astronomers, engineers, and others, who have studied the crater disagree with Mr. Darton and are convinced that the crater was made by the impact of a large meteorite.

Mr. Darton appears to stake his opinion largely on the failure of exploration (by drilling and geophysical methods) to reveal the presence of a buried meteorite beneath the crater. He is perhaps not aware that in 1930 F. R. Moulton showed that if a large meteorite did strike the plateau, it must have developed at the point of impact such a high temperature as to result not only in a tremendous explosion but also in vaporization of the meteorite itself, along with part of the surrounding rock strata. Under those circumstances one could not expect now to find more than incidental fragments of the meteorite.

Mr. Darton also seems to ignore the significance of the unique composition of the parapet which surrounds the crater and the material which partially fills the cavity itself. He is perhaps unaware that underneath the surface rubble these consist largely of quartz powder and silica glass, derived from the underlying sandstone by pulverizing and melting. No materials of this kind have ever been found in association with volcanoes, and temperatures high enough to produce silica glass are probably rarely, if ever, attained in volcanic eruptions.

It seems, therefore, that the current use of the name Meteor Crater is well justified, and the field evidence is heavily against the hypothesis of volcanic origin.

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Book Reviews

***Encyclopédie entomologique.* XXII: *Les Coléoptères des denrées alimentaires et des produits industriels entreposés.* P. Lepesme. Paris: Paul Lechevalier, 1944. Pp. 335. (Illustrated.) 350 fr.**

This is a compilation of information useful and valuable to the general worker and to those interested in coleopterous insects injurious to stored products. It should also prove of interest to those in other fields of work. However, a specialist may find his particular field inadequately treated and will probably disagree with the author on certain points.

The work is divided into two parts. Part I deals primarily with the taxonomy and descriptions of certain species of 24 families, with keys to the families and to the species discussed. Common names in one or more languages are given in addition to the scientific name. The specific descriptions are too brief for general taxonomic purposes, but they are given in sufficient detail for the purpose of this paper. In the case of most species the author has included data on geographic distribution, biology and damage, life cycles, and natural enemies. A total of 214 figures illustrate Part I.

Part II deals with theory and general information concerning the beetle population of stored products. In it are considered and discussed the environment of the food products, including constant and variable factors; the relationship or bond between the insects and the products; diet and the climatic factor; geographical distribution, broadly but briefly treated; life cycles and factors influencing them; the relationship of insects with other organisms; the theory of "vacant space" and the coleopterous population of the food products; tropisms; hybridization and variation; biological equilibrium; damage; and means of control. Because of the scope of each subject covered, it is obvious that only the essentials could be mentioned. It appears, therefore, that it was the desire of the author to expose the reader, however briefly, to some of the factors influencing insects and to some facts and information that should be known by the general worker for a clearer understanding of, and a better approach to, the control of insects infesting stored products. The section is illustrated with 19 figures, one of which is a diagram for a fumigator in which methyl bromide is employed.

The paper is terminated with an extensive bibliography, an index to genera and species, an index of common names, and 10 plates of commendable photographs demonstrating the damage caused by various insects. Plates 11 and 12 contain reproductions of photographs of installations for the fumigation of the various products.

If the purpose of the paper is correctly interpreted, it would have been greatly improved and made more practical if, in some instances, more detailed information had been given for the individual species and not reserved for a general discussion of a closely related group of species. This paper and the one by Hinton (1945) supplement each other.

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***A primer of electrocardiography.* George Burch and Travis Winsor. Philadelphia: Lea and Febiger, 1945. Pp. 215. (Illustrated.) $3.50.**

The reviewer was disappointed in his hope that this book by Burch and Winsor might be the long-awaited book for medical students and those beginning the study of electrocardiography. It is timely and has much to recommend it, but it has many faults.

One thinks of a primer as a book with which to begin and as embodying the simplest ideas, with the notion of a gradual progression by means of other books into the more difficult phases of a subject. This is not the case with this book. It deals with the most complex and theoretical sides of electrocardiography. Neither the medical student, who has not the time for this kind of background in electrocardiography—a rubric which must take up a small part of the total time spent in medicine in relation to the other branches of his courses—nor the physician, having only a clinical interest in electrocardiograms, would be anything but hopelessly lost and discouraged by this introduction to electrocardiography. A title which would foretell its real contents would be more satisfactory and not misleading.

