The dirt was found thrown back from all sides of the 8-inch hole at the center for a distance of about 3 feet and heaped up about 6 inches above the level of the surrounding ground. The hole extended downward 8 feet almost vertically, with an average diameter of 8 inches, then became smaller for the next 7 feet and varied somewhat from the perpendicular. At a depth of 15 feet the diameter had been reduced to about 4 inches and branched out in 3 directions into 2-inch holes, which were followed for 3 or 4 feet into the bank where they disappeared. At this level the clay became very moist, and it was evident that the water level was being approached.

The clay showed signs of fusion at a number of points, and the inside of the hole had a corrugated appearance, as though moist clay had been forced violently back by high pressure. No evidences of any material of different composition than the clay itself were found, and there were no traces either in the hole or outside of it of material which might have been of meteoric origin.

The conclusion reached, therefore, is that, although eye-witnesses held to the opinion that a meteorite struck the earth, the hole was caused by a thunderbolt and not by material of celestial origin, for there is no record of a small meteorite ever having penetrated the earth to such a depth. The size and length of the hole are phenomenal, however, in the records of electrical discharges.

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TERMITE DISTRIBUTION IN THE UNITED STATES

DR. A. E. EMERSON'S[1] current reference in SCIENCE to the somewhat more common occurrence of termites in the eastern United States than has been indicated by some observers prompts the following confirmation. *Reticulitermes flavipes* (Kollar) was secured in considerable abundance from several sources within a five-mile radius of New Haven in 1921–23. Individuals were taken from colonies in the ground and from fallen tree trunks in partial states of decay, soldiers, workers and winged adults being present. Specimens were transferred to the Osborn Zoological Laboratory, where they were kept in large covered crystallization dishes in pieces of the original wood, moisture being supplied by wet filter paper. Ample numbers were available for a study of the protozoan fauna of the intestine.

On April 20, 1933, nearly all of a colony of termites, seemingly *Reticulitermes flavipes,* was recovered from a stand of hard and soft wood on Mill Road about a mile from the village of Durham, New Hampshire. Examination of the protozoan content of the gut showed it to be similar to that found in New Haven.

Banks and Snyder[2] print a map of distribution for *R. flavipes,* which shows that they were found in southwestern Maine, southeastern New Hampshire and in Connecticut. The monograph reports them from Lyme, Connecticut (Greene), from Kingston, Rhode Island (Barlow), and from several towns in and around Boston. The authors state that "This termite is widespread in the eastern United States, its geographical distribution being from (Canada?), Kittery, Maine (Thaxter), southward to the Florida Everglades."

Dr. Emerson mentions that *R. flavipes* was also collected at "New Castle, Lincoln County, Maine," referring undoubtedly to the town of *Newcastle,* located some eighteen miles from Bath. He adds "Other new northern records furnished by Dr. T. E. Snyder . . . are Bellows Falls, etc.," which may imply that these termites have been reported only once from Maine. This does not seem to be the case. Casual attempts to discover them in this section of the state have thus far proved unsuccessful, however.

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FEDERAL RELIEF LABOR AND PALEONTOLOGY

FOR the two years just past, the Museum of Paleontology of the University of California has been the sponsor of a project involving the use of fourteen to eighteen Federal Relief workers engaged in the various phases of museum duties. During the current year, the labor cost has been borne by the Works Progress Administration. The object of the present paper is to place on record the nature of the work done, the adaptability of the workers to it and the possibility of other similar public institutions taking advantage of this type of help.

At Berkeley, the Museum of Paleontology houses primarily a research collection of fossil vertebrates, invertebrates and plants. As in related museums, the primary problem is the quick and adequate preparation, housing and cataloguing of newly acquired material. And as in most museums, the permanent staff is small and the duties manifold, with the result that many specimens or even faunas are, of necessity, half prepared or still in the field wrappings. Moreover, housing problems become acute, curatorial difficulties increase and research is hindered.

