

the burrowing wolf-spiders, and of the temporary egg-teeth on the palpi of *Zilla*, which help the young to burst the egg-membrane.

The author is a skilled photographer and the work contains more than four hundred reproductions of his work of quite outstanding merit. Photographs of spiders are never easy to obtain and there is no other book known to us in which the photographs approach the excellence of those used to illustrate these volumes.

Mr. Nielsen is content to describe what he has seen, and his book would more accurately be described as a natural history than a biology. There is very little discussion of the general significance or broader aspects of the facts observed, save for some careful analyses of various cocoons. Indeed a blemish on the work is the naive way in which the author endows spiders with mental attributes. He describes a female *Agelena* as "very affectionate", and says that young wolf-spiders can cling to their mother's back, "being from birth acquainted with the laws of inertia".

The second volume ends with a list of Danish spiders, and a supplement to this in the first volume brings the total to 372 species. About four-fifths of these are also British. This is a valuable addition to the book, and makes Denmark more fortunate than England, for no list of British spiders has appeared for more than thirty years. Both the author and his publishers may thus be congratulated on the production of a most acceptable book.

T. H. S.

Diphtheria

Diphtheria, Past and Present: its Aetiology, Distribution, Transmission and Prevention. By Dr. J. Graham Forbes. Pp. xx+832. (London: John Bale, Sons, and Danielsson, Ltd., 1932.) 45s. net.

DIPHtheria is one of the best understood human bacterial diseases and its study has enriched bacteriology with several ideas of prime importance. The isolation of the bacillus by Loeffler (1884) provided a means of precise diagnosis: the discovery of antitoxin by Behring (1890) opened up an entirely new field in prevention and therapy. Theobald Smith (1907) saw the possibility of making people immune by the inoculation of toxin: Schick (1908) made this practicable by devising his simple test for individual immunity. Diphtheria is also the disease in which it was

first shown that the lesions could be produced by toxin without the bacilli and in which the possibility of becoming immune by subinfection without any actual illness was first clearly recognised.

Pathologist, bacteriologist and hygienist therefore all know a great deal about the diphtheria bacillus and what it does, which is set out in the monograph published by the Medical Research Council in 1923. Since almost anyone can be deliberately immunised (nowadays with toxoid-antitoxin mixtures) and scarcely any patients will die if they are given antitoxin at the outset, it seems that the disease might well be abolished altogether if practical hygiene and medicine were a sufficiently accurate reflection of bacteriological knowledge. In fact, children still catch diphtheria and a proportion of them still die of it, and Dr. Forbes's book consists of a very detailed account of the occurrence of the disease, what has been done in the way of prevention and what we may hope to achieve in the future. It seems clear from his account that the failure to get rid of diphtheria is due almost entirely to difficulties in practical application rather than to imperfections in knowledge.

The book is a voluminous expansion of the Milroy Lectures of 1929 and consists almost wholly of facts and figures; we could wish that Dr. Forbes had not been so sparing of commentary. It is, however, cheering to find that the intensive campaign of immunisation started by Park in New York in 1913 is at last having an effect on the diphtheria death-rate sufficient to satisfy the statisticians—"unfeeling men" as the late Sir Frederick Andrewes calls them in his preface.

Surface Catalysis

Von Davy und Döbereiner bis Deacon: ein halbes Jahrhundert Grenzflächenkatalyse. Von A. Mittasch und E. Theis. Pp. 278 + 16 Tafeln. (Berlin: Verlag Chemie G.m.b.H., 1932.) 18.50 gold marks.

DRS. MITTASCH AND THEIS have provided a charming record of work on surface catalysis during a period of half a century from Davy and Döbereiner to Deacon, and have dedicated it to Wilhelm Ostwald. The book is illustrated by portraits of the three workers whose names appear in the title and of twelve of their contemporaries, together with a more recent portrait of Prof. Horstmann, who died at Heidelberg in 1929. The