

Page 142. The sand box is recommended for playgrounds. I think there is no other single feature that figures in the equipment of a playground that even approaches the sand box in its unhygienic, bacteriological and parasitic possibilities.

Page 167. Dr. McKenzie advises the use of floor sockets for fixing apparatus like the horse, parallel and horizontal bars on the floor of the exercising hall. It is only fair to state that a number of men have found or judged this device to be less convenient and utilitarian than the old movable apparatus. The experience at Pennsylvania, however, has been satisfactory.

Page 191. It is stated that summer courses in physical instruction are given at the College of the City of New York. This is a mistake.

Part II., Exercise in Medicine, contains much that interests the non-medical reader. It is rather too popular and brief for the specialist or general practitioner concerned with the various diseases discussed. It contains very little which the "teacher of the youth" would be expected to apply. The average "student and the practitioner of physical training" who has had no medical experience should not attempt the treatment of medical cases unless under the direction of a competent physician. "Round back and stooped and uneven shoulders" are not necessarily medical; but scoliosis and locomotor ataxia are samples of abnormal conditions which the non-medical man would do well to leave alone—unless he has a training and an experience like that of Bolin.

But I take it Dr. McKenzie has not attempted to prepare a text-book for such readers, but rather to present a discussion which will show them the relation of exercise to the treatment of various diseases so that they may secure an intelligent sympathy for the logical and common-sense principles which he has brought together.

In conclusion it may be said that in its "purpose to give a comprehensive view of the space exercise should hold in a complete scheme of education and in the treatment of abnormal or diseased conditions," this book is a success.

THOMAS A. STOREY

Second Appendix to the Sixth Edition of Dana's System of Mineralogy. By EDWARD S. DANA and WILLIAM E. FORD. New York, John Wiley & Sons. 1909.

Dana's "System of Mineralogy," as a standard work of reference, has become so indispensable to every one interested in minerals that all additions to it, which tend to bring the work up to date, will always be welcomed. Ten years have elapsed since the first appendix appeared and this period has been one of great activity in mineralogical research. Many new mineral names have been proposed, and new occurrences, forms and physical properties of known species have been described. This second appendix contains an excellent bibliography of mineralogical literature issued during the ten years with a concise statement of the subject matter of each article and quotation of new forms, and complete descriptions of all minerals that have been announced as new species; consequently references to several hundred minerals are included in the book. Over two hundred new names have been proposed for minerals and from this number the authors have selected about sixty, on account of their better descriptions, as meriting the distinction of being new species. As to this limited selection from so many new compounds, some disagreement with the authors may arise, but they feel justified in relegating to subordinate rank most of the so-called new minerals, because of the insufficient data to establish their recognition as species.

The appendix is similar in size, binding and arrangement of contents to the first one, issued in 1899. The minerals are arranged in alphabetical order with all of the new names in heavy-faced type, but in the classified list only those considered as new species are in bold type. The great task of preparing this appendix was begun by the senior author and continued by him until 1906 when his health compelled him to give up the work, and it devolved upon the junior author to complete the book to the present year, which he has ably done.

Every scientific investigator will deeply regret the loss of Professor Dana from active work, and it is the heart-felt wish of his legion of friends that he may speedily regain his health and strength. With his retirement, and

the lamentable departure of his brilliant colleague, the late Professor Penfield, mineralogical science has lost two of its foremost and ablest promoters.

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SCIENTIFIC JOURNALS AND ARTICLES

Journal of Economic Entomology, Vol. I., February, 1908–December, 1908; Vol. II., February, 1909–December, 1909.

It is not often that it is possible to write a review of a periodical with its numerous contributions of varying merit, and it is possible in this case only because it is a growth and illustrates the growth of a science and its development along practical lines. It is stated on the cover that this is the official organ of the Association of Economic Entomologists, and any note of the *Journal* must contain some record of this association.

It was at Toronto, in August, 1889, that the Association of Economic Entomologists was born at the call of the late Dr. James Fletcher, with the extremely limited membership of twenty-two, which elected the late Dr. C. V. Riley, then entomologist to the U. S. Department of Agriculture, as its first president, and the writer of this review as its secretary. During the twenty years following that initial gathering, the writer has been in attendance at most of the meetings, and has seen its membership increase until, under new restrictive laws, there are 119 active, 125 associate and 47 foreign members—a total of 291. More entomologists here, more or less engaged in active research work, than the wildest dreams of the founders considered possible at the initial meeting.

From the beginning, the relation of this association with the U. S. Department of Agriculture was close. Small as the entomological division of the department was at that time, compared with its present-day development, it represented to the rest of the country a source of authority and information which, in all subsequent development, has not lessened in value, even if not as dominant now as then.

Dr. Riley, as the first president of the association and one of its most active promoters, was naturally interested in securing publicity to its transactions, and reasoning rightly that any force that made for impressing upon the agricultural public the value of entomological work was worth using, he induced the then commissioner of agriculture to authorize the publication of the proceedings of the association in *Insect Life*, where the record of the organization takes up a part of pages 87 and 88 of Vol. II., and the records of the first annual meeting take up pages 177–184 of the same volume. During the continuance of *Insect Life*, an ever-increasing space was occupied by this association until, in 1893, at the fifth annual meeting, an entire number of *Insect Life*, of about 145 pages, was taken up by its records. After the discontinuance of this periodical, the records of the association were published in the bulletins of the department, and Dr. L. O. Howard, who succeeded Dr. Riley as head of the entomological division, followed the policy of his former chief in recommending the publication of the proceedings of the association by the department.

But, as the membership increased and as, to speak metaphorically, the association felt its oats, the tendency was to divorce the association, loosely constituted as it was and in no position to assume publication, from the department and to throw it upon its own resources. It solved the problem of support for the proposed journal by the organization of a publishing company which assumed financial responsibility, while the association furnished material to be published, as well as the subscribers.

The writer was one of the conservative members who, by age and long habit, was wedded to past methods, and who opposed the establishment of the *Journal of Economic Entomology*. It gives him pleasure to admit that he was all wrong; that the establishment of the *Journal* was justified by results, and that the cause of economic entomology was materially advanced by the action of the association in 1908.