

in the history of the philosophy of science. Among the ten essay reviews may be mentioned D. T. Whiteside's discussion of the scientific papers of Newton; R. W. Southern on technology and history; and D. S. I. Cardwell on science in the nineteenth century. *History of Science* is edited by A. C. Crombie and M. A. Hoskin and published by W. Heffer and Sons, Ltd., Cambridge (paper bound, 21s. net; cloth bound, 30s. net).

The Society for the Promotion of Nature Reserves

THE 1963 *Handbook* of the Society for the Promotion of Nature Reserves includes, besides the forty-ninth annual report covering the year ended March 31, 1963, and the accounts and balance sheet, a report on the Council for Nature, membership of which has risen to 339, and lists of the Society's reserves and local committees, officers and Council, Naturalists' Trusts and members and associates (Pp. 44. London: The Society for the Promotion of Nature Reserves, British Museum (Natural History), 1963. 10s.). Annexes to the report list purchases completed during the year with the aid of the Nuffield Loan Fund. The report includes brief accounts of activities during the year on the Society's own reserves, and in that relating to Dancer's End, Buckinghamshire, reference is made to the pillage of wild flowers and the difficulty of restricting such pillage.

African Engravings and Decorations

THE Museu do Dundo, run by the Portuguese Diamond Co. of Angola (Diamang), has long been famous for its splendid publications concerned with the cultures, past and present, of the country. The latest, *Cabaças Gravadas da Lunda*, by Mário Fontinha and Acácio Videira, is concerned with the engravings and decorations on calabashes, which are used to-day as drinking-vessels, mugs, funnels, boxes, etc. (*Publicações Culturais* No. 57. Pp. 178 (34 plates). Lisboa: Companhia de Diamantes de Angola, 1963). The engravings are made with a sharp knife, the blade being thick or thin according to the lesser or greater delicacy of the strokes to be made. The volume is largely a picture book illustrating a considerable number of these engravings. For the most part, conventionalized human beings are depicted, some of them very amusing to look at. But animals, equally stylized, and patterns also occur. One interesting figure represents a man driving a motor-car. The economy of line would probably please many modern European artists. For those interested in prehistoric and primitive art it is always well to take note of a modern art group made by modern primitive peoples. This work can be strongly recommended, both for its scientific value and as an intriguing picture book.

Distance of the Andromeda Galaxy

THE late Dr. W. Baade was interested in extending our knowledge of the stellar populations and obtaining a more accurate distance of the Andromeda Galaxy. For this purpose he selected a number of fields at varying distances from the centre of the Galaxy and obtained a large number of photographs. The results for one field have now been completed by his associate, Miss H. H. Swope (*Astronomical J.*, 68, 435; 1963). They refer to a field 96' south preceding the nucleus in a very distant outer spiral arm, selected for its low content of absorbing material. More than 150 variable stars have been found, and of these, twenty Cepheids have been investigated in detail, obtaining brightnesses and periods of variation. The Andromeda cepheids are systematically reddened in comparison with those in our own Galaxy, but it is thought that this reddening arises mainly in our Galaxy and not in the Andromeda Galaxy. The Cepheids are further from the centre of the Andromeda Galaxy than the Sun is from the centre of our own Galaxy. The unreddened distance modulus turns out to be +24.20 magnitudes. The distance is 690 kiloparsecs (2.25 million light years) with an uncertainty of at least 50 kiloparsecs.

Textile Research at the Łódź Technical University

THE theory of flow in the multi-branched siphon is developed in No. 9 of the *Textile Sciences (Włókiennictwo)* series of the *Scientific Bulletin of the Łódź Technical University (Zeszyty Naukowe Politechniki Łódzkiej)*. This siphon is the main feature of Prof. Atanazy Boryniec's invention for spinning staple viscose fibres in a hydraulically closed system to which gases harmful to health may be confined. Other papers deal with the role of sulphuric acid in the acetylation of cellulose; the use of melamine-urea-formaldehyde mixed precondensates for imparting crease recovery to linens and viscose-flax blends; benzoylation of cellulose; stability of knots in fishing nets; structural changes in polyacrylonitrile fibres during drawing and heat treatment. All papers are in Polish, but there are Russian and English summaries, which are sometimes extensive. The *Bulletin* is mimeographed and appears about once a year. It is edited by Dr. Witold Żurek, and copies are obtainable from Rodakcja Wydawnictw Naukowych Politechniki Łódzkiej, Łódź, Gdańska 155, Poland.

New Coagulant Aids for Removal of Suspended Particles

FLOCCULANTS facilitating removal of suspended solids from sewage and industrial wastes, also in pre-treatment of raw water similarly charged, are now reinforced with what are described as "... new coagulant aids ... liquid, water-miscible polyamines (cationic polyelectrolytes)". These products are known as 'Primofloc C-3' and 'Primofloc C-5' and are now being offered on a commercial scale by Rohm and Haas, Philadelphia, Pa., well known for their manufactures of plastics, synthetic resins and chemicals for many industrial applications. A recent issue of the *Rohm and Haas Reporter* (21, No. 3; May-June, 1963), a colourful and informative house-organ (distributed in Britain by Lennig Chemicals, Ltd., Bedford Row, London, W.C.1), gives full details of these compounds, also of the many technical services offered in the wide field of their international activities.

Treatment of Tuberculosis

BEFORE the advent of potent and anti-tuberculous drugs, the recovery of patients depended entirely on natural and acquired resistance augmented by supporting treatment. This inevitably resulted in a high mortality. With the use of anti-tuberculous drugs, especially streptomycin, isonicotinic acid hydrazide and para-aminosalicylic acid, the prognosis of this formerly deadly disease changed for the better. The application of adrenocorticotrophic hormone or adrenal corticosteroids and their analogues achieved equally promising results. When hormones were first used, reports were discouraging because the hormone was given alone or for the treatment of another disease without enough knowledge of the underlying tuberculous lesion. To-day, combined treatment is increasingly used and often without knowledge of all the facts. A communication by Drs. Somchai Bovornkitti, Prasert Kangsadal, Pairojana Oonsombatti and Damrong Bejrablaya of the Departments of Medicine and Physiology, Faculty of Medicine, and Siriraj Hospital, University of Medical Sciences, Dhonburi, Thailand, reports their experience on the use of prednisone concurrently with conventional anti-tuberculous treatment in cases of tuberculous pleurisy with effusion (*Japanese Journal of Tuberculosis*, 10, No. 1-2, June, 1962). Twenty-three cases of pleurisy with effusion, presumably tuberculous in origin, were treated with a combined régime of prednisone and conventional anti-tuberculous drugs. Prednisone was used for a month. The results indicate that the combined treatment is superior to the conventional anti-tuberculous remedies used alone. The results of treatment were attributed to the desensitizing properties of prednisone on tuberculin hypersensitivity.