## FINAL REPORT

## THE COMMISSIONERS.

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## THE ROYAL COMMISSION.

## Edward, R. \& I.

Edward the Seventa, 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 Prncipal 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 Iondon 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, heve 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 Commissiou 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

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## THE ROYAL COMMISSION.

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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

[^1]or more of you, may from time to time proceed in the execution thereof, and of eve matter and thing therein contained, although the same be not continued from time time by adjournment :

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

And Our further will and pleasure is that you do, with as little delay as possit report to Us, under your hands and seals, or under the hands and seals of any three 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 trut and well-beloved John Kemp, Esquire, and Henry Frank Heath; Esquire, to be jo Secretaries to this Our Commission.

Given at Our Court at Saint James's, the twenty-fourth day of February, thousand nine hundred and nine, 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 THE TERMS OF REFERENCE -

The main grounds of the defective organisation are: (1) The present relations of the Internal and External sides. (2) The combination in the Cniversity of a large number of educational institutions differently related to it, of different educational standard and aims -
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 Comanssion 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
Historical Retrobpect.
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

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University College was founded, 1826, as the University of London, and wos intended for those who were nable to enter Oxford and Cambridge from lack of means or excluded on the ground of religious belief
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
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 -
'The degrees of the University were thrown open to all, 1858; protest of the graduates and colleges, and reply of the Senate
Royal Commission of 1888 (Selborne Commission) appointed to inquire "whetlier any and what kind of new university or powers is or are required for the advancement of higher education in London"
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 Convoration to application for a new charter for the University of London.
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
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 tenching university in connexion with the existing University of London, but later the establishment of a separate university
The Selborne Commission rejected both the scheme of the Royal Colleges and that of University nod 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 miversity, 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 extminations and degreos, irrespective of the place or manner of their education ; that the existing Senate and Convocation should be given remsonable time to consider whether they would apply for a charter on these lines
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
The Selborue Commission's conception of the tenching university necessary for London was the Lomdon 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 conuexion with the teaching in affiliated institutions
The Senate appointed a committee to which they referred their earlier scheme for reconaideration. 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 proviacial colleges in the proposed university. This scheme was rejected by Convocation
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 nev Royal Commission, known as the Gresham or Cowper Commission, was appointed in 1891, and reported in 1894 two : (b) That teaohing and External examination could be combined without injury to the students; (c) That the Senste should decide whether Internal and External examinations 17900

## Historical Retrospect-continued.

should be the same in whole or in part; (d) That Internal students should be permitted to present certificates "in lien 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 incousistent with their educational interests
The evidence given on behalf of the Association for Promoting a Professorial University formed an important part of the now evidence taken by the Commission, and the scheme the association afterwards sulmitted 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
The Gresbam Commission decided that the problem was still that stated by the Commissioners of 1888, viz, how to co-ordiuate the recognised teaching institutions of London under a central university 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" institutinus 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 considereal that the represeutation and influeuce 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 freulties, and, acting through an Academic Conncil elected by themselves from their own members, were to regalate the teaching, examinations, and discipline of the Uuiversity, subject only to the Statutes of the University and the Ordinances of the Senate
They appear to have believed that if the teachers could iu this way be brought to consider tha 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 institntions of the necessity for competition, would tend to a real unity of the University
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 superintendeuce, regulation, and conduct of those for External students, und the nomination of examiners for appointment by the Senate; (iii) To give advice to External students for the prosecution of their studies

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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
Bishop Barry and Professor Sidgwick thought the combination in one university of the two distinet 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
The report of the Commission was followed by a period of controversy. Foar and a half years later the Act of 1898 was passed, containing in a Schedule the terms of the compromise arrived at

1. Ter Present Relations of the Internal and External Sides of the Universitr.

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 Art of 1898
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 Conncil 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 exeentive 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 Interual or Exterual 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, exuminations, 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 approprinte Boards of Studios
The Academic Council and the Council for External Students having advisory powers only, and the executive authority being the Seuate, 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-cont. in the Senate by the votes of those who have been leastable to consider the merits of the case
The machinery of government has caused difficulties, delays and friction, so frequent and so Nerious 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 Roval Commission, expressed willinguess to secure powers of dolegation to its Councils, thus rdinitting the unsuitability of the existing machinery to deal with the administration of the Imperial Colloge of Scieuce and Technology -
The equivalence of standard in the degree examinations for Iuternal aud External students, euacted by Statute 122, has proved impracticable, and is the canse of great difficulties
Tho 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
The Academic and Exterual Conncils 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 sutficient means of ascertajuing that a candiclate is entitled to a university degree
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 relntions of the two sides. They claim the function of the old University of London, i.e. to confer degrees upon examination flone, 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 eontrol, grouped as far as possible round the university beadquarters, and governed by special committees of the Sonate. The distinction made by the External side between the local and imperial functions of a miversity is inadmissible and its introduction would be injurious to the University. Every true university is not only local, but international
2. The exibting combination in the University of a large number of institutions differentiy related to it, and of different educational standalid and aims.
The variety, and complete financial independence of the teaching institutions convected with the University, have prevented it from organising the higher education of London-a duty imposed upon it by Statate
The liniversity has no control over the teachers in its Schools, no power to preveut duplication of departments in them, or to insist on the abandonment of work better done elsewhere. Neither can it prevent duplication of institutious, e.g., Schools of Engineering and Medicine. Representation of the University on the governing body of an institution is not a guarantee of oo-operation -
The powers of the Seuate over the Schools are:-
(i) Visitation, a power not fully exercised
(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
(iii) The recoguition of tenchers. This bas beell 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.
(iv) Inter-collegiate lectures-chiefly confined to the incorporated eolleges

