

Self Illuminating 5x POCKET MAGNIFIER

SCIENTISTS • BANKERS • DOCTORS • COLLECTORS

Powerful magnifier carries its own illumination. It has hundreds of uses: for examining textiles, fibers, etc.; inspecting tools and machines parts; for Lab study of insects, etc.; photo retouching; for coin and stamp collectors. Sturdy chromed steel and bakelite construction. Uses standard flashlight batteries.



Postpaid \$2.45

- STUDY SPECIMENS
- CHECK SIGNATURES
- EXAMINE STAMPS, COINS
- INSPECT DETAILS

\$3.45 7X Model
Less Batteries

John Surrey, Ltd., 11 West 32nd Street, Dept. SN-72, New York 1, N. Y.

FREE FILMS

The Free Films you need to enrich, vitalize, and enliven textbook teaching are listed in the New, 1958

EDUCATORS GUIDE TO FREE FILMS

Authoritative — Comprehensive
Easy-to-Use

Available for \$7.00
on 30-day approval

Educators Progress Service

Dept. ST Randolph, Wisconsin

LINGUAPHONE

MAKES IT EASY TO LISTEN and LEARN to

Speak

SPANISH (American or European) • FRENCH
ITALIAN • GERMAN • RUSSIAN • JAPANESE
ICELANDIC • MODERN GREEK

—any of 34 languages available AT HOME

With LINGUAPHONE—The World's Standard Conversational Method—You Start to SPEAK another language TOMORROW—or IT COSTS YOU NOTHING!

In just 20 minutes a day, you can learn another language while relaxed AT HOME—the same easy, natural way you learned to speak English long before you went to school.

Only LINGUAPHONE brings 8 to 12 of the world's best native language teachers into your home. You hear both men and women converse about up-to-date, everyday matters in their native tongue. YOU listen—YOU understand—YOU SPEAK correctly as they do. It's like living in another land.

That's why Linguaphone is used 'round the world by scientists, educators, governments and business firms. Over a million home-study students of all ages have learned to speak another language this ideal, conversational way.

Send today for Free booklet that fully describes the Conversational Method: also details on how you may obtain a COMPLETE Course-unit in the language you choose on FREE TRIAL.

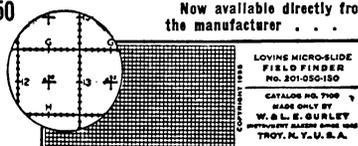
Linguaphone Institute, T-31-098 Radio City, N. Y. 20
In Canada: 901 Bleury St., Montreal

LINGUAPHONE INSTITUTE CI 7-0830
T-31-098 Radio City, New York 20, N. Y.
Please send me: FREE Book.
 Details on FREE Trial. No obligation, of course.
My language interest is.....
Name.....
Address.....
City..... Zone..... State.....
World's Standard Conversational Method For Over Half a Century

LOVINS MICRO-SLIDE FIELD FINDER

\$27.50

Now available directly from the manufacturer . . .



Ask for Bull. LFF, W. & L. E. Gurley, Troy, N. Y.

MICRO-ADS

Equipment, supplies and services of special interest to scientists, science teachers and students, science-minded laymen and hobbyists.

25¢ per word, payable in advance. Closing date 3 weeks prior to publication (Saturday).

SNL, 1719 N St., N.W., Washington 6, D. C.

CHEMICAL AND APPARATUS

CHEMILUMINESCENT MIXTURE TRANSFORMS chemical energy into light; trial quantity 25¢. Theodore Winkel, 607 East St., Madison, Indiana.

Rider's BASIC SCIENCE series

ENERGY by Sir Oliver Lodge, F.R.S. The long awaited reprint of this classic exposition by the eminent English physicist has been modernized, edited and illustrated. #200, \$1.25.

HEAT by Alex. Efron, E.E., Ph.D. While it is a classical study of the subject, it progresses to the modern concepts of basic thermodynamics and their applications to heat engines such as turbo props, ramjets and rockets. #200-2, \$1.50.

MECHANICS by Alex. Efron, E.E., Ph.D. Initial discussion covering vectors, their application to moments and torques; the laws and theory of motion; energy, work, frictional forces and mechanical efficiency provides the foundation for a more penetrating analysis of the subject. #200-3, \$1.50.

LIGHT by Alex. Efron, E.E., Ph.D. Starting with the various theories of light and the methods used to determine its velocity, the text considers its behavior from the point of view of light rays. Using the wave theory as a basis, reflection and refraction are examined. Deals with optical instruments, light sources and energy, and recent developments in illumination. #200-4, \$2.25.

SOUND by Alex. Efron, E.E., Ph.D. Covers the physical nature of sound and the characteristics of hearing with all the ramifications of acoustics, music instruments, the human voice. #200-5, \$1.25.

LIQUIDS AND GASES by Alex. Efron, E.E., Ph.D. While primarily concerned with the "why" of the subject, this probing analysis includes discussion of the practical applications of the theory. The text covers such aspects as the behavior of liquids and gases, pressures in fluids, Archimedes' principle, relative density, etc. #200-6, \$2.10.

NUCLEAR ENERGY by Alex. Efron, E.E., Ph.D. The atom, its makeup and uses are completely explained. Starting with the history; the electron, proton and neutron; natural radioactivity, alpha, beta and gamma rays, detectors, isotopes, the book progresses to advanced concepts such as the mass-energy relationship, induced radioactivity, nuclear fission, hydrogen bomb, etc. #200-7, \$1.25.

available at bookstores, or order direct:

JOHN F. RIDER PUBLISHER, INC.
116 West 14th Street, New York 11, N. Y.

Questions

BIOLOGY—What is a unique characteristic of embryonic epithelial tissue cells? p. 164.

CONSERVATION—How many Bermuda cahow birds are in existence? p. 167.

ENGINEERING—Where will the world's first atomic-energy heated houses be located? p. 166.

Photographs: Cover, U.S. Navy; p. 163, University of Wisconsin; p. 165, Los Alamos Scientific Laboratory; p. 167, Westinghouse Research Laboratories; p. 170, John E. Despaul; p. 176, W. R. Grace & Co., Polymer Chemicals Division.

ENGINEERING

Predict Use of H-Bombs For Electricity and Mining

► GIGANTIC underground hydrogen-bomb explosions will produce electricity before the fusion process can be harnessed, Dr. Edward Teller of the University of California's Radiation Laboratory predicted.

Addressing the Conference on Peaceful Uses of Atomic Energy, Dr. Teller said that controlled hydrogen fusion is economically improbable before the year 2000.

But, he said, it is probable that at a much earlier time the tremendous energy of H-bombs exploded deep in the earth could convert rock water into high-pressure steam useful for the generation of electricity. The bomb also could be used to move earth for the building of harbors and canals, to change the distribution of water of rivers and lakes, and to bare minerals for mining.

Hydrogen fusion processes operate with low radioactive contamination levels and at low cost due to the cheapness of deuterium, a fuel of fusion.

One way by which fusion power could be obtained is the direct production of electricity from a hot plasma of heavy hydrogen, deuterium, interacting with magnetic fields which would eliminate heat exchangers and many moving parts of the generating apparatus and make the future of thermonuclear reactors attractive.

When achieved, controlled thermonuclear power will dominate human planning for the far future.

Science News Letter, September 13, 1958

Do You Know?

During a period of years, even a minute daily increase in caloric intake, combined with the normal decrease in physical energy and the body's metabolic demands, can result in a marked *weight gain*.

An 80-year-old theory that the circular motion of the earth's axis causes small *ocean tides* has been confirmed by high-speed computers.

The Tennessee River drains a *watershed* of 40,000 square miles.