When Federal Relief workers became available to the various units of the University of California, it

[1] SCIENCE, 83, 410.

[2] U. S. Nat'l Mus. Bull. 108: pp. 45, 150–161, 1920.

was decided that use of these workers in the Museum of Paleontology, especially in the preparation of fossil bone, would be a worthwhile experiment. That the experiment was successful is borne out by the fact that the Federal Aid staff has advanced the routine Museum program by ten years.

Since the careful preparation of paleontologic material requires experience and some native dexterity, and since trained men in this field of endeavor are few indeed, our first problem was to give inexperienced people from all walks of life a short period of instruction. The results were most gratifying, and while a few of the earlier workers were unable to grasp the technique, others who could were secured and now a staff of ten experienced preparators are working daily and most of them can be trusted on such delicate jobs as the preparation of skulls in hard matrix. Incidentally, former dental technicians lend themselves admirably to this type of work.

In other phases of museum work, Federal Relief workers have proved equally advantageous, especially those with college training. These phases include the preparation of specialized bibliographies, the translation of paleontologic writings and the typing therefrom of manuscripts to be bound into the library, the uniform relabelling of the storage trays (here a former draftsman is used), the numbering and cataloguing of specimens, the casting in plaster of replicas of types and other specimens for exchange purposes, and the preparation of thin-sections of bone, shell and rock.

The making of thin-sections is a time-consuming task; but one which is indispensable to many kinds of paleontologic research. The man employed at this task has become expert and the fruits of his labor, as well as of all those employed on the museum project, become a permanent acquisition to the scientists of the world and provide a wealth of research material for a generation of graduate students.

It should be emphasized that in no case have Federal Relief workers replaced museum employees, and the nature of the work done by them makes it wholly non-competitive with private enterprise. The results of their labor are simply additive to the normal museum program.

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SCIENTIFIC BOOKS

GENETICS

Genetics. By H. S. JENNINGS. W. W. Norton and Company, New York. $4.00. 8½ × 5¾; xii + 373; 1935.

PROFESSOR JENNINGS'S book is, in his own words, "an attempt to present the fundamental features of Genetics: those features of which every educated person should have knowledge." This presentation is made with the scrupulous accuracy we have come to associate with Professor Jennings's writings. A striving for clearness and simplicity of statement is evident throughout, and "every educated person," whether biologically trained or not, can understand it, although, as a non-biological friend put it after reading a chapter in the book, the layman "will have to move his lips as he reads," in some spots. The very laboring for simplicity makes the book a bit repetitious and tedious to the experienced biologist, but since his kind is not the audience aimed at, this can not be regarded as a fault. All biologists, however, will be thankful for Professor Jennings's lucid digest of the scattered and rapidly accumulating literature on Drosophila, and the presentation of its salient facts in a simple straightforward manner which even the beginning student can easily read and understand. In this connection one misses only the supplementary evidence concerning the nature and the location of genes that might have been adduced from the remarkable behavior of the salivary chromosomes in such forms as *Drosophila* and *Sciara*.

The general plan of the book departs from the conventional in that the underlying mechanism of heredity —the nature of the germinal constituents—is discussed before the usual generalities of genetics are reviewed. While this is unquestionably the logical approach, how such a method will work out in actual class usage, particularly with large classes, is a matter that will doubtless be watched with much interest by teachers of genetics.

Since the author is so obviously striving for ease of comprehension, it might be pointed out that this would be much facilitated if the secondary headings within chapters—particularly such as chapter 9—were set up in bold-faced type instead of the same type as the text.

In the survey of the more general relations of genetics the author makes frequent allusion to practical, and above all to human problems, although in the case of man he is very cautious in his affirmations and carefully steers clear of anything savoring of propaganda. He is apparently more impressed with what we don't know about human inheritance than with what we do know.

The final chapter dutifully reminds us of our real ignorance of the nature of progressive evolution, pointing out that our main accomplishment in the study of the mechanism of variation has been recognition and in some cases the production of recessive and