



Underground Enemies

➤ EARLY gardening operations are apt to turn up numbers of the fat white larvae commonly known as grub-worms, and once in a while a big brown beetle, its shell still moist and soft. It is natural to find them together, for the grub-worms are the larvae, or infants, of the beetles.

In ancient Egypt, these beetles would have been treated with the utmost respect, for they belong to the same general entomological cousinship as the scarab, which was a sun symbol.

Most widely distributed are the ones known sometimes as May-beetles, sometimes as June-bugs, depending on the month in which they become most numerous above ground in your neighborhood. These are found all over the country, except in the more arid regions.

In a large and regrettably growing section of the Northeast the pattern is repeated on a smaller scale—about one-fourth the May-beetle size—by a more recently introduced pest, the Japanese beetle. The two insects are fairly closely related, though their native homes are far apart.

Whenever your spade turns up either grub-worms or beetles, be sure to destroy

them. If you keep chickens, they will welcome such tidbits eagerly. The grub-worms also make good fish bait—if your mind tends to stray from the sober business of gardening. But even if you can't put them to any practical use, kill them anyway. Crush them with your spade, or drop them into a tin of kerosene.

If you live in Jap-beetle country, you don't need to be told why you should massacre all such insects you turn up. You have seen what havoc the swarms of adults can work on anything green and edible. The larvae underground duplicate on the

roots of plants what the adults do to the tops.

The bigger white grubs are even more destructive underground feeders than the Japanese beetle larvae, for their appetites are correspondingly larger and they are just as omnivorous. They will gnaw into the hearts of potatoes or carrots or other root crops; and what a lot of grub-worms can do to a strawberry bed can't be adequately discussed in print. These underground enemies show no mercy to your garden, and you should give them no quarter.

Science News Letter, April 23, 1949

ACOUSTICS

Deafness from Loud Noise

➤ THE temporary and partial deafness that you experience after listening to a very loud noise is not due to fatigue of the ear or the hearing nerve, because it takes place too quickly.

This is shown by new experiments conducted by Drs. E. Luscher and J. Zwillocki, at the Electro-Acoustic Laboratory, of the University Clinic for Oto-Rhino-Laryngology, in Basle, Switzerland, and reported in the JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA (March).

By varying the time interval between the test tone and the one used to deafen the listener it was established that the loss of sensitivity of the ear reaches its maximum in less than 0.4 second after the exposure to the loud noise. This establishes the fact that the process is one of dulling of the hearing by adaptation, the investigators conclude.

That the adaptation occurs in the ear and not in the hearing centers of the brain was shown when the deafening noise was led into one ear and the test tone into the other. It was only when the deafening

noise heard by one ear was louder than 50 decibels, that the other ear was deafened. It has previously been established that sounds louder than 50 decibels are conducted through the head from one ear to the other, and therefore the ear tested heard the deafening sound by bone conduction.

The loss of sensitivity is approximately proportional to the loudness of the deafening noise. After exposure to a sound 80 decibels above the faintest audible sound, it takes a sound 40 to 50 decibels louder than the faintest one normally heard to be audible.

The dulling of the hearing affects not only sounds of the same pitch as the deafening noise; the adaptation spreads to neighboring frequencies, chiefly higher ones.

Not only does the hearing loss occur very quickly, but the return to normal takes place within a few tenths of a second. After you are exposed to a noise 80 decibels louder than the faintest you can hear, your ears' sensitivity will be back to normal in 250 millionths of a second.

Science News Letter, April 23, 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.

ATOMIC ENERGY AND CONVENTIONAL ARMAMENTS—*Gov't Printing Office*, 57 p., paper, 20 cents. Discussions in the United Nations General Assembly in Paris, September 21-December 12, 1948, of the issues of atomic energy and disarmament.

THE CHARLES LATHROP PACK DEMONSTRATION FOREST—Clifford H. Foster and Burt P. Kirkland—*Charles Lathrop Pack Forestry Foundation*, 36 p., illus., paper, free upon request to publisher, 1214 Sixteenth Street, N. W., Washington 6, D. C. Results of twenty years of intensive forestry management.

CHILDREN FOR THE CHILDLESS—*Consumers Union*, 34 p., paper, 50 cents. A report on infertility and what can be done about it.

CORAL SEA—Alan Villiers—*Whittlesey*, 310 p.,

illus., \$4.00. An exciting story of adventure and exploration in one of the least known and most dangerous areas of the world.

DIAGNOSIS OF VIRAL AND RICKETTSIAL INFECTIONS—Frank L. Horsfall, Jr., Ed.—*Columbia University Press*, 153 p., \$3.75. The first of a series to come from Symposia held by the New York Academy of Medicine Section on Microbiology.

ELECTRONIC TIME MEASUREMENTS, Vol. 19, MIT Radiation Series—Britton Chance and others, Eds—*McGraw-Hill*, 538 p., illus., \$7.00. Presents a method of approach to the problems of time and distance measurement by manual and automatic means.

