

Engineering and Shipbuilding.

THE causes of the present depression in engineering and shipbuilding and ways and means of mitigating the results formed the subject of the address delivered by Sir Eustace H. Tennyson d'Eyncourt on October 16, as president of the North-east Coast Institution of Engineers and Shipbuilders. Employers and employees, manufacturers and owners must pull together and not attempt to row the boat in opposite directions; this is especially necessary now, since there has never before been a time when such strenuous efforts were being made to stir up strife. One of the chief causes of the present trouble is the over-production which took place in the later years of the War and immediately following. There is little doubt that many of the vessels laid up at present are old, or becoming obsolete, and probably will never be put in service again.

Improvements in machinery and other features of ships are so rapid that older vessels soon have to give way to more up-to-date craft which can be run more economically. Higher steam pressures will come, and we shall soon see boilers and turbines with at least double the usual present-day pressure—one vessel is now being built on the Clyde, for passenger traffic there, with high-pressure boilers and turbines. Our knowledge of the best dimensions for propellers has been considerably added to, as has also the improvement in the form of the hull, on both of which important work has been done at the Froude Tank at the National Physical Laboratory, and at other tanks.

In the construction of the hull there is room for considerable improvement in steel. The ordinary mild steel has remained practically unchanged in quality during this century. Special attention has been given to high-tensile steel in the Navy, and Sir Eustace thinks that steel of improved quality could be made and adopted at any rate for the more important portions of the structure of merchant ships.

Labour questions, including that of the loss of many of our highly skilled men who have gone to other countries, were also touched upon. The present conditions are jeopardising the supremacy of our industries, and Sir Eustace thinks that the whole position is more clearly understood by other nations, both on the Continent and in the United States. He has made a close study of relative costs, and thinks that the low prices which can be accepted abroad are due to a combination of factors—longer hours and slightly lower wages; lower rates and taxes; more elasticity allowed to workmen doing various kinds of work; full advantage taken of labour-saving appliances; many of the materials used are somewhat less costly; less elaborate and expensive ship's fittings are accepted by owners. In fact, a somewhat lower standard of living is accepted by the workers, and a lower standard of article by the purchasers.

University and Educational Intelligence.

BIRMINGHAM.—Prof. F. W. Burstall, for some time Dean of the Faculty of Science, has been appointed Vice-Principal, in succession to Sir William Ashley, who resigned at the end of last session.

The Walter Myers Travelling Studentship (value 300*l.* for one year) has been awarded to Miss Edythe Milne Bankier.

The date of the celebration of the Centenary of the Medical School is fixed for December 8 next, but arrangements for the celebration are not yet complete.

CAMBRIDGE.—On November 3 the Senate discussed some of the statutes proposed by the Royal Commission, and many points were raised. Among them was the suggestion that the Forestry Department should be made a part of the Faculty of Agriculture. Some speakers felt that it was unfair to place a limit on the period of tenure of demonstratorships.

The Council of the Senate has presented a report in which it is pointed out that whereas the possession of a Cambridge degree is supposed to signify that the bearer has participated in the life of the University, it is now possible in certain circumstances for research students to obtain degrees after only three terms of residence. It is proposed that the new statutes shall require at least five terms of residence, a scheme which would undoubtedly enhance the value of research degrees. Concessions would be made to graduates of Oxford and Dublin.

It is proposed that a committee of management shall be set up to deal with the Polar Research Institute, for which 13,000*l.* was provided from the Captain Scott Memorial Fund.

Dr. Dean, professor of pathology, and Mr. T. Knox Shaw, tutor and mathematical lecturer of Sidney Sussex College, have been elected members of the Council of the Senate.

Among the fellows recently elected at St. John's College were Dr. F. H. Constable (biochemistry) and Messrs. E. G. Dymond and T. G. Room (mathematics).

Mr. H. Godwin has been elected to a fellowship at Clare College. Mr. Godwin was formerly a scholar of the College and is now junior (University) demonstrator in botany; he is carrying on research work on the respiration of leaves.

Queens' College now elects its entrance scholars on the results of the Higher School Certificate Examinations; of the five elections recently announced, one is for science and one for science with mathematics. At Pembroke College, of eight 80*l.* exhibitions announced last week, two were for mathematics and two for science.

Applications are invited for the Pinsent-Darwin Studentship in Mental Pathology. The studentship is of the annual value of about 200*l.* and is tenable for three years. Further particulars may be obtained from the Registry of the University of Cambridge, and applications for appointment should be sent before December 1 to the Secretary, Pinsent-Darwin Studentship, Psychological Laboratory, Cambridge.

LONDON.—Applications are invited for the Rogers prize for 1926 for the best essay on "The Value of the Various Methods of investigating Diseases of the Pancreas." The value of the prize is 100*l.*, and the competition is open to all whose names appear on the Medical Register of the United Kingdom. Information can be obtained from the Academic Registrar, University of London, South Kensington, S.W.7.

ST. ANDREWS.—Dr. F. Nansen has been elected Rector of the University to succeed Dr. Rudyard Kipling. The following appointments have been made by the University Court: Mr. H. J. R. Kirkpatrick to be lecturer in regional anatomy and assistant to the Bute professor of anatomy in the United College; Mr. D. L. Pritchard to be assistant in mathematics, and Dr. Margaret Scott Dickson, assistant in public health.

The degree of D.Sc. has been conferred on Mr. R. S. Vaidyanathaswamy, of Madras, for a mathematical thesis entitled "Studies in Form-Theory."

