the attempt might perhaps be made at New Cross with fair hope of ultimate success, but the delegacy estimate it would cost from 9,000*l.* to 10,000*l.* a year more than the present available income, and the new college would start with some 70 university students.* We have shown already that for an additional

Proposal to make Goldsmiths' College an Evening School in Arts and Science.

¹ *Appx. to Final Report*, App. III. (3), p. 234, and § 39, p. 235.

* If the college were to be staffed on the scale we contemplate for Constituent Colleges the cost would probably be much greater.

expenditure of about 10,000*l.* a year it would be possible to establish an evening College of the University in the Faculties of Arts and Science at the Birkbeck College with a reasonable probability that 350 university students would be enrolled from the first. There can be no doubt that the additional income necessary for either experiment would be more economically used in the way we suggest, and besides this consideration there are all the other advantages dependent upon its location which the Birkbeck College possesses as compared with the Goldsmiths' College, and which we have already pointed out (*cf.* paragraphs 148–151). It may be that in course of time the success of the Birkbeck College would justify the University in repeating the experiment on the south side of the river, for it is certain that the geographical factor is of great importance in evening work, but that is a matter for the future. Meantime we think one such centre would suffice, and we shall have other proposals to make for the Goldsmiths' College in a later paragraph of our Report (*see* paragraph 411), though we think that, subject to the approval of the London County Council, the present school of art might be continued.

School of
Pharmacy.

190. (ii) The School of Pharmacy of the Pharmaceutical Society is probably the most efficient school for the training of pharmacists in the country. The Pharmaceutical Society has sole statutory powers as to the granting of qualifications for this profession, and is alone responsible for the conduct of the necessary examinations. The School they maintain appears never to have had any university students, and is never likely to have any. We think there is no reason for maintaining any formal connexion, even through its teachers, between this School and the University.

Finsbury
Technical
College.

191. (iii) The Finsbury Technical College is maintained by the City and Guilds of London Institute as a technical college of lower grade than the Central Technical College, which now forms a part of the Imperial College, and which was always intended to be of university rank. Its Governing Body and its distinguished principal have always disclaimed any desire for inclusion in the University. The professors of the Finsbury Technical College are men of the highest distinction, who would adorn the science and technological faculties of any university, but the aims and purposes of the college are not those of university study. We think that it would gain nothing by the maintenance of any formal connexion between its teachers and the University, while it might lose much if its students were encouraged to aim at university examinations, and that it would be diverted altogether from its true functions if it were included as a Constituent College or recognised as a School.

192. The Senate was advised by its Professoriate Committee to postpone action with regard to two teachers at the South-Western Polytechnic and one teacher at the Northern Polytechnic, till after the Report of this Commission. We deal with the question of teachers in Polytechnics in the next Part of our Report.

Summary of
recommendations.

193. We are now in the position to summarise our recommendations in respect of the Faculty of Science :—

1. The Faculty should consist of the Vice-Chancellor, the University Professors, the Honorary and Associate Professors, the University Readers and the Honorary and Associate Readers in charge of departments dealing with subjects of study in respect of which no University Professorship is in existence, and of such other teachers and officers appointed by the University as the Faculty may co-opt. We do not think that the Faculty of Science need include other persons.
2. The head of every department in a Constituent College (*see* paragraph 119) or University Department (*see* paragraph 120) in the Faculty of Science should be either a University Professor or a University Reader with the salary, conditions of appointment, and tenure which we have laid down as proper to university teachers (*see* paragraph 106).
3. The Imperial College of Science and Technology should become a Constituent College of the University in the Faculty of Science, provided the University is given the necessary educational and financial control (*see* paragraphs 160, 163, 201–204).
4. University College and King's College should become Constituent Colleges in the Faculty of Science. But in order to fit them to fill this position additional funds are needed towards the cost of establishing University Professorships and Readerships, and towards the maintenance of laboratories (*see* paragraphs 160, 168, 169).

5. Bedford College should become a Constituent College in the Faculty of Science, subject to its compliance with the conditions as to university management we lay down. Immediate additional income is needed for salaries and for the maintenance of laboratories (*see* paragraphs 116–120, 160, 170).
6. The East London College should become a Constituent College in the Faculty of Science as soon as it has raised the necessary funds to enable it to comply with recommendation 2 above, provided its Governing Body is willing to agree to the necessary conditions of university management (*see* paragraphs 116–120, 160, 171).
7. King's College for Women should as soon as possible be constituted the University Department of Home Science and Economics, or of Household and Social Science, and should, if possible, be placed in the Bloomsbury district in close proximity to the central University buildings and to the suggested new site for King's College (*see* paragraphs 172–178).
8. The Royal Veterinary College should become if possible the University Department of Veterinary Science, subject to its compliance with the conditions as to university management we lay down, and to its abandoning the teaching of chemistry, biology, and physiology (including histology). Additional income is needed as soon as possible in order to make the professorships of medicine and surgery full-time appointments (*see* paragraphs 116–120, 180).
9. The Brown Animal Sanatory Institution should if possible be moved into close proximity to the Royal Veterinary College, and should in that case be placed under the management of the same Committee as the Royal Veterinary College (*see* paragraphs 162, 182).
10. The Birkbeck College should be reconstituted so as to become a Constituent College in the Faculty of Science for evening students, subject to its compliance with the necessary conditions of university management and to its abandoning its present day work and all its evening work below a university standard. Additional income for maintenance is needed to enable it to fulfil this purpose, amounting to about 10,000*l.* a year, in respect of the two Faculties of Arts and Science (*see* paragraphs 116–120, 148–151).
11. The Goldsmiths' College should continue to be a day training college for elementary school teachers, giving a two years' course of university training for the certificate of the Board of Education, but not preparing its students for degrees. Subject to the approval of the London County Council it might also continue to maintain the present school of art. It should abandon its present lectures and classes in science and in technological subjects. Other recommendations with regard to the Goldsmiths' College are made in Part IV. (*see* paragraphs 188, 189, 411).
12. The School of Pharmacy and the Finsbury Technical College should not be formally connected with the University (*see* paragraphs 190, 191).

The Faculty of Technology.

194. We have already declared our belief, in Part II. of this Report, that a city university ought to find a place for technological studies beside those of pure science, and that there is nothing in the nature of technology which makes it necessarily unsuited to the methods and spirit of university work. Indeed, the only hope for permanent advance in the application of science to the practical needs of mankind is to be found in the pursuit of those methods and the encouragement of that spirit; for what the masters of industry need equally with the doctor and the lawyer are the principles which underlie the sciences rather than their applications. "The applications change; the principles never change." This note is struck again and again in the remarkable series of reports submitted by the committees appointed by the Governing Body of the Imperial College in 1907 to advise them on the future organisation and development of its several departments. The views of some important members of that Governing Body which were placed before us in evidence directly raise the issue whether in London at any rate the highest technological instruction should form a part of the University. Some of the witnesses told us that, in their opinion, the interests of advanced education in technology would best be served by the establishment of a separate technological university in London with the Imperial College as its centre and crown. Although we are unable to concur in this view, we think that the opinions expressed before us were largely affected by the belief that the University would probably remain in its main features

Technology rightly included in a city university.

very much what it is at present, and we therefore explain in some detail the reasons for our own attitude to the question. After a discussion of the fundamental principles which have guided us in coming to a decision, we shall make proposals which would, in our opinion, safeguard all those things upon which the witnesses from the college laid most stress.

Departmental
Committee's
Report
(1906).

195. The final Report of the Departmental Committee on the Royal College of Science, &c. (1906), which led to the establishment of the Imperial College, was a unanimous Report, and expressly said, "We wish, however, to put in the forefront " of our recommendations " as to the composition and functions of the Governing Body of the new institution, " a proviso that they should not be regarded as in any " way intended to prejudice the future settlement of the question of the relation " between the new institution and the University." There was a division of opinion on the Committee as to the desirability of putting the new college under the control of the University, and this division of opinion is continued upon the present Governing Body, but the Departmental Committee, after setting out at length the arguments for and against the independence of the Imperial College from University control, went on to say, "If changes can be made in the character and " constitution of the University which will make it desirable to amalgamate the " two institutions, we should wish to see such modifications made, and an amalgama- " tion effected accordingly, and we venture to suggest that a Royal Commission " should be appointed to consider what these changes should be." It has been referred to the present Royal Commission to inquire whether these changes are possible, and we have been led by a consideration not only of the questions raised by the position of the Imperial College, but also of the general defects in the present University, to recommend a reconstitution of so fundamental a character as to alter, in our view, the whole position as it presented itself to the Departmental Committee in 1906. If our proposals satisfy the conditions of success so ably set forth in the arguments of those who desired independence, without leading to the separation from the University which the other side deprecated, we shall have found the way to that "amalgamation of the two institutions" which, given these conditions, both agreed in desiring. It is not therefore necessary for us to recapitulate the arguments on one side and the other set out in the report of the Departmental Committee, though we shall have to refer to some of them in dealing with the views of the present Governing Body. These views, which differ somewhat from those of the Departmental Committee, may be briefly summarised as follows:—

Views of
Governing
Body of
Imperial
College.

- (1) The Imperial College should be autonomous and its relation to the national and imperial industries and their requirements should be free from the interference of a university in all that concerns the education of its students. The college should have absolute freedom in determining the age and conditions of admission, the duration, character, and extent of the courses, including research, the qualifications and personnel of the teaching staff, and the nature and extent of buildings and equipment respectively.
- (2) The students of the college should be able to obtain degrees without examination by an external body.
- (3) The college should aim at confining its students to those able to do advanced and post-graduate work.
- (4) The college should preferably be constituted a university for technology to which other institutions in London engaged in technological work should be co-ordinated.
- (5) Should this last be impossible, the Governing Body desire to obtain degrees for their students from the University of London subject to the conditions set out in (1) to (3) above.

Results of
establishing
a techno-
logical uni-
versity.

196. It appears to us obvious that if the first three proposals were taken literally, they could not be satisfied without granting the fourth and establishing a technological university under the control of the Imperial College as at present constituted. What would this action logically entail?

First. There would be two universities in London, each aided in large measure by the State. Yet two Royal Commissions have already reported against the establishment of two universities, one of which rejected a similar demand from the Royal Colleges of Physicians and Surgeons for a separate university for the Medical Faculty. The Departmental Committee of 1906 also rejected such a solution.

Secondly. The technological work of the University of London would either be continued as at present, in which case the two universities would be in direct

competition, if not hostility, and the Exchequer would be aiding the competition; or all technological work would be excluded from the University of London. This would mean the abandonment or the transference to the other university of (a) the Engineering department of University College (the oldest engineering centre in the metropolis), (b) the engineering department of King's College, (c) the engineering department of the East London College, and perhaps also (d) the newly reorganised department of architecture at University College, although this is a less important matter. The Brown Animal Sanatory Institution, a centre of university teaching and research since 1871, should also probably be transferred, though having regard to the gift over to the University of Dublin contained in Mr. Brown's will, the authority of Parliament might be required. The difficulties of transferring the other departments from one university to the other would be very great, for it is not possible that they should remain in their present situations under the financial and educational control of an alien body.

Thirdly. The technological university would either continue to include pure science among its activities as the Imperial College does now, in which case it would come into direct competition with the University of London in this Faculty, and as in the case of technology the competition would be aided by the Exchequer; or the Imperial College would have to abandon its pure science teaching, and with it the continuance of the Royal College of Science which is devoted to these subjects. Such a solution would mean an abandonment of a large part of its present grant from the Board of Education, which was made in respect of the work done in that College, and the major part of its present buildings. But indeed the impossibility of divorcing applied from pure science, and the grave objections to attempting a removal of the foundations upon which all technological work is built, would make this solution impossible apart from any financial considerations.

Fourthly. A separate technological university would either have to teach its students from the beginning of their course, in which case it would have to abandon the aim of confining itself to advanced and research work; or, at least so far as its London students were concerned, it would have to leave this duty to the University of London and its institutions, coupled with a prohibition against any higher work in technology.

We think it unnecessary to carry further the statement of the natural consequences of establishing a technological university in London. Such a course would not only be unjust to the University of London, it would be unbusinesslike, even if it were possible.

197. Weight was laid in the evidence of the Imperial College upon the existence of a technical *Hochschule* at Charlottenburg independent of the University of Berlin as furnishing support for the views of the Governing Body of the Imperial College. To the suggestion that overlapping of work and friction exist between the University and the technical *Hochschule*, the late Sir William White replied, "But my experience in visiting those places is that Charlottenburg works."¹ The conditions in Germany are, however, quite different from those in England. The scope of the Imperial College is much wider than that of Charlottenburg, for there are no biological departments in the *Hochschule*. The University of Berlin contains no departments of engineering such as those founded in connexion with the University of London many years before the establishment of the Imperial College. The universities of Germany were at first greatly opposed to including a technological faculty, and many of them were placed in towns quite unsuited for work of this kind; yet many Germans of standing in the university world, notably Paulsen and Felix Klein, have viewed with regret the attitude the universities assumed. The reverse is the case not only in the University of London, but in all the universities of this country. Oxford has a department of forestry, Cambridge one for agriculture, both have departments of engineering; and, as we have shown, the history and circumstances of the modern universities have naturally led them to lay stress on the preparation for professional life of all kinds. But the practice of combining technology with other studies within the university is not confined to England. It holds equally in Scotland, Ireland, and Wales, and it holds also throughout the universities of the British Dominions. The greatest school of engineering in Canada is a department of the McGill University, and the first school of engineering in Australia was founded as a

Case of
Charlotten-
burg not
relevant.

¹ Appx. to 3rd Report, White, Q. 7967.

department of the University of Sydney. If, however, it is contended that the Imperial College is different from all these because it ought in time, whatever may now be its practice, to devote itself solely to advanced work and research, to be a kind of super-university, for which the other universities of the Empire will prepare, then the Charlottenburg *Hochschule* cannot be quoted in support, for the main work of that institution is undergraduate, and its standard of admission the same as that of the German universities. Nor do we believe it is possible or desirable to establish a super-university. It was forcibly pointed out to us by Sir Arthur Rücker, a member of the Governing Body of the Imperial College, that the standing of a university depends upon the reputation of its teachers, not upon the wording of its Charter, and that since it is the aim of all universities to do the highest work, no one of them could maintain its superior standing unless it could be sure of obtaining, and retaining on its staff, the greatest living teachers in all its departments of study. As this is impossible, the most advanced students will go to the best teacher, wherever he may be, and not necessarily to the university that claims to be superior to the rest.

Proposal to
confine
College to
senior and
post-gradu-
ate students.

198. But even if it were possible to found a university which would admit students only for the last two or three years of a four or five years' course subsequent to matriculation, and if other universities were prepared to limit their teaching to the first two years of the course in all branches of technology provided at the Imperial College, we think this would be an arrangement of very doubtful advantage to the highest education in technology. Apart altogether from the financial burden that would be thrown upon the College by the exclusion of from 400 to 500 students in their first or second years, we doubt whether it is wise to divide the four years' course of a student into two parts, and to leave the responsibility for the first years, which deal with the fundamental studies, to institutions over which the College would have no control. This might be accepted as a *pis aller* if no other solution were possible, and something of the kind was suggested to us as a means of transferring promising students from the Polytechnics to the University for, at any rate, the last part of their course, but it does not seem to us a plan which could be suitably adopted for all the students of a university. Many teachers lay great stress upon supervising and influencing the studies of their students from the very beginning of their course, and we think this a sound practice. The change from one university to another in the middle of the period of undergraduate studentship may sometimes be inevitable, and if our universities were all organised in the same way, like the German universities, it might even be desirable; but the change of gauge which would result from a transference of the kind suggested would have none of the advantages gained by the German student and would have all its manifest drawbacks. It is noticeable that the Sub-Committee of the Imperial College Governors on the future organisation and development of the department of engineering (other than mining and metallurgy)—the only department in which the standard of entry is that of a university—expressly deprecated the abandonment of the first three years' work, unless it was found necessary in the interests of the higher education of the fourth and fifth years.¹ They did not consider, however, that this was the case. The Sub-Committee on the Organisation and Development of "Other Pure and Applied Sciences" also contemplated the continuance of the first and second years' courses, and based their proposals on this assumption. This Sub-Committee, which was unanimous and consisted of 14 members of the Governing Body, gave an altogether different interpretation to Clause II. of the Charter, which sets out the purposes of the College, from that pressed upon us by the late Sir William White and others in the evidence given on behalf of the Governing Body. Their Report says: "We recognise that the main object of the Imperial College of Science and Technology is to provide a means of advanced (post-graduate) study, and that for this end students should be encouraged to come, who have completed their preliminary studies before entrance. But time will be required to gather together students of this class. Their presence will depend more on the ability and power of the Professors than on any regulations or rules we can suggest, and the majority of them must be drawn from the students who have received their preliminary training in the College." This seems to us to express clearly and succinctly the intentions of the Charter, the possibilities of the situation, and the educational policy that the College should adopt. It is not inconsistent with the aims and practice of other universities, and it is compatible with an organisation of the highest techno-

¹ *Appx. to 2nd Report, Appendix III. (b), p. 202.*

logical work, such as that advocated by the Sub-Committee on Engineering, by means of which the whole resources of London would be made available. "It may, and probably will, be found advisable," this Sub-Committee reported, "to come to some arrangement with colleges or institutions outside the Imperial College by which any such college or institution, or any departments of them, may be in association with the Imperial College, with a view to the higher instruction in some particular branch or branches of Engineering being more conveniently given at such colleges or institutions Similarly, other branches may be found to be advantageously taught hereafter at University or King's Colleges, at the School of Economics, or at similar institutions in London and elsewhere."

We think it is clear from these considerations that the analogy of the German technical *Hochschule* fails to support the claim for a technological university in England, and that the policy of establishing a super-university is neither a possible one nor to be desired on its merits.

199. At the same time we think the terms of the Charter of the Imperial College as set forth in its second article give, if rightly interpreted, a true description of the purposes it ought to continue to serve. It should undoubtedly "give the highest specialised instruction and . . . provide the fullest equipment for the most advanced training and research in various branches of science especially in its application to industry"; but we do not think this means that the more elementary work should be abandoned. It is indeed a necessary foundation for the higher. Nor do we think that the work of the Royal College of Science and the Royal School of Mines should be so profoundly changed as would be the case if the earlier studies hitherto carried on in them were to be abandoned. This would, in our opinion, be inconsistent with the terms of the Charter and incompatible with the arrangements made with the Board of Education, by means of which Royal Scholarships and Free Studentships to the annual value of over 8,000*l.* were made tenable at the college. We believe that the best interests of technology can be served without abandoning these duties, particularly if means can be found for making Article VIII. of the Charter really effective. The Governing Body were instructed, in accordance with the terms of that Article, to "enter into communication with the University of London with regard to the co-ordination of the work of the Imperial College with the work of the University and its other Schools and for the purposes of carrying out or facilitating such co-ordination" they were empowered to "enter into such arrangements either by way of transferring or exchanging Departments of instruction or otherwise and upon such terms as may be agreed upon between the Governing Body and the University." There has, we understand, been some conference between the Governing Body and the Senate of the University, and as a result some agreement reached as to advanced courses to be given in engineering at the several Schools of the University, but in our opinion Article VIII. had more than this in view. We think that the intentions of the Charter will not be realised unless the relations of the Imperial College and the University can be made such that the whole of the highest technological work in London can be co-ordinated, and even a transference or exchange of departments effected if it is thought educationally wise. We have been convinced by the relations which have actually existed in the past between the two institutions that the University needs to have fundamental changes introduced before it can fulfil its part in the co-ordination and supervision of the highest technological education, but we have also reached the conclusion that this education cannot be properly provided in London unless the Imperial College is brought into much closer union with the University than at present. There is indeed one respect in which the College would immediately gain from a closer connexion with the University, and thereby be brought nearer to the fulfilment of its purposes. We refer to the standard of general education required of students before admission. It is interesting to note that the two Sub-Committees of the Governing Body which definitely contemplate the ultimate abandonment of the first two years' courses are those directed to report upon mining and the biological sciences respectively. These are the two departments of the College in which the average standard of general education possessed by the students has been the lowest in the past. But if the standard of general education required for admission to the University were in future demanded of all students, a demand in which all four Sub-Committees agree, we think the attitude of the Governing Body as a whole to the question of the earlier courses would be likely soon to become that already adopted by its Sub-Committees on Engineering, and on other Pure and Applied Sciences.

Provisions of
Imperial
College
Charter.

Imperial College must have freedom for development.

200. If, however, the connexion of the College with the University is to be closer than in the past, it must also be free to develop naturally along its own lines. It must be able to do all those things upon which the advocates of independence lay stress and which are set out in paragraph 92 of the Final Report of the Departmental Committee. We believe that this freedom can be provided for in all its essentials within the terms of the conditions we have laid down for Constituent Colleges of the University, and for the constitution and powers of the University Faculties, though certain modifications of detail will be necessary in order to meet the special needs of the group of studies we are considering.

Proposed Committee for Technology.

201. We will deal first with the relations of the Governing Body of the Imperial College to the University. It will be convenient if the constitution of the Governing Body can remain very much what it is at present, though some modification in the representation of the University and the Board of Education may be needed, having regard to the constitution proposed for the new Senate, and the representation that would be given to that body on the Committee for Technology to which we shall refer immediately. There might be no occasion to make any change as regards the legal title to the land and buildings and other property vested in or controlled by the Governing Body of the Imperial College. But we think that the powers and duties exercised by the present Executive Committee of the Imperial College ought to be transferred to a Statutory Committee of the Senate, which will act as the delegacy of the Imperial College, and be entrusted in addition with the supervision of all the business of the Faculty of Technology. The Committee so appointed would form the Committee for Technology. It should be appointed annually, and consist as to at least three-fourths of its members of men of affairs and persons with special scientific knowledge of the professions and industries connected with the Faculty.* The members of the Committee would be appointed as to a bare majority by the Senate, and should include at least two representatives of the delegacy of University College and King's College respectively; the remainder would be appointed by the Governing Body of the Imperial College. Having regard to the powers proposed to be conferred upon the Faculty, and to the fact that both the delegacies of University and King's Colleges and the Governing Body of the Imperial College include representatives of the teachers, we think it unnecessary to provide specifically for the representation of the Faculty on the Committee for Technology. It would be open to the Senate and to the Governing Body of the Imperial College to include teachers among their nominees, and we may reasonably hope that they would do so. The Rector of the Imperial College should have, subject to the powers of the Committee for Technology, of any of its subordinate Committees or delegacies, and of the Faculty, the general supervision of the work of all the departments within the Faculty, and be *ex officio* a member of the Committee. The Vice-Chancellor would also be *ex officio* a member of this Committee, as of all other Committees of the Senate.

A Committee of 15, including the two *ex officio* members, would be consistent with the constitution we have proposed and would be suitable in size.

Proposed management and finance of Faculty of Technology.

202. The annual income received by the Governing Body of the Imperial College from whatever sources, and the use of all the land and buildings available for that College, should be placed at the disposal of the Committee for Technology thus constituted. The annual income available in respect of the departments of Engineering at University and King's Colleges should similarly be placed at the disposal of the Committee for Technology and, so long as these departments were maintained, the use of the land and buildings at present available for those departments, together with any additional funds and buildings the Senate may see fit to assign for the purpose. All grants from public funds would be made to the University and allocated as it thought fit, subject to any conditions the authority making the grant might impose, but the agreement between the University and the Imperial College would no doubt ensure that the allocation made by the University would not be less than the amount received from these sources at the time of the transfer. The Committee for Technology would be required to submit its yearly budget and audited accounts to the Governing Body of the Imperial College, to the delegacies of University and King's Colleges and to the Senate. The sanction of the Senate to the annual budget would be necessary, but the Senate should not give or refuse its sanction until after it had consulted the Governing Body of the Imperial College and the delegacies or

* The witnesses from the Governing Body of the Imperial College laid stress upon the importance of lay control.

local committees of the other Constituent Colleges concerned. There should also be an agreement that the departments of Engineering at present maintained in other Constituent Colleges in the Faculty should not be modified, abandoned or transferred by the Committee for Technology without the delegacies or local committees of those colleges being given an opportunity of placing their views before the Senate, whose decision in the matter would be final. The Committee for Technology would thus become, subject to the Senate, the body in control of the whole business of the University in respect of technology. The present arrangements for the management and finance of particular institutions such as the City and Guilds College could, if necessary, be maintained with the nominal change that the Committee for Technology would take the place of the Governing Body of the Imperial College, and with one material change which we think essential, viz., that all appointments to professorships and readerships in the Faculty of Technology throughout the University would in future be made by the Senate upon the report of the Committee after this latter body had considered the recommendations of Boards of Advisors constituted in a manner similar to that adopted by the present Senate. This change would undoubtedly deprive the Delegacy of the City and Guilds College of the final decision in the matter of appointments in the Central Technical College, but the City and Guilds of London Institute would be represented upon the Committee for Technology. In this way they would have ample opportunity of making their influence felt. We do not think the fixed annual subvention of 5,000*l.* made by the Institute towards the cost of engineering instruction, which must as time proceeds form a diminishing proportion of the total, justifies supreme control in so vital a question as the appointment of University Professors and Readers. It is possible that the Committee for Technology may in course of time think well to entrust the Delegacy of the City and Guilds College, after suitable modification in its constitution, with the detailed management of all the engineering instruction within the Faculty, and similarly to set up committees to supervise the instruction in mining and metallurgy, the biological and other departments respectively, but this is a matter which can best be solved with the experience which will come from an organisation of the work. We believe that in the way we have outlined the freedom which is asked for by those who have demanded complete independence for the Imperial College will be ensured in all essentials as far as management is concerned, while the University will secure the educational and financial control which is necessary. Similarly the powers we have assigned to the Faculties and the system of examinations we describe above (*see* paragraphs 125–129) will provide the necessary freedom and power of adaptation in the courses of study and the conditions for the granting of degrees.

203. There is, however, one other matter which presents certain difficulties, and which needs special consideration. We refer to the inclusion of certain departments of pure Science within the Imperial College. We have said that in our view the work of the Royal College of Science should be continued in its main features, though we believe that a higher standard of work will be reached when the conditions of admission have been raised for all students by requiring their general education to be that necessary for matriculation in the University. It would be unfortunate if the teaching of pure science were altogether removed from the college. It would be detrimental to the students by narrowing the range of intellectual interests represented among them, and equally detrimental to the technological teachers whose work is based upon the principles of pure science and who find in the investigations of the pure scientist the support and suggestions which lead to fresh applications of a practical kind. All this work will properly fall within the Faculty of Technology, but there will continue to be in the future, as in the past, a number of students of pure science who will naturally desire to graduate in the Faculty of Science. Their teachers will necessarily also find a place in that Faculty, though they may be members of the Faculty of Technology as well. We think, therefore, that care will be necessary to ensure that the Committee for Technology, which, subject to the ultimate control of the Senate, will have the expenditure of funds that will in part be available for departments of pure Science, should not organise or develop these departments in a way detrimental to the Faculty of Science as a whole. To this end we recommend that it should be an instruction to the Committee to consult the delegacies of other Constituent Colleges in the Faculty of Science before initiating new, or developing existing departments in that Faculty, and should a difference of opinion arise after consultation, the matter should be referred to the Senate, whose decision should be final. The courses of study and the examinations of the students

Inclusion of
departments
of pure
Science.

of the Imperial College in the Faculty of Science would be under the general supervision of that Faculty in the manner described above (*see* paragraphs 125-129). Subject to these provisions, we think, as we have already said (*cf.* paragraph 163), that the Imperial College should also be a Constituent College of the University in the Faculty of Science.

Present
Faculty of
Engineering
merged
in Faculty of
Technology.

204. Throughout the preceding paragraphs we have spoken of the Faculty of Technology rather than of the Faculty of Engineering, for we think that when the University is reconstituted the present Faculty of Engineering should be merged in one of larger scope, and its name changed to indicate this. At present, and for a long time to come, engineering will no doubt form the larger part of technology, but there are many indications that the University will have to make provision for the study of technological subjects which lie outside the range of engineering. A proposal has been for some time under the consideration of the London County Council to establish an Institute of Advanced Technical Optics. Such an institute, or at any rate, those of its departments which provide for the instruction of full-time day students, ought, if organised on the right lines, to form a part of the Imperial College. It ought also no doubt to be in close touch with the optical instrument industry, which has hitherto been centred at Clerkenwell, though we understand that Messrs. Zeiss have recently opened optical instrument works at Mill Hill. A certain amount of instruction in technical optics has been provided hitherto in connexion with the Northampton Institute, but this work has mainly had in view the needs of apprentices and others engaged in the industry, who, because of the conditions of their work, can only become part-time students. The advanced institute at the Imperial College ought to work in close co-ordination with the department devoted to part-time students at Clerkenwell, but the university studies of the full-time student would fall within the Faculty of Technology. Another important development of technological work of the highest standard is that connected with economic botany, a subject which is receiving at the present moment increasing attention at the Imperial College, and this department will naturally be included in the Faculty of Technology, as would also the new department of Chemical Technology which the Imperial College has recently founded. Mining would hold a most important place in the Faculty, and the highest instruction in mining, at any rate so far as the metalliferous branch of it is concerned, should be centred at the Imperial College. The Royal School of Mines has long been the chief centre in this country for mining education, and the number of students likely to study metalliferous mining is so limited that we hope in course of time all the instruction of university standard in this branch of mining will come to be centred at the Imperial College; for we doubt whether there is likely to be room in future for more than one efficient school of metalliferous mining of university standard in this country. The growing application of science to industry will certainly call for the establishment within the University in future of other departments of technological study, and we think that it will be of advantage if, at any rate in the first instance, all these various departments are grouped into a single Faculty.

Constitution
of Faculty of
Technology.

205. In all branches of technological work it is now recognised as absolutely necessary that the teaching should be kept in the closest possible touch with the various industries concerned, and for this reason we are of opinion that the Faculty of Technology in the University should be constituted differently from those Faculties which deal with pure science or with literary studies. The Faculty should, therefore, not be confined, as in those cases, to the teachers of the University, but should include lay representatives with special scientific knowledge of the several industries concerned, in order that the teachers may be kept informed of the varying needs of the industries, and so enabled to adapt the teaching to their needs. We think it is unnecessary to determine for the University the proportion of lay members which the Faculty of Technology should include. This is a matter which the University itself in consultation with its Constituent Colleges in the Faculty will best be able to decide; but in order that the Faculty may be kept in close touch with the Committee for Technology to which we have referred above, some at least of the members of that Committee should be among the lay members of the Faculty. Nor do we think it necessary to impose any limitations upon the functions which the lay members should exercise within the Faculty. It may well prove desirable that they should both teach and examine from time to time. At any rate, it is undesirable that either their powers or their duties should be limited by Statute. Any limitation of their functions

which experience may suggest would most satisfactorily be dealt with by means of regulations approved by the Senate of the University and open to modification from time to time.

206. Since we have provided for the establishment of a Committee for Technology connected on the one hand with the Governing Body of the Imperial College, and on the other with the Senate of the University as one of its Statutory Committees, we are of opinion that all recommendations of the Faculty relating to the provision and organisation of the studies within its purview should be made to the Committee in the first instance, and not, as in the case of the other Faculties, direct to the Senate. If the Committee disagrees with the recommendations of the Faculty, the Faculty should have the right to require that their recommendations should be submitted to the Senate, whose decision in the matter will be final.* This procedure would not apply to the recommendations of the Faculty of Science, although the Imperial College would be a Constituent College in that Faculty as well as in the Faculty of Technology, because the responsibility for the management of the teaching and buildings of the Faculty of Science would not be centralised in the way proposed for the Faculty of Technology, but distributed among a number of delegacies or local Committees of which the Committee for Technology would only be one.

Relation of
Committee
for Tech-
nology to
Faculty.

Existing Provision.

207. When we consider the provision existing in London at the present moment which might properly constitute the Faculty of Technology, we find that the Senate has granted or would be prepared to grant, subject to certain conditions, the title of University Professor to 11 teachers in the present Faculty of Engineering, and the title of University Reader to 13 teachers in that Faculty. The teachers in the Schools of the University are distributed as follows :—

Professors
and Readers
in Faculty.

Imperial College of Science and Technology :—

Professors :—

- 1 in Civil and Mechanical Engineering.†
- 1 in Engineering.
- 1 in Metallurgy.
- 1 in Mining.

Readers :—

- 1 in Civil and Mechanical Engineering.
- 2 in Electrical Engineering.
- 1 in Metallurgy.
- 1 in Mining.

University College :—

Professors :—

- 1 in Electrical Engineering.
- 1 in Mechanical Engineering.

Reader :—

- 1 in Surveying (jointly with Battersea Polytechnic).

King's College :—

Professors :—

- 1 in Engineering.
- 1 in Civil and Mechanical Engineering.
- 1 in Electrical Engineering.
- 1 in Metallurgy.

The East London College :—

Readers :—

- 1 in Electrical Engineering.
- 1 in Mechanical Engineering.

208. In addition to the teachers in the foregoing Schools of the University, the Senate has also been recommended to confer the title of University Professor on one teacher at the Finsbury Technical College and of University Reader on teachers in the following Polytechnics which are aided by the London County Council, but it

* This recommendation is subject to the general provisions contained in paragraph 361.

† Since deceased.

has postponed action in respect of them pending the Report of this Commission. This fact is indicated by a star in each case :—†

Northampton Institute :—

*1 Reader in Electrical Engineering.

*1 Reader in Mechanical Engineering.

Battersea Polytechnic :—

*1 Reader in Electrical Engineering.

[1 Reader in Surveying] (jointly with University College).

South-Western Polytechnic Institute :—

*1 Reader in Electrical Engineering.

West Ham Municipal Technical Institute :—

*1 Reader in Electrical Engineering.

Constituent
Colleges in
Faculty of
Technology.

209. It is clear from the foregoing lists, that the only institutions at present qualified for inclusion as Constituent Colleges of the University in the Faculty of Technology are the Imperial College of Science and Technology, University College, and King's College. We have no doubt that the chief teachers of the other technological departments recently established in the Imperial College are worthy of the status of University Professors and Readers in this Faculty, and that they would be given it when the University comes to be reconstituted.

Additional Provision required.

Estimates of
Academic
Council.

210. We have now to consider what additional provision is immediately necessary in order to render these three institutions together a reasonably efficient Faculty of Technology. In dealing with this Faculty we must repeat the warning already given in the case of other Faculties. The further provision which we think necessary in the three institutions does not exhaust the needs of this Faculty. The Governing Body of the Imperial College have already laid down in outline plans for further developments which are undoubtedly needed from a national and imperial point of view, but these must perforce await the means which it is hoped will become available when once the University has been fairly launched upon its true course. In addition to these proposals, the Academic Council suggest the allocation of 4,500*l.* a year to the Faculty of Engineering were an additional income of 90,000*l.* at the disposal of the University. The Academic Council remark that 4,500*l.* would be "quite inadequate for the needs of the Faculty," but "would furnish three Professorships at 1,000*l.* per annum and three Readerships at 500*l.* per annum." These posts would provide for specialist teaching and research in some of the branches of engineering which are at present unprovided for, or at best inadequately treated. No indication is given, however, of the centres where this instruction should be given; indeed, pending a decision as to the future relations of the Imperial College to the University, any proposals of the kind would have been premature. The two incorporated Schools of the University estimated their needs in this Faculty as likely to entail an additional cost of over 4,000*l.* a year for salaries, with a large further sum for laboratory equipment.

Estimates of
Commission.

211. In making the following estimates of what is immediately necessary, we have included no provision for the teaching of new subjects or for increasing the salaries of the assistant staff, though both are doubtless required. We have estimated that the minimum salary of a University Professor in this Faculty will probably have to be 1,000*l.* a year, and the minimum salary of a University Reader 500*l.*, but we think these salaries should be assigned to the posts mentioned only after the University has decided that on other grounds it is prepared to assign the status of University Professor or Reader to the present occupants.

(1) Imperial
College of
Science and
Technology.

212. The Imperial College has received additional grants from the Board of Education and the London County Council amounting to 15,000*l.* a year in all, and has also recently received a legacy under the will of the late Sir Julius Wernher of 150,000*l.* As we have already said in our remarks on the Faculty of Science (*cf.* paragraph 167), we consider that the college is sufficiently equipped to qualify it for admission as a Constituent College in the Faculty of Technology.

† In the single case where two posts are held by one teacher the second post in the list is placed in square brackets.

213. The professorship of mechanical engineering at University College already carries a salary of 1,000*l.* In order, however, to raise the salaries of the remaining professorships to this figure, additional funds are needed for the following chairs :—

- (i) Professorship of Electrical Engineering.
- (ii) „ „ Municipal Engineering.

Additional funds are also required for—

- (iii) Readership in Graphics.
- (iv) „ „ Surveying.

We think the question of the establishment of a Professorship of Civil Engineering at University College should await a consideration of the question by the Committee for Technology and the Senate of the reconstituted University, but if a Professorship of this branch of engineering were to be established at the college, his salary would also have to be provided.

214. The Professorship of Civil and Mechanical Engineering at King's College already carries a salary of 1,000*l.* and is endowed by the University out of the grant received from the London County Council. In order to raise the remaining professorship to this figure, and to provide the minimum salary for two readerships, additional funds are needed for the following posts :—

- (i) Professorship of Electrical Engineering.
- (ii) Readership in Electrical Engineering.
- (iii) „ „ Civil and Mechanical Engineering.

We have not made provision for a second professorship in the department of Civil and Mechanical Engineering, nor for a second readership in the department of Electrical Engineering, both of which are included in the statement of needs submitted to the Academic Council by the authorities of the College, because we think these are matters which should await the consideration of the University Senate and the Committee for Technology after the reconstitution. For the same reason, we have not included any estimates for further engineering equipment either at this college or at University College, though we have little doubt it will be needed when the organisation of the university teaching in engineering comes under consideration as a whole.

215. The Senate of the University has decided to attach a Professorship of Civil and Mechanical Engineering to the East London College with a salary of 600*l.*, and has indicated that it is prepared to grant the title of University Reader to the lecturer in Electrical Engineering. Should the Governors of the East London College be prepared to strengthen their department of Engineering sufficiently to qualify it for admission as a Constituent College, and if they were then prepared to place the management of the department under the Committee for Technology in the way we have proposed for the departments of Engineering at University and at King's Colleges, the University would doubtless be prepared to consider favourably the inclusion of the East London College as a Constituent College in the Faculty of Technology. Pending this development, however, the East London College would retain its status as a School of the University with the powers and privileges we describe in Part IV. of our Report.

We also defer to that Part of our Report the consideration of the instruction in engineering given in the remaining institutions mentioned in the list in paragraph 208 above.

216. We are now in the position to summarise our recommendations in respect of the Faculty of Technology :—

1. The present Faculty of Engineering should be merged in a Faculty of wider scope, which should include all the instruction given by the University in Science as applied to industry and should be called the Faculty of Technology.
2. The Faculty should consist of the Vice-Chancellor, the University Professors, the Honorary and Associate Professors, the University Readers and the Honorary and Associate Readers in charge of departments dealing with subjects of study in respect of which no University Professorship is in existence, and of such other teachers and officers appointed by the University as the Faculty may co-opt. The Faculty should also include persons with special scientific knowledge of the industries and professions with which the Faculty has relations. The numbers and mode of selection would be decided by the Senate after report by the Committee referred to in the next recommendation.

(2) University College.
(3) King's College.
(4) The East London College.
Summary of recommendations.

3. There should be a Statutory Committee of the Senate, entitled the Committee for Technology, to be entrusted, subject to the supreme control of the Senate, with the conduct and management of all the departments of the Faculty within the several Constituent Colleges of the University (*see* paragraphs 201, 202).
4. The Committee for Technology to be appointed annually would consist of the Vice-Chancellor *ex officio*; the Rector of the Imperial College *ex officio*; other persons, a bare majority of whom would be appointed by the Senate, including at least two representatives of the delegacies of University and King's College respectively; the remainder being appointed by the Governing Body of the Imperial College (*see* paragraphs 201, 202).
5. The Committee for Technology should always consist as to at least three-fourths of its members of men of affairs and persons with special scientific knowledge of the professions and industries concerned. A Committee of 15, including the two *ex officio* members, would be consistent with this constitution and suitable in size for the purposes in view.
6. Subject to the approval of an annual budget and report by the Senate, the Committee for Technology should have control of all the funds and buildings available for the Imperial College and of all the funds and buildings at present available for the teaching of engineering in University College and King's College, together with any additional funds and buildings that may be assigned to it by the Senate (*see* paragraph 202).
7. The departments of Engineering at University and King's Colleges, or at other institutions hereafter admitted as Constituent Colleges in the Faculty of Technology, should not be modified, abandoned or transferred without giving the delegacies of those colleges the opportunity of being heard by the Senate of the University, whose decision in the matter will be final (*see* paragraph 202).
8. The Committee for Technology should submit its annual budget and report to the Governing Body of the Imperial College, and the Senate should consult the Governing Body before approving or rejecting them (*see* paragraph 202).
9. The existing arrangements for the management of the several Constituent Colleges of the Imperial College of Science and Technology should continue until they are modified by the Senate on the advice of the Committee for Technology, save that all future appointments to University Professorships and Readerships should be made by the Senate on the report of the Committee after it has been advised by Boards of Advisors appointed in a manner similar to that at present followed by the Senate in appointing to University Professorships (*see* paragraph 202).
10. The head of every department in a Constituent College of the University in the Faculty of Technology should be either a University Professor or a University Reader, with the salary, conditions of appointment, and tenure which we have laid down as proper to university teachers (*see* paragraph 106).
11. The Imperial College of Science and Technology should become a Constituent College of the University in the Faculty of Technology subject to the provisions of recommendations 1 to 10 above (*see* paragraphs 209, 212).
12. University College and King's College should become Constituent Colleges in the Faculty of Technology subject to the provisions of recommendations 1 to 10 above. But in order to fit them to fill this position adequately additional income is required for the establishment of University Professorships and Readerships (*see* paragraphs 213, 214).
13. The East London College should become a Constituent College in the Faculty of Technology as soon as it has raised the necessary funds to enable it to comply with recommendation 10 above, provided its Governing Body is willing to agree to the necessary conditions of university management (*see* paragraphs 116-120, 215).

The Faculty of Economics.

Existing Provision.

217. We find that the Senate has granted or would be prepared to grant, subject to certain conditions, the title of University Professor to eight teachers, and the title

of University Reader to five teachers in this Faculty. These teachers are distributed as follows* :—

The London School of Economics and Political Science :—

Professors :—

- 1 in Commerce.
- 1 in Economic Theory.
- 1 in Political Economy (jointly with University College).[†]
- 1 in Public Administration.
- 2 in Sociology.
- 1 in Statistics.

Readers :—

- 1 in Accountancy.
- 1 in Economic History.
- 1 in Geography.
- 1 in Palæography and Economic History.
- 1 in Public Administration.

University College :—

Professors :—

- 1 in Comparative Law.
- [1 in Political Economy] (jointly with the London School of Economics).

218. It is obvious from this list that the teaching of the highest kind in this Faculty is already concentrated in the School of Economics, and that this is the only institution that could be admitted as a Constituent College in the Faculty. We think that steps should be taken to constitute a delegacy from the present Governing Body and for the transfer of the property of the School to the Senate. We are encouraged to make this recommendation by the terms of the statement of evidence submitted on behalf of the London School of Economics by Mr. Sidney Webb, Chairman of the Governors, and the Hon. W. Pember Reeves, the Director of the School. The statement contains the following important pronouncement :—

School of
Economics a
Constituent
College.

“It has always been in contemplation that, if any general application of this policy of incorporation were deemed advisable, in the interests of other Faculties, or of the University as a whole, the London School of Economics and Political Science would not take up an attitude of hostility, and would give friendly consideration, when the appropriate moment should arrive, to any proposals that (i) ensured the continuance of adequate financial support for the growing work of the School, and (ii) safeguarded that practical autonomy of internal administration which is believed to be essential to its success. The latter consideration is one of special importance to the London School of Economics and Political Science in view of its need for promptly responding to new and changing demands, and of its necessarily intimate relations with the heads of the banking, railway, shipping, commercial, municipal, and Civil Service communities.”¹

We believe that our proposals for the reorganisation of the University comply with the second of the conditions upon which the Governing Body of the School properly lay great stress, and that a University constituted in the way we recommend would furnish the best possible prospect of that “continuance of adequate financial support” for which the Governing Body are also quite rightly concerned.

Additional Provision required.

219. When we turn to a consideration of the additional funds which are immediately necessary in order to enable the Faculty of Economics centred at the School of Economics and Political Science to undertake the duties and responsibilities contemplated for it under our scheme, we find that the Governors of the School estimated their needs in respect of additional salaries and appointments at 4,630*l.* a year. This estimate, which was furnished at the request of the Academic Council, was made before the Senate had decided to assign a Professorship of Commerce to the School with a salary of 600*l.*, and before the additional annual Exchequer Grant of 2,500*l.* from the Board of Education had been announced. The Academic Council,

School of
Economics.

* In the single case where two posts are held by one teacher the second post in the list is placed in square brackets.

¹ *Appa. to 3rd Report*, p. 93.

after considering the report of the Governing Body of the School, decided that they would be prepared to allocate 3,000*l.* a year to the needs of the Faculty, provided an additional income of 90,000*l.* were at the disposal of the University. They propose to convert one of the part-time professorships of Political Economy into a full-time post, to create a Professorship of Geography, and to convert the present Readership in Foreign Trade into a Professorship of Commerce. The increased grant from the London County Council has enabled the Senate to carry out this last proposal, though the salary allocated is only 600*l.* instead of the 800*l.* named by the Academic Council. The Academic Council also suggested the establishment of readerships carrying a salary of 300*l.* a year each in (i) Economic History of the Colonies; (ii) the Comparative Study of Foreign and Colonial Institutions; (iii) Political Economy; and (iv) Political Theory. We are convinced that all these posts should be created as soon as possible, and in particular the two readerships in Economic History of the Colonies and in Foreign and Colonial Institutions, which are of great importance to the growing number of students coming to the School from the overseas Dominions. These readerships would also be needed if the department of Imperial Studies recently proposed by Mr. Sidney Low¹ should be established. In our own estimates, however, which are set out below, we have confined ourselves to the minimum which, in our view, is necessary in order to establish the Faculty on a reasonably efficient basis. The minimum salary of a Professor in this Faculty should be 600*l.* in the first instance and that of a Reader 300*l.*

Besides the funds required for salaries, the School of Economics estimated the needs for further buildings and equipment at 31,500*l.*, and when this has been raised, an additional endowment of 10,000*l.*, or an income of 300*l.* for maintenance. The Governing Body are making an appeal for these funds at the present moment with the approval of the Senate, and we do not include them in our own estimates. Further funds are, however, needed for library maintenance, estimated by the Governing Body at 750*l.* a year, and we think some further income for this purpose is urgently needed, although an additional 290*l.* a year has been allocated to the library and research out of the increased Exchequer Grant. Provision for scholarships and research studentships, much as it is to be desired, is a matter which we think may be postponed until the efficient staffing and equipment of the School have been secured.

Additional funds are immediately required to raise the salary of the professorship of Economic Theory to a minimum of 600*l.*

University
Department
of Ethno-
logy.

220. With the funds released by the establishment of the University Professorship of Commerce, the Governing Body of the School propose to establish a Readership in Ethnology carrying a salary of 300*l.*, and to allocate a further sum of 200*l.* a year to this department. There is no doubt, in our opinion, that a well equipped department of Ethnology is a necessary adjunct to the School of Oriental Studies about to be established in the City. It is almost as important that officials and others intending to spend their lives in the East, or in parts of the Empire inhabited by non-European races, should have a knowledge of their racial characteristics, as that they should be acquainted with their speech, and we believe that the Colonial Office shares this view. There is no reason, however, why the University Department of Ethnology should not be housed in the School of Economics, at any rate for the present, if the University considered this to be the most convenient arrangement, provided care is taken to frame the time-table of the lectures and classes in the department so as to suit the needs of the students of the School of Oriental Studies. The teaching in this subject has hitherto been tentative and experimental in character, and would not have been possible at all without the generosity of Mr. Martin White, who has already provided endowment for the department of Sociology. Careful estimates have been made of the cost of maintaining a properly equipped department of Ethnology, and we are informed that an income of about 1,600*l.* a year is needed for the purpose, only a small part of which would be derived from fees. This seems to us to be a reasonable estimate.

Goldsmiths'
Library of
Economic
Literature.

221. In connexion with the needs of the Faculty of Economics and of the School of Economics and Political Science we have taken into consideration the proper future location for the Goldsmiths' Library of Economic Literature at present housed in the University buildings at South Kensington. The library contains over 40,000 books and tracts, illustrating "the industrial, commercial, monetary and financial history of

¹ Cf. *The Organization of Imperial Studies in London*—from the Proceedings of the British Academy, Vol. V.—published by Henry Frowde, Oxford University Press, 1912.

“ the United Kingdom as well as the gradual development of economic science “ generally.” It is believed that no public library devoted to economic subjects compares with it, and that there is none of equal interest and value in private hands. The library, which was collected by Professor Foxwell, was purchased by the Goldsmiths’ Company for 10,000*l.* and presented to the University. The Company has since generously made gifts to the library in the form of additional books, equipment, and maintenance, amounting to over 5,000*l.* The distance of the University buildings from the School of Economics necessarily diminishes its usefulness to students and investigators,¹ and leads to a division of the books available for university studies which is most undesirable when it is remembered how many of the students in this Faculty are men and women engaged in professions or business. The removal of the headquarters of the University to the Bloomsbury district, would do something to reduce the evil, but it is obvious that the library cannot be made as effective as it should be until it is housed within the School of Economics itself. We think the Governors of the School and the University should make provision in any new buildings to be erected, for the housing of the Goldsmiths’ Library in a series of rooms worthy of its importance and interest. We shall return to the question of the general University Library in a subsequent paragraph of our Report (*see* paragraph 372).

222. We have already said, in discussing the future of the Birkbeck College (*cf.* paragraphs 144–151), that we think the courses for evening students in this Faculty should be continued at the School of Economics. The organisation of that School has been adapted very skilfully to the needs of its students of all classes. It is not a college intended in the main for day students with an evening department staffed for the most part by junior teachers. The time-table extends from 10.30 a.m. to 8 p.m., and many of the most important and advanced courses are given after 5 o’clock in the afternoon. A certain number of the courses which attract large attendances are duplicated, and given in the evening of one day and on the morning of another. By this arrangement, the evening students have the advantage of the best teaching and the full-time students have the daylight hours for study, taking many of their lectures in the evening. Provided care is taken that the teachers are not overburdened with lecturing, and there is no evidence that they are, we think this arrangement is particularly well suited to the needs of this Faculty. We think, however, that in this School, as in other Constituent Colleges of the University, it is of the greatest importance, for the reasons we have already stated, that the undergraduate classes, except courses of lectures which the students attend only as hearers, should be confined to matriculated students and that the needs of other students should be provided for separately.

School of Economics provides for both day and evening students.

223. Since the main teaching of the University in this Faculty should be concentrated, in our opinion, at the School of Economics, we do not recommend any immediate extension of the department of Political Economy at University College which shares with that School, as will be seen by a reference to the table in paragraph 217, the services of a Professor of Economics. Economics is, however, a subject of study for the first degree in Arts and for that reason instruction in this branch of knowledge may properly continue to be provided at University College, the question of any development of the department being postponed until after the University has been reconstituted. The Professor of Comparative Law, a subject which falls within the Faculty of Laws as well as the Faculty of Economics, should also be retained at University College, at any rate until the University has been able to adopt a considered policy for the organisation of the Faculty of Laws.

Economics at University College in Faculty of Arts.

224. Our recommendations in regard to the Faculty of Economics may be summarised as follows:—

Summary of recommendations.

1. The Faculty should consist of the Vice-Chancellor, the University Professors, the Honorary and Associate Professors, the University Readers and the Honorary and Associate Readers in charge of departments dealing with subjects of study in respect of which no University Professorship is in existence, and of such other teachers and officers appointed by the University as the Faculty may co-opt. The Faculty may also include persons with special knowledge of the professions and callings with which the Faculty has relations. The numbers and mode of selection would be decided by the Senate.
2. The head of every department in a Constituent College or University Department in the Faculty of Economics should be either a University Professor

¹ *Appx. to 3rd Report, Reeves, Q. 7017.*

- or a University Reader with the salary, conditions of appointment, and tenure which we have laid down as proper to university teachers (*see* paragraph 106).
3. The School of Economics should become a Constituent College in the Faculty of Economics, subject to its compliance with the conditions as to university management we lay down. But immediate additional funds are needed for salaries and for library maintenance (*see* paragraphs 116-120, 218).
 4. The main teaching of the University in the Faculty of Economics should be centralised at the School of Economics (*see* paragraph 223).
 5. The University Department of Ethnology should be placed for the present in the School of Economics (*see* paragraph 220).
 6. The Foxwell Library of Economic Literature should be housed in the School of Economics (*see* paragraph 221).

The Faculty of Medicine.

Origin of movement for reform of university education in medicine.

Faculty of Medicine requires special treatment.

No test to apply to the teachers.

Questions to be considered.

225. We have pointed out in the Historical Retrospect (*cf.* paragraph 10) that the movement for the reform of university education in medicine arose from the dissatisfaction felt by the medical teachers in London at the small number of university degrees obtained by their students in proportion to their total number, and to the opportunities of clinical teaching. This dissatisfaction has been a constant and powerful factor throughout, and we have ourselves received a considerable body of evidence to this effect. But before we can consider this grievance, which is dealt with at some length below (*see* paragraphs 316-17) we must, in the case of the Faculty of Medicine, as in the case of other Faculties, consider what steps it is necessary to take in order to place the best teaching upon a real university basis. We cannot, however, deal with the Faculty of Medicine on exactly the same lines we have followed in the case of other Faculties such as those of Arts and Science. In those Faculties the provision for teaching of the highest university standard may be deficient, but the standard itself is not questioned. There may be difference of opinion as to whether institutions whose teaching does not attain this standard should or should not be included in the University, but no one disputes that the conditions which the University lays down in its regulations for the conferment of the titles of Professor and Reader are on the whole proper conditions which ought to be fulfilled in the case of the responsible teachers of the University. We have therefore in the case of these Faculties simply applied the test of this standard and recommended that all institutions in which it is reached should be included in the University as Constituent Colleges or Departments, on condition that the University is given the necessary degree of financial and educational control.

226. In the case of the Faculty of Medicine we have no test to apply. Except as regards pathology and hygiene the University has not attempted to determine which of the teachers of the subjects classed as Advanced Medical Studies are entitled to the status of Professors or Readers. It could not do so under its existing regulations for the conferment of those titles, because none of those teachers fulfil the requirements with regard to salary, time, and other conditions of employment. What is more significant, it is denied that they ought to do so. So far as clinical teaching is concerned another standard is set up. The University Professor, according to our conception of him, can give instruction of the highest university standard only if he is actively engaged in the systematic advancement of knowledge in his subject. But in the case of Medicine it is contended that whether for university or other students the best teachers are men who are engaged in the practice of their profession, and have at most only so much time for original research as remains after the demands of their practice have been met.

227. The question is therefore forced upon us, whether the standard we have accepted and required for the teachers in other Faculties ought to be abandoned in the case of the teachers of the most important professional subjects in this Faculty, or whether we are to conclude that none of the Medical Schools as at present constituted can be admitted to the full privileges and position of Constituent Colleges or of University Departments in the Faculty of Medicine. We shall have to consider, with special reference to clinical teaching, what is the nature of the education which the University should provide; whether it is provided at present in London; and, if not, what changes are necessary, and how they can be brought about. Upon the answers to these questions will depend the nature of the organisation we shall recommend for a University Medical College. The proper organisation of

the teaching of the medical sciences of anatomy, physiology, and pharmacology depends, to some extent at any rate, upon the answers to the same questions—upon the organisation of the Advanced Medical Studies, and upon the nature and extent of the scientific work which is or ought to be carried on in connexion with clinical teaching. Again, the best way of providing for the necessary instruction in the fundamental sciences of chemistry, physics, and biology involves a comprehensive consideration of the whole medical curriculum and its relation to the work which is done or could be done in the secondary schools. Finally, we must consider whether, and, if so, how the University is to obtain over some if not all of the Medical Schools the financial and educational control which we regard as necessary in the case of all institutions to be admitted as Constituent Colleges or University Departments. It thus appears that there are educational questions to be decided in connexion with each of the three parts of the medical curriculum, and in addition a special administrative question affecting all the educational institutions in this Faculty. In these circumstances, the most convenient course will be to state shortly what is the present organisation of medical education in London and its relation to the University, and then to consider the questions we have indicated in very general terms above.

PRESENT ORGANISATION OF MEDICAL EDUCATION IN LONDON.

228. Till after its reconstitution in 1900 the medical degrees of London University, like its degrees in other Faculties, were all External, but they always differed from the External degrees in other Faculties in this important respect, that, except in the case of chemistry, physics, and biology, it was necessary to take courses of instruction at recognised institutions before a candidate could present himself for examination. The recognised institutions included all the London Medical Schools as well as all the Medical Schools of any importance in Great Britain, the Colonies, and India.

Relation of University to medical education before reconstitution.

Admission to the University was by means of the Matriculation examination. The University (*i.e.*, the Senate) settled the curriculum for undergraduates in so far as courses of instruction were required, and it prescribed the syllabus for the examinations, and appointed examiners. The degrees were granted to those who passed the examinations.

229. As the result of the reconstitution of the University in 1900 the following changes were made:—

Changes effected by reconstitution.

- (1) The Faculty of Medicine was constituted, consisting of "Appointed Teachers" of the University and such other teachers of the University as are from time to time admitted to the Faculty by the Senate. In making appointments to the Faculty the Senate is assisted by the annual recommendations of the Academic Council.
- (2) Boards of Studies were constituted for Preliminary, Intermediate, and Advanced Medical Studies. They are appointed by the Senate and consist of members of the Faculty who teach or examine in any of the subjects for which the Board is constituted, and other persons not exceeding one-fourth of the total number of members of the Board.
- (3) Twelve London Medical Schools were admitted as Schools of the University. Of these the following are complete Schools:—
 - St. Bartholomew's Hospital Medical School.
 - The London Hospital Medical College.
 - Guy's Hospital Medical School.
 - St. Thomas's Hospital Medical School.
 - Middlesex Hospital Medical School.
 - St. Mary's Hospital Medical School.
 - The London (Royal Free Hospital) School of Medicine for Women.

The following are now Schools of the University for Advanced Medical Studies only:—

- University College Hospital Medical School.
- King's College Hospital Medical School.
- St. George's Hospital Medical School.
- Westminster Hospital Medical School.
- Charing Cross Hospital Medical School.

- (4) University and King's Colleges are Schools of the University in the Faculty of Medicine for Preliminary, and Intermediate Studies only. The London School of Tropical Medicine is a School of the University to which qualified medical practitioners and medical students in the fifth year of their studies are admitted. The Army Medical College is a School of the University for the Royal Army Medical Corps only. The Lister Institute has been admitted as a School of the University in the Faculty of Medicine for the purpose of research in hygiene and pathology.
- (5) Internal students are registered in the Faculty of Medicine, being matriculated students who are pursuing a course of study approved by the University, in a School or Schools or under "recognised" teachers of the University. In order to graduate as an Internal student, a student must have studied for at least $5\frac{1}{2}$ years subsequent to matriculation and have pursued an approved course of study in a School of the University or under "recognised" teachers of the University extending over not less than three years and comprising all the subjects of the Third Examination for medical degrees.
- (6) A Committee of medical members of the Senate which was not provided for by the Statutes of the University has been formed. The members of it are the representatives on the Senate of the Royal Colleges, of the Faculty of Medicine, and of the medical graduates of Convocation.

