

R. Sinar; and "Determination of the Almond Content of Marzipan", by H. E. Monk. Minimum standards of composition are quoted for sausages, luncheon meat, flavoured milk, marzipan and candied peel. These represent the official views of the Association in relation to selected foods for which no legal standards exist. Under the heading "Items of Interest", D. R. A. Davies discusses some of the newer types of 'bacteria-free' milk such as 'Uperised' (Swiss) and 'Palarized' (Danish) which do not possess the 'boiled' taste and brownish colour of conventionally produced sterilized milk, and keep for at least a month. In their preparation, super-heated steam is incorporated into the preheated milk, but automatic control should ensure that the composition remains unchanged. Two samples of 'Palarized' milk examined by Davies gave freezing-point depressions of 0.536° and 0.534° C, and he reported on them as "genuine despite the possible addition of water as steam". The *Journal* should become a very useful medium for the exchange of ideas, technical information, compositional data and analytical methods in the fields of food, drugs and water. Workers who are not directly involved in public analyst's work are cordially invited to send in contributions for future issues.

#### Australian Journal of Soil Research

RESEARCH workers in Australia in the numerous branches of soil science have earned an international reputation for work of the highest quality, and it is gratifying that the Commonwealth Scientific and Industrial Research Organization, in collaboration with the Australian Academy of Science, has arranged to produce a new periodical *Australian Journal of Soil Research* (1, No. 1 (February, 1963). Pp. 1-128. Melbourne: Commonwealth Scientific and Industrial Research Organization, 1963. 10s. per issue). It is intended to provide a means of communicating advances in the examination of soils and soil-plant relationships, and will be published only as the accumulation of suitable contributions dictates. The first issue contains 12 papers dealing with such topics as flow properties, water movement, aluminium compounds, polyphenolic constituents in leaves, weathering of dolerite and examinations of the Riverine Plain, New South Wales, and of æolian materials in Victoria.

#### Radiobiological Dosimetry

*Radiobiological Dosimetry* is one of a series of five reports issued by the International Commission on Radiological Units and Measurements which deal with various aspects of radiation measurements, and which have replaced the single and complete statement of the recommendations of the International Commission on Radiological Units and Measurements previously issued every three years (United States Department of Commerce: National Bureau of Standards. Handbook No. 88. Pp. vii + 26. Washington, D.C.: Government Printing Office, 1963. 25 cents). The subject-matter has grown so much and, in some cases, has become so specialized that a single volume is no longer practicable. The report deals with radiobiological dosimetry and considers methods of improving the accuracy and intercomparability of dose measurements in radiobiology. Many conflicting results reported in the radiobiological literature no doubt stem from faulty dosimetry; in some papers essential data concerning the radiation source were either omitted altogether or described inadequately. There should be no more excuse for this if radiobiologists read the report on *Radiobiological Dosimetry*, since it sets out in clear terms the basic principles of dosimetry in radiobiological experiments, lists different classes of irradiation, and ends up with examples of the form in which exposure arrangements should be reported for publication. An appendix to the report contains a very useful description of various radiation quantities and units, including those, like kerma, which have been introduced only recently.

#### Antibiotic Dips for Preserving Fish Fillets

CHLORTETRACYCLINE (CTC) and oxytetracycline (OTC) have been used for some years in Canada for prolonging the storage-life of fish. A few instances have been reported, however, where dipping in antibiotic solutions has been found to be ineffective in commercial practice. The difficulties encountered are discussed in Bulletin No. 138 of the Fisheries Research Board of Canada, entitled "*Problems in the Use of Antibiotic Dips for the Preservation of Fresh Atlantic Groundfish Fillets*", by C. H. Castell and J. Dale (Pp. vi + 70. Ottawa: Queen's Printer, 1963. 1.30 dollars). The Bulletin discusses the use of CTC dips and stresses that antibiotics cannot be expected to be effective if applied to fish that are already spoiling or to apparently good fillets with a relatively high pH. Most of the bacteria found on fish are sensitive to CTC, and increasing the concentration of the antibiotic up to (but not necessarily beyond) 25-30 p.p.m. causes a corresponding extension of the storage life. Different fish tissues absorb the CTC from solution at different rates and its activity is gradually lost during prolonged storage. Various substances cause a decrease in the effectiveness of the CTC, namely, strong oxidizing agents, strong alkalis and certain metallic salts, so it is recommended that such compounds should not be present in dipping solutions. It is probable that the greatest single cause for decreased effectiveness of CTC in preserving fillets is alkalinity derived from dissolved solids in water, alkaline detergents and the developed alkalinity in the muscle itself. Fillets dipped commercially for 10 sec in solutions containing 10 p.p.m. of CTC were found to contain 0.1-0.6 p.p.m. (cf. legal maximum 5 p.p.m.).

#### Palæontology in the U.S.S.R.

THREE further volumes of *Principles of Palæontology (Osnovy Paleontologii)* have been published (*Nature*, 197, 854; 1963): (1) Mollusca: Cephalopoda I, Nautiloidea, Endoceratoidea, Actinoceratoidea, Bactriodea; Ammonoidea (Agoniatitidea, Goniatitidea, Clymeniidea), edited by V. E. Ruzhnev, written by seven authors (Pp. 438 + 82 plates, 417 text-figs. 1962. Price 4 r. 35 k.). (2) Porifera, Archaeocyathidea, Coelenterata, Vermes, edited by B. S. Sokolov, written by 16 authors (Pp. 485 + 57 plates, 421 text-figs. 1962. Price 5 r. 7 k.). (3) Arthropoda; Trachaeon, Chelicerata, edited by B. B. Rodendorf, written by ten authors (Pp. 560 + 22 plates, 1,535 text-figs. Price 4 r. 92 k.). *Principles of Palæontology* is produced by the Palæontological Institute, Moscow Academy of Sciences (Lenin Prospect, 33, Moscow B-71) in collaboration with a number of other institutes.

#### Simon Memorial Prize

THE 1963 Simon Memorial Prize has been awarded by the committee of the Low Temperature Group of the Institute of Physics and the Physical Society to Prof. H. E. Hall, professor of physics in the University of Manchester, and Prof. W. F. Vinen, professor of physics in the University of Birmingham, for their work on liquid helium II. The Prize of £250 will be presented by the president, Sir Alan Wilson, at the Royal Institution, London, on October 28, when the prizewinners will give short addresses on their work. Visitors will be welcome; tickets are not required.

#### The Ramsay Memorial Fellowship

THE Ramsay Memorial Fellowships Trustees have made the following awards of new fellowships in chemistry for the year 1963-64. A General (British) fellowship to Mr. C. D. Akon at University College, London; a Canadian fellowship to Dr. W. F. Reynolds at University College, London; a Japanese fellowship to Dr. Shiori Ishino at the University of Reading; a Netherlands fellowship to Mr. F. B. van Duijneveldt at the University of Sheffield; a New Zealand fellowship to Miss Margaret Kershaw at the University of Reading; Spanish fellowships to Dr.