

been going on for a considerable time by which the organisation of the teaching and the actual teaching itself has been slowly but steadily passing out of the hands of college lecturers into those of university staffs. The creation of the large scientific laboratories and departments has accelerated the change, which is already half completed. The University takes more conscious control of developments and changes in studies. It remains to be seen whether improved organisation will mean better efficiency or whether the initiative of individual colleges fostered in the past may be crushed by the burden of machinery. As ever in such cases, it all depends on the quality of the men who become responsible for driving the machine.

Among other proposals which the Commissioners contemplate is permission for a professor to be continued in office after reaching the age of sixty-five up to, but not beyond, the age of seventy. They also contemplate throwing open all professorships, readerships, lecture-ships, and examinerships to women. This proposal to put women teachers on the same footing as men in the matter of the organisation of teaching removes one of the serious grievances remaining for women at the University. Even though they may not vote in the final decisions of the Senate on matters of educational policy, they will be free as members of a faculty to take part in the more important preliminary discussions which ultimately determine the changes of policy. The Commissioners do not propose to force upon the University, against its expressed wish, the admission of women to membership and to a share in the government of the University. That is to be left to the University itself to settle.

University and Educational Intelligence.

BRISTOL.—A prospectus of the Faculty of Engineering, which is provided and maintained by the Society of Merchant Venturers in the Merchant Venturers' Technical College, Bristol, has just reached us. Courses of study are available at the College for persons intending to engage in civil, mechanical, electrical, or automobile engineering, and particulars of these courses are given in the prospectus. The ordinances and regulations relating to degrees and diplomas in engineering subjects are included, and some particulars of the Bristol sandwich-system of training engineers are also given. The prospectus can be obtained from the registrar of the Merchant Venturers' Technical College, Bristol.

CAMBRIDGE.—Mr. W. S. Thatcher has been appointed Censor of the Non-Collegiate Students.

LEEDS.—With the view of encouraging the revival of the University Extension movement, the West Riding Education Committee has decided to make towards the cost of an approved course of extension lectures such a grant as will cover the actual deficit incurred, or 75 per cent. of the total expenditure, on condition that at least 30 persons undertake to enter for the whole course, and that the lectures are open to the public at a charge not exceeding 3*d.* per single lecture. The fees for lectures range from 2*l.* 10*s.* for a course of 6 to 76*l.* 10*s.* for 24, and the only other charges besides incidental local expenses, such as hire of hall and advertising, which are borne by the local committee, are the lecturer's travelling expenses and a fee of not less than two guineas (varying according to the number of candidates) for the examination, if one is held. The panel of lecturers includes 33 members of the University staff, of whom 8 are professors. The range of subjects

is very wide: the following are specimen headings—Greek ethics, archæology and architecture, phonetics, the Irish literary movement, social psychology, riches and poverty, Spanish art, How the Empire is governed, French history since 1815, the gases of the atmosphere, fresh-water biology, types of respiratory structure, the antiquity of man, radio-activity, application of colloid chemistry to industry, British birds, enzymes, bacteriology from the medical, public health, and chemical points of view, personal hygiene.

AN advisory chemist in the faculty of agriculture, University College, Reading, is shortly to be appointed. Particulars are obtainable from the Registrar of the College.

THE trustees of the Busk studentship in aeronautics, founded in memory of Edward Teshmaker Busk, who lost his life in 1914 while flying an experimental aeroplane, have appointed Mr. John Cowan Stevenson, of the University of Glasgow, to the vacant studentship.

A DEMONSTRATOR is required in the mathematics and mechanics department of the Royal College of Science, South Kensington. Candidates must possess engineering experience, and send their applications to the secretary of the college not later than September 5.

APPLICATIONS are invited by the Director of the School of Medicine, Cairo, for the professorships in the school, of Physics, Clinical Medicine, and Clinical Surgery; also for the post of lecturer in physics in the institution. In the latter case candidates must be of Egyptian nationality. Applications must reach the director by September 15 at latest.

APPLICATIONS are invited for the appointment of lecturer in physics and the directorship of the Viriamu Jones Physical Research Laboratory of the University College of South Wales and Monmouthshire. Applications (six in number) and testimonials must be received not later than September 10 by the Registrar of the College, Cathays Park, Cardiff.

THE University of Calcutta "Poverty problem study" organisation which has been at work for some years has succeeded in promoting the formation of a limited liability company for the establishment in the Paresnath Hills of co-operative educational colonies, such as Capt. Petavel, Principal of the Kassimbazar Institute, has been advocating in his university lectures on the "Poverty problem." The Company proposes to set up an agricultural college "where professors and students will be provided with sufficient land for self-support and education." Each student on completion of his course, and having obtained a university diploma, would be helped to acquire, as a member of a colony, a plot of ground with bungalow, well, bullocks, plough, etc. The scheme is described in the first number of a new periodical, "Bread and Freedom," edited by Capt. Petavel.

INTERCHANGE of teachers between universities within the Empire is one of the subjects that were discussed at the recent Imperial Education Conference in London organised by the League of the Empire. One speaker described as an object lesson to the universities of the Empire the Chicago University summer school, which attracts professors and lecturers from all parts of the United States as well as from abroad. We have lately received a University of Colorado Bulletin which gives an account of this University's summer quarter, extending from the middle of June to the end of August. This year the staff includes no less than fifty instructors from other

institutions, among whom are professors and other members of the staffs of universities in twenty other States. Many are, no doubt, attracted by the University's advantages of climate and picturesque surroundings. A permanent camp is maintained during the summer quarter at Arapahoe Falls in the Rocky Mountains, about 25 miles distant, for the benefit of university students and teachers.

