

entiating sums, products, quotients, etc., of y , z , u , v in terms of dy , dz , du , dv . Leibniz held that his method was distinct from, and independent of, Newton's, and that it proceeded not by fluxions of lines but by the differences of numbers. His dx , dy , d^2x , etc., were infinitesimal differences which he called, with assurance, functions of x , and with which he freely worked. He even alluded to fractional powers of the operator d . The suddenness of its advent and the permanence of its use measure the value to mathematical thought of this notation of

Leibniz. The corresponding notation of Newton was o or else $\dot{x}o$ for dx , $\dot{y}o$ for dy and \dot{y}/\dot{x} for dy/dx . Commenting on this in 1712 or thereabout, Newton remarked: "The quantity o is supposed to be either finite or infinitely small and vanishes in finite computations. The former case forms the method of prime and ultimate ratios, the latter the method of moments; each the method of fluxions. The former method is geometrical and completely demonstrative, the latter is expedite but is set up by principles which are not yet demonstrated."

NEWS and VIEWS

Agriculture in West Africa: Prof. John Phillips

PROF. JOHN PHILLIPS, formerly professor of botany and in charge of soil conservation and pasture management research in the University of the Witwatersrand, Johannesburg, and more recently chief agricultural adviser to the Overseas Food Corporation, has by agreement relinquished this post owing to the reduction in scope of the groundnuts scheme in Tanganyika. Prof. Phillips has now accepted a post in the University College of the Gold Coast, Achimota, Accra, where he will build up a faculty of agriculture. The project, which is to be financed by University College and other funds, aims at the establishment of a faculty capable of giving university instruction in agriculture and related subjects, at training senior students in research methods and at making a contribution toward the solution of technical problems in the general field of agriculture. It is expected that the faculty will work in the closest co-operation with the government departments of agriculture and forestry and such other official or quasi-official organizations as are concerned with agriculture or agricultural research in one form or another in the Colony. The syllabuses will be arranged, as for other subjects, in collaboration with the University of London, and the standard of the B.Sc. and higher degrees in agriculture to be awarded by the College will be in accordance with the requirements of that University. Prof. Phillips will be responsible for the organization of the faculty of agriculture from its inception. The new faculty will be financed in part from funds derived from a levy on cocoa production in the Gold Coast.

Toxic Chemicals used in Agriculture

THE Working Party on Precautionary Measures against Toxic Chemicals used in Agriculture, which has recently issued its first report (H.M. Stationery Office. S.O. Code No. 24-190), has been asked by the Ministry of Agriculture and Fisheries, the Ministry of Health, the Ministry of Food and the Department of Health for Scotland to inquire whether any risks arise, from the point of view of the consumer of the final product, in the use of toxic chemicals in agriculture and in the storage of food, and to make recommendations for protective measures should these appear to be desirable. The membership of the Working Party is as follows: Prof. S. Zuckerman (chairman), Dr. J. M. Barnes, Dr. R. H. Barrett, Mr. A. B. Bartlett, Mr. P. N. R. Butcher, Mr. W. Morley Davies, Mr. N. R. C. Dockeray, Dr. R. A. E. Galley, Mr. R. F. Giles, Mr. C. T. Gimmingham, Mr. A. Holness, Dr. B. S. Lush, Mr. J. R. McCallum, Dr. R. J. Peters, Dr. H. V. Taylor, Mr. H. Cole Tinsley, with Mr. K. R. Allen and Mr. W. K. Melrose

as joint secretaries. These members represent, in addition to the departments concerned, the Medical Research Council, the Agricultural Research Council and the Agricultural Improvement Council. Organizations wishing to submit written evidence to the Working Party should write to Mr. W. K. Melrose, Ministry of Food, Portman Court, London, W.1.

Medical Mycology

THE increasing importance in the United States of human diseases caused by fungi impelled the New York Academy of Sciences to call a conference on the subject in 1947. Papers read at this gathering, under the chairmanship of Frederick Reiss, have now been published (*Ann. N.Y. Acad. Sci.*, 50, Art. 10, 1209; Sept. 6, 1950; no price). While the sixteen papers of the report contain the results of much original work, perhaps their greatest collective value lies in their provision of an adequate summary of recent knowledge in medical mycology. Mycoses such as ringworm on school children, and 'athlete's foot' in the Armed Forces, are fairly widespread in some parts of the United States. The conference also served to indicate the more urgent lines of future research. Mycological nomenclature demands simplification (though contributions in this direction have been made since 1947). The implications of possible immunological reactions are as yet but little explored, and relatively little is known about the mode of transmission of superficial mycoses. Though penicillin is valuable in the treatment of actinomycosis, and fatty acids can be used against certain other fungal diseases on some patients, there is still a pressing need for more investigation of the all-important question of control.

International Commission on Glass

THE annual meeting of the International Commission on Glass was held in the buildings of the Institut du Verre in Paris during June 5-9, under the presidency of Prof. W. E. S. Turner. Two additional organizations were admitted to the Commission, namely, the Nordiska Glastekniska Föreningen and the Japanese Ceramic Association. The former is a newly constituted international society for the study of glass science and technology, and embraces Sweden, Denmark, Finland and Norway; its representatives, elected to membership by the Commission, were S. Lindroth (president), F. Gjesmo (Norway) and H. Söderström (Finland). The elected representatives of the Japanese Ceramic Association were Prof. I. Sawai and T. Moriya, and with Dr. N. Nakamura as president. The number of members of the Commission is now thirty-six. Two days of the meeting were devoted to symposia, the first dealing