

was probably restricted to the molecules of the reactants actually in contact with the surface. Whilst the experiments of Bone and others at high temperatures indicate that this generalisation may not be always true, yet in a large number of reactions such appears to be the case. Even in combustion at hot surfaces, reaction chains may start from, or, electrons or ions which in turn effect reaction may be emitted from the surface. Four years later it was shown simultaneously in England and the United States that the whole of a surface could not be equally uniform in affecting the rate of chemical action, certain portions of the surface being more active than others. Data both on the quantities and heats of adsorption of gases and vapours as well as the effect of poisons on the rate of catalytic action have amply confirmed the theory of active patches, as is shown in the present report.

It is clear that the existence of active patches is due to the fact that the surface of the catalyst is not uniform, but composite, consisting of various planes, corners and edges of minute crystals in addition to atoms isolated on planes and edges as well as atoms in the planes and edges. The work of Born and Lennard Jones on the surface energies of heteropolar compounds leads us to hope that the surface energies of the various portions of a composite metal surface may in time be computed. Only in the case of certain charcoals and of nickel do we possess any definite information on the extents and specific activities of various patches of different activities, but further information on this subject as well as the variation in relative areas will doubtless be forthcoming.

When we are in possession of data on the variation of the surface forces with chemical reaction rate taking place at the surface, some clue may be given to the mechanism of chemical activation, the elucidation of which is stimulating at the present time a renewed interest in the study of photochemistry.

It is to be hoped that such reports may be continued although the labour involved may render their appearance less frequent in future. Both the committee and Dr. Taylor are to be congratulated on this successor to the three reports already published.

ERIC K. RIDEAL.

University and Educational Intelligence.

CAMBRIDGE.—MR. C. P. T. Winckworth, Christ's College, has been elected Eric Yarrow lecturer in Assyriology. Dr. C. L. Withycombe has been elected University lecturer in advanced and economic entomology. Prof. B. M. Jones has been nominated as a member of the Advisory Committee on Aeronautical Education. Dr. J. L. Witts, University of Manchester, and Mr. J. O. W. Bland, Jesus College, have been elected John Lucas Walker students in pathology. A grant of 100*l.* has been made from the Balfour Fund to Dr. H. Scott, Trinity College, towards the expenses of an expedition to Abyssinia. Mr. H. G. Cannon, Christ's College, and Miss S. M. Manton, Girton College, have been appointed to the University's table at the laboratory of the Marine Biological Association at Plymouth. An industrial bursary has been awarded by the Royal Commissioners for the Exhibition of 1851 to C. Salter, St. Catherine's College.

An interesting report has been published by the Appointments Committee giving a list of all the teaching appointments made under the new statutes and the grants made to the different faculties and departments from the Government grant. The total amount of new grants already thus allotted is 18,710*l.*, out of 20,000*l.* available for the purpose.

The following have been elected to research studentships: W. J. Dann at Trinity College; B. C. Saunders at Pembroke College; W. A. Waters (chemistry), R. V. Thomas (chemistry), E. G. Jones (economics), J. G. Adshead (mathematics), H. Stayt (anthropology), T. E. Allibone (physics), and W. R. Wooldridge (biochemistry) at Gonville and Caius College; G. H. Aston, A. Caress, O. H. Wansbrough-Jones and B. J. Wood at Trinity Hall; J. Hilton at Christ's College; J. H. Ratcliffe at Sidney Sussex College; G. E. Watts has been elected Charles Kingsley bye-fellow at Magdalene College.

Further details are now available of the will of the late Dr. J. E. Bles, whose bequests to the University of Cambridge have already been referred to in these columns. He left all his scientific instruments, scientific books, and the fittings and contents of his private laboratory to the University of Cambridge, and he empowered his trustees to expend a sum, not exceeding 500*l.*, in completing any researches made by him and publishing the results of any researches not published at the time of his decease. The value of his estate was 42,677*l.*; failing issue, and subject to his widow's life interest and after certain bequests, he left the residue of his property to the University upon trust for a professorship of animal embryology to be called the Charles Darwin professorship, for research and teaching in the subject from a purely scientific aspect; apart from economic, technical, or medical aspects, and subject thereto upon similar terms for a professorship of bio-physics. In the event of these chairs being already constituted, the legacy would have been devoted to the promotion of biological science and subject to a board consisting of the professors of biological subjects, which is also to examine the position of the fund every twenty-five years.

THE Calcutta University Poverty Problem lecturer, Captain Petavel, has for several years been carrying on a campaign of advocacy of a scheme for establishing near Calcutta a co-operative colony of middle-class 'home-crofters,' and in connexion therewith a school of which the pupils would "be systematically organised to produce their food by their own labour, the work being made instructive for them." In his magazine *Bread and Freedom* for July, he announces that a Mr. K. K. Dutta, a well-known Calcutta attorney, has placed at the disposal of his organising committee a village and farm, while another member of the committee has promised to contribute a sum of 10,000 rupees towards a fund for putting the scheme into operation "on business lines." A somewhat similar scheme was recently advocated by Prof. J. W. Scott, of University College, Cardiff.

FROM Loughborough College, Leicestershire, we have received a calendar for 1926-27, giving very fully detailed and illustrated descriptions of the College laboratories and courses in engineering and in pure and applied science including chemical technology. The College has also a Department of Administration and Economics, an Extra-Mural Department, a school of Industrial and Fine Art, and a secondary school for boys. The Faculty of Engineering is noteworthy for its system of concurrent theoretical and practical training, made possible by the large scale of the workshops, half the student's time being spent in productive work. The governors award annually five scholarships in the Faculty of Engineering, each of the value of 75*l.* per annum, open to British subjects in any part of the Empire. Candidates resident outside Great Britain can be examined at local centres.