Britain. He points out that the basic unit in British local administration is the parish, the zone of influence of a single place of worship in the Middle Ages. Rural districts, urban districts and boroughs have been built up by the aggregation of parishes, and national parliamentary representation is still organized on that fundamental unit. As a consequence, in spite of many reforms, there are still more than two thousand separate authorities responsible for local community organization. Early legislation favoured supply by a local council. This favoured the setting up of a large number of small generating stations. The work of Ferranti showed the possibilities of alternating current transmission; but the small areas resulting from the early legislation, the wide distribution of coal and its abundant supply did not give the incentive to A.C. supply that there was in other countries. In 1925, a Government committee was set up under the chairmanship of Lord Weir. The committee came to the conclusion that there was a wide difference between generation and distribution and that retail distribution was a local matter which might suitably be decentralized. The findings of this committee were the basis of the Electricity Act of 1926. A Central Electricity Board was formed to construct and operate a large number of high-tension transmission lines called a Grid. The board divided the network into nine schemes covering the whole of Great Britain except northern Scotland. Not only did the construction of the Grid have a beneficial effect upon national employment at a time of acute depression, but also the experience in high-voltage construction which it entailed has placed British manufacturers once more in the forefront of technical progress.

University's Care of Body and Mind

RENSSELAER POLYTECHNIC INSTITUTE, founded in 1824 at Troy, New York, claims to be the oldest institution of higher learning in any English-speaking country that has devoted itself continuously to instruction and research in science and engineering. In a recent bulletin, it directs attention to the very thorough provision it has made not merely for the technical efficiency of its graduates but also for ensuring the physical fitness and bodily vigour of its undergraduates and for developing in them a broad and balanced mental outlook. Applicants for admission are examined physically; and if corrective exercises seem advisable they are prescribed by the Department of Physical Education. Every undergraduate is required to take during the first year a comprehensive course in physical education, including personal hygiene, recreational games, gymnastics, swimming and athletics. Medical advice and hospital care in case of need have been made available for all students. A member of the staff of a neighbouring hospital is in attendance daily for an hour and a half in the gymnasium for consultation. In the first year every undergraduate has to qualify in English, drawing, history, graphics, mathematics, physics and chemistry, and has to prepare a thesis during the summer vacation. The English course covers the material and methods of composition as illustrated by the successive steps in the preparation of a comprehensive article on a subject of immediate interest, the preparation and delivery of incidental speeches and a survey of contemporary ideas and current usages. Except in the case of students of architecture, all undergraduates also take a brief course introductory to professional study, designed to acquaint them with the materials and methods of study in different fields, to introduce them to the members of the faculty whom they will eventually meet in their work, and to indicate the nature of the openings which will be available to them upon graduation.

Natural History and Science in South Australia

THE presidential address before the Royal Society of South Australia, delivered by Dr. C. T. Madigan last year, is devoted to the history of the hundred years of science in South Australia as appropriate to this centenary year (*Trans. Proc. Roy. Soc. S. Australia*, **60**, Dec. 1936). He points out that the Royal Society is really older than the State itself, for though it has an unbroken existence only since 1853, its origin can be traced back to the South Australian Literary and Scientific Association initiated among the founders of the Colony in London in 1834. The active functioning of the Royal Society dates from the inspiring presidency of Prof. Ralph Tate; in the twenty-five years of his association with the Society between 1876 and 1901, it became the established medium for publication of original scientific contributions. The nature of this published work is summarized by Prof. Harvey Johnston for general zoology, by Sir Douglas Mawson on geology, by Prof. J. G. Wood and Mr. J. M. Black on botany, by Dr. James Davidson on entomology, and Dr. T. D. Campbell on anthropology. Naturally these descriptive and natural history subjects, so important in a young colony, bulk most largely in this first century, and Prof. R. W. Chapman's report, whilst reminding us that many of Sir William Bragg's first publications in physics appeared in the *Transactions* of the Society, makes it most abundantly clear why this state of affairs prevailed. Before the Society or its predecessor, the Adelaide Philosophical Society, could spend its energies upon the publication of natural history, it had to pass through a phase in which it was the public forum for the advocacy of any and every cause associated with general education. In those days, even so late as 1868, a speaker urging the establishment of free schools, could quote a South Australian parent in this strain, "I have ten children who can't read or write. I can't read or write myself, why should they?"

