

it may have been worn twined several times round the neck or waist. Both have the ends bent back to form the familiar interlocking hook. Of the armlets four are simple metal rods ; the remaining two are heavier, one being hexagonal and the other lozenge-shaped in section. The find is assigned to the middle or late bronze age ; but it is to be noted that the simple armlets do not show the thickening of the wire at the ends characteristic of the developed type of armlet, which, in the British late bronze age, expanded into the cup-shaped terminals.

THE number, character, and distribution of finds of prehistoric gold ornaments in Cornwall, of which that of a lunula, or crescent-shaped gold neck ornament, associated with a flat axe found at Harlyn Bay is the best known, would suggest that intercourse with Ireland, the undoubted source of these ornaments, began early, possibly at the very beginning of the bronze age, and was extensive. Not only did Cornwall provide tin, in which Ireland was poor, but it served as a stage in the voyage to Brittany and Iberia. Close intercourse between Ireland and Cornwall lasted well into Christian times, as is shown by the legends of the Cornish saints, though their many obviously mythical details point to a much earlier tradition. It is to be hoped that lack of funds will not stand in the way of the proposed excavation of the site on which this latest find was made. If it should prove a habitation site, as is conjectured, it should furnish much needed evidence corroborative of the dating of Cornish gold ornaments.

#### American Patent Law System.

UNDER the auspices of Science Service, Dr. E. J. Prindle gave, on Nov. 13, a radio talk on the American patent law system. He pointed out how backward agriculture and manufacturing were prior to the introduction of the patent system, which gave the inventor the exclusive right for seventeen years to make, use, and sell his invention. So great is the transformation made by the introduction of machinery, that in garnering wheat crops one man can, by its use, do the work formerly requiring ten men. Only one man is now required for every 250 acres. The making of agricultural machinery is a very large industry. The expense of developing a single invention often runs into hundreds of pounds, and sometimes, as in the case of the Curtis steam turbine, into hundreds of thousands of pounds. Without the possibility of recovering this sum and making a profit on the invention, neither individuals nor companies can afford to make and perfect inventions. Without the patent law, Edison could not have accomplished his great work which has benefited humanity. In connexion with electric lighting alone, Edison took out 375 patents. As a patent for an invention gives a monopoly, some think that it is therefore harmful, as many monopolies undoubtedly are. But a patent only gives an inventor a monopoly of that which he creates ; it takes nothing from the public, and at the end of seventeen years the public receives the invention free. In normal times, the patent system has greatly increased the field of employment.

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#### Hawks as Decoys.

MARTIAL's epigram on the hawk (Book 14, 216) has been taken as an indication that falconry was practised by the classical ancients ; but as the hawk here deceives (*decipit*) the birds, it would seem rather as if it were used, like an owl, as a decoy to entrap birds coming to mob it ; and in the *Field* for Dec. 26, 1931, Col. Nawab Malik Sir Umar Hayat Khan, in writing on falconry, indicates a similar practice in modern India ; for he says that if a sparrow-hawk be kept under a net or in a cage and nooses made around, and the receptacle put where 'seven sisters' are common, these birds (the common Indian babbler *Turdoides terricolor*) can be caught by the dozen. Being weak flyers, they are particularly likely to be attacked by hawks, but being also sociable and strong in beak and claws, they often succeed in rescuing the bird attacked, so that the hawk is an enemy with which they contend on more or less equal terms. The use of the captive hawk as a decoy, however, is no more falconry than is the employment of wild hawks in fowling by bribing them to 'wait on' and make birds lie, a practice also followed in classical times and in India and Argentina in our day, when the former country is still the stronghold of the perfected art.

#### Statistics of Cancer in East London.

THE Ministry of Health has issued a report by Dr. Janet Forber (*née Lane-Claypon*) dealing with incurable cases of cancer in east London (*Reps. on Pub. Health and Med. Subjects*, No. 66. H.M. Stationery Office. 1s. net). There appears to be no shortage of medical and nursing care and hospital accommodation for these patients. The sample of 1983 cases investigated brings out (as other investigations have done) a contrast in sex incidence of the disease, namely, the great preponderance of cancer of the lip, tongue, mouth, pharynx, and larynx in the male, and cancer of the reproductive organs in the female. The mean age at death is low for fatal cancer of the uterus, ovary, and, in both sexes, the lung and pleura, and high for fatal cancer of the skin and prostate. The mean duration of in-patient care for those who seek hospital treatment is only 2·28 months, being less than one month for 46 per cent, suggesting that the terminal and troublesome stage of fatal cancer is, happily, of short duration.

#### Researches in Chemical Engineering.

WE have received the *Proceedings of the Chemical Engineering Group, Society of Chemical Industry*, vols. 11 and 12, 1929 and 1930 (in one volume). This contains a number of valuable papers, dealing with such subjects as surface energy, flotation, water treatment, alloy steels, gas and electric heating furnaces, and welding. The standard of the papers is high, and they are usually followed by interesting discussions. The *Transactions of the Institution of Chemical Engineers*, vol. 8, 1930, has also been received, and contains important papers on various subjects related to chemical engineering, such as cellulose products, crystallisation, high pressure reactions, tannery waste, wood pulp, pulverised fuel, and the recovery of metals from waste materials. Both these volumes are very

well printed and illustrated, and form valuable contributions to the literature of applied chemistry and engineering.

