



What are Bugs?

SPRING gardeners, picnickers, outdoor folk generally must do battle with the bane of bugs— by which they mean not only all insects but such allied creeping things as spiders, centipedes, thousand-leggers, ticks and even scorpions. Some entomologists groan and protest over this loose use of a name they have long since given to be the official monopoly of one special group of insects, but most of the "bug-chasing" brethren have learned to save their breath.

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The bugs of the stricter entomological definition are insects of the family Hemiptera. This Greek-derived word means "half-winged," and is descriptive of the typical true bug, which has shorter forethan hind-wings. Even more typical, however, is the method of feeding common to this family. The mouthparts have evolved into a piercing sucking beak, which is sunk into the juicy parts of the plant-or into other insects, for some of the half-winged brotherhood are fiercely predatory. Familiar (too familiar!) examples are squash-bugs, stink-bugs, chinchbugs, kissing-bugs (also called assassinbugs-with better reason) and (whisper it!) bedbugs.

Professional entomologists however, should not be too high-nosed about insisting on reserving the name, bugs, for this one family. Originally, it didn't belong to insects and other creeping things at all.

The first known form of the word was in Welsh, spelled (naturally!) "bwg," and it meant a ghost or hobgoblin.

As "bugge," this hobgoblin-name was familiar in early modern times, and even got into one of the first English Bibles, the Coverdale version of 1535. The fifth verse of Psalm 91 reads, "Thou shalt not nede to be afrayed for eny bugges by night." In the King James version, "bugges" has become merely "the terror."

This early use of the word "bug" to designate any vague and imaginary terror survives now only in such relics as bugbear, bugaboo and bogey. Popular entomology has captured it—only to have possession slangily contested, of late years, by microbiologists, especially bacteriologists; also by mechanics who talk of "getting the bugs out" of a new machine that isn't working quite right.

Science News Letter, May 21, 1949

Books of the Week

TO SERVE YOU: To get books, send us a check or money order to cover retail price. Address Book Dept., SCIENCE NEWS LETTER, 1719 N St., N. W. Washington 6, D. C. Ask for free publications direct from issuing organizations.

Addlescent Fantasy—Percival M. Symonds—Columbia University Press, 397 p., illus., \$6.00. The daydreams of adolescent boys and girls studied as yielding understanding of their personality.

THE AMERICAN SOLDIER, Vol. 1: Adjustment during Army life; Vol. 2: Combat and its aftermath—Samuel A. Stouffer and others -Princeton University Press, Vol. 1: 599 p., illus., \$7.50; Vol. 2: 675 p., illus., \$7.50. Sponsored by the research branch of the army and editorially sponsored by the Social Science Research Council, this work is a monumental social psychology study. Volume I deals with adjustment in a social institution struggling to adapt its old traditions to the needs of modern man. An especially significant chapter, with new facts and new insight is "The Negro Soldier." Volume 2 studies American young men under stress, in ground and air warfare; what makes them fight. It analyzes anxiety and fear, group loyalty and formal and informal social controls.

ART AND SCIENTIFIC THOUGHT—Martin Johnson—Columbia University Press, 200 p., illus., \$3.00. An investigation of the differences and likenesses between the scientific and the artistic attitudes to life.

Beginner's Guide to Seashore Life—Leon A. Hausman—Putman, 128 p., illus., \$2.00. This latest addition to the Beginner's Guide Series is written for those who want to know something of the many strange objects found on the beach and in the shallows of the seashore between the tides.

COLEOPTERA OR BEETLES EAST OF THE GREAT PLAINS—I. Gordon Edwards, 181 p., illus., \$3.50. A text for beginning and casual Coleopterists.

INDENTATION HARDNESS TESTING—Vincent E. Lysaght— Reinhold, 288 p., illus., \$5.50. Many problems involved in the hardness

testing of metals and other materials are covered.

FAMILY HOUSING—Deane G. Carter and Keith H. Hinchcliff—Wiley, 265 p., illus., \$4.00. Materials, equipment, and costs are discussed as well as building, buying, and financing. Written for the layman.

New Industry Comes to the South—National Planning Association, 32 p., paper, \$1.00. The NPA Committee of the South's report on the major reasons why the South is rapidly becoming one of the nation's leading manufacturing regions.

Organophilic Bentonites: I. Swelling in Organic Liquids—John W. Jordan—Mellon Institute, 13 p., illus., paper, free upon request to the publisher, University of Pittsburgh, Pittsburgh 13, Pa. Presented at the Twenty-second National Colloid Symposium, June 23-25, 1948.

PLANNING BY AMERICANS IN AGRICULTURE, BUSINESS, LABOR AND THE PROFESSIONS: 1949 Report—National Planning Association, 36



p., illus., paper, free upon request to publisher, 800 21st Street, N. W., Washington.,

RADIO AND TELEVISION BIBLIOGRAPHY- Gertrude G. Broderick and Harry Moskowitz -Gov't. Printing Office, 33 p., paper, 15 cents. More than 400 references, each one accompanied by an annotated description.

THANK GOD FOR MY HEART ATTACK-Charles Yale Harrison-Holt, 144 p., \$2.50. A distinguished novelist tells the story of his own experiences with an attack of coronary

Treatise on Powder Metallurgy, Vol I-Claus G. Goetzel-Interscience, 778 p., illus., \$15.00. The technology of metal powders and their products.

SLAVONIC ENCYCLOPAEDIA-Joseph S. Roucek, Ed.—Philosophical Library, 1,445 p., \$18.50. The important developments of the history of the Slavic peoples.

YOU CAN'T WIN-Ernest E. Blanche-Public Affairs Press, 155 p., illus., \$2.00. Facts and fallacies about gambling.

Science News Letter, May 21, 1949

Science Service Radio

➤ LISTEN in to a discussion on "New Research in Rheumatism" on "Adventures in Science" over the Columbia Broadcasting System at 3:15 p.m. EDST, May 28. Dr. Richard Freyberg, president of the American Rheumatism Association, Drs. Philip Hench and Edward Kendall of the Mayo Clinic, and Dr. W. S. C. Copeman of London, England, will be guests of Watson Davis, director of Science Service. These scientists will give a preview of the International Congress on Rheumatic Diseases to be held in New York City May 30-June 3, 1949. Drs. Hench and Kendall have discovered Compound E, a drug produced by the outer part of the adrenal gland, which has been used successfully in the treatment of arthritic patients, and they will discuss its use in the treatment of rheumatic patients.

Science News Letter, May 21, 1949

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