

plans for a coast survey were adopted, and he was appointed to start the work. There was, however, much delay. Having during 1807-9 held a chair of mathematics at West Point Military Academy and during 1809-11 a chair of natural philosophy, in the latter year he was sent by the Treasury to England to purchase instruments. Owing to the War of 1812 between Great Britain and the United States, it was three years before he was able to return to America. The survey was actually started under Hassler's superintendence in 1816, but two years later he was deprived of his post owing to new regulations which allowed only naval and military officers to be employed. During 1819 he was astronomer to the party sent to settle the north-eastern boundary, but then he was thrown completely on his own resources. For ten years he farmed, somewhat unsuccessfully, in New York State, taught and wrote mathematical text-books. For a time, too, he was employed at the New York Custom House, and then in 1832 when the Survey was reorganized—its work had been practically suspended—he once again became its superintendent. Though sixty-two years of age, he entered upon his work with enthusiasm, assembling the necessary instruments, training assistants and commencing operations in the field. In this work he was engaged until his death at the age of seventy-three at Philadelphia.

Hassler's memory was honoured at the centennial commemoration of the Survey, and in 1929, Prof. Florian Cajori, the historian of science, of the University of California, published his biography under the title "The Chequered Career of Ferdinand Rudolph Hassler". In spite of many troubles—domestic, financial and administrative—Hassler left his mark, and it has been said that "Time has justified the soundness of his ideas", and that "the extension of the survey of the coast to the present day follows his plan, and the field work he carried out more than a century ago is of such high precision that it still forms part of the basic network". As State after State was added to the country, so the work of the Survey extended. Under Hassler's successor, Alexander Bache, the electric telegraph was used in the determination of longitude, and under the third superintendent, Benjamin Peirce, the triangulation was carried from the Atlantic to the Pacific. In the nineteenth century the Survey was responsible for the standard weights and measures; but in 1901 a new department was founded for this work under the title of the United States Bureau of Standards. The centennial celebrations referred to were held in Washington under the presidency of the superintendent, Mr. E. Lester Jones, the President of the United States, Mr. Woodrow Wilson, being among the speakers. A memorial volume was issued, and this contains a portrait of Hassler.

Wellcome Veterinary Research Station

THE Wellcome Foundation has acquired Ely Grange Estate, Frant, Sussex, for the purpose of extending the veterinary research now carried on at the Wellcome Physiological Research Laboratories, Beckenham, Kent. The need for accommodation where experiments can be carried out on farm animals has been felt for some time. The estate will be known as the Wellcome Veterinary Research Station and the resident veterinary surgeon will be Mr. S. L. Hignett, who will be responsible to Dr. R. F. Montgomerie, veterinary research director at the Wellcome

Physiological Research Laboratories, where veterinary research, particularly on the laboratory side, will be continued. The full development of the Station at Frant will be delayed until after the War, as the mansion, which will be converted eventually into laboratories, is requisitioned by the Government; but the extensive and modern farm buildings will be occupied and used at once. A start has been made by the acquisition of a herd of pedigree Ayrshire cattle. In addition to the main purpose of the Station, there will be accommodation for the breeding of laboratory animals on a large scale. It is hoped to establish a number of pure lines for this purpose and to do work on genetics in connexion with the breeding of these animals.

Post-War Needs of Universities in Great Britain

SIR JOHN ANDERSON recently stated in answer to a question in the House of Commons that the constitution of the University Grants Committee has been under consideration for some time, and he hopes very shortly to announce the appointment to the committee of a number of new members. As regards the equipment of universities to deal with the post-war situation, the universities themselves have been studying the various problems which will face them after the War. The Committee of Vice-Chancellors and Principals has asked the University Grants Committee to undertake a review of these problems in order to form a considered estimate of the need for increased assistance from the Exchequer. This request will require to be considered as a matter of urgency by the reconstituted Committee; meantime, the universities are being asked to formulate their post-war needs so far as they can be estimated in present circumstances.

Replacement of British Museum's Foreign Books

A GENEROUS offer to replace, so far as possible, the many volumes in the section of non-English books and periodicals which have been destroyed by enemy action in the British Museum has been made by the Allied Governments in London. The offer was put forward by Dr. Philip Argenti, honorary attaché to the Greek Embassy, at a recent meeting of the Books and Periodicals Commission of the Conference of Allied Ministers of Education. Representatives of the Allied Nations pledged their governments to replace, after the War, as a gift, to the best of their abilities, the periodicals and books in their respective languages damaged or destroyed by air attack. The Museum has been invited to submit a list of such periodicals and books to the Commission, classified according to their languages.

The Newcomen Society

THE Newcomen Society met for its annual general meeting on November 10 at the Northampton Institute, London, when the report of the Council for the past year was submitted, and the election of officers took place. The Society has continued to expand, and on September 30 the membership stood at 3,092, irrespective of fifty-five libraries which receive its publications. Owing to the very large increase in membership in North America, the rules of the Society have been amended so that branches overseas can elect their own members and manage their own finances, thus avoiding unnecessary correspondence and expense. The subscription has

been raised from £1 to £1 10s. for those who elect to receive the *Transactions*. The president for the coming year is Mr. William M. Vermilye, of the National City Bank, New York, who has been treasurer of the American branch for some time. In spite of the difficulties due to the War, a good programme was carried through, and the report contains the titles of seventeen papers and addresses which will ultimately be published in vol. 23 of the *Transactions*. Vol. 21 is in the press and it is hoped will be issued shortly. At the close of the business, special reference was made to the unceasing efforts on behalf of the Society of Dr. H. W. Dickinson. After the business was concluded Mr. R. P. Howgrave-Graham gave a lecture on "Engineering in Early Warfare", the devices of centuries ago being illustrated from documents and pictures.

