

Do You Know?

A puff of *cigarette smoke* contains approximately 15,000,000,000 particles of material.

A new fluted, hardened high-carbon steel *nut* can be used to fasten framing to masonry foundation.

Economically, late blight of potatoes and tomatoes is one of the worst of the world's 30,000 *plant diseases*.

The spawn, or spat, of *oysters* is contained in the form of a creamy mass inside the parent's shell.

Life expectancy for *physicians* was recently found to be better at almost every age level than it was for other men.

The luxury liners United States and America could be placed side by side on the flight deck of the Navy's aircraft carrier *Forrestal*.

PHYSICS

First Power Reactor

► THE FIRST of the Atomic Energy Commission's power reactors to be completed has gone into operation at the Argonne National Laboratory, Lemont, Ill.

Billed as a promising new system for the generation of power from nuclear fuels, the atomic power plant is an Experimental Boiling Water Reactor. It is called EBWR for short.

Designed to demonstrate the practicality of direct-boiling reactors, wherein the generation of steam is accomplished within the reactor vessel itself, EBWR is different than other types of power reactors, such as pressurized water and fast breeder reactors.

EBWR is a direct cycle boiling, 20,000 kilowatt (heat) reactor which provides energy for generating 5,000 kw electricity. This is not large in comparison with most present-day power stations, but was built to afford the maximum efficiency and economy.

Electricity from EBWR will be used in the Argonne National Laboratory.

The reactor, which has begun test operation at Argonne, is the outgrowth of three

previous reactors studied and experimented with by the Laboratory staff. Called Borax I, II and III, the earlier reactors proved the principle of boiling water reactors. When, in 1954, the AEC adopted its five-reactor power program, the boiling water reactor was included as one of the more promising types.

During the nuclear reaction within EBWR, the fissioning of uranium atoms releases heat which converts part of the water in the core to steam. The steam is fed to a turbine-generator.

Plans for three other boiling water-type reactors, to be built by private power groups, have already been announced. One, to produce 180,000 kw of electricity, has been proposed by the Commonwealth Edison Company of Chicago with a group of associated companies at Dresden, Ill. A second to produce 22,000 kw is planned by the Rural Co-operative Power Association at Elk River, Minn. The third will be built at Vallecito, Calif., by the General Electric Company.

Science News Letter, February 16, 1957

SCIENCE QUIZ ANSWERS

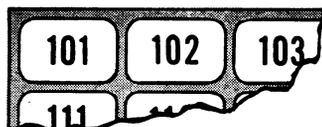
Now that you have taken the science aptitude test you are ready to check your answers. Give yourself one point for each right answer. Correct answers to Part A are: 16-4; 17-3; 18-1; 19-1; 40-2; 41-4; 42-2; 43-1; 44-3. Correct answers to Part B are: 72-4; 73-3; 74-2; 94-3; 95-2; 96-3. Correct answers to Part C are: 105-1 Sodium thiosulfate; 105-2 Methane; 105-3 Lanthanide series; 105-4 Potassium Nitrate; 105-5 Trinitrotoluene; 107-1-8; 107-2-4; 107-3-6; 107-4-7; 107-5-3; 107-6-9; 107-7-3; 107-8-10.

Science News Letter, February 16, 1957

SEQUEX LABELS

Consecutive Numbered and Self-Adhesive

For numbering samples and specimens received at laboratory for analysis or test. Many other uses. Labels adhere to glass, wood, metal, plastics, textiles, paper.



Numbered 1 to 5000
100 Numbers on One Sheet

You can select any series of numbers
500 Labels \$2.50; 1M \$4; 5M \$18

Write for samples SL-SNL

R. P. CARGILLE LABORATORIES, Inc.
117 Liberty St. New York 6, N. Y.

A Complete Professional
TELESCOPE



**4-INCH
DYNASCOPE®
65X - 130X - 167X**

A fine parabolic mirror reflecting telescope for every astronomer—amateur or professional—who insists upon fine optical performance. An instrument of this high quality has never before sold at anywhere near this astonishingly low price. In fact, it is the only reflecting telescope available for under \$100 with a parabolic mirror, rack and pinion focus and 3 achromatic eye pieces.

The *Dynascope* will resolve Epsilon Lyrae as four brilliant gems. The Herodotus Valley of the Moon can be clearly seen with breath-taking sharpness. Polaris and Zeta Ursa Majoris are resolved with excellent definition.

A fully achromatic precision instrument, scientifically constructed, the *Dynascope* will give you years of astronomical pleasure and satisfactory service. It is completely assembled, fully aligned, ready for use. Each *Dynascope* must pass rigid resolution and diffraction tests before shipment and is sold on an ironclad money back guarantee.

**CRITERION
MANUFACTURING CO.**
331 Church Street • Hartford, Conn.

FEATURES:

- 1 4 inch Parabolic Mirror Aluminized plus Zircon Quartz layer
- 2 3 Eyepieces—(1) 65X Huygen (2) 130X-167X Achromatic Ramsdens
- 3 Rack & Pinion Focusing
- 4 4-power Achromatic Finder Scope
- 5 Combination Non-Friction Equatorial & Alt-Azimuth Mount
- 6 Bakelite Tube
- 7 4-point Tube Suspension
- 8 Tripod with Hardwood Folding Legs

MAIL COUPON TODAY

At an unbelievably low price
\$49.95
F.O.B. Hartford, Conn.
Shipping Weight 12 lbs.
Express Charges Collect

CRITERION MFG. CO., Dept. SND-29
331 Church St., Hartford 1, Conn.
Please ship me as once, subject to your money back guarantee, 4-inch Dynascope Telescope.

Enclosed find check or money order \$49.95
 Send C.O.D. Free Illustrated Literature

Name.....
Address.....
City..... State.....