Effect of
changes
which
followed re-
constitution.

230. These changes do not appear to us to have accomplished very much. As regards the Faculty the evidence is that, except for the purpose of electing representatives on the Senate, it has been of little use. It is too large for effective action, especially since the admission in 1905 of the teachers of science in the Medical Schools. The interest of members is centred in the Medical School to which they happen to belong. The Faculty has no sense of responsibility, and consequently the members can with difficulty be induced to attend its meetings. As an example of this we may mention that the Report of the Faculty on the Needs of the University, submitted to the Academic Council and appended to their Report to us, was adopted at a meeting at which there was not a quorum.

The Committee of medical members of the Senate referred to above, and the Boards of Studies, have, we believe, made considerable improvements in the curriculum and examinations, though we cannot approve of some of the changes they have made. But improvements affecting only the curriculum and the examinations might equally well have been made without the institution of an Internal degree at all, and it is generally admitted that the University has signally failed to gain the sympathy and attachment of the London Medical Schools. They are almost as detached from and independent of the University of London now as they were when the University was merely an examining Board, and there has been no means of organising either teaching or research with a single eye to the interests of medicine as a whole. Moreover the Medical Schools are no less independent of each other than they are of the University.

History of
London
Medical
Schools.

231. As Professor Starling has pointed out in the very able statement he submitted to us, the main difficulties of creating a University School of Medicine in London arise from the historical evolution of medical teaching in the metropolis, of which he gives the following account :—

"The Medical Schools are for the most part considerably older than the University and preceded any attempt to teach the medical sciences in the universities of England. Nearly all the Medical Schools had their origin as informal arrangements between the physicians and surgeons employed in the service of the hospitals, the hospitals themselves being charities either dependent on private endowments or subsisting by continual appeal for subscriptions. The Schools sprang from the apprenticeship and pupilage system. Men who had served their apprenticeship under an apothecary in the country came up to London to 'walk the hospitals' and to learn from the members of the hospital staffs. At the same time they would study anatomy at one of various anatomy schools existing in London. The Governors of the hospitals allowed the members of the staff to take pupils, and later assisted them by building dissecting rooms in which the pupils could study anatomy under the supervision of the surgeons of the hospitals. In this way Schools sprang up in connection with the hospitals but without any formal or corporate existence. Each School was a private concern in which by arrangement the total fees were

pooled. After the expenses of the School had been discharged, the rest was divided into shares which were distributed among the members of the staff. In the early days of the Medical Schools the buildings, and probably much of their upkeep, were provided at the expense of the hospital charity. It is only quite recently that there has been a careful allocation of the expenses between the hospital Schools and the hospital charities respectively.

“At first all the teaching in these Schools was carried out by the medical and surgical staff, and even when scientific subjects, such as chemistry, physics, and biology, were introduced as necessary parts of the curriculum, it was the duty of junior members of the practising staff, or of young men who were waiting in expectation of being appointed to the hospital staff, to undertake the teaching in these subjects. With the growth and development of the various subjects of the medical curriculum, it has become more and more difficult for the junior medical staff to teach the medical sciences. The earliest subject to break away was chemistry. Already 40 years ago many of the Medical Schools found that they had to employ chemists to train their students in this subject. Later on physics necessitated expert teaching and biology soon followed suit. During the last 20 years the same change has occurred in the teaching of physiology and anatomy, so that most of the Medical Schools have now a complete staff of men who devote all their time to the pursuit of the preliminary and early subjects of the curriculum.

“This change has naturally entailed a considerable burden on the pecuniary resources of the various Schools. In their early days the expenses of the association of physicians and surgeons forming the staff were very slight. There were few or no expensive laboratories to be kept up, and the lecture- and dissecting-rooms were maintained at the cost of the hospital. Practically all the fees were therefore available for division among members of the staff. When the work was undertaken by junior men waiting for a position on the staff, they would be content with inadequate salaries, or even with none, since their work was in the nature of a service to the School to be rewarded in the future with a position on the staff. As soon as professional teachers were appointed it was necessary to provide them with a salary irrespective of prospects. At first they were paid by the allocation to them in most Schools of a certain number of shares, but with the increasing burdens on the Schools and the corresponding depression in value of the shares, it has been necessary to replace this method by one of fixed payment or to guarantee the shares at a certain minimum sum. Science teachers are thus not members of the association which forms the Medical School. They may in some cases be members of the school committee, but they are not members of the staff. They have no voice in appointments to the staff, and generally little or no voice even in the appointment of members of the scientific staff. They are in fact salaried servants of the staff. This arrangement is not unnatural, since on the staff, especially under the modern arrangement of complete separation between hospital and School accounts, falls the whole burden of the maintenance of the Medical School. In many Schools the clinical teachers receive little or nothing for their lectures and clinical teaching, and in some cases the value of the share has been actually a minus quantity and the deficit has had to be met by a levy or by subscriptions among the members of the staff. In most cases, therefore, the maintenance of a Medical School might be said to involve considerable sacrifice on the part of the clinical staff. In making these sacrifices the members of the staff are actuated partly by loyalty to their School, partly by self-interest. The clinical teaching of London is based on hospital service. The greater part of the work of the hospitals is carried out by students, who, while serving the hospital, acquire in a series of posts of gradually increasing responsibility the actual acquaintance with the diagnosis and treatment of disease necessary to fit them to be practitioners of medicine. There is no doubt that this method of teaching is in the best interest of the patients as well as of the students, as is shown by the acknowledged efficiency of all the hospitals to which Medical Schools are attached. It is thus absolutely necessary under present arrangements to attract to the School a sufficient number of students for the service of the hospital. Mr. Holland, for instance, regards the connection of a School with the London Hospital as so essential to the purposes of the charity that he is able to raise among the supporters of the hospital 3,000*l.* a year ‘ear-marked’ for the purposes of the Medical School. On the other hand it must be remembered

that the students in a hospital after qualification become general practitioners, and that it is from these practitioners that the members of the hospital staff gain the basis of their consulting practice. A medical man will naturally send his patient either for consultation or for operation to one of his former teachers. A position on the staff of a Medical School is thus regarded as a sure method of obtaining a consulting medical or surgical practice, and the larger the number of students the larger will be the clientele on which the staff can rely for a practice. Thus in the maintenance of the Medical School loyalty to the School and self-interest become united.

"This state of affairs cannot be regarded as in the interest of university teaching in London, or of medicine itself. The Medical Schools, however efficient, are essentially of the nature of 'trade schools.' As the boy leaves a secondary school to enter a Medical School the standard which is at once set before him is professional success. The teachers of science with whom he first comes in immediate contact, in many cases not of marked ability, are in all cases in a position of inferiority to the clinical staff, whose servants they are. The work which is expected of these scientific teachers is to get the students under them as quickly as possible through the various Preliminary and Intermediate examinations, so that they may be passed on to the clinical work of the wards. The scientific teacher is, in fact, only useful in so far as he passes his students. The whole idea of the first three years, the most impressionable time of the student's career, is not educational but professional."¹

Professor Starling then proceeds to consider the main drawbacks to the existing system—absence of university ideal, subordination of teaching to examination, waste of energy in the hospital schools.

Defects of existing system of medical education.

The relations between the University and the Medical Schools.

232. It has been said that the University has itself to blame, and to some extent this may be true, but it never had the means of assuming financial responsibility for medical education, even if it desired to do so, and therefore it has never had the right to claim educational control. It has confined itself to prescribing a curriculum and to conducting examinations on a syllabus; and although the status of Schools of the University has been conferred upon all the competing proprietary Medical Schools which were found already in existence in London, the University has done little or nothing for them, and has not even exercised its power of visitation with respect to them. They have a right to say that as long as the University leaves the entire responsibility of medical education to them they are entitled to autonomy. They may fairly claim that their interests shall not be needlessly disregarded in any reorganisation of medical education in London which may be found necessary in order to establish it upon a basis consistent with university ideals. But, on the other hand, it must be remembered that although they are Schools of the University of London, the Medical Schools acknowledge only a very partial allegiance to the University, and have at present other interests and connexions which ought not to prevent the University from setting its own house in order. Less than one-third of their students are undergraduates of the University of London, and the Medical Schools can scarcely be said to have any closer connexion with the University of London than with the Universities of Oxford and Cambridge, or with the Conjoint Board of the Royal Colleges. The London Medical Schools have never had the power of granting a licence to practise, and their teaching is to a considerable extent conditioned by the necessity of preparing students to pass the examinations of the licensing authorities whose degrees and diplomas their students may desire to obtain. The Schools prepare for the examinations of all the licensing authorities according to the demand, and are hampered by the necessity of providing special classes to meet the particular requirements of each syllabus. Their theoretical teaching is subordinated to a number of External examinations, and their practical teaching in science is apt to be limited to the definite things which can be done in two or three hours, and may therefore be set as tests in a practical examination. We shall have to return to the question of the constitution of the Medical Schools and the present system of appointments to the staff of the hospitals to which they are attached; but it will be convenient first to consider the provision they make for medical education, and how far it is in accordance with university ideals.

¹ *Appx. to 5th Report, Starling, Statement, §§ 1-4, p. 194.*

THE MEDICAL CURRICULUM.

233. The medical curriculum is divided into three parts—Preliminary, Intermediate, and Advanced Medical Studies. The Preliminary and Intermediate subjects of study are not necessarily carried on in connexion with a hospital, whereas most of the Advanced Medical Studies must be pursued where medical and surgical cases are to be found.

Three parts of medical curriculum.

PRELIMINARY MEDICAL STUDIES.

234. The Statutory Commission of 1898 introduced the following words into Statute 80: "The Senate shall use its best endeavours, whenever practicable, to secure common courses of instruction for Internal medical students in the Preliminary and Intermediate portion of their studies under Appointed or Recognised Teachers at one or more centres." In Section 4 of the Report,¹ which accompanied the Statutes, they quote from page xlii of the Report of the Gresham Commission, where that Commission recommended, in the case at least of the smaller Medical Schools, the concentration in one or two institutes of the teaching of physics, chemistry, biology, anatomy, physiology, pharmacology and materia medica, pathology, hygiene and public health, and forensic medicine. They point out, however, that the sciences named by the Gresham Commissioners, in which they thought concentration desirable, may be divided into three or four groups:—

Statutory Commission of 1898 and concentration.

- (i) The sciences of physics, chemistry, and general biology;
- (ii) The sciences of anatomy and physiology;
- (iii) General pathology, including certain departments of bacteriology, and pharmacology; and
- (iv) The science of hygiene and all studies relating to public health;

and they say that the advantages of concentration are greater, and the difficulties and disadvantages less, in the first group than in the second, and in the second than in the third. In the case of the first and second groups of studies they think the arguments in favour of concentration are so strong that they feel confident the Senate will be able at no distant date to give effect to their recommendations in regard to one or both of these groups; and they say that, having this in view, they have thought it expedient to place the teachers of these two groups of subjects at Medical Schools in a separate list and to recognise them only "provisionally," in the desire to facilitate the work of the Senate in carrying out a scheme of concentration. They add, however, that in doing so their sole object is to give emphasis to their opinion that concentration in these groups ought to be effected without delay, and that it is not to be inferred that in their judgment concentration in the other groups is undesirable or impracticable.

After the University was reconstituted, the Senate took up the question of concentration, which it accepted as a duty imposed upon it by Statute 80. The history of this attempt at concentration, which resulted from the action of the Senate, and of its subsequent failure, is given by more than one witness before the Commission. It is unnecessary to set it out here.²

Action of Senate under Statute 80.

The collapse of the scheme is attributed partly to the alteration in size and constitution of the Medical Faculty carried out after the inception of the scheme by the admission to it of the science teachers in the Medical Schools, who feared that by any measure of concentration they would be thrown out of employment; partly to jealousy of University and King's Colleges.

Reasons for failure of Senate's concentration scheme.

235. Some of the reasons for concentration which had weight with the Gresham Commission and the Statutory Commission of 1898 no longer hold good, or at least not with the same force. The Preliminary Sciences are not now taught in the Medical Schools by junior members of the staff, who use the posts as stepping-stones to other appointments. The teachers of science are nearly all specialists, but the remuneration offered is in most cases inadequate to ensure that the right kind of teachers, working under university conditions, will be obtained. Again, some of the Medical Schools have greatly enlarged and improved their laboratories, and are now more adequately equipped in this respect for the teaching of these sciences. Nevertheless, we do not consider the present arrangements satisfactory, though we do not think that, in the case of the Preliminary Sciences at any rate, concentration is the remedy.

Reasons for concentration no longer so forcible.

¹ See University of London Calendar, 1911-12, p. 91.

² *Appx. to 3rd Report*, Butlin, Statement, III., p. 275. *Appx. to 5th Report*, Starling, Statement, § 6, p. 196.

Difficulty of teaching Preliminary Sciences is the want of time.

236. The chief difficulty of arranging for adequate instruction in the sciences of physics, chemistry, and biology is the want of time. The medical curriculum includes so many subjects that not more than the first year, at the most, can be devoted to these sciences, and this does not appear to be sufficient, even if the nature of the instruction is all that it ought to be. But the shortness of the time available is given as a reason for teaching the sciences with special reference to their applications to medicine, and this is, in our opinion, dangerous. The Board of Preliminary Medical Studies, in their report to the Academic Council, say that, "although the curriculum of the University now extends over five and a half years," the "severe curtailment of the early and intermediate studies that has been rendered necessary by the steady progress of clinical and pathological science, makes it essential that even the early studies should be considered from the point of view of their future application." "The trend of opinion," they say, "has thus turned in the direction of laying stress on the professional aspect of the early medical studies," and they add that during the last few years they have taken an extremely active part in re-casting the curriculum and examinations from the point of view of the professional needs of the student.

Provision for Preliminary Science teaching inadequate.

This report, coming from the teachers themselves, creates a strong presumption that the provision made for these fundamental sciences in the medical curriculum of London University is insufficient to form the scientific groundwork of a medical education. The time allowed is admittedly inadequate, and, on this ground, though apparently on general grounds also, the specially directed or applied teaching of these sciences to medical students is approved, and is said to be the accepted policy of the University. We maintain that provided the teacher is a man of science with a thorough grasp of his subject, he ought to be free to teach it in his own way. In order to awaken and sustain the interest of his students he will probably find it necessary to illustrate the application of the principles of the science he is teaching by selecting examples which have a bearing upon their future work. If that is what is meant by saying that the science should be taught with special reference to the professional needs of medical students we have nothing to say against it. But it will scarcely be possible to save time in this way, and when to save time is the end in view there is grave danger that it will only be attained by fragmentary instruction, and by the selection of special applications of the science. The examples set out in a syllabus will be got up for the purposes of an examination, and the real educational value of the study will be lost. The professional education of the students ought to rest on the foundation of a general and thorough grounding in the principles of the Preliminary Sciences. They should become familiar with the whole range of the conceptions with which these sciences are concerned; they should appreciate and assimilate the methods by which they proceed; and they should be trained in the technical knowledge and skill required for the employment of these methods. All this requires more time, and more thoughtful and educative teaching and study than the hasty preparation for an examination. When it is remembered further that the instruction for the degree of London University is probably the highest level which the undergraduate teaching of these sciences reaches in the Medical Schools; and that the instruction is given by teachers who, whatever their personal qualifications may be, are employed for the special purpose of preparing different classes of students to satisfy the demands of examinations of varying standards; it is impossible to regard the existing arrangements for the teaching of the Preliminary Sciences as satisfactory.

Preliminary Sciences should be studied at school.

237. The direction in which the remedy seems to lie is indicated in general terms in what has been said on the question of the entrance to the University, and especially in paragraphs 87 to 97, where we advocate that the normal means of access to the University should be, not the Matriculation examination, but a school examination based upon the curriculum of the school. We think that the study of the Preliminary Sciences should not be included in the medical curriculum; that the undergraduates should not be admitted to the Faculty of Medicine in the University until they have received thorough instruction in the principles of pure science; and that, whenever it is possible, the best time and place for this instruction is the last two years of a good secondary school course. We have said that in our opinion the University should draft its regulations for admission with a view to making the higher school certificate—which should not be taken till the pupil has reached the age of about 18—the normal qualification for registration as an undergraduate; and we have recommended that as first steps in this direction the University should cease to admit pupils in

schools to its own examinations, and that no student should be registered as matriculated until he has attained the age of 17 (*cf.* paragraph 93). In the case of intending medical students, we think the best preparation for their university course is that, after passing the lower school examination, while continuing the course of their general education, they should, during the last year and a half or two years, select as special subjects for the higher school examination, physics, chemistry, and, if possible, biology. Such students would be excused the Preliminary Science examination. They would be admitted at once to the Faculty of Medicine, and their course in the University would be shortened to four and a half years.

238. In the statement submitted on behalf of the Association of Public Schools Science Masters,¹ in support of which Mr. A. Vassall, of Harrow, gave evidence, it is pointed out that the larger public schools have during the last few years spent over a quarter of a million on laboratories and scientific equipment, and have scientific staffs of highly trained specialists; and that, in addition to this equipment, facilities as to time for the study of pure elementary science are afforded to boys of ability. The two together, he said, have effected little short of an educational revolution for these boys, who now, as part of their general education, carry the pursuit of pure science to a higher standard than that of the first medical examination. Provision of this kind ought to be made to a much greater extent than at present in secondary schools of higher grade. It should be possible for boys who intend to enter the University as medical students to receive, as part of their school education, a thorough grounding in the principles of the Preliminary Sciences, instead of the instruction advocated by the Board of Preliminary Science Teachers, which has special reference to the applications of these sciences to medicine. Such special instruction is apt to be based too exclusively upon the present state of knowledge in medical science, and the existing applications to it of pure science, and is therefore not calculated to fit the student to make new applications of pure science to medicine as knowledge advances.

Provision for
Science
teaching in
Public
Schools.

239. The Conjoint Board of the Royal Colleges has recognised a large number of secondary schools as places where the Preliminary Sciences may be studied, and the General Medical Council, which for long was opposed to the recognition of the existing teaching of the Preliminary Sciences in secondary schools, has recently changed its policy in this respect. In May 1911 that Council decided to extend its recognition to certain approved secondary schools, and has since placed 32 large secondary schools on its list of approved teaching institutions. The Conjoint Board, however, recognises secondary schools as places which may give certificates of the study of the Preliminary Sciences which will admit candidates to the examination held by the Board itself. This is not the policy we recommend. As we have already said (*cf.* paragraph 94), we think that the University should cease to admit pupils in schools to its own examinations, and that the higher school examination, like the lower, should be conducted in the interests of the schools themselves and be closely related to their curricula. The University should accept these examinations, and in the case of students entering the Faculty of Medicine, should only require evidence that the Preliminary Sciences have been taken by the students as subjects for their school examinations.

Action of
Conjoint
Board and
General
Medical
Council.

240. We have no means of judging whether all the schools recognised by the General Medical Council are giving instruction in the Preliminary Sciences of the kind and standard described in the preceding paragraphs, and we think it probable that some, at least, of the very large number of schools recognised by the Conjoint Board do not as yet teach these subjects up to the standard which the University ought to require. The responsibility of deciding which schools are efficient in this respect, and which are not, must lie, as we have already pointed out (*cf.* paragraph 93), with the Board of Education, which would not approve a higher school examination including the Preliminary Sciences for any school unless the standard and character of the teaching justified it. In making this decision the Board would naturally be guided by the opinion of the universities as to the standard of knowledge to be required. We do not know how soon the number of schools may become sufficient to give the necessary instruction to the majority of those seeking to enter the medical profession, but we are convinced that the aim should be to increase their number sufficiently for the purpose. Meantime, the teaching of those candidates who have been unable to obtain the necessary instruction at school should be provided for

Provision for
Preliminary
Science
teaching in
University.

¹ *Appx. to 5th Report, Statement, § 6, p. 221.*

either in the science laboratories of the University itself or in institutions recognised for the purpose by the University. There is another class of student who may desire to study medicine, and who has not reached the necessary standard in the Preliminary Science subjects at school, because the course of his secondary education has followed other lines. This class of student will continue to exist after the provision of secondary schools is complete, but it will not be a large class, and for these it ought not to be difficult for the University to continue to make the necessary arrangements. But these arrangements will, as we have pointed out in paragraph 92, be incidental. We think, however, that neither class of student should be admitted to the regular undergraduate teaching and examinations of the Faculty of Science, but that they should be dealt with in special classes and examined at the close of the course by a general examination of the kind described below (*see* paragraphs 384, 385) as suitable for students in Schools of the University.

Importance
of scientific
grounding.

241. We are convinced that a thorough grounding in the fundamental sciences of physics, chemistry, and biology cannot be too much insisted on. The scientific quality of all the later professional education of the student will depend on his grasp of principles and the extent of his general scientific knowledge. The foundation of this must be laid in his youth by a sound training in the elements of pure science. The great teacher can speak only to those who have ears to hear, to those whose minds habitually move in the same plane of scientific thought as his own. Observation, the foundation of all scientific knowledge, is blind unless the eye is informed by knowledge; it is observation "loaded with inference" that alone gives insight.

The
teaching of
biology.

242. We have referred to the Preliminary Sciences together as if they could all be treated in the same way; but biology differs from physics and chemistry in more than one respect. In the first place, the number of schools teaching biology is far smaller than that of the schools teaching physics and chemistry, and is likely to remain so. Its teaching is much more expensive. A separate laboratory is required, specially arranged and exclusively reserved for this science; more trouble is involved in providing the necessary materials, and the number of pupils who wish to take the subject is small. Secondly, the study of this subject cannot be carried beyond the most elementary stages by the methods of instruction which hitherto have generally been employed in schools. Even in the case of physics and chemistry, some change in the method of instruction may be desirable, and is in fact being introduced. But biology must be approached with a certain independence of mind, and the better opinion is that it is more profitably studied under conditions of freedom and intellectual responsibility which are not commonly reached till the stage of pupilage is past. Nevertheless, we think that these conditions are present in the upper forms of the great public schools, and in some other schools in which special provision is made for the study of biology; and whenever this is the case it is a gain that this subject should be included in the school curriculum of boys who stay at school till the age of at least eighteen.

INTERMEDIATE MEDICAL STUDIES.

Anatomy,
physiology,
pharmacology.

243. The sciences usually classed as Intermediate Medical Studies are anatomy, physiology, and pharmacology. Although these sciences are unquestionably part of the medical curriculum, they have generally been regarded as forming an intermediate group to be studied separately from the advanced and more distinctively medical subjects. Both the Gresham Commission and the Statutory Commission of 1898 recommended that their teaching should be concentrated in institutions outside the Hospital Medical Schools. The teaching of these subjects ought to be of the highest university standard, and, so far as the recommendation of concentration means that it may be found impossible and unnecessary to provide teaching of this standard in all the London Medical Schools, we approve of it; but so far as it means that the study of these sciences should be provided for in institutions which are not in intimate connexion with the several branches of pathology, and even with the clinical part of the medical curriculum, it is not clear that this is a proper course to take. As the organisation of the teaching of the Intermediate Sciences may to some extent depend upon the view that is taken of the organisation of the Advanced Medical Studies, and the extent to which scientific research is carried on in connexion with the clinical teaching in the hospitals, it will be convenient to postpone the further consideration of the subject till after we have dealt with the question of clinical instruction (*see* paragraph 279).

ADVANCED MEDICAL STUDIES.

244. The third part of the medical course normally extends over three years, and includes medicine, surgery, midwifery and the diseases of women, pathology, forensic medicine, and hygiene. Third part of medical curriculum.

In the University of London the whole of the course must be taken subsequently to passing in anatomy and physiology at the Second Examination for the medical degree, except the course of instruction in therapeutics, which may be taken either previously or subsequently to that examination. Internal students must take all the prescribed courses at one or other of the twelve London Medical Schools, except the courses of instruction in fevers and insanity, which must be taken at a recognised fever hospital and asylum respectively, and the course of instruction in hygiene which may also be taken at University or King's College, and in the case of Army medical students at the Royal Army Medical College. Arrangements for London University degree.

245. Much of the medical evidence we have taken refers to Advanced Medical Studies, and in particular to the clinical instruction in the London Medical Schools. It will be convenient to deal with this part of the curriculum in the following order: (1) Clinical instruction in the general hospital. This is by far the most important matter we have to consider. (2) Clinical instruction which must be given in special hospitals—fevers and insanity. (3) Medical science which must be taught in close connexion with the Hospital Medical College—the several branches of pathology. In this connexion we shall return to the postponed consideration of the Intermediate Medical Studies of anatomy, physiology and pharmacology. (4) Medical sciences which may be taught outside the Hospital Medical College—public health and forensic medicine. Division of subject.

(1) *Clinical Instruction in the General Hospital.*

246. The question of the clinical teaching in the London Medical Schools was not considered by the Gresham Commission or the Statutory Commission of 1898. They emphasised the necessity of more thorough instruction of a higher standard in the Preliminary and Intermediate Sciences; and, with this end in view, they recommended the concentration of the teaching of these subjects in university institutions. They extended their recommendation to the Advanced Medical Studies of forensic medicine, hygiene, and general pathology, including some departments of bacteriology; but they stopped short at the clinical instruction in the hospitals and made no recommendations with regard to it. Indeed, the effect of their recommendations as to concentration, if fully carried out, would have led to a greater separation of the more specialised medical sciences from the clinical teaching than exists at present in the London Medical Schools. Clinical instruction not considered by Gresham Commission.

247. The question of the reform of clinical teaching was first definitely raised before us in the evidence given by Mr. Abraham Flexner.¹ We had received his Report upon Medical Education in the United States and Canada, and as we were informed that he was engaged in the preparation of a Report on Medical Education in Europe, we invited him to give evidence. The statement he submitted and the evidence he gave in support of it contain a somewhat severe criticism of some aspects of clinical teaching in the London Medical Schools, and the organisation of this part of medical education in London. Mr. Flexner has since published his Report on Medical Education in Europe, in which he deals systematically and critically with the whole question of medical education in Germany, France, and Great Britain. This Report has received our careful consideration, but it did not appear till after we had heard most of the medical evidence given to the Commission. It was therefore the short statement Mr. Flexner submitted to us together with the evidence he gave in support of it which was the occasion of much of the evidence we subsequently received on the subject of clinical teaching in London. It is probable that some of the criticisms of his opinions by subsequent witnesses would have been modified if the far fuller exposition of his views, contained in the very able and valuable Report we have referred to, had been before them. Mr. Flexner's evidence and Report.

248. It will be convenient to state shortly the gist of Mr. Flexner's criticism of clinical instruction in London contained in his evidence. He says:—

“On the clinical side . . . no progress has as yet been made towards formulating the concept of the clinician as teacher, in the sense in which the

¹ *Appx. to 3rd Report, p. 1.*

concept of pathologist or physiologist has been formulated. It is still supposed that because a man is an accomplished physician he is an excellent teacher. Clinical teaching in London remains an incident in the life of a busy consultant who comes to his post through promotion on the basis of seniority, and visits his too miscellaneous wards twice weekly in the afternoon between, perhaps, two and four, in company with his house physician and clinical clerks. There is no certain or direct interaction between the fundamental scientists and the clinicians; except in the region of morbid anatomy, some elementary bacteriology, and physiological chemistry, they barely touch. The clinician lacks the time, even if he has had the training, which will enable him to bring to bear upon clinical problems the artillery which chemist and pharmacologist are forging.

“Nor are the teaching hospitals equipped and organised with a view to teaching of university quality. They are admirably designed and conducted for the care of the sick on a routine basis. But their laboratories need to be greatly extended and their staffs completely reorganised before they can serve as University Hospitals. The clinical material is insufficiently classified; there is nothing like a comparatively permanent scientific or clinical staff, without which continuity and thoroughness of study are alike impossible. The house staff is composed of recent graduates serving short terms. The system therefore does not tend to promote scientific study and teaching; it makes distinctly against them. If results are achieved, they are fragmentary and entirely a matter of individuals. Nor even so does any special consequence attach to them. No certain reward stimulates the young physician to engage in original work. His cue is faithful routine. In consequence his preliminary scientific training goes largely to waste.

“Medical education is, therefore, in London not an organic whole; it falls into two more or less unsympathetic parts.”

249. The fundamental principle underlying Mr. Flexner's argument is that university teaching can be given only by men who are actively and systematically engaged in the advancement of knowledge in the subject they teach. And this, of course, is a principle upon which we have insisted strongly in dealing with the general question of the essentials of university teaching, and the position and duties of University Professors. Applying this view to the case of clinical teaching, Mr. Flexner says:—

“It has been taken for granted . . . that vital teaching requires the proximity of research. This is not as yet universally conceded. The family doctor being what is called a practical man, it is urged that he is best trained in an unambitious institution where he can be taught by experienced practitioners what to do in the definite emergencies which he will encounter. Such medical teaching regards itself as preparing the student to be a higher sort of artisan. As against it one may urge that Medicine is, in the strict sense, a profession—a profession being definable as an activity in which practice and progress are closely interwoven, and constantly reacting on each other. The more isolated the doctor is apt to be, practising in the country or in a remote village, the more important that a medical training which thoroughly rouses his intelligence should send him forth with a momentum that may carry him further every day of his life.”

250. Mr. Flexner's remedy for the defects he criticises is explained by him as follows:—

“In order . . . to reconstruct a London Medical School on modern lines, it would be necessary completely to reconstitute the staff, to break up the present method of appointments by seniority, to salary teachers of medicine in order that they may devote their main time and thought to teaching and investigation, to introduce increased differentiation of material, and to add to the existing hospital wards laboratory equipment along the lines in which the clinician is interested in working. It must be made possible to import into London the scientific producing clinician—devoted to teaching and research—from any place in which he may be found; and younger men must be taught that their chances of higher appointments depend, not on using themselves up in tutorial coaching, not on faithfully stepping into the breach when the superior is absent nor following in his footsteps when he is present, but on the development of their own powers along genuinely productive lines.”

“ . . . The first step in the direction of modernising medical education would appear to lie in the total conversion of an existing School or in the creation in London of a new School, the clinical Faculty selected upon precisely the same lines as the scientific Faculty, the entire body of teachers animated by one ideal and working as an organic unit towards a single end. The clinician's relation to the hospital must reproduce the chemist's relation to his laboratory.”

“ A School on the lines above pointed out would, of course, represent a radical departure—nothing more radical, of course, than is already in effective operation elsewhere—but something as yet unknown in Great Britain. It would be impossible to domesticate harmoniously these two types of medical education within one University Faculty. A School of Medicine may be one or the other, it cannot simultaneously be both. If the proposed Medical School is to embody a feasible and stimulating ideal, fairly up to the standard which successful experience has elsewhere vindicated, and capable in time of completing the regeneration of medicine which the laboratory men have begun, then it cannot live peacefully with another ideal which it has come to destroy.

“ The present Schools may be detached, but need not be suppressed. Once create a model, and time may safely be left to do the rest.”

251. The system of organisation referred to above, which is not described in detail is, speaking generally, the German system. Professor Friedrich von Müller of Munich explained this system to us and gave valuable evidence on the whole question of medical education in Germany,¹ to which we have given the most careful consideration. He expressly disclaimed the intention of giving any advice with regard to the reform of medical education in London. Many other witnesses were familiar with the system and referred to it in more or less detail; but perhaps the fullest description we have received is given by Sir William Osler, whose evidence entirely supports the view that a complete systematic reorganisation of clinical teaching in London is necessary.² “ The present plan of hospital administration,” he says, “ is a legacy from a period when university ideals had not reached the practical side of our Medical Schools.” “ In the very best hospitals, with Medical School affiliation, the arrangements are on old and very unsatisfactory lines. In long, uphill years the ambitious young man goes through the position of resident physician, medical registrar, assistant physician, and at 40 (if he is lucky) gets wards. Then a visit two or three times in the week with a house physician, a certain amount of teaching, and possibly some laboratory work, but he has a living to get, and practice becomes the first consideration. He has precious little pay, if any; there are no paid assistants; there is no continuity in the organisation; in fact, there is no organisation on modern lines. This can be changed if we can convince the authorities that the subjects of clinical work come directly within the sphere of the university, and that certain hospitals must be adapted to meet the demands of the scientific study of disease and the scientific training of students. The problem is how to place a dozen or more teachers in every Medical School in the same relation with the University as the Professors of Physiology and of Physics—how to give to each of them a department organised on university lines, in which the three functions of a hospital may be utilised and co-ordinated. The hospital unit meets the condition—a department under the complete control of the university, or under the joint control of hospital and university. Take a medical Faculty with, say, 300 students, for which the necessary hospital accommodation would be about 500–600 beds, a unit would represent a clinic in the continental sense, of which there would be five or six major, and as many minor—the former including medicine, surgery, midwifery and gynaecology, psychiatry and neurology, paediatrics, and ophthalmology; the latter, dermatology, dentistry, laryngology, otology, syphilis, and genito-urinary diseases. There might be, as at Berlin and Vienna, two or three medical and the same number of surgical units. In Vienna, for example, there are three completely equipped midwifery and gynaecological units, each with lecture rooms, laboratories, rooms for students, and the whole paraphernalia for teaching and research.”

German system of organisation.

Sir William Osler's plan of organisation of Hospital Medical School.

252. Sir William Osler then takes one unit and describes its organisation. He takes Medicine as the subject with which he is most familiar, but the organisation of all the other units would be on the same lines. The unit, according to his description, comprises (1) the Professor or Director; (2) 60 or more beds; (3) labora-

The “hospital unit.”

¹ *Appx. to 3rd Report*, p. 305.

² *Appx. to 3rd Report*, p. 342.

tories for (a) cardio-respiratory physics and physiology, (b) bacteriology and vaccine therapy, (c) chemistry, (d) microscopy, (e) X-ray and electrical work, (f) a general laboratory for the students; (4) an out-patient department; (5) a staff consisting of (a) Senior Assistants, of whom there would be three holding university appointments for an indefinite period, (b) Junior Assistants—"house physicians" appointed annually from the members of the senior class.

Organisation described admits of variation.

253. The organisation proposed appears to admit of a good deal of variation in detail, and it is not incompatible with arrangements for the instruction of the students other than those which prevail in Germany. For example, it is well known that in connexion with this organisation, Sir William Osler introduced at the Johns Hopkins University the system of clinical clerks and dressers, which is regarded here as one of the principal merits of the English system. The essence of the contention of Sir William Osler and Mr. Flexner is that in a University Medical School the principal teachers of clinical medicine and surgery in all their branches ought to be university professors in the same sense as the principal teachers of chemistry or physiology in a university. If this is once admitted the rest follows. It is simply in each case a question of appointing a university professor and arranging that his department shall be so organised that he will be able to do his work. A professor of literature or history must have his library, a professor of chemistry must have his laboratory and assistants. What does a professor of medicine require? Sir William Osler's answer is that he requires the organisation of the hospital unit, if he is to carry out his three-fold duty of curing the sick, studying the problems of disease, and not only training his students in the technique of their art, but giving them university instruction in the science of their profession.

Co-operation between clinicians and scientists in London for treatment of patients.

254. We may refer here to a point upon which there seems to be some misconception. It is not, we think, contended that the scientific examinations and procedures, some of them of a very complex nature, which are necessary for the recognition and treatment of disease, are not at present conducted with efficiency in the London hospitals, or that the students are not taught to do these things. We have been told on good authority that these scientific procedures are admirably carried out in most of the large London hospitals, and that for these purposes most of them have thoroughly equipped clinical and bacteriological laboratories under the guidance, in many cases, of professional scientists of eminence. We think it is generally admitted that the advance of medical science has been so rapid, and that its range is now so wide, that no man can alone, and without the co-operation of others, bring to bear upon the question of the diagnosis and treatment of disease in the case of the particular patient the necessary and useful applications of the methods developed in the laboratories of science, and particularly in those of the several branches of pathology, including bacteriology and physiological chemistry. The physician must work with the scientific aid of others at every step, and it is not denied that in London he does so. One witness, indeed, said that the clinical physician must ultimately be the judge of what is the matter with the patient, notwithstanding the reports he may receive from bacteriological or other pathological laboratories on materials supplied for examination.¹ But we do not think he intended to suggest that such reports would not be given their full weight in the diagnosis of the case. No doubt there is always a sphere of knowledge which passes just beyond the range of what has been made explicit. The man of pre-eminent intellect has a grasp of principles, and a vigour, fertility, and fine discrimination of mind, which enable him to seize and interpret in their relational significance and proportional value suggestions and indications which are lost on other men; and in a matter so complex and so individual as medical diagnosis, the process of thought by which a great physician arrives at a conclusion may scarcely be fully explicit to himself, and may appear almost intuitive to others. But as a man who has acquired the scientific habit of mind, it may be assumed that he always subordinates the activity of the intellect to the accepted methods of ascertaining truth in his own subject, and never reaches the sphere of implicit reasoning till he has exhausted the aids of science and called to his assistance all appliances and procedures which carry observation beyond the range of his unaided senses. As we have already said, it is not suggested that either in their private practice or in their clinical teaching in the Medical School the London physicians are ignorant of or attempt to dispense with the aids which science can give them.

¹ *Appx. to 5th Report, Taylor, Q. 14,654.*

255. But what is suggested and insisted on is that if, as is admitted, co-operation is necessary for the practice of medicine at the level of medical science to-day, it is also necessary, even in a higher degree, for the advancement of medical science beyond its present stage; further, that this co-operation does not exist in the Hospital Medical School, and cannot do so as long as the physicians and surgeons make use of science only to aid them in recognising and curing disease, and in teaching their students to do so on the basis of existing knowledge. It is maintained that they must give their time to attacking the problems of disease, and that they cannot do so alone, but must become members, and controlling and directing members, of a group of men working together for a common end—a group in which the subordinate members are selected with a view to the special knowledge required to aid and supplement that of the leading and directing mind. They must devote themselves to original research under the conditions which make it productive in the case of the exceedingly complex problems which medical science has to solve. Finally, it is said that the hospital unit is the kind of organisation which experience has already shown provides the conditions required; and that it is only when the conditions have been found and established which make research in medical science possible and actual that the true university spirit will inform the teaching, and that the teachers will be the kind of men we have spoken of as university professors—men who will do for medicine what other men do for physiology and chemistry, and, indeed, for every subject which is capable of being scientifically treated.

Co-operation also required for advancement of medical science.

256. Another question about which we think there is a good deal of misconception is the effect which the appointment of University Professors would have on the clinical teaching at present given in the London Medical Schools. Even those witnesses who were most in favour of the appointment of professors of medicine and surgery, and made constructive proposals for this end, were so convinced of the value of the present English system of clinical teaching that they insisted upon it as a necessary part of the training of the students. The "appointments system"—under which all the students hold for a time the posts of medical clerk and surgical dresser, have actual charge of a number of cases, with increasing responsibility, have constant access to the patients, and are assigned for a definite period to a clinical department in sufficiently small numbers to enable them not only to see and examine the patients, but also to receive what is practically individual instruction from the teachers—admittedly affords a most valuable training which ought not to be dispensed with in favour of any other kind of teaching. Under the existing system the students are taught the practice of the applied science of medicine, or as it may be called, the art of medicine, better than under any other—the art of examining a patient and gathering from his symptoms and physical and mental conditions, with all the aids which scientific procedures can give, an accurate diagnosis of the case. Under this kind of clinical teaching the student serves an apprenticeship, and actually acquires, in the course of his instruction at the hands of experienced physicians and surgeons, the training and experience which fit him for the practice of his profession. No one suggests that this method of teaching should be abandoned or superseded. But it is maintained there is another kind of teaching which is also of great value, and is the appropriate method of teaching not so much the art as the science of medicine. This is the clinical demonstration or clinical lecture. In this case, as Dr. Head¹ has described it, the student comes to the clinical demonstration to hear about the disease, and he will find prepared for clinical demonstration a number of patients, each of whom is not so much interesting in himself as because he exemplifies one particular aspect of the disease. One of them shows one symptom or aspect, another another, and so on. From other descriptions it does not appear that the demonstrations given in German clinics always assume such a deductive form as Dr. Head describes. It appears to be quite optional whether the professor's demonstration deals with a single case or with a series of cases which illustrate points; but, however this may be, the demonstration goes far beyond the diagnosis of the case. The case is used as an illustration, and the professor deals with the whole disease which he finds exemplified in the patient. The teaching consists in illustrating practically the various forms in which the disease appears, and the diverse symptoms which characterise it in particular cases, by bringing before the students all the available cases which exemplify it, and examining in their presence how far the special symptoms of the patients confirm or modify accepted

Value of present system of clinical instruction in London.

The clinical demonstration.

¹ *Appx. to 5th Report, Q. 14,668.*

knowledge, or suggest new lines of investigation with regard to the disease. The clinical demonstration is a form of teaching which appears to lie halfway between the systematic lecture on the one hand, which is descriptive and theoretical, and which undoubtedly has its value, although to a large extent it may be replaced by text books; and, on the other hand, the clinical instruction on the case of each patient as the physician makes his round of the wards, which is too individual to lift the mind to a comprehensive survey of the subject.

Demonstrative teaching essential in University Medical School.

257. We think it is clear that this method of teaching is of great value if the subject is to be handled in the manner we associate with the scientific teaching of a university. The students must be taught to generalise, to think according to principle and not according to instances. Now such demonstrations, we are told, require hours of preparation, not only by the professor himself, but also by his assistants; and it is a rare thing for men in active practice to be able to give the necessary time, even assuming that their scientific knowledge is so recent and thorough as to enable them to deal with aspects of the science of medicine in this general manner. Dr. Garrod described to us¹ the enormous amount of labour and care expended in the preparation for the daily clinical lecture at Munich. When the professor comes in he finds there the diagrams and specimens he may want, the tests that can be shown ready to hand, the temperature chart of the patient on a black-board, sometimes even the kinematograph and the epidiascope employed to illustrate the case. Indeed, he said, if the case is a recent one, and the lecture must be given quickly because treatment is urgent, or the symptoms are evanescent, the assistants will sit up much of the night preparing the necessary records, and making the necessary examinations, so that everything may be complete for the next morning. If this kind of teaching is essential, it seems to us clear that it cannot be expected of men who are largely engaged in private practice; not only would the teaching and preparation for it make too great a demand on their time, but it is the kind of teaching which can really be successfully undertaken only by men whose main occupation is original research in the science of their subject.

English system of clinical teaching also essential.

The University professor can give both kinds of clinical instruction.

The clinical teacher cannot be superseded by the bacteriologist.

258. All the evidence we have received points to the necessity of continuing the distinctively English method of clinical teaching. We have heard from many witnesses that it is a defect of the German system that the students do not receive sufficient training of this kind, and that the attendance at the demonstrations given by the professors is so large that the students see little, and have practically no opportunity of examining cases themselves. For the best results it seems to us necessary that the two kinds of teaching should be given. But here again we must be careful to avoid misapprehension. Although we are convinced that the present teachers cannot do the work which the University Professor can and would do, it does not follow that the University Professor cannot also do the work of clinical instruction, and do it better than a man appointed under the present conditions. It may be quite true that under the German system this kind of instruction is not provided for, or at least not provided for to nearly the same extent as in England, but this defect has no essential connexion with the merits of that system, and could be corrected without interfering with the organisation or spirit of the clinic. It is a defect which is avoided by the system advocated by Sir William Osler and introduced by him at the Johns Hopkins University. A professor of clinical medicine is not a mere theorist any more than other men of science are. His science is the natural history of disease. The experiments he observes in the first instance, and from which he starts, are nature's experiments exemplified in the cases in the hospital wards. We are very far from suggesting that the clinical physician should be replaced by the bacteriologist or by the specialist in any other branch of pathology. His first business and special art is the diagnosis and treatment of disease, and that is what the students must also learn. The main advantages claimed for the English method of clinical instruction appear to us to consist in the opportunity given to the student of acquiring the art of medicine; of serving an apprenticeship; of having free access to the patients; of learning by doing, under supervision and with assistance and direction, but with increasing responsibility, what he will afterwards have to do alone. As far as the instruction is concerned this skill and knowledge belong to the professor of medicine just as fully as to the practising physician. He is exercising and applying them every day at the bedside of the patients in the wards; otherwise

¹ *Appx. to 5th Report, Q. 12,588.*

he would be cut off from the source of his inspiration, his point of contact with reality. We think there can be no doubt he can give the kind of clinical instruction which is claimed as the chief merit of the English system just as thoroughly as the present teachers; and his teaching will gain enormously in scope and educative power from the fact that it is his business in life to carry further and test as working hypotheses all ideas suggested to him by his cases—to utilise the cases he examines and diagnoses for the purpose of the pursuit of science. His work at the bedside will naturally assume the distinctive quality of university teaching, and the practical training of the student in the art of his profession will be one in spirit with the more systematic and scientific instruction of the clinical lecture or demonstration.

259. It is true that the professor will not have time to give all the instruction required, for it is not financially possible in this any more than in any other University Department to appoint a number of professors sufficient to undertake the whole of the teaching of the students. In other Faculties much of the teaching must be done by junior teachers or assistants in each department; all that is possible or indeed necessary is that the students should be brought under the influence of the professor from the first, generally by means of lectures, and that they should be prepared by others for his more intimate instruction in the later part of their course. His spirit will inspire his assistants and dominate the laboratory work. In the Faculty of Medicine, however, there is this difference that although much of the instruction could be given, and given well, by assistants working under the direction and supervision of the professor, it is possible in addition to obtain the valuable co-operation of men of greater experience in active practice. We shall explain later how we think this could be done, but for the moment we are concerned with the question of the appointment of professors and the nature of their work.

The professor will not have time to give all the clinical instruction.

260. There is no inherent difficulty in combining the two systems of teaching. Dr. Head explained to us how in his view the value of demonstrative teaching might be greatly increased if the students could be brought into much more intimate connexion with it by being formed into small classes working in far closer relations with the professor and his assistants. According to his plan,¹ a University Professor of medicine, let us say, would have a class of not more than 20 to 25 students who would come to him entirely for three months, and he would put them through a course with the help of his assistants. These students would receive personal attention. It is useless, he says, for men to come expecting to get a serious university education if they are taught in large groups of 400; but in addition to the men who are actually under the professor's eye, working in his wards, working with his assistants, working in his laboratories, acting as "famuli" to him, he would throw the whole of the back benches of the auditorium at demonstrations open to anybody, so that there would be no difficulty whatever for a student, no matter who he was, to come in and listen; but all the privileges would be kept for the students in the inner ring. It would be they who had to deal with the patients not only in the theatre but also in the wards. They would act as clerks or dressers to the professor.² They would help the assistants in the preparation for the clinical lecture, they would take part in the weekly symposium or *seminar*, and at the same time they would have systematic courses which would be carried on by the professor and the assistants. This teaching would be possible only in the final year of the course, during which each student would come under three professors for three months' instruction in medicine, surgery, and gynaecology. All the rest of the instruction would, on Dr. Head's plan, be carried on in the Medical Schools as at present. There are difficulties about this proposal to which we shall refer later, but they do not affect the question of the combination of the two forms of teaching.

The two methods of clinical teaching may be combined. Dr. Head's description of clinical professor's courses.

261. In our opinion the University of London ought not to be satisfied with the present clinical teaching in the London Medical Schools. It appears to us beside the point to say, as some witnesses do, that the time of training is not the time for research, that a man has enough to learn then in order to make himself a good doctor, and that the leisure for research comes afterwards when he has taken his degree. It is not suggested that the undergraduate should engage in research in this Faculty more than in any other, but that is no reason why he should not receive a university education. We have made it clear in the earlier part of our Report—(a) that university education can be given only by university teachers, and (b) that it is a

What scientific training means for the medical profession.

¹ *Appx. to 5th Report*, Q. 14,698.

² *Appx. to 5th Report*, Statement, § 20, p. 142.

necessary condition of the work of university teachers that they should be systematically engaged in original work. Again, it is said that a good deal of scientific teaching is done by the present teachers, although they are in active practice. Fortunately, there are always exceptional men who succeed in doing things which the conditions of their life and work make difficult for most; but we must consider what conditions are conducive to the end in view and likely to promote its attainment as the general rule and not as the exception. Having regard to the growing complexity of the subject of medical science, it seems to us that it will become more and more difficult, as time goes on, for the really scientific teaching in the subject to be given by men whose powers are largely required for the arduous work of medical practice, and whose minds are quite rightly occupied for the most part with the exacting claims and daily anxieties of their professional work. It is not conclusive that many eminent British physicians and surgeons have in the past made important contributions to the advancement of knowledge in their subject. We doubt if it can fairly be claimed that the representatives of British medicine make their proper contribution to the scientific literature of the subject to-day, and although admirable work is still being done, it is all a matter of individual effort, and generally carried out under difficulties. But quite apart from this it makes all the difference in the world to the students of a university whether they have received a purely professional training or a university education in the course of which, as Professor Starling describes it, they will come into contact with the fringe of their subject, and will realise that it is a subject which is growing—that they can even play their part in making it grow. “That,” he says, “is what I regard as the university spirit, not simply diagnosing a patient and deciding what we do for him in order to earn our fee, but what we can get out of this case in order to do better next time; how can we get some knowledge out of this patient in order to have more power when we have another man in the same condition.”¹ For any liberal and scientific profession a university education has always been an advantage, and not least by any means to those who never do research work at all, but pass out of the university into the practice of their profession. In medicine at the present day it appears to us to be required more than ever before. The most that the student can possibly learn at the Medical School will be partial and incomplete. Formerly the advance was so slow that there was no change of importance in a man’s professional lifetime; but now progress is so rapid in medical science that the aim of medical education should be to enable and encourage the student to go further by himself, and to test and appreciate the progress made by others. It is impossible to teach the whole range of medical science in the course of a medical curriculum.

Objection
that pro-
fessors
would be
specialists.

262. It has been objected to the appointment of a professor of medicine that, if he is really a scientific man, he is certain to be to a large extent a specialist, and therefore, in order to cover the ground, it would be necessary to appoint not one but many professors of medicine, and the students would not have time to receive teaching in the whole range of the subject. But it has been specially pointed out to us by Dr. Head, that it is really the kind of teaching rather than the extent of it that matters, and that provided the classes are small, even short courses in the principal departments of medical science, *i.e.*, medicine, surgery and gynaecology, can give the student a new point of view, and enable him to think generally or systematically, and fit him for the advancement of knowledge in his subject, or at least—what is of far wider application and importance—fit him to appreciate, assimilate, and make use of the results of the original work of others; and not the less so because the professors under whom he has studied are themselves specialists in directions which are not the same as that which the student may afterwards pursue. Even if a professor of medicine specialises in a small part of the subject, still he may be a suggestive teacher far beyond the range of what he specially cultivates. “Out of a small text one can preach a large sermon, and the right sermon.” Or as Dr. Head says:—“It is better for the student to come under the influence of a man who has absolutely first-hand knowledge of one thing, and who knows how to supply his own deficiency by means of assistants, than it is for him to come under the influence of one of these sterile persons who knows something about everything. To bring him into contact with a man eminent in one aspect of medicine is the way to show the student what research, what knowledge really means. No man could ever teach the meaning of knowledge if he had learned it at second-hand.” And he adds:—

¹ *Appx. to 5th Report, Q. 14,859.*

“ One way or another he will be able to put the students on to the growing point of knowledge, which is what you want to-day. At the present moment he is on the growing point of nothing.”¹ But it is not even admitted by some very competent judges that a professor of medicine would be a specialist except in the sense that he would be scientific, and therefore thorough. Professor Starling, for example, says :—“ . . . if he were of the right stamp, I think he would probably devote special attention to one branch at one time and another branch at another. Much of this specialism is a question of manual specialism. Medicine is not a large subject in itself, but the new technique which has come in in certain branches requires more manual dexterity, and that is where it is useful to consult a specialist. But for ordinary purposes medicine is not such a great subject.” And again : “ You would find that a man in his young years has such tremendous power of assimilation that he has a very good knowledge of the whole subject.”² Moreover, in so far as it is true that the tendency is towards specialisation, this applies also to the existing teachers. Most of them specialise in their practice, and are therefore just as much inclined to do so in their teaching. It is answered that at present “ it is the great safeguard of the medical student’s education that he is able to obtain his instruction from a large number of clinical teachers, who from their varying outlooks and interests together give him a very fair appreciation of the whole subject.”³ But the students do not at present get personal teaching from more than two teachers in clinical medicine, though they may follow others round the wards, and we do not see any difficulty in providing for at least as much variety as that under the system we are considering.

263. Another matter to which we ought to refer is the question whether, and to what extent, the professor should be prohibited by the terms of his appointment from engaging in private practice. One of the advantages of private practice is said to be that men gain in this way experience of human nature which is of great value in the cure of the sick. It must be remembered, however, that the University Professor of clinical medicine is not the less a physician because he is a man of science, and he acquires much of this knowledge in his treatment of the sick, although it may be admitted that the social range of his experience will be to some extent limited if it is confined to hospital work. We are inclined to think that the student whose sympathy is aroused by the condition of the hospital patient, irrespective of his social station, is the man who will work best under the conditions of private practice.

The question of private practice for professors.

264. This experience of human nature, valuable though it may be, is not the only or even the chief advantage of private practice. To a limited extent, at any rate, it is said on good authority to be of scientific and professional value for the following reasons :—

Professional advantages of private practice.

First, it trains the physician to distinguish with greater accuracy between serious diseases and trifling ailments. The patients in the wards of a hospital have gone through a sifting process before admission, and the physician may generally assume that an admitted case is a case of serious illness, and his diagnosis is very much influenced by this knowledge. He may have to determine whether a patient is suffering from ulceration of the stomach, let us say, or it may be from cancer ; but it does not matter much to the patient at the moment whether it is the one or the other. He is treated as seriously ill, and the treatment is such that even if the true diagnosis is not reached at once no great harm is done. But in private practice the great majority of cases that come before a doctor are cases of trifling ailments, and he is in danger of making fatal mistakes. If nine out of ten patients who complain of frequent internal pain are suffering from indigestion, there is a danger of failing to diagnose cancer in the tenth case, and the delay resulting from the mistake may be fatal. Experience of this risk leads to more careful observation and finer discrimination of symptoms. Secondly, it is in private practice that a physician has opportunities for the scientific observation of the earlier stages of disease. In the case of most patients admitted to a hospital the earlier stages are past, and the physician only hears the description of a case given by the patient himself, or by the general practitioner who has attended him. In both these cases, however, it is the general practitioner who acquires the kind of experience described, rather than the consulting

¹ *Appx. to 5th Report*, Q. 14,772.

² *Appx. to 5th Report*, Qs. 14,873 and 14,875.

³ *Appx. to 5th Report*, Guy’s Hospital Medical School, Statement, § 25, p. 88.

physician, who is at present the hospital teacher. On the other hand, if the out-patient department of a general hospital is properly and seriously made use of, it affords great opportunities for acquiring this kind of knowledge and experience.

Professors would have had experience of private practice.

Private practice a safeguard against danger of forgetting the patient in the scientific interest in his disease.

265. There is no reason to suppose that the men who would be appointed to the position of professors would have had no experience of private practice before their appointment. On the contrary, it is probable that even if, as assistants in a hospital unit, they had been engaged almost exclusively in hospital practice during the earlier years of their life, they would have passed out for a time into the practice of their profession and enlarged their experience in this way. If it were only on account of its scientific and professional value, we should regard it as a matter of comparatively slight importance whether so experienced a physician as a professor of medicine continued to have private practice or not. But there is a grave danger against which private practice is the best protection—the danger of forgetting the individual patient in the interest aroused by his disease. One witness of great authority said: “The physician who is entirely set apart for research, who has practically no private work, is terribly apt “ to look at his patients as mere experimental bodies and not as human beings.”¹ If the disease is of more interest than the diseased; if the patient is only a case; if the individual is lost in the mass of clinical material in the wards of a hospital, or isolated from his natural surroundings in a nursing home; then there is a danger that he may be considered, in thought at least, as a subject for experiments, and even as having served his purpose when, perhaps, a few days later, he demonstrates in the post-mortem room the truth of the diagnosis.² If such an attitude of mind as this is introduced into the hospital, not only may the patients suffer, but the influence upon the students will be bad. As a preventive there is no better safeguard than the private practice of the special kind which a consulting physician commands. His cases are, to a much greater extent than in general practice, cases of serious disease. That is true of the hospital also, but in private practice the physician meets the patient in the intimate relations of the family and the home. He is constantly brought into contact with men and women at the high level of the recurring crises of their lives, and they look up to him for help. He deals not only with a case of disease, but with a human situation; his work becomes a ministry. He brings not only the aid of science, the cure of sickness and the relief of suffering, but also the counsel of experience, the sympathy of understanding, and the consolation of the assurance that all that is possible has been done.

Professors should be allowed a limited amount of private practice.

266. We do not think that it is desirable that a professor should be prohibited from engaging to a certain extent in private practice. It may be said that if the door is once open it will be impossible to limit the extent to which private practice will be taken; but even apart from any formal restrictions which the University might think fit to impose, such as indeed it does impose in the case of professors of engineering, the exigencies of the work a professor would be required to do in the hospital, together with the claims on his time, which, if he were at all the right sort of man, his own research work would make, would effectively limit his private practice sufficiently to prevent it from interfering with his professorial duties. It has been suggested that he should have three afternoons and one free day in the week,³ which is said to be the system adopted in Frankfurt. Moreover, we were told that the kind of practice which would be most suitable for a professor to undertake is one which is connected with doubtful and difficult rather than with critical cases. In practice of this kind engagements can be arranged beforehand, and do not make unexpected calls at inconvenient times.⁴ Of course there would occasionally be urgent and imperative calls which it might be very difficult to disregard. One way of dealing with a call of this kind is to attend it only if the case appears to be one in which the professor is specially qualified to be of use, and then to accept no fee. This may sound a hard condition, and it would be so if externally imposed, but so powerful is the attraction of scientific work that we understand this is a self-imposed condition in the case of some existing professors. We think the conditions of a professor's employment is a matter which must be left to the University to determine; but in our opinion it is not necessary or advisable to prohibit private practice altogether.

¹ *Appx. to 5th Report*, Barlow, Q. 14,649.

² *Cf. Paulsen*, “The German Universities,” p. 406.

³ *Appx. to 5th Report*, Head, Q. 14,686.

⁴ *Appx. to 5th Report*, Head, Q. 14,805.

267. We have tried to explain the nature of the instruction we think the University should require for all university undergraduates in the clinical subjects of the medical curriculum, and we hope we have made it clear that we cannot accept the view that the University should be satisfied with a different standard and conception of the conditions necessary for the education of its students in the subjects involving clinical instruction from that which it adopts and insists on in the case of all other subjects of university study. No doubt in this sphere of education we have to do with applied science; but the only justification for admitting technology of any kind within the range of university education is that the applied science involved does not consist in mere applications of science—inventions and discoveries which are final and stereotyped, and can be learnt once for all. Technology, as we understand it, means something quite different from this. It means the educational training which is required for all professions and callings in which a knowledge of pure science, including the most specialised forms of pure science, is the necessary basis of the intelligent and progressive practice of the profession or calling in question. There is no profession, as it appears to us, in which this principle of education holds good more immediately, pressingly, and continuously, than it does in the profession of medicine. It is with these views in mind that we turn to the consideration of the proposals which have been made to us by some of the Medical Schools or by some of their members for reforms of the existing system of medical education.

