

vision remains, the public will not purchase sets. Even if only one provincial station were started, it would show that television has been accepted and would give a tremendous stimulus to the industry. The United States has studied the possibilities of television and by next September there will be twenty stations in operation. If good progress had been made in Great Britain in providing provincial stations and services, manufacturers in this country could have produced sets in such quantities that the initiative could have been taken in the South American countries, in South Africa and in other places. Unless the rate at which we are now moving is accelerated, the stations to be provided in these places will be American stations, and if this were so, the sets now being produced in Great Britain would not work when connected to them.

Changes in Bird Population

IN a civilized country, where social changes are rapid and often extensive, the wild population, whether of birds or other creatures, is undergoing constant readjustment. Much of the change passes unnoticed, and much, even if it be observed by local residents interested in natural history, goes unrecorded. The Royal Society for the Protection of Birds is doing good work in stimulating interest in the changing phases of bird population by offering the Medal of the Society and money prizes for the best paper on "Changes in the bird population of Britain during the present century, in a district or districts known to the writer, in regard to the increase or decrease of species named, what cause or causes can be assigned, and what (if any) effect has been observed". The causes which suggest themselves to the Society include—the universal use of the motor-car and the popularity of 'rambling', opening up hitherto secluded places; afforestation; road development; the disappearance of hedges; the invasion of the open country by factories; the replacement of open ditches by underground drains. There is also deliberate encouragement of birds to be reckoned with, by the creation of bird sanctuaries, the influence of the law's protection, and the altered outlook of the people towards the amenity of bird life generally. The competition should prove to be interesting and useful, although it is obvious that great care will have to be taken in sifting and adjudicating upon the causes alleged to be responsible for any change. The competition is referred to in the spring number (1939) of *Bird Notes and News*.

The National Physical Laboratory

THE report of the Laboratory for the year 1938 is a royal octavo pamphlet of 147 pages published by H.M. Stationery Office at 2s. 6d. The general report of the Executive Committee occupies 14 pages and is followed by reports of the superintendents of the separate Departments of Physics, Electricity, Radio, Metrology, Engineering, Metallurgy, Aerodynamics and Ship Propulsion, which enter into more detail, extending to 114 pages, and each concludes with a list of papers published by the Department

during the year. They seem remarkably free from obscure technical expressions and can in consequence be read with ease by the general public. The changes of staff have been more important than usual. Three directors have been in charge during the year and one superintendent has become director of research in another Government department, while industry and Government departments have absorbed other members of the staff. Lectures on the work of the Laboratory have again been given in large industrial centres (17), and as usual a large number of requests for scientific information on points arising in industrial work have been answered by the Laboratory without charge.

Utilizing Sunshine

DR. C. G. ABBOT, the secretary of the Smithsonian Institution, has published a description of recent devices he has used in converting sunshine into power (*Smithsonian Misc. Coll.*, 98, No. 5; March 30, 1939). In general, the sun's rays are focused by a cylindrical mirror on to an axial glass tube through which, for the distillation of water or the generation of steam, water flows, and for cooking purposes a black liquid of boiling point above 350° C. The mirror is now made of flexible sheet known as 'Aloa' and the axial tube is surrounded by a concentric vacuum tube. While coal is cheap, Dr. Abbot does not expect extensive use of such devices, but under favourable conditions small units up to five horse-power with an efficiency of conversion of solar to mechanical energy of the order of 15 per cent and a cost of a farthing per horse-power hour may be possible. At present the initial cost of the apparatus is high, but when thousands are required prices will fall.

Books on International Relations

A "SHORT List of Books on International Relations" recommended by the Education Committee of the League of Nations Union (15, Grosvenor Crescent, S.W.1) includes 141 titles arranged in two lists, the first consisting of books for boys and girls and the second of books for students and teachers. The latter is arranged in six sections dealing with the League of Nations, with education, with international relations, with special problems, with collective security and peaceful change and with colonies and raw materials, respectively. The majority of the books are of the descriptive type, but a number of constructive critical works are included, mostly from rather a Left Wing point of view. In addition, the list gives the titles of a number of songs and celebrations as well as of maps and periodicals, and forms on the whole a useful introduction to the study of international relations.

A Mosquito Invasion of South America

THE possibility of the introduction of a disease into a country at present free from it by air-transport of the infected insect-vector has long been recognized, for example, yellow fever by its infected mosquito-carrier. That this menace is real and not hypothetical