

those for the previous year being in brackets: building research, £521,065 (£492,701); forest products research, £128,256 (£116,161); geological survey and museums, £282,370 (£268,260); pest infestation, £83,341 (£72,284); radio research, £135,657 (£104,119); and water pollution research, £90,020 (£76,482). Receipts of £73,674 (£53,650 in 1955-56) brought the net expenditure on fire research to £38,745, compared with £31,781, and the increase in gross expenditure on hydraulics research from £100,797 to £123,133 is largely cancelled by an increase in receipts from £16,751 to £31,166. Headquarters, administration, etc., expenditure was £307,436 (£272,551) and headquarters overseas liaison £77,791 (£76,235), while the contributions to European nuclear research increased from £519,996 to £930,000.

Investment in the Power Industries

A WHITE Paper on capital investment in the coal, gas and electricity industries (pp. 8. Cmnd. 415. London: H.M. Stationery Office, 1958. 6d. net), which gives the latest information about investment in 1957 and the approved expenditure for 1958-59, notes that the estimated expenditure on electricity (England and Wales) of £235 million in 1957-58 (compared with £233 million and £239 million approved for 1958-59) includes £105 million on conventional power stations and £21 million on nuclear stations; £31 million on main transmission and £83 million on distribution; for 1958-59 the corresponding figures are £90 million; £37 million; £31 million; and £81 million, respectively. The expenditure on nuclear power stations represents continuing work at Bradwell and Berkeley and the commencement of work on a third station at Hinkley Point. Work on new power stations in 1958-59 will be spread over about twenty-six months instead of twenty-four, and the completion of the nuclear power programme described in last year's White Paper will be postponed a year. The expenditure of £19.24 million by the South of Scotland Electricity Board in 1957 and of £26.5 million approved for 1958 includes some £13 million on the nuclear station at Hunterston, accounting for about half the £17 million on generation; and of the North of Scotland Hydro-Electric Board's expenditure of £16.88 million in 1957 and £17.05 million approved for 1958, £13.14 million and £12.4 million, respectively, are on generation, including provision for starting the Strathfarrar and Kilmarnoch scheme and the Loch Awe scheme which are now under consideration. Of the Gas Council and Area Board's estimated expenditure of £56.9 million in 1957-58 and £53.5 million proposed for 1958-59, £0.7 million and £1.1 million, respectively, is for research. Of the National Coal Board's approved expenditure of £100 million for 1958, £83 million has been allocated to colliery developments.

Industrial Research and Development Costs

A COMPREHENSIVE survey of industrial research and development costs in American industry in 1957—the third in a series begun in 1953—sponsored by the National Science Foundation, is to be conducted by the U.S. Bureau of the Census. The collection of the data by the Bureau of the Census will permit the Foundation to compare research and development statistics with other economic data of industrial firms also gathered by the Census. The survey will be conducted on a sample basis, but none

of the published information will reveal the identities of individual reporting firms. The Census requests information on costs of research and development conducted by the reporting company, and that financed by the company but conducted by such institutions as commercial laboratories and universities.

Egyptian Journal of Chemistry

THE Chemical Society of Egypt has commenced publication of the *Egyptian Journal of Chemistry*, issued in collaboration with the National Research Centre in Cairo. The editorial board includes professors in the Egyptian universities, the chairman being Prof. A. Riad Tourky. The first number (1, No. 1. Pp. vi+164. Dokki-Cairo, 1958. P.T. 70; 2 dollars) contains twelve papers in pure chemistry and four in applied chemistry, all of high standard. The papers are in English with abstracts in Arabic. We welcome this new journal, which seems likely to find a place among the leading publications in its field.

Commonwealth Telecommunications Board

THE ninth General Report of the Commonwealth Telecommunications Board covers the year ended December 31, 1956 (pp. 56. London: Commonwealth Telecommunications Board, 1958). During this year the first trans-Atlantic telephone cable was opened and proved so successful that within a few months plans were made for a second cable to be laid across the Atlantic to Canada as an entirely Commonwealth undertaking, again illustrating the value of Commonwealth co-operation in this field. In November 1956 Canada was directly connected by radiotelephone and radiotelegraphy across the Pacific with Australia and via that country with New Zealand, while in December the Board, as a result of intensive study of the development of the Commonwealth cable network in the light of the developing technique of submarine repeaters, recommended the early convening of a special Commonwealth conference to examine proposals for the provision of repeater submarine telephone cables to carry all types of telecommunications services as the future pattern for the main Commonwealth routes. The partner Governments have since agreed that such a conference should be held in 1958. In comparison with 1955, telephone calls over the Commonwealth communications system increased by about 8 per cent and telegraph traffic by 4.5 per cent. Phototelegraph and telex traffic increased by 22 per cent and 40 per cent, respectively.

The Manchester Museum

THE annual report of the Manchester Museum for 1956-57 (Report of the Committee for the year ending July 31st, 1957. Pp. 20. Manchester: The Museum, The University, 1958) states that the main activity during the period has been a continuation of the process of modernization which was initiated a few years ago. Closely associated with this task is the provision of adequate information to enable visitors to understand and enjoy the collections. In spite of television and other attractions, the well-known series of lectures on Saturday afternoons recorded an average attendance of 56. It is estimated that about 100,000 people visit this Museum annually, and it is encouraging to note the amount of published research which is credited to the staff.