

## News and Views

### Biometry at University College, London

FROM the beginning of the present session, Prof. J. B. S. Haldane changes his duties by taking on those of the first Weldon professor of biometry, and he is the first holder of a chair in the subject at any British university. The post was founded by a bequest left last year by Mrs. F. J. Weldon in memory of her husband, Prof. W. F. R. Weldon, who was one of the original editors of *Biometrika*. Prof. Haldane will give the first of a course of ten lectures on biometry at 5 p.m. on October 12. In 1895 Karl Pearson gave his first course on the mathematical theory of statistics at University College, when he was professor of applied mathematics and mechanics. The Biometric Laboratory originated at this time. In 1907 he took over the Eugenics Laboratory from Sir Francis Galton. On his death two years later, the latter left the residue of his estate for the founding of a professorship and Laboratory of National Eugenics and Karl Pearson became the first Galton professor. For the next twenty years, research and teaching in eugenics, statistics and biometry were carried out in the same Department, known as that of Applied Statistics. On the retirement of the director in 1933, separate departments for the first two of these subjects were instituted, and there are now chairs for all three at the College where they first obtained academic recognition.

### Ionospheric Disturbances and Solar Eruptions

DR. D. F. MARTYN, MESSRS. G. H. MUNRO and A. J. HIGGS, and DR. S. E. WILLIAMS, in a communication which appears on page 603, show evidence that a type of ionospheric disturbance accompanies every bright hydrogen solar eruption. The main features of the disturbance are an increase of ionization in the  $D$  region and a heating effect in and below the  $F_2$  region. When the disturbances are large they cause 'fade-outs' in short-wave communication. It is concluded that these effects are due to a greatly increased emission of the hydrogen resonance line  $L_\alpha$  from the eruptive area. This causes ionization of atomic oxygen in the  $D$  region, and dissociates the water vapour in the  $F_2$  region, thus raising the equilibrium temperature. Further evidence of a connexion between solar activity and short-wave radio 'fade-outs' is given in the note entitled "An Active Sun-spot" on page 616 of this issue.

### A New Permanent Water-Repellant for Textiles

A NEW compound of exceptional interest to both chemists and textile manufacturers is the subject of an exhibition housed at Dorland House, S.W.1, on October 5-8. This preparation, which has been given the name "Velan", has been developed during the past three years at the Manchester laboratories of Imperial Chemical Industries, Ltd., as a universal water-proofing agent for textile goods. Information

concerning the chemical composition of Velan is not yet available, but it would appear to be a complex organic substance which reacts with both hydroxyl and amino groups and on that account is able to combine with both animal and vegetable fibres. For the impregnation of textiles, Velan is used in the form of aqueous dispersions, which are readily separable from the substance without the aid of supplementary agents. The impregnated fabrics are dried, and combination between the reagent and the textile fibres is afterwards effected by heating at a temperature of 100°-150° C. It is the last stage of the process which gives permanence to the proofing.

VELAN is claimed to be the first water-repellant for textiles which will remain permanent during repeated washing, laundering and dry-cleaning processes. Further, the compound is said to be unique among proofing agents in that it imparts softness and suppleness to fabrics. Unlike rubber or cellulose lacquer waterproofings, Velan does not affect the interstices of textiles and render them impermeable to air. The proofing process has proved satisfactory with cotton, wool, natural and artificial silk, straw, etc., though cotton seems to be somewhat more satisfactory than other textiles from the point of view of the permanence of the proofing. In view of these advantages, and the fact that processing does not add greatly to the cost of manufacture, Velan should find a wide range of applications in the textile industries.

### Aid for Intellectual Unemployed in France

INTELLECTUAL workers, including men of science, writers, artists and others, have suffered no less than industrial workers during the recent years of economic unrest. In 1934 an organization was established in France with the object of providing socially useful work for the unemployed professional men and women. A list of work to be done was prepared and private donations were obtained to support the enterprise in order to see whether the idea had a practical value. Thus, in 1934 and 1935 a considerable number of unemployed were engaged in preparing a complete list of benevolent associations existing in France since 1901. The "Confédération des travailleurs intellectuels", consisting of more than 200,000 workers from various professional groups, also had the problem of intellectual unemployment under consideration. "L'Entr'aide des Travailleurs Intellectuels" (E.T.I.) was organized in order to examine the situation and to find ways and means of giving efficient assistance. The poor financial state of France excluded all possibility of help from the Government, and it was impossible to rely upon private donations. A campaign was therefore begun to obtain from the authorities permission to issue special stamps of different values, with a small surcharge, the surcharge being destined for the intellectual unemployed. The

campaign succeeded in obtaining a resolution published in the *Journal Officiel* on May 27, 1936, by which the issue of special stamps was confirmed, and the E.T.I. was entrusted with the receipt and distribution of the funds collected, under conditions drawn up by the council of the E.T.I., the Minister of National Education and the Postmaster-General.