Summary of
foregoing
argument.

Proposals for Reform submitted to the Commission.

268. First there is the proposal that a hospital should be organised on the unit system, but reserved for post-graduate teaching and research. This is a proposal we cannot accept. It is the old counsel of despair we have met with in the Faculty of Science, and especially from the representatives of the External side of the present University. Leave the undergraduate work as it is, they say, and provide for advanced work and research in special institutions. The fallacy of this view comes out more clearly in the case of the Medical Faculty than in any other. The students in this Faculty are receiving the education which is supposed to fit them for a learned profession, and most of them pass out into the practice of that profession immediately after graduation. Yet it is suggested that the real university instruction should begin at a later stage, which most of them never reach. This view appears to us mistaken both as regards undergraduate and post-graduate work. If university education is not provided for undergraduate students they ought to be frankly surrendered to the purely professional school, which from our point of view is not a university. As regards post-graduate work and instruction, this ought to be continuous with the undergraduate teaching. It ought to carry further, and for the most part in special directions, the same kind of work and instruction which has been provided in the undergraduate course. A student ought not to begin his university instruction as a post-graduate student. Such a proposition would be really a contradiction in terms. He ought to have "found himself" during the period of his undergraduate career, and have felt the desire to pursue the study of some particular subject further, and this is not likely to happen unless he has been brought under the influence of real university teaching from the first. Post-graduate instruction and facilities for research, opportunities for the pursuit of science in many directions far beyond what can possibly be included in an undergraduate course, should be provided by the University by all means in its power; but unless the undergraduate course is university education in quality and spirit and aim, not only will the University fail in its first duty to its students, but in failing to lay the foundations of scientific attainment, without which no man can build, it will also fail to awaken and foster the curiosity and the passion for intellectual mastery, which alone can supply it with fit scholars for its higher work.

(1) Hospital
for post-
graduate
work.

269. A second proposal for reform is that individual professors in clinical subjects should be appointed in a number of different Medical Schools from the members of the existing staff. St. Bartholomew's Hospital Medical School¹ expressed the view that for purposes of advanced teaching and research the establishment in London of clinics under University Professors is desirable; but that such clinics should be in addition to and not in place of the present clinical teaching, and should be mainly, though not exclusively, post-graduate in character. They thought that the problem

(2) Appoint-
ment of
individual
professors
in a number
of Medical
Schools.

¹ *Appx. to 5th Report, Statement, § 87 (b), p. 69.*

Proposals
of St. Bar-
tholomew's
Hospital
Medical
School.

of establishing clinics under University Professors was a difficult one, as for this it would be necessary for the University to have the control of a large hospital in London, and they did not see their way to suggest any scheme by which the difficulties inherent in this proposal could be overcome. They believed, however, that a University Professoriate in clinical subjects could be established comparatively easily, if sufficient funds were available, by the adoption of a scheme on the following lines :—

- (1) The University should appoint *from among the present members of the staffs* of the hospitals attached to the Schools of the University or at some of the special hospitals a certain number of University Professors, and should provide them with adequate endowments.
- (2) In making the appointments the University should select the most eminent and suitable men available, who would be willing to devote themselves mainly to teaching and research, and to give up most of their time to professorial work.
- (3) The men appointed should be attached to large hospitals and have control of sufficiently large clinics, which they should be prepared to organise and develop, the University to supply funds for the payment of assistants and the provision of equipment for teaching and research.
- (4) The University clinics thus established should be open to students of the University whether attached to the School where a particular clinic is situated or not.
- (5) Attendance on these clinics should not be compulsory.
- (6) In no case should a chair be considered as a local office attached to a particular School. It should be conferred upon an individual on account of personal fitness.

This would no doubt raise the reputation of the Schools where professors were appointed. It would supply a certain amount of instruction of university standard for the students of these Schools and for other students who might attend the professor's clinic under arrangements made between the School and the University; but it does not appear to us that this scheme would give the University even the beginning of a properly organised Faculty of Medicine; not scattered and isolated in competing Medical Schools but homogeneous and of high standard throughout; working naturally together and capable of collaboration and reciprocal assistance; guiding and determining the development of medical science and education in the University.

(3) Proposal
of Dr. Head.

270. The proposals submitted by Dr. Head were also based on the appointment of individual professors in particular Schools, but his scheme differed in important respects from that of St. Bartholomew's Hospital Medical School. In the first place he proposed that a number of the larger and more successful hospitals should be affiliated, and by affiliation he meant that all appointments within them should be open to the best candidates irrespective of the School to which they belonged. Dr. Head was examined rather closely on this point,¹ and he appeared to be confident that affiliation in this sense could be brought about by negotiations aided by the grants from the Board of Education; but a consideration of his evidence seems to show that he was relying principally upon the change which would arise in the qualifications of the candidates for appointments as the result of appointing assistants to the professors.

The aim of the scheme he proposed was to establish a university system alongside of a strong collegiate organisation. He did not divide the students throughout their course into university and collegiate students. The general education of the university students, as tested by the matriculation standard, would be higher than that of the collegiate students, and they would be required to pass higher examinations both in the Preliminary and Intermediate Sciences; but their medical education, practically up to the standard required for qualification, would be the same, and all students would work together under the present teachers in Hospital Medical Schools, and be prepared as at present for the different examinations for which they might wish to enter. The main difference would come at the end. In the final year he proposed that training of a distinctively scientific and university standard should be superimposed on the college instruction by passing the university students through

¹ *Appx. to 5th Report, Qs. 14,703, 14,721-38.*

courses of three months' duration under University Professors of medicine, surgery, and gynæcology, as we have already described (*see* paragraph 260).

271. Dr. Head gave us valuable assistance by his evidence with regard to demonstrative teaching and the possibility of combining this with the more intimate clinical teaching in the wards; and his suggestion for providing this kind of teaching for university students in the last year of their course appears to us an ingenious and practical method of introducing the teaching he describes with as little difficulty and dislocation of the existing arrangements as possible, and also with considerable ultimate benefit to the existing Medical Schools, apart altogether from the teaching of the University Professors within them.

The defect of his scheme is that it does not attempt or profess to provide university education for anyone throughout the whole of his medical course. Dr. Head appears to regard it as a permanent necessity that there should be a class of students whose ideals are severely practical rather than academic, and who are not fitted by their general education or scientific training to profit by teaching of university standard; yet he is content to allow university students to receive the larger part of their medical education from the same teachers and under the same conditions as these other students. We do not think such a division among the students ought to be accepted as necessarily permanent. Some witnesses speak of scientific training as unnecessary for the average man, and suitable only for the cream of the students. If they refer to a purely intellectual difference between the students, then we are satisfied that it is a mistake to regard the kind of education desirable for the more able among them as unnecessary for the others. When the matter in question is education for a learned profession, then, as one witness said, "there is no average man";¹ or as another witness put it, "the best education gives the average man his best chance." "The best education he can get will be in the end the most practical education for him."² But what is often meant by the average man is the badly educated man. That students should enter on a university medical curriculum with insufficient knowledge to profit by scientific teaching is not a state of things which ought to be accepted as inevitable. On the other hand, the separation of the university part of the medical course from the earlier and more practical training in the art of medicine, which is obtained from clinical teaching in the wards, does not appear to us to be sound or in accordance with the view we have already more than once expressed, that a university education ought to be one in spirit and quality throughout. We have pointed out more than once that the main value of the clinical teaching on the English system is not that the teacher is a practising physician instead of a university professor, but that the student is given the fullest opportunities of acquiring the special art of medicine by access to patients and the actual examination and charge of them under direction and supervision. We have also maintained that the instruction of the clinical physician will gain largely in suggestiveness and educative power if it is given by men of the scientific attainment and habit of mind which we associate with the university professor.

Disadvantages of Dr. Head's scheme.

272. Another proposal to which we ought to refer is that laid before us by the Medical Council of the London Hospital Medical College, in support of which Sir Bertrand Dawson gave evidence. This is a scheme for introducing into some at any rate of the London Medical Schools a part of the organisation which we have referred to as the hospital unit. The proposal is that the whole hospital should be divided into as many units as the beds will allow. A unit would consist of from 50 to 70 beds with laboratory accommodation and teaching rooms in connexion with it, and an out-patient department. For each unit there would be appointed paid assistants, and it is also proposed that the assistant physicians and surgeons on the staff of the hospital, and attached to each unit, should be paid during the first four or five years of their appointment so as to enable them to give more time to their hospital work and to research. There would, however, be no professors. This position would be assumed by the existing physicians and surgeons of the hospital. The Medical Council of the London Hospital Medical College take the view that what is urgently needed is to select a limited number of hospitals and to found in each of them as many hospital units as the size of the hospital permits; then adequately to endow education in these hospitals and insist that each unit is properly equipped with laboratories, and that its wards and laboratories are brought into closer connexion with

(4) Proposal of London Hospital Medical College.

¹ *Appx. to 5th Report, Starling, Q. 14,861.*

² *Appx. to 3rd Report, Flexner, Q. 6153.*

the heads of departments of experimental pathology, morbid anatomy and histology, bacteriology and bio-chemistry. They propose that all appointments in the selected hospitals should be made by the hospital concerned, and approved by the University. They think that though there should be complete freedom of action to select any distinguished man from any part of the world for the posts, yet in practice the heads and sub-heads of the units would be selected from the clinical assistants, not of that hospital only, but of all the constituent Schools. They did not appear to see any difficulty in introducing such an arrangement, and they thought that in that way cohesion would grow up and the dangers of inbreeding be avoided.

273. The peculiar feature of the proposal is the omission of the professor from the suggested organisation. The reason given for this omission is that at present suitable men for the position of clinical assistants do not exist in London, and that it is necessary to train them, which is the work of years. It is said we must begin at the bottom. The large admission is made that the present system in England is breaking down in two particulars:—(1) It is not training the most suitable men for the hospital staffs, though the raw material is excellent; and (2) it arrests the development of the junior members of the staff by forcing them to fight from the outset for their daily bread, thus leaving them insufficient energy and time for research. We think this admission proves too much for the proposal submitted by the London Hospital Medical College, because we are naturally led to ask what the qualifications of the senior members of the staff are for the duty it is suggested they should undertake of training the clinical assistants. They have admittedly obtained their positions under a system which does not train the most suitable men; their development has been arrested as juniors in the manner described; and they have arrived at their present position by seniority. They have presumably acquired a large practice and thus gained the reward which it is one at any rate of the objects of the present system of medical education in London to secure to them. In doing so, and also through their hospital work, they have no doubt gained valuable experience, which we have no desire to depreciate. In all professions the men who get the work to do, learn to do it better than those who do not get it; but this experience may not have fitted them in any pre-eminent degree for the position of university professors, who in every other department of knowledge are men who devote their lives to the scientific study of their subject. Yet the proposal is that a limited number of hospitals with Medical Schools attached—Sir Bertrand Dawson said the five big ones¹—should be organised throughout on the system of hospital units, with a complete organisation of assistants and laboratories, and with the addition of paid assistant physicians and assistant surgeons, but under the control and direction of the existing physicians or surgeons on the staff, who would not be paid, and would neither be able, nor be required, to give more time to their hospital work than they do now. The London Hospital alone would, we were told, require 15 units, at a cost of 12,000*l.* a year without any paid professors.²

274. We do not think this proposal can be accepted. It appears to us financially impossible and educationally unsound. It is not from the London Hospital alone that we have heard the claim that all that is required is to give assistants to the existing hospital teachers. Many of these teachers no doubt are men of the right calibre, but the question is whether they are men of the right training. Have they served their apprenticeship in laboratories and in research? On this question we are inclined to agree with Professor Starling, who said:—

“ You will find many good clinical men say: ‘ If we had two excellently trained scientific men with us in the wards we could do much for the advance of medicine. These men, being trained, would know all the ordinary laboratory methods, and we can suggest themes for them to work on.’ This is not the case. Until a man has actually done research he does not know what will get through the doors of the laboratory. Clinical men will come to laboratory men and will say: ‘ I want you to tell me this or that,’ and they do not understand that the question is not yet answerable. A man must have been brought up in working out problems in order to know what problem is soluble and what is insoluble at the present time, so that you must have a man whose laboratory training is fairly recent if you are going to make him Professor of Medical Research. Well, among the senior men or fairly senior men, I mean men in

¹ *Appx. to 5th Report, Q. 13,957.*

² *Appx. to 5th Report, Dawson, Morris, Wright, Qs. 14,166-70.*

charge of wards or men who will shortly have charge of wards, there are very few in London who are still in touch with or actively engaged in research."¹

Although we cannot accept the scheme proposed by the London Hospital Medical College we are indebted to the statement they submitted for valuable information and suggestions. We agree that to introduce two standards of work into a hospital would be a mistake. We think it may be true that men properly trained for the position of clinical assistants might at first be difficult to find. It will be necessary to go slowly, but we do not think it is impossible to find some men, and probably as many as would at first be required, who are well fitted for the position both of professors and assistants. Further, we are convinced that the present system of making appointments to the hospital staffs is theoretically unsound, and we are glad to have the testimony of one of the largest Medical Schools that this system does not train the most suitable men.

Value of
Proposals of
London
Hospital
Medical
College.

275. The general conclusions at which we arrive on the difficult question of the nature of the education which the University ought to provide in the clinical subjects of the medical curriculum in the general hospital of a University Medical College may now be stated shortly :—

Summary of
conclusions
with regard
to clinical
instruction.

- (1) The standard of the teachers in these subjects ought not to be different from that of University Professors in other subjects, and it is therefore necessary to appoint and pay professors of the various branches of clinical medicine and surgery who will devote the greater part of their time to teaching and research.
- (2) The complex nature of the science of medicine and its dependence for assistance upon other branches of science necessitate co-operation, and the special organisation of a professorial department, in order to enable the professor to carry on research successfully, and also to give scientific instruction in the subject.
- (3) The kind of organisation known as the "hospital unit" appears to us well fitted for attaining this end. It consists of :—a professor with the control of wards ; an out-patient department ; assistants nominated by the professor with a view to complementing his own knowledge and affording him the special assistance he requires to carry on research in the direction in which he is interested ; and, finally, laboratory accommodation in close proximity to the wards, not only for the service of the wards and the examinations and procedures connected with the diagnosis and treatment of the cases, but also for the purposes of research.
- (4) For scientific instruction in medicine the kind of teaching known as the clinical demonstration or lecture appears to us of great value, and we think in some form or other it ought to be systematically given. The time and knowledge required for this kind of teaching cannot be expected from the man in large practice. It needs a man who is devoting his life to the pursuit of science in his subject and who is aided by a competent staff of assistants.
- (5) It is equally necessary for the student in every department of medicine and surgery that he should have free access to patients in the wards and out-patient departments, and learn by personal experience the whole technique of his art. For this purpose we think the English system, under which each student serves for a time as a medical clerk and a surgical dresser under the supervision, direction, and individual instruction of one of the physicians or surgeons of the hospital is admirable, and should be continued. The special merit and value of this system, however, does not lie in the fact that the teachers are, as in London, actively engaged in the practice of their profession. The same teaching could be given by the professor with as good practical results, and certainly with greater educational effect from the point of view of medical science, though we think that it will best be given if the professor is also allowed some opportunity for private practice.
- (6) It will not be financially possible to appoint a sufficient number of professors to enable them to give this clinical instruction to all the students in the small groups into which they are at present divided under the physicians

¹ *Appx. to 5th Report, Q. 14,859.*

and surgeons of the London Medical Schools. Some of this work could be done by the assistants to the professor, and the more senior assistants would probably be exceedingly well qualified for the purpose. Besides, there will be the opportunity in this case of calling in the more experienced assistance and co-operation of members of the profession in active practice, and if this could be done it would be of advantage both to them and to the students.

(2) *Clinical Instruction in Special Hospitals.*

276. There are two subjects in the final part of the medical curriculum involving clinical instruction which cannot be given in the general hospital. These are fevers and insanity.

Fevers. With regard to fevers, the University must make arrangements as the Medical Schools do at present for the required course of two months' instruction to be taken at the fever hospitals of the Metropolitan Asylums' Board.

Insanity. In the case of insanity, the curriculum requires a course of at least eight lectures to be taken, with eight clinical demonstrations at a recognised asylum. At present the London Medical Schools make arrangements for their students to visit recognised asylums in and near London for the purposes of this course of instruction. They are either accompanied by the lecturer on mental diseases attached to the Medical School, or demonstrations are given by the medical superintendent of the asylum, who is then generally appointed lecturer to the Medical School. We think the University ought to appoint a Professor of Mental Diseases, and that there is a great opportunity of developing a department of psychiatry and mental diseases, not only for the instruction of the undergraduate students of the University, but for post-graduate work and for the research so much needed in this field. From the evidence given on behalf of the London County Council, it appears that since the Council became the lunacy authority for the County of London it has recognised the importance of utilising the very large amount of clinical material in the county asylums for the purpose of pathological research into the causes of insanity in London. The Council provided a pathological laboratory at Claybury Asylum, which is under the charge of the chief pathologist of the Council, Dr. Mott; and has given facilities for clinical demonstrations for students of the London Medical Schools in a number of its asylums. Four of the Asylums' Committee's officers are "recognised" teachers of the University of London, and in addition to giving clinical demonstrations to London medical students in the hospitals to which they are attached, they are also lecturers on the subject of mental diseases at several of the London Medical Schools. All the asylums of the London County Council are situated outside the County of London, and Claybury, in Essex, where the pathological laboratory is established, is not very accessible. But Dr. Henry Maudsley has recently given the sum of 30,000*l.* to the London County Council towards the provision of a mental hospital of 100 beds; and a site for the purpose has been purchased at Denmark Hill. In the statement submitted to us by the Council, they say: "In addition to the advantage which it is expected will ensue to the patients who are treated there, it is hoped that the hospital will prove of great value in the dissemination of knowledge of mental diseases and in the provision of systematic instruction in methods of treatment. The proposal includes the provision of a department for pathological research, which it is suggested would be accomplished most economically by the removal of the staff and equipment of the Claybury Laboratory to the new institution. It is hoped that this institution, when in being, will be in close touch with the London University and the Medical Schools." We think the suggestion is most valuable and that the University ought to avail itself of the facilities which the London County Council is prepared to offer, and to endeavour to organise and develop in connexion with the proposed new hospital at Denmark Hill a clinic of mental diseases capable of making full use of the vast resources for teaching and research provided by the asylums which the County Council has to maintain for the 20,000 lunatics under its charge.

Psychiatry. We understand that in the opinion of some authorities on mental diseases lunatic asylums do not supply the kind of cases necessary for the study of some branches of mental disease. The asylums contain for the most part chronic cases, and do not

afford opportunities for the study of the earlier phases of mental disease, and such affections as alcoholism and hysteria, &c., which are of great value in a psychiatric clinic, but are not found in asylums for the insane. It may be that the admission to a hospital for mental diseases, such as that which the County Council is erecting at Denmark Hill, may be limited by the powers of the Council as a lunacy authority, but if so the Council might be willing, if it were thought desirable, to arrange with the University for the erection of additional buildings, with wards suitable for the admission of the kind of cases which are required for the full development of a clinic of psychiatry and mental diseases.

(3) *Medical Science in the Hospital Medical College.*

(a) *Pathology.*

277. Adequate provision both for teaching and research in all branches of pathology must be made in close connexion with every Medical College which the University may establish in London. This is necessary for the immediate assistance of the physicians and surgeons in the scientific treatment of disease and the prosecution of research, and also for the theoretical and practical instruction of the students throughout the later portion of the medical curriculum. On the other hand, the experimental pathologist is dependent for stimulus and suggestion upon constant intercourse with clinical teachers and through them with actual cases of disease.

Pathological department necessary in every Medical College.

The following short account of the main aspects of pathology and its place in the medical curriculum is taken from a communication to the Commission from Dr. James Ritchie, of Edinburgh:—

“There are three main aspects of the subject. *First*, that dealing with the changes in the cellular and gross structure of the body in disease. This is usually described as morbid anatomy and its study enables the student to appreciate many of the changes detectable during life. *Secondly*, that dealing with the sequence of events occurring in disease and with ultimate etiology. With regard to the latter, comparatively little is known except in the case of infectious disease, and thus it is here that bacteriology comes in as an important branch of pathology. *Thirdly*, that dealing with the changes which take place in the functions of the body as the result of disease. The questions involved here are often of a chemical character, and this branch of the subject has largely still to be developed. Pathology as a science advances both by observation and experiment and is in close relationship with physiology.

Main divisions of pathology.

“While this in brief outline describes the relationships of pathology as the scientific basis of both medicine and surgery, the place it is to occupy in the medical curriculum is the practical question. Within the last half century the subject has developed so much as to be now almost entirely in the hands of specialist teachers, who, however, must be in close contact with a hospital service, and especially with the post-mortem department. The subject is usually studied at the time when the student is beginning his clinical work, and the course consists of lectures and of practical work. The former deal with the great general processes, which underlie all disease (this being general pathology), and with the relation of these processes to the occurrence of disease in special organs (special pathology). In both aspects the study of microscopic changes plays an important part in leading up to the interpretation of gross changes which represent these processes taking place in mass. Etiology is also considered, and what is known of perverted function is dealt with. The course usually occupies about six months. The practical work consists largely in the study by the student of microscopic changes (morbid histology); it also includes demonstrations of naked eye changes; it lasts about three months. In addition, a course of three or six months' attendance on the post-mortem service is also required, during which the student becomes familiar with the methods of performing post-mortem examinations and with the appearances of diseased organs. The whole systematic study of pathology is usually got over during the first of the last two practical years of the curriculum. When he is working in the wards the student gains further knowledge in applied pathology by following up cases which have a fatal result to the post-mortem room, and by seeing how pathology can during life elucidate the clinical manifestations of disease. This last is the province of clinical pathology, which includes such matters as the isolation of organisms from patients, the study of alterations

Pathology in medical curriculum.

in the composition of the blood and body fluids, changes in the chemical composition of excretions, the examination of tumours removed surgically, &c.

“With regard to the part which bacteriology plays in the curriculum, practice varies, but all that the ordinary student requires to know can be taught him in connexion with his three months’ course of practical pathology. There is rather a tendency at present to make the practical work on this branch too extended for undergraduates.

“While this is the present position of the subject I think there will in future be a tendency to develop the teaching so that morbid histology, morbid anatomy, and the elements of bacteriology will be taught at the commencement of the clinical years and later, probably in the last year of study, there will be a second course dealing with the effects of disease on bodily function and with other advanced subjects.”

Laboratories.

278. The field of this rapidly advancing science is already too wide for one man to undertake. Laboratories must be provided for the several branches of the subject and placed in charge of men of special scientific training in each branch. Whether the whole pathological department should be under one head or not is a question of organisation which may vary in different Medical Colleges, but it is clear that the whole department should be in close proximity to the hospital. There is no doubt that the students must have practical training in the clinical laboratory, and it appears to be the better opinion that such laboratories for routine work are required close to wards; though some authorities think that all examinations of blood, urine, &c., are better carried out under the immediate direction of the most experienced specialists in the laboratories of the pathological department. However this may be arranged it is important to notice that both the laboratories of the pathological department and the clinical laboratories for the service of the wards are quite distinct from the research laboratories of the clinical professors who would be appointed under the system we recommend. These research laboratories would also most conveniently be situated close to the wards, but their equipment and arrangement would vary with the particular line of work in which each professor was specially interested for the time being. It is here that research would be carried on, by the clinical professor and his assistants, in cardiac physics, neurology, physical therapeutics and X-ray diagnosis, and many other aspects of disease and methods of treatment for the pursuit and development of which little time and opportunity are found under the present organisation of the Medical Schools. Places for the assistants of these professors should also be reserved in one or other of the laboratories of the pathological department, according to the special knowledge and training on account of which they had been selected for their appointments.

(b) *Anatomy, Physiology, and Pharmacology.*

Intermediate
Medical
Studies.

279. It will be convenient at this point to return to the question of the Intermediate Studies of anatomy, physiology, and pharmacology, which we postponed till after the consideration of the question of clinical teaching. The great controversy with regard to these sciences in London has turned on the question of concentration. Both the Gresham Commission and the Statutory Commission of 1898 recommended the concentration in University institutes, not only of the Preliminary Sciences of chemistry, physics, and biology, but also of the Intermediate Sciences of anatomy, physiology, and pharmacology, and even the specially medical sciences of experimental pathology in all its branches, and the science of hygiene and all studies relating to public health. The failure of the attempt to carry out this policy was principally due to accidental and local causes to which it is unnecessary to refer again. But the main reason for concentration was that the study of these sciences was not adequately provided for in the London Medical Schools, and that provision for their efficient teaching in all these Schools could not be made without needless and prohibitive expense. Further, it was felt that the Medical Schools were purely professional in their spirit and ideals, and that science belonged to the University and ought to be taught by university teachers. The question whether it was not equally necessary to raise the study of medical science and the teaching of clinical subjects in the Hospital Schools to the level of university education was not considered, and consequently a false issue was raised. Those who opposed concentration on any other ground than the particular interests of the Medical Schools appeared to be claiming, and generally were claiming, that the sciences should be taught as professional subjects in professional

The question
of concentra-
tion.

schools ; and as against this contention we agree with those who were in favour of concentration. But the question has now been raised of the necessity of university education in the whole range of the medical curriculum ; and we have found that it is possible, and we think very desirable, that the clinical subjects of instruction—which are the most complex and difficult of all because the phenomena to be observed and investigated cannot be isolated from the concrete case of the living patient—should be studied and taught scientifically just as much as the more abstract subjects, which have already been established as separate sciences. But we have also come to the conclusion that, in order to raise the study of clinical medicine to the level of university education, co-operation is necessary between the men who are working at the science of medicine and those who are more especially engaged in the pursuit of the ancillary sciences, and in particular in the several branches of experimental pathology. There is no hard and fast line between these sciences. Their range has been to some extent accidentally determined. They deal with phenomena which are separately considered and systematically worked out largely for the sake of convenience ; therefore they overlap, and pass over into each other, so that it is possible for those engaged in the study of one branch to obtain assistance from those who are working at another, and especially for those who are pursuing the most concrete and complex science of clinical medicine, to obtain assistance and direction from them all. Whenever the matter is looked at from this point of view, it becomes clear that, in so far as concentration means the separation for purposes of teaching and study of the intermediate or final scientific subjects from the scientific study of clinical medicine, it is a mistake. The real end is to raise the teaching and the study of all subjects which bear upon medical science to a university level, and to provide for them in the Faculty of Medicine in as close proximity to each other as possible, so that there may be not only natural and easy communication between the professors of science and those of clinical medicine, but also reciprocal assistance in the investigation of problems which occur to either. The pharmacologist, for example, will constantly be asking questions which can be answered only by observation of the effect of drug action upon patients in the wards ; and, on the other hand, the clinical professors meet with problems which can be solved only by experiments in the laboratories.

There are difficulties of organisation in this case which we cannot solve, because the questions which will arise will depend largely upon the situation of the university hospital or hospitals. We can only deal with the matter generally. If a real Faculty of Medicine is established, and provision is made for university teaching in all subjects of the curriculum, the question of concentration will scarcely arise in the form it did before. All the subjects in the Faculty will form one inter-related group ; but we wish to make it clear that the laboratory accommodation should be so arranged as to enable the teachers of anatomy, physiology, and pharmacology to have intimate relations with the teachers of all branches of pathology, and also with the clinical teachers, and to work together with them for the attainment of ends in the pursuit of which they can assist each other. The departments of anatomy, physiology and pharmacology at University and King's Colleges must, for the time at least, be University Departments of Intermediate Medical Studies.

Intermediate Sciences should be in close connexion with the Medical College.

(4) *Medical Science which may be taught outside the Hospital Medical College.*

(a) *Hygiene or Public Health.*

280. We think it is unnecessary for the University to provide for instruction in the subject of public health at all the Hospital Medical Colleges, as we have recommended in the case of other sciences. This subject is dependent to a great extent upon the results of scientific research in physiology, bacteriology and chemistry, but its own original work consists largely in the application of these results to particular problems. It is an experimental science, but it is not so much concerned with disease in the particular case as with the conditions of healthy life in the individual and the community, and with the causes and prevention of endemic and epidemic disease. It is not very intimately connected with the study of medical science in the hospital, and we think all the university medical students might receive their instruction in the subject wherever it is most convenient to provide for it. King's College has recently taken over the laboratories formerly used by Charing Cross Hospital Medical School, and has thus greatly improved its accommodation for research. We are not prepared to say that the subject of public health is adequately provided for at present, but we think adequate provision may be made by developing

Public health need not be taught in Medical Colleges.

Department at King's College.

what now exists. The department should not be confined to the instruction necessary in the ordinary course of a medical curriculum. Instruction must be provided for the degree of M.D. in State Medicine, and moreover the subject is one in which there is great room for research in many directions. Valuable research work is done at the Lister Institute, and some advanced students of the University might do their research there. But we have explained in paragraph 73 that we do not think anything is to be gained by preserving a purely formal connexion between the University and so independent an institute for research.

(b) *Forensic Medicine.*

Forensic
Medicine
need not be
taught in
Medical
Colleges.

Department
should have
official rela-
tions with
police and
coroners.

281. Forensic Medicine is also a subject which in our opinion need not be taught at every University Medical College; but the provision for the study and teaching of this subject is not properly organised in the University at present. The subject is largely concerned with the relations of medical and scientific knowledge to the discovery of crime and to the evidence required in public inquiries into the cause of death. We are not prepared to make specific recommendations, but, speaking generally, we think it is clear that if the available materials for study, investigation, and instruction are to be made use of, the professor of forensic medicine and his department must be brought into official relations with the police and with the coroners' courts, and for this purpose the University should endeavour to make arrangements with the Home Office and the County Council.

THE ORGANISATION OF THE FACULTY OF MEDICINE.

Obstacles to
reorganisa-
tion of
Medical
Faculty.

282. When we turn to the question of how a University Faculty of Medicine is to be organised in accordance with the educational principles which appear to us right, and which we accept for other Faculties, we find that the existing Medical Schools in London, and the system of making appointments to the staffs of the hospitals to which they are attached, are the greatest obstacles we have to encounter. The difficulty is quite different from that which arises from the existence of competing institutions in other Faculties. We have seen in the case of other Faculties that it is impossible to organise university education on a sound basis as long as the University consists of independent and competing institutions connected only by the external bond of a common examination. But in these Faculties competition is largely a question of finance, and when finance takes the form of assistance and support from a central authority the main reason for competition disappears. In educational matters the separate institutions have no interest in objecting to university control, because, so long as the teachers admitted to the Faculty are of university standard, the Faculty itself can be given practically complete control; and as all members of a homogeneous Faculty of university teachers desire a full measure of individual freedom in their teaching, no one is afraid that the Faculty as a body will do anything to interfere with this.

Reasons for
competition
between
Medical
Schools.

283. But with the competing Medical Schools the case is different. The staffs of the Hospital Schools consist of men of high principle, who conscientiously endeavour to make the instruction and training of the students as good as they possibly can; but we must point out that the existence of so large a number of competing Medical Schools as there are in London is not called for by the educational needs of medical students. It arises from the desire to maintain the status and efficiency of the respective hospitals to which the Medical Schools are attached, and, incidentally at any rate, to promote the professional advancement of medical teachers. As regards the actual education, the very keen competition for students between the Medical Schools is in itself a guarantee that the Schools will provide the most careful preparation for the several examinations for which the students desire to enter. But so far as the pure sciences are concerned, many of the clinical teachers appear to be mainly interested in the exigencies of the examination. For the most part they take the view that, so far as the examinations allow, the fundamental sciences which form the basis of medical education ought to be studied with special reference to their applications to medicine, which is rather the view of a technical school than that of the technological faculty of a university. The professional instruction cannot,

from a scientific point of view, rise above the level of the previous training of the students ; and even if the knowledge and training of the students were all they should be, the teaching is based upon the practical experience of teachers largely occupied with professional work, and is likely as a rule to be lacking in the scientific quality which characterises the instruction of men whose main occupation in life is the pursuit of knowledge for its own sake. We find physicians and surgeons, of the highest position and attainments, keen and insistent on the maintenance of Schools which involve a severe tax on their time and energies, which afford them little or no direct remuneration, and which are certainly more numerous than is necessary for the education of the students, as is evident from the severe competition between them. One reason for this apparently is that a position on the staff of a hospital to which a Medical School is attached is necessary, or at least in a high degree conducive, to the professional success which is the legitimate and honourable aim of all competent and active members of a profession. In the passage we have quoted from Professor Starling's memorandum (*see* paragraph 231), he says that the members of the hospital staff gain the basis of their consulting practice from their former students ; and this has been pointed out by many other witnesses, though some have said that it is by no means so much the case as it formerly was, and that the public now form their own opinion and go direct to the men of their choice. But, at any rate, it is admitted that a status is acquired which cannot easily be got in any other way.

284. It is certain that a doctor in general practice in London usually, and most naturally, desires the assistance when necessary of the men of his own School, who have been his own teachers. He knows them and believes in them ; it is pleasant for him to meet them in this new relation, and he appreciates the power of patronage. But even where patients go to a man direct, the reputation and status which attract them is largely due to his position on the staff of a great hospital. It is not disputed that most of the highly successful physicians and surgeons in London are members of the staff of one or other of the hospitals to which Medical Schools are attached. And here there is a danger of the fallacy of reasoning in a circle, for on the one hand the high public reputation of certain physicians and surgeons is based upon the fact of the positions they hold in the Medical Schools, while on the other hand the Medical Schools and their education are defended on the ground of the high public reputation of these physicians and surgeons. They are described as the most eminent men in the profession. Of course, as we have already pointed out, when it is said that a man is the most eminent in his own line of work, this may mean that he gets the work to do, and by doing it has gained the experience which qualifies him to do it better than anyone else. No doubt the performance of hospital work and the teaching of students are of great advantage to the teachers. They gain experience, and their teaching is a continuous education. But this is not generally all that is meant. We think it is generally assumed that a man would never have got his appointment on the staff of a great hospital unless he was selected for the position as the best possible man available. But before we can accept this assumption we must ask how these posts are attained.

Professional advantages of position on staff.

285. Under the present system the men who ultimately come on the staff of the hospital are men who can afford to wait, or at least who manage in one way or another to do so. They are first students of that Hospital School, then they hold appointments as house physicians and surgeons, registrars, tutors, demonstrators, and other minor appointments in the hospital or School. Finally, they come on to the staff as assistant physicians or surgeons, a position which they usually hold for many years before they get wards in the hospital. One physician told us that he had been fortunate enough to get wards after waiting 12 years from the time he came on the staff as an assistant physician, and he mentioned another physician in the same hospital who had waited 22 years before he got wards. The first condition of ultimately getting on to the staff of a hospital at present is that a man is able to wait. There is, however, no guarantee that while he is waiting he is fitting himself better to hold a staff appointment when he gets it. He cannot go into general practice ; in London that would stop his chances for ever. He must from the first be a consulting physician or surgeon ; but that is only a professional status which determines the kind of practice he may undertake and the fees he must charge. Most of these men get very little practice, and therefore little experience in that way. They take any minor appointments they can get in a hospital, and the work they have to do must often consist in tutorial drilling of students preparing for examinations. They may continue their

Only those who can afford to wait get on the staff.

reading, and do research work as far as opportunity allows; but the opportunities are slender. If they go abroad to study for any length of time in foreign Schools, they may drop out of the running; and consequently they are very apt for a period, perhaps extending to many years, to become mere waiters or hangers-on. In selecting a man for a junior staff appointment a hospital has, as a rule, no inducement to go outside the men of its own School, because there is nothing specially distinctive about the men of other Schools who are waiting for appointments. This is the system which the London Hospital Medical College said was not training the most suitable men for the hospital staffs, and we agree the defect is a grave one under which the English system may well break down. It is not suggested that appointments are universally made or secured in this way, but that instances to the contrary are exceptional. We hope there would not be serious opposition to a change that would provide for the best of the younger men paid posts, in which their years of waiting and drudgery would be turned into years of activity and scientific training. Such a change would probably be welcomed, and, of course, it would raise the standard of candidates for hospital appointments to a higher level. Even in the case of Medical Schools constituted and governed as at present, it might break down the close system of appointments and throw them open to the best men, as several witnesses have suggested.

Appoint-
ment of
clinical pro-
fessors and
vested
interests.

286. But the appointment of University Professors of clinical medicine and surgery is a different matter, and from the point of view of the medical profession at present, is obviously open to objections. In the first place any change which might tend either to a reduction in the number of Medical Schools or to restriction in the number of appointments open to the profession generally would undoubtedly be regarded as a serious interference with professional interests, calculated to block the way which at present leads to professional success. And, secondly, the physicians and surgeons who at present enjoy the highest positions in the medical profession may not unreasonably regard with distrust the creation of a class which might come to have a higher status than their own. Even if the professors did not compete with them for practice they might injure their prestige and lower their reputation.

We cannot foresee what changes would ultimately take place in the relative position of members of the medical profession from the organisation of medical education on a university basis. Such changes would in any case come gradually and would be accompanied by a change of attitude towards medical science. It is likely that from an altered point of view objections would disappear which to those who have been brought up under the present system now seem insuperable.

Effect of
appointing
assistants.

287. The effect of the creation of regular assistants, appointed for a term of years, would give rise to a class of younger men more thoroughly imbued with scientific ideals than the present system produces, familiar with a new organisation of the Hospital College, and recruited from the very men who now wait through weary years for a hospital appointment. Their attitude towards the regular professors would naturally be free from the jealousy and distrust which might be felt by the older men at first. After serving as assistants they might pass out into the practice of their profession with an already established reputation. Many of them would return and would accept with alacrity a position in the hospitals which the present physicians and surgeons might consider derogatory to their dignity. They would not require that a hospital should be rigidly divided into watertight compartments, or be satisfied with nothing short of the absolute control of wards. They would prefer to come again into the scientific atmosphere of a Medical College in which collaboration and united effort for the attainment of ends pursued in common were the rule, and in which they could still play their part. It is of course desirable that ample opportunities should exist for men in active practice to have hospital work to do, and students to teach; we cannot doubt that although the system would gradually change from what it is at present, there would be greater and more varied opportunities for this, both in the general Hospital Colleges and in the special clinics which we hope would ultimately be established by the University of London.

Associate
Professors.

288. We have referred more than once to the possibility of retaining the services of men in active practice, and the part they might take in the University Medical Colleges. We must now explain more fully what we have in view. In the first place, it is necessary to provide clinical teachers in sufficient numbers to enable the students to receive individual attention and instruction and to serve their time as clerks and dressers. As long as it is so arranged that the student himself does

his part and obtains this experience and clinical training, the more scientific the instruction can be made the better. As we have already explained, we do not here give up the ideal. We think, if all this instruction could be undertaken by men working under the conditions approved for University Professors, it would be better done from the point of view of university education. But it is not financially possible to provide a sufficient number of University Professors for this purpose, and there will be an increasing number of men as time goes on, who will have had a prolonged scientific training as clinical assistants. Some of these men will be on the outlook for the position of professors either in London or elsewhere; others will devote themselves more actively to private practice; but in either case they will probably desire to have hospital work and teaching to do, and the University will gain by their assistance. In the second place, pending the establishment of clinics for the eye, the skin, the throat nose and ear, diseases of children, and other special subjects, provision will have to be made for instruction in them all in the departments of medicine and surgery, either in the hospital or in the out-patient department. These departments will probably be more and more exclusively in the hands of specialists. But there will be room here for outside men in practice, who are specialists in these subjects, to come in as visiting members of the staff. We recommend that in both cases such teachers should have the status and title of Associate Professor. Other visiting members of the staff might hold subordinate teaching posts. Whether Associate Professors, or other visiting members of the staff, should be paid; whether they should be provided with assistants; and what their position and duties in the hospital should be; are matters which the University, acting through the Faculty, can best decide for itself. The one thing to be kept in view when the hospitals finally come under entire university control should be to promote the study of medical science in the closest connexion with the scientific and practical instruction of the student. In a Medical College, organised on university lines, the professors would necessarily have a general control over the whole organisation of their departments throughout the hospital; but we do not think this is inconsistent with freedom of teaching on the part of Associate Professors and others, any more than in other departments of the University. Moreover, their position on the staff of the hospital would secure them such independence in the treatment of patients and the management of their wards as the regulations of the governing body might provide. But so much importance and prominence would be given to the pursuit of medical science that all work and instruction in the School would be governed and directed by the scientific spirit, and visiting members of the staff would inevitably come into this life and share this spirit, and their work and teaching would be guided and inspired by university ideals.

289. We must now apply to the Faculty of Medicine the conclusions we have arrived at, both generally with regard to the University as a whole, and specially with regard to the difficult question of the clinical subjects of the medical curriculum. We may first point out what our recommendations would necessarily be with regard to the Faculty of Medicine if we had not felt obliged to raise any question with regard to the clinical instruction or the conditions which ought to apply to the appointment of the clinical teachers. We have adopted as a principle which we think necessary and fundamental that all institutions which are to form Constituent Colleges or University Departments must concede to the University practical control, both financial and educational. We think it is hopeless to attempt to organise a University of London which will have any real unity, and in which it will be possible to confer upon the teachers the degree of educational control which we think is alone consistent with academic freedom, so long as the University is made up of independent and competing institutions held together only by the artificial and external bond of common examinations. If there is to be one University, all institutions belonging to it must for practical purposes be incorporated in it. They must themselves constitute and be the University. The only difference we can admit in the case of the Medical Faculty is that, as a large part of the work must be carried on in close connexion with hospitals in which the duties of the staff extend far beyond their educational functions, it will be the Medical Schools and not the hospitals which must be incorporated in the University, and arrangements will have to be made between the University and the governing bodies of the hospitals with respect to the use of the hospitals for the purposes of medical education and research. This will of course involve an arrangement, the terms of which we suggest later, with regard to the appointment of those teachers in the Medical Schools who from the nature of their work must also be members of the staff of the hospital.

Application of general principles to Faculty of Medicine.

Financial and educational control.

The University and the governing bodies of hospitals.

This is a matter which is independent of the conclusions we have arrived at with regard to the appointment of professors of clinical medicine and surgery. It is in accordance with principles we regard as essential, and applicable to all Faculties, that we should insist on the necessity of those Schools which are to be Constituent Colleges of the University, and whose teachers are to constitute the Medical Faculty of the University, really and in fact coming into the University, both financially and educationally. Subject to the arrangement we have referred to, the appointment of their teachers, and the direction and control of the education they provide, must be the appointment and control of the University.

Degrees open to Medical Schools.

Medical Schools which do not become University Colleges may still be Schools of University.

University must have control of its own Colleges.

Medical Schools cannot all become University Colleges.

Room for development of medical education.

290. We desire to avoid, as far as possible, any unnecessary recommendations which would deprive anyone of rights or privileges which they enjoy at present, and therefore we do not recommend that the power of conferring the degree should be used as a means of coercion. In this Faculty, as in others, while Constituent Colleges or University Departments would have the control we have recommended in paragraphs 125-128 over the university examinations of the students, institutions which refuse, or cannot qualify themselves, to accept these conditions would still be allowed to present their students for general examinations for degrees, provided they comply with the conditions laid down for the recognition of Schools of the University (*see* paragraphs 378-381), and their teachers would be members of a Board of Medical Studies (with power to appoint Committees) which would advise the Senate through the Faculties on the syllabuses and courses of study for the general examinations (*see* paragraph 385); but the institutions themselves cannot be included as Constituent Colleges or Departments of the University into which they do not come, and their teachers cannot constitute the Faculty of the University which, so far as is consistent with the academic interests of the University as a whole, will have the direction and control of the medical education provided by the University. The question whether an institution does or does not form an integral part of the University, one with it in interest, in spirit, in educational standard and aims and ideals, is a question of fact, and there is no room for compromise. The financial and educational control, direction, and administration must belong to the University, otherwise it is impossible to establish within it the academic freedom and autonomy which we are convinced are essential to its existence and development.

291. The difficulty about the Medical Schools is that if they were all to agree to come into the University in the sense we have described it would probably be found impossible, even on their present financial basis, to continue them all as institutions for the instruction of undergraduate students. The great defect of the present system in London is that it dissipates its strength upon unnecessary multiplication of undergraduate teaching on identical lines, without providing opportunity for intensive study of particular subjects; while resources unrivalled in variety and extent are either neglected altogether or are largely wasted for want of time and training on the part of those through whose hands the materials pass. In a great University Faculty of Medicine, developed in an indefinite number of directions, there would not only be a large increase of post-graduate work and research, but there ought to be a much wider range of undergraduate study than there is at present. This does not mean that undergraduate work would be separated from more advanced work by any hard and fast line. We think more freedom for the student is desirable than the English system provides. If his general education is good, and his scientific training is what we hope to see, he ought not to be treated as under authority through his whole course to the same extent as at present. The matter is not free from difficulty and even danger. Regulations of the University would be necessary, but in proper cases, the student ought to be able to arrest almost at any stage the general course of his necessary medical training, in order to pursue further than is required of him any subject which fascinates his attention and appeals to his mind. There is no difficulty for such a man in returning to his regular course and completing it with increased power, greater self-confidence, and more of the initiative which should come from the side of the learner. There would be some risk of the unstable and the incompetent going astray, but there are methods of guidance by counsel and criticism well known to the teacher, and very freely exercised by fellow students, which should restrain him. In any case, we think it is a risk which must be run in the interests of the competent men of original mind. The university student is not a school-boy, and the best results for the best men should not be made difficult or impossible.

But although in these and other ways there is ample scope for the development of medical education in London, the fact remains that it would be impossible for the University to absorb and continue the whole of the London Medical Schools to do

their present work. They are kept alive partly by traditional loyalty and partly by the other causes to which we have already referred—the desire to maintain the status and efficiency of the hospitals, the desire to teach and do hospital work, and the professional advantages which usually accompany the holding of hospital appointments.

292. When we take into account the changes which we consider necessary in the organisation of clinical instruction, and the large expenditure of money involved, it becomes more obvious still that it will be impossible for the University to become financially responsible for a larger number of undergraduate Medical Schools than are required for the education of the students who are qualified for university instruction. It must increase gradually the number of the Schools as the demand grows. Without money it will be impossible to do anything; but we must make our recommendations on the assumption that enough money will be forthcoming to allow at least a beginning to be made in the organisation of medical education in clinical subjects under conditions which admit of natural development.

The cost limits the number of Colleges.

293. If a new hospital were to be placed at the service of the University at once, with the laboratories and other accommodation required for a great Medical College, the proper course would be to organise it throughout as a university hospital. But it would obviously be a great pity to set up an opposition to the existing Medical Schools in London—already too numerous—if they or some of them could be gradually transformed, so as to diminish as far as possible the difficulties arising from vested interests to which we have already referred in paragraph 286. The system of organisation we suggest must stand or fall by its merits, and it seems to us remarkable and encouraging that the proposals we have referred to should have received the amount of theoretical support which has been given them by members of the profession connected with the existing Medical Schools. On the whole we think there was more doubt as to the feasibility of change than as to its desirability.

Course to be taken if a new hospital is available.

294. We have stated (*see* paragraph 271) what appears to us the defect of the scheme submitted by Dr. Head, but if that scheme were to be modified it might be accepted as a transitory provision, for which there is a great deal to be said. If the actual professorial instruction were confined for the present to the last year of the students' course, it might be possible to secure by agreement the necessary facilities for the appointment of three clinical professors in an existing Medical School upon terms that would lead to the gradual reorganisation of the hospital to which it is attached. On the basis of Dr. Head's scheme, three professors—one of medicine, one of surgery, and one of obstetrics and gynaecology—would be fully occupied with an annual entry of 75 students, though the number they could deal with, if necessary, might be increased to about 90; and we must consider first what number of beds would have to be set aside for the three professors. They would be practically whole-time men, and they must be given the command of sufficient clinical material to enable them to carry on research, and also to provide for the instruction of their students. Upon no other terms could first-class men be induced to accept the position. In addition to the outpatient department which would form part of each clinical unit, the professor of medicine would require 60 or 70 beds; the professor of surgery would require more—probably at least 90 or 100. The reason for this is that during a large part of the stay of a surgical patient in the hospital he is simply recovering from an operation, and is of comparatively little use for the purpose either of observation or of teaching. On the other hand, a professor of gynaecology might do with a smaller number of beds, say, 30 or 40. It is therefore clear that 200 beds more or less would be required for the professors.

Transitory provision proposed.

Number of professors required.

Number of beds required for professors.

Each professor would be able to give three months' training to a class of at least 25 students every term, so we may proceed upon the basis that 75 students would pass through their hands in the course of a year of three terms. In the case of gynaecology, the classes would have to be smaller for clinical instruction in the ward, but the period of such instruction might be shorter, and an out-patient department would be of special importance.

Number of students the professors could train.

295. We have already emphasised the importance of making such provision as to enable the university students to receive the whole of their medical instruction in the Constituent College. The whole School would be under the financial and educational control of the University from the first, though, in addition to the

Organisation of University Hospital.

professors and their assistants, the existing clinical teachers would be retained for the present, and the hospital as a whole or such part of it as might be required for university purposes would be organised on a university basis throughout when they had retired in the ordinary course. After the transition period was past, and even during the later years of it, some rearrangement of the teaching might very well prove desirable. It would no longer be necessary to restrict the teaching of the professors to the final year of the curriculum, and, on the other hand, special or advanced courses by Associate Professors might be more appropriate to the last year.

University hospital must be large.

296. We are not in a position to determine what the total number of beds in the hospital should be. But it is clear that in addition to the beds set apart for the professors the hospital should contain a sufficient number of beds to provide for the regular clinical instruction of an annual entry of from 75 to 90 students, and also that a certain margin of beds would be of advantage, if not actually necessary, to provide for the study and teaching of some of the special subjects, such as eye, throat nose and ear, skin, &c., although much of the clinical teaching in the special subjects may be given in the out-patient department. In some cases it ought ultimately to be provided in special clinics outside the general hospital of the Medical College. In a great city like London where the wealth of clinical material is almost inexhaustible it should easily be possible to arrange that a university hospital should be of ample size. It is obvious that if a Medical School and hospital were to be transferred to the University under arrangements which allowed a proportion of the staff to continue in their posts with their present responsibilities, the hospital would need to be larger than would be the case if it were possible to reorganise the whole of the instruction under the control of University Professors.

The number of students to be provided for.

297. We must now consider what provision is required for university education in the Faculty of Medicine in London at present. The average annual entry of University of London students in the London Medical Schools for the quinquennial period ending 1909 was 80. This number includes the women students in medicine, for whom university instruction must also be provided. We think it would be very undesirable to separate the London students compulsorily from the Oxford and Cambridge students who come to London for the hospital part of their course. The University of London could not assume the rôle of the present Medical Schools of preparing men indifferently for whatever qualification they may wish to take; but a thorough university training in clinical subjects is not less fitting for Oxford and Cambridge students than for those of the University of London, and if they desire to take it there ought to be room for them. Still, there can be no doubt that the difficulties of the University in organising the Faculty of Medicine are very much increased by this large influx of students from other universities who come only for the final part of their course. The average annual entry of medical students at Oxford and Cambridge for the same quinquennial period was 137. There has been a considerable decrease in the number both of London University and of Oxford and Cambridge medical students in the last two years, but we cannot rely upon this as permanent, and in any case the students who are now in the final part of their medical course are those who entered during the period we have referred to. Assuming then that all the Oxford and Cambridge students come to London for the final part of their course (and as a matter of fact very few go elsewhere), the annual number of students with which we are concerned is about 220. If the Conjoint Board students are included, the total average annual entry to the final part of the course in the London Medical Schools for the same quinquennial period was 388. These students cannot now be brought within the University, but we hope that the establishment of a national system of school examinations such as we have recommended in paragraph 93 will result in the great majority in future being qualified at the end of their school course to enter the University.

Three hospitals required for present students.

298. If we limit ourselves to the present number of university students, and if provision had to be made at once for professorial instruction for an annual entry of 220, it would be necessary to appoint three professors of each of the three main subjects. For this purpose three hospitals with Medical Schools attached, and with the requisite number of beds in each for the clinical instruction of an annual entry of 75 students, would have to come into the scheme. This number of hospitals would, however, probably suffice even if the annual entry were to increase to 270. It is impossible to foretell how many of the present university students would desire at first to enter a Constituent College in Medicine. A good deal would depend upon which

of the London Medical Schools came into the scheme. If those which have the largest number of Oxford and Cambridge students were to stand out, probably they could retain the greater number of these students, at any rate for the present. In any case we do not think it would be necessary to make provision at once for so large a number of students as we have mentioned. The main thing is that whatever steps are taken, they should be taken with foresight, so that the system when once introduced could be developed naturally to its full expansion without waste. It must be remembered that no one would be forced to enter a University Medical College for the sake of getting a degree. The general examinations of the University for the London degree would still be open to the students of the present Medical Schools, if they are willing to comply with the conditions laid down for the recognition of Schools of the University (*see* paragraphs 378–381); and the inducement to enter the University Medical College would be the education only.

299. At a later date, after Medical Colleges of sufficient size and number to provide for all the university medical students in London had been established, there would be no objection to organising a hospital of smaller size as a post-graduate school for the reception, partly of graduates from abroad and the colonies, and partly of students from the other university hospitals who desired to pursue their studies further. But we desire to state explicitly that to begin by establishing a post-graduate hospital without making provision for the ultimate organisation of the whole course of the undergraduates of the University upon a university basis, would be contrary to the fundamental principles which are the basis of all our recommendations.

Post-graduate hospital might be established later.

300. As far as regards clinical subjects, we have proposed for the moment the establishment of professorial chairs only in the three main divisions of medicine, surgery, and gynæcology. Instruction in special departments both of medicine and surgery is of course required. For the present, these subjects would be taught either by the professors of medicine and surgery and their assistants, or by the present teachers; and even after Medical Colleges were entirely under university control they would probably continue to be taught to undergraduates in the same way, the place of the present visiting staff being taken by Associate Professors. In some of these subjects professors might be appointed in these general Medical Colleges; but in a place like London, as the Faculty of Medicine developed and its resources increased, we should expect to see special clinics established for some at least of these subjects. They would be attached to special hospitals set apart for the reception of selected patients, and would provide for the intensive study of special branches of medical science to a far fuller extent than would ever be possible in more general hospitals. There should, we think, be no difficulty in providing for the necessary undergraduate courses in such clinics, although their aim would be to carry the special study of their particular branch of medicine or surgery far beyond the range of what is required in such courses. This is a question for the Faculty; we can deal only with the general educational aspects of medical instruction.

The teaching of special subjects.

301. Although we think all reasonable care should be taken to respect as far as is possible the vested rights of the present staffs of the hospitals, it must be remembered that there are other paramount interests. We are specially concerned with the interests of university education, but the main justification for providing adequately for university education is the public interest, and this is perhaps more apparent in the case of medical education than in any other department of learning. Any reform of medical education which aims at providing fuller opportunity for systematic investigation by the teachers, and more scientific training for the students, has a twofold object in view. On the one hand there is the study of the causes and origins of disease, with as much regard to their prevention and removal as to the cure of individuals who are suffering from the diseases themselves; and on the other hand there is the training of the future medical practitioners of the country to look beyond their immediate work of recognising and treating disease to the social service they are privileged to perform as the instructed guardians of the public health. The London hospitals are public charities. Their primary object was and still is the cure of the sick poor who come there for treatment. But charity does not cease to care for individual suffering because the immediate impulse of pity is merged in the ampler compassion awakened by reflective thought. It is not only right that hospitals founded and supported by charity should be used to the fullest extent for medical education and the advancement of medical science, but there is evidence that the public are practically alive to the fact. The experienced

The public interest paramount to that of existing Medical Schools.

secretary of the London Hospital, Mr. Morris, says, in the statement he submitted to us :—

“I might point out the increasing difficulty of obtaining financial support by appealing simply to the pity of the public; not that the public are less pitiful, but that their interests are divided by the multiplicity of charities, and by the fact that the sick poor now have many sources of help other than the voluntary hospital. But appeals to the public for the Hospital on the grounds of investigation and education are more and more successful.”¹

The hospitals do not belong to the Medical Schools. We have seen how the Schools began in the privileges conferred on the members of the hospital staff of allowing their private pupils to “walk the hospital.” It is true that the benefits conferred on the staff have long ceased to be of this one-sided nature, and it may be assumed that the balance is even, and the services rendered to the hospital equivalent to the benefits conferred on the staff and the School. We may go further and say that many individual members of the staff have shown a personal devotion to the interests and welfare of the hospital with which they were connected which has turned the balance of obligation largely in their favour. But if hospitals are required for a University Faculty of Medicine in London, which has no end in view but medical education and the advancement of medical science, the public interest must be considered, and the question of the privilege of access to the great London hospitals cannot be treated as a matter of private right, or decided as if they were the private property of the existing Medical Schools.

The
arrange-
ments to be
made.

302. We think the proper course for the University, or for those acting on its behalf, would be to endeavour, in the first instance, to enter into an agreement with the executive authority of one or more of the London hospitals with regard to the future of the Hospital Medical School. The hospital authority would of course act in the matter, as far as it thought right, in conjunction with the existing Medical School.

What the
University
should
propose.

The University would propose to appoint three professors—one of medicine, one of surgery, and one of gynaecology—in connexion with the hospital; and to pay them and their assistants, provided they were appointed to the staff of the hospital and an adequate number of beds assigned them. This would have to be arranged either by the retirement of some members of the existing staff, or by the transfer of beds from them all, or, in all probability, by a combination of both methods. It would certainly make things easier if the senior physician and surgeon on the staff, whose terms of office would, in any event, be near completion, were to retire. For the present no other change would be necessary in the existing staff of the hospital. The professors would confine their instruction during the period of transition to the final year of the curriculum, and the present physicians and surgeons of the hospital would continue their teaching as before, and would be members of the Faculty of Medicine of the University. It is, of course, necessary that the University, together with the governing body of the hospital, should have a free hand in selecting and appointing the professors, but it is by no means impossible that in some cases the best man for the post would be found on the existing staff of the hospital, and would be willing to accept the appointment. It must be borne in mind that one important reason for proceeding slowly is that there would be a difficulty in finding at present any large number of men fitted for the position of clinical professors, and willing to accept the chairs.

Future
appoint-
ments.

303. But the arrangement with the hospital would provide for future appointments to the staff of the hospital, and for the management of the Medical School. We think a proper arrangement would be that in the case of all future appointments to the staff of the hospital the appointment to the staff should be made by the governing body of the hospital, and the appointment to the teaching post should be made by the University, both bodies being advised by a joint committee consisting of representatives of each. As vacancies occurred on the staff the whole question of the new appointments would be considered. The object would be gradually to organise the staff in accordance with the requirements of the new system of organising the Medical College, and at the same time to satisfy the hospital authorities that proper provision was made for the medical treatment and cure of the patients. We think the proper course would be that the joint committee on appointments should in each case make a report to the University, and that after considering their report the University should decide whether any new appointment was necessary, and if so what the position and duties of the person appointed should be. The appointments thus decided on would of course be open to all candidates, and in the case of the higher appointments

¹ *Appx. to 5th Report, § 3, p. 143.*

the joint committee would next proceed to ask for a report from a Board of Advisors constituted in the same manner as the Boards which now advise the University on the appointment of Professors. Having considered the report of the Board of Advisors, the joint committee would finally report to the Senate a name for appointment to the teaching post, and the same name to the governing body of the hospital for appointment to its staff. The possible case of disagreement between the governing body of the hospital and the Senate of the University would have to be provided for by the arrangement under which they agreed to work together. In this way the staff of the hospital and College would gradually be organised and co-ordinated in accordance with university ideals, and the whole course of the students' education from the time they entered the College would be thoroughly scientific in spirit. The complete organisation of the hospital staff on university lines would thus be brought about in a period not exceeding 20 years at the most, and probably in a much shorter time.

