

are situated mainly over Norway and the North Sea, in some cases near to Ireland and Scotland.

Prof. Størmer directs attention to the desirability of similar observations elsewhere, mentioning the Antarctic regions in particular. To the reviewer it seems even more useful to gain as detailed information as possible about one auroral zone, by observations in the British Isles, northern Canada, Greenland, Iceland, and other northern lands, simultaneous with those in Norway. The magnetic colatitude of Aberdeen, for example, is the same as that of Oslo, and there is great scope in northern Scotland and northern Ireland for a band of skilled amateur photographers working on the lines initiated by Prof. Størmer. He himself is continuing his observations in Norway, and since 1922 has obtained 250 further photographs which are now being studied.

S. CHAPMAN.

### Official Publicity for Agricultural Research.

*Ministry of Agriculture and Fisheries. Research and the Land: an Account of Recent Progress in Agricultural and Horticultural Science in the United Kingdom.* By V. E. Wilkins. Pp. xiv + 388 + 34 plates. (London: H.M. Stationery Office, 1926.) Paper, 2s. 6d. net; cloth, 3s. 6d. net.

**E**VEN when they forsake their opprobrious blue and appear in hodden-grey, the publications of H.M. Stationery Office have but a feeble appeal to the lay public, but this book—in the words of the Minister of Agriculture, “not exactly a popular account” of agricultural research, but “at least one which with little trouble an educated farmer or even townsman might understand”—is in a different category. Its success as an appeal to the lay press has been undoubted, and deservedly so, for it is written in an attractive style, is profusely illustrated, and, as a whole, makes a good journalistic story. Much of the matter embodies results already familiar to readers of *NATURE* through the medium of recognised scientific journals, which it would be tedious to notice in any detail here. A novel feature of this publication, however, is the account which it gives of new work in progress, and even of the speculations and hopes of the workers engaged on it.

It is a commonplace of scientific work that progress can only be won at the cost of many fruitless endeavours, and in admitting the lay public to their confidence the workers concerned take their courage in both hands. On the other hand, these confidences should prove of great and even stimulating interest to workers on the same subject elsewhere. By elsewhere we mean primarily other countries; but as the book discloses, there must be a great want of jointly-shared know-

ledge even in Great Britain. To take one example, we find that research on ‘sourness’ of soil is proceeding (and on diverse lines) at various centres in Britain. There is no subject more likely to attract the interest of farmers than this, for by common consent the agricultural land of England, speaking generally, has exhausted the stores of lime so generously provided by the improvers of the nineteenth century. No economical means of replenishing the soil are in sight; and how little can the man of science satisfy the farmers’ thirst for guidance! For, as it happens, the fundamentals of scientific knowledge on this subject appear to be in process of readjustment. The facile certainties of the last century have been abandoned, and the use of such new tools as hydrogen ion concentration, base exchange, and colloid chemistry is still not fully learned. Whether co-ordination—blessed word—would help is, as we know, a matter of controversy: some workers appreciate team work, some would rather hug their souls in solitude. Incidentally, an example of happy team-work is given in Mr. Wilkins’ book, namely, that carried on by the Rowett Institute in Aberdeen in association with the University of Cambridge, on animal nutrition. But State-supported research workers, at any rate, should recognise that co-ordination is desirable.

The publicity given by such books as this is, however, the price that departments dominated by a democratic Parliament must pay even if that body has still to learn what a ‘gamble’ (from an economic viewpoint) scientific research must always remain. But it would be unfair to the author of the work under notice to lay the burden of such considerations upon him. He has performed his allotted task with distinguished ability, and has earned, we trust, the gratitude of his superiors.

### Our Bookshelf.

*A Manual of Hygiene.* By Sir William H. Hamer and Dr. C. W. Hutt. Pp. xi + 821. (London: Methuen and Co. Ltd., 1925.) 30s. net.

THIS manual is designed to meet the requirements of those seeking to obtain a diploma in public health, though at the same time the authors take the opportunity of referring to most questions now uppermost in public health work. A few of the chapters have been contributed by writers having special knowledge of the subjects dealt with, e.g. tuberculosis and sanitary administration and law, by Dr. James Niven; school hygiene, by Dr. Kenneth Fraser; venereal disease, by Mr. Kenneth Walker; chemical disinfectants, by Dr. Wynter Blyth; and air, by Dr. King Brown. The arrangement of the matter and contents of the chapters follow well-known lines and present little or no novelty. The book is well produced, is illustrated with 94 figures in the text, and is very readable.