

standard of fitness as regards man, woman, and child may be raised.

To attain this result we must all work together. In the words of Pope :

By mutual confidence and mutual aid
Great deeds are done and great discoveries made.

University and Educational Intelligence.

CAMBRIDGE.—Dr. Adrian has been appointed University lecturer in physiology, and Mr. F. A. Potts, of Trinity Hall, has been appointed University lecturer in zoology.

The Harkness scholarship has been awarded to E. W. Ravenshear, of Clare, and the Frank Smart prizes in botany and zoology to R. E. Holthum, of St. John's, and G. T. Henderson, of Gonville and Caius, respectively.

A second *ad interim* grant of 30,000*l.* has been made by the Government to the University pending the result of the inquiries of the Royal Commission.

An important report has been made by the Local Examinations and Lectures Syndicate, urging an extension of the provision of both money and men for extra-mural teaching.

The Board of Agricultural Studies has received a donation of 1000*l.*, collected by Sir Arthur Shipley, for the provision of lectures on tropical agriculture for five years. Dr. C. A. Barber, of Christ's, late of the Imperial Department of Agriculture, West Indies, and of the Indian Agricultural Service, has been appointed lecturer in tropical agriculture for five years.

Miss B. A. Clough has been appointed principal of Newnham College in succession to Miss K. Stephen.

EDINBURGH.—The University Court has appointed Mr. E. P. Stebbing, lecturer in forestry, to the recently instituted chair of forestry. The Court has also appointed Mr. John Petrie Dunn, a former Bucher scholar of the University, who at the outbreak of the war was Vice-Principal of the Kiel Conservatoire, as a part-time lecturer in the department of music.

The late Dr. I. G. Bartholomew has bequeathed to the University the sum of 500*l.*, to be applied towards the foundation of a chair in geography.

LEEDS.—Dr. W. E. S. Turner has been appointed professor of glass technology, Mr. J. Husband professor of civil engineering, and Dr. Mellanby professor of pharmacology. Mr. R. E. Pleasance has been appointed demonstrator in pathology.

LIVERPOOL.—Dr. W. I. Dakin, professor of biology in the University of Western Australia, has been appointed to the Derby chair of zoology in succession to the late Prof. Leonard Doncaster. Dr. I. M. Heilbron, professor of organic chemistry at the Royal Technical College, Glasgow, has been appointed to the chair of organic chemistry.

OXFORD.—Dr. Benjamin Moore, of the Research Staff, Department of Applied Physiology, Medical Research Committee, has been appointed to the new chair of biochemistry. The Halley lecture is to be delivered by Prof. R. A. Sampson.

PROF. J. STRONG, of the University of Leeds, has been elected president of the Association of University Teachers for the ensuing year.

DR. W. N. HAWORTH has been appointed to the chair of organic chemistry at Armstrong College, Newcastle-upon-Tyne, in succession to Prof. S. Smiles.

DR. V. J. HARDING, associate-professor of biological and physiological chemistry at McGill University, has been appointed professor of pathological chemistry in the University of Toronto.

MR. J. W. SCOTT, lecturer in moral philosophy in the University of Glasgow, has been appointed professor of logic and philosophy in the University College of South Wales and Monmouthshire.

A SUMMER school of librarianship is to be held at Bristol from August 30 to September 11, under the auspices of the University of London School of Librarianship. Some twenty-five papers have been promised for delivery.

THE Report of the Librarian of Congress for the year ending June 30, 1919, shows that the work of the principal library in the United States was carried on with success during the war in spite of great difficulties. Members of the staff died in the war and others have not returned, or have resigned on finding more lucrative work elsewhere. The work has also been hindered by a general rise in prices. The number of printed books now in the library is about 2,700,000. The Library of Congress prints a card catalogue of its books, which is justly valued for its accuracy. By June 30, 1918, the number of different titles in this card-index was 789,000. The average stock of each card was 75 copies, making the total number of cards in stock 60,000,000. The number of subscribers to these cards is 2693, and the sale of cards for the year produced 73,000 dollars. A large number of Chinese books has recently been purchased. The Chinese section is a unique feature of the library, and now contains no fewer than 887 Chinese official geographical gazetteers. These gazetteers are of great value in the study of the industry, art, agriculture, and geography of China. The report invites executors or others who may possess manuscript papers relating to persons of national importance in politics, science, literature, or art to submit these papers for examination. The librarian undertakes to return papers of a strictly personal or family character, and to preserve any valuable material that might otherwise be lost or destroyed.

Societies and Academies.

LONDON.

Royal Society, June 10.—Sir J. J. Thomson, president, in the chair.—A. V. Hill and W. Hartree : The thermo-elastic properties of muscle. The employment of a thermopile in a carefully closed-in chamber, immersed in well-stirred water inside a double-walled vacuum flask, together with photographic registering of the galvanometer response, has made it possible to record the thermal consequences of stretching a muscle (or a piece of indiarubber) or of releasing a muscle already stretched. When a muscle, alive or dead, is *stretched*, heat is liberated in relatively large amount at first, but at a rapidly diminishing rate. When a stretched muscle is *released*, there is at first a rapid absorption of heat, followed by a more prolonged evolution of heat. In a complete cycle of lengthening and shortening the net result is a production of heat, which is greater the longer the interval between the two processes. These thermo-elastic effects are large enough to afford a notable complication in the measurement of the heat-production of a live muscle excited to contract. Their explanation is as follows :—(a) The muscle, like a fiddle-string, shortens on being warmed; conversely, according to the second law, it will warm on being