Although the former is possible in such centres as the Geffrye Museum, London, the latter policy is desirable, and indeed practicable, in the majority of the museums in Great Britain. There is also a difference —although they have much in common—between a schools service based on a museum, as at Leicester, and one administered independently of a museum or art gallery, as in Derby. The papers in the *Journal* all stress the importance of the essential objective quality of museums. They are a branch of public service entirely devoted to the three-dimensional method of presentation—the actual object is the all-important unit. The slightest tendency to use museums simply as additional classrooms must be guarded against with vigilance.

Birds and the B.B.C.

In an interesting article in the *Magazine of the Royal Zoological Society of Scotland* (2, No. 2), Major the Hon. H. Douglas-Home describes the technical preparations which are necessary before broadcasts of birdsong can be made. There are three ways of broadcasting bird songs: by direct transmission from a B.B.C. wireless car, by land line to the B.B.C. studio, and by recording the songs on disks with a B.B.C. mobile recording unit. Direct transmission has been used recently for broadcasting the nightingale from a wood in Kent. The transmitting van arrives the day before the broadcast in a field outside the wood, perfects its short-wave contact with its receiving station some miles away and sets up a control hut between the wood and the van. The transmitting van is thus connected to the control hut, and from the hut four or five cables, each with a microphone at the end, run like spokes of a wheel to selected places in the wood. The commentator is connected to the control hut and directs the engineer which microphone to switch on. It is thus possible to switch to each bird position by turning a knob inside the control hut without having to disturb the songsters by trying to keep near the microphone on each occasion. In the second method of broadcasting, the lay-out of the microphones and the control hut is the same, but the cable from the hut is joined to a land line which connects up with a B.B.C. transmitting station. The uncertainty of these methods, however, necessitates the use of recorded effects on cellulose disks which can be broadcast at any time. The recording apparatus fits neatly inside a saloon car and looks like a radiogram, while half a mile of cable on drums is stored in the car. Cellulose records are cut on a turntable and can be played back almost immediately.

Skokholm Bird Observatory

Established in 1943, the Skokholm Bird Observatory was formerly a private organisation which was maintained until 1940 by R. M. Lockley and others. It has now been taken over by the West Wales Field Society on a lease granted to the Society by the owner of Skokholm, Col. H. V. Lloyd-Philipps. The island will be managed as a Nature reserve by the West Wales Field Society, and, in scientific co-operation with the Council for the Promotion of Field Studies, the Bird Observatory will be maintained as hitherto. The Council for the Promotion of Field Studies will be responsible for organisation, which will be done from its field study centre at Dale Fort on the mainland opposite. Intending students and visitors should apply for permission to study at the Observatory to the Warden, Dale Fort, Haverfordwest, Pembrokeshire. The West Wales Field Society will publish the annual report of the Observatory.

Catalogue of Thermionic Valves

A printed booklet, entitled "List of Preferred Valves", which is a catalogue of preferred thermionic valves and their characteristics, has been compiled and issued by the Electronics Section of the Scientific Instrument Manufacturers Association of Great Britain, Ltd. (pp. 28; London, 1949; 2*s*. 6*d*.). It is believed that most of the requirements of the scientific instrument industry for the normal types of valves can be met by the types listed, and it is hoped that, by limiting the choice of valves to those recommended, problems in the use of thermionic valves in scientific instruments from the points of view of design, servicing and export conditions may be considerably simplified. Two categories of valves are dealt with, standard-sized and miniature. The standard-sized valves are predominantly those on international octal (I.O.) bases; but a number of British *B*4 or *B*5 bases are included. For the miniature types it was decided, after careful consideration, to adopt those with *B*7*G* bases. Wherever possible, valves have been chosen for which alternatives are available from more than one manufacturer or for which there are American equivalents. This should be of considerable assistance in overcoming supply and maintenance difficulties, particularly abroad. Those valves which appear also in the Armed Services list of preferred valves are specially indicated, and it is of interest to note the high proportion of such types. The booklet concludes with three pages of base-connexion diagrams which afford an easy means of identification of the pin connexions and also indicate the internal arrangement adopted for the electrodes. Ample space is provided for additional notes by the user of the booklet.

International Standards and Units of Radioactivity

In a letter to the *Physical Review* (**77**, 142; Jan. 1950), L. F. Curtiss, R. D. Evans, W. Johnson and G. T. Seaborg refer again to recommendations regarding standards and units of radioactivity (see *Nature*, **158**, 373; 1946. **160**, 778; 1947. **164**, 263; 1949). In November 1947 a joint committee of the Divisions of Chemistry and Chemical Technology and of the Mathematical and Physical Sciences of the United States National Research Council was appointed with L. F. Curtiss as chairman. This committee unanimously recommended that the definitions of the 'curie' and the 'rutherford' be the quantities of any radioactive species (radioisotope) undergoing $3{\cdot}700 \times 10^{10}$ and 10^{6} disintegrations per second respectively, and further recommended the roentgen per hour at one metre (rhm) for the quantitative comparison of radioactive sources emitting gamma-rays for which disintegration-rates cannot be determined. It is now pointed out that the curie is thus effectively divorced from the disintegration-rate of radium, and the arbitrary magnitude assigned to the curie cannot be influenced by any further revisions of the generally accepted disintegration-rate of radium. In addition, it follows that one milligram and one millicurie of radium are now no longer synonymous. The new definition of the curie has been submitted to the Joint Commission on Standards, Units, and Constants of Radioactivity of the International Unions of Chemistry and Physics, for the purposes of obtaining international agreement.