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, organisution of the teaching with which it is concerned
The difficulties arising from lack of control or influence over the Schools are accentuated in institutions with " recoguised" 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
The Polytechnies 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 nou-university purposes; if they are to do miversity und non-university work they must differentiate their functions
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 is what is required for the work of miversity graduates in after life
Some overlapping between different grades of institutions is inevitable and desirable, but it is dangerous, not only to the institutions, but to university educution as a whole, to divert them from the work for which they were founded, and for which they are still needed
The regulations and syllabuses iniposed upon Internal students are so irksome that many are induced to take the External degree. The Interual examinations are becoming largely External in character owing to the necessity of providing tests suitable to institutions of differeut standards and aims. The only really Juternal examinations of the University are the special intermediate examinations conducted at Schools of the University under Statute 119 -
The teachers are divided in opinion regurling the adrantages and disadvantages of detailed syllabuses, and in consequence difficulties arise at meetings of Boards of Studies and Faculties. The dirisiou 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
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 Uuiversity complote educational and finaucial control over all teaching of a university standard in both Colleges, and in all Fuculties in which teaching is provided other than the Faculty of Theology, They have had a disruptive influeuce upon the working of the
2. The existing combination in the University of a large number of Ingtitutions differently related to itं, and of different educational standard and AIMS-continued.
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 cansing jealousy of the incorporated colleges. The impression that they obtain undae 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
Other defects connected with the machinery of government :-
(i) The limited power given to the Faculties by the Statutes

Some of them, particularly the Faculty of Medicine, have become too large for effective work, even within their limited sphere
loards of Siugh inhivinal mith the , which are appointed by the Senate and report direct to it. The Faculty receives a copy of any report male 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" -
(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
(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 reoognition, 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
Statute 61, which deals with admission to the Faculties, practically prescribes inequality of standard, and large Faculties are the natural result

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
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 contravention of this view -

## 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 abont 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 cupable of giving a higher education at small cost
The development of modern universities is due to the growth of large towns and cities, whose wealth renders it easier to colleet funds for the foundation of university institutions, and where the demand is chicfly for techmical and professional instruction. In most eases they have developed throngh the gradual evolution of a complete group of Faculties in institutions originatly founded for seientific and technological studies

## The Essentials of University Education.

The eswentials 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
Secondly, university work should differ in its nature and nim from that of a secondary school, or a technical, or a purely professional schoole 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 exereise 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 attaiument of truth
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 seleet their students for advanced work from a wider range, train them in their own methods,
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
Special research institutes should not form part of the uviversity organisation. No true analogy is offered by those established in Berlin, Leipzig, Paris or Frussels for the establishment of research institutes in London under university control
The establishment of a University Press, under full university control, is an essential function of the University .

## Universify Education for Evening Students.

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 iustruction, should be undertaken -

## Technology.

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 trontment of technology as bused upon a thorough grounding in pure science is of the highest value and importance
Advanced instruction of a specialised kind mast be provided for occasional students who are alrealy engaged in a profession or calling

## University Classes for Working Men and Women.

The Univeraity should be enabled to establish and maintain a special centre for work done in conjunetion with the Workers' Educational Association, but to do this successfully it must first have provided satisfactorily for its own undergradnate and graduate students, and for its professoriate -

## Degrees and Excminations.

'The granting of degrees is one of the chief characteristics of a university, though, not the real ond of its existence. A degree should siguify that a miversity oducation has been received '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 educution which the University should give -
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 couducted largely by the teachers of the students examined, aud how far in each case are they injurious to the real education of the students, or can be made to assist ite ends ?
The sole tent imposed on the Exterual side is that of examination, and the lapse of time between the examinations is the only condition for securing the student's edncation. This test is one of knowledge only, not of educntion or of the quality of the work. A wide syllabus of preserlbed subjects with an exterval 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 fullacy to assume that self-education is achieved by any but the very exceptional man, or ( is inducerl by the examination
An examination, though far from being exterual, 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 adlotted
A cletailed 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 extermal examinations is based on want of faith in the teachers
The present Internal examinations are practically external owing to the unmber of institutions involved and the demands of the common syllahus
Degreer shonld not be awarded upon examination alone, but should, subject to proper safegurds, be pructical!y the certificates given by the professors upon the whole record of the student's work -
The Iniversity may continue to recoguise work of a lower standard, or not done under conditions which guarantee that the standard is equal to its own, until there is general uulerstanding of the true meaning of a university education. But this recognition must not hamper the dovelopment of the teaching over which the University has complete control -
2. 'Ihe Conditions necessary fol the Reatisation of the Foregoing Ends.