304. The agreement with the hospital would further provide that all property and income belonging to the hospital and at present available for the Medical School should be placed under the management of the University, and the University would assume entire responsibility for the financial support of the College. It might also be reasonable for the agreement to contain a provision that in consideration of the accommodation and facilities offered to its students the University should pay an annual sum towards the expense of maintaining the hospital. It would further be agreed that all teachers in the Medical College not on the staff of the hospital should in future be appointed by the University, but the University should be entitled to discontinue the teaching of the Preliminary Sciences in the Medical College. Transfer of property.

A board of teachers should be constituted consisting of the members of the clinical staff of the hospital and the heads of departments in other subjects, and the Medical College would be under the management of a committee consisting of six representatives of the board of teachers and six representatives of the Senate of the University, which would be the delegacy for the College. The Senate would appoint one of its representatives on the committee of management of the Medical College to be a member of the house committee of the hospital, in order to keep each of the committees informed of what the other was doing. Board of teachers.

305. The Faculty of Medicine would consist mainly of the University Professors and other teachers of standing in the University Medical Colleges, which would be Constituent Colleges or University Departments, together with professors of subjects such as public health, forensic medicine, and mental diseases, comprised in the Faculty, but not necessarily taught within the Medical Colleges themselves. It might be desirable in this case, as in the case of the Faculty of Technology, to appoint some eminent members of the medical profession who were not teachers of the University to be members of the Faculty. But this power should, we think, be sparingly exercised, and not so as to take the educational management and direction of the Faculty out of the hands of the teachers of the University. It is not a question of fitness to belong to the Faculty, but simply a question whether a man does in fact belong to it; and it would be quite as reasonable to appoint all the members of the Royal Society to be members of the Faculty of Science as to admit all distinguished members of the medical profession to the Faculty of Medicine. The number and mode of selection of these extra members of the Faculty should be determined from time to time by the Senate. The University might in this Faculty, as in others, confer the title of Associate Professor or Reader on a teacher in one of the General Medical Schools, provided it made the appointment, and that the conditions attached to the post were satisfactory. In that case he would become a member of the Faculty if a Professor, or if a Reader in a subject in which there was no Professor. No doubt the University would also award those titles to existing teachers on whom the present Senate has conferred the title of Professor or Reader. The main consideration is that the University should control and develop its own work, and that, as far as is consistent with the interests and ideals of the University as a whole, the educational management of the Faculty should be in the hands of its own teachers. Constitution of the Faculty of Medicine.

THE COST OF REORGANISING MEDICAL EDUCATION.

306. Some evidence was given before us with regard to the cost of reorganising medical education on the lines of the "hospital unit," but we have not gone into the matter in sufficient detail to enable us to arrive at more than very general conclusions. Estimates of cost.

Sir William Osler estimated the cost of each hospital unit for salaries and laboratory expenses at 4,000*l.* a year. It is not clear how this sum would be applied, but he mentions 1,000*l.* as the salary of a professor and 200*l.* as the salary of the senior assistant, and as other salaries would be in proportion it appears that a considerable part of the 4,000*l.* is estimated as necessary for laboratory expenses.¹

Professor Cushny also referred to this matter and made an estimate of the cost of a University Medical College capable of handling an entry of 100 students each year. This entry, which he assumed gave a total number of 500 students in the College at the same time, was, he considered, as large as any such College could handle. Indeed he thought it would be found that the maximum number should not exceed an entry of 70 to 80, which would give from 350 to 400 students on the basis of a five years' course. He accepted Sir William Osler's suggestion of 4,000*l.* per annum as the necessary cost of a medical unit, and assumed that the two other large clinical subjects of surgery and gynæcology would cost the same amount. He therefore estimated the cost of the clinical subjects in a University Medical College at 12,000*l.* a year. He then estimated the cost of the earlier subjects, anatomy, physiology, pharmacology and pathology, as probably about the same. The preliminary subjects, he said, would be taught in the Faculty of Science, and therefore would not be wholly debited against the medical account, but might cost it 5,000*l.* The total cost of a College for an annual entry of 100 students would therefore be 29,000*l.*, or, say, 30,000*l.* In this case, however, the fees of the students must be taken into account, and Professor Cushny estimated that the fees would average 30*l.*, and that therefore the annual income of a College of 500 students would be 15,000*l.* or just over 50 per cent. of the cost. The witness further estimated that at present at least two and probably three Colleges would be required, and that consequently the additional cost of reorganising medical education upon a university basis would be approximately 45,000*l.*,² or, if we deduct the cost of the Preliminary Sciences, 30,000*l.*

Dr. Herringham also estimated the total cost of a hospital unit at 4,000*l.* per annum.³

Dr. Head estimated the cost of his scheme at 3,000*l.* for a medical or surgical unit, and 2,500*l.* as the cost of a gynæcological unit. He gave each professor a salary of 1,500*l.* a year, the assistants 500*l.*, 300*l.*, and 200*l.* in the medical and surgical units, 500*l.* between two assistants in the gynæcological unit, and in the case of each unit 500*l.* for laboratory expenses. On this footing a hospital with three units would cost 8,500*l.* a year.⁴

General conclusion as to cost of Medical College.

307. In estimating the cost of a Medical College, we have had to consider a number of questions which cannot be determined with exactness. Such questions, for example, as the fees that can properly be charged in the case of London, and Oxford and Cambridge students respectively; the probable proportion of London to Oxford and Cambridge students, and the average length of time both classes of students will stay in the Medical College; the probable amount of Board of Education grants. The general conclusion we have arrived at is that without any allowance for the reorganisation of clinical teaching and the expenses of clinical laboratories, and even if relieved of the cost of teaching the Preliminary Sciences, a Medical College would require its whole income from fees and grants to meet the cost of administration and the organisation upon a university basis of instruction and research in the Intermediate Sciences with the addition of pathology.

Oxford and Cambridge students increase the cost.

308. Of course, we have made this calculation only for the sake of convenience. The whole of the fees are not attributable to the cost of the Intermediate Sciences, and indeed they become the most costly part of the College, because, if London University students are to be mixed with Oxford and Cambridge students in the Colleges, the result is that while the clinical school is run upon a full load, the medical sciences are provided for a much smaller number of students than could be instructed by the necessary staff. This may lead to a reconsideration of the question of the necessity for providing for these subjects in each of the Medical Colleges. But we think that if it can be arranged it is desirable that the professors of clinical subjects should be in close contact with the professors of the medical sciences.

309. Assuming that our general conclusion is correct, we have only to consider what additional annual income is required by a Medical College in order to provide

¹ *Appx. to 3rd Report*, Qs. 11,602-3.

³ *Appx. to 5th Report*, Q. 12,705-17.

² *Appx. to 5th Report*, Statement, § 4, p. 211.

⁴ *Appx. to 5th Report*, Q. 14,778.

for the cost of three clinical units. According to Sir William Osler's estimate this would be 12,000*l.*, and according to Dr. Head's estimate, 8,500*l.* We think it would not be safe to assume that the University would have to provide less than 12,000*l.* a year towards the cost of each Medical College, or 36,000*l.* a year for the three Colleges which would be required if all the London University and Oxford and Cambridge students had to be provided for. It would not be possible to obtain the services of men of sufficient eminence for the position of Professors in this Faculty for less than 1,000*l.*, and the minimum salary for a Reader should be 300*l.*

310. We have attempted in the foregoing paragraphs to outline the organisation of medical education which must be adopted if the educational principles are observed which are essential to university work of the highest kind. No reform which omitted the conditions necessary for the ultimate establishment of one or more Constituent Colleges in medicine would solve the problem with which we are faced. At the same time we realise to the full the many practical difficulties involved in making even a beginning of re-organisation, and the exact method or line of advance may prove to be different in detail from that suggested here. But, as we have already said, institutions cannot be included as Constituent Colleges of a university into which they do not come, and it follows from this that their teachers cannot constitute the Faculty of a university, for a Faculty, as we understand it, is a body of teachers appointed by a university, and having the direction and control of the education and examinations which the university provides. Until this state of things is reached in medicine there can be no Faculty of Medicine in London, and the only real improvement that can be looked for is a gradual increase in the number of students taking the present general examinations and degrees of the University after the school examinations so often referred to in our Report have come into existence.

EXAMINATIONS.

311. In the Faculty of Medicine, as in other Faculties, the aim of the University as far as regards its students is education. Examinations are a subsidiary function which can never take the place of education, and may very easily injure it. We think that in the University Medical Colleges, as in other Constituent Colleges or University Departments, the examination of the students should follow the teaching, and with this end in view, should be conducted by the teachers, that is to say, by the head of each department, and, under his direction, by other teachers in the department, subject to the supervision of two Assessors appointed by the Faculty and associated with the teachers in the examination. We think it of the greatest importance in medicine as in technology that the record of the student throughout his course should be one of the chief factors in determining his graduation, and provided a true Faculty of Medicine is established we see no difficulty in arranging for this. The Faculty would prescribe in general terms the standard of knowledge required, but the professors would interpret for themselves the general regulations of the Faculty with regard to their own branches of study, and lay down the courses of study to be followed in their departments. It is necessary, however, that the course of study for a medical qualification should cover such a range of professional knowledge as will be a guarantee to the public that the man who is legally qualified is actually fit to practise medicine. In the professional subjects of medicine, surgery and obstetrics and gynaecology, it is therefore practically certain that the Faculty will always prescribe a range of study for the university degree, which, of course, may go further than what is required for qualification, but will in any case be sufficiently wide to cover that field. The examination of university students should in this Faculty as in others be conducted by their teachers, with the assistance of Assessors. The protection of the public is provided for, as in the case of all qualifying examinations in medicine, by the inspection of the General Medical Council.

Examinations to be conducted as in other Faculties.

THE QUESTION OF A SINGLE PORTAL.

312. In this connexion we may refer to a matter which has been brought before us in the course of the evidence, but which appears to us to go beyond the terms of our reference, namely, the proposals made by the Presidents of the Royal Colleges of Physicians and of Surgeons and Mr. Hallett, the Secretary of the Conjoint Board, for the purpose of establishing a single portal to the profession in England.¹ The witnesses spoke in their private capacity and not as representing the Royal Colleges.

A single final examination for qualification.

¹ *Appx. to 3rd Report, p. 289.*

Sir William Osler estimated the cost of each hospital unit for salaries and laboratory expenses at 4,000*l.* a year. It is not clear how this sum would be applied, but he mentions 1,000*l.* as the salary of a professor and 200*l.* as the salary of the senior assistant, and as other salaries would be in proportion it appears that a considerable part of the 4,000*l.* is estimated as necessary for laboratory expenses.¹

Professor Cushny also referred to this matter and made an estimate of the cost of a University Medical College capable of handling an entry of 100 students each year. This entry, which he assumed gave a total number of 500 students in the College at the same time, was, he considered, as large as any such College could handle. Indeed he thought it would be found that the maximum number should not exceed an entry of 70 to 80, which would give from 350 to 400 students on the basis of a five years' course. He accepted Sir William Osler's suggestion of 4,000*l.* per annum as the necessary cost of a medical unit, and assumed that the two other large clinical subjects of surgery and gynæcology would cost the same amount. He therefore estimated the cost of the clinical subjects in a University Medical College at 12,000*l.* a year. He then estimated the cost of the earlier subjects, anatomy, physiology, pharmacology and pathology, as probably about the same. The preliminary subjects, he said, would be taught in the Faculty of Science, and therefore would not be wholly debited against the medical account, but might cost it 5,000*l.* The total cost of a College for an annual entry of 100 students would therefore be 29,000*l.*, or, say, 30,000*l.* In this case, however, the fees of the students must be taken into account, and Professor Cushny estimated that the fees would average 30*l.*, and that therefore the annual income of a College of 500 students would be 15,000*l.* or just over 50 per cent. of the cost. The witness further estimated that at present at least two and probably three Colleges would be required, and that consequently the additional cost of reorganising medical education upon a university basis would be approximately 45,000*l.*,² or, if we deduct the cost of the Preliminary Sciences, 30,000*l.*

Dr. Herringham also estimated the total cost of a hospital unit at 4,000*l.* per annum.³

Dr. Head estimated the cost of his scheme at 3,000*l.* for a medical or surgical unit, and 2,500*l.* as the cost of a gynæcological unit. He gave each professor a salary of 1,500*l.* a year, the assistants 500*l.*, 300*l.*, and 200*l.* in the medical and surgical units, 500*l.* between two assistants in the gynæcological unit, and in the case of each unit 500*l.* for laboratory expenses. On this footing a hospital with three units would cost 8,500*l.* a year.⁴

General conclusion as to cost of Medical College.

307. In estimating the cost of a Medical College, we have had to consider a number of questions which cannot be determined with exactness. Such questions, for example, as the fees that can properly be charged in the case of London, and Oxford and Cambridge students respectively; the probable proportion of London to Oxford and Cambridge students, and the average length of time both classes of students will stay in the Medical College; the probable amount of Board of Education grants. The general conclusion we have arrived at is that without any allowance for the reorganisation of clinical teaching and the expenses of clinical laboratories, and even if relieved of the cost of teaching the Preliminary Sciences, a Medical College would require its whole income from fees and grants to meet the cost of administration and the organisation upon a university basis of instruction and research in the Intermediate Sciences with the addition of pathology.

Oxford and Cambridge students increase the cost.

308. Of course, we have made this calculation only for the sake of convenience. The whole of the fees are not attributable to the cost of the Intermediate Sciences, and indeed they become the most costly part of the College, because, if London University students are to be mixed with Oxford and Cambridge students in the Colleges, the result is that while the clinical school is run upon a full load, the medical sciences are provided for a much smaller number of students than could be instructed by the necessary staff. This may lead to a reconsideration of the question of the necessity for providing for these subjects in each of the Medical Colleges. But we think that if it can be arranged it is desirable that the professors of clinical subjects should be in close contact with the professors of the medical sciences.

309. Assuming that our general conclusion is correct, we have only to consider what additional annual income is required by a Medical College in order to provide

¹ *Appx. to 3rd Report, Qs. 11,602-3.*

³ *Appx. to 5th Report, Q. 12,705-17.*

² *Appx. to 5th Report, Statement, § 4, p. 211.*

⁴ *Appx. to 5th Report, Q. 14,778.*

for the cost of three clinical units. According to Sir William Osler's estimate this would be 12,000*l.*, and according to Dr. Head's estimate, 8,500*l.* We think it would not be safe to assume that the University would have to provide less than 12,000*l.* a year towards the cost of each Medical College, or 36,000*l.* a year for the three Colleges which would be required if all the London University and Oxford and Cambridge students had to be provided for. It would not be possible to obtain the services of men of sufficient eminence for the position of Professors in this Faculty for less than 1,000*l.*, and the minimum salary for a Reader should be 300*l.*

310. We have attempted in the foregoing paragraphs to outline the organisation of medical education which must be adopted if the educational principles are observed which are essential to university work of the highest kind. No reform which omitted the conditions necessary for the ultimate establishment of one or more Constituent Colleges in medicine would solve the problem with which we are faced. At the same time we realise to the full the many practical difficulties involved in making even a beginning of re-organisation, and the exact method or line of advance may prove to be different in detail from that suggested here. But, as we have already said, institutions cannot be included as Constituent Colleges of a university into which they do not come, and it follows from this that their teachers cannot constitute the Faculty of a university, for a Faculty, as we understand it, is a body of teachers appointed by a university, and having the direction and control of the education and examinations which the university provides. Until this state of things is reached in medicine there can be no Faculty of Medicine in London, and the only real improvement that can be looked for is a gradual increase in the number of students taking the present general examinations and degrees of the University after the school examinations so often referred to in our Report have come into existence.

EXAMINATIONS.

311. In the Faculty of Medicine, as in other Faculties, the aim of the University as far as regards its students is education. Examinations are a subsidiary function which can never take the place of education, and may very easily injure it. We think that in the University Medical Colleges, as in other Constituent Colleges or University Departments, the examination of the students should follow the teaching, and with this end in view, should be conducted by the teachers, that is to say, by the head of each department, and, under his direction, by other teachers in the department, subject to the supervision of two Assessors appointed by the Faculty and associated with the teachers in the examination. We think it of the greatest importance in medicine as in technology that the record of the student throughout his course should be one of the chief factors in determining his graduation, and provided a true Faculty of Medicine is established we see no difficulty in arranging for this. The Faculty would prescribe in general terms the standard of knowledge required, but the professors would interpret for themselves the general regulations of the Faculty with regard to their own branches of study, and lay down the courses of study to be followed in their departments. It is necessary, however, that the course of study for a medical qualification should cover such a range of professional knowledge as will be a guarantee to the public that the man who is legally qualified is actually fit to practise medicine. In the professional subjects of medicine, surgery and obstetrics and gynaecology, it is therefore practically certain that the Faculty will always prescribe a range of study for the university degree, which, of course, may go further than what is required for qualification, but will in any case be sufficiently wide to cover that field. The examination of university students should in this Faculty as in others be conducted by their teachers, with the assistance of Assessors. The protection of the public is provided for, as in the case of all qualifying examinations in medicine, by the inspection of the General Medical Council.

Examinations to be conducted as in other Faculties.

THE QUESTION OF A SINGLE PORTAL.

312. In this connexion we may refer to a matter which has been brought before us in the course of the evidence, but which appears to us to go beyond the terms of our reference, namely, the proposals made by the Presidents of the Royal Colleges of Physicians and of Surgeons and Mr. Hallett, the Secretary of the Conjoint Board, for the purpose of establishing a single portal to the profession in England.¹ The witnesses spoke in their private capacity and not as representing the Royal Colleges.

A single final examination for qualification.

¹ *Appx. to 3rd Report, p. 289.*

Description
of scheme.

According to this scheme the single portal by which all would enter the medical profession is the final examination in medicine, surgery, and midwifery, of the Conjoint Board of the Royal Colleges of Physicians and Surgeons.

If a student had passed the earlier examinations in a university, and completed a course of medical study extending to five years, he would be admitted to this final examination, and having passed it would be entitled, upon payment of the fees required by the Royal Colleges, to the diplomas of L.R.C.P., M.R.C.S. His university would require further study, and probably additional subjects, and might require additional examinations, in order to entitle him to the medical degree of the university.

A student who was not a member of any university, but had passed a preliminary examination recognised by the Conjoint Board, and the Preliminary and Intermediate Science examinations of that Board, would obtain the diplomas of the Royal Colleges upon passing his final examination, but could not of course proceed to a university degree.

Under this scheme it is proposed that the universities should either appoint representatives on the Committee of Management of the Conjoint examinations, or appoint assessors to be present during the examination of their own students, or should simply agree to accept in lieu of their own examination in the final professional subjects of medicine, surgery, and midwifery, the examination of the Conjoint Board. The Conjoint Board, on the other hand, would continue to admit to this final examination, not only students who had taken the earlier part of their course in a university, but also students who had passed the preliminary examination accepted by the Conjoint Board, which is of a lower standard than the matriculation of the universities, and had also taken the examinations held or accepted by the Conjoint Board in the Preliminary and Intermediate Sciences. In view of the provisions of section 3 of the Medical Act, 1886, such a scheme would probably require the authority of Parliament.

Object is to
avoid neces-
sity of stu-
dents being
examined
twice.

313. There is no inconvenience to a university in examining its own students in the final subjects of the medical degree, and the main reason given for ceasing to do so, and accepting the Conjoint Board examination instead, is that a large number of the medical students who reach the final examination for the degree of M.B. of the universities in England have already passed the final examination of the Conjoint Board, and it is said to be a hardship that they should be compelled to pass two examinations in the same subjects. About 67 per cent., we were told, of the university students who reach the final examination of the University also take the final of the Conjoint Board. Of the Oxford, Cambridge, and London University students, the percentage who also take the Conjoint final is 82, while of the degree students of the Northern Universities it is not more than 40.

Scheme is
beyond refer-
ence of Com-
mission.

314. The general question of the advisability of a single portal as the entrance to the medical profession is beyond our reference. Without ascertaining the views of all the universities and other licensing authorities whose consent and agreement would be required for the introduction of such a system, we are not in a position to form a considered opinion on the question. To ascertain these views would carry us far beyond the scope of our inquiry. But, having heard the evidence we have referred to, we think it is not beyond our reference to consider whether it might be desirable and feasible for the University of London alone to make an arrangement with the Royal Colleges with regard to the final examination.

Scheme is
of value only
if it raises
professional
education.

The end we have in view is to raise professional education—in this case medical education—as far as possible to a university level; and if the University of London were to join in an arrangement between all the English universities and the Royal Colleges for the conduct of the final examination, it might be possible on the other hand for the Royal Colleges to require that all candidates for their diplomas should take the courses and examinations of the universities in the earlier part of their curriculum.

More impor-
tant to raise
standard of
entrance to
medical
curriculum.

It seems to us that a uniform standard of professional attainment for entrance to the medical profession is less urgently required in England than a higher standard of entrance to the medical curriculum, and a more scientific foundation for the professional studies; and therefore we think the permanently open door of the Conjoint Board to a lower level of general education than the universities require, and an examination in the more purely scientific part of the medical curriculum which tends to hamper the teaching by the requirements of a prescribed syllabus, is a greater dis-service to

medical education than any slight variation of standard in professional attainment which the final examinations of the universities may allow.

The reasons given for the establishment of a single portal do not appear to us very convincing when taken by themselves and apart from any such changes as we have just referred to. First,¹ it is said the number of licensing authorities has been largely increased by the creation of new universities. This would have more weight if there was any real danger of the standard being lowered, but we do not think it is suggested that the General Medical Council fails to perform its inspecting duties efficiently, still less that the qualification granted by any university is at the minimum standard. Secondly, it is said that the government and municipal medical services are increasing the demand for official as compared with private medical practitioners. But what is specially required for a public medical service is the scientific training of a university education, rather than strict uniformity of professional attainment. Thirdly, it is said that the endowment of the medical departments of the universities, and of independent Medical Schools, by the State through the Board of Education, entails a system of government inspection of these departments or Schools, and that from inspection to control, dependent upon results of examinations, with a view to uniformity, is a short step. We are not sure that we understand this argument. The Board of Education grants to Medical Schools are University grants, and it is contrary to the declared policy of the Board to interfere with the educational freedom of the universities. If it were not so, we should be strongly opposed to such a method of subsidising university education.

Reasons for single portal not convincing.

It would not be possible under a separate arrangement between the University of London and the Royal Colleges to insist on the Royal Colleges reciprocating by requiring a university standard of general education, and university courses and examinations for the earlier parts of the curriculum, because if such an arrangement were made with regard to London students, and did not apply to other candidates for the diplomas, all the purely Conjoint men would be driven out of the London Medical Schools: a result which the Royal Colleges would not face, and the University of London would not desire. Moreover, such an agreement might not be possible, as we were told that the Northern Universities had announced their intention of opposing any exclusive agreement between London University and the Royal Colleges.²

Separate arrangements with London would not improve the earlier Conjoint Board examinations.

315. We have given the question our most careful consideration, and we are not prepared to recommend that the University of London should give up examining in the final subjects of medicine, surgery, and midwifery. When great internal educational reforms are being proposed, it is hardly the time for the University to commit itself definitely to any system of examinations beyond its own control. We are satisfied by the evidence we have taken that the examinations of the Conjoint Board are admirably arranged and efficiently conducted. It is claimed as their chief merit that the examiners appointed are teachers, and teachers at their best; that they are chosen from all the London Medical Schools under conditions which ensure that they are men in the middle period of their career whose powers are at their highest.³ This is as it should be, but we cannot tell what the state of things would be if any far-reaching change of the organisation of clinical teaching, such as we have proposed, should be introduced; and in these circumstances we cannot recommend that the University should agree, perhaps irrevocably, to the examination of its students by examiners appointed by an external authority.

The present time not suitable for a change.

THE GRIEVANCE OF THE LONDON MEDICAL STUDENTS.

316. Closely connected with the question of examinations and entrance to the profession is the old-standing grievance of the London medical students that they are unable to get a university degree upon what are called reasonably accessible terms. The grievance existed long before the University of London was reconstituted, and the history of the controversy about it, and of the various efforts to remove it, is fully given in the late Sir William Allchin's "Account of the Reconstruction of the University of London." We need only consider the grievance as it stands now.

Demand for a degree on easier terms.

There can be no doubt that it is often damaging to a man in the practice of the profession of medicine, and also to his social position, if it can be said of him that he

The right to the title of "doctor."

¹ *Appx. to 3rd Report*, Barlow, Butlin, Hallett, Statement, §§ 9-11, p. 290.

² *Appx. to 3rd Report*, Barlow, Butlin, Q. 10,412.

³ *Appx. to 3rd Report*, Barlow, Q. 10,418 and 10,428.

a degree, by far the largest part of dental education in London must remain outside the sphere of university education.

Curriculum
in London
Dental
Schools.

320. The course of education in the London Dental Schools is the curriculum prescribed for the Licentiate in Dental Surgery of the Royal College of Surgeons. The Preliminary Science consists of chemistry and physics only. The professional course extends to four years, of which the first two years are devoted to acquiring a practical familiarity with the details of mechanical dentistry, either by serving an apprenticeship under a qualified dentist, or by working under the direction of the superintendent of the mechanical department of a recognised dental hospital. Great stress is laid on dental mechanism, and students are advised to spend three years on mechanical work if they can spare the time. The First Professional examination consists of two parts—mechanical dentistry, and dental metallurgy, which may be taken together or separately. The last two years are devoted to hospital practice, and are divided between a dental hospital and a Medical School. The medical sciences studied are anatomy and physiology. The anatomy extends over a year, but the practical physiology is cut down to three months. A course of lectures on medicine and a course of lectures on surgery are attended either in a Dental School or a Medical School, and the practice of surgery, and clinical lectures on surgery, are attended for 12 months during the ordinary sessions in a Medical School. The practice of dental surgery is attended for two years in a dental hospital, or in the dental department of a general hospital, and courses are taken in a dental hospital and School in dental anatomy and physiology, dental histology, dental surgery, practical dental surgery, dental bacteriology and materia medica, and practical instruction is given in the administration of such anæsthetics as are in common use in dental surgery. The Second Professional examination consists of :—Part I. general anatomy and physiology, general pathology and surgery. Part II. dental anatomy and physiology, dental pathology and surgery, and practical dental surgery.

Main divi-
sions of den-
tal curricu-
lum.

321. From this account of the dental curriculum it will be seen that the course requires (a) a Dental School attached to a dental hospital, or to the dental department of a general hospital, and providing instruction in dental mechanics and dental metallurgy, and in the special subjects connected with dental surgery; and also (b) a Medical School attached to a general hospital.

The London
Dental
Schools.

There are at present four Dental Schools in London which all prepare students for the diploma in Dental Surgery of the Royal College of Surgeons. Two of these are connected with Medical Schools of the University—Guy's and The London. In these cases there is therefore a Medical School with a general medical hospital; a Dental School and a dental department of the hospital; and thus the whole course for the diploma of the Royal College of Surgeons can be taken at either of these Schools. Then there is the Royal Dental Hospital of London School of Dental Surgery, which has been admitted a School of the University in the Faculty of Medicine (in dentistry only) within the last year, and the National Dental College, both of which are Dental Schools attached to dental hospitals, but have no general Medical School, so that their students have to go to one of the London Medical Schools for part of their course. St. Thomas's and the Westminster Hospitals have dental departments, but they have no Dental School. They can therefore be used by dental students only for the purpose of taking their course of dental hospital practice in these departments.

Connexion
of London
University
with dental
education.

322. The connexion of the University, however, with dental education in London is comparatively slight. There is a Board of Studies in Dentistry, and there are "recognised" teachers in the subjects of dental anatomy and physiology, dental surgery and dental mechanics. There are approved courses in dental surgery for medical students at most of the Medical Schools, but these courses have practically nothing to do with dental education. Further, there are approved courses in all the special subjects of the dental curriculum for the diploma of the Royal College of Surgeons at the four Dental Schools which have just been referred to. Down to 1910 there was no further connexion between the University and dental education, and the instruction courses in dentistry were all marked in the calendar as not related to any degree of the University. They are now marked as post-graduate courses because of the institution of the degree of M.S. in Dental Surgery. But this is a very artificial change, and it seems rather absurd to mark elementary courses in dental mechanics and dental metallurgy as post-graduate, when they are really the instruction given to dental students who rarely take the first degree in Medicine. As yet no one has taken the higher degree of M.S. in Dental Surgery.

323. In 1909 the Board of Studies in Dentistry applied to the Senate, not for the first time, to grant a degree in Dental Surgery. The recommendation of the majority of the Board was that the Senate should institute the degree of M.S. in Dental Surgery, and that is what the Senate resolved to do. A minority of the Board recommended the institution of a first degree in Dental Surgery, which should not require the candidate to have already taken the degree in Medicine and Surgery. This was rejected by the Senate, but we think it is a matter which requires further consideration. We do not think the University was right in instituting the degree of M.S. in Dental Surgery, or at any rate in the conditions it prescribed for this degree. And, further, we are doubtful if the University was right in holding that no degree in Dental Surgery should be given to candidates who had not taken a first degree in Medicine and Surgery.

Applications to Senate for institution of degree in Dentistry.

324. As to the degree of M.S. in Dental Surgery, it seems to us an illusory concession to the demand for a degree in Dentistry. It is not a degree for surgeons because it involves all the elementary training in dental mechanics and prosthetics, which no one but a dentist requires. It is not a degree for dentists, because it involves the whole range of instruction in medicine and surgery which cannot, we believe, be shown to be the necessary scientific foundation for dental surgery. From our point of view it is open to serious objection as a degree for anyone, because it is an examinational test at a stage of knowledge at which advanced study, evidenced by record and original work, ought to be the criterion of special proficiency. Moreover, it is a doubtful precedent for the University to adopt, which may tax its resources and increase its financial burdens unnecessarily, because it opens the door to the demand for higher degrees in special subjects, such as Ophthalmology and Laryngology, where degrees are quite unnecessary as an inducement to scientific work, or for the purpose of establishing a reputation which ought to rest on the surer foundation of the opinion of the world of science.

The degree of M.S. in Dental Surgery.

325. As to the refusal of the University to grant a first degree in Dental Surgery, this is a matter with regard to which we desire to speak with reserve, and rather to make suggestions for further consideration than to express a definite opinion. We do not think a qualification of the standard of the L.D.S. of the Royal College of Surgeons ought to carry with it a university degree. Mechanical instruction and the acquisition of manipulative skill appear to us to predominate in the course, and the other subjects of study are regarded rather as an addition of useful and necessary information, than as the essential and scientific training which is to direct and control the professional work. It is recommended, no doubt rightly from the point of view of professional success, that three years should, if possible, be devoted to mechanical work; and "the student is strongly advised to spend as much time as possible in learning to become an expert operator, for the daily work of his profession is chiefly manipulative, and the best manipulators and mechanicians make the most successful Dental Surgeons." We have already said that as the law stands at present it appears impossible to exact a higher standard of qualification for a dentist, and we do not see how a change in the law, making a registrable qualification necessary for the practice of dentistry, would make it possible to raise the standard or perhaps even to maintain it at its present level, while providing for the needs of the public. We therefore reluctantly come to the conclusion that, for the great majority of dental students, dental education cannot be raised to a real university standard and therefore ought not to be marked by a university degree.

Question of first degree in Dental Surgery.

326. But it does not follow that a first degree in Dentistry may not usefully and properly be conferred by the University; and unless there are valid objections we think such a degree should be given, for the sake of creating as large a class as possible of scientifically trained dentists. For one thing, a degree in Dentistry is given by five of the English Universities—Manchester, Liverpool, Leeds, Birmingham, and Bristol—and London students are entitled to ask that it should not be refused them, except for good reasons. Then, again, it is admittedly desirable that dental surgery should be looked upon as a branch of medical science, and that dentists should be encouraged as far as possible to study their special subject scientifically in the light of a wider knowledge, because the advance of medical science tends to show the close connexion between the condition of the teeth and the general health, and also between certain affections of the teeth and gums and

Reasons for a first degree in Dentistry.

¹ Guy's Hospital Dental School Prospectus, p. 41.

specific forms of disease. The University does not dispute this; but it takes the view that the proper course is to encourage the dental student, whenever it is possible, to take a degree in Medicine and Surgery, and it regards the proposal to create degrees within the Faculty of Medicine, to be granted to persons who are not graduates in Medicine and Surgery, as equivalent to admitting that persons ought to be allowed to practise a special branch of medicine without going to the expense and trouble of graduation; and, as we understand, it says that every argument used in favour of this course might equally well be used in favour of creating degrees in Ophthalmology, and other subjects; and of conferring them upon persons who have not graduated or qualified in Medicine and Surgery.

Not clear why a medical degree should be necessary for a dental degree.

327. It is not at all obvious why the Pass degree in Medicine and Surgery should be required as a preliminary to the conferment of a special degree in Dental Surgery. This would be true if the reason for requiring all members of the medical profession to take the whole course for the degree or other qualification, in Medicine and Surgery, was that such a curriculum was really required as the scientific basis of every special department of the science of medicine; but we do not think this can be maintained. No doubt if a thorough knowledge of the whole science of medicine could be acquired, that would be the ideal for every man who intended to practise a special branch of it; but the medical degree or qualification is very far from guaranteeing anything of the kind. It rather represents the minimum which it is safe to accept, perhaps also the maximum which it is possible to exact, from all who are licensed to practise medicine and surgery generally; and the curriculum is directed at least as much to range of subjects as to thoroughness of scientific grounding. Some, at any rate, of the subjects which have to be studied for a degree or qualification in Medicine and Surgery do not in themselves appear to strengthen, or even widen, the relevant basis of scientific knowledge which a man acquires who is going to devote himself entirely to the practice of laryngology or ophthalmology. But a glance at the Medical Acts will show that the object of requiring from all practitioners, not only the same minimum standard of knowledge, but also the same general range of subjects is that a registered qualification may safely be taken by the general public as a guarantee that a man is properly fitted to give advice and assistance in any branch of medical or surgical science in which he may be consulted, because the degree or qualification confers on him the right to practise medicine and surgery without restriction to any one branch of the subject. Now, in the case of the dental diploma this is quite different. The dentist is not qualified to practise anything but dentistry; and therefore it may well be that the necessary scientific basis of a dental education, which will be worthy of recognition by the University, need not, and ought not to include all the branches of knowledge which are included in the curriculum for the medical and surgical degrees.

Dentistry is a profession and therefore the University ought to train for it.

328. If, as is now admitted, dental surgery is a profession or calling which ought to be guided and controlled throughout its practice by the application of scientific knowledge, and that all that has to be decided is what scientific training is required as a preparation for this calling, then the University should undertake the responsibility for this training, and may fitly confer its degree upon those who have undergone it. We think the curriculum should probably include the same instruction in the Preliminary and Intermediate Sciences, except perhaps pharmacology, as in the case of medicine, but it ought surely to be possible to limit the range of the later subjects of a medical course without detriment to the scientific training required to raise the practice of dental surgery to the level of a profession.

Even such a course as this would not be possible for the great majority of dental students, and the provision which the University would have to make would not, we think, be extensive. One dental department in a University Medical College would probably be enough to meet the demand for a long time to come.

General dental education.

329. We do not suggest that the dental education of students who cannot take the university course should be separated from medical education, but we think it is unnecessary to provide for it in a University Medical College. The existing Dental Schools are amply sufficient to undertake this instruction, and they all appear to be efficiently conducted, though we think that both as regards the unity of the course and the supervision of the training, and as regards the opportunities afforded of seeing cases of dental interest in the general wards of the hospital, the Dental Schools at Guy's and the London Hospital have considerable advantages over those which are not attached to a Medical School and hospital. On the other hand

we were told there is a greater chance of seeing rare and out-of-the-way cases at a large dental hospital.¹

The provincial universities grant a licence in Dental Surgery, as well as a degree, but we do not think it is desirable that in London the University should compete with the diploma of the Royal College of Surgeons.

The Faculty of Laws.

330. We have no doubt there ought to be a Faculty of Laws in the University of London, but at present there does not exist a body of teachers in this Faculty to whom the title, status and salary of University Professors or Readers have been assigned, or who have as yet been recommended by Boards of Advisors for those titles. The absence of endowment is chiefly responsible for this, as men of learning and distinction are not wanting among the teachers. The only member of the Faculty who is a University Professor is Sir John Macdonell, the Quain Professor of Comparative Law at University College, and even in this case the salary is quite inadequate and the professorship is only a part-time appointment. We must simply accept the facts as they are. It would not be in the interests of the University, or of the present teachers of law, to propose that the educational powers, responsibilities, and privileges, which we think a University Faculty ought to possess, should be conferred upon the present Faculty of Laws. In other cases these powers and privileges are conferred on the Faculty only because it will in fact consist of men holding the position and doing the work of University Professors and Readers, and thereby providing all that is implied in the conception of university education in a particular branch of learning. The teachers will themselves be systematically engaged in the scientific study of a group of more or less closely related subjects, and their regular students will not come to them simply to receive instruction, but will enter, as members, a particular department of university work. It is, we hope, unnecessary to say that we intend no disparagement of the ability and attainments of the present teachers of law. The question whether they fulfil the conditions necessary for their appointment as University Professors or Readers is a rather complex question of fact, which may depend upon the appointments they have held and the opportunities they have consequently had of doing scientific work in their subject. Most of them receive an almost trifling fee for their services, and the greater part of their time is therefore devoted to professional practice and other work.

There ought to be a Faculty of Laws.

331. The teachers of law are not in a separate institution of their own. The classes are mostly inter-collegiate, and are held either at King's or University College, or at the London School of Economics. It has recently been proposed by the Academic Council that the whole of this teaching should be concentrated at King's College, and we think there should be concentration either at King's College or elsewhere. No Faculty of Laws on the basis we recommend can be established until money is provided for the payment of Professors and Readers. When this is forthcoming the College at which the teaching of law is concentrated will become a Constituent College in the Faculty of Laws, but till then the present teachers of law can have only the powers conferred upon boards of teachers in Schools of the University (see paragraphs 384, 385), and there will be no Constituent College or University Department in the Faculty of Laws.

Faculty cannot be established without money.

332. The valuable body of evidence given before the Gresham Commission with regard to legal education enabled us to limit the evidence it was necessary to take for ourselves, and having regard to the very wide range of our inquiry, it appeared to us desirable to do so. The Report of the Faculty of Laws was transmitted to us by the Academic Council, and Mr. Barrington gave evidence in support of it. He also specially drew our attention to the question of the recognition of university degrees in Law as exempting from some part, at any rate, of the Bar examination, and the final examination of the Law Society; and to the negotiations on the subject between delegates of the Universities of Oxford, Cambridge and London, and the Council of Legal Education, and the Law Society. Principally on account of this testimony as to the unnecessary multiplication of examinations, we invited witnesses from the Universities of Oxford and Cambridge to give evidence. Further, we invited the Law Society to give evidence, partly on the question of accepting university examinations instead of their own; and also generally, because they have intro-

Evidence taken by Gresham Commission considered. Evidence taken by Commission.

¹ *Appx. to Final Report, Godlee, Q. 15,491.*

duced a new system of legal education since the Gresham Commission reported. We did not, however, consider it necessary to ask the Inns of Court or the Council of Legal Education to attend, as we have no reason to believe that the Inns of Court have changed their views since the reply they made to the Statutory Commissioners of 1898, who, in pursuance of the Report of the Gresham Commission, invited them to become a School or Schools of the University. Moreover, that is not a proposal which would be consistent with our recommendations for the organisation of the University.

Faculty to consist mainly of Professors.

333. If there is to be a Faculty of Laws of the University of London it must, like other Faculties, consist mainly of the Professors of the University in the subjects within the Faculty, and the University must have both the educational and financial control. The Inns of Court and the Law Society have powers and duties in relation to their respective branches of the legal profession, which are national in their character, and with which the University of London has no claim to interfere. But, on the other hand, the necessity for a Faculty of Laws in the University of London is not limited by the requirements of the professional education of those who are about to enter either branch of the legal profession as barristers or solicitors. The duty of the University to make provision for the scientific study of law is wider, both as regards the range of the subjects to be studied, and the class of students for whom instruction is required. The large and increasing number of men who ought to study some branch of law as the best preparation for their future work in life should not be deprived of the scientific training which they can obtain only in a university. In addition to those who propose to enter the profession of law, whether as barristers or solicitors, and whether at home, in India, or in the Colonies, the Faculty of Laws enumerate in their Report¹ the following classes of persons for whom the University ought to provide legal education.

Persons for whom legal instruction is required.

- (1) Persons proposing to engage in His Majesty's Diplomatic or Consular Service ;
- (2) Persons engaged or about to engage in His Majesty's Civil Service, whether at home, in India, or in His Majesty's dominions beyond the seas ;
- (3) Persons serving, or desirous of serving the public, whether as Members of Parliament, magistrates, or county, borough, or district councillors ;
- (4) Persons engaged, or about to engage, in the service of Public Local Authorities ;
- (5) Persons engaged, or about to engage, in the service of public companies, or in commercial life generally ;
- (6) Persons applying themselves to the work of scientific investigation or research in any branch of law.

University also required for education of professional lawyer.

Legal education is required and ought to be provided for all these classes of persons, but we do not intend to imply that the University has no part to play in the education of the professional lawyer. It is only in England, so far as we know, that such a view is taken. There has been, and to a large extent there still is, a tendency in England to look too much to what is called practical training, and to fail to appreciate the practical value of purely scientific study. We have found this to be so in the case of the medical profession, and the backward state of technological education in England is largely due to the same cause.

University education and practical training.

334. There is a purely professional training which cannot usually be given in a university, but for which we think a university education in professional subjects is the best foundation and preparation. In the case of medicine, it is necessary for the protection of the public that practical training in the art of medicine should be included in the curriculum for the qualification to practise, and as the degree of a university in that Faculty carries with it the licence to practise, the curriculum for the degree must include this training. But in the case of law it is really only in one branch of the profession that the public requires protection. When a man is admitted as a solicitor he has the right and opportunity of giving legal advice and assistance direct to the public, and they ought to be protected against the obvious and serious danger of unqualified persons undertaking to deal with property, and otherwise to intervene in matters which require legal knowledge. The law therefore provides that a solicitor must serve an apprenticeship as an articulated clerk, in addition to passing the examinations required by the Law Society. The final examination

¹ *Appx. to 2nd Report*, p. 326.

which the Law Society holds is compulsory in all subjects, and we doubt if this is either advantageous in itself or necessary for the protection of the public.

The Law Society contend that they are required by Statute to hold this examination and cannot delegate their functions to others. The definition of "Final Examination" in the Solicitors Act, 1877, is very general, including an examination "touching the articles and service," and in some cases an inquiry as to conduct. It may be doubted if the examination "as to the fitness and capacity of such persons to act as solicitors in all business and matters usually transacted by solicitors," requires that written examinations should be held by the Law Society in all the branches of law in which they are now held, and whether the obligation of the Society would not be satisfied by requiring evidence of adequate instruction in most of these subjects. But whether this is so or not, if the Society was satisfied that a university education, which is required in practically all other countries, was the best preparation in some subjects for the profession, there can be little doubt that Parliament, which has not feared to trust the training of doctors to every university in the country, would be prepared to recognise university instruction in law, in so far as the universities undertook to give it, as a sufficient protection to the public.

Final examination of the Law Society.

335. The present system of legal education provided by the Law Society has been in force since 1903. When the Society gave evidence before the Gresham Commission, Mr. Pennington explained that in October, 1892, the Society had abandoned the system of lectures and classes for students which had been in force since 1863, because the attendance at the lectures had fallen off to so great an extent that it was felt to be useless to continue them.¹ They were, he said, of no use to the students, who nearly all went to private coaches, and the Society had therefore decided to replace the lectures and classes by a system of instruction by correspondence, and had appointed three tutors for this purpose. The lectures and classes of the Council of Legal Education were afterwards thrown open to persons who were not students of the Inns of Court, and the Law Society arranged to pay half the fees of articled clerks who attended them. It appears from the Calendar of the Council of Legal Education that the Law Society is still willing to do this, but apparently neither these lectures nor their own correspondence instruction satisfied the Society, and in 1903 they established a Law School of their own. An account of their present system of education is given in the statement submitted by the Society.² In the provinces the Society provides for the education of its students by making grants, through Local Boards of Legal Studies, to the Universities of Liverpool, Manchester, Leeds, Sheffield, Bristol, Birmingham, and the University Colleges of Nottingham and Aberystwyth. In London it not only provides classes for its own examinations, but also classes of its own for the External degree of the University in the Faculty of Laws.

Legal education provided by the Law Society.

336. In the case of the other branch of the legal profession there is not the same necessity for protecting the public, and although the Inns of Court require a student to pass their examinations before calling him to the Bar, no real guarantee of practical fitness to practise is required, and it is left to the man himself to obtain the training he needs, usually by the expensive process of entering a barrister's chambers as a pupil, or going into a solicitor's office, or both. If he does not know how to do his work he will not get work to do, and the Inns of Court take no responsibility in the matter. But it seems clear that if they are not responsible for the practical training of a barrister for the practice of his profession, it is open to them to take a broad view of the legal education which they require as the qualification for call to the Bar. There can be no question of severe practicality in their examinations, or of meticulous precision as to the exact subjects included. They really leave the responsibility for his practical training to the student himself, and so long as they take this view of their duty, it may fairly be asked that they should not make the examinations they require their students to pass an unnecessary burden, or a deterrent to the broad and scientific study for which, in law, as in all other branches of knowledge, it is the special work of universities to provide.

Legal training for the Bar.

The Council of Legal Education provide a course of instruction in law, and the readers and assistant readers they appoint are, we have no doubt, eminently qualified for the work they are appointed to do. But they do not form a University Faculty of Laws, nor is it their business to devote themselves to the scientific pursuit of their subjects. A School of Law in which competent instruction is given in the

Teaching provided by the Council of Legal Education.

¹ Gresham Commission Evidence, p. 673, Q. 15,733 ff.

² *Appx. to Final Report*, § 11, p. 46.

various branches of law required for an examination, is a different thing from a University Faculty which is primarily concerned with scientific study, and the advancement of knowledge in a great department of learning. When, for example one gentleman, however learned, is expected to teach not only Roman law and jurisprudence, but also public and private international law, it is obvious that what is aimed at is competent instruction, and not education under university conditions as we conceive them. Public international law alone is a sufficiently large and important subject for a University Professor to devote his life to ; and private international law is a subject of great difficulty, in which many questions are still unsettled, and which has little more in common with public international law than the name "international." It may be necessary to provide such instruction for students who cannot obtain a real university education, but it ought not in any way to interfere with or hamper the development of legal study in the universities.

Examina-
tions of the
Council of
Legal Edu-
cation.

Attendance at the lectures of the Council of Legal Education is voluntary, although as Mr. Crackanthorpe explained to the Gresham Commission,¹ the Council exercise a mild form of compulsion by stating in their rules for the examinations that the subjects will be examined upon so far only as treated in the lectures and classes. We agree that the examinations ought to follow the teaching. But while claiming to apply this principle in the case of their own teachers, who, in conjunction with others, are quite rightly the examiners, the Council appear to us to be rather unmindful of the rights of other teachers. The effect of making the examination, although not the teaching, compulsory, is to insist on a purely external examination for all but those students who are able to attend the lectures and classes provided by the Council. This may easily interfere with the work of the university teachers of law at Oxford and Cambridge and London, and curtail the freedom to develop their subjects in their own way, which is essential in the case of all teachers of university rank ; or else it may deprive them of some, at any rate, of their students. And in the case of the students the effect is to multiply examinations, which, in our opinion, is a thing to be avoided as much as possible. We therefore think the Inns of Court should carefully consider the question of the recognition of university teaching and examinations in law, and it may even be desirable for them to reconsider the whole question of legal education with a view to leaving to the universities the work they are well able to perform, and directing their own attention to making some provision for the practical training of their students for the practice of their profession.

Value of
scientific
study of
law.

337. The view appears to be held that only some branches of law, such as jurisprudence, constitutional law, legal history, public international law, and comparative legislation, are capable of scientific treatment and are fit subjects for university study ; and that the existing law of England, which is the main study of professional lawyers, is in some sense so practical that it does not admit of theoretical or scientific treatment. It is of course true that the student of law has to deal with a body of dogmatic doctrine which must be learned as matter of fact—the existing law of the land as embodied in the Rules of the Common Law, the Principles of Equity, and the Statutes of the Realm, and elaborated and developed in its relation to the almost infinite diversity of circumstances by the decisions of the Courts. But to suggest that this body of law is not susceptible of scientific treatment is really to assume that its development has been fundamentally irrational and chaotic. Such an assumption would extend far beyond the sphere of law, and would condemn the scientific study of history, and the application of the historical spirit to every department of human knowledge in which it has been found an effective method of eliminating what is accidental and unessential, and throwing light on the underlying principles of thought which explain the past and indicate the lines of future development. We have no doubt that law as a whole, including the law of England as it stands to-day, is a department of learning which ought to be included within the scope of a university. The most scientific study of it which a university can provide will be the best foundation for professional work, and will alone fit a man to deal with intellectual freedom, and from a wide point of view, with the questions he will have to answer from day to day in his professional practice. It will also produce lawyers whose advice and assistance will be a reliable guide to the legislature in framing statutes in organic connexion with the past and in harmony with the social development of the national life.

¹ Gresham Commission Evidence, p. 525, Q. 12,886.

338. The proposal to found a great school of law in London has been made more than once, and has come to nothing. In our view the real seat of learning, and the source of scientific instruction is a university, and we think it is as a Faculty of the University, in its proper relation to all other departments of learning, that a great school of law can be developed, and the scientific study of law pursued in a spirit of freedom and independence. But the Faculty of Laws is clearly one in which it will be of great assistance to have the advice of distinguished members of the legal profession, and we think representatives of both branches of the profession should be invited by the University to join the Faculty. The Senate should decide from time to time what number of representatives of professional knowledge should be on the Faculty, having regard to the number of ordinary members, and also how they should be selected.

Proposal for great school of law in London.

Representatives of legal profession on Faculty of Laws.

339. We would prefer that the Faculty of Laws should be a superior Faculty, and that it should be necessary to take a degree in Arts or Science before proceeding to a degree in Laws. It is a degree which may well be taken rather late, and when a man has completed a general university education, and begun his professional studies. We think many men of this class ought to be attracted by the high level of the teaching we hope to see attained, as they are well fitted to profit by such instruction and training. But, having regard to the long time during which a degree in Laws has been given by the University of London as a first degree, and also to the fact that a real Faculty of Laws cannot immediately be established in the University, we think the right time for such a change is a matter which might well be left to the discretion of the University. The instruction should in our opinion be given for the most part in the late afternoon or evening, as at present.

Degree in Laws.

340. The cost of making even a start in the Faculty of Laws would be considerable, as the income from present endowments amounts only to about 530*l.* and the fees to about 1,000*l.* a year. The Faculty recommend that four Professors should be appointed at a salary of 600*l.* a year, and twelve Readers at a salary of 300*l.* a year. The Academic Council do not dissent from this estimate of the needs of the Faculty, but they say that, assuming an income of only 4,500*l.* is available, it would best be spent by appointing two Professors at 600*l.* a year and eleven Readers or teachers at 300*l.* a year in the subjects they name.¹ We do not think the right men could be got for the position of Professors in this Faculty at a lower salary than 800*l.*; and in order to establish the Faculty upon a broad and sound basis of learning and instruction it would be necessary to found at least five or six professorships in the main departments of legal study—such subjects as English law and legal history, jurisprudence, constitutional law, Roman law, public international law, besides increasing the endowment of the existing chair of comparative law. In addition to these professorships a wide range of instruction would be required to meet not only professional but general needs. Readers at a salary of 300*l.* a year might be appointed in some subjects, but whole-time appointments would not be necessary in them all. In some cases comparatively short courses of lectures would be given, and it would be advantageous to appoint practising lawyers of distinction to the posts of Associate Professors and Associate Readers. The Professors might from time to time give special and advanced courses in addition to their regular lectures and other classes, but if funds were available it would be desirable to arrange for occasional lectures by eminent jurists from outside the University. As there is no legal library for research, the Faculty estimate that an annual sum of 1,000*l.* a year would be required for a long time for the formation of this, and a further sum for the up-keep of a students' library; and provision would have to be made for the expenses of the administrative staff. We are not in a position to form more than a very general estimate of the funds required to establish the Faculty of Laws on a satisfactory footing; but we have no reason to believe that the Faculty have overestimated their needs, and, allowing for the higher scale of salaries we consider necessary, an income of 10,000*l.* a year would probably be required.

The cost of a Faculty of Laws.

The Faculty of Theology.

341. The Faculty of Theology differs from all the other Faculties in an important respect. Although the University is itself free from all tests and recognises no differences of religious belief either in its students, its candidates for degrees, or its

“Recognised” teachers in this Faculty

¹ *Appx. to Final Report, App. III., p. 185.*

subject to religious test of body appointing them.

Present Theological Faculty not a superior Faculty.

Degrees in Divinity should be those of a superior Faculty.

Theological students should be allowed to take theology in final examination for B.A.

Theological colleges cannot be incorporated.

Board of Theological Studies proposed in place of Faculty.

teachers, and although the syllabuses of the approved courses in theology and of the examinations are such as any Christian student can follow, yet all the "recognised" teachers in this Faculty are appointed to their posts by the governing bodies of theological colleges who do in fact impose the test of conformity to their particular tenets on all candidates for lectureships and upon all students coming to their colleges. The theological colleges are professional institutions maintained by religious bodies under trusts which would not permit of the education they give being controlled by an undenominational university. On the other hand the University has neither appointed any teachers in theology itself—it has no funds for the purpose—nor has it attempted to confer the title of University Professor or University Reader on any of the "recognised" teachers in this Faculty. When the University instituted degrees in Divinity, it decided to offer a first degree upon a course which included some of the subjects of a general education in the Faculty of Arts, and which was confined to theological studies, only in the last stage for the final examination. Unlike all the other British universities which offer degrees in Divinity, it reduced the status of the Theological Faculty from that of a superior to an ordinary Faculty, and did not require a degree in Arts as a necessary preliminary. No doubt it was led to take this course by the needs of the students in the London colleges. They are all men of small means, many of whom have chosen the ministry as their profession at a comparatively late age, and the majority would find it difficult to spend more than three years at college before entering upon their life's work. It is unfortunate, however, that the University should have found a solution of a really difficult problem in a decision which has undoubtedly tended to lower the significance of the degree in Divinity and the estimation in which it is held.

342. A large part of the course given in the theological colleges is necessarily in present circumstances devoted to the general education of the students, and this fact points inevitably to the conclusion that the degree which the University should award to those who successfully complete a three years' course is the B.A. rather than the B.D. Theological students cannot be expected at present to devote three full years to studies preliminary to theology, though we think the University should ultimately require, as the Scottish universities do, a full Arts course and a first degree in that Faculty as well as a full course in theology from all candidates for the B.D. Meantime the course for the final examination for the B.A. degree might be confined in the case of students in theological colleges, and of ministers of religion, to theological subjects, provided the course for the Intermediate examination and that examination itself were confined to such subjects falling ordinarily within the Faculty of Arts as the University might approve. The degrees in Divinity would then belong once more to a superior Faculty, and the standard required of students for the B.D. would be higher than that required in the same subjects of students reading for the B.A.

The constitution and purposes of the theological colleges are unsuitable for Constituent Colleges of the University, but those of them which can satisfy the conditions we shall lay down in Part IV. of our Report would remain Schools of the University in the Faculty of Theology with the powers and privileges there described.

343. Although the degrees in Divinity should be those of a superior Faculty, it will probably not be possible to establish a Faculty of Theology in the University of London under the same conditions as we propose for other Faculties, until the time comes when the University is able and willing itself to appoint professors to theological chairs free from any kind of religious test. If the University appoints Professors and Readers who can give complete courses for degrees in Divinity the institution to which they were attached would become a Constituent College in the Faculty of Theology. But until this is possible, we recommend the establishment of a Board of Theological Studies which will include all the heads of departments in institutions recognised by the University as Schools in theology, and will have the powers and duties which we shall describe in Part IV. of our Report. The scheme for the university course in theology rests upon the principle that only those matters should be dealt with, which can freely be accepted by the several religious bodies, and this is a limitation on variation which differentiates theological studies, so far as the University is concerned with them, from all other studies.

The Faculty of Music.

344. Music has found a place as a branch of university study since mediæval times when it was included with arithmetic, geometry, and astronomy as one of the

four liberal arts, called the *quadrivium*, which occupied the first period of the undergraduates' education. The ancient universities in this country have therefore always awarded degrees in Music, though there has been very little study of music as an academic discipline, and no faculty of teachers has survived. Until recently the degrees have been awarded to external candidates merely on an examination which has included the submission of an original composition. The University of London before its reconstitution under the Act of 1898 followed the example of Oxford and Cambridge in holding examinations for degrees in Music, and the Statutory Commissioners under that Act recognised certain teachers at the Royal Academy of Music, the Royal College of Music, and at Trinity College, London, as teachers of the University in harmony, counterpoint, theory of music, orchestration and other branches of the art. From among these they selected ten of the most distinguished to form a Faculty of Music. The Faculty at present numbers 16, one of whom is the King Edward Professor of Music, who occupies the only university chair in this subject, and another is a member of the staff of King's College Theological Department. The present Board of Studies consists of 22 persons, 11 of whom are also on the Faculty, and five are other musicians not "recognised" teachers of the University.

Faculty of Music under Act of 1898.

345. The three institutions for teaching music at which teachers have been "recognised" by the University are professional schools intended to prepare students for the musical profession. In these schools the vast majority of the students are, and probably always will be, persons intending to enter one or other of the executant branches of the profession, for which the course of study for a university degree is quite unsuitable. A small number of the abler students take up original composition, but it is more than doubtful in our opinion whether the academic training which the University demands, with the stress it necessarily lays on the science and learning which underlie and surround the art, is not more likely to crush originality than to encourage it—at any rate in young students. A university can no doubt give the deeper knowledge and the general culture which are to be desired, and are even necessary for the greatest work in art; but it can probably give this education best for writers, artists, and musicians, in the departments of literature, history, and philosophy, rather than in departments devoted to the sciences which deal with the medium the artist uses, or to the learning which in the course of ages has grown up round the arts themselves. A scientific study of materials or of the accretions of the learned will perhaps make a critic, but scarcely a creator. We think that artists of all kinds are aware of this, and that this explains why musical degrees are seldom sought by students of music unless they intend to become organists or trainers of choirs, for which purpose apparently the degree has some value in the professional world. We find accordingly that during the session 1910-11, there was only one Internal student of the University at the Royal Academy of Music, and but two at Trinity College, while there were none at the Royal College of Music. The courses of study at these three schools are arranged without any regard to the University requirements, and there has never been any reality in either the University Faculty or Board of Studies. The former has elected at the proper intervals its representative on the Senate, the latter has advised the Senate upon the syllabuses and regulations for the examinations, but the examinations have remained in all essentials as external as they were before the reconstitution of the University. The King Edward Professor has given short courses of public lectures each year which have been attended by large audiences of the general public, but these have had no sort of connexion with the requirements for the university degree.

