

than an elementary text-book of Economics—and I imagine that is what he intended it to be.

I have no space to deal with particular points, save in a sentence or two, though there are many on which I should like to comment. I do not like his unargued acceptance of economics as a 'science', or share his view of the progress which it has made. I think he treats the population problem too much in terms of mere quantity, and too little in terms of quality. I think he uses the word 'profits' ambiguously, as so many economists do. His equation of consumers or customers with employers seems to me misleading; and I think his omission of most of the problems of monopoly vitiates his treatment of the questions of capital ownership and control, which is in other respects refreshingly realistic. I could add many similar points of criticism; but, unexplained, they would serve no useful purpose, and would convey a misleadingly hostile impression of what I regard as a very useful and timely little book.

G. D. H. COLE.

A DYER IMPARTS HIS KNOWLEDGE

Dyeing with Coal-Tar Dyestuffs

The Principles Involved and the Methods Employed. By C. M. Whittaker and C. C. Wilcock. Fourth edition. Pp. vii+371+10 plates. (London: Baillière, Tindall and Cox, 1942.) 16s.

THE term 'chemical industries' in its wider significance comprises all those manufactures in which the formation of the products sold depends on chemical interactions and is certainly not confined to the manufacture of chemicals. All these industries, in reality based on chemicals, though still prone to pay lip service to the 'arts and practice' of their calling, are having to admit the scientific man into their management. It was Davy who wrote in 1802 that the arts of bleaching and dyeing, which the habits and fashions of society have made important, are purely chemical.

Since then a number of men with honoured names have brought chemistry into the dye house, writing books whereby their knowledge might be imparted to others. The latest of these books is from the pen of C. M. Whittaker, who for forty years has done as much as anybody both in discovery and in the application of his chemical knowledge to a very ancient art. Incisive in speech, he writes clearly and to the point, and he and Mr. C. C. Wilcock are to be congratulated on a most useful production.

This is a fourth edition; it appears only four years after the third, a fact which may be taken to mean renewed interest in dyeing under war conditions. One of the sales methods adopted by continental competitors was to give much assistance in the dye house of a customer conditional on the purchase of foreign dyes. The acceptance of this help has proved a short-sighted policy.

Dyeing in the old days used to be a question of cotton, silk and wool. Now new fibres of several kinds have arrived, which may be the forerunners of a legion, and the dyer is faced with new responsibilities. The production of Rayon yarn and staple fibre now amounts to about one sixth of that of cotton, though the increase has not been at the expense of cotton or wool. The production of silk has fallen and may well continue to do so.

Eight of the chapters deal with specific coal-tar

dyestuffs, in the divisions which are customary. New sections deal with the structure and identification of textile fibres, with the preparation of textile materials for dyeing and with the principles of dyeing machinery. Some of the older sections have been re-written and all have been brought up to date, for the subject of dyeing is anything but static.

Dyeing in Great Britain has a great post-war future. There will be millions of new homes to be furnished and there is both opportunity and urge to make the textiles colourful and of good design. Let us hope the industry will be made an all-British one, free from Continental influence; with leaders such as Whittaker available there should be no difficulty.

E. F. ARMSTRONG.

WAR-TIME FARMING IN BRITAIN

Farming Handbook

By Sir E. J. Russell, Dr. H. D. Kay, Dr. W. G. Ogg, B. T. P. Barker, Malcolm Messer, Geoffrey Browne, F. H. Garner, J. A. McMillan, T. Nellist Wilks, Dr. E. Holmes, W. R. Orrell, and other Experts. Pp. iv+220+52 plates. (Norwich: Jarrold and Sons, Ltd., 1942.) 5s.

CONDITIONS under which farmers have to carry on their business have changed so much in the last three years that a collection of articles by well-known specialists on the most important technical aspects of agriculture is particularly welcome. The approach to the various problems of production has been influenced by the complete change in the situation in Great Britain as regards the proportion of land under the plough, the very small amount of purchased feeding stuffs available, control of the purchase and use of fertilizers, etc. An authoritative handbook of this kind helps efficient farming by presenting essential and up-to-date information drawn not only from the results of experiments and research but also from the experience of war-time farming.

The first contribution is by Sir John Russell, on crop production in war-time. This brings together the results of many experiments on different crops, and discusses a few of the more important pests and diseases of cereal crops. The article is particularly useful, written, as it is, by a scientific man with a keen sense of the significant; there is in it no material of purely academic interest. Among other contributions are articles on dairy farming in war-time, by Prof. H. D. Kay, and feeding farm livestock in war-time, by F. H. Garner, which provide the reader with the necessary information for the successful management and feeding of the dairy herd, and of farm livestock in general. The former includes a discussion on the technique of milk production, and on disease in relation to production. Other articles, also rich in practical advice, are concerned with fertilizers, fruit growing, land reclamation, farm machinery, etc.

All the contributions deserve mention, but this is impossible within the space of a short notice. Practical men, potato growers in particular, may be forgiven for starting the book by reading the contribution on potato cultivation on a large commercial scale, by G. F. Young, manager of Messrs. Smith's Potato Crisps farms; it is good, and savours of a wealth of experience gained by an observant grower.

The book is illustrated, and is well printed on good paper. It can be recommended to farmers, scientific men, and to technical and other members of War Agricultural Committees.