First Condition-a previous sound Geneval Education.
A sonnd general education, giving the power of acenrate expression and orderly thought, must be the basis of university work. These intellectual qualificatious, together with the formation of moral habits, must be accompanied by a wide range of study at school. This last requirement it was the iutention of the origiual 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 educstion 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 Scotish University Commissioners many years ago
Agreement with the opinion of the Consultative Committee that a good general education should be sufficient to aeoure admission to a university

## 2. The Conditions necesiary for the Reabisation of the Foregoing Ends-continued.

## Page

The lengthening of secondary school life would enable the pupils to acquire more kuowledge 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 subsidiaty branches of knowledge necessary to his main purpose. The University must, therefore, make some provision for this instruction in the case of particular students
Agreement with the Consultative Committee's opinion that some specialisation in sehools is desirable after the age of 16, and that it is of great advantage to the papils 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 ensble intending university students to make some definite preparation for the Faculty they propose to enter -
To secure the full advantages of secondary education two school examinations shonld 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 ahout the age of 18 , would test n 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 adzanced studies withont first passing an Intermediate examinution 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
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
As first steps in the direction indicsted, the University should cease to admit pupils in sehools to its own examinatious, 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
Evidence given, urging that 17 should be the minimum age of university entry for girls, aud boys also
The University, must retain some form of Matriculation examination desigued 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
In the case of students of mature age it would be sutficient that the Faculty to which admission was desired should satisfy themselves, by meaus 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. -

## Second Condition-Homogeneity of ITniversity 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
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
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 serions source of weakness
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 Boarl of Education should support this policy by requiring that all candidates for Royal Scholarships and Free Studentships should be qualified for registration us university undergraduates. Candidates wishing to enter for these Scholarships and Studentships from technical schools and classes should be provided for by seholarships at other institutions
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

## Third Condition-a University Quarter.

Constituent Colleges and University Departments should be grouped as near together as possible. There is pructically 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 Tiniversity and its work .

## Fourth Condition-Cniversity Hostels and Societies.

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

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 Profersor and Univemity Reader to selected teachers has proved inadequate -

## Sixth Condition-Professorial Control of Teaching and Examination.

The atandard of a teaching university can be maintained only by the rigid exclusion of students unfit for university work, and the existonce 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

## Seventh Condition-Financial Control by \hiversity.

The Lniversity 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
3. The Government of the Univerbity.

The supreme power of the University should be vested in a widely representative Court. The argument that a large and heterogencous body wbuld have no power is due to confusion of thought letween legislative and executive functions. The Court would have final control over the Statutes, the admission of institutions as Constitnent Colleges, and the recognition of others as Schools of the University -
The Senate should be so constituted as to be able to work out a carefully considered policy for the maintenuuce 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 teuchers. 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
The Academic Council should be a boily 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 -
Mach 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 -
An organisation applying to the best institutions the principles governing the organisation of universities of the professorial type everywhere else would establish a standard to which institutions for the moment excluded from the University would ultimately be raised. For some jnstitutions meantime a looser form of connexion must be provided and opportunity for graduation offered to the External student
Any reconstruction less fundemental than that proposed would be neelews

## PART III.

## THE APPLICATION OF THE FOREGOLNG PRINCIPLES.

## 1. Thr Financial and Educational. Controi of Constituent Colleges and University

 Departments.The Acts incorporating University and King's Colleges are valuable precerlents, and illustrate the application of general principles to the special circunstances of particular cases -
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 -
Constituent Colleges may he established by the University, but any educational institution which is ytrong enough in one or more Facultien, and which trausfers to the Cniversity the financial and educational control of oue 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 Fuculty unless able to provide a full course for the first and higher degrees awarded in that Faculty. The responsible teachers in these Colleges would he Uuiversity Professors or University Readers
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 Deparment of that particular study or group of studies. Its teachers would have the sume status and powers as toachers of similar standing in Constituent Colleges - -
2. The Constitution and General Powers of the Facolities.
'The Fuculty is the natural basis of university organisation
Though the coustitution of the Faculties may vary in detail certain powers will be common to them all
University control of the teaching is assumed in dealing with the teachers to be included in the several Faculties examinations. If this freedom is to he 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