#### U.S. Bureau of Standards.

*Miscellaneous Publication No. 131* of the Bureau of Standards, Washington, constitutes the Annual Report of the Bureau for the year ending June 1931. Notwithstanding the decrease in industrial activity in the United States, the demands on the Bureau for its services were greater than in the previous year, and the working costs were 2,600,000 dollars, an increase of 5 per cent on last year. The staff number nearly 12,000, and the salaries 710,000 dollars. A new hydraulic laboratory, capable of dealing with 300 cubic feet per second, and two new radio stations have been built, and a new administrative building and a high voltage laboratory are in contemplation.

#### Announcements.

THE gold medal of the Royal Astronomical Society has been awarded to Dr. Robert Grant Aitken, director of the Lick Observatory, Mt. Hamilton, California, for his work on double stars.

SIR ROY LISTER ROBINSON, technical commissioner in the Forestry Commission, has been appointed chairman of the Commission, in succession to Sir John Stirling-Maxwell, who is retiring on March 25 next.

THE following appointments in the Colonial agricultural services have recently been made by the Secretary of State for the Colonies : Mr. A. J. Findlay, deputy director of agriculture, Nigeria, to be director of agriculture, Zanzibar ; Mr. T. Y. Watson, to be agricultural officer, Kenya.

THE Melchett Medal for the year 1931 of the Institute of Fuel has been awarded to Prof. William A. Bone, professor of chemical technology in the Imperial College of Science and Technology, London. This medal was founded in 1930 by the late Lord Melchett, and is given for original research or professional, administrative, or constructive work involving the scientific preparation or use of fuel, which has recently been made available to the community. The first award was to Dr. Kurt Rummell, of Düsseldorf.

A JOINT committee of the British Empire Cancer Campaign and the Mount Vernon Hospital has appointed Dr. A. E. Barclay, lecturer in medical radiology and electrology in the University of Cambridge, to the Radiological Research Fellowship founded by Sir William Morris at the Mount Vernon Hospital.

It is announced in *Science* that the Henry Draper Medal of the U.S. National Academy of Sciences has been awarded to Dr. Annie J. Cannon, of Harvard College Observatory, for her work on the classification of stellar spectra. This medal is given "for notable investigations in astronomical physics". Dr. Cannon is the first woman to receive a medal from the National Academy of Sciences. The Agassiz Medal of the

Academy, given for contributions to oceanography, has been awarded to Prof. H. B. Bigelow, director of the Oceanographic Institution at Woods Hole.

THE course of open lectures in anthropology at the Royal Anthropological Institute for the second half of the session 1931-32 is announced. The course has been arranged in co-operation with the School of Oriental Studies, and will deal with African life and customs. The list of subjects and lectures is as follows : Jan. 20, F. H. Melland, on natural resources of Africa ; Jan. 27, Prof. C. G. Seligman, on races of Africa ; Feb. 3, C. W. Hobley, on the development of native education in Kenya ; Feb. 16, Capt. R. S. Rattray, on Hausa poetry ; March 2, Rev. E. W. Smith, on the place of folk-tales in African life ; March 9, H. J. Braunholtz, on the craft of the African potter ; March 16, J. H. Driberg, on African systems of education. The lectures begin at 5 p.m. on each day, and admission is free and without ticket.

A LIST (C. 1931) of some 1586 works relating to science, including publications of the Geological Survey of Great Britain, Smithsonian Miscellaneous Collections, and publishers' remainders, has been issued by Messrs. Wheldon and Wesley, Ltd., 2 Arthur Street, W.C.2.

THE latest catalogue of Messrs. Bernard Quaritch, Ltd., 11 Grafton Street, W.1 (No. 452), should be of much interest and service to librarians and others, giving as it does particulars of some 1300 works relating to science, mainly in the form of periodical literature, transactions of learned societies, and records of voyages of exploration. Many of the entries have valuable bibliographic notes appended.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned : A demonstrator in pathology and bacteriology at the Welsh National School of Medicine—The Acting Secretary, University Registry, Cathays Park, Cardiff (Jan. 21). A senior chemistry master at Emanuel School, Wandsworth Common—The Headmaster, Emanuel School, Wandsworth Common, S.W.11 (Jan. 23). A temporary senior technical assistant in an Admiralty establishment near London, with experience in the design of light precision machinery and small accurate gearing—The Secretary of the Admiralty, C.E. Branch, Admiralty, Whitehall, S.W.1 (Jan. 29). An expert under the Egyptian Government, for the study of sugar-cane pests and methods of control and to organise the application of control measures, also for the study and carrying out of research work on the varieties of sugar-cane most adapted to local conditions, methods of cultivation, and other factors tending to improve sugar culture—The Minister of Agriculture, Cairo (Feb. 15). A head of the mathematics department of the Woolwich Polytechnic—The Principal, Woolwich Polytechnic, Woolwich, S.E.18 (Feb. 17). A director of the Indian Institute of Science, Bangalore—The Selection Committee, Directorship Indian Institute of Science, Bangalore, c/o The Universities Bureau, 88A Gower Street, W.C.1 (before end of April).