

Jackson-Gwilt medal of the Royal Astronomical Society.

Mr. Espin invented a spectroscope, a variable-power eyepiece and Espin's star detector. On Röntgen's discovery of X-rays, he built several high tension machines, culminating in a huge 24-plate Wimshurst, with which for many years he treated invalids from all over the country. In recent years, with the collaboration of W. Milburn, his astronomical assistant, he investigated the radioactivity of local spring waters and published the results in his observatory circular for 1933.

During the later years of his life, when he was unable to spend long hours in the observatory, Espin made and examined rock sections from his specimens collected abroad, especially of those from Vesuvius, Etna and Les Puys de Dôme. His scientific interests were thus very wide, and he brought both observation and thought to bear on many objects upon the earth as well as in the heavens. There are now few natural philosophers of his type, and his death has deprived the world of one who contributed much to its knowledge.

MR. ERNEST BINFIELD HAVELL, whose death at the age of seventy-three years occurred on December 30, was well known as one of the foremost authorities on Indian art, architecture and technology. He first went to India as superintendent of the Madras School of Art, and in 1896 was transferred to the

Calcutta School, retiring from the Education Service in 1908. While at Calcutta he founded what has since come to be known as the Calcutta school of painting, and it was largely owing to his interest in indigenous industries that the village hand-loom industry was revived. An intense and enthusiastic appreciation of the aims of Indian art, especially of the Mogul and Rajput schools, was the basis of his conviction that the only future possible for a living school of art in India lay in an evolutionary development of the indigenous art, free from the influence of European ideals and methods. The enthusiastic welcome and support his views received from the Nationalist party in India proved an embarrassment rather than an assistance when, after his retirement, he endeavoured to promote in England a better understanding of India's artistic achievement. Mr. Havell was a voluminous writer on Indian art and technology, his best-known work being a "Handbook of Indian Art" (1920).

— — — — —
WE regret to announce the following deaths :

Mr. H. G. Ponting, the official photographer to the Scott Expedition of 1910-13 to the South Pole, on February 7, aged sixty-four years.

Prof. Arthur Thomson, emeritus Dr. Lee's professor of anatomy in the University of Oxford, president of the Anatomical Society of Great Britain and Ireland in 1906, on February 7, aged seventy-six years.

News and Views

Ethnographical Films

CONSIDERABLE interest has been aroused by a recent announcement that the Trustees of the British Museum have accepted the donation of a cinematograph film of the life of the Worora tribe of the Kimberley district of north-west Australia. The film was presented by Mr. H. R. Balfour of Melbourne. It was taken on the Government Native Reserve of Kunmunya, and shows the present conditions of native life. Technological processes, such as the making of stone axes and spear heads, in which these people are specially skilled, the making of fire by twirling one stick on another, the spinning of human hair for thread and the like are shown as living crafts. The 'shots' also include ceremonies and dances and an emu corroboree. The film has already been shown to missionaries, learned societies and medical students in Australia; but as is explained by Sir George Hill in a letter to *The Times* of February 7, owing to the fact that it was taken on a Government reserve, under the regulations of the Commonwealth Government, it cannot be shown commercially. With the permission of the Trustees of the Museum, arrangements have been made for the film to be shown at a meeting of the Royal Anthropological Institute to be held on March 19 at the London School of Hygiene and Tropical Medicine, but only fellows of the Institute and their guests can be admitted. A description of the film has been supplied

by the Rev. J. R. B. Love, who is superintendent of the reserve and is well acquainted with the language of the Worora.

ALTHOUGH this film will, no doubt, prove of the greatest interest as an ethnographical record, it is by no means unique. The cinematograph camera has long been used as an adjunct to ethnographical exploration. One of the earliest records of this kind was the series taken by Prof. C. G. Seligman when a member of the Cooke Daniels-Seligman expedition to New Guinea thirty years ago, which was shown at the Leicester meeting of the British Association in 1907; and the late Sir Baldwin Spencer showed a detailed record of the life and corroborees of the natives of northern Australia at a meeting of the Royal Anthropological Institute in 1914. The diffidence felt by the Trustees of the British Museum in accepting the gift, notwithstanding the fact that it was a 'non-flam' film, has directed attention to the fact that the British Museum possesses one other film only, and that there is no official collection in Britain of these extremely valuable records of the life of primitive peoples, now rapidly passing away.