Degree course in music unsuitable for majority of students of music.

346. These facts have convinced us that there is no need for a Faculty of Music of the kind that has hitherto existed in the University; indeed the present Faculty seems itself to hold this opinion, for when it was requested by the Senate in 1909 to report on the needs of the Faculty, it endorsed the following resolution of the Board of Studies in Music:—

Faculty of Music unnecessary.

"That inasmuch as the teaching of Music is in the hands of the Institutions whose teachers are 'recognised' by the University, the responsibility of providing adequately for that teaching rests with those Institutions, and it is unnecessary for the University to make any special arrangements in connection with the subject."

It is equally clear that there is no present means of establishing a Faculty with the constitution and powers that we contemplate for these bodies after reorganisation, though, if in the future the University were to think it wise to organise a

group of studies specially suitable for musicians, if it thought a separate Faculty would be useful, and if, finally, it had the means of supporting the necessary professorships, it should also have the power under its Statutes to establish a Faculty of Music.

Professor-
ships of
Music.

We do not desire to have it thought, however, that there is no room in a university for professorships of music. The professor of music, like the professor of poetry, can help to train the taste of students and the educated public; for taste can be trained if it cannot be created; but the place of both appears to us to belong rather to the Faculty of Arts, where the courses given might be related to and supplemented by other studies.

Degrees in
Music
should be
continued.

347. The Academic Council confine their estimate of the needs of this Faculty to an additional 500*l.*, which "should be added to the existing endowment of the King Edward Chair, and . . . it should be ultimately converted into a full-time appointment, dealing mainly with the History of Music. Such a Professorship would serve the Colleges of Music, and also possibly the wants of the Theological colleges in regard to ecclesiastical music." We think the policy here indicated is a sound one, and that nothing further is necessary. It follows from what has been said that there is no advantage either to the University or to the three colleges of music referred to, in continuing any formal connexion between them and the University. Later in our Report (*see* paragraph 381) we explain that in future the status and title of "recognised" teacher should be abandoned, and this recommendation applies to music equally with other subjects. But it is not suggested that the University should abandon the granting of external degrees in Music. The granting of them is hallowed by custom, they have their value within a limited sphere, and in so far as they are granted for success in composition, the University may do something to encourage workmanlike efforts, provided it can avoid a narrow and exclusive judgment. We shall deal with the examinations for degrees in Music in Part IV. of our Report (*see* paragraph 398).

UNIVERSITY FEES.

Varied scale
of fees at
different in-
stitutions.

348. We have dealt with the immediate needs of the several Faculties of the University as regards salaries for the principal teaching posts, and the more urgent requirements of the libraries and laboratories. But we recognise that the fees charged in the institutions which we have recommended for inclusion in the University as Constituent Colleges for full-time students are so much higher than those charged in the other institutions connected with the University that it might well be said that the kind of education which can alone be claimed as of true university rank would in fact be available only for the more well-to-do families in London. Mr. Webb estimates that nearly 99 per cent. of the families in London have incomes of under 1,500*l.* a year.¹ On the other hand, the fees for a full three years' course for a first degree vary from 120 guineas in Engineering to 69 guineas in Arts at University College; from 155 guineas in Engineering to 68 guineas in Arts at King's College; from 135*l.* in Mining to 108*l.* in Science at the Imperial College; and from 114 guineas in Science to 87 guineas in Arts at Bedford College. In some cases the fees may be even higher than these. These fees are greater than parents with incomes of 500*l.* a year or less can be expected to pay without the aid of scholarships, and even if it may be assumed that there are or will be sufficient scholarships to provide for all the cleverer boys and girls who need them, we do not think that a university education should be denied to the less clever children from these homes, provided their parents are prepared to continue their education and provided the student can qualify for admission to the University. We agree with Mr. Sidney Webb in the opinion that "no promise of free places or scholarships can get over the difficulty presented by such prohibitive fees."² It cannot be said that a lowering of the present fees would relieve the purses of well-to-do people of the contribution they ought to make towards the higher education of their children, for the University of London must always be in the main a middle class university. The small proportion of the population with incomes of 1,500*l.* a year and over send their sons and daughters, as a rule, to Oxford and Cambridge, and it may justly be argued that the remainder should not be called on to pay more for a university education than people of the same means do in

¹ *Appx. to Final Report*, App. III., § 20, p. 186.

² *Appx. to 1st Report*, Webb, Statement, § 8, p. 21.

³ *Appx. to 1st Report*, Webb, Statement, § 47, p. 28.

provincial towns. Some reduction in university fees appears the more desirable when it is remembered that the fees charged for a full three years' course for day students at the London Polytechnics vary from 45*l.* at the South-Western Polytechnic to 18*l.* at the Northern Polytechnic for all Faculties. So long as a parent is asked to pay 155 guineas at one institution for a course which terminates in the same degree as an apparently identical course at another institution for which only 18*l.* is charged, he will be tempted to believe the difference lies, not in the character of the education which is provided, but in the same kind of social distinction that exists between a public school and a municipal day school. Any organisation of the University which is based, or appears to be based, upon a segregation of the students according to their wealth, is disastrous to one of the most important of the social purposes for which a university exists. For this reason we are altogether opposed to the plan of building up the University out of a number of colleges, some of them cheap and others expensive, as was contemplated by one of the witnesses who appeared before us.¹ Such a plan is only possible if the cheap colleges either give an inferior education or receive a larger share of aid from endowments or from public funds. We think both alternatives objectionable, for the first is an acknowledgment that the poorer students must be satisfied with an inferior education, and the latter supposes that the better way of spending endowments, whether private or public, is to separate the students according to their wealth. We believe, on the contrary, that every effort should be made to bring all classes of students together.

349. Report A. of the Academic Council advocates the equalisation of fees all over London as the ultimate ideal, and expresses the opinion that "the average fee" for a degree course in Science or Arts should be reduced to 10*l.* 10*s.* per annum.² Mr. Sidney Webb, who was one of the signatories of this Report, stated in the evidence he gave before us that in his judgment "the high fees usual in the older London Colleges constitute . . . a great mistake in policy on their part, and a serious grievance of the middle class parent."³ He thought there was "no reason whatever why the fees should be twice or three times as high as they are in University Colleges elsewhere in Great Britain."⁴ But unless the London Colleges can attract the large endowments which have been given to the University of Manchester, or as an alternative receive something like the same proportion of aid from public funds, no great reduction in the present fees is possible. No argument can be based upon the low fees at present charged in the Faculties of Laws and Economics, for practically all the students in Laws are part-time students, from whom the fees demanded are in consequence necessarily low, whilst the School of Economics, where almost all the teaching in Economics is given, received in 1910-11 nearly 30 per cent. of its income directly or indirectly from the London County Council. This percentage exceeded that of any provincial university except Sheffield, which was the same, and the University Colleges of Nottingham and Southampton, which are to all intents and purposes municipal institutions. No other School of the University in London, except the London Day Training College, which is maintained by the London County Council, and charges no fees to students resident in London, received in 1910-11 as much as 6 per cent. of its income from the Council, and most of them received much less, though they all benefited to some extent indirectly by the grant of about 6,000*l.* made by the Council to the University towards the endowment of certain professorships in the Faculties of Arts, Science, and Engineering.⁵ King's College received 5·4 per cent. of its total income from the London County Council during 1910-11, but a large part of this grant was made in respect of evening work.

Difficulty in reducing fees.

The difficulty of reducing the fees even to the level of the provincial universities and colleges without material assistance from other sources can be shown in another way. The percentage of the total income of these institutions derived from fees varied in 1910-11, the last year for which figures are available, from 15·9 at Nottingham University College to 33·3 at Manchester University. In London, however, the percentage of total income due to fees ranged from 35·5 at the School of Economics to 68·8 at King's College for Women. The percentage at

Percentage of income from fees in different colleges.

¹ *Appx. to 3rd Report*, Armitage-Smith, Statement, § 16, p. 244; Qs. 9977-10,016.

² *Appx. to 2nd Report*, App. VII., § 31, p. 276.

³ *Appx. to 1st Report*, Webb, Statement, § 47, p. 28.

⁴ *Appx. to 1st Report*, Webb, Statement, § 47, p. 28.

⁵ Board of Education. Reports from Universities and University Colleges for the year 1910-11.

University College is 45, at King's College 51·4, at Bedford College 57·5, and at the Medical Schools as a whole 67.¹ It is obvious from these figures that any practicable reduction in fees would not reduce the London percentages to those of the provincial colleges. No doubt a general reduction in the fees of the Constituent Colleges in respect of courses in the Faculties of Arts, Science, and Engineering would result in some increase in the number of students, but any great increase in numbers would in turn lead to additional expense. In other words, a steady increase in the number of students would be represented graphically by a continuous curve, while the consequent growth in expenditure would be represented by a discontinuous one.

Uniform fees for universities beyond Commission's reference.

350. It may be that "the average fee for a degree course in arts or science should be reduced to 10 guineas per annum" as recommended in Report A. of the Academic Council, and that this may represent the proportion of the cost of providing university education which the students of modern universities may fairly be expected to contribute in all parts of the kingdom, but we think the establishment of uniform fees for the universities and a determination of their proper amount should be made as part of a general consideration of the national provision for university education—a matter which lies beyond our terms of reference.

Disparity of fees causes undesirable competition.

351. Apart from the present disparity between the fees charged in the London colleges and the provincial universities, parents in London are driven by the high fees charged at the colleges to send their sons and daughters for their university course to institutions which are less well staffed and less able to give a university education than the more expensive colleges. If the fees charged at these colleges were to approximate more closely to those charged in the Polytechnics, it is to be hoped that many parents would then be willing to pay rather heavier fees in order to give their children the best education available. We do not think that this end would be effectively attained unless the reduction were to result in an average annual fee of 15*l.* for the full degree course in Arts, 20*l.* in Science, and 30*l.* in Engineering,* or alternatively a total fee of 45*l.* for the full curriculum in Arts, 60*l.* in Science, and 90*l.* in Engineering. If the fees of the full-time matriculated students at University, King's, and Bedford Colleges taking courses in the Faculties of Arts, Science, and Engineering were reduced to 15*l.* a year for Arts, 20*l.* a year for Science, and 30*l.* a year for Engineering, the additional annual cost would be about 8,500*l.* a year.† We assume that the fees at present paid by the Board of Education in respect of intending teachers in elementary schools would continue to be paid, or, at any rate, that the difference between the fees now paid and those proposed to be charged would be available as a contribution towards the cost of a general reduction. The full-time students who are reading for diplomas granted by other bodies than the University are not taken into account, nor are any full-time or part-time post-graduate students. The fees of post-graduate students are generally very small, and we do not consider that the students who are reading for diplomas, and who, as a rule, are doing so because they are not qualified to matriculate, have any special claim upon the University funds. We therefore leave both these classes of students out of account. The calculation of the additional annual cost of similarly reducing the fees at the Imperial College is a more difficult matter. In the first place the position of the Royal School of Mines is somewhat different from that of other departments, for this is the only centre for instruction in mining in London, and no question of competition arises within the University area, though the annual fee charged at the Imperial College, viz., 45*l.*, is much higher than the fee of 21*l.* a year charged at the University of Manchester or the average fee of 24*l.* a year charged at the Armstrong College. If the fee at the Imperial College were reduced to 30*l.*, the annual cost based on the present number of students of undergraduate status would be about 2,500*l.* a year, provided all these students in future were undergraduates of the University taking a full degree course. It is scarcely likely, however, that more than half this number would be in the position to qualify for a degree course for some time to come, and since we do not propose any reduction in fees for those who are not university students the additional annual cost would probably at first not exceed 1,250*l.* a year.

Cost of reducing fees in London colleges.

¹ Board of Education. Reports from Universities and University Colleges for the year 1910-11. [Cd. 6245.] Vol. I., pp. xvi., xvii. Table 1.

* These fees, though lower than those in some of the English provincial universities, would be somewhat higher than the fees charged in the Welsh colleges and in the Scottish universities.

† The fees to be charged to medical students are not included in the present calculations.

352. The engineering students, who are already required to pass a serious entrance examination before admission to the Central Technical College, will probably all qualify under the new conditions for matriculation at the University, and on this assumption the additional annual cost of reducing their sessional fee to 30*l.* would be about 3,000*l.* a year.

Two-thirds of the students of the Royal College of Science studying subjects which fall within the Faculty of Science for the Associateship of the College or for the first degree are students whose fees are paid by the Board of Education. We assume that the 36*l.* a year already paid by the Board for each student would continue to be paid or, at least, that the difference between that sum and 20*l.* would be available as a contribution towards the cost of the general reduction of fees. The number of these students is 100; the number of other students in Science who are doing work below the standard of the Associateship or degree is 52, and the cost of reducing their fees to 20*l.* would be 832*l.* a year. We have recommended above (*see* paragraph 100) that the Board of Education should make it a regulation that any student attending the Imperial College whose fees are paid by the Exchequer should be qualified to matriculate on entrance, and we have accordingly assumed that practically all the students in Science will in future be university students. Those who are not would continue to pay the present fee. The total cost of reducing the fees at the Imperial College to the figures we have named would therefore amount to about 5,000*l.* a year, and if this is added to the 8,500*l.* a year required to reduce the fees in the other Constituent Colleges of the University the total amount would be about 13,500*l.* a year.

353. We realise that if the East London College were to be included as a Constituent College in any of the Faculties, a new difficulty would arise in connexion with the university fees, for the charge for a full degree course at the East London College in any Faculty is 10*l.* 10*s.* a year. The Governors of the college are of opinion that the students who go there are unable to afford more,¹ and this may be true. If the University should be of opinion that this is so, we think that on the inclusion of this college in any Faculty the uniform fee of the University should be charged, but that a bursary sufficient to reduce the fee to a net sum of 10*l.* 10*s.* should be awarded to each student who is genuinely resident within the area assigned to the college, provided he can satisfy the authorities that his financial circumstances warrant the award. The area of the college for this purpose would be determined by the University after a consideration of the relevant facts.

Fees at the East London College.

354. Before leaving this important question of fees, we desire to emphasise three matters of considerable importance connected with it. In the first place, the University should adopt a fixed composition fee for the full degree courses given in its Constituent Colleges and Departments in each Faculty. The fact that some departments of study within a Faculty cost more to maintain than others, or that new departments have been established, is no justification for charging heavier fees to the students in those departments. The choice of studies open to a student in any Faculty ought not to be limited by the length of his purse, still less should endowments given for the foundation of new departments or the development of those already existing be made the occasion of further contributions by the students as a condition of their benefiting by the donor's gift. The University may rightly limit the number of lectures and classes an undergraduate student attends, if it is thought wise on educational grounds to do so, but the fees charged to all undergraduate students reading for a degree in a given Faculty should be the same. It would not prevent the University from charging class fees for other students.

Composition or inclusive fees desirable.

In the next place, we have been much impressed by the benefit to the students, and to the college as a whole, which results from the system adopted at the Imperial College, under which the inclusive fee charged covers the subscription to the Students' Union, and incidentally the subscriptions to the various students' societies. University College has an inclusive subscription to the Students' Union, which is collected by the office when the class fee is paid, and in consequence nearly all the students subscribe. The practice adopted at the Imperial College, however, appears to us to be an improvement on this plan. In both cases the Students' Union has been of invaluable service to the social life of the great mass of university students in those colleges. The University should therefore make the inclusive fee chargeable in its Constituent Colleges cover the cost of admission to the various societies grouped

Fees should include subscription to Students' Union.

¹ *Appx. to 3rd Report, East London College, Statement, § 3, p. 119, Qs. 7464-74.*

under the Students' Union of the College. The subscriptions to university clubs and societies would be covered by an annual registration fee to which we refer below (*see* paragraph 408).

Future increase of students would necessitate larger income.

Higher standard of admission might tend to check increase in numbers.

In the third place, we wish to make it clear that the additional income of 13,500*l.*, which it is estimated would be necessary in order to reduce the inclusive fee for the courses for a first degree in the Faculties of Arts, Science, and Engineering to 15*l.*, 20*l.*, and 30*l.* a year respectively, would suffice only for the present number of students. Our intention and hope is, that if the fees were thus lowered, the number of students would increase, and it is difficult to estimate what further burden would be thrown upon the finances in consequence. It would depend partly upon the rapidity of growth, but partly also upon the departments of study which will prove most attractive. A large increase in the number of students in the Faculty of Arts might entail but little additional expense, but a relatively small increase in the students of Engineering might lead to considerable increase in the cost of those departments. We have recommended the University, however, to raise the standard of admission for its undergraduate students as soon as possible to that of the higher school examination (*see* paragraph 93). This might, for a time at least, result in preventing the increase in the number of students, which would follow on a reduction of the fees, from outrunning the means necessary for their effective education.

SUMMARY OF ADDITIONAL INCOME REQUIRED.

355. We are now in a position to estimate what total additional income the University would require in order to provide (a) for the immediately necessary increases in the salaries of Professors and Readers, and in the maintenance of libraries and laboratories in the Constituent Colleges and University Departments of the several Faculties, and (b) for the reductions in the fees to university students recommended in the preceding paragraphs. We have made as careful a calculation as the information in our possession allows of the probable annual cost of carrying out our recommendations under the several Faculties, and we believe that an additional income of 85,500*l.** a year would be necessary, apart from the cost of the university centre for the tutorial classes connected with the Workers' Educational Association. The University could make a beginning on a smaller sum than this, for it is not absolutely essential that the Faculty of Laws, or even the Faculty of Medicine, should be established immediately, while the proposed Constituent College for evening students might, if necessary, be postponed until after the University had been reorganised. On the other hand, it is of the greatest importance that the existing colleges for day students in the Faculties of Arts, Science, Technology, and Economics, should be strengthened at once in the directions we have indicated, in order to fit them to undertake the increased responsibilities that would be thrown upon them by the University, and it is desirable that the proposed School of Oriental Studies should be opened with the least possible delay.

The additional income needed by the University amounts therefore to—

(i) For salaries and maintenance of libraries and laboratories -	£85,500*
(ii) For reduction of fees to university students -	£13,500

Total additional income needed - - - £99,000 a year.

No estimate has been attempted of the capital sums necessary for the purchase of sites for the central university quarters or for any of its Constituent Colleges, nor for the erection of new buildings. It is obvious that the cost of creating a University quarter in Bloomsbury would be very great, but the expenditure could be spread over a long period of years, and the difficulties would not be insuperable if a careful policy were steadily and consistently pursued.

THE CO-ORDINATION OF THE FACULTIES.

356. We have now to consider the necessary machinery for co-ordinating the work of the Faculties and for carrying on the general central administration of the University, of which we humbly submit that Your Majesty in Council should continue to be Visitor. We have recommended that the Faculties should have wide powers of appointing committees (*cf.* paragraphs 113 and 124) and that arrangements should be made for enabling them to confer with each other. But provision must be made for

* If only one Constituent College in Medicine were established in the first instance, the additional income required would be reduced to 61,500*l.*

the government of the University as a whole, including the control of all matters not expressly assigned to the Faculties, the settlement of matters affecting more than one Faculty, and for a final decision when differences arise between one Faculty and another.

357. For these purposes we propose to continue the Academic Council in name at any rate, though its constitution and functions would be different from those of the present Council. We provide for the continuance of a Senate as the central executive organ of the University, and we agree with Report A. of the Academic Council in thinking that above the Senate there should be a widely representative and supreme governing body to be called the Court. In making this recommendation we are bringing the government of the University of London into line with that of the provincial universities. In the main this form of government, though not without its difficulties and dangers, has proved eminently successful, and we have already given our reasons for believing (*see* paragraph 110) that it is equally suitable to the circumstances of the metropolis. The legislative powers will be confined to this body, though the initiative may come from the Senate as well. The conferring of honorary degrees will rest with it, though it will only confer them on the report and advice of the Academic Council. Under similar conditions the inclusion of certain public educational institutions as Constituent Colleges, the recognition of others as Schools of the University, and the institution of new degrees and diplomas will be among its functions; and generally we think it should have most of the powers set out in Report A. of the Academic Council as proper to the large Senate which that Report advocates.¹

The Court.

Powers of the Court discussed.

We think, however, that the Court should have one other power of some importance which is not provided for in Report A. One of the principal advantages of a large body of this kind is that it should bring an intelligent lay judgment to bear upon the solution of problems which divide expert opinion. The history of the University of London and of other universities proves that from time to time questions of great importance to the subsequent development of the University have failed to find an answer, or have been decided by very small majorities, because the opinion of the experts has been divided. Certain cases of dispute between other governing bodies of the University will, we believe, be best decided by the right of appeal to the Court as the final authority.

Advantages of lay judgment.

358. The plan of organisation we recommend for the University provides for a division of the business and financial work on the one hand, and of the academic and educational work on the other between two bodies of experts, each specially qualified to deal with the matters allotted to them but kept in close touch with each other. The Senate, with its Committees and delegacies, will be concerned with administration and finance, the Faculties with education; but since the Senate exists for the benefit of the Faculties in a university and not the Faculties as the servants or employes of the Senate, we have provided for an academic body representing the teachers as a whole, to be called the Academic Council. To this body the Senate should be able to delegate the power of deciding any academic matter involving a question of policy which ought to be determined from the point of view of the University as a whole, and which therefore cannot properly be decided by any single Faculty in accordance with its own particular interests. But if the power of deciding any such matter is not so delegated, the Senate should consult the Academic Council and should not interfere with a Faculty in the exercise of its powers until it has done so. We point out later in dealing with the powers of the Senate how in certain cases we think it necessary that there should be a power of appeal by a minority of the Senate to the Court. We hope and believe that appeals would be of very rare occurrence, and that they would be made only in respect of questions of the first importance, but the power of decision in matters of this kind, which would rest in the large and representative assembly, would not only increase its dignity by emphasising its responsibility, but would be likely to give the University a greater adaptability to changing conditions and facilitate reform from within.

Actual conduct of University business divided between two bodies of experts.

Means of co-ordinating Senate and Faculties.

But the legislative power of the Court would be its supreme function, and short of the interposition of Parliament, the only means of altering the constitution and government of the University. The Court would not be responsible for the original Statutes, which would define the constitution and powers of the other governing bodies of the University. Its power would be limited to amendment of an existing

The legislative power of the Court its main function.

¹ *Appx. to 2nd Report, App. VII., § 54, pp. 283-4.*

constitution, and all new Statutes would require the sanction of the Privy Council. Resolutions of the Court would of course be subject to the Statutes in force for the time being. The control of the Court over the internal management of the University would thus be exercised entirely by means of Statutes and Resolutions, and would take effect only by altering or by setting in motion the existing machinery for the government of the University. This is what we understand to be the intention of the clause in Report A. of the Academic Council (paragraph 53 (1) (d), Appendix to Second Report, p. 283), providing for the manner in which the supreme governing body should exercise its control, and it corresponds generally to the position of the Court in most of the provincial universities. Statutes should be passed at one meeting of the Court and confirmed at a subsequent meeting, in each case by a majority of not less than two-thirds of those present and voting.

Powers of
Court sum-
marised.

359. In particular the Court should have and exercise the following powers :—

- (a) To make Statutes, either on its own initiative or on the proposal of the Senate; and to pass Resolutions subject to the existing Statutes of the University.
- (b) To confer all honorary degrees at meetings which should be specially called for the purpose, and for which a special quorum may be prescribed.
- (c) By Statute to increase or diminish the number of its members, by increasing or diminishing the number to be nominated or appointed by the persons or bodies possessing the right of appointment, or by adding representatives of other bodies or in any other manner.
- (d) To approve of the admission of Constituent Colleges or University Departments.
- (e) To approve of the recognition of public educational institutions or departments of such institutions as Schools of the University.
- (f) To institute any new degree, diploma, or certificate.
- (g) To decide any matter referred to it by appeal from the Senate in the circumstances described in paragraph 361 below.

With the exception of the matters specified above the Court should be enabled to delegate any of its powers to the Senate, or to any Committee of its own body.

The Statutes should provide for an annual general meeting of the Court for the reception of a Report from the Senate of the University, and for the summoning of special meetings by the Chancellor, by the Senate, or by the Vice-Chancellor on the requisition of 30 members of the Court.

Constitution
of the Court.

360. In our consideration of the constitution of the Court we have naturally paid close attention to the views expressed in Report A. of the Academic Council, with which, as we have said, we are in substantial agreement as regards this part of our problem. Report A. advocates a body of between 200 and 300 members, a body somewhat smaller than the Court of the University of Liverpool, which numbers 350. We also agree with Report A. in the view that the Court should have a reasonable power under the Statutes of co-opting additional members, "who by reason of their exceptional position in the political or commercial world, and interest in education, may be able to render the University great service." We do not think, however, that the teachers of the University need more representation on the Court than is sufficient to enable each of the University Faculties to have a spokesman. The greatly increased statutory powers which we advocate for the Faculties, and the power of appeal to the Court that is vested in a minority of the Senate, (upon which the teachers will be represented), make it unnecessary in our view that the teachers should have any effective voting power on the Court. We therefore propose to confine the representation of the teachers to the Deans of the Faculties who will also, as we explain below, be members of the Academic Council. We further exclude the representatives of learned societies other than the Royal Society and the British Academy, for we think their purposes are more cognate to the academic functions of the University than to the legislative, and that they will be amply represented, though in an indirect way, on the University Faculties. We also think that the interest of London as a great community would be more likely to be engaged by including some representation of the London boroughs on the Court as

¹ *Appx. to 2nd Report, App. VII., § 53, p. 283.*

well as some of the London members of Parliament. Instead, therefore, of placing all the London members of Parliament on the Court we recommend that 10 out of the 59 members of Parliament, other than the member for the University, should be co-opted and five members of the London borough councils should also be co-opted by the Court. On the other hand we recommend that the London County Council should appoint 30 persons instead of 13 as proposed in Report A. of the Academic Council. In other less important respects the list given below differs from the recommendations of that Report, but these differences do not call for special remark. We agree with Report A. that the Court should include two persons appointed by the Students' Representative Council, and we recommend below (*see* paragraph 370) that such a Council should form a constituent part of the University. The Statutory Commission that would be set up under the necessary Act of Parliament should determine the length of time for which the appointed and co-opted members of the Court should hold office, though the period should not, in our opinion, exceed four years. Provision should also be made by the Statutes of the University (a) for the retirement of members who represent other bodies when they cease to be members of the bodies they represent, (b) for the retirement of approximately half of the other appointed and co-opted members at one time, so as to avoid too sudden a change in the personnel of the supreme governing body, and (c) for the necessary quorums. It is impossible for us, at this stage, to be certain how many persons will be included under the several classes we refer to below, but we estimate that a Court constituted in the way we indicate will in the first instance number about 200 members.

The Chancellor.

The Vice-Chancellor.

The remaining members of the Senate *ex officio*.

The Deans of the Faculties *ex officio*.

1 person appointed by the Secretary of State for the Colonies.

1 " " " " " " " " India.

2 persons " " " " President of the Board of Trade to represent the interests of labour in higher education.

20 " " " Convocation.

1 person " " the Committee or Delegacy of each Constituent College or University Department not being a member of the teaching staff.

1 " " " the Governing Body of each School of the University not being a member of the teaching staff.

The Principal Officer of each of the Constituent Colleges.

The member of Parliament for the University.

10 members of Parliament for the Parliamentary Divisions of London co-opted by the Court.

The Lord Mayor and 2 persons appointed by the Corporation of the City.

1 person appointed by each of the 12 great City Companies.

The Chairman of the London County Council and 30 persons appointed by the Council.

5 persons being members of the Councils of the Boroughs within the Administrative County of London co-opted by the Court.

1 person appointed by the Metropolitan Asylums Board.

1 " " " each of the County Councils of Essex, Kent, Hertfordshire, Middlesex, Surrey and Sussex.

1 " " " the Council of each of the County Boroughs situated within the fore-named counties.

1 " " " " Royal Society.

1 " " " " British Academy.

1 " " " " Royal College of Physicians.

1 " " " " Royal College of Surgeons.

1 " " " " Institute of Civil Engineers.

1 " " " " " " Mechanical Engineers.

1 " " " " " " Electrical Engineers.

1 " " " " " " Mining and Metallurgy.

1 " " " " " " Naval Architects.

1 " " " " Society of Chemical Industry.

1 " " " " Council of Legal Education.

- 1 person appointed by the Law Society.
 1 " " " " Royal Institute of British Architects.
 1 " " " " Architectural Association.
 1 " " " " Royal Academy of Arts.
 1 " " " " London Chamber of Commerce.
 1 " " " " Institute of Bankers.
 1 " " " " " " Actuaries.
 1 " " " " " " Chartered Accountants.
 1 " " " " Surveyors' Institute.
 1 " " " " Royal Agricultural Society.
 1 " " " " Royal College of Veterinary Surgeons.
 2 Headmasters of London schools appointed by the Headmasters' Conference.
 4 " " " " appointed by the Incorporated Association of Headmasters.
 4 Headmistresses of London schools appointed by the Headmistresses' Association.
 4 Head Teachers of London Elementary Schools appointed by the Advisory Committee of Head Teachers of Elementary Schools in London.
 2 persons appointed by the Workers' Educational Association.
 2 " " " the Students' Representative Council.
 Other persons, not exceeding 25 in number, to be co-opted by the Court.

The Senate as the central executive organ of the University.

361. The central executive organ of the University will be the Senate, and except that we contemplate giving to the Faculties statutory control over the courses of study, examinations and qualifications for degrees, diplomas, certificates and distinctions (substantive and *ad eundem*) granted by the University to students in Constituent Colleges and University Departments, we think the powers ascribed to the Council by Report A. of the Academic Council¹ are in the main those which should be vested in the Senate. In two important respects, however, we think the powers of the Senate should differ from those contemplated in Report A. We intend the Faculties to have a larger degree of autonomy and responsibility than is assigned to them in that Report. The great size of London and the corresponding development of the University which we anticipate, make decentralisation of the control of detail both necessary and safe. We therefore propose to give the Faculties the power of action within the limits definitely assigned to them without reference to the Senate, and for this reason we think it unnecessary to give the Senate, as that Report suggested, the power of referring back, amending, or disallowing any act of any Faculty, or of any Committee of a Faculty, provided the act falls clearly within the powers assigned to the Faculty by Statute. At the same time, we consider that the Senate should have the power, after report from the Academic Council, to review any act of a Faculty or its Committees, and to give directions for their future action. We also think that any Faculty which considers that any act of another Faculty, or of a Committee of another Faculty, is detrimental to its own interests or to the interests of the University as a whole, should have the power of appeal to the Senate, and that the Senate after report from the Academic Council should have the power to give directions as to future action, which should be binding. Before making a decision the Senate should indeed take the opinion of the Academic Council, not only upon questions of appeal, but also on all questions of an educational, rather than an administrative kind, which affect the interests of the University as a whole. In normal circumstances the decision of the Senate after it had considered the report of the Academic Council would be final, but we realise that a difference of opinion might occasionally arise between the Senate and the Academic Council upon a matter which deeply engaged educational opinion or interests, and which ought to be decided as between the administrative experts on the Senate and the educational experts on the Council by the more popular vote of an instructed lay judgment. We therefore recommend that in cases where a majority of the Senate differs from the Academic Council on a matter referred to that body, but five or more members of the Senate support the recommendations of the Council, it should be open to the minority to appeal to the Court in support of the views of the Academic Council. The decision of the Court in such cases would be final. It is not to be supposed that a minority on the Senate would always appeal to the Court against the majority when the views of the Academic Council were disregarded, but the power to appeal would remove some of the dangers which we are aware beset the small and powerful

Power of appeal by the Faculties.

Appeal by minority of Senate to the Court.

¹ *Appx. to 2nd Report, App. VII., § 56, pp. 284-5.*

governing bodies of American universities, and would, we hope, afford a means of settlement from within for those controversies as to policy which seem from time to time to invade all universities. We desire, in brief, that the action of the Senate in all matters of educational administration falling within the purview of the Faculties as defined by Statute should be judicial rather than executive, and we believe that in this way alone can the mass of work which falls upon the present Senate be reduced, and the business of the University promptly and efficiently done. The Senate will have enough to do in the management of the finances of the University and in working out the University policy, while the increased responsibility of the Faculties will strengthen their influence and tend to prevent ill-considered action. We may add parenthetically that the Senate will not deal directly with Boards of Studies, for we propose that each Faculty should appoint such Committees of its own body as it thinks necessary to perform the duties of Boards of Studies, and will make arrangements with other Faculties for joint Boards of Studies when they are required (*cf.* paragraph 124).

362. We think, therefore, that the Senate should be the Executive Body of the University, and should have the custody and use of the Common Seal, the management and administration of the whole revenue and property of the University, and (except as otherwise provided) the conduct of all the affairs of the University.

Powers of
the Senate
summarised.

In general agreement with Report A. of the Academic Council (§ 56), we recommend that the Senate should in addition to all other powers vested in them have the following powers:—

- (a) To draft Statutes as and when they see fit, and submit the same to the Court for consideration and enactment.
- (b) To appoint the Vice-Chancellor.
- (c) To appoint and to prescribe the powers and duties of Delegacies for the management of Constituent Colleges and University Departments, subject to any provisions of Acts or Charters concerning such Delegacies.
- (d) To determine by regulation or otherwise all matters relating to—
 - (i) The quorum to be required at meetings of any Committees, other than Statutory Committees, of the Senate and at any meetings of the Faculties and Convocation.
 - (ii) The finance, investments and accounts of the University.
 - (iii) The payment and amount of fees to be exacted within the University, or in relation to the enjoyment of privileges therefrom.
 - (iv) The duties and powers of the Academic Council and Faculties, except as expressly provided otherwise.
 - (v) The duties and powers of Advisory and other Boards, including Boards and Committees to be appointed by the University jointly with any other University or Body.
 - (vi) The qualifications for honorary degrees and distinctions to be awarded by the University and the means and steps to be taken relative to the granting and obtaining of the same.
 - (vii) The visitation of Constituent Colleges and University Departments and of Schools of the University.
 - (viii) The terms and mode of appointment, tenure of and removal from office, duties, emoluments, allowances, salaries, and superannuation allowances of the officers of the University, including its professors, teachers, registrars, librarians, and permanent servants.
 - (ix) The tenure of office and terms and manner of appointment and the duties of the Assessors, Examiners, and Examining Boards.
 - (x) The provisions and tenure of fellowships, scholarships, exhibitions, prizes, rewards, and pecuniary and other aids.
 - (xi) The discipline to be enforced in regard to the graduates and undergraduates in so far as they come within the jurisdiction of the University.
 - (xii) The removal from membership of the University of graduates and undergraduates and the withdrawal of degrees, diplomas, certificates, and distinctions, subject to an appeal to the Court.
 - (xiii) The conduct of school examinations and the granting of certificates of proficiency.
 - (xiv) The extension of University teaching in London and the adjacent counties and districts by means of University Extension lectures or otherwise.

(xv) The provision, maintenance, and supervision of halls, hostels, or other premises for the residence of students.

(xvi) The power to report to the Court on any matter concerning the University.

(xvii) All such other matters as may be delegated to them by the Court. The Senate should also determine by regulation, or otherwise, three other matters not included by the Academic Council within its powers :—

(xviii) The admission of students as undergraduates of the University.

(xix) The granting of degrees, diplomas, and certificates upon report from the appropriate Faculty or Board or Committee.

(xx) The appointment of representatives on various bodies.

- (e) To invest any moneys belonging to the University, including any unapplied income in such stocks, funds, fully-paid shares, or securities as the Senate shall from time to time think fit, whether authorised by the general law for the investment of trust moneys or not, and whether within the United Kingdom of Great Britain and Ireland or not, or in the purchase of freehold, copyhold, or leasehold hereditaments in the United Kingdom, including rents, with the like power of varying such investments from time to time.
- (f) To sell, buy, exchange, lease, and accept leases of real and personal property on behalf of the University.
- (g) To provide the buildings, premises, furniture, and apparatus and other means needed for carrying on the work of the University.
- (h) To borrow money on behalf of the University, and for that purpose (if the Senate think fit) to mortgage all or any part of the property of the University, whether real or personal, or give such other security whether upon such real or personal property or otherwise as they think fit, provided that the moneys borrowed and owing by the University shall not at any time exceed in the whole the sum of 10,000*l.*, except with the sanction of a resolution passed at one meeting of the Court and confirmed by the vote of three-fourths of the members present and voting at a subsequent meeting of the Court specially convened for the purposes and held not less than seven days after the former.
- (i) To enter into, vary, carry out, and cancel contracts on behalf of the University.
- (j) To appoint the officers of the University, including its professors, teachers, registrars, librarians, and permanent servants.
- (k) To recommend to the Court after report from the Academic Council the names of recipients of honorary degrees.
- (l) To make recommendations to the Court as to—
 (i) The admission of Constituent Colleges and University Departments.
 (ii) The recognition of public educational institutions or departments of such institutions as Schools of the University.
 (iii) The institution of new degrees, diplomas or certificates.
- (m) To organise, improve, and extend university education within the appointed area and to review the instruction and teaching of the University, both undergraduate and post-graduate, provided that the Senate shall not make any decision in regard to any of these matters without inviting and receiving a report thereon from the Academic Council.
- (n) To promote research within the University and to this end to require reports from time to time from the appropriate body or bodies.
- (o) To entertain, adjudicate upon, and if thought fit redress any grievances of the officers of the University, the professors, the teaching staff, the graduates, undergraduates, and the University servants who may for any reason feel aggrieved otherwise than by an act of the Court.
- (p) After report from the Academic Council:—To give general directions to the Faculties; to review any act of any Faculty or of any Committee or Board of a Faculty, other than the election of an officer or representative of such body, upon the appeal of any other Faculty; and to give directions for their future action accordingly.
- (q) To appoint Committees whether of their own members or not for any purposes not otherwise provided by Statute.
- (r) To delegate their powers in such manner as they may see fit, provided that they shall not delegate the power to borrow money.

hampers discussion and the despatch of business in larger bodies. Members of small bodies attend more regularly than members of large ones, and party divisions are less likely to occur. We have already said that it should not in the main be representative, by which we mean that the majority of its members should not be elected. For the reasons already given, we also think the representatives of the teachers should be limited to two, as recommended in Report A. of the Academic Council. That Report contemplated a body of 23 members, but in our opinion one of not more than 15 would be preferable. We recommend accordingly that the Senate should be constituted as follows:—

The Chancellor.

The Vice-Chancellor.

The Chairman of Convocation.

Five persons appointed by the Crown for a term of six years.

Two persons appointed by the Court for a term of six years (the first persons appointed to be nominated by the Statutory Commission).

Two members of the Academic Council appointed triennially by that Council.

Two persons appointed by the London County Council.

One person appointed triennially by the Corporation of the City of London.

The quorum of the Senate should be six.

The first persons appointed by the Crown and by the Statutory Commission, should be appointed for a term of six years. The Statutes should provide that after that period two or three of the five members then appointed by the Crown should retire at the end of three years, and their successors be appointed for six years, and one of the persons first appointed by the Court should retire at the end of three years and his successor be appointed for six years. The members appointed by the Academic Council should cease to hold office if they cease to be members of that Council. The first members appointed by the London County Council should be appointed on the reconstitution of the University, and their successors be appointed at the first meeting after the election of a new Council. They should hold office during the period of office of that Council. The business of the Senate will be so important, and continuity of policy so necessary to the successful working of the University, that we think all members other than those appointed *ex officio* should vacate their seats if they are absent without reasonable cause from three consecutive regular meetings of the Senate.

Periods of appointment.

364. We come next to the Academic Council. Our view of its functions is somewhat different from that placed before us in evidence by the present Academic Council and by other witnesses.

The Academic Council.

This difference arises from the enlarged powers which, in our opinion, should be assigned to the Faculties. Stated in the simplest and shortest form, our intention is that the control of the teaching and examining work of the University should, as far as possible, rest with the Faculties, and that the control of finance and administrative business should rest with the Senate and its Committees and delegacies. As, however, the control of the purse must, in the ultimate issue, mean the control of all else, we think it necessary to ensure that the Senate shall not take any action having a direct educational bearing on the University as a whole, or interfere with a Faculty in the exercise of its powers, without inviting and receiving a report from a body representative of the teaching staff as a whole. For this purpose we provide an Academic Council, which should in the main be an advisory body, though the Senate will be able at its discretion to delegate certain executive functions to it. The erection or extension of buildings, the provision of apparatus or equipment, the endowment or remuneration of teachers in the Constituent Colleges and Departments of the University are matters which the Senate should have power to deal with after receiving reports from its local committees or delegacies, and from the Faculty or Faculties concerned, without the necessary intervention of the Academic Council—though the Senate would, no doubt, seek its advice when it thought well to do so. There is, however, a number of other matters upon which the opinion of the Academic Council should, in our opinion, always be taken, and these are briefly as follows:—

The Academic Council mainly an advisory body.

(a) General directions to the Faculties.

(b) The establishment and admission of Constituent Colleges and University Departments and the recognition of duly qualified institutions in whole or in part as Schools of the University, and the visitation of Constituent Colleges, University Departments, and Schools of the University.

Matters to be referred to the Academic Council.

- (c) The nomination of Boards of Advisors and the appointment and determination of the duties of Professors, Readers, and Lecturers of the University.
- (d) Any matter concerning research or teaching, or the examination of students.
- (e) Regulations for studentships, scholarships, prizes, and medals.
- (f) The conferring of honorary degrees.
- (g) The appointment of representatives of the University on the governing bodies, &c. of Schools of the University, and the appointment of delegates to represent the University at academic celebrations.
- (h) The institution of certificates or diplomas to be awarded by the University Extension Board.

Executive powers of Academic Council.

The Academic Council should also have executive power to decide such academic matters affecting the University as a whole as may be delegated to them by the Senate.

Constitution of the Academic Council.

365. The Academic Council, like the Senate, should be a small body, and while on the one hand it should be so constituted as to include at least one member of each of the Faculties it should not be constituted on the basis of proportional representation. The Council, in our view, should be a body able to speak with weight on behalf of the professoriate as a whole, and it should therefore consist of persons who will take a broad view of the questions affecting the University in its corporate capacity. We think that the Deans of the Faculties, who will presumably be appointed to their office on the ground of their judgment and ability in practical affairs, should be members *ex officio* of the Academic Council as well as of the Court, and that eight other members of the Council should be appointed for three years by the Faculties voting in common session, because we believe this method of election is most likely to ensure the selection of persons on the ground of their general fitness rather than as representative of some branch of learning. Pending the constitution of the Faculties of Theology, Laws, and Medicine, the Senate should appoint one teacher from the Schools of the University in each of these groups of study to serve on the Academic Council. Under the Statutes the simultaneous retirement of the representative members of the Council would be avoided by special provision in the case of first appointments. The Council would therefore consist of the Vice-Chancellor as Chairman, the Deans of the Faculties for the time being, one teacher appointed by the Senate to represent each group of studies in respect of which Schools of the University have been recognised but for which no Faculty has yet been constituted, and eight members of the Faculties elected by the Faculties in common session. The quorum of the Academic Council should be seven.

The Committee for Technology.

366. We have already explained (*see* paragraphs 201 and 202) that provision should be made for the establishment of a Statutory Committee of the Senate which would be entrusted, under the general supervision of the Senate, with the control of the funds and buildings available for the teaching of technology and for the general direction of the several departments included within the Faculty. We have also described its functions and constitution. This Committee would be of the nature of a delegacy, but the importance of the professional studies included in this Faculty is so great, and their connexion with the industries so intimate, that we think the Faculty should report to the Committee for Technology instead of direct to the Senate in all cases except on the rare occasions when an appeal is made against the action of another Faculty. Even in these cases, however, the Senate should not come to a decision without first inviting and considering a report from the Committee for Technology. The Statutes should provide for the necessary quorum.

The central administrative bodies summarised.

367. The various constituent bodies which would be necessary in order to provide for the central administration and to co-ordinate the work of the several Faculties are therefore as follows :—

- (a) The Court—a widely representative body of about 200 members, the functions of which would be mainly legislative, but also on occasion judicial when appeals from the Senate came before it for decision.
- (b) The Senate—a body of 15 persons, consisting as to a majority of Crown and *ex officio* members, which would be the supreme executive organ of the University.
- (c) The Academic Council—a body of 15 professors and teachers (in the first instance), together with the Vice-Chancellor, the functions of which would

be mainly advisory, and executive only as regards educational matters delegated to it by the Senate.

- (d) The Committee for Technology—an executive committee of the Senate entrusted with the administration of all matters connected with the Faculty of Technology, excepting finance and the appointment of Professors and Readers, in respect of which its powers would be advisory.

We deal with other Committees of the Senate, their functions, and constitution in Part IV. of our Report.

Other Committees of the Senate.

The officers of the University.

368. In considering what officers the reconstituted University would need, we have taken account of the probable effect of the kind of organisation that has been recommended for the University in future. The clear differentiation of function proposed for the several bodies that will be concerned with the administration on the one hand, and the conduct of the educational activities of the University on the other, should lead to a decentralisation of the permanent staff, and incidentally to greater elasticity than appears to exist at present in the conduct of business. Much that is now done centrally would in future be done by the Faculties, and for this reason the Deans of the Faculties would need secretarial assistance. But the secretaries of the Faculties, though they would form a part of the headquarters staff so far as their appointment, dismissal, and the definition of their duties were concerned, would be in closer touch with the academic life and opinion of the University than the present clerical staff can be, and would be in a better position to understand the desires and intentions of the professors. We anticipate, therefore, that the permanent staff working in the central offices of the University would be considerably smaller than at present, and, with the exception of the Vice-Chancellor, they would probably all be concerned rather with the business and financial, than with the educational, work of the University. One of the greatest dangers inherent in the highly-centralised government of the University under the Act of 1898, is the necessity it has involved of appointing a large permanent staff at headquarters which can be only imperfectly informed as to the real life of the University, and yet is obliged to deal from day to day with questions of great educational importance which have a profound influence upon the teaching and research. Some modifications may be necessary in the following list of officers when the new constitution comes to be established, but the provision here suggested appears to us sufficient to meet all probable needs.

We think the officers of the University should be—

- (1) The Chancellor appointed by Convocation for life, who would be *ex officio* a member of the Court, the Senate and Convocation, and Chairman of the Court and of the Senate.
- (2) The Pro-Chancellor elected by the Court for a period of years to act as Chairman of the Court in the absence of the Chancellor.
- (3) The Vice-Chancellor appointed by the Senate, a permanent official with a salary who would be the chief administrative officer of the University. The Vice-Chancellor would be *ex officio* a member of the Senate and all its Committees, of the Academic Council, of all the Faculties, and of Convocation. He would be Chairman of the Senate in the absence of the Chancellor, and Chairman of the Academic Council.
- (4) The Deans of the Faculties, who would be appointed for a period of years by their respective Faculties and would be members *ex officio* of the Academic Council and of the Court.
- (5) The Registrar appointed by the Senate, who would be responsible for the registration of students and graduates of the University, act as Secretary to the Court and Senate and be the chief officer of the Vice-Chancellor's clerical staff.
- (6) Such additional clerical and other officers as the Senate may appoint to the Vice-Chancellor's staff.
- (7) The Secretaries to the Faculties, appointed by the Senate to act as clerical officers to these bodies, who should form a part of the Vice-Chancellor's staff, and should not be members of the Faculties to which they are attached.

THE CONVOCATION.

369. We think the constitution and powers of Convocation as defined in the present Statutes (Nos. 40 to 58 inclusive) should be continued, except that all

Constitution and powers of Convocation.

University Professors and University Readers, all Honorary and Associate Professors and Honorary and Associate Readers, and all persons upon whom the Court may confer an honorary or *ad eundem* degree should be entitled to be registered as members of Convocation ; except also that Statute 41 (iii) would henceforth disappear, and that in Statutes 54 and 56 the word "Court" would be substituted for the word "Senate."

THE STUDENTS' REPRESENTATIVE COUNCIL.

Constitution
and powers
of Students'
Representa-
tive Council.

370. The present Students' Representative Council was formed in March 1907, and recognised by the University in July of the same year. Its objects are "to represent students in matters affecting their interests, to afford a recognised means of communication between students and the University Authorities, and to promote intercourse between the various Schools and Colleges of the University. The Council is composed of representatives of the Schools of the University, the Union Society, the Musical Society, and the Athletic Union. Other societies and clubs that may be formed in the future may be allowed to appoint a representative by resolution of the Council."¹ We received a statement and heard evidence from members appointed to represent it.² They expressed the view that the students should be represented on the Senate, and they laid stress on the advantage of a general election of such a representative upon lines of party politics. With regard to the membership of the Students' Council, they pointed out the disadvantage of the present system, under which matriculated students who do not proceed to a degree continue to be students of the University for the rest of their lives, and can claim admission to the athletic and other societies of the University.

We think it is right that the students should be represented on the supreme governing body, and we have recommended (*see* paragraph 360) that the Students' Representative Council should elect two members on the University Court. We do not think it desirable to introduce party politics into the University unnecessarily, but we sympathise with the object the witnesses had in view in recommending this, which was that they thought a vigorously contested election would do much to enable the students to realise that they had some interests in common, and that they all belonged to one University. We are fully alive to the importance of this, especially in London, where much of the University teaching must be widely distributed, and we have expressed our views and made recommendations for their attainment in what we have said with regard to University hostels and college societies, in paragraphs 104 and 105 of our Report. We recognise the disadvantage of admitting all who have passed the matriculation examination to the rights of students of the University, although they may long have ceased to be so in fact. But in a subsequent Part of our Report (*see* paragraph 408) we have provided against this by recommending that steps should be taken, by means of registration, to ensure that the undergraduate students of the University should be genuinely engaged in studying for a degree. The power of voting for the Students' Representative Council and its membership should be limited to registered undergraduate and graduate students of the University, as described in the paragraph of our Report just referred to. The Council should be a constituent part of the University.

In addition to appointing representatives on the Court, we think the Students' Representative Council should under the Statutes have the right of access by petition to the University authorities with regard to any matter affecting the teaching and discipline of the University, or otherwise affecting the interests of the students. As regards finance, although we do not think that University hostels or college societies should be a tax upon the general University funds, a grant might properly be made by the University to the Students' Representative Council for its expenses, as is done in the Scotch universities. As the Council would be an integral part of the University, it would have a claim to a share in its funds, in addition to any part of the registration fees which might be allocated to it.

SITES FOR THE CENTRAL BUILDINGS AND FOR CERTAIN OTHER UNIVERSITY INSTITUTIONS.

Central
University
buildings.

371. The importance has already been pointed out (*see* paragraphs 102 and 103) of creating a university quarter in London by bringing the Constituent Colleges and

¹ University of London Calendar, 1912-13, p. 406.

² *Appx. to 3rd Report*, p. 196.

University Departments as far as possible together in one district and grouping them round the central buildings of the University. Further consideration of the best position for the central University buildings has convinced us that the most suitable and convenient quarter for them will be found in Bloomsbury. The working population of the metropolis moves increasingly as time proceeds from the periphery to the centre in the daytime and from the centre to the periphery in the evening. The means of communication are determined by this fact, and since it is not possible to concentrate all the teaching at the centre, the majority of the students and teachers in those University institutions which must remain in different quarters of London will find it more convenient to come to the centre for common university purposes than to any other point within the London area. If King's College, the new University Department of Household and Social Science, the Brown Animal Sanatory Institution, and the central University buildings were all moved to the Bloomsbury district, where they would be close to University College, the School of Economics and the new Constituent College in Arts and Science for evening students, it ought to be possible to create in time a university quarter which would perhaps do more than anything else to impress the imagination of the great London public and to convince them that the University was a reality.

Formation
of a Univer-
sity quarter.

THE UNIVERSITY LIBRARIES, EXAMINATION HALLS, &c.

372. If the University buildings were removed to Bloomsbury, we think there would be good reason for maintaining a central University Library which should aim at supplementing the libraries in the Constituent Colleges, University Departments and Schools rather than at duplicating them.¹ We have already explained our reasons for advocating the removal of the Goldsmiths' Library of Economic Literature to the School of Economics (*see* paragraph 221), and it is possible that some further decentralisation may be desirable, but if the University buildings were to remain at South Kensington we should see few arguments for a central library. The present buildings are far removed from most of the institutions connected with the University, and if this were to remain its headquarters we should prefer to see the books distributed among those centres which could make best use of them with a proviso that they should be accessible to all students of the University. But if the present temporary home of the University were given up, and the central buildings were conveniently placed, the arguments in favour of all the books being distributed among the colleges would disappear. Regulations should be adopted which would make the libraries in all the Constituent Colleges, as well as the Central Library, available under suitable conditions for the use of all university students whether attached to a Constituent College or not, and in general it should be the policy of the University to make its books as easily accessible as possible. The whole question will need careful consideration by the new Senate, for it is to be remembered that if, as we hope, the new School of Oriental Studies is established as a University Department, the University will come into possession of over 200,000 volumes of general literature which form the present library at the London Institution. It would, of course, transfer to the new School its own oriental books, but it might well think it wise to move some at least of the books dealing with general subjects at present housed in Finsbury Circus. This problem can be solved only by a careful survey of all the libraries under university control with a view to the placing of the various classes of books where they will be of most use.

A central
University
Library.

373. In our Fourth Report we expressed the view that it would be extravagant to provide examination halls for the University in the centre of London where land is necessarily very expensive. It will be apparent from the recommendations we have made in the present Part of our Report that special examination halls would not be needed for the students in the Constituent Colleges and University Departments, who would be examined in their own Colleges and Departments. We hope the same practice would be followed in the case of students in Schools of the University, for it is important, and especially so in the case of practical examinations, that the students should, as far as possible, be examined in familiar surroundings, and by means of apparatus to the use of which they are accustomed. These favourable conditions cannot be provided for private students, and if room cannot be found

Examination
halls.

¹ *Appx. to Final Report, Library Association Report, p. 262.*

University Professors and University Readers, all Honorary and Associate Professors and Honorary and Associate Readers, and all persons upon whom the Court may confer an honorary or *ad eundem* degree should be entitled to be registered as members of Convocation ; except also that Statute 41 (iii) would henceforth disappear, and that in Statutes 54 and 56 the word "Court" would be substituted for the word "Senate."

THE STUDENTS' REPRESENTATIVE COUNCIL.

Constitution
and powers
of Students'
Representa-
tive Council.

370. The present Students' Representative Council was formed in March 1907, and recognised by the University in July of the same year. Its objects are "to represent students in matters affecting their interests, to afford a recognised means of communication between students and the University Authorities, and to promote intercourse between the various Schools and Colleges of the University. The Council is composed of representatives of the Schools of the University, the Union Society, the Musical Society, and the Athletic Union. Other societies and clubs that may be formed in the future may be allowed to appoint a representative by resolution of the Council."¹ We received a statement and heard evidence from members appointed to represent it.² They expressed the view that the students should be represented on the Senate, and they laid stress on the advantage of a general election of such a representative upon lines of party politics. With regard to the membership of the Students' Council, they pointed out the disadvantage of the present system, under which matriculated students who do not proceed to a degree continue to be students of the University for the rest of their lives, and can claim admission to the athletic and other societies of the University.

We think it is right that the students should be represented on the supreme governing body, and we have recommended (*see* paragraph 360) that the Students' Representative Council should elect two members on the University Court. We do not think it desirable to introduce party politics into the University unnecessarily, but we sympathise with the object the witnesses had in view in recommending this, which was that they thought a vigorously contested election would do much to enable the students to realise that they had some interests in common, and that they all belonged to one University. We are fully alive to the importance of this, especially in London, where much of the University teaching must be widely distributed, and we have expressed our views and made recommendations for their attainment in what we have said with regard to University hostels and college societies, in paragraphs 104 and 105 of our Report. We recognise the disadvantage of admitting all who have passed the matriculation examination to the rights of students of the University, although they may long have ceased to be so in fact. But in a subsequent Part of our Report (*see* paragraph 408) we have provided against this by recommending that steps should be taken, by means of registration, to ensure that the undergraduate students of the University should be genuinely engaged in studying for a degree. The power of voting for the Students' Representative Council and its membership should be limited to registered undergraduate and graduate students of the University, as described in the paragraph of our Report just referred to. The Council should be a constituent part of the University.

In addition to appointing representatives on the Court, we think the Students' Representative Council should under the Statutes have the right of access by petition to the University authorities with regard to any matter affecting the teaching and discipline of the University, or otherwise affecting the interests of the students. As regards finance, although we do not think that University hostels or college societies should be a tax upon the general University funds, a grant might properly be made by the University to the Students' Representative Council for its expenses, as is done in the Scotch universities. As the Council would be an integral part of the University, it would have a claim to a share in its funds, in addition to any part of the registration fees which might be allocated to it.

SITES FOR THE CENTRAL BUILDINGS AND FOR CERTAIN OTHER UNIVERSITY INSTITUTIONS.

Central
University
buildings.

371. The importance has already been pointed out (*see* paragraphs 102 and 103) of creating a university quarter in London by bringing the Constituent Colleges and

¹ University of London Calendar, 1912-13, p. 406.

² *Appx. to 3rd Report*, p. 196.

University Departments as far as possible together in one district and grouping them round the central buildings of the University. Further consideration of the best position for the central University buildings has convinced us that the most suitable and convenient quarter for them will be found in Bloomsbury. The working population of the metropolis moves increasingly as time proceeds from the periphery to the centre in the daytime and from the centre to the periphery in the evening. The means of communication are determined by this fact, and since it is not possible to concentrate all the teaching at the centre, the majority of the students and teachers in those University institutions which must remain in different quarters of London will find it more convenient to come to the centre for common university purposes than to any other point within the London area. If King's College, the new University Department of Household and Social Science, the Brown Animal Sanatory Institution, and the central University buildings were all moved to the Bloomsbury district, where they would be close to University College, the School of Economics and the new Constituent College in Arts and Science for evening students, it ought to be possible to create in time a university quarter which would perhaps do more than anything else to impress the imagination of the great London public and to convince them that the University was a reality.

Formation
of a University
quarter.

THE UNIVERSITY LIBRARIES, EXAMINATION HALLS, &c.

372. If the University buildings were removed to Bloomsbury, we think there would be good reason for maintaining a central University Library which should aim at supplementing the libraries in the Constituent Colleges, University Departments and Schools rather than at duplicating them.¹ We have already explained our reasons for advocating the removal of the Goldsmiths' Library of Economic Literature to the School of Economics (*see* paragraph 221), and it is possible that some further decentralisation may be desirable, but if the University buildings were to remain at South Kensington we should see few arguments for a central library. The present buildings are far removed from most of the institutions connected with the University, and if this were to remain its headquarters we should prefer to see the books distributed among those centres which could make best use of them with a proviso that they should be accessible to all students of the University. But if the present temporary home of the University were given up, and the central buildings were conveniently placed, the arguments in favour of all the books being distributed among the colleges would disappear. Regulations should be adopted which would make the libraries in all the Constituent Colleges, as well as the Central Library, available under suitable conditions for the use of all university students whether attached to a Constituent College or not, and in general it should be the policy of the University to make its books as easily accessible as possible. The whole question will need careful consideration by the new Senate, for it is to be remembered that if, as we hope, the new School of Oriental Studies is established as a University Department, the University will come into possession of over 200,000 volumes of general literature which form the present library at the London Institution. It would, of course, transfer to the new School its own oriental books, but it might well think it wise to move some at least of the books dealing with general subjects at present housed in Finsbury Circus. This problem can be solved only by a careful survey of all the libraries under university control with a view to the placing of the various classes of books where they will be of most use.