## 3. The Relation of tee Faculties to Constituent Colleges and University Depart-MENTS-continued.

The appointment of the best teachers iunder proper conditions would be secured by adopting the present rules for appointment to professorships in staffing Constituent Colleges and University Departments
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 Üniversity Professor, or, if the University has appointed as professor in that branch of study, a University Reader -
The head of each department in a Constitutent 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
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
'The examinations should be conducted by the head of each department, and under bis 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
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
Any delegacy of a Constituent College or Cniversity 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
The heads of departments and other teachers in a Faculty attached to a Constitnent 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
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 conditiou can be secured only by requiring the students to have received a proper preliminary education. Unless tbjs view of the standard of a degree is recognised no effective organisation of the University is possible -
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
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 rongh, 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

## The Faculty of Arts.

Table showing the present teachers in the faculty of Arts to whom the Senate bas granted, or would be prepared to grant, the title of University Professor or University Reader
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
The London Day Training College, subject to arrangements with the London County Council, might become a University Department of Education -
The estimates of the Academic Council for the additional provision required in the Faculty of Arts are based upon an assumed ulditional income of 90,000 . a y yar for all the Faculties
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 l . instead of 8001 ., but the higher rate should be adopted as soon as poseible. The minimum salary of a Reader should be 3001 .
The minimum salaries proposed for University Professors and Readers would not necessarily be paid to present holders of posts
The Facclity of Arts-continued.
Arts and Science degree courses for evening atudents should not be given at University and King's Colleges or at the School of EconomicsPage63
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 doue, not in the University but in " mixed "institutions maintained by Local Education Authorities. Dr. Garaett shared this general conception of the University
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
The higher work of the Polytechnics should be enconraged by the University, but in the nitimate issue the University alone must decide what are the necessary conditions of university education. The University ghould itself maintain a College for evening students, thereby providing a standard for the eveniug work carried on under Local Education Authorities
The courses for evening students in the Faculties of Arts aud Science should be provided near those in the Faculties of Laws and Economics, to allow of cross-combinations of study and of intercourse letween teachers in the different Faculties. The West Central district bas proved convenient for evening students, and the courses should be giveu within a short distance of the central University buildings where the students' clubs and societies will be situated
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 eveuing 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
The Evening Constituent College would be reserved exclusively for part-time stadents 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
The reorganisation of the Birkbeck College as an Evening Constituent College would necessitate cousiderable changes in its government and staffing, and it is estimated that additional income amounting to at least $10,000 l$. 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 -
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
King's College for Women is dealt with under the Faculty of Science
King's College for Women is dealt with under the Faculty of Science - - - -
is hoped that the governors of the East London College will be sble 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
The Royal Holloway College and Westfield College cannot be brought into closer union with the University than at present exists
None of the institutions which are not Schools, but have "recognised" teachers in Arts, are at present strong enough for inclusion as Constituent Colleges
Summary of the recommendations made in respect of the Faculty of Arts - - 6

## The Ficulty 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
The institutions at present suitable for inclusion as Constituent Colleges in the Facully of Science are :-The Imperial College. ''niversity College. King's College, and, subject to the conditions laid down in the case of the Faculty of Arts, Bedford College. The East Londou College might also be included if further provision could be made there
The University Physiological Laboratory should not be maintained by the University as an independent reseurch department, but might be transferred to the department of Physiology in one of the Constitucnt Colleges
The University Department of Eugenics should be kept in close touch with and proximity to a university teaching centre
The removal of the lirown Animal Sanatory Institution into closer proximity with the Royal Veterinary College and co-operation between them would be of advantage to both
Full cousideration 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 seientific. 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 Uuiversity. For these reasons it should become a Constituent College in the Faculty of Scionce as well as in the Faculty of Technology
The proposals of the Academic Council for the Faculty of Science, exclusive of ethoology, would involve an additional income of 11,4001 . They exclude a consideration of the needs of the Imperial College
The minimum salary of most professorships in the Faculty of Science should be not less than $800 l$.; in some cases $1,000 l$. will be necessary. The minimum salary of a Reader should be 300 l . 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
No alditional income is immediately ueeded to qualify the Imperial College for inclusion as a Constituent College of the University
Additional funds are needed by University College and King's College to raise the salaries of cortain professorships to the proposed minimum

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 -
The East London Colloge might become a Constituent College in the Faculty of Sicuce 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 -
King's College for Women is at present a partislly developed University College in the Faculties of Arts and Science. None of its own teachers has the title of University Professor or University Reader
This College needs special considerntion becanse 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 manuer recommended for BedfordiCollege
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 Faculies could lie established in Kensington
The London County Council suggested to the Senate in 1909 that the college should develop its: Home Science teaching, and gradually abaudon 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 Facultion of Arts and Science may be necessary in conuexion with Home Science and Economics.
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
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
The women's department of Divinity should be continued, but would not be under the educational or financial control of the University -
The South-Eastern Agricultural College at Wye should not be included as a Constitueut College, both on account of its reographical position and because the main purpose of the college is, and must always be, the giving of pructical instruction and advice to farmers and agriculturists. Comparatively few of its students conld undergo the training required for andersity degree, but it should encourage its better students to undertake the university conse, and to continue beyond a first degree stage by making original researeh in agricultural science. This would be possible if the college remained a School of the University. The Goveruing 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
The Royal Veteriuny 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 couditions
The conditions necessary under the proposals of the Commission for its inclusion as a Uuiversity Department go beyond those of the Senate. A committee of management of the College should consist, as to a majority, of persous 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 chomistry 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
The recent report of the Departmental Committee of the Board of Agriculture makes it the more important to bring the temching 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 increared
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 Úniversity 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 Scionce is left to the consideration of the Senate after the reconstitution of the University
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 Fuculty of Arts -
For the reasons giveu under the Faculty of Arts, the Royal Holloway College should not become a Coustituent College of the University
The relation of science departments in Medical Schools to the University is considered under the Faculty of Medicine

