

Commissioner for Nuclear Energy. The institutes attached to the Academy are mainly responsible for oriented fundamental research, while in the universities emphasis is laid on free basic research. Applied research and technological development are conducted mainly in the industrial research institutes, the research staff of which has increased seven-fold in the past decade. The Polish Academy of Sciences is responsible for planning and co-ordinating fundamental research, and especially for long-term plans for developing science. The general co-ordination of applied research and technical development is the responsibility of the Committee for Science and Technology established in 1963, which is also responsible for the finance of research and for the development of scientific manpower. Scientific co-operation with foreign countries is regarded as an important element in the contemporary development of science, and the Academy's institutes have established numerous contacts with scientific institutions abroad. In 1962, 94 Polish scientific workers went to Britain on behalf of the Academy and 74 British scientific workers went to Poland at the Academy's invitation.

The American Academy of Arts and Sciences

THE *Records of the American Academy of Arts and Sciences, 1962-63*, comprises the usual lists of officers and committees, lists of members by classes and alphabetical, including new members elected on May 8, 1963, the statutes, records of meetings 1962-63, and the annual reports of committees (Pp. 152. Boston, Mass.: American Academy of Arts and Sciences, 1963). The last-mentioned section includes one from the Committee on Pugwash Conferences on science and world affairs. The sub-committee for international conferences has been reconstituted as a new full Committee on Pugwash Conferences on Science and World Affairs with a Sub-Committee on Informal International Conversations among Scientists.

The National Museums of Southern Rhodesia

THE National Museums of Southern Rhodesia include three museums, in Bulawayo, Salisbury and Umtali. The year 1962 witnessed the completion of the building programme of the Museums of Southern Rhodesia inaugurated in 1960 (Report of the Trustees and Directors of the National Museums of Southern Rhodesia for the year ended December 31, 1962. Pp. 22. Salisbury and Bulawayo: National Museums of Southern Rhodesia, 1963). At the present time, there are now museums in all three centres. The full programme has cost £450,000 and the raising of this amount in a time of financial stringency has been no mean achievement. The generous assistance of the big Mining Corporations, the State lotteries and Municipal contributions made this possible. Pre-occupation with the building projects has of necessity meant the curtailment of the usual field-work and research activities. Many of the recommendations of the three Fulbright Scholars who were at the Museum in 1961 have come to fruition. These include the re-stocking of the National Parks where wild-life no longer existed, the utilization of wild-life as a source of protein, and the establishment of a postgraduate course on wild-life conservation at the University College.

Simplified Gas Chromatography

THE 'Junior' gas chromatograph produced by Messrs. Gallenkamp is a robust instrument designed specifically for teaching purposes but with a performance adequate for any routine industrial applications. The new apparatus is expected to satisfy all the requirements of universities and technical colleges in which the theory of gas chromatography is combined with practical work. Both gases and liquids with boiling points up to 80° C can be analysed. The sample is introduced by syringe on to an unheated, general purpose, coiled silicone column. The thermistor katharometer is powered by a long-life battery and is

very stable and extremely sensitive. Peaks may be plotted either by using a galvanometer or by the recommended 6-in. strip chart recorder. The detection limit of the katharometer is about 10^{-7} g and chromatograms can be obtained from about 10 μ l. liquid or 0.5 ml. gas.

Radioactivity in Drinking Water in the United Kingdom

THE report entitled *Radioactivity in Drinking Water in the United Kingdom, 1962 Results* gives measurements made under the Government's programme for monitoring radioactive fall-out in drinking water (Pp. 24. London: H.M.S.O., 1963. 1s. 9d. net). Like the previous four reports in the series, it contains the radiostromium and radiocæsium results obtained, and, in addition, details are included of investigations into the levels of other fission products in drinking water. Because of the nuclear weapon tests during 1961, the amount of strontium-90 in drinking water rose above the 1961 level to about the 1959 level (which reflected the results of tests made during 1958). The concentrations of strontium-90 and of cæsium-137 were measured regularly in twenty-four public drinking waters. Practically no concentration was found in deep well waters at Brighton and Wolverhampton and low concentrations in the Folkestone supply. In the river-derived waters the average level of strontium-90 was 0.36 pc./l., but in the water derived from the chalk stream of the River Itchen at Southampton the concentration was again much lower, 0.065 pc./l. The average daily ingestion of strontium-90 and cæsium-137 is estimated at 0.41 pc. per person and 0.16 pc. per person, respectively. These amounts represent less than 5 per cent and 1 per cent, respectively, of the average daily intake of these radionuclides in the diet. It has been confirmed that strontium-90 is the most important of the fission products in drinking water to be determined and that when the levels of iodine-131 rose in milk during 1961 and 1962, following the commencement of nuclear tests, the rise in drinking water was negligible.

Assay of Strontium-90 in Human Bone in the United Kingdom

IN its *Monitoring Report Series*, the Medical Research Council publishes, at six-monthly intervals, the results of analyses of strontium-90 in human bone samples, mainly from subjects who have died during the period under review. The analyses are carried out by the Atomic Energy Research Establishment and by research workers in Glasgow and Cambridge. No. 6 in the Series surveys results for the first half of 1962, and No. 7 for the second half (No. 6: *Assay of Strontium-90 in Human Bone in the United Kingdom: Results for 1962*. Part 1, with some Further Results for 1961. Pp. iii+15. No. 7: *Results for 1962*. Part 2. Pp. ii+17. London: H.M.S.O., 1963. 1s. 6d. net each part). In No. 6 there are some results for 1961 representing the first instalment of a new project designed, in collaboration with the West London Coroner's office, to give information about the population of London and its environs. During 1962 there was no survey of bone samples obtained through the Coroner, but analyses have been resumed during 1963 and will be reported next year. The average amounts of strontium-90 in bone were approximately the same for all age groups during the first half of 1962 as previously, but an increase in the level was observed in samples from new-born (including still-born) infants and children aged 0-4 years in both the Atomic Energy Research Establishment and the Glasgow records for the period July-December 1962. The rise, which has been delayed longer than expected, is a result of the nuclear weapon tests carried out in the autumn of 1961. For the infants the average amount of strontium-90 was 1.37 pc./g calcium, that is, 1.37 strontium units and 2.5 for children in the 0-4 age group, compared with 0.78 and 1.34, respectively, for the corresponding period in 1961. The highest value recorded during the year was 7.5 strontium units, but this value is suspect, and ex-