

Scientific Research at South African Universities" (pp. 212; 1953), this being the second volume, the first volume, covering research in progress during 1951, having been issued in 1952, and it is hoped to issue the register annually in future. It is a companion to the "Register of Current Research in the Humanities", issued annually since 1946 by the Council. Investigations are arranged by subjects according to the university department, with occasional cross-references, and the departments are listed alphabetically under their English names. Details of the scope of the investigations are given in the language in which it was received from the university department, but the omission to translate subjects or titles consistently into English somewhat militates against the usefulness of the register. Particulars of the qualifications and status of the investigator and of the director of the investigation are included.

#### East African Research Board : Report for 1953

THE eleventh annual report of the East African Industrial Research Board of the East African High Commission (pp. 11. Nairobi: Government Printer, 1954) covers the year ended December 31, 1953, and records good progress in the project to extract hecogenin from sisal waste on a pilot scale. Pure hecogenin acetate is now becoming available in the United Kingdom in research quantities for the synthesis of cortisone and related compounds, and a hydraulic press and extrusion cylinder has been designed for the expression of juice from sisal waste which should prove more efficient than the squeezing rolls hitherto used. Work on the refining of sisal wax indicates that fractional extraction with alcohols will yield more highly coloured fractions first, which might be used where colour is unimportant, and that later fractions might be used to obtain a paler product. The method of pelletizing fine kainite for heating in a rotary kiln has been worked out on a commercial scale, and the addition of alumina as bauxite has proved to be the most reactive for converting the silica, released from the kyanite molecule on calcining, to mullite. Detailed performance tests have been made on the use of wood producer gas in dual-fuel diesel engines, but experiments on the fermentation of sisal waste and papyrus roots and stalks to give combustible gases had to be suspended, although yields of 400–500 c.c. gas containing about 60 per cent of methane and 40 per cent carbon dioxide can be expected per gram of dry sisal waste with an output 0.9–1.5 times the volume of the digesting mass per day. Preliminary experiments indicate the possibility of producing pepsin of more consistent quality by processing the latex obtained from the juice of the pawpaw fruit. Trials with a Swiss mechanical briquetting machine indicated that the machine was unsuitable for handling coffee parchment, cotton seed husk and brine coffee husk without further treatment, but excellent briquettes were obtained from sawdust and satisfactory briquettes from brine coffee husk which had been passed through a disintegrator. An investigation into the whole process of coffee curing was commenced.

#### National Foundation for Scientific Research, Brussels : Report for 1952–53

THE twenty-sixth annual report of the National Foundation for Scientific Research, Brussels, covering the year 1952–53 (pp. 231; 1954), records the completion under the Inter-university Microfilm Com-

mission, created in October 1949, of an inventory of microfilms in the archives of the French Departments of Lille and Dijon, copies of which are deposited in each of the Belgian universities. The Council made a third grant of 1,485,000 francs to the Special Commission for Clinical Research, which has been distributed by the Commission among the four university centres engaged in work on cortisone and adrenocorticotrophic hormone, and brief reports from each centre on this work, with a list of publications, are included. A sum of two million francs was put at the disposal of the Royal Observatory of Belgium for the establishment of a radioastronomy laboratory. Brief accounts are included of the work on calculating machines at the Universities of Brussels, Ghent, Liège and Louvain, for which a further credit of 50,000 francs has been voted, while 200,000 francs were voted for the reconstruction of the Marine Biology Station at Wimereux, destroyed during the War. Ninety-three grants, totalling 247,289 francs, were made to assist Belgian scientists and research workers to attend overseas conferences and meetings. Extraordinary credits granted during the year, totalling 6,110,000 francs, included two million francs to the Inter-university Microfilm Commission, 25,000 francs to the International Institute of Meteorology, Stockholm, 50,000 francs to the Zoological Station, Naples, and 250,000 to Prof. R. de Langhe for his archaeological expedition to explore systematically the grottoes of the borders of the Dead Sea and the desert of Judea in Palestine. Lists of recipients of research grants for 1953–54 and of publications during 1952–53 by recipients of grants are included. The report includes an account of the distribution of radioisotopes in Belgium and the researches carried on by this means in the university laboratories and at the Institute of Cancer, as well as in the Polytechnic Faculty of Mons, the State Agronomie Institute at Gerbloux and in industry and horticulture.

#### Central American Scientific Institutions and Scientists

A FIRST list for Central America in the series "Scientific Institutions and Scientists in Latin America", covering Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama (pp. 202; 1954), has been issued by the United Nations Educational, Scientific and Cultural Organization, at Montevideo. The list was prepared by the Organization's Field Science Co-operation Office for Latin America, with the collaboration of Ibero-American organizations, and is expected to be completed in several volumes during the next few months. Under each country are given lists, in Spanish, first of institutions and second of scientific workers; these include the address of the institution and some details of its functions, interests and officials, and, for the scientists, of their special interests, career and publications.

#### The Scientist: A New Pakistani Journal

IN NOS. 2 and 3 of the first volume of a new journal, *The Scientist*, which has recently been started in Pakistan, there are articles upon the following topics: the agricultural industries of Pakistan; the problem of Pakistan railways; symmetrical incomplete block designs; a field key to the identification of fishes; the biology of a mango defoliator; and the theory of liquids. *The Scientist*