It was considered more useful to spend the money on work in science, literature and art, than in distributing doles, the work being carried on so long as the funds permitted under approved conditions. The work thus provided may not, of course, be adapted to the special qualifications of every unemployed person, but they are engaged for six months to do some socially useful work, unless they find employment in their own field. Up to January 1, 1937, the French Post Office paid over to the E.T.I. about a million francs under this scheme. This sum is due mainly to philatelists and stamp-dealers; for the success of the scheme, it is necessary that the public generally should take part in this social and humane work. At present the following stamps have been issued:



Fig. 1.

Letters abroad:

1 fr. 50 c. surcharge 50 c. (see Fig. 1)

Post-cards abroad:

90 c. ,, 10 c.

Internal correspondence:

50 c. ,, 10 c. and 20 c.  
(three kinds of stamp)

30 c. ,, 10 c.

These special stamps are available at any post office in France and at the E.T.I. (12 rue Henner, Paris IX), where they can be supplied in any quantity required.

#### Ancient Monuments in France

At the close of September the Commission des Monuments Historiques of France completed a hundred years of its existence. Although at one time subjected to no little criticism, instructed and otherwise, since the War, when it has included among its members the most distinguished of French archaeologists, its activities, both in the preservation and protection of buildings of historic interest and in its care for the antiquities of France generally, have deserved the highest praise. Notwithstanding limitations, of which the members of the Commission are even more fully conscious than expert opinion among the outside public, its control, advice and assistance in bringing to light, preserving and making

accessible the evidence from the prehistoric sites of France, which is now a world-wide possession of archaeological science, has earned the gratitude of every student of antiquity. Even better known to the travelling public, however, are the efforts which have preserved from decay and no less from vandalism the structures of the Middle Ages and of the Roman period. Among the latter the wonderful series of monuments of Roman culture, such as those at Orange, at Nîmes and at Arles, can never be forgotten by anyone who has passed through Provence. Among the latest achievements of the Commission is the excavation of the Roman theatre of Vienne, south of Lyons, which is not an amphitheatre of the more usual type, but is cut out of the side of the hill and necessitated an excavation more than sixty feet deep to bring to light the lowest tier of seats. The completion of the excavation is to be celebrated by a number of theatrical performances to be given on the stage next year similar to those now given annually in the amphitheatre at Orange.

#### 'Shiva's Temple', Arizona

DR. HAROLD ANTHONY, leader of the Patterson-American Museum Grand Canyon Expedition, on his return to New York, gave a preliminary account of the results obtained during his four days' stay on September 16-20 on the summit of Shiva's Temple in the Grand Canyon, Arizona (see *NATURE*, Sept. 25, p. 537). Some seventy-five specimens, it is stated in the report in *The Times* of September 30, were shot or trapped, and will be forwarded to New York for examination. They include chipmunks, three or four species of mice, cottontail rabbits, rock squirrels, which resemble the common grey squirrel, and pack rats, of which one species may be peculiar to Shiva's Temple. As regards the problem whether isolation has produced any marked changes in appearance and habits, Dr. Anthony is of opinion that the colour of the specimens as a whole is lighter than that of those on the north and south rims of the Canyon, respectively one and a half miles and eight miles away in a straight line; but confirmation by detailed comparison is awaited. The vegetation, consisting of pines, junipers, shrubs, and cactus, is described as "more arid" than that of the mainland, and the heat as greater. The plateau, it is stated, is evidently visited in winter by cougar, or mountain lion, and coyote. As the report refers to the discovery of many Indian remains in the shape of mounds, ovens and tools, presumably the members of the expedition were not the only visitors to reach the summit since its isolation from the mainland, as was claimed originally, and the expectation of evidence bearing on the high antiquity of man in this region seems doomed to disappointment. Nevertheless, it is to be concluded that the remains are 'early', and any material which affords evidence of cultural or racial succession in the south-western States is of importance, especially in the present state of knowledge. It may be hoped that an opportunity will be found to submit the material *in situ* to careful and expert examination.