## The Faclity of Science-continued.

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 thom for inclusion as Constituent Colleges, eveu if the funds necessary to enable them to qualify for thin stutus were forthcoming
(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 Goldsiniths' 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 thercof' if sold." It is therefore probable that they would consider any reasonable proposal for the future use of the buildings and land
The chief work of the College, aud 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 remnining work is a survival of that carried on when the Goldsmiths' Company maintained the College an a technical and recreative institute
Owing to the provision by the London County Council of a new technical institute for SouthEast 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 und Science on the sonth 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
(ii) The School of Pharmacy of the Pharmaceutical Society does not appear to have had, and is never likely to have, uny university students. There is therefore no reason for any connexion with the University
(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
Summary of the recommendations made in respect of the Faculty of Science

## The Faculty of Technology.

As already stuted, technological sturlies 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 melhods and spinit 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 tecbnology is probably due to the belief that the University would remain more or less what it is now
The Departmeutal Committee on the Royal College of Science, after setting out the arguments for aud against the iudependence of the Imperial College from university control, stated that if changes in the character und constitution of the University could be made which would render au amalgamation of the two institutions desirable, they would wish such modifications to be rade 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 recoustitution of so fundameutal a character as to alter the whole position as it presented itself to the Departmental Committee in 1906
The views of the Gorerning Boly differ somewhat from those of the Departmental Committee, and if some of their proposals were taken literally they would necessitate the establishment of $\Omega$ technological university under the control of the Imperial College as now constituted. The result would be :-
(i) There would be two universities in Loudon, each aided largely by the State. Two Royal Commissions and the Departmental Committee of 1906 have reported against such a mensure.
(ii) The technologieal work of the University of London would either be continued as at prosent, thus causing competition, if not hostility, between the two universities aided by the Exchequer; or all technological work would be excluded from the Uiniversity of London. This would mean the abandonment or the transference to the other university of the engineering departnents of Eniversity, King's, and the East London Colleges : perhaps also the department of architecture at Voversity 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 T'niversity of Lrondon in this Faculty, also aided by the Exchequer ; or the Imperial College would have to absudon its pure science teaching and with it the - continuance of the Royal College of Science. Apart from tinancial 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 adranced 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 aud its institutions, with a prohibition agaiust any higher technological work.
These consequences of the establishment of a technological university in Loudou are sufficient to prove the injustice and the unbusinesslike nature of the proposal -

The Faculty of Technology-continued.
the University of Berlin contain departments of engineering such as those founded in connexion with the University of London long before the establisiment of the Imperial College. Many Germans of standing now regret the exclusion of a technological faculty from their universities. The practice of ineluding technology among university studies is not coufined to England or to the United Kingdom generally but is to be found in all the universities of the Dominions -
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 pructice, to devote itself solely to advanced work aud research-to be a kind of super-university-then the auslogy of Charlottenburg fails entirely, since the main work of that institution is undergraduate and its staudard 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 tenchers in all its departments of study. This being impossible, the most adyanced studeuts would go wherever the best teachers could be found -
The proposal to confine the College to senior and post-graduate studeuts 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 beginniug of their university course. One Sub-Committce of the Imperial College expressly deprecated abandoning the first three years' work, aud another contemplated the continuance of it and based their proposals upon that assumption -
Rightly interpreted, the terms of the lmperial 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-ordiuating and supervising this work, but much closer union of the College with the University is also essential to the proper provision of technological education
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
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
The constitution of the Governing Boily 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 anmually, consisting, as to at least three-fourths of its members, of men of affair's and experts; a bare majority to be appointed by the Senate; the minority to be appointed by the Governing Body of the Imperial College -
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
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
The departments of pure science in the Imperial College should not be removed from the College, but the Committec for. Technology should guard against the orgauisation 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 -
The present Faculty of Engineering should be merged in one of larger scopc, and its name changed to indicate this. Enginecring will doubtless form the larger part of technology hut 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 -
The constitution of the Faculty of Technology would differ from that of the Faculties of Arts and Science iu 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
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
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