A central
University
Library.

373. In our Fourth Report we expressed the view that it would be extravagant to provide examination halls for the University in the centre of London where land is necessarily very expensive. It will be apparent from the recommendations we have made in the present Part of our Report that special examination halls would not be needed for the students in the Constituent Colleges and University Departments, who would be examined in their own Colleges and Departments. We hope the same practice would be followed in the case of students in Schools of the University, for it is important, and especially so in the case of practical examinations, that the students should, as far as possible, be examined in familiar surroundings, and by means of apparatus to the use of which they are accustomed. These favourable conditions cannot be provided for private students, and if room cannot be found

Examination
halls.

¹ *Appx. to Final Report, Library Association Report, p. 262.*

for them in the Schools and buildings of the University it may be necessary to find additional accommodation by hiring or even by building suitable halls in some accessible part of London where the price of land is relatively low. The building of rooms and laboratories for examination purposes would not, however, be one of the matters for which provision would be most urgently necessary, and it might perhaps be postponed until after the more urgent and more strictly educational needs of the University had been met.

Central laboratories not yet necessary.

374. It will also be obvious from Part II. of our Report that we see no urgency for the separate provision of scientific laboratories for advanced work in the central University buildings (*see* paragraph 73). We think the plans for those buildings need make no provision for this purpose, though we hope that the site will be sufficiently extensive to allow of the erection of central laboratories should these prove in course of time to be necessary. On the other hand, we desire to emphasise the necessity of the central buildings being so planned as to fulfil all those other purposes to which we referred in our Fourth Report (*see* page 209).

THE AREA OF THE UNIVERSITY.

Two areas under present constitution.

375. We have given much consideration to the question of the proper area of the University. Under its present constitution the University has two areas. The smaller of the two is confined to the Administrative County of London, and it is only within this area that the University can under the Statutes admit public educational institutions as Schools, though by special provision the South-Eastern Agricultural College at Wye, and the Royal Holloway College at Egham, were admitted to this status on the reconstitution of the University. The larger area is defined by an imaginary line drawn at a radius of 30 miles from the central buildings of the University, and within this area the Senate has the power of recognising teachers in public educational institutions, and so qualifying them for appointment to the Faculties and Boards of Studies, and their matriculated students for registration as Internal students of the University. In Mr. Sidney Webb's opinion the difference between a School and an institution having "recognised" teachers has little reality, and he would therefore abolish the double area and extend the larger so as to include those parts of the counties of Essex, Hertfordshire, Kent, and Sussex which at present lie beyond the 30-mile radius. Dr. Garnett also advocates this extension of the area.¹

Area proposed by Mr. Sidney Webb.

It will be evident, from the plan of reorganisation we have already outlined, based as it is upon the strengthening of the Faculties and the close co-operation of their members, that even if institutions existed outside London which could properly become Constituent Colleges of the University, an area of the size contemplated by Mr. Webb would frustrate their efficient working. If London is to have a real university, its area must be a relatively limited one, and we think that the Administrative County is certainly the very largest which will allow of the effective organisation we desire. There is a real limit to the number of students for which a university can provide the highest kind of education. It is thought by many that the University of Berlin with nearly 9,000 matriculated students is already too large, and we doubt whether the University of London would ever be able to provide for a much larger number than this an education comparable to that of Berlin. When this point has been reached the need will have arisen for another university, and if the University of London can prepare the way for a new university in the south-east of England by encouraging the development on the right lines of educational institutions beyond its own immediate area, it will have performed a greater service to education and to the State than by attempting a gigantic organisation which would be likely to end in the arid formalism of the Napoleonic Université de France. There is much teaching for university degrees within the Administrative County of London and outside the walls of the proposed Constituent Colleges which urgently needs strengthening and development. While performing this task we think the University might properly afford similar encouragement to institutions with like aims in the home counties. This problem is discussed in Part IV. of our Report, but we may say at once that for these purposes we consider the area of the University might well be extended in the way proposed by Mr. Webb.

¹ *Appx. to 1st Report*, Webb, Statement, § 65(h), p. 32, Qs. 467-8, 596; Garnett, Statement, § 16, p. 106. *Appx. to 2nd Report*, Academic Council Report, Note IX., pp. 301-2.

PART IV.

THE RELATION OF THE UNIVERSITY TO THE REMAINING PROVISION FOR HIGHER EDUCATION IN LONDON AND THE HOME COUNTIES.

THE SCHOOLS OF THE UNIVERSITY.

376. We have said already (paragraph 114) that it will not be possible to bring all the institutions at present concerned with teaching for university examinations into the close union with the University which is proposed for the Constituent Colleges and University Departments. There are many reasons for this. In some cases the institutions have not sufficiently developed, in others the distance of the college from London is a bar, in others again their general character and principal aims or their past history will make complete union with the University impracticable or, in the opinion of their governing bodies, undesirable. Many of these institutions, some of them already Schools of the University, are doing sound work often under difficulty, and it would be an unfortunate result of the establishment of a true university in London if they were left without encouragement or recognition. The problem to be solved is how best to link them up with the University without lowering the standards of the University itself, and to encourage their development into true university centres wherever possible. We think the conditions laid down in the existing Statutes (Nos. 73, 76, and 77) for the admission, visitation and removal of educational institutions as Schools of the University are generally suitable so far as they are applicable to the altered circumstances which we have in view, but we agree with Report A. of the Academic Council that certain further conditions are necessary. Report A. assumes a continuance of the present distinction between Schools of the University and University centres of a lower status than Schools in which the teachers engaged in university work will be "recognised." The conditions for the affiliation of these centres proposed in that Report are less stringent than in the case of Schools. The proposals made in the foregoing Part of our Report would, however, result in the establishment of a new class of institution under university management to be called Constituent Colleges and University Departments, and we think that all other educational institutions connected less closely with the University should have the status of Schools of the University, though the conditions for recognition would be somewhat different in cases where the School is a part of a larger institution, from those applying to colleges devoted exclusively or almost exclusively to university work. We are strongly of opinion that the ultimate aim both of the University, and of the authorities responsible for "mixed" institutions, in which groups of departments engaged in university work may be recognised as Schools, should be their separate establishment as independent university centres which would in time become Constituent Colleges if they were situated in the Administrative County of London, or parts of a new university for the south-east of England if they were outside that area. Mr. Blair expresses the view, in a memorandum¹ placed before the Commission, that broadly it is inconsistent with the intentions of the Charity Commission to admit the Polytechnics working under schemes established by that Commission as Schools of the University, and "that the conversion of a polytechnic into a school of the university, or a large development of *day* university work in a polytechnic, is neither within the terms of the scheme nor is it legitimate development of them." In support of his views he quotes the opinion of the Charity Commissioners, as expressed in their 36th Report, para. (66) (4), and adds: "It is not unreasonable to fear that day university work would soon become the main object of the institution, that the original objects of the scheme would become subsidiary, and in process of time funds designed to promote the industrial skill, general knowledge, health and well-being of young men and women belonging to the poorer classes would be diverted to other uses." We may say at once that we think any proposal to transform the London Polytechnics into institutions devoted to university education would be neither legitimate nor desirable. The Polytechnics have, since 1892, been largely supported out of funds derived from Parochial Charities of the City of London, administered under the City of London Parochial Charities

The future Schools of the University.

Schools in "mixed" institutions should ultimately become independent university centres.

Undesirable to transform Polytechnics into university institutions.

¹ *Appx. to 1st Report.* Blair, Mem., II., p. 196 ff, and Qs. 14-16 and 56-9.

Act, 1883, by a body of Trustees. The original purpose of these Charities was to aid the poorer, and particularly the industrial classes. The Charity Commission decided in consequence that the main objects of the institutions, aided with these funds, must be recreative and technical, and for the benefit principally of evening students. Other subjects might be included in the curriculum, and day instruction was not expressly excluded, though the Charity Commission do not appear to have had it in view; but it is obvious that the 620,000*l.*, which it is estimated the London Polytechnics have received from the City Parochial Charities, besides capital grants,* have not been given to enable them to develop into day colleges of university rank. Apart from the argument from history, however, are the equally important considerations that if the teachers in these institutions are engaged in teaching students during the day for university examinations, they are likely to lose interest in the work for which they were, or ought to have been, primarily appointed, and that the necessary inclusion of other than university students in their classes must tend to lower the standard of the work done. For these reasons we are not prepared to support the claims of the Battersea Polytechnic to become a general University College or School for its district.† For the same reasons we think that our plan for the establishment of a Constituent College in Arts and Science for evening students at the Birkbeck College may involve the abandonment of the grant at present received from the City Parochial Foundation (*see* paragraph 151).

Some university work for evening students in certain Polytechnics justified.

377. Mr. Blair agrees, however, that the words of the Report of the Commissioners above referred to, as well as the terms of the Central Scheme and the Special Schemes for Polytechnics issued by them, justify the provision of a considerable amount of university work in the *evening*, especially if it is technical in character, though we think it probable that but few, if any, students will be able to complete a degree course of real university standard in technology by evening work alone. The carefully drafted reports recently issued by representatives of the Royal Technical College, Glasgow, on the question of evening degrees in technology, bear directly on this problem. The authors of the first of the two reports represented the College on the Advisory Joint Committee of the University appointed to draft the Ordinance affiliating the Royal Technical College to the University of Glasgow. This Ordinance would enable the University Court to approve courses of instruction given during the day-time in the Royal Technical College as equivalent to courses given in the University, but a petition has been presented to Parliament in favour of the omission of the words "during the day-time" from the Ordinance since these words prevent the approval of courses of instruction given in the evening. The governors of the college have presented a petition in support of the Ordinance as drafted, and the reports above referred to point out that the long attendance in the laboratories necessary to qualify for the B.Sc. degree in Engineering or Applied Chemistry or Metallurgy is virtually impossible for the evening or part-time student who cannot attend more than three evenings a week if he is to have time for private study. They go on to explain that the conditions under which evening students work compel the college to limit the scope and thoroughness of practically every subject in the curriculum, and that this is true, even of a subject like mathematics, which requires no laboratory work. "There is not time to explore whole areas in the mathematical field, which must be studied before a university standard is attained," and even in the senior class, attended by many graduates and teachers, a similar limitation of scope is imposed. They conclude from this that, on the one hand, the attempt to prepare for the university degree by means of the courses of instruction given at present would "inevitably lead to the lowering of the standard of the degrees," and that, on the other hand, "the Governors would be false to their trust and to the memory of John Anderson" (the founder of the College) were they to abandon or modify courses which have been proved by experience to meet the needs of "the artisan and the craftsman, to whom it was" Professor Anderson's "earnest desire "to teach the principles of the arts they practise." Our own proposals are consistent with these views, for we recommend the continuance of the present general

* The annual sum allotted to the Polytechnics and kindred institutions increased from 28,100*l.* in 1893 to 39,614*l.* in 1911. In addition, capital grants of upwards of 69,000*l.* were made by the Trustees to certain of these institutions in 1891.

† Although the West Ham Municipal Technical Institute is not conducted under the Scheme of the City Parochial Foundation, we think that on the grounds of general educational policy it would be no less objectionable to attempt to change the chief purposes of that useful institution.

work of the Polytechnics and, only if satisfactory conditions can be secured, the development by the side of it, where circumstances demand it, of separate groups of departments organised for evening university students which should ultimately be distinct both in government and finance from the parent body. We foresee that these conditions can be really satisfied in comparatively few of the London Polytechnics, because the considerable additional expenditure required would not be justified in the absence of a much greater demand for university courses than at present exists at most of them.

378. We propose that in addition to the existing requirements for the admission,* visitation and removal of Schools, the following conditions as to recognition should be imposed :—

Further conditions to be imposed upon Schools of the University.

- (1) The University should be represented on the Governing Body of each School, the representatives to be persons appointed by the Senate and immediately connected with the University. They should be selected from among those persons who are in the position to attend the meetings of the Governing Body regularly, and it should be a part of their duty to keep the University informed of the needs and policy of the School.

In the case of a theological college the appointments should be made after consultation with the Governing Body of the college, and if in the case of any of these colleges it should prove impossible to arrange for the University to nominate a member or members of the Governing Body in consultation with the authorities of the college, we think it would probably be possible for the University representatives to attend the meetings with power to speak though not to vote.

In the case of a Hospital Medical School, which forms part of a larger institution, and in the case of a group of departments for university study in a Polytechnic, the Governing Body of the Hospital or Polytechnic should appoint a committee of its own members, with the addition of University representatives, to conduct the business of the School, and should always invite and receive a report from that committee before deciding any matter affecting that department of the institution.

- (2) The principal teachers should form a Board to advise and make suggestions to the Governing Body on academic matters and on the general management of the School; and the chief administrative officer of the School together with representatives of the Board of teachers should be actually members of the Governing Body.

In the case of a Hospital Medical School it would be sufficient for the Board of teachers to report to the committee in charge of the business of the School and to be represented on that committee.

Similarly, in the case of a Polytechnic or "mixed" institution in which a group of departments is recognised as a School it would be sufficient for the Board of teachers to report to the committee in charge of the business of the School and to be represented on that committee.

We agree with the signatories of Report A. of the Academic Council when they say :—"if the teachers of an institution are not fitted for these responsibilities," viz., of placing their views on all matters before the Governing Body, and of having a voice, though not a preponderant voice, in the management—"the institution itself cannot be of a status sufficient for it to deserve the rank of School of the University."

- (3) Even in the case of teachers not appointed by the University and for whom no university title is desired, the Senate should have some voice in the appointment, *e.g.*, by representation on the appointing committee.

In the case of a Hospital Medical School, the foregoing provision would apply only to those teachers who were not on the staff of the hospital.

- (4) With a view to the clear definition of the University professoriate, no Governing Bodies of Schools of the University other than Theological Schools should confer the title of "Professor" or "Reader" (the vested rights of present holders being of course safeguarded).

* *Cf.* Statutes 73 to 77. It will be more convenient to refer to the "recognition" of Schools instead of their "admission" as in the present Statutes. The expression "admission" will in future be more appropriate to Constituent Colleges and University Departments than to Schools of the University.

Additional conditions for the recognition of Schools in "mixed" institutions.

379. In the case of groups of departments in large educational institutions recognised as Schools of the University we think the following additional conditions should be required :—

- (a) The University should be satisfied that there is no adequate and suitable provision of university instruction already existing in the locality concerned, for the particular class of students whom it is proposed to teach; and it should have power to require the co-ordination of the work of the centre with the work existing elsewhere as a condition of its continued status as a School.
- (b) The University should not recognise a group of departments in a larger institution as a School for full-time or day students as well as for part-time or evening students unless it is satisfied that staffing and laboratory arrangements are such as to admit of both classes of students being taught without interfering with each other in the laboratories and without over-pressure of the teachers. In all such cases, moreover, the University should consult the Charity Commission, the Board of Education, and the Local Education Authority before admitting a group of departments as a School for day students.
- (c) There should exist a group of teachers for the centre in question, each of them qualified by his attainments, his remuneration, and the conditions of his work, for university teaching and for the work entrusted to him; and the group should be collectively adequate to give instruction covering all the subjects of a degree course in some one Faculty.

Additional condition of recognition for Hospital Medical School.

380. In the case of the Hospital Medical Schools, the following additional condition should be imposed :—

There should exist a group of teachers for the School, each of them qualified by his attainments, his remuneration, and the conditions of his work, for university teaching and for the work entrusted to him; and the group should be collectively adequate to give instruction covering all the non-clinical subjects of the course for a degree in Medicine which fall within the purview of the School.

In the case of Schools which have transferred the teaching of the Intermediate subjects to the University, only the later non-clinical subjects for which the School is responsible would fall within their purview.

Schools and "recognised" teachers.

381. We consider conditions (b) and (c) to be essential in the interests of the students, who have the right to expect that all the teaching given in any institution connected with the University is of a kind and given under conditions which the University approves. The University would necessarily scrutinise more closely the qualifications and terms of appointment of teachers in a School which forms only a part of an institution devoted largely to purposes which are not those of a university, but when once such a department has been recognised as a School we think the powers we have proposed for the University will suffice to maintain the necessary standard.

We think the present system of recognising teachers in institutions otherwise unconnected with the University should cease, and that all educational institutions (other than Constituent Colleges and University Departments) which are to be connected with the University should conform to the conditions for recognition as Schools.

Teachers of mental diseases should be attached to Medical Schools.

382. Some reference must be made to the arrangements for the teaching of mental diseases to university students in those Medical Schools which are not Constituent Colleges. The practice hitherto appears not to have been uniform. The teachers are sometimes members of the staff of the School and take their students to the asylum for the special course. In other cases the University has recognised teachers attached to the asylum or hospital, and the Medical School has sent its students for courses of instruction under these teachers. We are of opinion that in future all the teaching in this subject should be given by men who have received appointments in the General Medical School itself.

Teachers in Schools not members of Faculties.

383. The principal teachers in the Schools of the University should be grouped with reference to the Faculties to which their subjects of study belong, but we do not think that they should be members of the University Faculties unless they have been appointed by the University to the post of Associate Professor, or of Associate Reader

in a subject for which there is no University Professorship in existence. The independent financial control under which the Schools will be working would make it useless for their teachers to be members of the Faculties so far as the Faculties are concerned with the organisation of education, for even if the Faculty gave advice to the Senate as to the organisation of the teaching in the Schools, the Senate would be unable to give effect to that advice. In so far as the Faculties are concerned with supervising the courses of study and examinations it would be equally useless for teachers in the Schools to be members, for it would be impossible for either the courses or the examinations to be differentiated in the Schools which are not under university management as they may safely be differentiated in the Constituent Colleges and University Departments.

384. The course for a degree given by a School must, in our opinion, conform in the future as in the past to a general syllabus with reasonable provision for optional alternatives as between different subjects and between different parts of the same subject. The university examinations must also be general examinations of the kind at present conducted for Internal students, though we see no reason for the continuance of the Special Intermediate examinations at present conducted under the terms of Statute 119. The arguments for differentiated examinations are much stronger in the higher stages of a course than in the lower (*see* paragraph 113); but apart from this consideration we think it undesirable that university examinations of this kind should be conducted by persons who are not appointed by the University itself.

Courses of instruction and examinations in Schools of the University.

385. Though there is no practical purpose to be served by the inclusion in the Faculties of teachers in the Schools of the University, and though it is of the highest importance to maintain the standard of the personnel of the Faculties by confining them to professors and heads of departments appointed by the University, the teachers of whom we are speaking should have the same share in deciding the curricula in the Schools and in conducting the university examinations as they at present possess. We recommend accordingly that the principal teachers in the Schools of the University in Arts should constitute a Board of Arts Studies, those in the Schools in Science a Board of Science Studies, and so on with each group of teachers in the several Schools. It would be the duty of each Board to prepare, with the assistance of such Committees as it might appoint under approval of the Senate, the curricula and syllabuses of the courses for degrees within its purview. The Committees of each Board would have the functions of the present Boards of Studies, and would always report to the Board or Boards of which they were Committees and not direct to the Faculty. Provision should also be made as at present for the inclusion on the Committees dealing with particular subjects of study or groups of subjects, of "other persons" who are not teachers in Schools of the University. The curricula and syllabuses would be reported to the Senate for approval by the Board through the Faculty concerned. When there was no Faculty the Board would report to the Senate. Similarly the examinations would be conducted by Boards of Examiners consisting in the main as at present of teachers in the Schools together with at least one External Examiner in each subject to be appointed by the Senate. The pass lists would be reported to the Senate as hitherto by an Examiners' Meeting at which each Board of Examiners would be represented by two members, one of whom would be an External Examiner.

Teachers' share in deciding curricula and conducting examinations.

386. We think that the following institutions which are at present Schools of the University should be the first Schools of the reconstituted University, provided they comply with the foregoing conditions (*see* paragraphs 378 and 379):—

Institutions which should be Schools of the University.

In Arts—

Westfield College.

In Arts and Science—

The Royal Holloway College, Egham.

In Arts, Science, and Engineering—

The East London College.*

In Science (Agriculture)—

The South-Eastern Agricultural College, Wye.

* If and when the East London College qualifies for admission as a Constituent College in any of these Faculties it will cease to be a School in those studies.

In Medicine*--

	The Medical School of St. Bartholomew's Hospital.
"	" College of the London Hospital.
"	" School of Guy's Hospital.
"	" " St. Thomas's Hospital.
"	" " St. George's Hospital.
"	" " King's College Hospital.
"	" " the Middlesex Hospital.
"	" " St. Mary's Hospital.
"	" " Charing Cross Hospital.
"	" " the Westminster Hospital.
"	" " University College Hospital.
"	" " The London (R.F.H.) School of Medicine for Women.
"	" Royal Army Medical College.
"	" London School of Tropical Medicine.

In Laws—

The Constituent College in which the teaching of Law is concentrated.

In Theology—

Hackney College, Hampstead.

New College, Hampstead.

Regent's Park College.

The Wesleyan College, Richmond.

The London College of Divinity, commonly called St. John's Hall, Highbury.

Future admission of other institutions and groups of departments.

387. The Jews' College might at some future date qualify for admission as a School in Theology, and should the proposals we have made for the establishment of a Constituent College in Arts and Science for evening students unfortunately prove impossible or be delayed, the Birkbeck College would probably soon be able to satisfy the conditions for recognition of some of its departments as a School in those studies. We are not in the position to determine which of the remaining institutions where there are at present "recognised" teachers would be able to qualify in respect of certain parts of their work for recognition as Schools in Arts or Science. Nor can we now determine whether any of them should be Schools for day students as well as for evening students. Some of them may be able to satisfy the Statutory Commission that would be set up under the necessary Act of Parliament, of their ability and willingness to comply with the conditions we have laid down.

388. There appears to be but little need at present, however, for day courses in engineering for university students at the Polytechnics. We think that negotiations should be opened with the London County Council with a view to determining which are the proper centres for the development of Schools in engineering for evening students. The number of Internal students in engineering in 1910-11 at the London Polytechnics was as follows:—

Battersea Polytechnic	-	-	-	-	-	-	11
Northampton Institute	-	-	-	-	-	-	13
Northern Polytechnic	-	-	-	-	-	-	8
South-Western Polytechnic	-	-	-	-	-	-	16
Woolwich Polytechnic	-	-	-	-	-	-	11
Total	-	-	-	-	-	-	59

Concentration of university courses in engineering for evening students.

In addition there were 16 Internal students in engineering at the West Ham Municipal Technical Institute, which is outside the London area. We realise that it is of much greater importance that evening instruction should be close to the place of work or to the home of the student than that provided for day students, but having regard to the improbability already pointed out that many students will take a complete degree course in technology by evening study alone, five centres can hardly be needed in London to teach less than 60 university students. Some concentration of this work ought to be possible without real inconvenience to the students concerned, and if concentration is effected it will be easier to make sure that the staffing and equipment are of a satisfactory standard. This is specially important in the case of engineering and allied studies, which are costly to provide, and are highly specialised in character.

The establishment of a School in

389. In the next paragraph we recommend a larger area than the present one within which the University should be empowered to recognise Schools, but it is impos-

* If and when any of these institutions qualify for admission as Constituent Colleges in the Faculty of Medicine they would cease to be Schools in those studies.

sible at the present moment to determine whether any of the "mixed" institutions in that area could comply, or are likely to comply in the near future, with the conditions laid down in paragraphs 378 and 379 above. It is of great importance that the authorities responsible for "mixed" institutions of the kind in question should realise that it is both a slow and a costly process to build up an institution for higher education of the standard necessary for its recognition as a School of the University. A reference to the comparative tables of income and expenditure published by the Board of Education in its volume of Reports from Universities and University Colleges¹ will show that it is impossible to conduct an efficient University College, including teaching both for day and evening students in the Faculties of Arts, Science, and Engineering, unless an income of 20,000*l.* a year is assured. But it is clear that the total annual cost of maintaining an institution which would be able to comply, in respect of certain groups of its departments, with the conditions we have laid down for a School of the University would considerably exceed this figure, as the necessity of organising the groups of departments devoted to university work separately from those doing work of another kind would involve a greater expenditure than that placed upon University Colleges which have not adopted this organisation of their work. If in course of time, however, a college were to arise within the area beyond the Administrative County of London, so comprehensive in the scope of its teaching and so high in the standard of its teachers that it was clearly on a level with the Constituent Colleges of the University of London, it would have a fair claim to an independent existence as a new university to which might then be affiliated those Schools of the present University that were within the area to be assigned to it. In this way the University of London would have helped to bring into existence another seat of learning with the same standards as its own, and could welcome its independent existence in the certainty that it would lead to the progress of science and learning.

a "mixed" institution a slow and costly process.

THE AREA OF THE UNIVERSITY FOR THE RECOGNITION OF SCHOOLS.

390. We have said already (paragraph 375) that the area of the University for the recognition of Schools should be extended in the way suggested by Mr. Sidney Webb. Both in his evidence before the Commission, and in the Note he appended to Report A. of the Academic Council,² he lays great stress on the arbitrary and unscientific nature of the present imaginary circle of thirty miles' radius. According to his view, what is important is that the geographical sphere of the University should be defined in terms of county and county borough boundaries, in order to establish a real and effective connexion between the University and the administrative life of the whole of its area. Under the Education Act of 1902, which was passed subsequently to the reconstitution of the University, the councils of administrative counties and county boroughs are empowered to provide and assist university education within their respective areas; and he thinks that the area of London University should be extended so as to include, in addition to the Administrative County of London and the portions of Bedfordshire and Berkshire falling within the present radius, the counties of Middlesex, Surrey, Kent, Essex, and Hertfordshire, together with the county boroughs of Croydon and West Ham, and probably also the county of Sussex. The councils of all these counties and boroughs have power to establish and maintain an independent University College of the highest grade, or to subsidise such a College, or to provide university education in any other way within their areas, or to help the University of London to provide for their needs.

Enlargement of University area for the recognition of Schools.

We recommend that the University should be empowered to recognise public educational institutions as Schools subject to the conditions we have laid down, provided they are situated within the Administrative County of London, the Administrative Counties of Middlesex, Surrey, Kent, Sussex, Essex, or Hertfordshire, or in the county boroughs within the areas of those counties. The portions of Berkshire and Bedfordshire lying within the present 30-mile radius belong, naturally, to the areas of University College, Reading, and of the University of Cambridge, respectively, and there appears to be no good reason, therefore, for continuing to include them within the area of the University of London.

EXTERNAL DEGREES.

391. In considering the question of External degrees we approach a part of our subject which has aroused in the past the most acute and even embittered controversy. For the most part, however, the difference of opinion has not centred upon the question

Nature of the controversy over External degrees.

¹ Cd. 6245.

² *Appx. to 2nd Report*, p. 301.

Reason for entrusting supervision of External examinations to representatives of Convocation on the Senate.

Small educational significance of merely passing an examination.

The best kind of examination for external candidates.

Opinion of Selborne Commission.

as to whether External degrees were or were not desirable things in themselves, though the arguments for or against them have been used in support of the opposing types of university which the parties to the controversy desired to see established. The real subject of controversy has been the government of the University, and in particular the control of the examinations for External students. It was the claim of Convocation to a preponderant share in the government of the University which delayed its reconstitution for over ten years at the close of the last century; and the compromise then effected, which divided the governing body of the new University between the teachers and the graduates, leaving to the latter the special supervision of the External examinations, we have shown in Part I. of this Report to be one of the main causes of the difficulties encountered. We can see no educational reason for entrusting the administration connected with the External examinations to the graduates of the University. Whatever argument there may be for giving the *alumni* of a university a share in its government will be cogent only if their interests are engaged for all its activities. The focussing of the responsibilities of the London graduates upon the External examinations inevitably increased the bias in favour of them with which Convocation started to take its part in building up the new University, and made its representatives less generally useful than they otherwise would have been. The real reason for giving the management of External examinations to the representatives of Convocation on the Senate was that in the long controversy preceding the Act of 1898 Convocation, or rather certain of its leaders, were able to establish the position that the graduates of the University were the persons most interested in the *status quo* and therefore ought to control the examination of future External students. The ground for this claim was found in the argument that the graduates of the University possess a special interest in the reputation of its degrees, and are therefore less likely than others to allow any fall in their standard. This argument has been repeated in evidence before us,¹ but we have explained already (*see* paragraphs 30-33, 107, 129) that a uniform standard for the degrees of a university is a chimera if by standard is meant the measure of the difficulty of obtaining a degree. The true standard of a degree or of an examination is something different from this. It may be that the degrees are difficult to obtain, and for persons who approach the problem from the point of view of their own vested interests, this fact is easily confused with the question of the standard. As every experienced examiner knows, it is quite possible to lower the standard, by which is properly meant the educational significance of an examination, and yet to increase the percentage of candidates who fail to pass it. We have already pointed out (*cf.* paragraphs 83 and 85) that the educational significance of merely passing an examination can never be very great, but what significance it has is wholly due to the care with which the examination is related to the actual course of study followed by the candidates. This is a matter for educational experts—for teachers, not for persons whose only qualification is that they have passed this kind of test themselves. When the actual facilities for study and the means of education at the disposal of the candidate are unknown, as in the case of external examinations, the relation of the examination to the actual studies pursued can be only a more or less rough approximation. For that reason the percentage of failures in an external examination is always relatively high. In these circumstances it is clear that the best kind of examination for external candidates is one which is based upon the average studies of a group of students whose means of education and facilities for study are known and are of the same kind as those most generally available for the external candidates. Such an examination we have provided for in the general examinations to be conducted jointly by the teachers and external examiners for students in Schools of the University (*cf.* paragraphs 384 and 385). We agree with the Selborne Commission, who say in paragraph 36 of their Report:—"We see no reason to think that such influence upon the subjects and conduct of those examinations, as (under a constitution like that which we have in view) the teaching staff of colleges or institutions represented upon the senate and the boards of studies of the University might exercise, would be prejudicial to students from country colleges or private study. The syllabus on which the examinations would be founded would be known, as now; the examiners and their views (as far as discoverable) would also be known. The influence of the teaching power in London would tend to make the course of the examinations more, rather than less, regular, and less exposed to the risk of fanciful or capricious variation. This would be beneficial to students of every class." The Gresham Commission agreed with the Selborne Commission

¹ *Appx. to 2nd Report, Report of Council for External Students, p. 233.*

in thinking that the examinations should be identical for Internal and other students "so far as identity is not inconsistent with the educational interests of either class," a guarding phrase which is not further explained, but which may have been due to the opinion of some of the university teachers that the examinations ought to be different. Be that as it may, the Commissioners go on to propose a system under which the teachers would exercise great influence upon the examinations of the University, and then add: "Teachers outside the University will have the satisfaction of knowing that the examinations are framed, and in part at least conducted, by men who have experience of teaching and can appreciate the teacher's point of view. The private student will be guided into more fruitful methods of study by having to work up to an examination system framed with a view to testing and encouraging sound and thoughtful work. The curriculum of the University and its syllabus for examinations will be known to all; its methods of study will soon become known also, both through its examinations and otherwise, and may be expected to exercise a large influence upon the higher education of the country. We are thus clearly of opinion that the external teacher and the external student will benefit by the association of the examinations with those of a teaching University; and we agree with the Commissioners of 1888 in the opinion that, if the influence of internal teachers and institutions is properly balanced in the constitution of the University by independent elements, 'there will be no risk of any practical injustice being done to candidates for degrees who come from country colleges, or from no colleges at all.'¹ Our own view is that, for the reasons already given, a general examination of the kind we contemplate for the students in Schools of the University would be better suited than any other for candidates of whose studies the University is ignorant. Many of them in fact come from educational institutions outside the University area of a similar kind to the Schools, and the remainder who would be studying under private tutors or by themselves (this last a very small proportion of the whole) would be benefited by the influence of an examination framed and in part conducted by university teachers. If, therefore, external candidates are to be admitted as candidates for degrees they should be admitted to these examinations and not to separate examinations specially devised for them under the supervision of persons who have no necessary acquaintance either with teaching or examining. We desire to make it clear that we reject altogether the claim made by the representatives of Convocation for the control of External examinations on the ground of their vested interests. These interests are not the best safeguard of the standards which they desire to see maintained, and which the University as a whole will be as much concerned to maintain as they.

Opinion of
Gresham
Commission.

Claim of representatives
of Convocation
rejected.

392. The question we have to consider, therefore, is no longer one of government or control, but the much simpler and more important one as to whether or no external candidates are to be admitted to any of the examinations conducted by the University as stages towards a degree; and if so under what conditions or limitations. The great preponderance of the evidence we have heard on this point, given by teachers, graduates and others, favours the maintenance of facilities for External students. Indeed, the continued growth in the number of candidates for External examinations is clear evidence of a demand for these tests. But it does not follow that this demand corresponds to the real need of candidates, which is the need for better education, for a truer understanding of its real meaning, and for adequate provision of the best teaching at a cost within their means. External examinations and degrees granted on their results are no real satisfaction of these needs. External degrees may make it easier for educational institutions in the process of development towards full university standing to attract students to their classes; they may, and no doubt do, offer an encouragement to poor students, who cannot afford to pay the tuition fees charged by universities, to undertake the necessary course of study; but in doing both these things they are apt to encourage the desire for a degree rather than the desire for education, and to foster the belief that the teaching of the weaker institution is university teaching, and that the reading of books and the making of prescribed experiments with a private tutor or by oneself are university education. Nor are these the only ill effects. Students in colleges founded and maintained to perform particular duties for the State, such as the training colleges for elementary school teachers, are encouraged by the existence of External degrees to prepare for the examinations at the same time as they are being trained for their future profession. In theory the Board of Education can forbid students in colleges of lower standing than the university training departments to take these examinations,

Real question is
whether and
under what
conditions
external
candidates
should be
admitted to
examinations
for
degrees.

Ill effects on
students in
training
colleges of
reading for
External
degrees.

¹ Gresham Commission Report, § 12, p. xiv.

Ill effects on school teachers.

but so long as External degrees are thought by the public to be good things in themselves, and so long especially as Local Education Authorities offer higher salaries to holders of degrees without inquiring whether the graduate has had a university education or not, it is not in practice possible for a Government department to refuse a means of professional advancement to its students. Unfortunately the evil does not end in the training college. In many cases the student spends only two years at college, and in that time is unable to do more than pass the Intermediate examination. The consequence is that his energies during the first years of his professional life, when he should be devoting himself to the mastery of his difficult art, are dissipated by preparation for the final examination which will give him his degree and his rise in salary. And the same ill effects are seen in the secondary schools. Mr. Acland, who has a wide and intimate knowledge of all kinds of schools and their administration, expressed strong disapproval of any encouragement being given to teachers in schools to work for External degrees.

"I have formed the opinion," he said, "that anything which encourages the teachers, after they have begun their work, to seek for degrees and prepare for them, while they are teaching, is on the whole very undesirable. I think broadly that if we are to have an effective supply of well-taught schools, both secondary and primary, in this country, the teacher ought to have his qualifications before he starts out upon his work and begins teaching. If a degree ought to be one of those qualifications he ought to have that degree before he begins to teach, with this qualification, that if he does not start with a degree, but desires later on to obtain one, my view is that during the period he is working for the degree he ought to cease teaching, and therefore if he is to obtain the degree, he ought to go to a university. . . . a university where at any rate he will do two things which I consider the note of a university properly so-called, he will come into contact with distinguished teachers and he will get a certain amount of social life, which a residential university generally provides."¹

Abolition of External degrees desirable in interests of schools and teachers.

393. We are in complete agreement with these views, and we think there can be no doubt that in the broader national interests the sooner the demand for External degrees can be reduced to a point at which the degrees themselves can be abolished without hardship the better it will be for our schools and our teachers. We hope, therefore, that the Board of Education, the Local Education Authorities, and the governors of schools will discourage students in training colleges and teachers from entering for these degrees, and will offer them greater inducements than at present to take a proper university course. We welcome the recent action of the Board of Education in the establishment of a four years' university course for intending teachers in elementary schools, as a first step in this direction, but we think that additional encouragements might be devised to the same end. Mr. Acland, for instance, suggested "that the governors of a secondary school, when they saw a man " who had not got a degree, but was doing himself credit, should do all in their " power to help him financially to have a couple of years—a couple of years might " be enough if it could be arranged—or three years to get his degree, and come " back to his school again." In view of the poverty of the secondary schools the State and Local Education Authorities might well assist such a plan by offering scholarships in suitable cases, sufficient in amount to cover the cost of education and maintenance during the teacher's absence from the school.

External degrees must be retained for the present.

394. We do not think, however, that it would be possible in the present state of public opinion for the University to abandon the granting of degrees on the results of examination alone. The best hope of advance lies in the direction of avoiding as far as may be individual hardship and injustice, and at the same time making the better kind of education easier of access. If simultaneously the general education of the people can be improved, then a better understanding of the value of a university training, a keener desire for it on the part of students, and a more genuine demand on the part of educational authorities may be trusted to arise. For this reason, more than any other, we desire to see the University enabled to offer the highest kind of university education at a really moderate cost. When this has been done as part of a national policy which will make all the universities more accessible to the poor but capable student, we believe the present demand for External degrees will begin to fall away. Meantime, we think they must continue, and since the University of London was their originator, it should remain responsible for their award.

¹ *Appx. to 3rd Report, Acland, Q. 7341 ff.*

395. We have explained our reasons for thinking it to be in the interests of External students that they should be admitted to the general examinations of the University which will be taken by the students in its Schools. We are also very anxious to encourage as many students as possible to take at least a part of their instruction from teachers approved by the University. It seems advisable, moreover, to avoid if possible the rather onerous obligation at present placed upon Internal students to attend a given amount of instruction in all the subjects of a degree course as a condition of admission to the examinations of the University. These regulations have often caused students to abandon the course for an Internal degree, and to take the External instead, and have prevented others from registering as Internal students when beginning their studies. The consequence is that no hard and fast line can be drawn between Internal and External students studying in London, for many External students have in fact received the whole of their instruction in Schools of the University or under "recognised" teachers, but have taken the External degree because they could not comply with all the conditions required on the Internal side. Other students have been prevented for some reason from attending courses in all the subjects of the Internal examinations and have therefore been obliged to take the External tests. We can see no reason for maintaining these regulations, except as regards Medicine and Technology, nor the present statutory distinction between Internal and External students, for all students other than those in the Constituent Colleges and University Departments would be taking the same examination. The University would make what regulations it thought proper for the attendance of students in Constituent Colleges and University Departments. A School of the University might properly, if it chose to do so, refuse to admit students who were unable or unwilling to take the full course for the degree, or it might encourage students to take the whole course by reducing the fees payable by those who did so, but this would be a matter for the School and not for the University. The University would require a full attendance by students in Schools of Medicine and Technology, but it would confine its action to approving the curriculum, the syllabuses and the courses offered in its other Schools, and it would not compel any student to take more than he desired. It would trust solely, as we think it should, to the excellence of the teaching to commend it to candidates for degrees. All matriculated students of the University who were genuinely studying for a degree would hold the same status, and the degree would be awarded whether the student had worked in a Constituent College, or in a School, or in private—but the first would add the name of his College after his degree, and the second the name of his School.

Statutory distinction between Internal and External students unnecessary.

396. Although we are prepared to recommend that candidates who have not studied in Schools of the University should be admitted to the general examinations of the University in all cases where exclusion might involve individual hardship or injustice, there are two groups of study, medicine and engineering, in respect of which no such hardship would arise from their exclusion, while grave injustice to others would be caused by their admission. The courses of study for these degrees are professional in their aim, they are of necessity very largely practical in character, and they are intended to fit their holders to follow occupations which closely affect the safety of the public. This combination of characteristics differentiates them from all other degrees awarded by the University. We are convinced that the University should grant its first degrees in Medicine and in Technology only to those who have undergone a course extending over at least three years, which is under the control of the University itself, and given either in a Constituent College, a University Department, or in a School of the University. The medical evidence we have received on this subject strongly supports this view. The Faculty of Medicine unanimously adopted the following resolution:—

Exclusion of external candidates from examinations in Medicine and Engineering.

"That the Medical Degrees of the University of London should be open only to those students who are students in the Schools of the University."¹

Moreover, with the exception of the witnesses from St. Mary's Hospital Medical School, all the witnesses from the London Medical Schools who referred to this matter,² and a number of other witnesses,³ urged the abolition of the External

¹ *Appx. to 2nd Report*, App. VII., p. 334.

² *Appx. to 5th Report*, Univ. Coll., Q. 12,489; St. Thomas's, Statement, § IV. 9, p. 57, Q. 13,857; St. Bart.'s, Statement, § 97, p. 70; Westminster, St. George's, Charing Cross, King's Coll., Statement, § 15, p. 100; Hunter, Statement, § 15 (c), p. 115, Qs. 13,433-9; Middlesex, Statement, § 16, p. 171, Q. 14,512.

³ *Appx. to 3rd Report*, Moulton, Q. 10,128; Butlin, Statement, § 21, p. 277, Qs. 10,292-303. *Appx. to 5th Report*, Bradford, Statement, § 5, p. 30; Martin, Qs. 12,130-2; Head, Statement, § 23, p. 142, Q. 14,701; Starling, Statement, § 18, p. 202; Cushny, Statement, § 10, p. 212, Qs. 15,047-50.

of students outside the United Kingdom is that for matriculation. During the ten years 1901-10 this examination was held in 20 centres at one time or another, and the total number of candidates was 744, of whom 331 passed. The total number of candidates for the Intermediate examinations in Arts, Laws, Science and Divinity, who presented themselves at centres outside the kingdom during the ten years 1901-10 was 196, of whom 89 passed; and the total number of candidates for the final examination for a degree during the same period was 53, of whom 21 passed, but these figures require further analysis if their true significance is to be understood. If the self-governing Dominions, the Empire of India, and the Crown Colonies are taken in three separate groups, and considered from the point of view of the provision for university education within their areas on the one hand, and the extent to which use is made of the London examinations on the other, it will be found that there is a direct connexion between these two factors.

Dominions :
(i) Canada.

402. To deal first with the self-governing Dominions:—The early growth of university education in Canada under British supremacy was in the form of the single college university of which Dublin is the prototype. In recent times the more important universities of Canada, like those of the United States, have departed from this model and have been enlarged so as to include a number of institutions concerned in higher education of different kinds. This development has not been influenced, however, as that of so many other overseas universities has been, by the example of the University of London, and in consequence the Canadian universities are all teaching universities which, with the single exception of the Queen's University at Kingston, Ontario, require a period of residence before granting their degrees. At Kingston there has recently been introduced a modified form of instruction by correspondence, under the control of the University itself, and to that extent external candidates are admitted to its degrees.

(ii) New-
foundland.

Newfoundland, which is a self-governing Colony independent of the Dominion of Canada, has, up to the present, made no provision for university education, and the absence of it is reflected in the table given below.

(iii) Com-
monwealth
of Australia.

In Australia the oldest university, that of Sydney, is essentially a teaching university, and undergraduates must attend lectures, but the byelaws state that: "Any undergraduate not holding a scholarship in the University, nor being a member of a College established under the provisions of the Act 18 Victoria, No. 37, may be exempted from attendance upon any or all of the prescribed lectures, upon producing evidence which shall satisfy the Faculty to which he belongs that there are sufficient reasons for such exemption. Provided that no such exemption shall be granted for more than a year at a time." In practice this provision applies only to the Faculty of Arts; dispensation of this kind is never granted in the professional schools, nor in the Faculty of Science, where laboratory attendance is essential. In the University of Melbourne attendance at lectures is not compulsory in the Faculties of Arts and of Laws, but in the more recently founded Universities of Adelaide and Queensland, attendance at the university courses of instruction is compulsory on all candidates for degrees. The University of Tasmania does not require compulsory residence or attendance at lectures for the B.A. degree, or for the lectures given for the B.Sc. degree, but candidates for this degree must give a certain time to practical work in the University laboratories, and candidates for the LL.B. degree must attend lectures unless specially exempted. They are all teaching universities in greater or less degree.

(iv) New
Zealand.

The University of New Zealand was modelled upon the constitution of the University of London as it existed before its degrees were thrown open, in 1858, to candidates irrespective of their place of education, for students are admitted to the degree examinations from certain affiliated colleges only. In this university, candidates for the B.A. and B.Sc. degrees must, as a rule, have kept terms for three years in one of the four affiliated institutions within the Dominion. Candidates for other degrees must in all cases have kept the necessary terms. On the other hand, the method by which the examinations are conducted is more external than that of any British university, for the papers are set and the answers corrected by examiners in England, appointed by the University of New Zealand for the purpose. Of recent years there has been a strong agitation in New Zealand in favour of a reconstitution of the University so as to make it a teaching university of the federal type.

(v) South
Africa.

The University of the Cape of Good Hope is at present the only university in the Union of South Africa. It is a purely examining body, modelled on the University

of London as it was after its degrees were thrown open in 1858, and before its reconstitution under the Act of 1898. A Bill for the creation of a teaching university is under discussion by the Union Parliament, but there are many difficulties to overcome.

403. Turning now to a consideration of the number of candidates entering for London University examinations in the several self-governing Dominions above referred to, it will be noticed from the following table that in countries where no university education is obtainable, or where it is provided under conditions which lay more stress upon examinations than upon the courses of study, there is a natural inclination on the part of students to enter for the External examinations of the University of London, even though similar tests are available in their own universities. In countries where the provision of teaching universities is satisfactory, and where the true meaning of a university is understood, the demand for the External examinations tends to disappear, and we believe that the same will be true of this country when university education has been improved and made more accessible.

Conclusions drawn from statistics.

Entries for London University Examinations, 1901-10.*

	Canada.		Newfoundland.		Australia.		New Zealand.		South Africa.	
	Entries.	Passes.	Entries.	Passes.	Entries.	Passes.	Entries.	Passes.	Entries.	Passes.
Matriculation - - - -	13	8	96	54	56	21	37	20	48	22
Intermediate Arts - - -	7	4	3	2	4	2	—	—	3	2
Intermediate Divinity -	—	—	2	1	20	12	—	—	9	7
Intermediate Laws - - -	1	1	—	—	6	4	—	—	1	1
B.A. - - - - -	4	1	—	—	7	2	1	1	2	—
B.D. - - - - -	—	—	—	—	11	4	1	1	4	2
LL.B. - - - - -	1	1	—	—	2	2	—	—	1	1

* This table is based upon returns made to the Commission by the University of London in 1911.

404. The universities of India were founded after 1854, on the model of the University of London before its degrees were thrown open in 1858. A number of non-residential colleges were affiliated to each university, and candidates from these colleges only were admitted to the examinations. The senates of the universities were in the main nominated by Government, and the colleges were affiliated by Government upon the recommendation of the senates. In course of time a seat upon one of the university senates came to be looked upon as an honour rather than as a post requiring educational knowledge and experience. This defect, together with others very similar to those from which the University of London suffered previous to 1858, caused the appointment of a Royal Commission in 1902 to consider and report upon university organisation in India. As the result of the report of this Commission, an Act was passed in 1904 which, amongst other things, assigned definite areas to each university within which colleges could be affiliated; established new senates, consisting as to the major part of nominees of Government, but with the provision that these nominees should be persons experienced in education; gave the universities power to inspect affiliated colleges, in the hope that this would tend to raise the standard for admission to affiliation and modify the external character of the examinations; and, finally, enabled the universities themselves to provide suitable courses of lectures and instruction apart from those provided by the affiliated colleges. The alteration in the constitution of the senates has enabled the provincial Governments to place a number of teachers from the affiliated colleges upon these bodies, but otherwise the effects of the Act seem to have been small. A movement is now taking place in various directions for the establishment of teaching universities. It is proposed to establish a teaching university supported by Government at Dacca, which will be confined to Dacca itself, and will not include any affiliated institutions. The Mahomedan community have obtained the sanction of Government to the reconstitution of their college at Aligarh as a teaching university, and the Hindu community are proposing to establish a similar university in Benares. The examinations of the University of London, especially those for matriculation, were conducted in India up to the year 1898, but in that year they ceased as the result of a communication from the Senate of the University of London to the Secretary of State for India, expressing the opinion that in future the examinations "should at

“ most be continued in those Colonies only which neither possess nor are within “ easy reach of a University.”¹ The Secretary of State replied that in view of the facts he was unable to urge anything against the proposal.² Since that time no proposal has been made by the University to hold examinations in India; the holding of London University examinations in that Empire at the present time would be contrary, however, to the spirit of the Act of 1904, and of the new movement for the establishment of teaching universities.

Crown Colonies.

405. The Colonies under the administration of the Crown vary greatly, both in their size, importance, and educational development. The only Colonies that need special reference are (in the order of their importance from the point of view of university education) Hong Kong, Malta, Ceylon, and the West Indian group.

(i) Hong Kong.

Hong Kong, though a much smaller place than any of the Colonies above mentioned, has a number of wealthy citizens, and from its geographical position is easily accessible from the southern provinces of China. It has therefore been able to found a university of its own which may become of great importance for the advancement of learning and science in the Far East.

(ii) Malta.

Malta has a university of its own, founded in 1769, including the four Faculties of Literature, Science, Law, and Theology. There are no external students.

(iii) Ceylon.

There is no institution of full university rank in Ceylon, though the Royal College at Colombo has prepared a number of its students for the examinations of the University of London, and the Medical College, Colombo, gives a full course in medicine and surgery, and issues a diploma qualifying for medical practice in the island. The size and wealth of Ceylon may enable a university to grow up in course of time out of a combination of the Royal College, the Medical College, and the classes in law provided by the Council of Legal Education. Indeed, the possibility of such a development is now under active discussion.

(iv) West Indies.

There is no institution of university rank at present in the West Indies, though the Government of Jamaica have paid considerable attention in recent years to agricultural education, and quite recently proposals have been made to establish a university at some convenient point in the West Indies for the study of tropical agriculture.

As might be expected from what has been said, it is only in the West Indies and in Ceylon that any considerable number of candidates enter for the London University examinations, the entry being larger from Ceylon than from any Colony in the British Empire.

University could help Dominions and Colonies in other ways.

406. We would not have it thought that the University has no imperial functions—our Report makes it clear that we hope the University will be a centre to which students from the whole Empire will come in larger numbers as its repute grows. We also think the University may in future do far more than it has done in the past to help and encourage the outlying parts of the Empire to improve their means of education, and to offer their inhabitants a stimulus to serious study. But it will not be by sending out copies of examination papers drafted for English youths, to be answered by young men and women who have had, or at least ought to have had, an education adjusted to other conditions and to other needs. It has happened already in more than one instance, that a smaller Colony has sought for assistance from the mother country in the re-organisation of its schools, and has desired to have external help in the establishment of a suitable system of examination for the pupils. At present there is no alternative between an examination locally conducted and supervised, and a set of papers sent out by an English university and drawn up without the slightest regard to the local needs or to the facts of the situation. We think that something far better than this could be devised. The University of London seated at the centre of the Empire, in close touch with the Colonial Office and the Board of Education, and with officials returning home on leave, could no doubt arrange with a Colonial Government to assist them in the conduct of examinations planned and conducted with a sole view to the educational interests of the Colony. It could help with its advice and experience, it could issue such certificates as it thought right, and it could determine how far, if at all, these certificates could be accepted in lieu of the tests required of English students. It could do all this, however, without either interfering with its examination of students in this country or imposing its own syllabuses upon another country. This would be an imperial service of real value

¹ Senate Minute 176, March 31, 1897.

² Senate Minute 374, November 23, 1898.

because it would be work done by applying the knowledge and intellectual resources of the University to each problem as it arose. The University would have abandoned once for all the pernicious theory underlying its present practice that the kind of education it thinks best for its own students must be the best for all peoples who owe allegiance to the British flag. For these reasons it appears to us that the University would be well advised if it refused to grant in future an examination for matriculation even in countries which have no university until it had received a specific assurance from the Government concerned that they thought the holding of the examination was not detrimental to their educational policy. With this safeguard colonial centres for the Matriculation examination might perhaps be continued, for they may be convenient to students from overseas Dominions intending to come to London to study, though the effect of External examinations in the schools of Ceylon makes us doubtful.

In 1909, the Ceylon Government consulted the Board of Education as to the organisation of its educational system, and the Board sent one of their inspectors to Ceylon in 1911 to visit the schools and to report. The inspector found that the practice which has grown up in the Ceylon schools of preparing individual pupils for the Cambridge Local examinations was having a disastrous effect upon the teaching and organisation of the schools, and he summed up his conclusions in the following terms:—

The case of
Ceylon.

“It seems evident that the needs of Ceylon can only be met by means of an examination designed by those who know and appreciate local circumstances, and the facility of providing for a School Leaving Examination through the staff of a University College is yet an additional argument in favour of the establishment of such an institution.”

“The institution of such a system of examination would by no means preclude a measure of connection with one of the British universities. Such connection, which could be secured by submitting for criticism and suggestion the proposed questions and a proportion of the revised papers, would go far to ensure the establishment and maintenance of an adequate standard.”

The number of entries for the Matriculation examination of the University of London is much smaller than that for the Cambridge Local examinations, but it is very large when compared with the entries from other Colonies or Dominions. Between 1901 and 1910, 233 candidates entered for this examination, of whom only 90 passed, in itself a proof that the test is unsuitable.

Ceylon is also the only Colony in which the London examinations above the matriculation appear to have established a firm footing during the period under review, and show a tendency to increase. There were 106 candidates for one or other of the Intermediate examinations, and three candidates for the final examination for a degree. Special reference is made to this Colony in the Report of the Council for External Students¹ because “the laboratories and equipment of its Colleges” were inspected by an expert sent out by the University in 1904 “with a view to holding locally the examinations leading to a degree in Science.” Since then certain practical examinations have been conducted in the Colony, and the Report of the Council for External Students goes on to say “the elasticity of the London system has made it possible so to modify certain of the regulations and curricula as to make them suitable for the special local needs of the Colony in question; with the result that the Ceylon Government now awards its scholarships upon the results of these University examinations.”

The wisdom of this arrangement appears, however, to be at least open to question, for in 1909 the English Board of Education reporting to the Government of Ceylon on the general question of the possible foundation of a university at Colombo made the following pertinent observations:—

Advice of
Board of
Education.

“Even if the institution is to be of less than first rank, the Board consider that it is very doubtful whether any university outside Ceylon, or at all events any university in Europe, could arrange the requirements for its degree examinations with a view to the needs of the students of the Colony. The curricula of any university must be shaped with reference to the needs of the majority of its *clientèle*, and it seems to the Board to be indisputable that between the general needs of the *clientèle* of a British university and the legitimate aspirations in the direction of higher education of the great majority of the inhabitants of Ceylon there is and must always be a considerable divergence. Any scheme

¹ Appx. to 2nd Report, App. V., p. 227.

of studies which an external university is likely to accept as qualifying Ceylon students for its examinations will inevitably be of the nature of a compromise, and as such it is bound to hamper the educational development of the Colony.”

“What is said above must not be taken as implying that in the opinion of the Board the Government of Ceylon should in no circumstances seek the assistance of an external university in any form. The present position in the Colony may well be such that the assistance of a British university may, for a time at any rate, be desirable. If this is so, the Board of Education are inclined to think that the best form that such assistance could take would be for the British university to arrange, in consultation with the educational authorities in Ceylon, a curriculum or a series of curricula suited to the needs of the various sections of the population of the Colony, and terminating in an examination or examinations, on the results of which the university would issue a diploma or diplomas. These examinations should be quite apart from the ordinary examinations of the university, and such an arrangement would have this advantage, that it would enable the curricula to be drawn up with reference to the needs of Ceylon and of Ceylon only It may, perhaps, prove after investigation that the needs of a certain limited number of the students of the college are such that they could properly be met by certain of the existing examinations of a British university, but it must not be forgotten that in so far as the teachers in the Royal College have to prepare students for examinations over which they have no kind of control, whether direct or indirect, this must tend to cramp the free play of their initiative, and to that extent hinder the development of the college in such a way as to qualify it ultimately for an independent university existence. These objections would not hold good of a series of diplomas specially devised to meet the needs of the Royal College, for the university would naturally desire to keep in close touch with the teachers, both in respect of the curricula and of the examinations.”

General
conclusions.

407. We think that this advice is sound, that in the interests of that Colony the ordinary examinations of the University of London should cease in Ceylon, and that a similar careful investigation of the educational conditions of the other Colonies would probably lead to the same conclusion in their case. The statistics of the examinations higher than that for matriculation show that their abolition would not be a hardship to any large number of individuals. It is true that the London University examinations in Divinity, since their first establishment in 1903, have been in some demand on the Australian Continent, for none of the Australian universities at present offers a degree in that Faculty. The figures do not, however, show any great tendency to increase (*cf.* table in paragraph 403). We are very doubtful as to the wisdom of holding even the Matriculation examination beyond the confines of this kingdom, but if it is held it should be confined to students intending to come to England for their university course. We are convinced that none of the higher examinations should be held, though we think the University might be of valuable assistance to some of Your Majesty's Crown Colonies in the conduct of their own examinations.

THE REGISTRATION OF STUDENTS OF THE UNIVERSITY.

Conditions
of registra-
tion.

408. Steps should be taken to ensure that the undergraduate students of the University, whether in its Colleges, in its Schools, or working in private, should be genuinely engaged in study for a degree. To this end we propose that the passing of the school or other alternative examination should not qualify automatically for registration as a student of the University. Any person who has passed one of these examinations and has reached the necessary age should be obliged to make formal application to the University for registration either through the authorities of his College or University Department, or through the authorities of his School, or, if he is a student in some other institution (not being a secondary school) or if a private student, then personally or by letter. He should pay a small fee for each year during which he retains his name upon the books as an undergraduate student, and it might easily be arranged that this fee should carry with it right of representation on the Students' Representative Council and membership of the University, as distinct from college, societies, or at least of a certain number of them. Any undergraduate student who left a Constituent College or University Department would be removed from the University Register at once, but we think that undergraduates in Schools of the University or elsewhere should be permitted to remain upon the Register, subject to the payment of the necessary annual fee, for a

period of two years after passing any university examination which forms a stage to a degree. At the conclusion of that period his name would be removed from the register of undergraduates unless he made formal application for its retention, and could satisfy the University that he was continuing his studies for a degree. An undergraduate whose name had been removed from the books would of course be able to have it reinstated on the payment of the usual annual fee, and on satisfying the University that he had resumed his studies for a degree.

Pupils in schools should in no case be registered as undergraduates, and the period of study for a degree in any Faculty should be calculated in all cases from the date of first registration and not from the date of passing the examination qualifying for entrance.*

Pupils in schools not to be registered.

Graduate students should be registered and pay the annual fee so long as they remain attached to a Constituent College, University Department or School of the University. Other graduates would be eligible for registration as students of the University provided they furnished satisfactory evidence each year that they were engaged in study for a further degree.

UNIVERSITY EXTENSION WORK.

