

indicates that registration is maintained and is up to date.

Smithsonian Institution

THE annual report of the Smithsonian Institution for the year ended June 30, 1964, is, as usual, a large volume and includes several original papers as well as the formal routine reports of the various departments (Pp. xiii + 553 + 71 plates. Washington, D.C.: Government Printing Office, 1965. 4 dollars). During the period under review, the Institution made a determined effort to carry its international activities beyond traditional overseas field expeditions and research, which primarily benefit the Smithsonian, to co-operation with other Government agencies and private institutions in the development of exchange and international exhibits programmes, to the benefit of others. Among the original papers is one in which the computer is brought to bear on Stonehenge from the astronomical angle, and another on recent theories regarding the origin of mountains.

Gems in the Smithsonian Institution

Books and papers on gemstones are numerous, and the Smithsonian Institution has recently issued an excellent handbook to the principal stones in their collections (*Gems in the Smithsonian Institution*. By Paul E. Desautels. Pp. 74. Publication No. 4608. Washington, D.C.: Smithsonian Institution, 1965). An introductory chapter on the characteristics of gems is followed by notes on their shaping, substitutes, lore and a description of the chief gem species illustrated by accurate colour plates. The booklet concludes with a list of the notable gems in the collection at the Institution.

Digital Searching Service for Spectra

THE Scientific Documentation Centre, Ltd., has announced a new digital searching service for the identification of unknown substances. The Centre has a library of approximately 64,000 infra-red spectra and about 18,000 ultra-violet spectra. These are coded on eighty-column punched cards. The library can be searched by spectrum (with an accuracy of 0.1 μ), by chemical structure, by empirical formula (for carbon, oxygen, nitrogen and sulphur) or, for the less common elements, by elements. Any combination of these methods of search can also be used. The data available consist of spectra from sources in the literature and from eight published spectra collections. These are: American Petroleum Institute Research Project 44, Sadtler Catalogue of Spectra, Sadtler Catalogue of Commercial Spectra, National Research Council-National Bureau of Standards File, Documentation of Molecular Spectroscopy, Coblenz Society Spectra, Manufacturing Chemists Association Spectra and the Infra-red Data Committee of Japan. Computer tapes for infra-red spectra are available for IBM 7090, 7094 and 1401, Honeywell 400 and Burroughs 5,000 computers. It is hoped that tapes for IBM 7070 and 1460 will be available soon. Further details can be obtained from the Scientific Documentation Centre, Ltd., Halbeath House, Dunfermline, Scotland.

Gallenkamp and Company Ltd.

THE name Gallenkamp has for many years past been a household word in the commercial field of scientific laboratory furnishing, equipment, and apparatus; from relatively small beginnings, this firm has grown into an organization of world-wide repute, with headquarters in London, sales and distribution centres at Widnes, Lancashire, and Stockton, Co. Durham, and similar facilities throughout forty-three countries overseas available via appointed agents. Apart from the well-known comprehensive catalogue, occasional leaflets and brochures describing newly designed, specialized instruments and

apparatus, Gallenkamp also publish a bi-annual magazine *News and Review* (A. Gallenkamp and Co., Ltd., Technico House, Christopher Street, London, E.C.2. Pp. 24. No. 12, Autumn Issue; October 1965). *News and Review* first appeared as a spring number in February 1960, the motive being then, as simply stated, ". . . we aspired to produce a readable reference to our current affairs", the *raison d'être* of most industrial house-journals to-day. In that first number, the aims of the enterprise were succinctly defined: ". . . the desire to draw attention to apparatus and equipment recently introduced, and to invite enquiries and orders concerning them . . . to further the personal contact between instrument maker and instrument user . . . to pay tribute to those universities, research and industrial laboratories proffering information on the changing methods and new techniques which are constantly being developed . . . news to be offered concerning policy changes, future planning and expansion, price variations . . . news of our Agents (who) look after the interests of overseas customers . . . and other efforts for improving service both at Home and Abroad." These ambitions have been fully realized, so far as the reader is concerned, in the later issues of this publication, and the present number is no exception; it is equally no mere catalogue; much background information on the design, construction, and advantages of modern (often new) apparatus, well illustrated, is included. The introductory article on Magna Carta (1965 was the seven hundred and fiftieth anniversary of its signing) quotes two relevant excerpts; one is of interest to overseas customers: "All merchants are to be safe and secure in leaving and entering England, and in staying and travelling in England, both by land and by water, to buy and sell free all maletotes by the ancient and rightful customs." The other: "Let there be one measure of wine throughout our kingdom, and one measure of ale, and one measure of corn, namely the London quarter, and one width of cloth whether dyed, russet or halberjet, namely two ells within the selvages. Let it be the same with weights as with measures." This editorial note concludes with the comment: "Was this the first attempt to lay down a British Standard?" For the rest, *News and Review* announces, among many other items, a new orbital incubator, designed in consultation with Dr. S. J. Pirt, Queen Elizabeth College, London; a Mark 2 autoflash Pensky-Martens closed cup flash point apparatus; a new Gallenkamp colorimeter Mark 3, with transistorized stabilizer circuit; a remarkably compact flame analyser, primarily for sodium and potassium determinations (with accessory interference filter for calcium); the Lloyd gas analyser (Gallenkamp hold exclusive licence to manufacture and sell this apparatus); a tube furnace with Crusilite (silicon carbide) elements (manual or auto-control) for temperatures up to 1,400°C; a new international model B-20 high-speed, refrigerated centrifuge; and a well-designed Abbé refractometer with extended range up to R.I.1.740. Available also is the latest development in diamond polishing techniques, 'Microsol', an aerosol application of 'Microfin' diamond polishing compound for metallurgical work.

Fluorocarbon Resins

'TEFLON' is the registered trademark of E. I. du Pont de Nemours and Co. for a series of fluorocarbon resins, fibres and films manufactured by them, including polytetrafluoroethylene (PTFE) and fluorinated ethylene propylene (FEB) resins. 'Teflon' was discovered by Du Pont more than twenty-five years ago, and has been available in European markets since the early 1950s. Its unique combination of properties has in recent years benefited an increasing number of industries, particularly in connexion with designing plants demanding material for high-temperature service possessing excellent mechanical, electrical, and chemical properties. An outstanding feature of these 'Teflon' resins is their very high heat