literature, inasmuch as it deals with the general physiology and functions of micro-organisms. While appealing more particularly to the specialist, the general reader who has some biological training and desires to obtain a general survey of the activities of micro-organisms may peruse it with advantage. The third chapter, which deals with the form and structure of microbes, contains a brief but sufficient account of recent work on these subjects, and the section on reproduction and sexual reproduction of these lowly organisms is particularly good. The chapters on infection, immunity, and supersensitivation are models of judicious selection from the voluminous literature, and give excellent summaries of the subjects.

The author, being a member of the staff of the Pasteur Institute, naturally gives considerable prominence to the views of the French school on the physico-chemical nature of the toxin-antitoxin reaction, but the other hypotheses are fully and fairly stated. Final chapters deal with the applications of bacteriology, vaccines, and curative sera and chemio-therapy. We demur to the statement (twice repeated) that because an animal's serum may naturally possess some anti-toxic power towards diphtheria or tetanus toxin, such an animal *must* therefore have harboured the diphtheria or tetanus bacillus. Though this may be the explanation in some cases, we do not think that it is necessary to postulate such an infection in all instances. If antitoxin be generated during artificial immunisation by the detachment of *natural* side-chains from cell-protoplasm, there is apparently no reason why similar side-chains should not *normally* become detached by ordinary physiological processes, constituting the small amount of antitoxin sometimes found in a non-immunised animal.

We have read this book with much interest, and can recommend it as giving an excellent account of the subjects of which it treats.

(3) As Mr. Golding says in the introduction to this little book, "it has become an absolute necessity that the dairy farmer should be acquainted with some knowledge of the world of microscopic beings with which he is beset on all sides, and be able to distinguish his friends from his foes among this host which he cannot see, but to which he owes, and from which he fears, so much." We think that this book will well supply this kind of knowledge to the producer, the purveyor, and the consumer of milk. After a simple introductory statement of what bacteria are and how they grow and multiply, the use of starters for butter- and cheese-making is considered. The production of a pure milk is then discussed, and the sources and nature of contamination are described, the cow and milking, transit, distribution, and consumption of milk all being considered. A few pages are devoted to disease germs and the sour-milk treatment, and the book concludes with a short bibliography for the use of those who desire further information on the subject.

R. T. HEWLETT.

OUR BOOKSHELF.

Nature Photography. What to Photograph, Where to Search for Objects, How to Photograph Them. By Stanley C. Johnson, M.A. Pp. 115. (London: Hazell, Watson and Viney, Ltd., 1912.) Price 1s. net.

"NATURE" is a very wide term. It is not possible to state concisely the meaning that the author attaches to it. He does not refer to the larger animals, and though he gets down to beetles and butterflies, he does not include the smaller creatures that are generally called microscopic He deals with fishes, birds, flowers, trees, reptiles and some of the larger insects, giving what is evidently his own experience in connection with the photography of such things. This personal character of the book gives it a value that a more inclusive compilation might not possess. He has very little to say about the actual photography, but treats rather of the selection and arrangement of the subjects, where and when to look for them, and so on, and in this connection gives advice that will be found of great value by those who do work of this kind.

In dealing with the bright colours and delicate shades that some of these objects present, the author's practice of using only stained plates ("non-filter," as they are called) cannot be regarded as thoroughly sound. His own illustrations of coloured objects are not good, but it is possible that the chief fault here lies with the maker of the blocks. The truthful rendering of various colours in monochrome is now fairly well understood by those who care to study the matter, and is not to be dismissed in a line or two by the simple recommendation to use any particular plate.

Dactylography, or the Study of Finger-prints. By Henry Faulds. Pp. 127. (Halifax: Milner and Company, n.d.) Price 1s. net.

THIS little book is the latest addition to the "Twentieth Century Science Series," which includes volumes that treat scientific subjects in a popular manner for the general reader. Mr. Faulds here writes in an interesting way on a subject with which his name has long been associated as an authority, and the reader is provided with a trustworthy account of the technique of printing and scrutinising finger-patterns and of classifying them. The practical results which followed the study of finger-prints are enumerated, and the future prospects of the subject outlined.