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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 $1,000 l$., and of a University Reader at $500 l$., but these salaries would be depentent on the assignment by the University of the status of University Professor or Reader to the present occupants
Teq Faculti of Technology-continued.
No additional income is needed to qualify the Imperial College for admission as a Constituent College in the Faculty of Technology
Additional funds are needed by University and King's Colleges to raise the salaries of certain professorships to the proposed minimum
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 Colloge would remain a School of The University
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## Tar Facelty 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
The School of Econonics is the only institution which could be admitted as a Constituent College in the Faculty of Economice. A delegacy should be constituted from the present Governing Body, and the existing property of the School should be transferred to the Senate
The Academic Council recommend an expenditure of 3,000 . 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 -
The minimum salary of a Professor in this Faculty should be 600l. in the first instance and of a Reader 3001.
The School of Economics estimate the need for further buildings and equipment at 31,500 l $^{-}$ together with an eudowment of $10,000 l$. for their maintenance
A well-equipped department of Ethnology is a necessary adjunct to the School of Oriental Studies about to be establisised, 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

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 studeuts being provided for separately
Since the main teaching in this Faculty should be concentrated at the School of Economics there slould 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 Uviversity has been able to adopt a considered policy for the organisation of the Faculty of Laws
Summary of the recommendations made in respect of the Faculty of Economics -

## The Facoltt of Medioinz.

The origin of the movement for reform in the Faculty of Medicine was dissatisfuction 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
The Faculty of Medicine requires special treatment, because the test applied to the teachers in ocher Faculties canuot be applied bere
Toachers of most of the Advanced Medical Studies do not satisfy the conditions required for the titles of Professor and Reader, and the Uuiversity has not conferred them
It is denied that clinical teachers should comply with the conditions of employment as regards salary, time, \&e., 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
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
The proper organisatiou of the Intermediate Sciences of anatomy, physiology, and pharmacology will also depend on the answers to these questions
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
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

## Present Organisation of Medical Education in London.

The relation of the University of London to medical education before its reconstitution -
The changes effected by the reconstitution were :-The Faculty of Mediciue was constituted; Boards of Stadies were appointed; Schools were admitted in the Faculty of Medicine; the distinction between Interual and External students was introduced; a Committee of Medical members of the Senate was formed
Tafe Facolty of Mbdicine-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 independenf 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 bistory of the Eondor Medical Schools ..... 100
The main' defects in the existing system are :-Absence of Cniversity 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 melical 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 theConjoint Board as with London University. They prepare indifferently for the examinationsof all qualifying authorities for which their students desire to enter. Their teaching issubordinated to external examinations102
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The curriculum is divided into three parts: Preliminary, Intermediate, and Advanced Medical Studies ..... 103
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Preliminary Medical Studies.
Statute 80 was intended to bring abont 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 aboutconcentration, but the Scheme failed. Reasons for failure103
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The chief difficulty in arranging for adequate instruction in the Preliminemy Sciences is the want of time ..... 104
The Board of Preliminary Sciences recommend teachiug with special reference to future application ..... 104
The existing arrangements for science teaching are not satisfactory ..... 104
The Preliminary Sciences should be speciat 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 sehools 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 dificulty in the case of biology ..... 106
Intermediate Medical Studies:
The organisation of instruction in the Intermediate Scievees is postponed till after à considera-tion of the clinical instruction106
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 insenity.
(3) Medical Science which must be taught in close connection with a Hospital MedicalCollege-pathology. In this connection the Intermediate Sciences of anatomy,physiology, and pharraacology' will be considered.
(4) Medical Sciences which may be tanght outside Hospital Medical Collego-public health and forensic medicine107

1. Clinical Intruction in the General Hospital.
The Gresham Commission did not consider the question of elinical instruction ..... 107
The question first raised before the Commission by Mr. Flexner ..... 107
107Summary of Mr. Flexner's critieism of clinical instruction in Londow - - - - -The principle underlying his argument is that university teaching can only be given by menwho are engaged in the advancement of knowledge in their subject. The Commission
have strongly insisted on this view108
Mr. Flexner's remedy for the defecte he criticises is to reconetruct a Medioal School on modern lines, which would provide a model to which the others would in time conforn ..... 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 introduoed at the Johns Hopkins University the system of olerks and dressers whicb is distinctive of the English Medical School ..... 110

The essence of the contention is that the clinical teachers in a Udiversity Medical School must be University Professors in the same sense as the teachers of chemistry and physiology
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
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
But, it is contended, that if co-operation between the physiciarr and the pathologist and other men of science is necessary for the diagnosis and-treatment of disease, it is also mecessary 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
It is not denied that the English system of clerks and dressers is a most valuahle training and ought to be continued. But it is said that the clinical demonstration is also a valuable and necessary form of teaching
Demonstrative teaching requires more time for preparation than the present teachers can give $=111$
Both kiads of teaching can be given by the Professor, but he will not have time to give all that is required
There is also room for men in active practice to teach - . . . ${ }^{-} \quad-\quad$ - 113
The two systems of teaching can be combined. Dr. Head's description of Clinical Professors'
courses
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Answer to the objection that Professors would be specialists - - . . . 114
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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
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Proposals for Reform submitted to the Commission :-
(1) That a hospital should be organised on the "unit" system but reserved for post-graduate work
This view cannot be accepted. The University must begin with the undergriduate, and its instruction mast be contimuous. The undergraduate course must be university education in quality àd spirit and aim
(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 thongh not exclusively post-graduate

