

tains, of Kangaroo Island (South Australia) and of the Andes indicated the connexions between systematics and ecology, as did also the germination of hundred-year old seeds, a large series of tropical megaphyllous plants and a fine display of dispersal mechanisms in grasses. Diverse evolutionary aspects included a most instructive series of variations of the central theme of a legume, leaf-shape in species and hybrids, variation in species of *Dianthus* and *Tulipa*, the inflorescence of *Carex*, and parallelism in Fungi. The morphological basis of much taxonomy was illustrated with reference to ferns, bladderworts, parasitic flowering plants, *Monadenium*, heteranthly in orchids, the procedure in formal taxonomy, and bad collecting. The importance of anatomical and biochemical aspects of plant taxonomy were demonstrated by reference to *Strophanthus*, wood structure, and the vegetative structure of flowering plants. The taxonomic basis of economic botany was shown with regard to wild cereals of Iraq, fence or barrier plants in warm climates, and the use of seaweeds in industry. Large series of living specimens of plants of special interest attracted much attention. Paintings and drawings showed the importance of the work of the botanical artist. Series of recently published books on several subjects were on view. An unusual exhibit was that of samples of newspapers from all parts of the world that had been used in forwarding plant specimens to Kew.

Classification of the Coli-Aerogenes Bacteria

IN 1949 a joint Sub-Committee of the Society for General Microbiology and the Society for Applied Bacteriology issued a report on the term 'coliform' (see *Nature*, 163, 394; 1949), hitherto used by medical, veterinary, agricultural and water bacteriologists to describe organisms which are of interest to them for different reasons and have thus been classified in different ways. The essence of the report was that the word should not be used as a noun, that it describes organisms resembling *Bacterium coli* morphologically and tinctorially but not necessarily in cultural and biochemical behaviour, and that it should not be used for defining any particular group. Later, the Society for Applied Bacteriology, feeling that it was of great importance that workers should be able to recognize readily organisms described by those working in other fields, set up a sub-committee to examine the methods of classification of non-sporing, Gram-negative rods producing acid and gas from lactose, in the hope that uniformity might be established. Its recommendation is that these organisms, comprising the 'coli-aerogenes' bacteria, should be classified into six basic groups according to their behaviour in the indole, methyl-red, Voges-Proskauer and citrate-utilization tests, and that further subdivision should be based on the temperature at which acid and gas are produced from lactose, and the ability to liquefy gelatin and pectin. The nine species thus recognized are *Bact. coli* types I and II, Intermediate types I and II, *Bact. aerogenes* types I and II, *Bact. coli* type I 44° C. negative, *Bact. cloacae* and *Bact. carotovorum*. The eight so-called irregular types appearing in earlier classifications have been eliminated. The report (obtainable from the General Secretary, Society of General Microbiology, 35 Villiers Road, Southall, Middlesex), which contains details of the preparation of the culture media and methods of performing the tests, will be welcomed by workers in the relevant fields; but it is recognized that additional tests may

be necessary in certain forms of research and that more information is required on some aspects of the problem.

Liquid Metals

THE United States Atomic Energy Commission and the Department of the Navy have jointly issued a "Liquid-Metals Handbook" (pp. 188; Washington, D.C.: Govt. Printing Office, 1950; 1.25 dollars) dealing with the uses and properties of the lower melting-point, liquid metals. Although these may be used as coolants in nuclear chain reactors producing power, they already have, or may in the future have, spheres of utility in very many other directions. The information here collected is therefore of direct interest to the chemist, the engineer, the metallurgist and the physicist. In the first chapter the industrial utilization of liquid metals is considered at length, particularly in connexion with heat-transfer, and uses are mentioned which range from the already established practice of cooling valves in aircraft engines with liquid sodium, to their employment for reheating steam in turbine plant, the pasteurization of milk or in the preheating of the air for blast furnaces. Chapter 2 is concerned with the physical properties of liquid metals with melting points up to that of aluminium, of two sodium-potassium alloys, and of the ternary lead-tin-bismuth eutectic. A large amount of data of value in many branches of science is included. The chemical properties and laboratory techniques, the resistance of materials to attack by liquid metals, heat-transfer and the large-scale handling of such liquids are then discussed. Each section is concluded by a most valuable bibliography. This is a unique and very stimulating publication.

Physical Society: Summer Meeting in Belfast

THE Summer Meeting of the Physical Society will be held in the Department of Physics, Queen's University, Belfast, Northern Ireland, during July 5-7, 1951, and is being organized under the auspices of Prof. K. G. Emeléus. It will be divided into three sessions, devoted to (1) textile physics, (2) gas discharges and spectra, and (3) cosmic rays. On July 5 there will be a visit to the Linen Industry Research Association at Lambeg, and on July 7 it is hoped to include a trip to the Giants' Causeway. Application forms, which can be obtained from the offices of the Physical Society, should be returned to Miss J. Thompson, Physics Department, Queen's University, Belfast, Northern Ireland, not later than June 6. Applicants will require passports or travel permits.

Joint Engineering Conference in London

ON the occasion this year of the Festival of Britain, a Joint Engineering Conference will be held in London at the Institutions of Civil, Mechanical and Electrical Engineers, during June 4-15, the main purpose of which will be to record the contributions to the advancement of civilization made by engineers and scientific workers in Great Britain during the past hundred years. In addition, it is hoped that distinguished foreign engineers will participate and outline how the contributions from their own countries fit into the general pattern. The interdependence of all branches of engineering and the ever-growing co-operation of the members of the three major engineering Institutions in Great Britain will be emphasized, and the Conference will be open to all members of the three Institutions and to members