ENCYCLOPEDIA OF WORLD TIMBERS—F. H. Titmuss—*Philosophical Library*, 156 p., \$4.75.

Preserved Against Time

EMBED YOUR PHOTOS in NEW Magic PLASTIC

Preserve treasured photos in Castolite—"magic" liquid plastic that pours cold "like honey" . . . sets at room temperature "like glass." Make beautiful medallions like the one shown, unusual photo lampshades, distinctive paperweights with embedded photos. Embed hundreds of other things . . . real flowers, butter flies, coins, medals, etc. New pleasure, fine profits.

POUR GORGEOUS BOOKENDS

Castolite makes it easy to cast exquisite bookends like the one shown. Make duplicates of hundreds of art objects, figurines, etc. Crystal clear or in brilliant colors, they are wonderful for gifts or for sale. With easy-to-use Castomold, you can make your own molds in minutes. No special artistic skill required. Use only home utensils. Send 25c for exciting new Instruction Manual, packed with pictures showing how. Write today!

MANUAL 25c

The Castolite Co., Dept. D-343
Woodstock, Illinois

- A useful reference work containing detailed descriptions of nearly 200 different trees.
- FOUNDATIONS OF NUCLEAR PHYSICS—*Dover*, 272 p., illus., \$2.95. Essential primary source on "classic" materials in this field, reproduced in most instances from the originals in facsimile.
- FRESHMAN MATHEMATICS—C. V. Newsom—*Rinehart*, 3rd ed., 559 p., illus., \$5.00. Algebra, trigonometry, and analytical geometry presented as a tandem course.
- A GUIDE TO HUMECTANT SELECTION—S. M. Livengood—*Maclean-Hunter*, 2 p., paper, free upon request to Mellon Institute of Industrial Research, Pittsburgh 13, Pa. Contains a chart to aid in picking materials for their water absorbing or repelling qualities.
- THE HATCHABILITY OF CHICKEN EGGS AS INFLUENCED BY ENVIRONMENT AND HEREDITY—Walter Landauer—*University of Connecticut Press*, 231 p., illus., paper, free upon request to publisher, College of Agriculture, Storrs, Conn. The results of investigation of the genetic factors influencing hatchability.
- HUMAN RIGHTS AND GENOCIDE—*Gov't Printing Office*, 52 p., paper, 15 cents. Contains the text of the UN Universal Declaration of Human Rights and the stand taken by U. S. delegates on the question.
- INTERNATIONAL ECONOMIC PROBLEMS—*Gov't Printing Office*, 35 p., paper, 10 cents. Includes text of the resolution on economic development of under-developed countries as well as statements of U. S. delegates to the UN General Assembly.
- INTROGRESSIVE HYBRIDIZATION—Edgar Anderson—*Wiley*, 109 p., illus., \$3.00. A report on methods for studying hybridization in the field. A special feature is the section which shows how to draw up a detailed taxonomical description of a species without ever having seen it.
- ISOTOPES AND THEIR APPLICATION IN THE FIELD OF INDUSTRIAL MATERIALS—Paul C. Aebersold—*American Society for Testing Materials*, 28 p., illus., paper, \$1.00. A discussion of the significance and interrelation of atomic energy and industrial materials.
- LABOR IN AMERICA—Foster Rhea Dulles—*Crowell*, 402 p., \$4.50. A one-volume history of American labor written for the layman.
- LOBUND REPORTS, No. 2—James A. Reyniers, Ed.—*University of Notre Dame*, 162 p., illus., paper \$1.75, cloth \$2.50. Two articles give details on the rearing of germ-free chickens; a third raises the difficult question of a special nomenclature for germ-free animals.
- MAMMALS OF LAKE TAHOE—Robert T. Orr—*California Academy of Sciences*, 127 p., illus., \$4.00. History of the plants and animals that inhabit the Sierra Nevada.
- MELLON INSTITUTE—E. R. Weidlein, Jr.—*Butterworths Scientific Publications*, 4 p., paper, free upon request to the Mellon Institute, Pittsburgh 13, Pa. A short history of the institution.
- MICROBIOLOGY AND MAN—Jorgen Birkeland—*Williams and Wilkins*, 2nd ed., 525 p., illus., \$5.00. Published jointly with *Appleton-Century-Croft*. (See listing SNL Mar. 26)
- MUST WE HIDE?—R. E. Lapp—*Addison-Wesley*, 182 p., illus., \$3.00. Written for laymen by a scientist who worked on the atomic bomb and participated in the tests at Bikini. The author believes we must not hide from the facts; that an informed America will be unconquerable.
- THE NATIVE FORESTS OF CUYAHOGA COUNTY, OHIO—Arthur B. Williams—*Cleveland Museum of Natural History*, 90 p., illus., paper, \$1.00. A study of the character and composition of the forest cover before the white man entered it.
