

PSYCHOLOGY

**Eye Can "See"
Current as Vague Cloud**

➤ EACH of your sense organs is especially sensitive to a particular kind of stimulation. The eye is especially sensitive to light and distinguishes between various intensities of light, patterns, colors, and so on.

But each sense organ is also sensitive to the passage through it of a weak electric current. Your eye "sees" an electric current as vague bright clouds that hover over much of the field of vision, Dr. Lorrin A. Riggs of Brown University, Providence, R. I., told the American Association for the Advancement of Science in Atlanta. The clouds are known to scientists as phosphenes.

On the basis of previous experiments by other investigators, it might be expected that seeing a red, a green, or a blue light would have a distinctive effect on the bright clouds aroused by electric current.

If this were true, the mild electric current applied to the eye would serve as a useful tool to measure color vision, a very difficult thing to measure precisely.

Unfortunately, Dr. Riggs found that it does not work. The phosphenes are affected, not by colors seen previously, but by the visual system for seeing at night or in very dim illumination. All the various colors have similar effects on the phosphenes produced by electric current.

Stimulation of the eye with electric current does, however, provide scientists with another new research tool. It will be of use, chiefly, in studying dark adaptation and the responses of the eye to very dim light.

Science News Letter, January 7, 1956

VITAL STATISTICS

**Predict Three Score Years
And 20 for Many in U.S.**

➤ MANY AMERICANS will by the year 1970 be beating the Biblical length of life of three score years and ten. They will be living to three score years and 20.

The proportion living to 100 years is about the same today as it was a century ago or a millenium ago, however.

These are the predictions of Dr. Louis I. Dublin of the Institute of Life Insurance, who gave two Messenger Lectures at Cornell University, Ithaca, N. Y.

In 1970, Dr. Dublin said, the average American white man of 65 will have an even chance of reaching 79. The white woman of 65 will have a life expectancy of 83 years.

Dr. Dublin sees little basis for "extravagant forecasts of longevity based on a dietary revolution or some world-shaking discovery in connection with the chronic diseases."

Most deaths, he pointed out, are due to the aging process of the body and there is no sign that this will be reversed.

Science News Letter, January 7, 1956

GENERAL SCIENCE

Science 1921-1955

➤ A THIRD of a century ago SCIENCE SERVICE, in its first year of operation, covered for newspapers the 1921 meeting of the American Association for the Advancement of Science meeting at Toronto, Canada. The late Dr. Edwin E. Slosson, first SCIENCE SERVICE director, and Watson Davis, now SCIENCE SERVICE director, reported the Toronto meeting by wire.

At the 1955 meeting at Atlanta, Mr. Davis contrasted those early days of science reporting with dispatches he has sent out from the latest sessions.

There has not been time enough to verify one prediction made at the 1921 meeting. The late Dr. Eliot Blackwelder of Harvard forecast that some millions of years in the future an entirely new and more highly organized animal may spring from some ancestral stock now relatively obscure. It would rise, at first slowly and then more rapidly, and "would finally achieve even greater heights of achievement than anything which lies within the capacity of the human species."

The corn borer, which since has spread to most of America's corn areas, was then

only menacing New York state after doing damage to Canadian areas.

The strawberry weevil, tiring of a fare of strawberry, blackberry and raspberry buds, was found to be attacking apple, tomato and cotton.

Spores of wheat rust disease were found to travel as high in the air as 10,000 feet.

The first aerial battle in man's war on the insects was reported. One U. S. Air Service airplane laden with poison dust killed thousands of caterpillars in the tops of Catalpa trees in Ohio. Before this, airplanes had been used only for scouting insect infestations, not for actually fighting them.

Longest-tongued and heaviest bees were found to bring home the most honey.

Presidents of the AAAS for the 25 years preceding 1921 were found to average 61 years five months in age. (The 1955 retiring president is aged 61 years five months.)

A world's record for turtle speed was announced as a mile in three years, 11 months and 19 days.

Science News Letter, January 7, 1956

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

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

MAIL COUPON TODAY

CRITERION MFG. CO., Dept. SND-13
331 Church St., Hartford 1, Conn.

Please ship me at 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.....