A New Source of Vitamin C

THE *Biochemical Bulletin*, No. 27, May 1943, published by the Sino-British Co-operation Office, includes among other items of interest an article by T. M. Chen, S. Ho, K. M. Hsieh and T. Shen on "A Very Rich Source of Vitamin C: the Wild Fruit of Emblic from India and S. China". It was thought that this wild fruit might be used as a cheap and convenient source of vitamin C for the Allied Armies in this theatre of war. The tree, *Phyllanthus Emblica* L., bears the fruit, which is "fleshly, depressed, globose, $\frac{3}{4}$ in.-1 in. diameter, obscurely 6-lobed". The juice is very sour and astringent but contains about ten times as much ascorbic acid by indophenol titration as lemon juice, an average figure of 921 mgm./100 ml. juice being given. This is qualitatively supported by guinea pig tests. It is not toxic for humans, who probably utilize it to the same extent as the crystalline vitamin.

Miners' Welfare National Scholarships

THE trustees of the Miners' Welfare National Scholarship Scheme invite applications for a limited number of university scholarships for award in 1944; there are, in addition, a limited number of exhibitions available for award to the most meritorious of the unsuccessful candidates for scholarships. Candidates must be either workers in or about coal mines in Great Britain, or sons or daughters of such workers, and should not normally be less than seventeen years of age on January 25, 1944. Forms of application and full particulars may be obtained from the Secretary, Miners' Welfare National Scholarship Scheme, Ashley Court, Ashted, Surrey. Applicants for forms must state whether they apply as workers in or about mines or as children of such workers; those who come within both categories should apply as miners. Applicants already at a university should state, when applying for forms, whether they are first-year students. Application forms must be returned by January 25.

Comet Daimaca

I.A.U. CIRCULAR No. 965 announces that an orbit has been computed for this comet by Mr. Naur from three observations at the Observatory of Bucharest on September 9, 10 and 11. The elements of the orbit are given below.

T	1943 Aug. 21-538 U.T.
ω	36° 02.0'
Ω	82 15.1
i	161 15.7
q	0.75812

From these elements the following ephemeris has been computed. As the orbit has been derived from short arcs, the figures given below cannot be accepted as very accurate. The comet was stated to be mag. 10 on September 18, when its distances from the earth and sun were 0.32 and 0.92, respectively. As it has receded considerably from the earth and sun since that date, it must be a faint object now, probably about mag. 16.

Date 1943	R.A.		Ephemeris	
	h. m.	Dec.	ρ	r
Nov. 16	18 48.2	11° 56'	2.107	1.658
20	18 51.5	12 25	2.229	1.713
24	18 54.6	12 49	2.342	1.764
28	18 58.0	13 10	2.459	1.823

Announcements

PROF. A. V. Hill, secretary of the Royal Society, is to visit India to advise on problems of scientific and industrial research in relation to reconstruction problems and the co-ordination of such research in India with that elsewhere. His tour is being undertaken at the invitation of the Government of India and with the consent of the Royal Society.

SCIENTIFIC men and many others will learn with much pleasure that Prof. Niels Bohr, of the Institute of Theoretical Physics, Copenhagen, has succeeded in escaping from Denmark and has reached Great Britain.

THE Council of the Royal Meteorological Society has awarded the Symons Gold Medal for 1944 to Dr. C. W. B. Normand, director-general of observatories in India. The medal is awarded biennially for distinguished work in connexion with meteorological science.

SIR GEORGE THOMSON, professor of physics at the Imperial College of Science and Technology, London, has been appointed scientific adviser to the Air Ministry. He will be responsible for examining air operations from the scientific aspect, the methods, weapons and equipment employed, and for advising the Air Staff and other Air Ministry departments on these matters. On all questions affecting radio-communication and radiolocation Sir George Thomson will work in consultation with Sir Robert Watson-Watt, scientific adviser on telecommunications.

MR. GEORGE HURST has been appointed lecturer in mining and mine surveying in the University of Sheffield. The Rockefeller Foundation has renewed its grant to the University of Sheffield of £400 for research in biochemistry for a further year beginning October 1, 1943.

THE Huxley Memorial Lecture of the Royal Anthropological Institute will be delivered by Prof. F. C. Bartlett, professor of experimental psychology in the University of Cambridge, in the rooms of the Royal Society on November 23; he will speak on "Anthropology in Reconstruction".

THE Spanish Cultural Institute at Buenos Aires has recently dedicated a histological laboratory to the memory of Ramon y Cajal; it is under the direction of Prof. Hortegan, one of his pupils.

ERRATUM. In NATURE of November 6, p. 540, col. 2, in the communication signed by Prof. E. F. Burton, the size of the fibre used is given as "approximately 0.7 μ in diameter"; this should be "0.7 μ ".