

In his presidential address (printed in *SCIENCE* for January 21 last) before the Zoological Section of the American Association for the Advancement of Science at its Chicago meeting Professor W. M. Wheeler discussed the subject of organization in research as it appears to a biologist, and pointed out some of the dangers attending post-war efforts in this direction. He mentioned the array of instincts, emotions, and interests on which the activities of the investigator depend and the great diversity of mental aptitude which necessarily accompanies the genius for different types of research. Professor Wheeler claims that any organization dealing with research should refrain carefully from interfering in any degree with the free expression of the individual's exceptional aptitudes in his own way. In these days when the amateur in scientific research is passing we need to beware of fettering in any way by government or other interference the activities of the professional scientific man.—*Nature*.

SCIENTIFIC BOOKS

Catalogue of the Coleoptera of America North of Mexico. By CHARLES W. LENG. Published by John D. Sherman, Jr., Mount Vernon, N. Y., 1920. Pp. 470; large octavo.

I don't know how many collectors and students of Coleoptera there may be in the United States—certainly not so many as in several of the European countries, and they are probably not as numerous as the collectors of Lepidoptera. But their numbers will surely increase, and the labors of the present students will be greatly facilitated by the appearance of Mr. Leng's long-expected and thoroughly admirable catalogue.

A good, up-to-date catalogue is a tremendous help and stimulus. The Coleoptera of North America have not been comprehensively listed since the American Entomological Society published Henshaw's list in 1885, more than 35 years ago, and in the meantime large groups have been comprehensively monographed, the scheme of classification has been modified in important particulars, and

the names of genera and families have been changed, while the number of described species has increased from a little over nine thousand to a little less than nineteen thousand.

As a result of the publication of this catalogue, the American Coleopterists for the first time in many years know for the moment just where they stand. And what a joy it must be to them! And what a relief it is to all general entomologists! I can imagine the veteran, Samuel Henshaw, himself, sitting in the Director's Office of the M. C. Z. at Cambridge, heaving a deep sigh of satisfaction and saying to himself, "Good! My New England conscience is at rest. What I looked forward to years ago is done, and excellently done."

There are catalogues and catalogues. The best ones are more than mere lists, but none the less are based absolutely on the literature and do not reflect too much the individual views of the specialist author. Such is the great synonymical Catalogue of the Coleoptera of the World by Gemminger & Harold, and such is the present catalogue of which we write. Its publication is an event! It is a great big stepping stone!

One like the writer, who knows the Coleoptera only in a general way, is first of all impressed by the excellent make-up of the catalogue. It is printed upon excellent paper; and it can be obtained from the publishers in a very good binding. The topography is of a high character. These, however, while worthy of especial note, are only adjuncts to the main appreciation.

One who is not familiar with the enormous amount of work which has been done by clever men of many countries, will not in the least appreciate the difficulties which Mr. Leng had to encounter. Our conception of the general classification of the Coleoptera has undergone fundamental changes from the LeConte and Horn classification of 1883. Many new characters have been used by subsequent writers, and advanced schemes of classification, based upon these new elements, have been proposed by Lameere in Belgium, Kolbe and Gangl-

bauer in Germany, and Sharp in England, and the general result in the Coleopterological world has been one of some confusion. These systems down to the present time have not been thoroughly adjusted and Mr. Leng had to make a compromise. This difficult work he has done in an admirable manner, as I am told by my expert friends and associates, and in his introduction he has discussed this subject at length. It is an enormous improvement upon previously published North American lists from the fact of this painstaking and enlightening discussion which must have taken an enormous amount of work, as well as from the bibliographical references to original descriptions of new species and genera and the further citation of synopses of monographs that have appeared. The reference system is well handled, and the bibliography, covering more than eighty pages, is remarkably complete and well arranged.

Of course, as one uses the catalogue from day to day in his work, points will be brought out which might suggest improvements, but none have occurred to me in turning the pages. Undoubtedly certain useful changes have occurred to the author and his colleagues in reading the proofs, but in the conditions in the printing trade at this time the expense of alterations is almost prohibitory; and at any rate the defects, if there be any, must be relatively unimportant.

I have talked with several of my associates who are intimately familiar with this group of insects, and all are enthusiastic in their praise of the book. Mr. Leng gives generous acknowledgment of assistance from such authorities as Messrs. Davis, Mutchler, Schwarz, Barber, Bequaert, Schaeffer, Lutz and Böving; and the fact that he has had the assistance of these men intensifies the confidence which we must have in his work.

Although the price of the volume seems high (\$10), it is one of those absolutely indispensable things. Every entomologist, including the economic entomologist, must be able to consult it; and all libraries must have it.

The reviewer anticipates with assurance a

greatly increased interest in the group of beetles. It is an order of the greatest interest. The specimens are easily collected and are easily preserved. Their compact form and durable structure renders them much more available for collections than any other group of insects. They are much less fragile than the others, and, while they apparently lack the esthetic qualities that attract people to butterflies and the larger moths, their structure is beautifully adapted to their methods of life, and they offer an easy field for the study of certain aspects of broad biological problems.

L. O. HOWARD

NOTES ON METEOROLOGY AND CLIMATOLOGY

METEOROLOGY AND BALLOON RACING

I am relieved from my anxiety by hearing that the adventurers descended well; . . . that they had perfect command of the carriage, descending as they pleas'd by letting some of the inflammable air escape. . . . Had the wind blown fresh, they might have gone much farther.—Franklin.

The International Balloon Race of 1920.—These words were written by Benjamin Franklin after witnessing one of the first free-balloon flights at Paris, and they are a quaint epitome of the sentiment of free-ballooning, both from the standpoint of the public and that of the pilot. When one has seen the start of a balloon race, with the great silk-skinned bubbles rising in the glow of the lowering sun, and the ballast streaming down from the baskets like slender cascades of gold dust, then he may well appreciate the emotions of Franklin in his anxiety for the safety of the balloonists and in his admiration for the skill and judgment required of them. But it is the pilot who can best appreciate the significance of the last statement—"had the wind blown fresh, they might have gone much farther."

No more convincing proof of this can be adduced than that which lies in the distribution of landing points in the International Balloon Race for the Gordon-Bennett cup, which started from Birmingham, Alabama,