

continuous 3-years' course, a 5-years' course of evening class work, and the Bristol sandwich system, which interposes practical training in a works for 14 months between the first and second sessions of academic work, for two summer months between the second and third sessions, and finishes with practical work for 14 months after the third session. Loughborough College, on the other hand, claims in its Calendar for 1925-26 to have found a better way of training by providing facilities for all necessary practical work in its own workshops, so that the theoretical work in the College may be made to keep step with the workshop training.

HONOURS courses in American universities and colleges are described by President Aydelotte of Swarthmore College, Pennsylvania, in a report recently published (Bulletin No. 52 of April 1925) by the National Research Council of America. So vigorous is the movement in the United States for liberalising higher education by the introduction of honours courses more or less like those open to students in English universities, that the number of institutions offering such honours work has doubled since the publication in January 1924 of the first edition of this report, when the number was about 46. The character of the movement is determined by the recognition of two principles which are regarded as the foundation of the success of the English honours system: the frank distinction between students who are really interested in the intellectual life and those who are not, and the recognition of the necessity of allowing the former more responsibility for working out their own intellectual salvation. President Aydelotte is careful to point out in concluding his report that "the system now being introduced need not mean any curtailment of the quality of teaching enjoyed by the average student. What our best students need is not coddling, not more attention, not more teaching, but only greater freedom and more severe requirements."

In the report for the session 1923-24 of the Department of Coal Gas and Fuel Industries of the University of Leeds, the Livesey professor remarks that whilst the Department is developing satisfactorily so far as post-graduate work is concerned, the supply of students taking the normal three or four years' course of training in fuel, leading to a degree or diploma granted by the University, is inadequate to meet the demands of the fuel industries for trained fuel technologists. The University requires a steady supply of students, whose numbers may be depended upon from year to year, rather than any large increase in their number. Laboratory facilities at the disposal of the Department are at present inadequate to enable students of mechanical, civil, and electrical engineering to obtain desirable training in fuel technology and metallurgy. Through the generosity of Mr. Henry Woodall, and a number of gas companies and other industrial concerns, an experimental coal gas plant has been presented to the University, and has been employed in work carried out for the Gas Investigation Committee of the University and the Institution of Gas Engineers. Research work carried out in the Department relates to the influence of ash constituents in coal on the carbonisation process; the scaling of metals; the hardness of metals as affected by grain size; the transformation of quartz during the process of manufacture of silica bricks; metallic coatings resistant to oxidation at high temperatures; gas purification; the thermal expansion of metals and alloys and the changes occurring on heating clays, bauxites, etc.; the aeration of gas jets, and heat recovery by waste-heat boilers.

Early Science at Oxford.

August 26, 1684. Dr. Plot, lately come from ye Royall Society, informes us, that in a meeting of that Society, on some day in this month, he saw a handkerchief, made of Salamanders Wool, or *Linum Asbesti*, shewn ye Royall Society by a merchant, who lately brought it from China. To try whether it was genuin, or no, it was put into a strong charcoal fire; in which not being injured, it was taken out, oiled, and put in again; ye oil being burnt off, the handkerchief was taken out again, and was altered onely in two respects; it lost two drachms and five grains of its weight, and was (as ye merchant affirmed) more brittle then ordinary; for which reason, it was not handled untill it was grown cold, by which time it had recovered its former tenacity, and in a great measure its weight.

The merchant, who oblidged ye Society with ye sight of so great a Rarity, acquainted them, that he received it from a Tartar, who told him, that the Tartars, among whom this sort of cloth is sold at £80 sterling for a China Ell, (which is less than our Ell,) use this cloth in burning ye bodyes (to preserve ye ashes) of great persons; and that in Tartary it is said to be made of ye root of a tree. The thread of it was (as ye Doctor affirms) very large.

He also acquainted us, that it havinge formerly been queried in ye Royal Society in London, whether ye Air contained in ye spirit within a thermometer, be not some cause of the ascent of that spirit in hot weather.

This quære was resolv'd by ye following experiment: a little Siphon was made to reach from ye top of the thermometer, to the receiver of Mr. Boyle's pump; ye air in the thermometer was drawn out, after which a warm hand being applied to it ye spirit did *still* rise.

The observations of Mr. Bullialdus, Mr. Cassini, and Mr. Jacobs at Lisbon concerning ye last solar Eclipse, were presented our Society, and compared with those made here at Oxon., and at Greenwich.

Mr. Boyle's booke of ye Porosity of Bodyes was communicated to our Society.

A Letter from Mr. Robert Spear to Dr. Wallis, dated from Port Royall in Jamaica, May 10, 1684, was read; it mention'd a Booke lately printed at Boston, in New England, entituled *An Essay for the Recording of Illustrious Providences*; in which, among other relations, there is an account of ye poles of some needles of Sea-compasses being burnd by thunder, and lightning, near New England; it is almost verbatim with the account of the same thing mention'd in ye Philosophical Transactions no: 157.

Dr. Plot shewed us some of ye *Risagone Ind.*; or Cassummini, a root found on ye mountains 24 gr: Lat: about Patmia near Bengal. Snow will not lye over it long; 'tis of very thin parts, bound up in an earthy matter; us'd in many disseases of ye head and nerves, and in dysenteryes; being ground to powder, and given in common water; a decoction of it is made in ye same manner as coffee.

The Doctor tells us, as he is inform'd by good hands, that Mr. Hugh Percy of Weymouth has enquired into ye nature of ye current at ye Streights mouth, by letting fall a bucket, and a weight with it, and that he found his bucket constantly carried outwards; it is to be wished that Mr. Percy be desired to give his own account of what he has done in this kind.

September 2, 1684. There being no great appearance of company, all business was deferred to some fuller meeting.