This proposal, made by St. Bartholomew's Hospital Medical School, would not give the University even the beginning of an organised Faculty of Medicine
(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
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
(4) 'That a whole hospital should be organised throughout into as many "units" as the beds will allow, but that the present plysicians and surgeons should take the place of Professors -

The defeet of this proposal, made on behalf of the London Hospital Medical College, is that the present physicians and surgeons bave neither had the right training, nor have the time to fulfil the daties of Uuiversity Professors; and the expense of the scheme is prohibitive
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(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
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 Hill123
(3) Medical Soience in the Hospital Medical College.
(a) Pathology.

A pathological department is necessary in every Medical College
Dr. Ritchie's account of the divisions of pathology and its place in the medieal curriculum $\quad=123$
Pathological and clinicak laboratories
$=124$
(b) Anatomy, Physiology, and Pharmacology.

If clinical instruction is organised on a univerisity basis the case for the concentration of the Intermediate Sciences loses its force, and the proper course is to provide for the teaching and atudy 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
Meanwhile, the depurtments of anatomy, physiology and pharmacology at University and King's Colleges will be University Departments in Intermediate Medical Sciences
(4) Medical Soience 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 canses and prevention of endemic and epidemio disease
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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 - ..... 130The great defect of the present system of medical education in London is the unnecessary
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The cost limits the number of University Medical Colleges to the number required for theuniversity students130
If a new hospital were placed at the disposal of the University it ought to be organised throughout on a university basis131
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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 au annual entry of 75 students would be required ..... 132
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## The Cost of Reorganising Medical Education.

Summary of evidence as to cost -
The general conclusion of the Commission is that probably the whole income of a Medical Colloge 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
Oxford and Cambridge students increase the cost because they do not take the Intermediate aubjects nor pathology in London136

If the general estimate is correct the additional income required for organising three clinical units in a Medical College would probably be 12,000 ., or $36,000 l$. for the three Colleges required for all university medical students in London
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 adyance may differ in detail from that outlined here -

## 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-

## 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 - $\quad$ - - . 138
It is of more importance to raise the entrance to the curriculum than to provide for a single portal to the profession
The reasons given for a single portal are not convincing - $\quad$ - 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

## 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
The Commission cannot deal with this grievance by considering the co iditions upon which a university degree is obtainable elsewhere and providing an exact equivalent in London
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
The difficulties of entrance to the nniversity in the past have arisen from the want of connexion between the Matriculation examination and the secondary schools; the disincliuation 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
Women medical students, to whom the Conjoint Board examination was not open, have hud no difficulty in taking the degree -

## Dental Education.

The evidence taken with regard to this subject -
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
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
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
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
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 Loudon must remain outside the sphere of university education
Description of curriculum for the L.D.S. of the Royal College of Surgeons - - 142
The connexion of London University with dontal 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 | - | - |

The degree of M.S. in Dental Surgery is an illusory concession - - - - - - - - -
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
If, as is admitted, dental surgery is a profession which ought to be guided throughout by the application of sciencific 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
Not many would take such a degree, but as many as possible should be encouraged to do no.
One dental department in a Univernity Medical College would be enough
General dental education should not be separsted from medical educstion, but it is unnecessary to provide for it in a University Medical Colloge

The comparative advantages of Schools connected with ageneral hospital and independent dental hospitals sud sehools
Diplomes in dentistry are * * - 144 e 17800

## The Faculty of Laffs.

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 Facalty
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 -
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 queation witnesses were hearl from Oxford and Cambridge

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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
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
A Faculty of Laws must, like other Faculties, consist mainly of Professors of the University and the University must bave financial and educational control
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 eithor 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
A purely professional training is necessary, but a university education is the best foundation for this
The public requires protection against unqualified practitioners in the case of solicitors as in the case of doctora. Therefore a solicitor must serve an apprenticeship; but it is doublful 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
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 Üniversity
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
The Readera 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
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
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 -
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 nniversity, 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 -
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 aud evening
The minimum ealary of a Professor in this Faculty should be 800l., and of a Reader 3001. 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 10,000l. a year

## 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 -

The University has made no appointments itself, nor has it awarded the title of University Professor or Reader to any of the "recognised" teachers
When degrees in Divinity were instituted the Faculty was not constituted as a superior Faculty, and a degree in Arts was not made a neceasary preliminary
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 s full Arts course and a first degres 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 woald 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 subjecta for the B.A.