Zoology of Iceland

THE study of the zoology of Iceland has lagged behind the investigation of its geology and geography, but a new work in five volumes on the "Zoology of Iceland" should form a worthy contribution to the knowledge of a fauna of unusual interest from several points of view (Copenhagen and Reykjavik: Levin and Nunksgaard). The work will be carried out by specialists, and each part will appear as it is

completed, so that publication will be discontinuous and will probably cover a period of about ten years. To subscribers parts will be sold at Kr. 1·00 per sheet, and the whole work is estimated to contain about 100–150 sheets. The two parts first to be published have been received—R. Spärck on "The Benthonic Animal Communities of the Coastal Waters", and E. Wesenberg-Lund on "Gephyrea". Both authors find that the fauna with which they deal consists mainly of an arctic and an arctic-boreal admixture, in which the latter predominates, and with which rare forms, such as the gephyrean *Sipunculus norvegicus*, represent a southern fauna which may have survived from a warmer period. In summing up the conclusions of his investigation, Spärck points out that the absence of a boreal shallow-water fauna seems to indicate that in post-glacial time no land connexion can have existed between Iceland, the Faroes and the continent of Europe. But the fauna itself is by no means a sparse one, since in quantity it compares favourably with the fauna of the North Sea, which is generally considered to be very productive and is richer than the corresponding faunas of East Greenland and northern Russia. This relative wealth of bottom fauna may be a dominant factor in determining the presence of a fish population, which in turn has determined the importance of the fisheries in Iceland waters.

Plants and the Dwelling-House

MOST people readily admit the value of cut blooms and growing plants for decoration of the home, but not all plants can make good growth in the somewhat trying conditions of the average dwelling-house. A recent publication of the Field Museum of Natural History, Chicago, is entitled "House Plants" (No. 20, 1937, 35 cents). It has been written by Mr. R. van Tress, and maintains the well-known practical outlook of this Museum's publications. Such well-tried subjects as the *Aspidistra* (here called, most appropriately, the 'cast iron plant'), the small conifer *Araucaria excelsa*, various geraniums, and the india-rubber plant (*Ficus elastica*) are known to all. The leaflet also shows that hybrid species of *Hippeastrum*, *Hydrangea*, *Poinsettia*, *Begonia*, *Azalea*, *Primula sinensis*, heliotrope, the African violet (*Saintpaulia ionantha*), the shrimp plant (*Beloperone guttata*) and many others, including the common English ivy, are suitable for domestic conditions. They give greater and more varied beauty than the better-known species. Many illustrations enrich the leaflet, and there would seem to be no reason why the plants mentioned therein should not succeed in Great Britain as well as in the United States.

Supraconductivity

THE issue of the *Journal of the Washington Academy of Sciences* of June 15 contains the address of the retiring president of the Academy, Dr. F. B. Silsbee, of the Bureau of Standards, delivered in January. It extends to twenty pages, and deals with the additions which have been made during the last two or three years to our knowledge of the electrical properties of metals at very low temperatures. References are given to previous summaries up to 1935 and to nearly thirty memoirs on the subject which have been published since, most of them in 1936. The original description of a supraconductor as one in which the resistivity is zero is beginning to be replaced by the newer one that the magnetic induction is zero and that any current which flows in it is confined to an excessively thin layer at its surface. The abruptness of the change of conductivity as the temperature is lowered has been investigated, and in the case of tantalum has been expressed by means of the error function. The paradox of how a magnetic field which cannot penetrate a supraconductor can still affect its conductivity is still unsolved, and the reasons for the decrease of heat conductivity and increase of specific heat in the supraconducting state have still to be determined.

Philadelphia Academy of Natural Sciences

THIS year the Academy celebrates its one hundred and twenty-fifth anniversary, and the opportunity has been taken of relating to friends and members in a special report the work accomplished during the past year. The title chosen for the report is "Discovery" (which unfortunately duplicates the name of a well-known British scientific periodical). The year was marked by the announcement of an ambitious programme which included the strengthening of the scientific work of the Academy, the inauguration of an Education Department which would correlate the work of the Academy with the public and private school system in Philadelphia, the erection of modern educational exhibits, and the re-establishment of the Department of Geology and Palæontology. For the support of the educational programme over a five-year demonstration period a sum of 374,915 dollars was required, and the response to the end of 1936 reached the fine total of 241,135 dollars. Already important steps have been taken towards the accomplishment of the programme, and we note with satisfaction that the first step was to restore the reductions which had been made during the period of stress in the salaries of the staff. We join with the Academy in lamenting the death on January 22 of its president, Mr. Effingham B. Morris, who since his election to the presidency in 1928 has been the leader and stimulus in all phases of the Academy's work for science and for the community.

Peace Movements

THE "Peace Year Book, 1937" (London: National Peace Council. 2*s*.) contains a good deal of useful information on international affairs and should prove a reliable book of reference on the peace movement throughout the world. It includes directories of peace organizations in Great Britain, of national organizations, Anglo-foreign societies and local peace organizations as well as peace and kindred organizations abroad. The appendixes include the text of the Covenant of the League of Nations, a bibliography of books and pamphlets, notes on the reform of the League, the Mandates System, an analysis of the