- NEW WORLDS EMERGING—Earl Parker Hanson—*Duell*, 385 p., \$3.50. Based upon 25 years of exploration from the Arctic to the tropics, this book discusses the possibilities in development of neglected lands and backward peoples.
- NOTATION ON A COLOR SYSTEM—Louis Cheskin—*Color Research Institute of America*, 18 p., illus., paper, 50 cents. A report on how to use color for planning, identification, mixing-matching, and printing.
- PERSPECTIVE IN MEDICINE: March of Medicine, 1948—*Columbia University Press*, 163 p., \$2.50. Six lectures on the frontiers of medical research for the general reader, the student, and the professional medical man.
- PHOTOGRAPHY FOR FUN AND PROFIT—*Arco*, 313 p., illus., \$2.50. A reference to basic photographic principles and to the technique of photography.
- PHYSICS PRINCIPLES AND APPLICATIONS—Henry Margenau, William W. Watson, and C. G. Montgomery—*McGraw-Hill*, 760 p., illus., \$5.00. A thorough and accurate introduction to the subject. For the college sophomore.
- PLEASURE WITH PLANTS—L. R. Tehon—*Illinois Natural History Survey*, 32 p., illus., paper, free upon request to publisher, Urbana, Ill. A discussion of what is necessary and desirable for a prospective amateur botanizer to know.
- PROBLEMS OF GREECE, KOREA, AND PALESTINE—*Gov't Printing Office*, 65 p., paper, 15 cents. Background for an understanding of some difficult world problems, as presented by U. S. delegates to the UN at Paris.
- RADIOACTIVE MEASUREMENTS WITH NUCLEAR EMULSIONS—Herman Yagoda—*Wiley*, 356 p., illus., \$5.00. A coordinated study on the use of photographic emulsions in measuring radioactivity.
- SCIENCE IN PROGRESS, Sixth Series—George A. Baitsell, Ed.—*Yale University Press*, 322 p., illus., \$5.00. A group of papers based on Sigma Xi and Silliman Lectures and written by men who have been responsible for the advances in various scientific fields.
- SUGAR AND SUGAR BY-PRODUCTS IN THE PLASTICS INDUSTRY—Louis Long, Jr.—*Sugar Research Foundation*, rev. ed., 66 p., paper, free upon request to publisher, New York. A survey of the patent and periodical literature. Sucrose, glucose and fructose are potential raw materials of either phenolic or alkyd plastics and acids from sugar are used as plasticizers.
- THE TENETEHARA INDIANS OF BRAZIL—Charles Wagley and Eduardo Galvao—*Columbia University Press*, 200 p., illus., \$3.75. The study of a surviving group which has made a successful adjustment to the new environment yet kept its original culture pattern.
- THE UTILIZATION OF SUCROSE BY THE MAMMALIAN ORGANISM—Walter W. Wainio—*Sugar Research Foundation*, 45 p., illus., paper, free upon request to publisher, New York. What happens to the 85 pounds of sugar you eat each year.
- VITAMINS AND HORMONES, Vol. VI—Robert S. Harris and Kenneth V. Thimann, Eds.—*Academic Press*, 435 p., illus., \$7.80. The latest report in this important series. Includes a cumulative subject index of Volumes I through V.
- VOTING AND MEMBERSHIP IN THE UNITED NATIONS—*Gov't Printing Office*, 34 p., paper, 15 cents. Discussion of admission of new members, a proposal vetoed by Russia, and of voting in the Security Council.
- THE WAYS OF A MUD DAUBER—George D. Shafer—*Stanford University Press*, 78 p., illus., \$2.50. The study on the life-habits of the mud dauber wasp. Remarkable photographs.
- YOUR LAND—Fred C. Morris—*Virginia Polytechnic Institute*, 95 p., illus., paper, 75 cents. A study of surveys, maps, and titles.

Science News Letter, April 23, 1949

Telephone Shoulder Cradle

Leaves both hands free while using phone.

Can be installed in two minutes.



Tele-Rest shoulder cradle gives phone users complete freedom of both hands. Fits any portable phone. Compact, unbreakable, adjustable.

A convenient phone accessory for executives, order clerks, secretaries, professional people and housewives. When the telephone is placed to the ear, the cradle rests comfortably on the shoulder, permitting the user to take dictation, write notes, check files or search for reference material. Tele-Rest is made of cast aluminum with rubber shoulder grip. Adaptable for either ear.

\$1.98

Post paid anywhere in the U. S.

JOHN N. CULVER

4007 Lawrence Street Colmar Manor
Brentwood, Maryland

Story Classics

A book of matchless beauty and content every two months to members at \$3.75—books that are winning awards for their format! Send for Free brochure.

STORY CLASSICS

Emmaus 61, Pa.