

**URANIUM-TUNGSTEN-MERCURY
ZIRCONIUM-ZINC**

Prospecting Information! Latest News and Data on Equipment and Methods.

Ultra-Violet Products, Inc. Dept. N San Gabriel, California
Please send me Prospecting information, description of equipment available, and name of nearest dealer.
Name _____
Address _____
City _____ State _____

**IF YOU'RE PROSPECTING FOR ANYTHING, YOU
NEED AN ULTRA-VIOLET MINERALIGHT**

HERE'S WHY! The Mineralight shows traces of uranium not sufficient to excite other responses, and detects minerals which are often found with uranium ore. By itself or teamed with a Geiger or Scintillation Counter, Mineralight is a must.

SEE THE MINERALIGHT IN ACTION

Your MINERALIGHT dealer can demonstrate the various models for you and give you complete information on Geiger counters, scintillation counters, and other prospecting equipment, as well as the latest data on uranium prospecting. See him today or write for valuable bulletin—"Uranium Prospecting with Magic Mineralight".

ULTRA-VIOLET PRODUCTS, INC.

ACTS LIKE A MAGNET
Attracts birds — keeps them near, and happy!

Bower's BIRD BOWER
**CAFETERIA WHERE BIRDS
CAN EAT IN PEACE**

CAT—, RAT—, WEATHERPROOF
A Beautiful Yard Ornament — This all-aluminum, rustless, bird-feeder doesn't fall apart when filling. Holds feed for DAYS. Feeds automatically. Kept clean. Feeding platform catches hulls. Polished roof, 15" dia.; polished platform, 12" dia.; over-all height, 10½". High quality, easy-to-fill, practical feeder will last lifetime. Ready to hang. Postpaid, only **\$9.95**

3-section, five-foot galvanized post, with foot-step and spearhead for pushing in ground. Extra, postpaid. **\$2.00**

Satisfaction Guaranteed or Money Back
BOWER MANUFACTURING CO.
P. O. Box 5N Goshen, Indiana

GENUINE OLDTIME GOLD PANS

THE BONANZA KIT: Contains a gleaming spun-copper 14½" pan; Booklet, "Pan Your Own Gold"; map, "Go Where the Gold Is"; Magnet; Magnifying Glass; Vials **\$9.50**

Delivered in stout serviceable box.

THE ELDORADO KIT: Contains all the quality items listed above except the 14½" pan in 24-gauge steel rather than copper. Delivered in stout serviceable box **\$6.50**

ECKERT MINERAL RESEARCH
PROSPECTORS SUPPLIES
110 EAST MAIN ST.
FLORENCE, COLORADO

PHYSICS

Auroras Photographed At One Frame a Second

➤ A FAST CAMERA that photographs auroras over most of the sky at a speed of one frame each second has been developed in Ottawa, Canada.

This is about 30 times faster than was possible with previously available equipment. Series of photographs taken in rapid succession and covering as large a part of the sky as possible are useful for studying the rapid development and fading of auroral displays. They can also be used for relating the position, intensity and movement of auroras with radar echoes.

The camera combines a spheroidal mirror and a 16 mm movie camera especially designed for the job. It can be operated either by hand or automatically. The instrument was developed by R. Montalbetti of the Defence Research Board's Radio Physics Laboratory in Ottawa.

Overdeveloping fast film will step up the camera's rate to about five frames a second, he reports in the *Canadian Journal of Physics* (March).

Science News Letter, April 6, 1957

Do You Know?

Largest single item in the U. S. program for the International Geophysical Year is the *satellite*, which will cost \$20,000,000 or more.

Cimarron, said to be the world's largest living steer, is actually a cross between a Brahman cow and a buffalo (bison) bull and is the only one of its kind to reach maturity.

Main *coconut products* in international trade are copra and coconut oil, important in margarine and soap manufacture.

Scientists have developed a method to convert bark into an inexpensive and unusually effective *soil builder*.

MAKE MONEY WRITING .. short paragraphs!

You don't have to be a trained author to make money writing. Hundreds now making money every day on short paragraphs. I tell you what to write, where and how to sell; and supply big list of editors who buy from beginners. Lots of small checks in a hurry bring cash that adds up quickly. No tedious study. Write to sell, right away. Send for free facts. **BENSON BARRETT**, 7464 N. Clark St., Dept. 163-D, Chicago 26. Ill.

Questions

AERONAUTICS—Who will control the air-space above 24,000 feet soon? p. 213.

INVENTION—Who invented the mine detector? p. 218.

MEDICINE—What is necessary for the effectiveness of diabetic pills developed to replace insulin shots? p. 211.

PSYCHOLOGY—What do the Egyptians listen to rather than the content of conversation? p. 215.

Photographs: Cover, Dr. Erwin W. Muller, pp. 211 and 218, U. S. Army; p. 213, Sylvania Electric Products Inc.; p. 214, Union Carbide and Carbon Corporation; p. 215, Fremont Davis; p. 224, Eastman Chemical Products.

PHYSICS

Field Ion Microscope Shows Atomic Structure

See Front Cover

➤ THE ATOMIC STRUCTURE of a rhenium crystal as revealed by the field ion microscope, magnification of about 2,000,000, is shown on the cover of this week's SCIENCE NEWS LETTER.

A resolution of better than three Angstroms, which is necessary to resolve the atomic lattice of the surface, can now be obtained by operating the field emission microscope at a low tip temperature and with helium ions, Dr. Erwin W. Muller of Pennsylvania State University reports. Operation of the field emission microscope with ions rather than electrons, which was developed about five years ago, resulted in an improvement in resolution by a factor of about four down to perhaps five Angstroms.

A color printing technique, which permits finding quickly a few displaced atoms among the many thousands that are visible, has also been developed.

Pictures taken with the field ion microscope allow scientists actually to observe atomic structure as it is.

Science News Letter, April 6, 1957

Contract Bridge

HOW TO PLAY IT

(The Point-Count System Explained)

The essentials, tactics, and strategy of Contract Bridge, described and explained in simple language so that every class of player may benefit.

Step-by-step method combines basic-bridge-theory with winning-game-theory. Studded with expert advice on modern bidding, the point-count system, card play in attack and defense, etc., with a thousand helpful hints to improve one's game.

ORDER NOW!

CONTRACT BRIDGE: How To Play It

by Ewart Kempson

\$2.50 Postfree • 10-Day Money-Back Guarantee
EMERSON BOOKS, Inc., Dept. 17-L
251 West 19 Street, New York 11