LIVERPOOL.—A contribution of 10,000l. in support of the University Appeal Fund has been made by the Cunard Steamship Co., Ltd.

The Pacific Steam Navigation Co., Liverpool, has made a contribution of 1000l. to the same fund.

The directors of Messrs. Brunner, Mond, and Co. were authorised at an extraordinary meeting held at Liverpool on August 4 to distribute 100,000l. out of the investment surplus reserve account to universities or other scientific institutions in the United Kingdom for the furtherance of scientific education and research. Proposals for the allocation of this grant are under consideration, but no scheme has yet been adopted by the directors.

An examination for the Aitchison memorial scholarship, of the value of 30l., and tenable in the full-time day courses in technical optics at the Northampton Institute, Clerkenwell, will be held in September next. The scholarship is open to candidates of both sexes between sixteen and nineteen years of age. The compulsory subjects are English and elementary mathematics. The optional subjects, of which only two must be taken, are additional elementary mathematics, physics (heat, light, and sound), chemistry, electricity, and magnetism. Full particulars are given in a leaflet which can be obtained from the hon secretary and treasurer, Mr. Henry F. Purser, 35 Charles Street, Hatton Garden, London, E.C.I.

News has just reached us that Prof. A. T. De Lury was appointed some months ago to be head of the department of mathematics in the University of Toronto by the Board of Governors on the recommendation of the president of the University, Sir R. A. Falconer. The Staff, Council, and Senate have nothing to do with appointments, and the only check upon the action of the president and the Board of Governors is public opinion. Prof. De Lury has been a member of the teaching staff of the University for many years, and is the author of a number of mathematical text-books which have done service in the schools of the province of Ontario. He possesses high teaching ability, but has not been associated with the research activities which it should be the essential function of a university to create and foster. Without men engaged in the production of new knowledge the work of a university differs little from that of a secondary school preparing students for examinations. Toronto has won much distinction by the scientific investigations of such men as Profs. Macallum, McLennan, and Brodie, and it was hoped that the chair of mathematics would have been filled by someone who possesses the highest research qualifications in mathematics that Canada could produce. If Prof. De Lury can and will build up a strong research staff under him, he will be doing the best service to his University and extend the stimulating atmosphere which some of his scientific colleagues have given to the institution by their work.

Among the recent bulletins issued by the U.S. Bureau of Education, Washington, is one (No. 61) entitled "Public Discussion and Information Service of University Extension." It comprises some fifty pages octavo, and deals with the extra-mural activities of the numerous universities and library commissions of the various States. The bulletin submits that university extension should not only offer the opportunity of self-directed study for the great mass of persons who wish to continue systematically their preparation for personal advancement, but should also provide the indispensable connection between scientific knowledge and the everyday practice necessary for sound community development, between the facts

accumulated through research and their application to the practical problems which must be met by individual communities in a democratic society. University education is not merely educational in the limited sense; it attempts to make facts, knowledge, and truth operative in the daily life of the people. The scope of university extension so interpreted includes bureaux of information, lecture schemes-club study and library service-assistance in debates and in other forms of public discussion, together with a novel institution known as the package-library service, by which is meant the compilation by specialists at each university or library centre of information of pamphlets, bulletins, clippings from articles in magazines and other sources on subjects and questions of interest to the public, which are sent on application to individuals or organisations in districts, however remote, within the State. Wisconsin, for example, had in 1918-19 more than 1000 subjects, and the Texas bureau 550, represented in their package-library collections, the contents of each of which are changed from time to time. They cover the whole domain of civic, economic, and State activities. The bulletin gives full particulars of the cost, methods, and organisation of the service, which might with much advantage be introduced into this country. The information bureaux were made much use of, since nearly 180,000 requests for information were received in fourteen States, and in twenty-four States the lectures arranged were attended by upwards of 2,000,000 persons.

## Societies and Academies.

PARIS.

Academy of Sciences, July 19.—M. Henri Deslandres in the chair.—F. E. Fournier: The resistance of a fluid to the horizontal translation of a spindle-shaped or spherical body with deep immersion.—A. Haller and Mme. Ramart-Lucas: Bromohydrins and dibromoderivatives obtained from the alkylallylacetophenones,

 $C_6H_5$  · CO · CHR · CH<sub>2</sub> · CH · CH<sub>2</sub> and  $C_6H_5$  · CO · CRR<sub>1</sub> · CH<sub>2</sub> · CH · CH<sub>2</sub>.

Compounds of the latter type give bromohydrins on treatment with bromine; under the same conditions methylallylacetophenone gives a stable dibromide,  $C_0H_2 \cdot CO \cdot CH(CH_2) \cdot CH_2 \cdot CHBr \cdot CH_2Br. -F$ . Widal, P. Abrami, and N. Iancovesco: Proof of digestive hæmoclasia in the study of hepatic insufficiency. It has been shown in an earlier communication that for some time after a nitrogenous meal incompletely disintegrated proteids pass into the portal vein from the intestine, and that these substances are prevented from passing into the general circulation by the normal action of the liver. This has now been applied clinically after a meal of 200 grams of milk or of meat and eggs. No symptoms of hæmoclasia are given by healthy subjects or by subjects suffering from various illnesses provided the liver is in a normal condition, but with the liver diseased a similar meal is followed by a hæmoclasic crisis, with alterations in the number of white corpuscles, arterial pressure, coagulability of the blood, and refractometric index of the serum. These symptoms have proved capable of detecting latent disease of the liver when the usual signs are wanting.—E. Ariès: The determination of the last of the three functions which defines the equation of state of ether .-G. Fubini: Automorphic functions.—G. J. Remoundos: The modulus and zeroes of analytical functions.— A. Petot: The spherical representation of surfaces and the correspondence by parallel tangent planes.—G. Bruhat: Remarks on the compression of saturated