The constitution and purposes of the theological colleges are unsuitable for Constitnent Colleges of the University, but those satisfying the conditions laid down would remain Schools of the University in the Faculty of Theology
Although the degrees in Divinity should be those of a superior Faculty, it will probably not be possible to establish a Fsculty 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

## Thr 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
The constitution of the present Faculty and Board of Studies in Music - - - -
A university degree course is unsuitable for most students of music, who are, and probably always will be, persons intending to enter an executant branch of the profession
The course of study at the tbree 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 Stadies
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 uuder its Statutes to establish a Faculty of Music in future if it thought this desirable and had the means of supporting the necessary professorships
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 -
The estimates of the Academic Council are confiued to an additional 500l. 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
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

## University Fees.

The fees charged for full-time students in the institutions recommended for inclusion as Constituent Colleges are so much bigher 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 thore of corresponding means in provincial universities. No system of scholarships and free places would meet the difficulty -
The variation in the fees charged at Polytechnics for a full three jears' 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 pablic funds. Both alternatives are objectionable -
Report A. of the Academic Council adrocates 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
The percentage of income derived from fees at various colleges proves that any practicable reduction in fees would not reduce the Loudon percentages to those of the proviucial colleges
University Fees-continued. ..... PageThe establishment of uniform fees for the universities and a determination of their proper amountshould be made part of a general consideration of the national provision for universityeducation, a matter beyond the Commiasion's reference154
The fees in the Constituent Colleges and University Departments should be reduced to an average annual fee of $15 l$. for the full degree course in Arts, 20l. in Science, and 30l. in Engineering154
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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 13,5001 . ..... 155
If the East London College were to be included as a Constituent College in any Faculy the uniform university fee should be charged but a bursary sufficient to reduce it to a net sum of 10l. 10 s . 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
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 $13,500 l$. 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 students155
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 99,000l. The capital sums required for the purchase of new gites 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
The Co-ordination of the Facelities. $\quad$ r
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 -
The organisation recommended provides for a division of the business and financial work on the one hand, and of the acedemic 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 body157

## The Court.

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
The powers of the Court summarised
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
A Statutory C'ommission 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 members159

## The Senate.

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 bave 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
Before making a decision the Senate should take the opinion of the Acalemic 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 -
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
Summary of the powers of the Senate - - - - - - - -
The Sevate should be a small body of not more than 15 members, the majority of whom should not be elected.
The proposed periods of appointment of members of the Senate - - - - - - - - - - - -
Members of the Senate, other than those appointed ex officio, if absent without reasonable cause from three consecutive regular meetings, should vacate their seats163163

## 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
The Academic Council should be a small body, so constituted as to inclade 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

## 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
Other Committees of the Senate are dealt with later

## 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

## 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

The Students' Rerresentative Council.
It has been recommended above that the Students' Representative Council should elect two members on the University Court. Iu addition they should have the right of access to the University authorities by petition with regard to certain matters
Sites for the Central Buildings and for certain other University Institctions.
The most suitable and convenient quartor 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
The Univerbity 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

Special examination halls wonld 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 atudents 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

## 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

## 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 encouragenent 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 educationsl 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

## The Schools of the University-continued.

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
The ultimate aim of the University, and of the authorities responsible for "mixed "institutions in which a group of departments doing university work unay 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 -
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
It would be neither legitimate nor desirable to transform the London Polytechnics into institutions devoted to university education. Tneir 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
The schemes of the Charity Commission do, however, justify a considerable amount of evening university work, especially if technical in character, but prubably 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 Polytechaios 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 -
The additional conditions to be imposed upon Schools of the University $\quad-\quad$ with the University other than Constituent Colleges and University Departments should be Schools
The teaching of mental diseases to university students in Medical Schools which are not Constitnent Colleges should be given by teachers holding appointments in the Medical School itself -
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 -
Degree courses in Schools of the University must, as heretofors, 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
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
The first Schools of the reconstituted University $\quad-\quad-\quad-\quad-\quad-\quad-\quad-\quad-$
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
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 eatisfactory standard would then more easily be ensured
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
Thr 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

## 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
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, und are therefore less likely to allow any fall in their standard. But if by standard is meant the measure of the difticulty 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

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. T'he 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
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
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 renl 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, hut 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 ulso encourage studenta 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 -
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 withont bardship 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 Londou, as their originator, must remain responsible for their aivard
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 stadents other than those in Constituent Colleges and University Departments would take the same examination -
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 Mediciue. 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
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 naable 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 unloss the stadent's record is included as part of the test
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
With the exception of examinations in medicine and technotogy, 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
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

## 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 conntries.which are endesvouring 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
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 -
a 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 Loudon 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

## External Degrees-continued.

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
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 bow far, if at all, these certificates could be accepted in lieu of the tests required of English students
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
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
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 -
The Registration of Students of the Univeritty.
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 -
An annual registration fee for undergraduate students should carry with it membership of certain University, as distinct from College, Societies -
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
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

## Univeraity 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
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 onder 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
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. Tae financial support given by the Board of Education and the London County Council enables the classes to he 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 ite area
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 olass students
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 -

## 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

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