ADULT education in Ireland was the subject of an address by Mr. George Fletcher, of the Department of Agriculture and Technical Instruction for Ireland, at the annual congress of the Irish Technical Instruction Association on June 4. For many years there have been complaints that the effectiveness of technical instruction in Ireland is much less than it might be, because the standard of general knowledge of the students is low. It is mainly on the ground that it would remedy this defect that Mr. Fletcher urges the inauguration of schemes for the extension of University teaching in towns and for the establishment of community centres with village halls in rural districts. Hitherto there has been no movement in this direction in Ireland comparable with the University Extension movement in England. The Royal Dublin Society, a few years ago, allocated 200*l.* for the initiation of courses of lectures; a panel of lecturers was framed and syllabuses were prepared, but the work had barely begun when travelling became almost impossible, and the scheme was abandoned as impracticable. Its resuscitation has now been recommended. It is thought that the transfer of Technical Instruction from the Department of Agriculture and Technical Instruction to the Department of Education, which took place on June 2, 1924, may tend to the establishment of conditions favourable for voluntary enterprises in the field of adult education.

"NON-UNIVERSITY resources for graduate study and research" formed the subject of two interesting papers read before the Association of American Universities last November and published recently. President Wilbur, of Stanford University, argued in favour of all new research projects being brought directly into the domain of some university or group of universities, and also against the constitution of "research professorships" and special research institutes isolated from "the great normal university current." In certain fields the Pasteur Institute, the Rockefeller Institute in New York City, and other organisations for research independent of universities have not only achieved conspicuous success but have also "set the pace" for university research work. This kind of development of research is, however, less advantageous to the community than development within the universities, for the following reasons: its overhead expenses are greater, it does not provide such good opportunities for the training of young research students, or for the benefits of membership of a faculty and association with members of other faculties, and it tends to involve a more urgent pressure to produce visible results. President Wilbur directed attention to the recent decision of the Tanners' Council to place its research project at the University of Cincinnati, the Council having come to the conclusion that "the university atmosphere is the right place for research." This view may be compared with Sir Frank Heath's pronouncement at the May conference of British universities to the effect that modern demands seem to point to the necessity for at least four types of organisation for research: universities, central research institutes, industrial research laboratories run by the industries themselves, and laboratories of individual firms.

Early Science at the Royal Society.

August 17, 1664. The engine to measure refractions was produced, examined and approved of, and Mr. Hooke the inventor of it, appointed to begin at the next meeting to try experiments in it; as also to give a description of this engine to be kept in the Register-book.—Dr. Goddard was desired to describe his instrument with strings and pulleys intended for a hygroscope, and to take notice of the uselessness thereof, as it had been hitherto contrived, and to think upon another way.

1687. Sir John Hoskyns communicated the following receipt of one Simeon Pauli for a varnish to coat and preserve dried plants; infuse in spirit of wine the seeds of wormwood; and then dissolve therein as much gum elemi as it will take; and with this varnish cover the plant. This was thought to be a good means to preserve insects from perishing.

August 18, 1670. Mr. Hooke reported to the society, that he had already found so much, as to suspect some parallax of the earth's orb, and conceived, that it would be more sensible half a year after. He said, that by a perpendicular tube he observed the stars, which pass our zenith, at different times of the year, and by noting, whether the same star be at those different times of observation at the same distance from the zenith or not; concerning which he affirmed, that a certain star was then less distant from the zenith than it had been a month before.

August 19, 1680. The subject of filtration and rising of liquors in small pipes was debated. The difficulty of them appeared; viz., first, from the imperfect exhaustion; and secondly, from the uncertainty of the rising of the same liquor in the same pipes at several times.—Dr. King related that he had observed six or seven sorts of animals, a thousand of any of which were less than a globule of blood.

1663. Mr. Hooke gave in a picture of the stones taken out of the heart of the earl of Balcarres. The lord viscount Brouncker promised to get the same done in plaister.

August 20, 1662. Dr. Wallis's written discourse about Dr. Goddard's experiment of weighing glass canes with the cylinders of quicksilver standing in them according to the Torricellian experiment. was delivered in; but because the understanding thereof depended greatly upon the schemes annexed to it, the reading of it was deferred till the next meeting; and the amanuensis was ordered to draw the said schemes in great upon a large paper that every member might look upon them with conveniency.—Mr. Powle to be written to by Mr. Oldenburg, that he would send the society an exact description of the whispering place in the cathedral of Gloucester.

1684. Mr. Henshaw having propounded to try, whether a thermoscope, exhausted of air, with the liquor in it, exhausted of air too, might be sensible of cold and heat, as ordinary thermoscopes are; the thing was tried, and found that the effect was not sensibly altered by the absence of the air.

August 21, 1661. Mr. Colwall read his "Relation concerning the making of Alum," for which he received the thanks of the society, and it was ordered to be registered.

August 22, 1678. Mr. Hooke delivered to the Society an antient urn of glass, taken up in Spittlefields upon digging cellars there, presented by Sir Christopher Wren. There was this remarkable in it, that it seemed to be made after quite another manner than that used by the present workman in that art, it having no place at the bottom thereof; nor any visible sign how it could be held, whilst the lip and handle thereof were joined to the body.