409. Under the Statutes of the University the Board to Promote the Extension of University Teaching, apart from its members *ex officio*, consists wholly of members of the Senate elected by the Senate. In this respect it differs widely from the other two Standing Committees of the Senate; it is, moreover, a much smaller body. The duties of this Board are to advise the Senate upon the means best adapted to encourage and extend teaching of a university standard within the appointed radius; and upon the admission to any of the privileges of matriculated students (other than that of proceeding to a degree) of any person who may have profited by such teaching, and generally upon the subject of University Extension and its relation to the teaching and courses of study of the University. Although the work of the Board was thus of a pioneer character, it almost immediately undertook important duties under a further Statute, which empowered the Senate, with the consent of the Universities of Oxford and Cambridge respectively, to take over and, on the advice of this Board, to "perform all or any of the duties at present performed within the appointed radius by the Universities' Joint Board of the London Society for the Extension of University Teaching." This transfer of duties was effected in October 1902, when the Universities of Oxford and Cambridge had already carried on the work for twenty-five years; its magnitude at that time is sufficiently indicated by the fact that in the last session 167 courses of lectures had been delivered at about 70 centres in different parts of the metropolitan area, the total number of entries being 15,204, while nearly 2,000 certificates had been awarded on the results of the examinations held at the close of the courses. It is recorded in the University Calendar for 1912-13 (p. 32) that the vigour and success of the work has been fully maintained since its transfer to the University of London, and we have no reason to doubt that this statement is accurate. But the real defect of the University Extension system as a whole is laid bare in the next sentence in the Calendar, in which it is stated that in 1908 the Senate, in order to encourage thoroughness and continuity of work on the part of University Extension students, established diplomas in History, in Literature, and in Economics and Social Science, to be awarded for an approved four years' course of work, tested by examination. This important step was taken while the late Dr. R. D. Roberts was Registrar to the Board, and the attempt to bring into the movement in this way a larger number of serious students was conceived in a spirit which must secure the approval of everyone who is interested in maintaining a high standard of teaching. In some of the smaller classes and in some of the longer courses there is no doubt that work of a university standard is done by some at least of the students. But the conditions under which the ordinary Extension courses have been given, the necessity that most of them should be maintained out of the fees of the students, the fact that most of the lecturers have not been university teachers, but men who confine their teaching to giving these lectures, and that the majority of the students, though doubtless interested in intellectual things, have not been prepared to do serious work, make it impossible for a university standard to be reached in most cases. A few of the students do admirable work,

Ordinary Extension lectures.

* Students intending to graduate in Medicine would not be qualified for registration as undergraduates until after they had passed the higher school examination or a university examination in chemistry, physics, and biology, corresponding to the present First examination for medical degrees (*cf.* paragraphs 93, 237-240).

and the courses have undoubtedly been the means of discovering here and there men and women who without their stimulus and assistance might never have learned to study in the university spirit. Extension lectures are also a most valuable agency for bringing large numbers of persons into touch with the University and into sympathy with its ideals. With all its limitations it is work of great value which we desire to see extended and strengthened.

Tutorial
classes.

410. There is, however, another side of the Extension work of the University which is more uniformly maintained at a high level. The University Board for the Extension of University Teaching is assisted in the selection of teachers for classes organised in connexion with the Workers' Educational Association, and in deciding the subjects upon which lectures should be given to these classes, by a joint committee of 14 persons, seven of whom are appointed by the University, and seven by the Workers' Educational Association and other labour organisations. The classes here referred to are limited to a maximum of 30 students, are tutorial in their nature and not ordinary Extension lectures. The students pledge themselves to regular attendance so far as the conditions of their employment permit, and undertake to be regular in writing essays bearing upon the subject of the course. These classes open out a new and hopeful field for the spread of a pure love of learning—the main function of a university. We have already expressed our admiration of the results that have been attained by this Association in co-operation with all the universities, and we have quoted a passage from a Special Report made by two inspectors of the Board of Education (*see* paragraph 67). That passage, which defines in clear and admirable language the meaning of university education, is followed by another in which the inspectors say that they have applied the test to the work of the tutorial classes, and that "If the question be put whether, so far as they go, and " within the limits of time and available energy the classes are conducted in the " spirit which we have described, and tend to accustom the student to the ideal of " work familiar at a University, we can answer with an unhesitating affirmative; and " in particular, the treatment both of History and Economics is scientific and " detached in character. As regards the standard reached, there are students " whose essays compare favourably with the best academic work." This result is due partly no doubt to the fact that the teachers are nearly all of them men actually engaged in university teaching, and not men making their living by conducting tutorial classes, but quite as much it is due to the enthusiasm, the zeal, and the sincere desire for truth animating the students, who are drawn almost entirely from the working classes. There is, indeed, another condition making for the thoroughness of the teaching, and that is the considerable amount of financial aid which is forthcoming from the Board of Education and from the London County Council. Without this aid it would be impossible to keep the classes as small as Mr. Mansbridge shows that they are at present. His evidence also indicates that the University of London is enabled to exercise a proper control over the tutorial classes within its area.¹

Need of
University
centre for
students of
tutorial
classes.

411. At first, no doubt, the classes of the Workers' Educational Association were devoted to a study of those sides of history and theory which seemed to bear most closely upon the needs and difficulties of the worker in the modern industrial state. That was right and proper, for men and women of adult years no less than younger students will do the best work where their interests lie. Already, however, a demand is growing up for courses in literature and other subjects of value for their time of leisure, and we believe this demand will grow, until the students of the Workers' Educational Association will realise one of the greatest truths a university can enforce—the essential unity of knowledge. We think the University should consider the work it is doing for these men and women one of the most serious and important of its services to the metropolis, and that it ought to provide a well-equipped building in a convenient situation as the visible centre of the movement, where courses of lectures could be given by the best teachers, including from time to time lectures and addresses by the professors of the University; where debates could be held, and the students meet for social intercourse. The University already possesses in the Goldsmiths' College a building admirably suited for the purpose, and situated close to the homes of many thousands of the students it should attract. This building should be used in the evenings, on Saturday afternoons,

¹ *Appx. to Final Report*, p. 143.

and on Sundays, as the chief university centre for tutorial class students, and a residence should be provided within its walls, if possible, for a warden who would be responsible for the organisation of its work and social life.

412. The Senate should appoint a suitably constituted Committee, or possibly two separate Committees, to supervise these two sides of the Extension work of the University, but the duty of supervising the conditions of entry to the University should not be entrusted to them as some of the witnesses who appeared before us have urged. The services of a secretary, who would devote himself to this branch of the administration would be required.

Committee or Committees of the Senate for supervision of Extension work.

INSPECTION AND EXAMINATION OF SCHOOLS.

413. Since the University of London was reconstituted under the Act of 1898, and was given power to inspect schools, a central Department of State, the Board of Education, has been organised to supervise all grades of education. The existence of this Department, and the Education Acts of 1902 and 1903, have led to the establishment of a large and highly skilled body of inspectors for the inspection of secondary schools. The Board inspects not only those secondary schools which are in receipt of grants, but it also inspects, free of charge, any secondary school which applies for inspection, and is prepared to place the results at the disposal of the universities in connexion with school examinations conducted by them. The number of schools inspected by the Board is constantly increasing, and it therefore appears to us to be undesirable that the University of London should continue to do work for which it is obliged to make a charge to the schools, and for which it cannot afford to retain the services of more than one or two full-time inspectors. The inspection of schools is work of a highly expert kind, and it cannot be carried out with full efficiency unless the majority of the men and women engaged on it are devoting themselves to it. In our opinion, therefore, the University should not continue to conduct school inspections, though it is of great importance that the close co-operation that has already been established between the inspections of the Board of Education and the examinations of the University should be continued, pending a decision as to the proper organisation of school examinations.

University should abandon inspection of schools.

414. Until the urgent national problem of school examinations is on the way to a solution, it will be necessary for the University to continue to conduct these examinations, and this part of its work will increase in magnitude when it refuses, as we have already recommended (*cf.* paragraph 94), to admit pupils in schools to its ordinary Matriculation examination. What part the University will eventually take in a national system of school examinations cannot for the moment be foreseen, but we desire to place on record our conviction that a national system is needed in the interests of the University of London itself, and that some means must be found for bringing the various school examinations at present conducted by the different universities into line so as to ensure a general equivalence of standard without interfering with the power of the schools to adapt their curricula to local needs.

School examinations.

415. So long as the University continues to examine schools it appears to us desirable that the work should be supervised by a special Committee of the Senate upon which the teachers in the various types of school examined would be largely represented.

Special Committee of Senate to supervise school examinations.

PART V.

SUMMARY OF RECOMMENDATIONS.

We now append a summary of the effects of the various recommendations as to the constitution and conduct of the University contained in previous Parts of our Report. This we desire to be understood not as in any way controlling or placing an interpretation upon the detailed paragraphs of the Report, but only as drawing attention to the main conclusions. Our recommendations are as follows :—

THE VISITOR.

The King in Council will continue to be Visitor of the University. § 356.

THE CHANCELLOR.

The Chancellor will be appointed by Convocation, and will hold office for life. The Chancellor will be *ex officio* a member of the Court, the Senate, and Convocation, and Chairman of the Court and of the Senate. § 368.

THE PRO-CHANCELLOR.

The Pro-Chancellor will be elected by the Court for a period of years to act as Chairman of the Court in the absence of the Chancellor. § 368.

THE VICE-CHANCELLOR.

The Vice-Chancellor will be a permanent salaried official appointed by the Senate, and chief administrative officer of the University.

The Vice-Chancellor will be *ex officio* a member of the Senate and all its Committees, of the Academic Council and all the Faculties, and of Convocation. He will be Chairman of the Senate in the absence of the Chancellor, and Chairman of the Academic Council. § 368.

THE DEANS OF THE FACULTIES.

The Deans of the Faculties will be appointed for a period of years by their respective Faculties, and will be members *ex officio* of the Academic Council and of the Court. § 368.

The Deans of the Faculties will have the power to decide in urgent cases matters affecting examinations referred to the Faculty by the Assessors. § 128.

OTHER OFFICERS OF THE HEADQUARTERS STAFF.

The Registrar appointed by the Senate, who will be responsible for the registration of students and graduates of the University, and act as Secretary to the Court and Senate, and be the chief officer of the Vice-Chancellor's clerical staff.

Such additional clerical and other officers as the Senate may appoint to the Vice-Chancellor's staff.

The Secretaries to the Faculties, who will be appointed by the Senate to act as clerical officers to these bodies, will form a part of the Vice-Chancellor's staff, and they will not be members of the Faculties to which they are attached. § 368.

The constituent bodies of the University will be the Court, the Senate, the Academic Council, § 367, the Faculties, § 124, the Committee for Technology, § 367, the Convocation, § 369, and the Students' Representative Council, § 370.

THE COURT.

The Court will in the first instance consist of the Chancellor, the Vice-Chancellor, the other members of the Senate, the Deans of the Faculties, and other members. It will number in all about 200. § 360.

Statutes of the University will provide for the following matters :—

- (i) The period, not exceeding four years, for which the appointed and co-opted members of the Court will hold office. § 360.
- (ii) The retirement of members who represent other bodies when they cease to be members of the bodies they represent. § 360.
- (iii) The retirement of approximately half of the other appointed and co-opted members at one time, so as to avoid too sudden a change in the personnel of the supreme governing body. § 360.
- (iv) An annual general meeting of the Court to receive a Report from the Senate, and for special meetings which may be summoned by the Chancellor, by the Senate, or by the Vice-Chancellor on the requisition of 30 members of the Court. § 359.
- (v) The necessary quorum at general and special meetings of the Court respectively. § 360.

The Court will be the supreme governing body and will have the powers and authority of the University not otherwise provided for. The legislative power of the Court will be its supreme function, and short of the interposition of Parliament, the only means of altering the constitution and government of the University. The Court will not be responsible for the original Statutes, which will be simple and few and will define the constitution and powers of the other governing bodies of the University. Its power will be limited to amendment of an existing constitution, and all new Statutes will require the sanction of the Privy Council. Resolutions of the Court will be subject to the Statutes in force for the time being. The control of the Court over the internal management of the University will be exercised entirely by means of Statutes and Resolutions, and will take effect only by altering or by setting in motion the existing machinery for the government of the University. Statutes will be passed at one meeting of the Court and confirmed at a subsequent meeting, in each case by a majority of not less than two-thirds of those present and voting. §§ 113, 358.

In particular the Court will have the following powers :—

- (a) To make Statutes, either on its own initiative or on the proposal of the Senate; and to pass Resolutions subject to the existing Statutes of the University.
- (b) To confer all honorary degrees at meetings which should be specially called for the purpose, and for which a special quorum may be prescribed.
- (c) By Statute to increase or diminish the number of its members, by increasing or diminishing the number to be appointed by the persons or bodies possessing the right of nomination or appointment, or by adding representatives of other bodies or in any other manner.
- (d) To approve of the admission of Constituent Colleges or University Departments on the recommendation of the Senate.
- (e) To approve of the recognition of public educational institutions or departments of such institutions as Schools of the University on the recommendation of the Senate.
- (f) To institute any new degree, diploma, or certificate.
- (g) To decide any matter referred to it by appeal from the Senate in cases where a minority of not less than five of that body support a recommendation of the Academic Council.

With the exception of the matters specified above the Court will be able to delegate any of its powers to the Senate, or to any Committee of its own body. § 359.

THE SENATE.

The Senate will consist of the Chancellor, the Vice-Chancellor, the Chairman of Convocation, and 12 other persons appointed as follows :—

Five persons appointed by the Crown for a term of six years.

Two persons appointed by the Court for a term of six years (the first two to be appointed by the Statutory Commission).

Two members of the Academic Council appointed triennially by that Council.

Two persons appointed by the London County Council.

One person appointed triennially by the Corporation of the City of London.

Special provision is made with regard to retirement, so as to secure continuity of administration. § 363.

The Senate will be the executive body of the University, and will have the custody and use of the Common Seal, the management and administration of the whole revenue and property of the University, and (except as otherwise provided) the conduct of all the affairs of the University.

The Senate will, in addition to all other powers vested in them, have the following powers :—

- (a) To draft Statutes as and when they see fit, and submit the same to the Court for consideration and enactment.
- (b) To appoint the Vice-Chancellor.
- (c) To appoint and to prescribe the powers and duties of Delegacies for the management of Constituent Colleges and University Departments, subject to any provisions of Acts or Charters concerning such Delegacies.
- (d) To determine by regulation or otherwise all matters relating to—
 - (i) The quorum to be required at meetings of any Committees of the Senate and at any meetings of the Faculties and Convocation.

- (ii) The finance, investments and accounts of the University.
 - (iii) The payment and amount of fees to be exacted within the University, or in relation to the enjoyment of privileges therefrom.
 - (iv) The duties and powers of the Academic Council and Faculties, except as expressly provided otherwise.
 - (v) The duties and powers of Advisory and other Boards, including Boards and Committees to be appointed by the University jointly with any other university or body.
 - (vi) The qualifications for honorary degrees and distinctions to be awarded by the University and the means and steps to be taken relative to the granting and obtaining of the same.
 - (vii) The visitation of Constituent Colleges and University Departments and of Schools of the University.
 - (viii) The terms and mode of appointment, tenure of and removal from office, duties, emoluments, allowances, salaries, and superannuation allowances of the officers of the University, including its professors, teachers, registrars, librarians, and permanent servants.
 - (ix) The tenure of office and terms and manner of appointment and the duties of the Assessors, Examiners, and Examining Boards.
 - (x) The provision and tenure of fellowships, scholarships, exhibitions, prizes, rewards, and pecuniary and other aids.
 - (xi) The discipline to be enforced in regard to the graduates and undergraduates in so far as they come within the jurisdiction of the University.
 - (xii) The removal from membership of the University of graduates and undergraduates and the withdrawal of degrees, diplomas, certificates, and distinctions, subject to an appeal to the Court.
 - (xiii) The examination of secondary schools and other institutions, and the scholars and students therein, and the granting of certificates of proficiency.
 - (xiv) The extension of university teaching in London and the adjacent counties and districts by means of University Extension lectures or otherwise.
 - (xv) The provision, maintenance, and supervision of halls, hostels, or other premises for the residence of students.
 - (xvi) The power to report to the Court on any matter concerning the University.
 - (xvii) All such other matters as may be delegated to them by the Court.
 - (xviii) The admission of students as undergraduates of the University.
 - (xix) The granting of degrees, diplomas and certificates upon report from the appropriate Faculty or Board or Committee.
 - (xx) The appointment of representatives of various bodies.
- (e) To invest any moneys belonging to the University, including any unapplied income in such stocks, funds, fully-paid shares, or securities as the Senate shall from time to time think fit, whether authorised by the general law for the investment of trust moneys or not, and whether within the United Kingdom of Great Britain and Ireland or not, or in the purchase of freehold, copyhold, or leasehold hereditaments in the United Kingdom, including rents, with the like power of varying such investments from time to time.
- (f) To sell, buy, exchange, lease, and accept leases of real and personal property on behalf of the University.
- (g) To provide the buildings, premises, furniture, and apparatus and other means needed for carrying on the work of the University.
- (h) To borrow money on behalf of the University, and for that purpose (if the Senate think fit) to mortgage all or any part of the property of the University, whether real or personal, or give such other security whether upon such real or personal property or otherwise as they think fit, provided that the moneys borrowed and owing by the University shall not at any time exceed in the whole the sum of 10,000*l.*, except with the sanction of a resolution passed at one meeting of the Court and confirmed by the vote of three-fourths of the members present and voting at a subsequent meeting of the Court specially convened for the purpose and held not less than seven days after the former.

- (i) To enter into, vary, carry out, and cancel contracts on behalf of the University.
 - (j) To appoint the officers of the University, including its professors, teachers, registrars, librarians, and permanent servants.
 - (k) To recommend to the Court after report from the Academic Council the names of recipients of honorary degrees.
 - (l) To make recommendations to the Court as to—
 - (i) the admission of Constituent Colleges and University Departments;
 - (ii) the recognition of public educational institutions or departments of such institutions as Schools of the University;
 - (iii) the institution of new degrees, diplomas, or certificates.
 - (m) To organise, improve, and extend university education within the appointed area and to review the instruction and teaching of the University, both undergraduate and post-graduate, provided that the Senate shall not make any decision in regard to any of these matters without inviting and receiving a report thereon from the Academic Council.
 - (n) To promote research within the University and to this end to require reports from time to time from the appropriate body or bodies.
 - (o) To entertain, adjudicate upon, and, if thought fit, redress any grievances of the officers of the University, the professors, the teaching staff, the graduates, undergraduates, and the University servants who may for any reason feel aggrieved otherwise than by an act of the Court.
 - (p) After report from the Academic Council:—To give general directions to the Faculties; to review any act of any Faculty or of any Committee or Board of a Faculty, other than the election of an officer or representative of such body, upon the appeal of any other Faculty; and to give directions for their future action accordingly.
 - (q) To appoint Committees whether of their own members or not for any purposes not otherwise provided by Statute.
 - (r) To delegate their powers in such manner as they may see fit, provided that they shall not delegate the power to borrow money. § 362.
- Six members will form a quorum. § 363.

THE ACADEMIC COUNCIL.

The Academic Council will consist of the Vice-Chancellor, who will preside, the Deans of the Faculties for the time being, one teacher appointed by the Senate to represent each group of studies in respect of which Schools of the University have been recognised but for which no Faculty has yet been constituted, and eight members of the Faculties elected by the Faculties in common session. § 365.

The representative members of the Academic Council will (except as specially provided in the case of first appointments) be elected for a term of three years. § 365.

The Academic Council will elect two representatives upon the Senate. § 363.

The Academic Council will have power to advise the Senate upon the following matters:—

- (a) General directions to the Faculties;
 - (b) The establishment or admission of Constituent Colleges and University Departments and the recognition of duly qualified institutions in whole or in part as Schools of the University, and the visitation of Constituent Colleges, University Departments, and Schools of the University;
 - (c) The nomination of Boards of Advisors and the appointment and determination of the duties of Professors, Readers, and Lecturers of the University;
 - (d) Any matter concerning research or teaching, or the examination of students;
 - (e) Regulations for studentships, scholarships, prizes, and medals;
 - (f) The conferring of honorary degrees;
 - (g) The appointment of representatives of the University on the governing bodies, &c. of Schools of the University, and the appointment of delegates to represent the University at academic celebrations;
 - (h) The institution of certificates or diplomas to be awarded by the University Extension Board;
- and generally—
- (i) upon any action that the Senate may propose to take having a direct educational bearing on the University as a whole, or which would interfere with any Faculty in the exercise of its powers.

The Academic Council will also have the power to decide such matters regarding teaching and the examination of students as may be delegated to them by the Senate. § 364.

Seven members will form a quorum. § 365.

THE COMMITTEE FOR TECHNOLOGY.

The Committee for Technology to be appointed annually will consist of :—

The Vice-Chancellor *ex officio*.

The Rector of the Imperial College *ex officio*.

Other persons, a bare majority of whom will be appointed by the Senate, including at least two representatives of the delegacies of University and King's College respectively ; the remainder being appointed by the Governing Body of the Imperial College.

The Committee will consist as to at least three-fourths of its members, of men of affairs and persons with special scientific knowledge of the professions and industries concerned.

A Committee of 15, including the two *ex officio* members, will be consistent with this constitution and suitable in size for the purposes in view. § 201.

Subject to the Statutes of the University the Committee for Technology will have the following powers and duties :—

- (i) The control of the annual income received by the Governing Body of the Imperial College, and the use of all land and buildings available for that institution.
- (ii) The control of the annual income received by the University in respect of the departments of Engineering at University College and King's College, and the use of the land and buildings at present available for them so long as those departments are maintained.
- (iii) The control of any additional funds and buildings the Senate may see fit to assign for the purpose.
- (iv) To submit a yearly budget and audited accounts to the Governing Body of the Imperial College, the delegacies of University College and King's College, and to the Senate. The sanction of the Senate to the annual budget will be necessary, but the Senate will not give or refuse its sanction until after it has consulted the Governing Body of the Imperial College and the delegacies of the other Constituent Colleges concerned.
- (v) To report to the Senate upon the recommendations of Boards of Advisors regarding appointments to Professorships and Readerships in the Faculty.
- (vi) To receive reports from the Faculty and to take action, or to report thereon to the Senate.
- (vii) To consider and report to the Senate upon cases where the Faculty of Technology has appealed to the Senate against the action of another Faculty, or where another Faculty has appealed against the action of the Faculty of Technology. § 202.

The quorum will be decided by Statute. § 366.

OTHER COMMITTEES OF THE SENATE.

There will be a Committee of the Senate to supervise the curricula and examinations for degrees for students in Schools of the University and other students not being students in Constituent Colleges or University Departments. The Committee will be constituted as the Senate thinks best for the purpose, but not with a view to the representation of particular institutions or of particular classes of students. § 400.

There will be a Committee of the Senate, and possibly two Committees, to supervise the work connected with the Extension of University Teaching and that connected with tutorial classes for working men and women. § 412.

There will be a Committee of the Senate to supervise work connected with school examinations, so long as this work continues to be undertaken by the University. School teachers will be largely represented on this Committee. § 415.

There will be such other Committees, including the delegacies of Constituent Colleges and University Departments, as the Senate may determine. § 362.

THE CONVOCATION.

The Convocation of the University will have its present constitution and powers as defined in Statutes 40 to 58 inclusive, except that all University Professors and University Readers, Honorary and Associate Professors, and Honorary and Associate Readers, and all persons upon whom the Court may confer an honorary or *ad eundem* degree will be entitled to be registered as members of Convocation; except also that Statute 41 (iii) will henceforth disappear, and that in Statutes 54 and 56 the word "Court" will be substituted for the word "Senate." § 369.

THE STUDENTS' REPRESENTATIVE COUNCIL.

The Students' Representative Council, consisting of and elected by registered undergraduate and graduate students, will be one of the constituent bodies of the University to which the University may make an annual grant out of its general funds.

In addition to appointing two representatives on the Court the Students' Representative Council will, under the Statutes, have the right of access to the University authorities by petition with regard to any matter affecting the teaching and discipline of the University or otherwise affecting the interests of the students. § 370.

THE FACULTIES.

Each Faculty of the University will have the following constitution, powers and duties:—

- (i) It will consist, either wholly or in the main,* of the University Professors (including Honorary and Associate Professors) of the subjects comprised within the Faculty; of the University Readers (including Honorary and Associate Readers) in subjects for which the University has not provided professorships; and of such other teachers and officers appointed by the University as the Faculty may co-opt. The Vice-Chancellor will, *ex officio*, be a member of every Faculty.
- (ii) It will have the power of appointing committees consisting of members of the Faculty, or of members of the Faculty together with other persons. Such committees will be appointed to act as Boards of Studies, and for other purposes, and the Faculty will be able to delegate to a committee such of its own powers as it may think fit, and to empower any committee to delegate any of its powers to a sub-committee of its own members. Two or more Faculties will have power to appoint joint committees, and each Faculty will have power to appoint committees jointly with other bodies.
- (iii) It will have the power to determine generally the conditions for the award of degrees, diplomas, and other distinctions within the purview of the Faculty.
- (iv) It will have the power to determine generally the course of study to be pursued by students of the University in the subjects within the Faculty.
- (v) It will be responsible for the conduct of the examinations of students in Constituent Colleges and University Departments of the Faculty.
- (vi) It will present to the Senate all candidates for the award of degrees, diplomas, and other distinctions within the purview of the Faculty.
- (vii) It will consider and advise the Senate as to the needs of the Faculty, and as to the provision and organisation of the teaching within it. § 124.

In particular each Faculty will have the following powers with regard to courses of study and examinations:—

- (1) To decide which subjects for the degrees are to be compulsory and which optional, and the normal amount of time to be given to each subject.
- (2) To decide what is to be the length of the full course for the several degrees, subject to the minimum for each Faculty which may be imposed by the Senate.
- (3) To prescribe in general terms the standard of knowledge required—but this it will do by indicating the range of study. But the Faculty will not indicate the range of any subject by means of a detailed syllabus, for this is a matter for the professor in consultation with his colleagues in the same branch of learning.

* The recommendations under the several Faculties below state which of these alternatives will be adopted.

- (4) To decide how far written, oral, and practical examinations shall respectively form part of the test for the several university examinations, and how far the record of work done by the student during his course shall be taken into consideration together with, or in place of, the formal examination in any subject, and the manner in which this shall be provided for.

It will also draw up regulations for the meetings of Boards of Examiners, and for the preparation of the Pass and Honours Lists.

- (5) To consider and endorse all Pass and Honours Lists submitted by Boards of Examiners. When the lists refer to an examination which is not the final examination for a degree, the Faculty will publish them, but all recommendations for degrees will be submitted to the Senate for their award.
- (6) To appoint Assessors to co-operate with the heads of departments in the conduct of the public examinations of the University in such manner as the Faculty may decide.
- (7) To receive a report from each of its committees or Boards of Studies as to the courses of instruction proposed to be given in the Faculty each year.
- (8) To give the decision in any case where a difference of opinion has arisen between the head of a department and the Assessor or Assessors appointed for the purpose of assisting in the examinations referred to above. § 125.

Regulations will provide for the summoning and holding of joint meetings of two or more Faculties and of joint meetings of all the Faculties. § 124.

PROFESSORS AND READERS.

The University Professors will be teachers in Constituent Colleges or University Departments (*see* Constituent Colleges and University Departments below) to whose posts the title, status and salary of a University Professor have been assigned by the University.

The Honorary Professors will be teachers in Constituent Colleges or University Departments to whom the status and duties of a University Professor have in exceptional cases been assigned, though the minimum salary of a Professor is not attached to the posts they hold.

The Associate Professors will be either :—

- (a) Teachers in Constituent Colleges and University Departments who are qualified for the status of a Professor, but whose duties are not those of a full University Professor; or
- (b) Teachers in Schools of the University to whose posts the same conditions as to qualification, salary and tenure are attached as those adopted by the University for its own Professors, and who have been appointed to their posts by the University.

The University Readers will be teachers in Constituent Colleges or University Departments to whose posts the title, status and salary of a University Reader have been assigned by the University.

The Honorary Readers will be teachers in Constituent Colleges or University Departments to whom the status and duties of a University Reader have in exceptional cases been assigned, though the minimum salary of a Reader is not attached to the posts they hold.

The Associate Readers will be either :—

- (a) Teachers in Constituent Colleges and University Departments who are qualified for the status of a Reader, but whose duties are not those of a full University Reader; or
- (b) Teachers in Schools of the University to whose posts the same conditions as to qualification, salary and tenure are attached as those adopted by the University for its own Readers, and who have been appointed to their posts by the University. § 124.

In making appointments to teaching posts the University will :—

- (i) Choose its staff for their individual excellence from the widest possible field.
- (ii) Give them such remuneration including superannuation and such conditions of tenure as will free them from the pressure of material anxiety. § 106.

The minimum salary of a Professor in the Faculties of Arts and Economics will at first be 600*l.* §§ 136, 219.

In the Faculties of Science and Laws, 800*l.* §§ 166, 340.

In the Faculty of Technology, and probably also in the Faculty of Medicine, 1,000*l.* §§ 211, 309.

The minimum salary of a University Reader will be 300*l.* in all Faculties, except in the Faculty of Technology, in which the minimum will be 500*l.* §§ 136, 166, 211, 219, 309, 340.

(iii) Arrange that their teaching duties leave ample time for their own individual work.

(iv) Arrange that the libraries, laboratories, and other means of assistance provided for them are such as to permit of advanced work and research.

(v) Give them a voice in the selection of their colleagues. § 106.

To these ends the University will appoint Boards of Advisors similar to those appointed by the present Senate for the selection of "Appointed Teachers." § 107.

The head of each department in a Constituent College will be responsible for the control of his department, laboratories and libraries, subject to the general control of the delegacy of his College in matters affecting time-table, finance, discipline, and the like, for the interpretation of the general regulations of the Faculty for the course of study to be followed in his department, and for the courses of lectures to be held by the teachers in it. § 127.

A subordinate teacher in a department will have the right of approaching the delegacy of his College in regard to any courses of instruction he may be required or wish to give, and similarly in regard to access to laboratories and libraries, and their decision will be final. § 127.

PROFESSORIAL EXAMINATIONS.

The head of each department, and under his direction the other teachers in his department, will be the examiners of the students in the department, but in the public examinations one or two Assessors appointed by the Faculty will be conjoined with him. The Assessors will have the right to refer to the Faculty any matter affecting the examinations in which they disagree with the head of the department, and the decision of the Faculty, or in urgent cases of the Dean, will be final. § 128.

Any delegacy of a Constituent College or University Department will have the right to appeal to the Senate against the decision of a Faculty on a matter of principle, but the decision of the Senate will not invalidate the past action of the Faculty; it will be a direction for their future guidance. § 128.

The several heads of departments and other teachers in a Faculty attached to a Constituent College, together with the Assessors, will form the examining board for the public university examinations for degrees of candidates in that College, and at a meeting in common session will decide upon the Pass and Honours List to be submitted to the Faculty. § 128, 124.

A student graduating from a Constituent College will place the name of his College after his degree. § 395.

CONSTITUENT COLLEGES AND UNIVERSITY DEPARTMENTS.

The Constituent Colleges will be educational institutions which are either established by the University or which are strong enough in one or more Faculties to comply with the conditions for incorporation, and which transfer to the University the financial and educational control of their work in one or more of those Faculties. § 119.

No institution shall be considered strong enough to become a Constituent College in any Faculty unless it is able to provide a full course for the first and higher degrees awarded in that Faculty. § 119.

Each Constituent College will be managed by a delegacy similar to those already appointed for University and King's Colleges. §§ 117, 362.

The University Departments will be departments dealing with a single subject of study, or with a group of studies of less range than a Faculty, whether established by the University, or placed under its financial and educational control. § 120.

Each University Department will be managed by a delegacy similar to those already appointed for University and King's Colleges. §§ 117, 362.

Constituent Colleges and University Departments will have a departmental organisation according to subjects of study. The head of each department will be either a Professor or a Reader. If any department in a Constituent College has a Reader

at its head, and the department of the same subject in a neighbouring College has a Professor at its head, the first-named department will be affiliated so far as its teaching is concerned to the department under the Professor, who will be the responsible chief of both. When the department under a Reader is too far removed to render this arrangement possible, the University will either raise the department to that of a full professorship, or will abandon it. § 126.

Classes and laboratory work in Constituent Colleges and University Departments intended for undergraduate students will be confined to students of the University, and other students, though admitted to the general lectures, must be provided for separately. §§ 98, 100.

Royal Scholarships and Free Studentships tenable at the Imperial College will be confined to candidates qualified for admission as undergraduates of the University. § 100.

THE FACULTY OF ARTS.

1. The Faculty will consist of the Vice-Chancellor, the University Professors, the Honorary and Associate Professors, the University Readers and the Honorary and Associate Readers in charge of departments dealing with subjects of study in respect of which no University Professorship is in existence, and of such other teachers and officers appointed by the University as the Faculty may co-opt. The Faculty of Arts need not include other persons. §§ 124, 157.

2. The head of every department in a Constituent College or University Department in the Faculty of Arts will be either a University Professor or a University Reader with the salary, conditions of appointment, and tenure laid down as proper to university teachers. §§ 106, 157.

3. University College and King's College will become Constituent Colleges in the Faculty of Arts. But in order to fit them to fill this position adequately further provision towards the cost of establishing University Professorships and Readerships and towards the maintenance of libraries is needed. §§ 135, 138, 139.

4. The London Day Training College will become the University Department of Education, provided the London County Council is willing to comply with the necessary conditions of University management. §§ 135, 140.

5. Bedford College will become a Constituent College in the Faculty of Arts, subject to its compliance with the conditions as to University management laid down. Immediate further provision is needed towards the maintenance of the library. §§ 135, 141.

6. The East London College will become a Constituent College in the Faculty of Arts as soon as it has raised the necessary funds to enable it to comply with No. 2 above, provided its Governing Body is willing to agree to the necessary conditions of University management. § 154.

7. The Birkbeck College will be reconstituted so as to become a Constituent College in the Faculty of Arts for evening students, subject to its compliance with the necessary conditions of University management, and to its abandoning its present day work and all its evening work below a university standard. Further provision for maintenance is needed to enable it to fulfil this purpose, amounting to at least 10,000*l.* a year, in respect of the two Faculties of Arts and Science. §§ 148-151.

8. The new School of Oriental Studies will be established as the University Department of Oriental Studies. If the reconstitution of the University is delayed, the instrument establishing the new School will make it clear that incorporation with the University when reconstituted is intended. Further provision for maintenance is needed for this School amounting to 10,000*l.* a year. §§ 142, 143.

THE FACULTY OF SCIENCE.

1. The Faculty will consist of the Vice-Chancellor, the University Professors, the Honorary and Associate Professors, the University Readers and the Honorary and Associate Readers in charge of departments dealing with subjects of study in respect of which no University Professorship is in existence, and of such other teachers and officers appointed by the University as the Faculty may co-opt. The Faculty of Science need not include any other persons. §§ 124, 193.

2. The head of every department in a Constituent College of the University in the Faculty of Science will be either a University Professor or a University Reader with

the salary, conditions of appointment, and tenure laid down as proper to university teachers. §§ 106, 193.

3. The Imperial College of Science and Technology will become a Constituent College of the University in the Faculty of Science, provided the University is given the necessary educational and financial control. §§ 160, 163, 203.

4. University College and King's College will become Constituent Colleges in the Faculty of Science. But in order to fit them to fill this position additional funds are needed towards the cost of establishing University Professorships and Readerships, and towards the maintenance of laboratories. §§ 160, 168, 169.

5. Bedford College will become a Constituent College in the Faculty of Science, subject to its compliance with the conditions as to University management laid down. Immediate additional income is needed towards the cost of salaries and for the maintenance of laboratories. §§ 160, 170.

6. The East London College will become a Constituent College in the Faculty of Science as soon as it has raised the necessary funds to enable it to comply with No. 2 above, provided its Governing Body is willing to agree to the necessary conditions of University management. §§ 160, 171.

7. King's College for Women will, as soon as possible, be constituted the University Department of Home Science and Economics, or of Household and Social Science, and should, if possible, be placed in the Bloomsbury district in close proximity to the central University buildings and to the suggested new site for King's College. § 175.

8. The Royal Veterinary College will become a University Department of Veterinary Science, subject to its compliance with the conditions as to University management and to its abandoning the teaching of chemistry, biology, and physiology (including histology). Additional income is needed as soon as possible in order to make the professorships of Medicine and Surgery full-time appointments. § 180.

9. The Brown Animal Sanatory Institution will be moved, if possible, into close proximity to the Royal Veterinary College, and will in that case be placed under the management of the same Committee as the Royal Veterinary College. § 182.

10. The Birkbeck College will be reconstituted so as to become a Constituent College in the Faculty of Science for evening students, subject to its compliance with the necessary conditions of University management and to its abandoning its present day work and all its evening work below a university standard. Additional income for maintenance is needed to enable it to fulfil this purpose, amounting to about 10,000*l.* a year, in respect of the two Faculties of Arts and Science. §§ 148-151, 183.

THE FACULTY OF TECHNOLOGY.

1. The present Faculty of Engineering will be merged in a Faculty of wider scope, which will include all the instruction given by the University in science as applied to industry and will be called the Faculty of Technology. §§ 204, 216.

2. The Faculty will consist of the Vice-Chancellor, the University Professors, the Honorary and Associate Professors, the University Readers and the Honorary and Associate Readers in charge of departments dealing with subjects of study in respect of which no University Professorship is in existence, and of such other teachers and officers appointed by the University as the Faculty may co-opt. The Faculty will also include persons with special scientific knowledge of the industries and professions with which the Faculty has relations. The numbers and mode of selection will be decided by the Senate after report by the Committee for Technology, but some of the lay members of the Faculty will be selected from the Committee for Technology. §§ 124, 205, 216.

3. The head of every department in a Constituent College of the University in the Faculty of Technology will be either a University Professor or a University Reader with the salary, conditions of appointment, and tenure proper to university teachers. §§ 106, 216.

4. The Imperial College of Science and Technology will become a Constituent College of the University in the Faculty of Technology subject to the recommendations made under the Committee for Technology. §§ 200-203, 209.

5. University College and King's College will become Constituent Colleges in the Faculty of Technology subject to the recommendations made under the Committee for Technology. But in order to fit them to fill this position adequately additional income is

required for the establishment of University Professorships and Readerships. §§ 202, 209, 213, 214.

6. The East London College will become a Constituent College in the Faculty of Technology as soon as it has raised the necessary funds to enable it to comply with No. 3 above, provided its Governing Body is willing to agree to the recommendations made with respect to the Committee for Technology. § 215.

THE FACULTY OF ECONOMICS.

1. The Faculty will consist of the Vice-Chancellor, the University Professors, the Honorary and Associate Professors, the University Readers and the Honorary and Associate Readers in charge of departments dealing with subjects of study in respect of which no University Professorship is in existence, and of such other teachers and officers appointed by the University as the Faculty may co-opt. The Faculty may also include persons with special knowledge of the professions and callings with which the Faculty has relations. The numbers and mode of selection will be decided by the Senate. §§ 124, 224.

2. The head of every department in a Constituent College or University Department in the Faculty of Economics will be either a University Professor or a University Reader with the salary, conditions of appointment, and tenure proper to university teachers. §§ 106, 224.

3. The School of Economics will become a Constituent College in the Faculty of Economics, subject to its compliance with the conditions as to University management. But immediate additional funds are needed for salaries and for library maintenance. §§ 218, 219.

4. The main teaching of the University in the Faculty of Economics will be centralised at the School of Economics; but the Professorships of Economics and Comparative Law should be retained at University College for the present. § 223.

5. The University Department of Ethnology will also be placed for the present in the School of Economics. § 220.

6. The Goldsmiths' Library of Economic Literature will be housed in the School of Economics. § 221.

THE FACULTY OF MEDICINE.

A Faculty of Medicine will be constituted when funds are available for the appointment of the necessary Professors and Readers, and when the University obtains financial and educational control of one or more Medical Schools attached to a general hospital. §§ 289, 305, 309, 310.

In addition to the regular members of the Faculty a certain number of members of the medical profession who are not teachers of the University may be appointed to the Faculty. The number and mode of selection will be decided from time to time by the Senate. § 305.

The Professors of subjects involving clinical instruction will be appointed under the same regulations as to personal qualifications and conditions of employment as other Professors of the University, but will be allowed a limited amount of private practice. §§ 303, 266.

A special form of organisation known as the "hospital unit" will be required in the case of clinical subjects in order to secure the co-operation necessary for the treatment of the patients, the training of the students, and the advancement of medical science. § 275.

The Preliminary Sciences of physics, chemistry, and biology will form no part of the university curriculum in the Faculty of Medicine. In the normal case they will be taken as special subjects in the last two years of a secondary school course, and be included in the higher school examination. When they have not been taken at school, either because the school did not provide teaching of the right standard, or because the course of the pupil's education had followed other lines, the instruction will be given in the science laboratories of the University or in institutions recognised by the University for the purpose, but the students will not be admitted to the Faculty of Medicine till they have passed a general examination in these subjects. § 237.

The Intermediate Sciences of anatomy, physiology, and pharmacology, as well as the advanced medical science of pathology—including morbid anatomy and histology, bacteriology and bio-chemistry—will be provided for in as close proximity as possible to the hospitals in which the clinical teaching is given. § 279.

The subjects of public health and forensic medicine will not necessarily be so closely connected with the Hospital Medical College; but the department of forensic medicine will, if possible, be brought into relation with the police and the coroners. §§ 280, 281.

Special clinics in separate hospitals will be established when funds are available, and in particular a clinic of psychiatry and mental diseases will if possible be established in connexion with the new hospital for mental diseases at Denmark Hill. §§ 276, 300.

One of the University Medical Colleges, when established, will include a department of dental surgery, and the University should consider whether it ought not to grant a first degree in Dentistry to students trained in that department. §§ 327, 328.

The estimated income required to organise a Hospital Medical College on university lines, in addition to fees and Board of Education grants, is 12,000*l.*; and three Medical Colleges will be necessary in order to provide for the instruction of the present number of university students, including those from Oxford and Cambridge. § 309.

THE FACULTY OF LAWS.

A Faculty of Laws will be constituted as soon as funds are available for the appointment of the necessary Professors and Readers. § 330.

In addition to the regular members of the Faculty, a certain number of members representative of both branches of the profession who are not teachers of the University will be appointed to the Faculty. The numbers and mode of selection of these members will be decided from time to time by the Senate. § 338.

The Faculty of Laws should be a superior Faculty, but having regard to the long time during which a degree in Laws has been given by the University as a first degree, and also to the fact that a Faculty of Laws cannot be established until the necessary funds are available, the time for making this change will be left to the discretion of the University. § 339.

The estimated annual income required is 10,000*l.* § 340.

The Constituent College in which the Faculty of Laws is located will become a Constituent College in that Faculty. § 331.

THE FACULTY OF THEOLOGY.

A Faculty of Theology will be constituted as soon as funds are available for the appointment of the necessary Professors and Readers, free from any kind of religious test. § 343.

The Faculty when constituted will be a superior Faculty. The degree of B.D. will ultimately be confined to students who have completed a final Arts course. Meantime students will be able to graduate as B.A. on a final examination confined to theological subjects, provided the course for the Intermediate examination and the examination itself are confined to subjects falling ordinarily within the Faculty of Arts. § 342.

The Constituent College in which the Faculty of Theology is located will become a Constituent College in that Faculty. § 343.

THE FACULTY OF MUSIC.

For the present there will be no Faculty of Music, but the University will have power to establish a Faculty in future if it has the means of supporting the necessary professorships and considers a separate Faculty would be useful. § 346.

THE FIRST CONSTITUENT COLLEGES AND UNIVERSITY DEPARTMENTS.

The following will therefore be the first Constituent Colleges and University Departments in the several Faculties subject to the fulfilment of the necessary conditions in each case.

The Imperial College of Science and Technology will be a Constituent College of the University in the Faculties of Science and Technology. §§ 160, 163, 200–203, 209.

University College will be a Constituent College of the University in the Faculties of Arts, Science and Technology. §§ 135, 138, 160, 168, 202, 209, 213.

King's College will be a Constituent College of the University in the Faculties of Arts, Science and Technology. §§ 135, 139, 160, 169, 202, 209, 214.

Bedford College will be a Constituent College of the University in the Faculties of Arts and Science. §§ 135, 141, 160, 170.

The London School of Economics will be a Constituent College of the University in the Faculty of Economics. §§ 218, 219.

University College will be a University Department of the Intermediate Medical Sciences. § 279.

King's College will be a University Department of the Intermediate Medical Sciences, and of Education. §§ 279, 140.

The School of Oriental Studies will be the University Department of Oriental Studies. § 143.

The London School of Economics will be the University Department of Ethnology. § 220.

King's College for Women will be the University Department of Household and Social Science. § 175, 176.

The London Day Training College will be a University Department of Education. § 140.

The Royal Veterinary College and the Brown Animal Sanatory Institution will be the University Department of Veterinary Science. §§ 180, 182.

ADDITIONAL INCOME NEEDED.

In order :—

To qualify the foregoing Constituent Colleges and University Departments to take their place within the University ;

To establish an evening Constituent College in the Faculties of Arts and Science at the Birkbeck College ;

To establish a University Department of Oriental Studies at the London Institution ; and

To maintain three Constituent Colleges in Medicine attached to hospitals ;

the University will need additional income for—

(a) Professorships, Readerships, and the maintenance of libraries and laboratories amounting to 85,500*l.*

(b) Reduction of fees to university students to 15*l.* per annum for Arts, 20*l.* per annum for Science, 30*l.* per annum for Technology 13,500*l.*

Total further income needed, 99,000*l.* a year. §§ 42, 355.

AREA OF THE UNIVERSITY FOR CONSTITUENT COLLEGES AND UNIVERSITY DEPARTMENTS.

The area of the University for the admission of Constituent Colleges and University Departments will be the Administrative County of London. § 375.

SITE OF UNIVERSITY QUARTER AND CENTRAL UNIVERSITY BUILDINGS.

The Constituent Colleges and University Departments of the University will be concentrated as far as possible in Bloomsbury, and to this end King's College, and if possible the University Department of Household and Social Science and the Brown Animal Sanatory Institution, will be moved to Bloomsbury. §§ 139, 175, 162, 182, 371.

The central University buildings, which will also be placed in Bloomsbury, will include—

(a) A great hall for University ceremonies and large educational gatherings.

(b) Accommodation for the Senate, for Committees, for the Principal, and for the headquarters staff.

(c) Accommodation for the meetings of Convocation and for its officers.

(d) A club-house for the Union Societies, headquarters for the Officers' Training Corps, and rooms for professors, graduates and students. Fourth Report and § 371.

(e) A central University Library supplementing the libraries in the Constituent Colleges, University Departments and Schools. § 372.

Examination halls, in so far as they are required, will be built in some accessible part of London where land is cheaper than in Bloomsbury. § 373.

SCHOOLS OF THE UNIVERSITY.

Those public educational institutions or groups of departments in larger educational institutions which are not under the educational and financial control of the University

will, if they comply with the necessary conditions, be Schools of the University. In order to qualify for recognition as a School of the University a public educational institution or a group of departments in a larger institution must comply with the conditions laid down in the existing Statutes of the University, Nos. 73, 75, 76, and 77 as to admission, visitation and removal, and in addition with the following conditions:—

- (1) The University must be represented on the Governing Body of each School, the representatives to be persons appointed by the Senate and immediately connected with the University. They must be selected from among those persons who are in the position to attend the meetings of the Governing Body regularly, and it will be a part of their duty to keep the University informed of the needs and policy of the School.

In the case of a theological college the appointments will be made after consultation with the Governing Body of the college, and if in the case of any of these colleges it should prove impossible to arrange for the University to nominate a member or members of the Governing Body in consultation with the authorities of the college, it would probably be possible for the University representatives to attend the meetings with power to speak though not to vote.

In the case of a Hospital Medical School which forms part of a larger institution and in the case of a group of departments for university study in a Polytechnic, the Governing Body of the Hospital or Polytechnic will appoint a committee of its own members, with the addition of University representatives, to conduct the business of the School, and will always invite and receive a report from that committee before deciding any matter affecting that department of the institution.

- (2) The principal teachers will form a Board to advise and make suggestions to the Governing Body on academic matters and on the general management of the School; and the chief administrative officer of the School together with representatives of the Board of teachers will be actually members of the Governing Body.

In the case of a Hospital Medical School it will be sufficient for the Board of teachers to report to the committee in charge of the business of the School and to be represented on that committee.

Similarly, in the case of a Polytechnic or "mixed" institution in which a group of departments is recognised as a School it will be sufficient for the Board of teachers to report to the committee in charge of the business of the School and to be represented on that committee.

- (3) Even in the case of teachers not appointed by the University and for whom no university title is desired, the Senate will have some voice in the appointment, *e.g.*, by representation on the appointing committee.

In the case of the Hospital Medical School, the foregoing provision will apply only to those teachers who are not on the staff of the hospital.

- (4) With a view to the clear definition of the University professoriate, no Governing Bodies of Schools of the University other than Theological Schools will confer the title of "Professor" or "Reader" (the vested rights of present holders being of course safeguarded). § 378.

In the case of groups of departments in large educational institutions recognised as Schools of the University the following additional conditions will be required:—

- (a) The University must be satisfied that there is no adequate and suitable provision of university instruction already existing in the locality concerned, for the particular class of students whom it is proposed to teach; and it must have power to require the co-ordination of the work of the centre with the work existing elsewhere as a condition of its continued status as a School.

- (b) The University will not recognise a group of departments in a larger institution as a School for full-time or day students as well as for part-time or evening students unless it is satisfied that staffing and laboratory arrangements are such as to admit of both classes of students being taught without their interfering with each other in the laboratories and without over-pressure to the teachers. In all such cases, moreover, the University will consult the Charity Commission, the Board of Education, and the Local Education Authority before admitting a group of departments as a School for day students.

- (c) There must exist a group of teachers for the centre in question, each of them qualified by his attainments, his remuneration, and the conditions of his work, for university teaching, and for the work entrusted to him; and the group must be collectively adequate to give instruction covering all the subjects of a degree course in some one Faculty. § 379.

In the case of the Hospital Medical Schools, the following additional condition will be imposed :—

There must exist a group of teachers for the School, each of them qualified by his attainments, his remuneration, and the conditions of his work, for university teaching and for the work entrusted to him; and the group must be collectively adequate to give instruction covering all the non-clinical subjects of the course for a degree in Medicine which fall within the purview of the School. § 380.

In the case of Schools which have transferred the teaching of the Intermediate subjects to the University, only the later non-clinical subjects for which the School is responsible will fall within their purview. § 380.

All institutions to be connected with the University (other than Constituent Colleges and University Departments) will be Schools of the University and the present system of recognising teachers in institutions otherwise unconnected with the University will cease. § 381.

The teaching of mental diseases to university students in Medical Schools, not being Constituent Colleges, will be given by men who have received appointments in the Medical School itself, and not by teachers individually recognised by the University at institutions which are not Schools of the University. § 382.

The Statutory distinction between Internal and External students will disappear, but a student graduating from a Constituent College will place the name of his College after his degree, and a student graduating from a School that of his School. § 395.

The following institutions which are at present Schools of the University will be the first Schools of the reconstituted University provided they comply with the foregoing conditions :—

In Arts—

Westfield College.

In Arts and Science—

The Royal Holloway College, Egham.

In Arts, Science, and Engineering—

The East London College.*

In Science (Agriculture)—

The South-Eastern Agricultural College, Wye.

In Medicine†—

The Medical School of St. Bartholomew's Hospital.

” ” College of the London Hospital.

” ” School of Guy's Hospital.

” ” ” St. Thomas's Hospital.

” ” ” St. George's Hospital.

” ” ” King's College Hospital.

” ” ” the Middlesex Hospital.

” ” ” St. Mary's Hospital.

” ” ” Charing Cross Hospital.

” ” ” the Westminster Hospital.

” ” ” University College Hospital.

” ” ” The London (R.F.H.) School of Medicine for Women.

” Royal Army Medical College.

” London School of Tropical Medicine.

In Laws—

The Constituent College in which the teaching of Law is concentrated.

In Theology—

Hackney College, Hampstead.

New College, Hampstead.

Regent's Park College.

The Wesleyan College, Richmond.

The London College of Divinity, commonly called St. John's Hall, Highbury.

§ 386.

* If and when the East London College qualifies for admission as a Constituent College in any of these Faculties it will cease to be a School in those studies.

† If and when any of these institutions qualify for admission as Constituent Colleges in the Faculty of Medicine they will cease to be Schools in those studies.

If it should prove impossible to reconstitute the Birkbeck College as a Constituent College in the Faculties of Arts and Science for evening students this institution will probably be able to satisfy the conditions for recognition of some of its departments as an evening School in those studies. § 387.

Negotiations will be necessary with the London County Council with a view to determining which of the Polytechnics should establish groups of departments in Engineering capable of being recognised as evening Schools in technological studies. It is impossible to say what other institutions will be in the position to comply with the conditions for recognition as Schools of the University whether for day students or for evening students or for both. §§ 388, 389.

TEACHERS IN SCHOOLS OF THE UNIVERSITY.

Teachers in Schools of the University not appointed by the University will not be individually "recognised" by the University and the title of "recognised" teacher will therefore cease. § 381.

The principal teachers in the Schools of the University will be grouped into Boards with reference to the Faculties to which their subjects of study belong. The following Boards will be constituted in the first instance:—

- A Board of Arts Studies.
- A Board of Science Studies.
- A Board of Technological Studies.
- A Board of Medical Studies.
- A Board of Legal Studies.
- A Board of Theological Studies. § 385.

Each Board will have power to appoint, with the approval of the Senate, committees of its own body together with other persons who are not teachers in Schools of the University to have the functions of the present Boards of Studies. § 385.

Each Board will prepare the curricula and syllabuses of examination for students in Schools with which the Board is connected, and will report these curricula and syllabuses for approval to the Senate but through the Faculty concerned when there is a Faculty. § 385.

UNIVERSITY EXAMINATIONS OF STUDENTS IN SCHOOLS OF THE UNIVERSITY.

The public examinations for degrees of students in Schools of the University will be general examinations common to all the Schools presenting candidates for these examinations, and will be conducted as at present by Boards of Examiners consisting in the main of teachers in the Schools together with at least one external examiner in each subject to be appointed by the Senate. §§ 384, 385.

The Pass and Honours lists of successful candidates will be reported to the Senate as hitherto by an Examiners' Meeting, at which each Board of Examiners will be represented by two members, one of whom is an external examiner. § 385.

AREA OF THE UNIVERSITY FOR THE RECOGNITION OF SCHOOLS.

The area of the University for the recognition of Schools will be the Administrative County of London, and the Administrative Counties of Middlesex, Surrey, Kent, Sussex, Essex, and Hertfordshire, and the county boroughs within the areas of those Administrative Counties. § 390.

THE GOLDSMITHS' COLLEGE.

The day training college for elementary school teachers will be conducted in the Goldsmiths' College on its present lines, and subject to the approval of the London County Council the school of art also. The other departments of work in the Goldsmiths' College will be abandoned, and the buildings will in future be used as a university centre for tutorial classes (*see under University Extension Work below*). §§ 79, 188, 189, 411.

UNATTACHED STUDENTS.

Matriculated students other than those in Schools of the University will, subject to the following limitations, be admitted to the general examinations for all degrees except those in Medicine and in Technology:—

- (1) Pupils still at school will not be admitted to these examinations.
- (2) Students in Constituent Colleges or in University Departments will not be admitted to these examinations in any Faculty in which a special examination is open to them, without the leave of the proper University authorities.
- (3) The examinations will be held in the United Kingdom only. § 399.

UNIVERSITY EXAMINATIONS IN MUSIC.

The examinations for degrees in Music will be purely external, but the Senate will appoint an expert committee, consisting in part of some of the principal teachers in the London Colleges of Music, to advise them and those responsible for the supervision of the general examinations of the University, both as to the regulations governing the examinations for degrees in Music, and as to the examiners appointed to conduct them. The examiners for the time being, if not already members of this committee, will attend its meetings during their period of office. § 398.

THE ADMISSION OF STUDENTS TO THE UNIVERSITY.

The normal qualification for admission to the University will be a school examination based upon the curriculum of the school. § 93.

There should be two such examinations. A lower school examination planned for pupils of about the age of 16, which should be a test of general education, and a higher school examination planned for pupils of about the age of 18, which should be suitable as a test for pupils whose course has to some extent been specialised. A student admitted to the University on the higher school examination, in which the appropriate subjects have been taken, will be excused the Intermediate examination for the degree in Faculties other than Medicine; but the course for the degree will not be shortened. § 93.

A student admitted on the higher school examination will, if the appropriate subjects have been taken, be excused from the Preliminary Science examination, and will be admitted direct to the Faculty of Medicine, his course in the University being shortened to four and a half years.

A student admitted on the lower school examination and a student admitted on the higher school examination in which the Science subjects have not been taken, will be required to pass a Preliminary Science examination before admission to the Faculty of Medicine, and in other Faculties will be required to pass an Intermediate examination at or after the close of his first year of study. § 237.

The Matriculation examination (to which pupils in schools will not be admitted) will be retained for those students who do not approach the University through the normal avenue of the secondary school. §§ 94, 96.

Students of mature age desiring admission to a Constituent College or University Department will be submitted to a special test approved by the Senate and conducted by the Faculty he desires to enter. § 97.

THE REGISTRATION OF STUDENTS OF THE UNIVERSITY AND THE ATTENDANCE OF UNDERGRADUATE STUDENTS.

No student will be registered as an undergraduate of the University until he has reached the age of 17, and unless he has made application to the University for registration either through the authorities of his College or University Department, or through the authorities of his School. If he is a student in some other institution (not being a secondary school), or if he is a private student, then he must apply personally or by letter. § 408.

A small fee will be charged annually to all registered university students. This fee will carry with it the right of representation on the Students' Representative Council and will cover the subscription to some or all of the University, as distinct from college, societies. § 408.

An undergraduate student in a Constituent College or University Department or in a School in Medicine or Technology will be obliged to comply with the regulations of the University as to attendance at lectures and classes as a condition of graduation. § 395.

An undergraduate student in a School of the University, other than in Medicine or Technology, will be obliged to comply with any regulations of that School as to attendance at lectures and classes, but the University will not make attendance at lectures or classes a condition of his candidature for a degree. § 395.

The name of any undergraduate student who leaves a Constituent College or University Department will at once be removed from the University Register of undergraduates. The names of other undergraduates will be permitted to remain upon the Register subject to the payment of the necessary annual fee for a period of two years after passing any university examination which forms a stage to a degree. At the conclusion of that period his name will be removed from the Register of undergraduates unless he makes formal application for its retention, and can satisfy the University that he is continuing his studies for a degree. §. 408.

The name of any undergraduate which has been removed from the books will be reinstated on the payment of the usual annual fee, and on his satisfying the University that he has resumed his studies for a degree. § 408.

Pupils in schools will not be registered as undergraduates. § 408.

The period of study for a degree in any Faculty will be calculated from the date of first registration and not from the date of passing the examination qualifying for entrance. § 408.

Graduate students will be registered and pay the annual fee so long as they remain attached to a Constituent College, University Department, or School of the University. Other graduates will be eligible for registration as students of the University provided they furnish satisfactory evidence each year that they are engaged in study for a further degree. § 408.

A UNIVERSITY PRESS.

The University will establish a University Press under its own full control for the publication of longer original works contributed by teachers of the University, by teachers in Schools of the University, and by students of the University. § 74.

UNIVERSITY HOSTELS, SOCIETIES, CLUBS, &C.

The University will establish and maintain out of funds specially raised for the purpose, hostels, preferably in the suburbs, where students from the several Constituent Colleges, University Departments, and Schools of the University may live together irrespective of the Faculty to which their studies belong. § 104.

