

amounts of typhoid vaccine to Ceylon and cholera vaccine to Thailand during epidemics, through the World Health Organization; the demand for cholera vaccine was unusually high, while that for plague vaccine continued to be low. Assistance was also offered in an epidemic of encephalitis, and influenza vaccine was prepared at the Institute and released for distribution. Research activities included investigation of the anti-coagulant action of cobra venom in human and horse blood, and the preparation of new chromogenic substrates for detection and location of enzymes in venom after separation by starch electrophoresis. New thiourea derivatives of the type  $R.SO_2.NH.CS.NH.R'$  were synthesized to study their anti-tubercular properties, and tolylbutylamide was prepared by desulphurizing  $N'$ -*p*-methylbenzenesulphonyl- $N^3$ -*n*-butylthiourea with hydrogen peroxide. Various epidemiological features of salmonellosis are under study and also the pharmacological actions of cholera endotoxins with the view of determining the pathogenicity of the disease, while a gravimetric method has been developed for determining the halogen derivatives of 8-hydroxyquinoline commonly used in medical practice. Manufacture of cholera vaccine by the submerged culture method was attempted, and studies were continued on salivary glands of rabid animals, while trials of influenza vaccine in animals led to the development of a biological test for the standardization of the potency of the vaccine. A study of the iron-binding capacity of serum was started as well as further work on the nutritive evaluation of foodstuffs commonly consumed in the State of Bombay. A list of papers published during the year is included.

#### Bulletin of the Provisional International Computation Centre

THE *Bulletin of the Provisional International Computation Centre*, the eighth issue of which has just appeared, is essentially a serial publication listing computing laboratories, facilities, and conferences throughout the world (Rome: Palazzo degli Uffici, Zona dell'UER, 1960). A few articles are printed from time to time, and the latest issue contains an account of electronic computing facilities in Czechoslovakia. Many of the machines described in this article are unfamiliar in the Western world, and it is to be hoped that fuller details may appear in future issues of the *Bulletin*. It is interesting, also, to read the paper, by Dr. J. E. Holmstrom, on his multilingual terminology project. This seeks to rationalize the computer vocabulary and, most appropriately, takes the new draft British standard on the subject as its basic material.

#### Comparative Biochemistry and Physiology

THE first number of *Comparative Biochemistry and Physiology* (Vol. 1, No. 1 (January 1960)). Pp. iv+100. Subscription rate (including postage): (A) For institutions, 20 dollars per volume; (B) for individuals, 15 dollars per volume. New York and London: Pergamon Press, 1960) contains a foreword by Dr. Joseph Needham, in which he points out that in the development of physiology and biochemistry, the emphasis has been on the study of man and the mammals because of the close association of these sciences with medicine. This journal, in which special attention is to be given to the comparative aspects of animal physiology and biochemistry, will help to increase knowledge of all types of animals. It should appeal to zoologists and marine

biologists as well as to physiologists and biochemists. The first number contains, among others, communications on toads, fishes, worms, snails and insects. The editors are Dr. G. A. Kerkut, University of Southampton, and Prof. Bradley T. Scheer, University of Oregon, and there is an honorary editorial advisory board of distinguished scientists from many different countries.

#### Solvents and Dry Cleaning

UNLIKE laundries, which have been facing serious competition from washing machines and 'launderettes' for more than a decade, the dry cleaning business has been little changed by technical development. During the past twenty years the gross annual turnover of this growing industry has increased from £10,000,000 in 1939 to a probable £35,000,000 to-day. 43,000 people are employed in dry cleaning, two-thirds of them women, in about 2,000 separate companies. The industry handles nearly 400,000 garments a day, which represents about three garments a year for every man, woman and child in Britain. In a dry-cleaning establishment the cleaning liquids are organic solvents, either petroleum-derived white spirit or chlorinated hydrocarbons, such as perchlorethylene. While solvents alone will release and carry away much of the dirt held in the fibres by greasy matter, they make little or no impression on water-soluble sugar and food stains. The advent of the steam gun has speeded up what is called the 'spotting' process. The gun spurts a jet of steam on to the stains, softening them and knocking the food and other particles off the fibres of the garment. In the more modern charged system of cleaning, electronic controls are widely used and give a very high and consistent standard of cleaning. The subject is treated in more detail in *Catalyst* (Vol. 3, winter edition 1959-60).

#### Flora of the Belgian Congo

THE ninth volume of the monumental "Flore du Congo Belge et du Ruanda-Urundi" has now been published by the Institut National pour l'Etude Agronomique du Congo Belge. In its format it follows the same lines as its predecessors. It contains the families Buxaceae, Anacardiaceae, Aquifoliaceae, Celastraceae, Hippocrateaceae, Salvadoraceae, Icacinaceae, Sapindaceae, Melianthaceae, Balsaminaceae, Rhamnaceae, Vitaceae and Leeaceae, some of which are both large and taxonomically complicated. Among the more noteworthy treatments are that of Anacardiaceae by P. Van der Veken, in which the largest genera are *Trichoscypha* with 20 species and *Heeria* with 10; the troublesome Sapindaceae, including 26 species of *Allophylus*, by Hauman; the revision of *Impatiens* by Wilczek and Schulze in which 35 species are enumerated; and the Vitaceae by De Wit and Willems in which the genus *Cissus* runs to no less than 95 species in addition to others imperfectly known. The Hippocrateaceae (which are maintained as distinct from Celastraceae) have been subjected to an elaborate revision by Wilczek. Thirteen genera are recognized, from which it will be seen that the increase in generic segregation in this family, as carried out in recent years by A. C. Smith for America and N. Hallé for Africa, is supported. The largest genus is *Salacia* with 54 species. Students of the family Melianthaceae will have to take notice of a new classification of the formidable genus *Bersama* differing considerably from that of Verdcourt published in 1950.