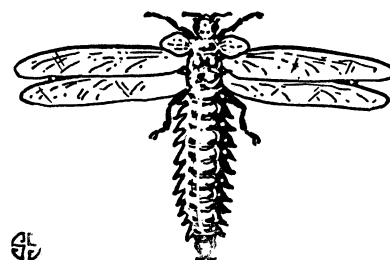


NATURE RAMBLINGS

By FRANK THONE



S28

Ancestral Insect

Fossil insects aplenty have been found along with the mighty bones of mammoths and dinosaurs. In fact, insects are older than either, though they are by no means the oldest of animals. They are, however, pretty well back among the First Families of Land Animals, for there were insects on earth during the days when coal was being formed in vast bogs—dragon-flies with a twelve-inch wing spread, cockroaches three or four inches long.

Most interesting to naturalists among these fossil fliers, however, is one form resembling nothing that is left on earth, and regarded as the original ancestor of all insects, or at least as something very near such an ancestor. Its general body structures are more primitive than those of the most primitive living insect, but the most astonishing thing about it is that it has three pairs of wings!

Two pairs, corresponding to the orthodox two pairs of wings carried by typical modern insects, were the thin, membranous affairs we expect insects to have, but the third pair, carried on the first segment of the thorax or chest region, were apparently of no use in flying. They seem to have consisted of thick, stiff, horny stump-like affairs, possibly more or less like the thick protective wing-covers of beetles, but projecting permanently sideways. They may have had a little effect as rigid "gliders" when the insect was in flight, but it is hard to see of what other use they were. But as representatives of wings in the making, or possibly as degenerate relics of wings that once were, they are intensely interesting.

Science News-Letter, January 14, 1928

There are almost 600 kinds of parrots.

Bedouins of the desert distinguish between footprints made by different tribes.

First Glances at New Books

STARDUST—Sonnets by William Adams Slade—*Preston and Rounds*. A sequence of ten sonnets by one who combines a love of astronomy, religion and literature. Here is the beginning of one:

"Far beacons on up-clustered shores in space,
The Cepheids speed their signal-beams below,
The while men watch, those pulsing ways to trace,
And chart the heights and headlands that they show."

Science News-Letter, January 14, 1928

THE STORY OF CHEMISTRY—Floyd L. Darrow—*Bobbs-Merrill* (\$4). Mr. Darrow uses an historical approach and devotes a chapter to the alchemist and a longer one to the rapid development of scientific chemistry from Lavoisier to Ostwald. But by far the greater part of the book is concerned with the present rather than the past, and the future rather than the present. At least half the material presented would be wholly new to anyone who stopped reading chemistry twenty years ago. He would find Einstein's equation, Millikan's cosmic ray, Bohr's atom, glandular chemistry, and the like in the field of theory, and even more extensive discussions of practical applications of recent discovery; oil substitutes, synthetic dyes and drugs, artificial rubber, rayon and radio. The treatment of these topics is competent and free from sensationalism, and the illustrations, bibliography and index are useful auxiliaries to the text.

Science News-Letter, January 14, 1928

ESSAYS, ENGLISH AND AMERICAN—Raymond MacDonald Alden, revised by Robert M. Smith—*Scott, Foresman* (\$1). Selections from thirty-seven authors from Bacon and Addison to the present. A light compact volume in flexible binding convenient for the satchel or overcoat pocket. The first edition edited by the late Professor Alden ended with Thoreau but Professor Smith as editor of the new edition has added essays by Andrew Lang, G. Lowes Dickinson, John Galsworthy, Sir Philip Gibbs, Hilaire Belloc, John Eglinton, George Santayana, Christopher Morley, Edwin E. Slosson, Robert C. Benchley, William Beebe, Stephen Leacock.

Science News-Letter, January 14, 1928

PRIESTS AND KINGS—Harold Peake and Herbert John Fleure—*Yale* (\$2). The fourth volume to appear in a splendid new series by the Yale University Press on "The Corridors of Time." "When cultivation leads to permanent settlement and this, again, to intercourse and trade, villages may grow into cities and written records may be kept; kings and priests then become prominent features of civilization. The present volume sketches this phase of evolution," say the authors, and in doing so they tell of the Sumerian and Egyptian civilizations.

Science News-Letter, January 14, 1928

CHEMICAL PATENTS INDEX—Edward Chauncey Worden—*Chemical Catalog* (\$25). The first of five volumes that will cover the subject matter of specification and claims of United States patents during the period from 1915 to 1924 in the entire field of chemical technology. This volume contains the complete index of names and the index of subjects from A to B.

Science News-Letter, January 14, 1928

ANNUAL SURVEY OF AMERICAN CHEMISTRY — National Research Council — *Chemical Catalog* (\$3). The second of a useful series containing accounts of chemical progress during the past year. This covers the period from July 1, 1926, to July 1, 1927, with articles by 51 leading chemists on their respective fields.

Science News-Letter, January 14, 1928

ANNUAL REPORTS FOR 1926—*The Chemical Society (London)*. A British publication describing the progress of chemistry in its various fields during 1926.

Science News-Letter, January 14, 1928

EMILE BERLINER—Frederic William Wile—*Bobbs-Merrill* (\$4). The fascinating story of a German immigrant boy who became the inventor of the form of phonograph now in world use, the microphone that is the visible symbol of radio, an "acoustic tile" to prevent echoes, and other useful devices. Contains a preface by Secretary Hoover.

Science News-Letter, January 14, 1928

EVERY MAN A BRICK!—Merritt M. Chambers—*Public School Publishing Co.* A brief survey of the status of military training in American Universities.

Science News-Letter, January 14, 1928