The University will encourage the formation and maintenance of other societies and clubs open to all registered undergraduate and graduate students of the University, and will provide the necessary accommodation for this purpose, as well as headquarters for the Officers' Training Corps, in the central buildings. § 105 and Fourth Report.

UNIVERSITY EXTENSION WORK.

The present University Extension lectures will be continued. § 409.

The tutorial classes hitherto conducted in connexion with the Workers' Educational Association will be continued and developed, and the University will provide a centre for this movement in the Goldsmiths' College, and will raise special funds for this purpose. §§ 79, 411.

Courses of lectures will be given at the College by the best teachers, including from time to time lectures and addresses by the Professors of the University. Debates and social meetings will be held, and a residence will be provided within its walls, if possible, for a Warden, who will be responsible for the organisation of its work and social life. § 411.

The work connected with University Extension lectures, and that connected with tutorial classes will be supervised by a special committee or committees of the Senate, with a special officer in charge of this branch of administration, who will act as secretary to the committee or committees. § 412.

INSPECTION AND EXAMINATION OF SCHOOLS.

The University will cease to inspect schools. For the present, the University will continue to conduct school examinations which should be of two grades as explained above (*see* under Admission of Students to the University), and which will qualify pupils for admission as matriculated students of the University. §§ 413, 414.

The work connected with school examinations will be supervised by a special committee of the Senate upon which teachers in the various types of school examined will be largely represented. § 415.

We should indeed feel ourselves open to reproach if we did not, before closing this Report, speak of the great obligation we are under to the two secretaries of the Royal Commission. At the beginning of the work, four years ago, they threw

UNIVERSITY EXAMINATIONS IN MUSIC.

The examinations for degrees in Music will be purely external, but the Senate will appoint an expert committee, consisting in part of some of the principal teachers in the London Colleges of Music, to advise them and those responsible for the supervision of the general examinations of the University, both as to the regulations governing the examinations for degrees in Music, and as to the examiners appointed to conduct them. The examiners for the time being, if not already members of this committee, will attend its meetings during their period of office. § 398.

THE ADMISSION OF STUDENTS TO THE UNIVERSITY.

The normal qualification for admission to the University will be a school examination based upon the curriculum of the school. § 93.

There should be two such examinations. A lower school examination planned for pupils of about the age of 16, which should be a test of general education, and a higher school examination planned for pupils of about the age of 18, which should be suitable as a test for pupils whose course has to some extent been specialised. A student admitted to the University on the higher school examination, in which the appropriate subjects have been taken, will be excused the Intermediate examination for the degree in Faculties other than Medicine; but the course for the degree will not be shortened. § 93.

A student admitted on the higher school examination will, if the appropriate subjects have been taken, be excused from the Preliminary Science examination, and will be admitted direct to the Faculty of Medicine, his course in the University being shortened to four and a half years.

A student admitted on the lower school examination and a student admitted on the higher school examination in which the Science subjects have not been taken, will be required to pass a Preliminary Science examination before admission to the Faculty of Medicine, and in other Faculties will be required to pass an Intermediate examination at or after the close of his first year of study. § 237.

The Matriculation examination (to which pupils in schools will not be admitted) will be retained for those students who do not approach the University through the normal avenue of the secondary school. §§ 94, 96.

Students of mature age desiring admission to a Constituent College or University Department will be submitted to a special test approved by the Senate and conducted by the Faculty he desires to enter. § 97.

THE REGISTRATION OF STUDENTS OF THE UNIVERSITY AND THE ATTENDANCE OF UNDERGRADUATE STUDENTS.

No student will be registered as an undergraduate of the University until he has reached the age of 17, and unless he has made application to the University for registration either through the authorities of his College or University Department, or through the authorities of his School. If he is a student in some other institution (not being a secondary school), or if he is a private student, then he must apply personally or by letter. § 408.

A small fee will be charged annually to all registered university students. This fee will carry with it the right of representation on the Students' Representative Council and will cover the subscription to some or all of the University, as distinct from college, societies. § 408.

An undergraduate student in a Constituent College or University Department or in a School in Medicine or Technology will be obliged to comply with the regulations of the University as to attendance at lectures and classes as a condition of graduation. § 395.

An undergraduate student in a School of the University, other than in Medicine or Technology, will be obliged to comply with any regulations of that School as to attendance at lectures and classes, but the University will not make attendance at lectures or classes a condition of his candidature for a degree. § 395.

The name of any undergraduate student who leaves a Constituent College or University Department will at once be removed from the University Register of undergraduates. The names of other undergraduates will be permitted to remain upon the Register subject to the payment of the necessary annual fee for a period of two years after passing any university examination which forms a stage to a degree. At the conclusion of that period his name will be removed from the Register of undergraduates unless he makes formal application for its retention, and can satisfy the University that he is continuing his studies for a degree. §. 408.

The name of any undergraduate which has been removed from the books will be reinstated on the payment of the usual annual fee, and on his satisfying the University that he has resumed his studies for a degree. § 408.

Pupils in schools will not be registered as undergraduates. § 408.

The period of study for a degree in any Faculty will be calculated from the date of first registration and not from the date of passing the examination qualifying for entrance. § 408.

Graduate students will be registered and pay the annual fee so long as they remain attached to a Constituent College, University Department, or School of the University. Other graduates will be eligible for registration as students of the University provided they furnish satisfactory evidence each year that they are engaged in study for a further degree. § 408.

A UNIVERSITY PRESS.

The University will establish a University Press under its own full control for the publication of longer original works contributed by teachers of the University, by teachers in Schools of the University, and by students of the University. § 74.

UNIVERSITY HOSTELS, SOCIETIES, CLUBS, &C.

The University will establish and maintain out of funds specially raised for the purpose, hostels, preferably in the suburbs, where students from the several Constituent Colleges, University Departments, and Schools of the University may live together irrespective of the Faculty to which their studies belong. § 104.

The University will encourage the formation and maintenance of other societies and clubs open to all registered undergraduate and graduate students of the University, and will provide the necessary accommodation for this purpose, as well as headquarters for the Officers' Training Corps, in the central buildings. § 105 and Fourth Report.

UNIVERSITY EXTENSION WORK.

The present University Extension lectures will be continued. § 409.

The tutorial classes hitherto conducted in connexion with the Workers' Educational Association will be continued and developed, and the University will provide a centre for this movement in the Goldsmiths' College, and will raise special funds for this purpose. §§ 79, 411.

Courses of lectures will be given at the College by the best teachers, including from time to time lectures and addresses by the Professors of the University. Debates and social meetings will be held, and a residence will be provided within its walls, if possible, for a Warden, who will be responsible for the organisation of its work and social life. § 411.

The work connected with University Extension lectures, and that connected with tutorial classes will be supervised by a special committee or committees of the Senate, with a special officer in charge of this branch of administration, who will act as secretary to the committee or committees. § 412.

INSPECTION AND EXAMINATION OF SCHOOLS.

The University will cease to inspect schools. For the present, the University will continue to conduct school examinations which should be of two grades as explained above (*see* under Admission of Students to the University), and which will qualify pupils for admission as matriculated students of the University. §§ 413, 414.

The work connected with school examinations will be supervised by a special committee of the Senate upon which teachers in the various types of school examined will be largely represented. § 415.

We should indeed feel ourselves open to reproach if we did not, before closing this Report, speak of the great obligation we are under to the two secretaries of the Royal Commission. At the beginning of the work, four years ago, they threw

themselves into our task with whole-hearted devotion, and that devotion has never flagged. Without it we should have found it impossible to have explored the wide and varied field which our inquiry has covered. Their labours have been very heavy, and have been sustained over a prolonged period, but they have the satisfaction of knowing that they have rendered assistance of the highest order to the Commission. We desire to place on record our appreciation of the value of what they have done for us.

In conclusion we humbly beg to submit the above Report to Your Majesty's gracious consideration.

Dated the 27th day of March, 1913.

HALDANE OF CLOAN, Chairman. (L.S.)
MILNER. (L.S.)
ROBERT ROMER. (L.S.)
ROBERT L. MORANT. (L.S.)
L. CURRIE. (L.S.)
W. S. M'CORMICK. (L.S.)
E. B. SARGANT. (L.S.)
LOUISE CREIGHTON. (L.S.)

JOHN KEMP,
H. FRANK HEATH,
Joint Secretaries.

APPENDIX.**FOURTH REPORT.**

TO THE KING'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,

WE, the Commissioners appointed to inquire into the working of the present organisation of the University of London, and into other facilities for advanced education (general, professional, and technical) existing in London for persons of either sex above secondary school age; to consider what provision should exist in the Metropolis for University teaching and research; to make recommendations as to the relations which should in consequence subsist between the University of London, its incorporated Colleges, the Imperial College of Science and Technology, the other Schools of the University, and the various public institutions and bodies concerned; and, further, to recommend as to any changes of constitution and organisation which appear desirable; regard being had to the facilities for education and research which the Metropolis should afford for specialist and advanced students in connection with the provision existing in other parts of the United Kingdom and of Your Majesty's Dominions beyond the Seas, availing ourselves of Your Majesty's permission to report our proceedings from time to time, desire to submit to Your Majesty the conclusion we have arrived at with regard to a matter which we have carefully considered and upon which evidence already submitted to Your Majesty has been given before us. We think it desirable to do so without further delay and independently of any additional recommendations we may have to make on the subject, and of our opinions and recommendations upon other subjects still under consideration.

1. The matter to which we refer is the housing of the University of London.

2. It has become clear to us as our inquiry has proceeded, that the inception of any scheme for the reorganisation of the University which we may be able to recommend to Your Majesty, and which Parliament may sanction, will be seriously delayed after that sanction is obtained unless steps have previously been taken to provide for the University as reconstituted a site and buildings more convenient and adequate than those it now occupies.

3. We think that, whatever its future constitution may be, it is a matter of national importance that the University of London should be recognised and accepted as a great public institution. In our opinion the extent and value of its work already entitle it to that position; and we are sure that the work which will rightly fall to it, as it increasingly fulfils its purposes in the future, will more and more entitle it to public recognition and support.

4. We think it is fitting and right, and will be universally accepted, that such an institution should have for its headquarters permanent buildings appropriate in design to its dignity and importance, adequate in extent and specially constructed for its purposes, situated conveniently for the work it has to do, bearing its name and under its own control.

5. The evidence before us shows that the premises now occupied by the University in the Imperial Institute Buildings at South Kensington do not fulfil all these conditions, and could not be made to do so. The site of the Imperial Institute is not sufficiently central for the University. It lies on the western side of the circumference of a circle which embraces most of the University Institutions of importance, and we have had evidence that its remoteness has occasioned much inconvenience and loss of time to those who are concerned with the working of the University, and has exercised a harmful effect on its development. The buildings are shared with the Imperial Institute and are known by that name, and they have never become associated with the University in the minds of the public. The care of the fabric is in the hands of Your Majesty's Office of Works so that the University is not master in its own house.

Headlam,
Vol. I, p. 92,
§ 84.
Hill, Vol.
III., p. 58,
§ 22.
Hatton, Vol.
III., p. 128,
§ 5.
Vol. II.,
App. V.,
p. 230 (b).
Hill, Vol.
III., p. 59,
§ 27.

6. With regard to the accommodation provided we have taken evidence, and have visited and inspected the buildings. We are satisfied that the accommodation is insufficient in extent and in many respects unsuitable for the purposes for which it

Hill, Vol. III., p. 59, §§ 26 and 29.
Vol. III., App. VI., C., p. 395.

is used. We are not prepared, at present, to make recommendations with regard to all the purposes for which accommodation should be provided in the central buildings of a reconstituted University. Some university purposes would be better provided for elsewhere. Such provision, for instance, as will be required for central examinations—examination-halls, laboratories, waiting-rooms, and other accommodation—would be much more economically made by selecting an accessible site in a less costly position than that which will be necessary for the headquarters of the University.

Hill, Vol. III., p. 59, § 26.
Mears, Vol. III., p. 170, Q. 8484.
Vol. III., App. VI., p. 396 (i).

7. But about some things there can be no doubt. A great hall will be required for University ceremonies and for the many important occasions—such as the meetings of International Congresses and other great educational gatherings—when it is fitting that the University should act as host. The McEwan Hall in Edinburgh and the Whitworth Hall in Manchester are worthy of the universities to which they belong, and even in so comparatively small a town as Reading a spacious hall for academic assemblies was built in 1906. But for the University of London, founded in 1836, the only accommodation of the kind at present available is a temporary wooden structure erected in 1887 for the opening of the Imperial Institute by Her Majesty Queen Victoria. It appears to us totally unfit for the uses it has to serve.

8. Proper accommodation must clearly be provided for the Senate, for Committees, for the Principal and for the headquarters staff.

9. It is also, in our opinion, of great importance that suitable accommodation should be provided for the meetings of Convocation and for its officers. The University ought to be able to rely confidently on the sympathetic interest of its graduates in all that concerns its well-being, but, in a city as great as London is, this interest is apt to be dissipated and lost unless it is given a centre in which it can be focussed and find expression. We therefore consider, that the graduates of the University should have a place of their own within the University walls.

Vol. III., App. VI., p. 397, § (v).
Headlam, Vol. I., p. 92 § 84

10. Further, we think it is a matter of great importance that accommodation, which is entirely wanting at present, should be available for developing the social and corporate life of the University. A club-house for the Union Societies, headquarters for the Officers' Training Corps, rooms for professors, graduates and students are required in the central buildings of a University whose Colleges and Schools are widely dispersed.

11. We are not yet prepared to make final recommendations with regard to the scope and purposes of the Library of the University as distinct from those in its constituent institutions and from the large public libraries of London, but we think it is clear that the University should house within its central buildings certain collections of books, and that convenient reading rooms will be required for those who are engaged in particular researches. We therefore recommend, that provision should be made at headquarters for library accommodation.

Vol. II. App. V., p. 230.
Vol. II., App. VII., p. 340.

12. It has been urged upon us that provision should also be made at or near the headquarters of the University for laboratories for advanced work in a number of departments of science, which are either beyond the scope of the teaching institutions connected with the University, or for which it is thought supplementary provision ought to be made by the University itself; and, further, that lecture halls should be available for central University lectures. We are of opinion that several, though not a large number, of commodious lecture halls should be provided in the central buildings to be first erected, but the other question referred to in this paragraph is so intimately connected with the whole scheme of the reorganisation of the University, that it is impossible for us to say anything about it without entering upon subjects which would carry us beyond the limits of this Report. We think, however, that the purposes for which central accommodation would be useful and desirable, if it can be provided, are so extensive and varied, that it would be greatly to the advantage of the University if a site could be secured of sufficient size to allow a large measure of freedom in determining the nature of the buildings to be erected, including such scientific institutes as have been referred to, if they should be found to be necessary or desirable. Indeed, the early acquisition of a site is particularly urgent, because the amount of available land in the central parts of London is always limited, and if any opportunity of obtaining a suitable site which may happen to arise should be missed, many years might elapse before such an opportunity occurred again. It is this consideration which has led us to the conclusion that we should report immediately upon this matter.

13. Generally, and in conclusion, we think it is in the public interest, as well as in the interest of the University of London, that as large a site as possible should be obtained in a central position, and buildings erected for a reconstituted University which would be the visible sign of its recognition and acceptance as a great public institution. A great University is not self-supporting, and can never be so. As an institution for learning in which liberal education, instruction in the methods of advancing knowledge in a wide range of subjects, and the highest professional training are combined with large scope for the free exercise of thought and with full opportunity and encouragement for the systematic prosecution of research, it can never exist financially on the fees of its students. The University of London is entitled to, and already receives, public contributions from Imperial and local funds, and Your Majesty's Government has also been responsible for the housing of it throughout its history. But far more is needed than the minimum accommodation and maintenance required by the University for carrying on its routine work, and the University of London, like other universities in this country, must depend to a large extent for the liberal support necessary for its full development upon the endowments of private benefactors. We think such benefactors are to be found, if a purpose is presented to them which approves itself to their minds as honourable and useful in a high degree, and our inquiry has impressed us so forcibly with the almost unlimited possibilities of the University of London in the future that we cannot easily conceive a more splendid opportunity than its endowment, and the provision of a noble and suitable building for its home, afford for the liberality of the citizen.

All of which we most humbly submit for Your Majesty's most gracious consideration.

Dated the 15th day of December, 1911.

HALDANE OF CLOAN, Chairman.
MILNER
ROBERT ROMER.
ROBERT L. MORANT.
L. CURRIE.
W. S. M'CORMICK.
E. B. SARGANT.
LOUISE CREIGHTON.

JOHN KEMP,
H. FRANK HEATH,
Joint Secretaries.

INDEX.

- ACADEMIC COUNCIL, pp. 21, 81, 95, 145, 149.
 Effects on, of Schedule to Act of 1898, p. 10.
 Estimates of, pp. 59, 72, 73, 92, 152.
 Future constitution and functions, pp. 49, 157, 160, 163, 164, 193, 194.
 Ideals of, incompatible with those of External Council, p. 12.
 Report, pp. 11, 12.
 Report A., pp. 11, 12, 48, 153, 157, 158, 159, 160, 161, 163, 169, 171, 175.
 Report B., pp. 12, 48.
- ACLAND, Right Hon. A. H. D., pp. 42, 178.
- ACTS OF INCORPORATION :
 Effects of, p. 21.
 Valuable precedents, p. 50.
- ADVANCED MEDICAL STUDIES, pp. 107-126.
- AGE OF ENTRY TO UNIVERSITY, pp. 41, 42.
- ALLCHIN, Sir WILLIAM, pp. 1, 139.
- ANDERSON, Prof. JOHN, p. 170.
- AREA OF UNIVERSITY :
 for Constituent Colleges and University Departments, pp. 168, 202.
 for Recognition of Schools, pp. 168, 174, 175, 205.
- ARMSTRONG COLLEGE, p. 154.
- ASSESSORS, pp. 55, 56, 137, 197.
- ASSOCIATE PROFESSORS, pp. 52, 128, 129, 196.
- ASSOCIATE READERS, pp. 52, 196.
- ASSOCIATION FOR PROMOTING A PROFESSORIAL UNIVERSITY, pp. 8, 20.
- ASSOCIATION FOR PROMOTING A TEACHING UNIVERSITY IN LONDON, p. 5.
- ASSOCIATION OF ASSISTANT MASTERS IN SECONDARY SCHOOLS, p. 42.
- ASSOCIATION OF HEAD MISTRESSES, p. 41.
- ASSOCIATION OF PUBLIC SCHOOLS SCIENCE MASTERS, p. 105.
- AUSTRALIA, London University examinations in, pp. 182, 183.
- BAR, training for the, p. 147.
- BARRINGTON, C. V., p. 145.
- BARRY, Bishop, pp. 7, 9.
- BATTERSEA POLYTECHNIC, pp. 92, 170.
- BEDFORD COLLEGE, p. 24.
 Constituent College in Arts, pp. 58, 61, 62, 198, 202.
 Constituent College in Science, pp. 71, 74, 199, 202.
 Fees at, p. 152, 154.
 Percentage of income from fees, p. 154.
 Professors and Readers at, pp. 57, 58, 69.
- BENNETT, Dr., p. 42.
- BIOLOGY, teaching of, p. 106.
- BIRKBECK COLLEGE, THE, pp. 79, 82, 170, 174, 205.
 Establishment of Evening Constituent College at, pp. 65, 66, 198, 199.
 Estimated cost of establishing Evening Constituent College at, p. 66.
 Readers, pp. 57, 58, 70.
- BLAIR, R., pp. 18, 169.
- BOARD OF AGRICULTURE, DEPARTMENTAL COMMITTEE OF, p. 79.
- BOARD OF ARTS STUDIES, pp. 173, 205.
- BOARD OF EDUCATION, pp. 15, 80, 95, 154.
 Attitude of, to hostels, p. 46.
 Candidates for Royal Scholarships and Free Studentships, p. 43.
 Ceylon, report on foundation of university in, pp. 185, 186.
- BOARD OF EDUCATION—*cont.*
 Ceylon schools, Inspector's report on, p. 185.
 External degrees, pp. 177, 178.
 Fees paid by, p. 155.
 Influence of, upon length of secondary school life, p. 39.
 Inspection of schools by, p. 189.
 Report on tutorial classes, pp. 28, 188.
 Representation of, on Governing Body of Imperial College, p. 88.
 Responsible for standard of secondary schools, pp. 41, 105.
 University statistics, p. 175.
- BOARD OF LEGAL STUDIES, p. 205.
- BOARD OF MEDICAL STUDIES, pp. 130, 205.
- BOARD OF PRELIMINARY MEDICAL STUDIES, Report of, pp. 104, 105.
- BOARD OF SCIENCE STUDIES, pp. 173, 205.
- BOARD OF STUDIES IN CHEMISTRY, p. 12.
- BOARD OF STUDIES IN DENTISTRY, p. 142.
- BOARD OF STUDIES IN MUSIC, p. 151.
- BOARD OF TECHNOLOGICAL STUDIES, p. 205.
- BOARD OF THEOLOGICAL STUDIES, pp. 150, 205.
- BOARDS OF EXAMINERS, p. 173.
- BOARDS OF STUDIES, pp. 22, 99, 100.
 Committees of Faculties as, pp. 56, 161.
 Differences of opinion upon, p. 20.
 Under Schedule to Act of 1898, p. 10.
- BRITISH ACADEMY, p. 158.
- BRITISH ASSOCIATION, COMMITTEE OF, opinion of, on school examinations, p. 41.
- BRITISH SCIENCE GUILD, Medical Committee of, on special university research institutes, p. 30.
- BROWN ANIMAL SANATORY INSTITUTION, pp. 71, 79, 85, 167, 199, 202.
- BUSK, Sir EDWARD, p. 42.
- CALDECOTT, Prof., p. 11.
- CANADA, London University examinations in, pp. 182, 183.
- CANNAN, Prof., p. 22.
- CARNEGIE INSTITUTE, Washington, p. 30.
- CENTRAL TECHNICAL COLLEGE, pp. 43, 89, 155.
- CENTRALISATION OF TEACHING, p. 44.
- CEYLON, London University examinations in, pp. 184-6.
- CHANCELLOR, THE, pp. 165, 190.
- CHARING CROSS HOSPITAL MEDICAL SCHOOL, p. 17, 70, 99, 125, 174, 204.
- CHARITY COMMISSION, p. 169.
- CHARLOTTENBURG TECHNICAL HOCHSCHULE, pp. 85-7.
- CHEMISCHE REICHSANSTALT, p. 30.
- CITY AND GUILDS COLLEGE, pp. 43, 89.
- CITY AND GUILDS OF LONDON INSTITUTE, pp. 82, 89.
- CITY OF LONDON COLLEGE, p. 57.
- CITY PAROCHIAL CHARITIES, pp. 169, 170.
- CLAYBURY ASYLUM, p. 122.
- CLINICAL DEMONSTRATION, pp. 111, 112.
- CLINICAL INSTRUCTION :
 in General hospitals, pp. 107-22.
 in Special hospitals, pp. 122, 123.
- CLINICAL PROFESSORS, effect of appointment of, p. 128.
- COLLÈGE DE FRANCE, pp. 30, 31.

- COLLEGE SOCIETIES, p. 46.
- COLLINGWOOD, Dr., p. 140.
- COLONIAL EXAMINATIONS, pp. 181-6.
- COLUMBIA UNIVERSITY, p. 76.
- COMMITTEE FOR TECHNOLOGY, pp. 88-91, 164, 194.
- COMMITTEE OF MEDICAL MEMBERS OF THE SENATE, p. 100.
- COMMITTEES :
 of Court, pp. 158, 191.
 of Faculties, pp. 52, 195.
 of Senate, pp. 162, 181, 189, 193, 194.
- CONCENTRATION OF MEDICAL STUDIES, pp. 103, 124, 125.
- CONJOINT BOARD OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS :
 Examinations of, pp. 138, 139.
 Recognition of schools for science teaching, p. 105.
 Standards of admission accepted by, p. 140.
- CONRAD, p. 63.
- CONSTITUENT COLLEGES, pp. 51, 197, 201, 202.
 Examinations in, pp. 55, 167.
 Heads of departments in, powers of, pp. 55, 197.
 in Arts, p. 58.
 in Laws, p. 145.
 in Science, p. 71.
 in Technology, p. 92.
 in Theology, p. 150.
 Selborne Commission's recommendations as to, p. 6.
 Teaching in, organisation of, p. 54.
- CONSULTATIVE COMMITTEE OF THE BOARD OF EDUCATION, Report of, pp. 38, 39, 40.
- CONVOCATION, THE, pp. 165, 166, 176, 177, 195.
 Rejection by, of Senate's revised scheme, p. 7.
 Schemes of, for reform of University, p. 5.
- COUNCIL FOR EXTERNAL STUDENTS :
 Colonial examinations, pp. 181, 185.
 Effects of Schedule to Act of 1898, p. 10.
 Evidence of, reviewed, pp. 13, 14.
 Ideals of, incompatible with those of Academic Council, p. 12.
 Report of, pp. 11, 12.
- COUNCIL OF LEGAL EDUCATION, pp. 145, 146, 147, 148, 184.
- COURT, THE, pp. 48, 157-60, 190, 191.
- COWPER, LORD, p. 7.
- COZENS-HARDY, The Right Hon. Sir H. H., p. 11.
- CRACKANTHORPE, Mr., p. 148.
- CUSHNY, Prof., p. 136.
- DAHLEM, INSTITUTE OF CHEMISTRY, p. 30.
- DAWSON, Sir BERTRAND, pp. 119, 120.
- DEANS OF THE FACULTIES, pp. 55, 165, 190.
- DEFECTIVE ORGANISATION of present University of London, pp. 2, 11, 21, 24.
- DEGREES, p. 34.
 Dental Surgery, M.S. in, pp. 142, 143.
 Equivalence of standard in Internal and External, unnecessary, p. 12.
 in Divinity, p. 150.
 in Laws, pp. 145, 149.
 in Medicine and Technology, p. 179.
 London medical students' difficulty in obtaining university, pp. 139, 140.
 London University, opened to all, 1858, p. 4.
 Medical degrees previous to 1900, p. 99.
 Open to Medical Schools, p. 130.
 Title of, pp. 179, 197, 204.
- DENMARK HILL, Hospital at, pp. 122, 123.
- DENTAL EDUCATION, pp. 141-5.
- DENTAL SCHOOLS, pp. 141, 142.
- DENTAL SURGERY :
 Degrees in, p. 143.
 University training required for, p. 144.
- DEPTFORD BOROUGH COUNCIL, p. 81.
- DIVINITY, Department of, at King's College for Women, p. 77.
- EAST LONDON COLLEGE, THE, pp. 72, 173, 204.
 Constituent College in Arts, pp. 67, 198.
 Constituent College in Science, pp. 71, 74, 199.
 Constituent College in Technology, pp. 93, 200.
 Engineering department of, pp. 43, 85.
 Fees at, p. 155.
 Professors and Readers at, pp. 58, 69, 91.
- ELIOT, President, p. 12.
- ENGINEERING, Internal students in, at Polytechnics, p. 174.
- ETHNOLOGY, University Department of, pp. 96, 200, 202.
- EUGENICS, University Department of, pp. 71, 73.
- EVENING CONSTITUENT COLLEGE :
 Birkbeck College as, pp. 65-6.
 Cost of, p. 66.
- EVENING STUDENTS, University provision for, pp. 63-6, 79.
- EXAMINATION HALLS, pp. 167, 168, 202, 210.
- EXAMINATION OF SCHOOLS, pp. 189, 207.
- EXAMINATIONS, pp. 11, 34.
 External, effects of, on students and teachers, p. 36.
 in Constituent Colleges and University Departments, pp. 55, 197.
 in Divinity, p. 186.
 in Faculty of Medicine, p. 137.
 in Medicine and Engineering, exclusion of External students from, pp. 179, 180.
 in Music, pp. 181, 206.
 in Schools of the University, pp. 173, 181, 205.
 Limits to admission to general, pp. 181, 205.
 London University, held in Dominions and Crown Colonies, pp. 183, 184.
 Maintenance of standard, pp. 55, 56.
 Special Intermediate, pp. 19, 55, 106, 173.
 Supervision of school, p. 189.
 Two grades of school examination, pp. 40, 104, 206.
 University assistance to Dominions and Colonies, pp. 184, 185.
- EXAMINING BOARDS, constitution of, p. 55.
- EXETER, The Right Rev. THE LORD BISHOP OF, p. 11.
- EXTERNAL DEGREES, pp. 175-186.
- EXTERNAL STUDENTS, pp. 9, 12, 50.
- FACULTIES :
 Constitution and powers of, pp. 51-53, 195, 196.
 Co-ordination of the, pp. 156-65.
 Differences of opinion upon, p. 20.
 Powers of, proposed, pp. 53, 54.
 Powers of, under Act of 1898, p. 21.
 Present machinery unsuited to small Faculties, p. 22.
 Relation of, to teaching and examinations, p. 53.
 Too large in some cases, p. 22.
 Unequal academic standing of members of, p. 22.
- FACULTY OF ARTS, pp. 57-68, 198.
 Constituent Colleges and University Departments in, p. 58.
 Professors and Readers in, pp. 57, 58.
 Range of subjects taught, p. 58.
- FACULTY OF ECONOMICS, pp. 94-98, 200.
 Evening instruction in, p. 92.
 Professors and Readers in, p. 94.
- FACULTY OF ENGINEERING, pp. 11, 12, 20.
 To be merged in Faculty of Technology, p. 90.
See also FACULTY OF TECHNOLOGY.
- FACULTY OF LAWS, pp. 145-9, 201.
 Constituent College in, p. 145.
 Constitution of, p. 146.
 Cost of, p. 149.
 Legal professions represented on, p. 149.
 Report of, p. 145.
 University Professors and Readers do not at present exist in, p. 145.

- FACULTY OF MEDICINE**, pp. 98-145, 200, 201.
 Board of teachers in Medical Colleges, p. 135.
 Constitution of, p. 135.
 Establishment of, on reconstitution of University, p. 99.
 Organisation of, pp. 126-35.
 Post-graduate work, p. 117.
 Report of, pp. 11, 100.
 Teachers in, no test to apply to, p. 98.
 University education in, provision required for, pp. 132-5.
- FACULTY OF MUSIC**, pp. 150-2, 201.
 Degree course in, p. 151.
 Report of, p. 151.
 Under Act of 1898, p. 151.
- FACULTY OF SCIENCE**, pp. 12, 68-83, 198, 199.
 Constituent Colleges in, p. 71.
 Professors and Readers in, pp. 68-71.
 University Departments in, pp. 71, 76.
- FACULTY OF TECHNOLOGY**, pp. 83-94, 199, 200.
 Constituent Colleges in, p. 92.
 Constitution of, pp. 90, 91.
 Present Faculty of Engineering merged in, p. 90.
 Professors and Readers in, pp. 91, 92.
 Proposed management and finance of, pp. 88, 89.
See also IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY and COMMITTEE FOR TECHNOLOGY.
- FACULTY OF THEOLOGY**, pp. 149-50, 201.
 Constituent College in, p. 150.
 Religious test in, p. 150.
- FEES**, pp. 152-6.
 Adoption of fixed composition fee for full degree courses, p. 155.
 Cost of reducing, in London colleges, pp. 154, 155.
 Difficulty in reducing, p. 153.
 Estimated cost of reducing, based on present number of students, p. 156.
 Inclusive, of 15*l.*, 20*l.*, and 30*l.*, in Arts, Science, and Engineering respectively, in all Constituent Colleges, p. 154.
 Inclusive, to cover admission to societies grouped under Students' Union, p. 155.
 Modification of, in case of East London College, p. 155.
 Part-time students, p. 65.
 Percentage of income from, in different colleges, p. 153.
 Question of uniform, for universities, beyond Commission's reference, p. 154.
 Varied scale of, p. 152.
- FINANCE**, University control of, pp. 17, 48.
- FINANCE COMMITTEE**, pp. 11, 15, 21.
- FINSBURY TECHNICAL COLLEGE**, pp. 17, 70, 82, 91.
- FLEXNER, ABRAHAM**, pp. 107-9, 110.
- FORENSIC MEDICINE**, p. 126.
- FORSCHUNGSINSTITUT, BERLIN**, p. 30.
- FOSTER, DR. T. GREGORY**, p. 11.
- FOXWELL, PROF.**, p. 97.
- FULL-TIME STUDENTS**, exclusion of, from Evening Constituent College, p. 65.
- GALTON LABORATORY COMMITTEE**, p. 73.
- GARNETT, DR.**, pp. 63, 168.
- GENERAL MEDICAL COUNCIL** :
 Inspection of examinations by, pp. 137, 139.
 Recognition of schools for science teaching, p. 105.
 Registration of dentists by, p. 141.
 Standards of admission accepted by, p. 140.
- GLASGOW, ROYAL TECHNICAL COLLEGE**, p. 170.
- GOLDSMITHS' COLLEGE**, pp. 17, 80-2.
 Day training college at, pp. 80, 205.
 Readers at, pp. 58, 70.
 University centre for Workers' Educational Association, pp. 188, 189, 205.
- GOLDSMITHS' COMPANY**, pp. 80, 81, 97.
- GOLDSMITHS' LIBRARY**, pp. 96, 97, 167, 200.
- GREENWICH BOROUGH COUNCIL**, p. 81.
- GRESHAM COMMISSION**, pp. 3, 11, 17, 19, 23, 25, 103, 145, 146, 147, 148, 176, 177.
 Appointment of, p. 7.
 Clinical instruction not considered by, p. 107.
 Concentration of Preliminary and Intermediate Sciences, pp. 106, 124.
 Notes by Lord Reay, and by Bishop Barry and Prof. Sidgwick, p. 9.
 Opinion of, as to institutions for research, p. 24.
 Recommendations of, and intended effect, p. 8.
 Report of, p. 7.
- GRESHAM UNIVERSITY CHARTER**, opposition in Parliament to, p. 7.
- GROTE, MR.**, p. 4.
- GUY'S HOSPITAL DENTAL SCHOOL**, p. 142.
- GUY'S HOSPITAL MEDICAL SCHOOL**, pp. 70, 99, 174, 204.
- HACKNEY COLLEGE**, pp. 174, 204.
- HALLETT, F. G.**, p. 137.
- HARTOG, P. J.**, p. 35.
- HARVARD UNIVERSITY**, p. 12.
- HEAD, DR.**, pp. 111, 113, 118, 119, 131, 136, 137.
- HEADLAM, REV. A. C.**, p. 11.
- HEADQUARTERS STAFF, OFFICERS OF**, pp. 165, 190.
- HELMHOLTZ**, p. 29.
- HERMES, DR.**, p. 30.
- HERRINGHAM, DR.**, p. 136.
- HILL, PROF. M. J. M.**, pp. 11, 17, 63.
- HOLLAND, MR.**, p. 101.
- HOME SCIENCE AND ECONOMICS, DEPARTMENT OF**, p. 44.
See also HOUSEHOLD AND SOCIAL SCIENCE, UNIVERSITY DEPARTMENT OF.
- HONG KONG**, London University examinations in, p. 184.
- HONORARY PROFESSORS**, pp. 52, 196.
- HONORARY READERS**, pp. 52, 196.
- HOSPITAL STAFF** :
 Advantages of position on, p. 127.
 Waiting necessary to get on, p. 127.
- HOSPITAL UNIT**, pp. 109, 110, 111, 119.
- HOSPITALS** :
 Primary object of, p. 133.
 University and governing bodies of, p. 129.
- HOSTELS**, p. 45.
- HOUSEHOLD AND SOCIAL SCIENCE, UNIVERSITY DEPARTMENT OF**, pp. 75, 76, 167, 202.
See also HOME SCIENCE AND ECONOMICS, DEPARTMENT OF.
- HYGIENE, see under** PUBLIC HEALTH.
- IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY**, pp. 20, 73.
 Charter of, p. 87.
 Constituent College in Science, pp. 71, 199, 201.
 Constituent College in Technology, pp. 92, 199, 201.
 Engineering departments of, p. 43.
 Evidence of Governing Body, pp. 33, 84-87.
 Fees at, pp. 152, 154, 155.
 Professors and Readers at, pp. 69, 91.
 Pure Science departments in, p. 89.
 Relation of, to University, p. 71.
 Reports by Committees of, p. 83.
 Special final examinations, p. 180.
- IMPERIAL STUDIES, DEPARTMENT OF**, pp. 44, 96.
- INCOME**, additional, required, pp. 156, 202.
- INCORPORATION**, policy as to, pp. 21, 51.
- INDIA**, London University examinations in, pp. 183, 184.
- INNS OF COURT**, pp. 146, 147, 148.
- INSPECTION OF SCHOOLS**, pp. 189, 207.
- INSTITUTE OF ADVANCED TECHNICAL OPTICS**, p. 90.

- INSTITUTIONS WITH "RECOGNISED" TEACHERS, lack of University control over, p. 17.
- INSTITUTS SOLVAY, BRUSSELS, pp. 30, 31.
- INTERMEDIATE EXAMINATIONS, SPECIAL, under Statute 119, pp. 19, 55, 106, 173.
- INTERMEDIATE MEDICAL STUDIES, pp. 106, 124, 125.
- INTERNAL EXAMINATIONS, REGULATIONS FOR, criticised, p. 19.
- JEW'S COLLEGE, p. 174.
- JOHNS HOPKINS UNIVERSITY, pp. 110, 112.
- KAISER-WILHELMS-GESELLSCHAFT, p. 30.
- KAISER-WILHELMS-INSTITUT, p. 30.
- KELVIN, LORD, *see under* THOMSON, SIR WILLIAM.
- KIMMINS, Dr., p. 12.
- KING'S COLLEGE :
 Additional income required, pp. 60, 73, 93.
 Buildings of, p. 61.
 Classes in law at, p. 145.
 Constituent College in Arts, pp. 58, 198, 201.
 Constituent College in Science, pp. 71, 199, 201.
 Constituent College in Technology, pp. 92, 199, 201.
 Engineering department of, pp. 43, 85, 88.
 Evening courses at, p. 32.
 Fees at, pp. 152, 154.
 Foundation of, p. 3.
 Hygiene department at, p. 125.
 Hygiene instruction at, p. 107.
 Oriental languages, department of, p. 62.
 Percentage of income from fees, p. 154.
 Percentage of income from L.C.C., p. 153.
 Petition of, p. 5.
 Professors and Readers at, pp. 57, 69, 91.
 School of University for Preliminary and Intermediate Studies, p. 100.
 Site for, p. 167.
 Special final examinations, p. 180.
 University Department of Education, pp. 61, 202.
 University Department of Intermediate Medical Studies, pp. 125, 202.
- KING'S COLLEGE FOR WOMEN, pp. 67, 74-7.
 Percentage of income from fees, p. 153.
 University Department of Household and Social Science, pp. 76, 199, 202.
- KING'S COLLEGE HOSPITAL MEDICAL SCHOOL, pp. 17, 174, 204.
- KING'S COLLEGE (THEOLOGICAL DEPARTMENT), p. 77.
- KLEIN, FELIX, p. 85.
- LABORATORIES, CENTRAL, pp. 168, 210.
- LANKESTER, Prof. RAY, p. 8.
- LAW SOCIETY, pp. 145, 146, 147.
- LEGAL EDUCATION, provision of, by University, p. 146.
- LEWISHAM BOROUGH COUNCIL, p. 81.
- LIBRARIES, UNIVERSITY, pp. 167, 210.
- LISTER INSTITUTE, pp. 31, 100, 126.
- LOCAL EDUCATION AUTHORITIES, pp. 63, 64, 178.
- LONDON COLLEGE OF DIVINITY, *see under* ST. JOHN'S HALL, Highbury.
- LONDON COUNTY COUNCIL :
 Asylums under, p. 122.
 Incorporation of London Day Training College, p. 58.
 King's College for Women, grant to, pp. 75, 76.
 and London Polytechnics, pp. 17, 174.
 Tutorial classes, p. 188.
- LONDON COUNTY COUNCIL TECHNICAL EDUCATION BOARD, grant from, pp. 24, 61.
- LONDON DAY TRAINING COLLEGE, p. 153.
 Professors at, p. 57.
 University Department in Education, pp. 58, 61, 198, 202.
- LONDON HOSPITAL DENTAL SCHOOL, p. 142.
- LONDON HOSPITAL MEDICAL COLLEGE, pp. 70, 99, 128, 174, 204.
 Proposal for reform, pp. 119-21.
- LONDON MEDICAL SCHOOLS, list of, p. 99.
- LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN, pp. 70, 99, 174, 204.
- LONDON SCHOOL OF ECONOMICS :
 Additional income required, pp. 95, 96.
 Constituent College in Economics, pp. 95, 200, 202.
 Courses at, p. 97.
 Department of Ethnology at, pp. 72, 96, 200, 202.
 Evening courses at, p. 32.
 Law teaching at, p. 145.
 Percentage of income from L.C.C., p. 153.
 Professors and Readers at, p. 95.
- LONDON SCHOOL OF TROPICAL MEDICINE, pp. 174, 204.
- LONEY, S. L., p. 12.
- LOW, SIDNEY, p. 96.
- MACDONELL, Sir JOHN, p. 145.
- MCGILL UNIVERSITY, p. 85.
- MALTA, London University examinations in, p. 184.
- MANSBRIDGE, A., p. 188.
- MATRICULATION, minimum age of, p. 41.
- MATRICULATION EXAMINATION, pp. 38-42, 189, 206.
 in Colonies, pp. 182, 185, 186.
- MAUDSLEY, Dr. HENRY, p. 122.
- MEDICAL COLLEGE, COLOMBO, p. 184.
- MEDICAL COLLEGES :
 Cost of, pp. 136, 137.
 Number of, limited by cost, p. 131.
 University control of, pp. 129, 130.
- MEDICAL CURRICULUM, three parts of, p. 103.
- MEDICAL EDUCATION :
 Cost of reorganising, pp. 135-7.
 Development of, p. 130.
- MEDICAL SCHOOLS :
 Appointment of professors in a number of, p. 117.
 Competition between, pp. 126, 127.
 Percentage of income from fees, p. 154.
 Recognition of, as Schools of the University, p. 172.
 Relations of University with, p. 102.
 Science departments in, p. 80.
 University could not continue all, for present work, pp. 130, 131.
 Visitation of, p. 15.
- MEDICAL SCIENCE, co-operation necessary for advancement of, p. 111.
- MEDICAL STUDENTS, number of, p. 132.
- MENTAL DISEASES, teaching of, pp. 172, 204.
- METEOROLOGY, University Department in, p. 69.
- METROPOLITAN ASYLUMS BOARD, p. 122.
- MIDDLESEX HOSPITAL MEDICAL SCHOOL, pp. 99, 174, 204.
- MIRS, Sir HENRY A., p. 42.
- "MIXED" INSTITUTIONS :
 Cost of Schools in, p. 175.
 Schools in, pp. 169, 172.
- MORRIS, E. W., p. 134.
- MOTT, Dr., p. 122.
- MÜLLER, Prof. FRIEDRICH von, p. 109.
- MUSIC :
 Examinations in, p. 181.
 Professorships of, p. 152.
- NATIONAL DENTAL COLLEGE, p. 142.
- NEW COLLEGE, HAMPSTEAD, pp. 174, 204.
- NEW ZEALAND, London University examinations in, pp. 182, 183.
- NEWFOUNDLAND, London University examinations in, pp. 182, 183.
- NEWMAN, pp. 27, 35.
- NORTHAMPTON INSTITUTE, pp. 90, 92.
- NORTHERN POLYTECHNIC, pp. 71, 82.
 Fees at, p. 153.

- OFFICERS OF THE UNIVERSITY, pp. 165, 190.
- OFFICERS' TRAINING CORPS, Headquarters for, pp. 46, 210.
- OPTICAL WORKS, MILL HILL, p. 90.
- ORIENTAL STUDIES, UNIVERSITY DEPARTMENT OF, *see under* SCHOOL OF ORIENTAL STUDIES.
- OSLER, SIR WILLIAM, pp. 109, 110, 112, 136, 137.
- PATHOLOGY, pp. 123, 124.
- PATTISON, Prof. PRINGLE, p. 37.
- PAULSEN, pp. 63, 85.
- PENNINGTON, Mr., p. 147.
- POLYTECHNICS, pp. 169-171.
 Competition of, with each other, and with Schools, p. 18.
 Co-ordination of, p. 17.
 Danger in rapid growth of, p. 18.
 Engineering instruction at, p. 174.
 Fees at, p. 153.
 Relation of University to, p. 64.
 Students attending, p. 64.
- POST-GRADUATE HOSPITAL, p. 133.
- PRELIMINARY SCIENCE TEACHING, pp. 103-6.
- PRIVATE PRACTICE for Professor of Medicine, pp. 115, 116.
- PRO-CHANCELLOR, THE, pp. 165, 190.
- PROFESSOR OF MEDICINE :
 Clinical instruction cannot all be given by, p. 113.
 Objection that he would be a specialist, p. 114.
 Private practice for, pp. 115, 116.
- PROFESSORS, appointment of, in University Hospital, pp. 134, 135.
- PUBLIC HEALTH :
 Instruction in, at University College and King's College, p. 107.
 Instruction in, not necessary in Hospital Medical College, p. 125.
 Teaching of, may be concentrated, p. 125.
- QUEEN'S UNIVERSITY, KINGSTON, ONTARIO, p. 182.
- RALEIGH, SIR WALTER, p. 32.
- RASHDALL, Dr., p. 25.
- REAY, LORD, pp. 9, 23, 62, 63.
- "RECOGNISED" TEACHERS, title of, abolished, p. 172.
- RECORD, importance of, in determining graduation, pp. 36, 137, 180.
- REVES, Hon. W. PEMBER, pp. 22, 95.
- REGENT'S PARK COLLEGE, pp. 174, 204.
- REGISTRATION OF UNIVERSITY STUDENTS, pp. 186, 187, 206, 207.
- RESEARCH, pp. 13, 30.
 Gresham Commission's opinion as to institutions for, p. 24.
 Medical Committee of British Science Guild in favour of special university institutes for, p. 30.
- RITCHIE, Dr. JAMES, pp. 123, 124.
- ROBERTS, Dr. R. D., p. 187.
- ROSCOE, The Right Hon. Sir HENRY, p. 11.
- ROSEBERRY, LORD, p. 45.
- ROUGIBO, Biological station at, p. 30.
- ROYAL ACADEMY OF MUSIC, p. 151.
- ROYAL ARMY MEDICAL COLLEGE, pp. 100, 107, 174, 204.
- ROYAL COLLEGE, COLOMBO, pp. 184, 186.
- ROYAL COLLEGE OF MUSIC, p. 151.
- ROYAL COLLEGE OF PHYSICIANS OF LONDON, p. 140.
- ROYAL COLLEGE OF SCIENCE, p. 85.
 Departmental Committee on, Report of, p. 84.
 Royal Scholars and Free Students at, pp. 43, 155.
- ROYAL COLLEGE OF SURGEONS OF EDINBURGH, p. 141.
- ROYAL COLLEGE OF SURGEONS OF ENGLAND, p. 141.
 Diploma in dental surgery, p. 142.
 Evidence of, on dental education, p. 141.
 University should not compete with diploma of, p. 145.
- ROYAL COLLEGE OF SURGEONS OF IRELAND, p. 141.
- ROYAL COLLEGES OF PHYSICIANS AND SURGEONS :
 Evidence of Presidents of, as to single portal, pp. 137-9.
 Petition of, p. 4.
- ROYAL DENTAL HOSPITAL OF LONDON SCHOOL OF DENTAL SURGERY, p. 142.
- ROYAL FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW, p. 141.
- ROYAL HOLLOWAY COLLEGE, pp. 67, 168, 173, 204.
 Professor and Reader at, pp. 69, 79.
- ROYAL INSTITUTION, p. 31.
- ROYAL SCHOLARSHIPS AND FREE STUDENTSHIPS, pp. 43, 87, 198.
- ROYAL SCHOOL OF MINES, pp. 43, 90, 154.
- ROYAL SOCIETY, p. 158.
- ROYAL VETERINARY COLLEGE, pp. 70, 71, 78, 199, 202.
- RÜCKER, Sir ARTHUR, p. 86.
- ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL, pp. 16, 24, 70, 99, 174, 204.
 Proposals for reform, pp. 117, 118.
- ST. GEORGE'S HOSPITAL MEDICAL SCHOOL, pp. 17, 70, 99, 174, 204.
- ST. JOHN'S HALL, HIGHBURY, pp. 174, 204.
- ST. MARY'S HOSPITAL MEDICAL SCHOOL, pp. 70, 99, 174, 179, 204.
- ST. THOMAS'S HOSPITAL, DENTAL DEPARTMENT, p. 142.
- ST. THOMAS'S HOSPITAL MEDICAL SCHOOL, pp. 99, 174, 204.
- SALARIES :
 in Faculty of Arts, pp. 59, 196, 197.
 in Faculty of Economics, pp. 96, 196, 197.
 in Faculty of Laws, pp. 149, 197.
 in Faculty of Medicine, pp. 137, 197.
 in Faculty of Science, pp. 73, 197.
 in Faculty of Technology, pp. 92, 197.
- SCHOOL EXAMINATIONS, pp. 104, 105, 140.
 Supervision of, p. 189.
- SCHOOL OF LAW, p. 149.
- SCHOOL OF ORIENTAL STUDIES, pp. 96, 167.
 Establishment of, as University Department, pp. 62, 198, 202.
- SCHOOL OF PHARMACY OF THE PHARMACEUTICAL SOCIETY, pp. 17, 31, 70, 82.
- SCHOOLS, INSPECTION AND EXAMINATION OF, pp. 189, 207.
- SCHOOLS OF THE UNIVERSITY, pp. 169-75, 202-5.
 in Medicine, pp. 99, 100.
 Independence of, a defect, p. 14.
 Senate's powers over, p. 15.
 Senate's powers over, inadequate, p. 17.
- SCOTTISH UNIVERSITY COMMISSIONERS OF 1889, Report of, p. 38.
- SELBORNE COMMISSION, pp. 8, 9, 17, 19, 176, 177.
 Appointment of, p. 4.
 Note to Report of, by minority, p. 6.
 Recommendations of, pp. 5, 6.
 Teaching university, conception of, p. 6.
- SELBORNE, LORD, p. 4.
- SENATE :
 Committees of, pp. 162, 181, 189, 194.
 Constitution and powers of, pp. 49, 160-3, 191-3.
 Effects on, of Schedule to Act of 1898, p. 10.
 Petition for present Royal Commission, p. 20.
 Powers of, over Schools of the University, p. 15.
 Powers of, over Schools of the University, inadequate, p. 17.
 Schemes of, for reform of University, pp. 5, 7.
- SIDGWICK, Prof., pp. 7, 9.

- SINGLE PORTAL**, pp. 137-9.
- SITES**, for central and other University buildings, pp. 166, 167, 202, 209-11.
- SOUTH AFRICA**, London University examinations in, pp. 182, 183.
- SOUTH-EASTERN AGRICULTURAL COLLEGE, WYE**, pp. 72, 77, 168, 173, 204.
Professor and Reader at, p. 70.
- SOUTH-WESTERN POLYTECHNIC**, p. 82.
Fees at, p. 153.
Readers, pp. 57, 71, 92.
- SPECIAL SUBJECTS IN MEDICINE AND SURGERY**, teaching of, p. 133.
- STARLING, Prof.**, pp. 100-2, 114, 115, 120.
- STATUTE 35**, p. 12.
- STATUTE 61**, pp. 22, 23.
- STATUTE 74**, p. 31.
- STATUTE 80**, p. 103.
- STATUTE 93**, p. 22.
- STATUTE 119**, pp. 19, 55, 180.
- STATUTE 122**, p. 11.
- STATUTE 130**, p. 19.
- STATUTE 132**, p. 12.
- STATUTORY COMMISSION OF 1898**:
Clinical instruction not considered by, p. 107.
Inns of Court, reply of, to, p. 146.
Intermediate Medical Studies, pp. 106, 124, 125.
Preliminary Medical Studies, pp. 103-6, 124.
- STOKES, Prof.**, p. 6.
- STUDENTS**:
Admission of, to University, pp. 41, 42, 104, 206.
Age of entry to University, pp. 41, 42.
Attendance of, pp. 179, 206.
Registration of, pp. 186, 187, 206, 207.
Statutory distinction between Internal and External, unnecessary, pp. 179, 204.
- STUDENTS' REPRESENTATIVE COUNCIL**, pp. 159, 166, 186, 195.
- STUDENTS' UNION**, p. 155.
- STUDIUM GENERALE**, p. 14.
- TEACHERS**:
Conditions of appointment of, by University, pp. 46, 196, 197.
In Schools of the University, pp. 172, 205.
Position of, under scheme of Gresham Commission, p. 9.
Powers and duties of, p. 54.
Recognition of, p. 172.
Test to be applied to, p. 56.
- TECHNOLOGY**, inclusion of, in a university, pp. 32, 83, 117.
- THEOLOGICAL COLLEGES**, p. 150.
- THOMSON, Sir WILLIAM**, p. 6.
- TRAINING COLLEGES**, pp. 17, 177.
- TRINITY COLLEGE, LONDON**, p. 151.
- TUTORIAL CLASSES**, pp. 33, 188, 189.
- UNATTACHED STUDENTS**, *see under* EXAMINATIONS, limits to admission to general.
- UNIVERSITÉ DE FRANCE**, p. 168.
- UNIVERSITIES**, development of the modern English, p. 26.
- UNIVERSITY COLLEGE**:
Additional income required, pp. 60, 73, 93.
Architecture, department of, p. 85.
Classes in law at, p. 145.
Comparative Law, Professor of, at, p. 97.
Constituent College in Arts, pp. 58, 198, 201.
Constituent College in Science, pp. 71, 199, 201.
Constituent College in Technology, pp. 92, 199, 201.
Economics, teaching of, at, p. 97.
Engineering department of, pp. 43, 85, 88.
Evening courses at, p. 32.
Fees at, pp. 152, 154.
- UNIVERSITY COLLEGE—cont.**
Foundation of, p. 3.
Hygiene instruction at, p. 107.
Institute of Physiology at, pp. 24, 71.
Oriental languages, department of, p. 62.
Percentage of income from fees, p. 154.
Petition of, p. 5.
Professors and Readers at, pp. 57, 68, 69, 91, 95.
School of University for Preliminary and Intermediate Studies, p. 100.
University Department of Intermediate Medical Studies, pp. 125, 202.
- UNIVERSITY COLLEGE, ABERYSTWYTH**, p. 147.
- UNIVERSITY COLLEGE HOSPITAL MEDICAL SCHOOL**, pp. 17, 99, 174, 204.
- UNIVERSITY COLLEGE, NOTTINGHAM**, pp. 147, 153.
- UNIVERSITY COLLEGE, PROFESSORIAL BOARD OF**, Report of, pp. 29, 47, 62.
- UNIVERSITY COLLEGE, READING**, p. 175.
- UNIVERSITY COLLEGE, SOUTHAMPTON**, p. 153.
- UNIVERSITY DEPARTMENT OF HOUSEHOLD AND SOCIAL SCIENCE**.
See under HOUSEHOLD AND SOCIAL SCIENCE, UNIVERSITY DEPARTMENT OF.
- UNIVERSITY DEPARTMENTS**, pp. 51, 197, 198, 202.
Examination of students in, p. 167.
in Intermediate Medical Studies, p. 125.
- UNIVERSITY EDUCATION**:
Essentials and non-essentials in, p. 25.
for Evening students, p. 31.
- UNIVERSITY EXTENSION WORK**, pp. 187-9, 207.
Committee to supervise, pp. 189, 207.
Department for, transfer of certain work to, p. 77.
- UNIVERSITY HOSPITAL**, organisation of, p. 131.
- UNIVERSITY MEDICAL COLLEGES**, *see under* MEDICAL COLLEGES.
- UNIVERSITY OF ADELAIDE**, p. 182.
- UNIVERSITY OF BERLIN**, pp. 85, 168.
- UNIVERSITY OF BIRMINGHAM**, pp. 59, 143, 147.
- UNIVERSITY OF BRISTOL**, pp. 143, 147.
- UNIVERSITY OF BRUSSELS**, p. 31.
- UNIVERSITY OF CAMBRIDGE**, pp. 85, 145, 175, 187.
- UNIVERSITY OF THE CAPE OF GOOD HOPE**, p. 182.
- UNIVERSITY OF CHICAGO**, p. 76.
- UNIVERSITY OF GLASGOW**, pp. 45, 170.
- UNIVERSITY OF LEEDS**, pp. 143, 147.
- UNIVERSITY OF LIVERPOOL**, pp. 143, 147, 158.
- UNIVERSITY OF LONDON ACT, 1898**:
Effects of Schedule to, p. 10.
Passing of, p. 10.
- UNIVERSITY OF MANCHESTER**, pp. 143, 147, 153, 154.
- UNIVERSITY OF MELBOURNE**, p. 182.
- UNIVERSITY OF NEW ZEALAND**, pp. 35, 182.
- UNIVERSITY OF OXFORD**, pp. 27, 85, 145, 187.
- UNIVERSITY OF PARIS**, p. 31.
- UNIVERSITY OF QUEENSLAND**, p. 182.
- UNIVERSITY OF SHEFFIELD**, pp. 147, 153.
- UNIVERSITY OF SYDNEY**, pp. 86, 182.
- UNIVERSITY PHYSIOLOGICAL LABORATORY**, pp. 24, 30, 31, 71, 72.
Professors and Readers at, p. 69.
- UNIVERSITY PRESS**, pp. 31, 207.
- UNIVERSITY PROFESSORS**, pp. 52, 196.
- UNIVERSITY QUARTER**, pp. 44, 45, 156, 166, 167.
- UNIVERSITY READERS**, pp. 52, 196.
- UNIVERSITY SOCIETIES**, p. 46.
- UNIVERSITY STUDENTS**, proportion of, to population, p. 63.
- UNIVERSITY TRAINING**, sound general education essential basis for, p. 37.

- VASSALL, A., p. 105.
- VETERINARY SCIENCE, UNIVERSITY DEPARTMENT OF, p. 78.
- VICE-CHANCELLOR, THE, pp. 165, 190.
- VISITOR, THE, pp. 16, 156; 190.
- WADE, Dr., p. 11.
- WALLER, Dr., p. 12.
- WABBURTON, Mr., p. 4.
- WEBB, SIDNEY, pp. 42, 43, 63, 64, 95, 152, 153, 166, 175.
- WELDON, Prof., p. 8.
- WELLDON, Dr., p. 6.
- WELLS, Dr. RUSSELL, p. 12.
- WERNHER, Sir JULIUS, pp. 73, 92.
- WESLEYAN COLLEGE, RICHMOND, pp. 174, 204.
- WEST HAM MUNICIPAL TECHNICAL INSTITUTE, pp. 17, 92, 174.
- WEST INDIES, London University examinations in, p. 184.
- WESTFIELD COLLEGE, pp. 67, 72, 173, 204.
Readers at, p. 57.
- WESTMINSTER HOSPITAL, DENTAL DEPARTMENT, p. 142.
- WESTMINSTER HOSPITAL MEDICAL SCHOOL, pp. 17, 99, 174, 204.
- WHITE, MARTIN, p. 96.
- WHITE, Sir WILLIAM, pp. 85, 86.
- WORKERS' EDUCATIONAL ASSOCIATION, University centre for, pp. 33, 156, 188.