

the fate of the nucleus in the epidermal cells of *Alnus incana*, which appears very doubtful. In a few other points doubts have also arisen in the writer's mind whether certain appearances described may not have been due to imperfect fixation.

The discussion concerning the attraction which the nucleus apparently exerts on the haustoria is reverted to in the section dealing with *Puccinia Adoxae*, and the solution arrived at seems natural and satisfactory.

Space will not permit us to mention many other points of interest which the reader will find in this little book. A perusal thereof will, it is believed, repay the mycologist, who, even if he doubts a few of the facts or considers the conclusions often somewhat forced, will at all events find the subject treated from a new point of view, and will thereby gain a stimulus for his own researches.

E. R. BURDON.

OUR BOOK SHELF.

Report on the Injurious Insects and other Animals observed in the Midland Counties during 1904. By Walter E. Collinge, M.Sc. Pp. v+64. (Birmingham: Cornish Bros., 1905.)

THIS is the author's second report. It deals with injurious insects and other animals which have been forwarded to him by various correspondents in the midland counties during 1904.

The work is not bulky, but contains in its sixty-nine pages a great amount of valuable matter, covering a wide ground. Its value is enhanced by twenty-nine illustrations; many of these are those used in the Board of Agriculture leaflets, and some could certainly be improved on, such as Fig. 17, the winter moth, and Fig. 22, the codling moth. The original illustrations are excellent, including those of the goat moth, the birch gall mite, crane flies, and yellow underwing larvæ. Among the most interesting notes are those on a supposed new apple mite (*Eriophyes*, sp.) and on carnivorous slugs.

With regard to the latter, the author tells us that living specimens have been introduced into green-houses and nursery gardens with very beneficial results. This kind of work is most valuable, and we hope Mr. Collinge will have a larger supply to dispose of among nurserymen in future.

There is a detailed and able account of the pear midge (pp. 42-49), but amongst the supposed remedial measures we find it recommended "to deeply trench the ground beneath the trees." This has probably crept in by error. The goat moth is treated in a short, concise manner, and this paper is excellently illustrated with photographs.

Amongst other fruit pests that the author has had reported from the midlands may be mentioned the apple blossom weevil, codling moth, the plum bark beetle, winter moth, the currant clearwing, magpie moth, and, needless to say, one of the most serious pests in Herefordshire, the apple sucker. A few short notes are also given on parasitic diseases of animals, such as scaly leg in fowls, gapes in poultry, and the pig louse.

In the appendix the use and employment of hydrocyanic acid gas and bisulphide of carbon are dealt with, and a general account of insects and the classification briefly referred to. The author divides the Hexapoda into fourteen orders.

As this report should fall into the hands of practical men, we regret to see new generic names are given in the text. Scientific names have rather a frighten-

ing effect, and when we keep changing them it makes matters worse. Probably it would be better if we kept to popular names only in the text of such reports, and referred the reader to the scientific names in an appendix. The farmer and gardener want these matters put before them in as simple a way as possible.

We look forward to another of these reports with pleasure, and hope they will appear annually for the benefit of grower and economic zoologist alike, for the contents of the pages of the one before us are both scientifically accurate and preeminently practical.

F. V. T.

Studies of the Museums and Kindred Institutions of New York City, Albany, Buffalo, and Chicago, with Notes on some European Institutions. By A. B. Meyer. Rep. U.S. Nat. Mus. for 1903. Pp. 311-608; plates. (Washington, 1905.)

DR. MEYER'S valuable notes and comments on the museums of America and Europe are already familiar to our readers by the notices published in our columns of the issues of the original German text. Of that text the present volume is a translation, revised by the author himself, and with all the original illustrations reproduced, although in some instances on a smaller scale. Since the author's tour of inspection was primarily undertaken for the purpose of learning all that was to be learnt from American museums, the consideration of which occupies by far the greater portion of the report, it was only right and proper that an English translation of the latter should be issued in America rather than in this country, and the Smithsonian Institution deserves the thanks of all interested in museums for the excellent manner in which it has carried out its self-imposed task.

The translation will indeed be fully as acceptable in England as it can be in America, for Dr. Meyer is an outspoken critic who does not mince his opinions, and some of his views with regard to the organisation, installation, and conservancy of museums in this country cannot fail, from this same outspoken and candid manner, to have a permanent value.

Especially important are his opinions with regard to the deteriorating effect of light on the collections of recent zoology in the Natural History Museum in Cromwell Road.

"Everywhere in England," he writes, "the collections are exhibited during the entire day, and it is said that this custom must continue, otherwise the money for expenses will not be forthcoming. I think, however, that this is an error. If the officials themselves were only convinced that the collections intrusted to their keeping are really being injured, they would be able to impress this fact upon the trustees. . . . The public would soon become accustomed to shorter hours of opening if there were some way of making them generally known." Would they?

Whether or no we accept all the author's views and criticisms, there can be no doubt that the issue of an edition of Dr. Meyer's "museum survey" in English is a matter for all-round satisfaction.

R. L.

Notes on Assaying and Metallurgical Laboratory Experiments. By Prof. Richard W. Lodge. Pp. viii+287. (New York: John Wiley and Sons; London: Chapman and Hall, Ltd., 1904.) Price 12s. 6d. net.

PROF. LODGE has brought together in this book the notes which have been in use for many years by the third-year students in assaying at the Massachusetts Institute of Technology and part of the notes given to fourth-year students. The book may therefore be