There seems to be no occasion for, or purpose in, drawing out so laboriously diagrams of the time lines and lines for amplitude and diagrams of the galvanometer string movements, when actual electrocardiograms with the actual photographed lines could have been used and enlarged if it was thought contributory to the clearness of demonstrating time intervals, elevations of segments, etc. Certainly a reality would have been achieved which the diagrammatic fashion misses. Moreover, when the lines are not accurately drawn equidistant or parallel, one is very conscious of these defects. Moreover, from the point of view of reading and study, the drawing of time lines and voltage lines only immediately surrounding the movement of the galvanometer string is annoying, distracting, and highly artificial.

The reviewer could not find anywhere in the book a reproduction showing what an electrocardiogram actually looks like when taken for clinical purposes. Anyone reading this primer as an introduction would come away with the idea of the cross lines being written only in the field surrounding the electrocardiogram string movement.

Some of the diagrams indicating starlike explosions in the heart detract from the seriousness and depth of the rest of the book.

The assets of the book must be considered in the light of the defects listed above.

The introductory chapter on the theory of the electrocardiogram is good, as are the text relating to the analysis of the waves of the electrocardiogram and over-all analysis of the electrocardiogram, and the chapter on precordial chest leads.

The data relating to myocardial infarction should be brought together in one section instead of being spread out in several parts; for instance, there are descriptions on page 94 and again on page 170. It does not seem wise however, to teach the idea of acute, subacute, and chronic myocardial infarction with the connotation of these words in medicine.

The chapter on "Disorders of the Heart Beat" is not very effective and leaves much to be desired for recommendation to medical students and physicians.

The most useful function this book serves is to bring together in a compact way data relating to the monocardiogram, vector analysis, and ventricular gradient, pointing up the work of Mann, Wilson, Ashman, and Bayley, and the earlier German work. The authors have made a great effort to stress these investigations. This section is well done; at the moment, however, for clinical electrocardiography these analyses have not a great deal of usefulness, and their eventual clinical value is not yet clear. Accordingly, in Chapter V, "The Clinical Applications of the Electrocardiogram," this phase is overemphasized for the state of its importance at the present time.

On page 189, relating to the "Diagnostic Value of the Electrocardiogram," the authors speak of electrocardiographers and clinicians. The reviewer hopes that in medicine there will never be anyone who is called an "electrocardiographer." No one should read or interpret electrocardiograms who is not interested actively in clinical medicine and who is not a clinician.

Much of the data in the Appendix has usefulness. Carter's chart for measuring the angle of the electrical axis might have been included. A list of references also would have been a valuable addition to the book.

This book is not for the beginner or for the medical student, but only for those who, having had an introduction to electrocardiography by other means, wish to go further into the subject.

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The mosquitoes of New Jersey and their control. **Thomas J. Headlee. New Brunswick, N. J.: Rutgers Univ. Press, 1945. Pp. x + 326. (Illustrated.) $4.00.**

This is an enlarged and revised edition of Bulletin 348 of the New Jersey Agricultural Experiment Station, published in 1921 under the same title and long a standard reference for mosquito workers of the United States.

The present volume opens with three short chapters on the "Value of Mosquito Control," "Structure, Classification, and Keys," and "The New Jersey Mosquito Fauna." By far the largest section (200 pp.) is entitled "Mosquito Biology" and includes technical descriptions and illustrations of the adults and larvae of 37 species found in New Jersey. As stated by the author, the bulk of the material in this chapter has been taken directly from the 1904 report of John B. Smith, a noted pioneer in this field. His report has been out of print for many years, and its reproduction in this manner is of undoubted historical value. It would seem, however, that briefer summaries of the pertinent facts, now well established, would fill present-day needs better than the details of the original observations and experiments. Very little new information has been added, except for records of light-trap collections from 1932 to 1941, and one may look in vain in most cases for an account of the present status of the different species or information that has been accumulated during the intervening 40 years. Bulletin 348 and other publications must be referred to for information of this nature. There is evidence that the chapter has not been read critically with respect either