THE British Research Association for the Woollen and Worsted Industries announces the following

awards for the year 1925-26:—Research fellowships to Mr. J. R. Nichols, to enable him to continue his researches at the animal Breeding Research Department of the University of Edinburgh, on the fibres of various breeds of sheep; and to Miss J. S. S. Blyth, to conduct research at the Animal Breeding Research Department, Edinburgh, on the microscopical examination of the fleeces of British breeds of sheep; advanced scholarships to Mr. H. S. Bell, at the University College, Nottingham, and to Mr. W. Riddle, at the Scottish Woollen Technical College, Galashiels.

For the sixth year in succession, Trinity College, Cambridge, announces the offer of a Research Studentship open to graduates of other universities who propose to come to Cambridge in October next as candidates for the degree of Ph.D. The value of the studentship may be so much as 200*l.* a year. Applications must reach the Senior Tutor by July 25, 1926. The College is also offering, as usual, Dominion and Colonial Exhibitions of 40*l.* or (in cases of special need) about 72*l.* to students of Dominion and Colonial universities who wish to come to Cambridge next October as candidates for the degree of B.A., M.Litt., M.Sc., or Ph.D. Candidates must apply through the principal authority of their university, and applications should reach the Senior Tutor (from whom further particulars may be obtained) by July 1, 1926.

TRAVELLING studentships for university graduates are provided on a remarkably liberal scale by the National University of Ireland. In the new Calendar, particulars are given of five such studentships of the value of 200*l.* each, open to graduates of the University, offered in the following subjects for competition in 1926: economics, experimental physics, agriculture, physiology, and modern languages (two of—English, French, and German). Reference is still made in the Calendar to the Royal College of Science, Dublin, as an institution at which may be taken the practical course required to be pursued in the second year of the course for the bachelorship in engineering. We understand, however, that the buildings and equipment are being transferred to University College, Dublin.

THE Charles' University (Universita Karlova) of Prague has published in English a prospectus, specially prepared for foreign students, of its Faculty of Science. It offers a doctorate in science (Rerum Naturalium Doctor) on conditions which do not necessarily involve a knowledge of the Czech language or a prolonged stay in the country. Any part of the required four or five years of university work may be taken at any university of recognised standing, the thesis may be in English, French, German, or Russian, and the two (oral) examinations may be conducted in any of these languages. The thesis must embody the results of original research constituting a distinct advancement of science. Among the departments in which facilities for specialist study and research are offered are those of meteorology, pharmaceutical botany, anthropology and demography, photography and photochemistry, methodology and history of the natural sciences and of the exact sciences. The University maintains a Department of Athletics and Physical Training which offers, free of charge to students, facilities for football, swimming, rowing, tennis, ski-ing, skating, etc., and the Faculty of Science arranges ski-ing parties for which special reduced student rates for railway journeys and hotel accommodation are obtainable. Special arrangements are made by the student body for welcoming foreign students and helping them to find suitable accommodation.

Early Science at Oxford.

November 15, 1687. A letter was read from Dr. Garden concerning the formation of animals. In which he reconciles the opinions concerning the formation ex Animalculis and ex Ovo, in these positions: first animals are formed ex Animalculis, 2d that these Animalculà are in semine Marium et non in fœminis; 3dly that the ovum fœminarum is this nidus requisite to the production of the animals.

There was also read a relation of a dismall tempest at Hullavington, communicated by Mr. Cole of Bristol.

November 16, 1683. Dr. Plot shewed us ye two peices of a magnet, which he had lately cut *secundum Equatorem*; they were now two Magnets, and referred to one another, as when they were one whole; contrary to what was found in ye division *secundum Meridianum*.—And, with Dr. Tyson, he gave an account of Hair-balls. 'Twas observed that ye grain of ye hair, was all one way, which was caused (possibly) by ye motion of ye ball in ye stomach.

Mr. Piggot read an account of Chylification, which was put into his hands by a freind of his, who desires to be anonymous to us: the Author says, he has a liquor, some few drops of which will turn spittle, ye broths of beef, mutton, and veal, as also ye flesh it self, to a white color; arguing from thence, that probably ye great menstruum of ye stomach, may be of ye same nature, with his liquor; Mr. Piggot says he saw these experiments tried with success.

November 16, 1686. An account of one Mrs. Brown in Oxford who dyed of a *dropsie*, out of whose body was taken by measure 16 gallons of water wanting a quart, all contained in one great bag which was continued with the ovarium.

An account was received from Mr. Halley of a *little man*, lately presented to the French king, being 37 years old, and with a great beard, and yet but 16 inches high. Likewise of a transparent substance lately invented in France, made out of Hogs *bladders*, fit to be used instead of coach glasses because it will not break.

An account of an experiment made at the spire of the Cathedral in new Sarum, Nov. 1684, with the *Baroscope* by Colonel Windham and Mr. Warner.

November 17, 1685. Mr. Bobart presented a catalogue of ye leaves and seeds of plants lately brought from St. Christopher's and shewn us ye last meeting.

Mr. Pigot junior informed ye Society, that not long since he opened a dog by entering ye abdomen a little above ye Os Pubis according to Dr. Lister's direction; ye dog was kept above a fortnight after this, (in which time he recovered gradually) and then ran away. Mr. Pigot farther informs ye Society that in a late dissection of a dog he observ'd Lacteals to rise from ye bottom of the stomach, contrary to the opinion of some late anatomists.

Dr. Plot comunicated ye *Byssus marinus* of a *Pinna marina* mentioned by Rondelet.

November 18, 1684. A letter from Mr. Aston was read, giving an account of severall experiments mentioned in a book lately written by Kunckell, being sent over by ye Elector of Brandenburg, these experiments were ordered to be tried: Mr. Desmastes took ye trouble upon him.

A letter from Mr. Packer, Physitian at Reading, mentions a hollow oak, not far from Early Court in Berk-shire, which, as he is inform'd, is 18 yards in compass at ye bottom, but lessens apace from ye ground. He promises a full account of this thing as soon as his occasions will suffer him.