THE possibility of forming such a collection or repository was one of a number of points connected with the making, selection and preservation of cinematograph films of anthropological and ethnographical

interest, which was referred to a special committee appointed by the recent International Congress of Anthropological Sciences held in London in August last. The committee is international in its composition, Great Britain being represented by Capt. T. A. Joyce of the British Museum. The matter, however, is not to be allowed to rest there so far as Great Britain is concerned; and it is announced in the February issue of *Man* that the British Film Institute has established a Scientific Research Panel of its Advisory Council, of which Prof. J. L. Myres will act as chairman, to collect information as to the extent to which the cinematograph has been used in scientific work, details of methods and difficulties in technique, and particulars of films of scientific interest which have not been put into circulation through the ordinary commercial channels. The Panel will welcome information on any of these points; communications should be addressed to the Secretary, British Film Institute, 4 Great Russell Street, London, W.1.

City and Guilds (Engineering) College, London

IN speaking, at the jubilee celebration of the City and Guilds (Engineering) College, Prof. H. E. Armstrong directed special attention to the origin of the Imperial College, tracing this and the general development of scientific activity at South Kensington mainly back to the late Lord Playfair, in particular to his appointment at the Museum of Practical Geology, the home of the Geological Survey, about 1843. South Kensington, he believes, is still without any memorial of the great 'little' man. Discussing the history of the Royal College of Chemistry, established in Oxford Street in 1845, now the Royal College of Science, Prof. Armstrong said that the funds were chiefly obtained from the farming community, owing to the enthusiasm aroused by Liebig in his tour throughout agricultural England in 1842-43. When the Royal College of Science was opened, its rural promoters had looked forward to the development of the school in the interests of agriculture. Man may propose but professors dispose: nothing was further from Hofmann's genius. Agricultural chemistry, Prof. Armstrong said, is not taught in England in a way in the least comparable with that in which engineering has been taught in the Guilds Colleges. He ventured to express the hope that, by the time the College of Chemistry celebrated its centenary, it will have learnt what its original purpose was and will seek to fulfil this. By that time perhaps the world will have recognised that no other subject is so worthy of chief attention as is agriculture.

SPEAKING of his work at the Central, after referring to the importance attached both there and at the Finsbury College to engineering as a necessary subject in the chemist's course, Prof. Armstrong said of the engineer: "I made no attempt to teach him chemistry: that I soon found to be impossible. I tried to teach him through simple acts of chemical inquiry, to experiment with a purpose; to observe accurately: above all to describe his work in lucid English: to take notes, in short, the hardest

task of all. My schoolmastering was not popular with many, at the time. In after years I have had my full reward, as not a few have told me that my insistence on their learning to help themselves has been of special value to them". He ended by saying: "At this, perhaps the most critical and solemn moment of my life, in the interests of our national engineering efficiency, I would plead for the recovery of the original spirit and a reconstitution of the College as a separate entity."

Sir Alfred Ewing and Seismometry

DR. C. DAVISON writes: "During the five years (1878-83) that Ewing spent in Japan, like other English teachers in Tokyo he was infected by the enthusiasm of Prof. John Milne, and became one of the first members, and afterwards a vice-president, of the Seismological Society of Japan founded by Milne in 1880. At one of the early meetings of the Society in that year, Ewing described his seismograph for horizontal motion, in which he preceded Rebeur-Paschwitz in devising a horizontal pendulum with two fixed supports. In 1881, he followed with an account of a seismometer for vertical motion, this, with the preceding, forming the well-known instrument made by the Cambridge Instrument Co., Ltd. In the following year, he devised his duplex pendulum seismometer. The horizontal pendulum was erected in the Engineering Laboratory of the University of Tokyo in November 1880, and, at several later meetings of the Seismological Society, he exhibited the diagrams obtained with it. The interest aroused by these early accurate records of the movements of the ground during an earthquake can be readily imagined. Shortly before he left Japan, Ewing wrote his great memoir on 'Earthquake Measurement', in which he described the various forms of known seismographs and their underlying principles (*Tokyo Univ. Sci. Dept. Mems.*, No. 9; 1883). Soon after this, his active interest in seismometry seems to have ceased, for, after his return to Great Britain, he made only one new contribution, that on seismometric measurements of the vibrations of the Tay Bridge during the passing of railway trains (*Roy. Soc. Proc.*, 44, 394-402; 1888). In these experiments made with a duplex pendulum seismometer, he showed that the greatest lateral and longitudinal movements of the bridge were about $\frac{1}{16}$ in. and $\frac{1}{8}$ in. respectively."

Research Laboratory at the National Gallery

TOWARDS the end of 1934, the Trustees of the National Gallery approved a scheme for the establishment of a laboratory to undertake the physical examination of pictures by means of X-rays, ultra-violet and infra-red radiations, and by micrographic methods. They also appointed a committee, consisting of Sir Henry Lyons, Sir William Bragg, and Dr. H. J. Plenderleith, to act as an advisory body, should need arise: the laboratory is in charge of Mr. F. I. G. Rawlins. A considerable amount of the plant has already been installed, and work has begun with photomicrographic investigations, and to some extent with ultra-violet light. At the present rate of progress