

A Computer-based Bibliographical Retrieval and Publications System

THE computer-based bibliographical retrieval and publications system now under development at the National Library of Medicine and known as 'Medlars' is described in an article by S. I. Taine, which has been reprinted from the *Bulletin of the Medical Library Association* (April 1963), and also more fully in a brochure, *The Medlars Story at the National Library of Medicine*, issued by the U.S. Department of Health, Education and Welfare (Pp. vii+74. Bethesda, Md.: United States Department of Health, Education and Welfare, 1963). The system will become operational early in 1964 and it is designed to improve the quality of and enlarge *Index Medicus* as well as reduce the time of preparation of the monthly edition from twenty-two to five days. It will increase the average depth of indexing five-fold and almost double the number of articles handled annually, as well as facilitate the inclusion of citations from other sources and from periodicals and the efficient servicing of requests. With its installation the Library expects to add monographs to the list of source material to be indexed. Use of a digital computer and special composing equipment capable of providing excellent typographical quality is involved.

Preparations for an International Conference

MONOGRAPH NO. 1, issued by the Institute of Linguists, entitled *Preparations for an International Conference* and written by A. G. Readett, claims, with reason, to be the most comprehensive and detailed exposition so far published of the preparatory work required to ensure the success of an international conference (Pp. 20. London: Institute of Linguists, 1963. 10s. 6d.). While it covers the papers and printing arrangements as well as the conference sessions, it deals more particularly with the interpreting and translating arrangements, including equipment and the conference office and its staff. Some guidance is given as to costs.

Present and Future of the Fundamentals of Natural Philosophy

IN the May issue of the *British Journal for the Philosophy of Science*, Mr. L. L. Whyte contributes an article on "Some Thoughts on Certainty in Physical Science", in which he discusses the present and future of the fundamentals of natural philosophy. He is particularly concerned with what is known absolutely and uniquely about some basic properties of the universe. Such knowledge is clearly apodictic (that is, true of necessity). The theme is important in view of the tendency to concentrate on uncertainty principles in our mathematical thinking. Without denying the possibility of surprises, the author gives sound reasons for believing that in certain regions "the scope for discovery may be finite". Organic chemistry provides an illustration of steady logical progress for about a century; geometrical concepts have proved remarkably stable. By contrast, physics has gone ahead with ever-increasing abstraction, farther and farther removed apparently from any visual image in three-dimensional Euclidean space. The perfect example of something established once and for all is the existence of the 230 space-groups, the 32 classes, and the 14 Bravais lattices of the crystallographer. These facts are coercive on the human mind, and the agreement between 'pure' mathematics and observation is unmistakable. The velocity of light c in empty space, as an assertion, is not wholly acceptable, since c may be found to vary in high external magnetic fields. Our present comprehension refers largely to static configuration: future work must take account of changes.

Pleistocene Stratigraphical Chronology of Ceylon

DR. P. E. P. DERANIYAGALA, director of the National Museums in Ceylon, has recently described certain gravel

beds which will prove useful in determining some of the stages of Ceylon's Pleistocene cycle of erosion (*Spolia Zeylanica*, 30, Pt. 1; 1963). Such a determination is, of course, vital if the early archaeological developments are to be interlocked with the geological sequence. The short paper is entitled "Some Indicators in the Pleistocene Stratigraphical Chronology of Ceylon" with a page of illustrations.

Aboriginal Cultural Development in Latin America

A SYMPOSIUM entitled "Relaciones de las Culturas del Nuevo Mundo" was held at the thirty-fifth International Congress of Americanists in Mexico City in August 1962, and the recently published Proceedings gives, with commendable promptitude, the revised texts of the papers delivered at it (*Smithsonian Miscellaneous Collections*, 146, No. 1: *Aboriginal Cultural Development in Latin America: An Interpretative Review*. Publication 4517. Pp. vi+148. Washington, D.C.: Smithsonian Institution, 1963). There were ten papers, each covering one of the regions into which the area was divided, and an eleventh with the title "An Interpretative Overview". Not all of them had much to say about the relationships between the areas, hence perhaps the alteration in the published version of the title, and for various reasons, some of them outside the control of authors and editors, some were more successful than others in summing up the present state of knowledge in their own areas, but all had useful things to say, and anyone who wants to keep abreast of developments in Latin American archaeology ought to read the book. Great credit is due to the editors, Drs. B. J. Meggers and C. Evans, for organizing the symposium and coordinating the work of scholars from nine countries, and we owe a further debt to Dr. Meggers for her "Overview", which includes a statement of her controversial views on the extent and importance of trans-Pacific relationships, with its suggestion of contacts between Japan and Ecuador at the surprisingly early date of the first half of the third millennium B.C.

Variations in the Composition of Milk

THE milk produced in the United Kingdom every day of the year is worth considerably more than £1 million, but the real worth of that milk lies in its nutritive value, and that depends on the amounts of fat, carbohydrate, protein, minerals and vitamins it contains. Fortunately, in recent years there has at last been an increasing awareness of the importance of the non-fatty solids of milk in nutrition and particularly of the protein content, with the result that schemes have been or are about to be introduced in England and Wales, Scotland and Northern Ireland whereby milk is, or will be, paid for not only according to its amount or its fat content but also according to its content of total solids. This should do much to maintain the nutritive value of the United Kingdom's milk supplies at a satisfactorily high level. If, however, this end is to be achieved, it is important that farmers with cows the milk of which does not attain a desirable standard should be given the help and advice they need to effect an improvement. Leaflet No. 131 prepared by the Ministry of Agriculture of Northern Ireland discusses briefly but clearly the main factors that are known to affect the composition of milk, such as feeding, the efficiency of milking and disease, to mention but three of them (*Variations in the Composition of Milk*. Pp. 6. Belfast: Ministry of Agriculture, 1963). Helpful advice is given on how deficiencies in butter fat content and in the content of solids-not-fat can be prevented. The pamphlet as a whole is well arranged and easy to read. It should be a valuable guide to those concerned with milk production.

Terminology for Exchange of Gas in the Lungs

ON September 6, a meeting was held at 20 Park Crescent, London, W.1, by permission of the Medical Research