what should be grown there. There may be 1,500,000 wire worms to an acre, and the only way to count them is to take a sample of land here and there. Where this number exists, it means that there is one to every four square inches of land, or, put in another way, one and a half wire worms are waiting to eat every seed sown were wheat to be sown there.

Many of the problems of the Minister of Food are shared by the Minister of Agriculture, for the farmers, too, have their heavy workers (horses), their expectant and nursing mothers, and their children, not all of one breed. The two main features of the national livestock feeding plan are rationing, which is so complete that it caters for every animal on every farm and the backyard pigs and hens as well, and the growing of more food for livestock on every farm.

Last year farmers were set the target of an increase of 5 per cent. in output from every acre. If that were achieved it would save well over 1,000,000 tons of shipping. There can be little doubt that it has been achieved, according to one well qualified to judge, and the reasons are favorable weather and better farming, which, as well as better effort, meant the application of scientific principles. Prominent here have been the wide-spread introduction of ley farming and the wise use of fertilizers, including a top dressing administered at the right time.

In these war years the link between the farmer and the scientist has been greatly strengthened. In every county there is a county organizer, with a staff, who works with the war agricultural executive committee, and from whom the farmer can obtain advice on every aspect of his work. He is able to refer special difficulties to thirteen advisory centers, where highly specialized workers in the agricultural sciences are able to answer his questions. These centers must be fed from research institutes, of which there are now a great number. But the scientific knowledge available to the farmer is drawn from the whole world. There is maintained in England on behalf of the Empire a series of imperial agricultural bureaus whose work it is to abstract and present in convenient form the scientific knowledge of the entire world.—Food correspondent of *The Times,* London.

SCIENTIFIC BOOKS

ELECTRICITY AND MAGNETISM

Electricity and Magnetism. By NORMAN E. GILBERT. Revised edition. New York: The Macmillan Company. 1941. $4.50.

IN producing a revised edition of this well-known text many changes have been made. The material on power engineering, some of which seemed rather out of place in a physics text, has been abbreviated, but the sections dealing with electron tubes and their uses have been rewritten and brought up to date. Sections have been added on the theory of dielectrics, moving electrons and electron optics and on the recently proposed systems of units. The last chapter contains a good elementary introduction to the physics of the nucleus.

It should be remarked that a number of statements still occur which might be questioned by advanced students of the subject. This is doubtless not an easy fault to avoid, however, for few of us can hope to become experts in more than one or two lines. Perhaps users of text-books should form the habit of not relying too strongly upon incidental statements without checking their validity by reference to more advanced treatises.

The book constitutes, as it did in its original form, a good introduction to the entire field of electricity and its applications. It is designedly more elementary on the theoretical side than the standard text of Page and Adams, but the treatment is careful, thorough and easily understood. Ample lists of problems are included.

E. H. KENNARD

CORNELL UNIVERSITY

A BIBLIOGRAPHY OF AVIATION MEDICINE

A Bibliography of Aviation Medicine. By EBBE CURTIS HOFF and JOHN FARQUHAR FULTON. 237 pp. Charles C Thomas. $4.00.

A TIMELY and much-needed bibliography of aviation medicine has been prepared by Ebbe C. Hoff and John F. Fulton, of the Department of Physiology of the Yale School of Medicine. This work was done under the auspices of the National Research Council Committee on Aviation Medicine, acting for the Committee on Medical Research of the Office of Scientific Research and Development. It is now available for investigators in this country. The labor has been extensive, as there are over 6,000 citations from 800 journals. References are well classified according to subjects and there are many cross references, for example, 107 under "Hemoglobin."

Unusual care has been taken with make-up and typography and the George Banta Company deserves much credit for the press work. This carefully prepared, comprehensive bibliography will prove invaluable not only for investigators of aviation physiology and medicine but also for the many physiologists working in related fields.

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