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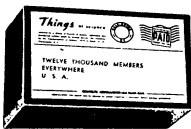
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## TECHNOLOGY

**Solar Cells Improved, Costs Continue to Fall**

SILICON solar cells for converting light directly into electricity now have a conversion efficiency of 14%. When announced in 1954 by their inventors at the Bell Telephone Laboratories, the cells' efficiency was only six percent.

The American Power Conference in Chicago was told that with 100% efficiency, cells covering an area 300 miles long and 20 miles wide could produce enough electricity for the whole world. Dr. C. A. Escoffery of International Rectifier Corporation, El Segundo, Calif., said that solar cells already cost less per kilowatt hour than flashlight batteries, and costs will continue to fall.

"The main economic problem is now one of reducing the cost of storage-battery systems," Dr. Escoffery said. The battery systems are needed to store the electricity for use when needed.

Science News Letter, May 21, 1960

## MEDICINE

**Fungus Makes Better Guinea Pig Than Mice**

A CERTAIN FUNGUS may turn out to be a better "guinea pig" than mice when it comes to screening products which might be cancer cures.

Commonly known as "water mold," the fungus has been used by two Michigan State University scientists to detect the presence of eight out of eight tumor inhibitors supplied by the National Institutes of Health.

Only six hours were needed for each trial, report Dr. Everett S. Beneke, professor of botany and plant pathology, and Dr. Yamuna Lingappa, research associate.

Using mice, it takes seven days to tell whether or not a substance has tumor-inhibiting properties.

The fungus method is now being tested further. N.I.H. sends unnamed substances to Michigan State. Dr. Lingappa must tell with the fungus assay which ones are tumor inhibitors.

If it proves effective, the technique could be used to screen the thousands of compounds sent to N.I.H. and pharmaceutical companies every year for testing.

The usual method is to test unknown substances on mice with tumors. In addition to taking seven days for results, this technique involves costs of raising and infecting large numbers of particular strains of mice.

The M.S.U. researchers simply treat their easily grown fungus with the trial substance. If it is a tumor inhibitor, it is expected to stop or slow spore formation by the fungus, *Achlya flagellata*. It is a cottony mold sometimes seen on fish and other water animals.

The reason the fungus makes a good test, Dr. Lingappa said, may be because its growth is similar in some respects to the wild rapid growth of a tumor.

The project is supported by a grant to M.S.U. from the American Cancer Society.

Science News Letter, May 21, 1960

## ENGINEERING

**Space Simulated To Test Antennas**

See Front Cover

ANTENNAS placed in the anechoic room shown in the photograph on the cover of this week's SCIENCE NEWS LETTER can be tested to determine how they perform under conditions simulating those found in space.

While mounted in the room, an antenna receives only the signals directly transmitted to it. Porous plastic material covering the walls, ceiling and floor, combined with sharply angled interior baffles, makes unwanted signal reflections and other interference negligible.

The accurate measurements of air navigation antennas are being made at International Telephone and Telegraph Corporation's Federal Division in Clifton, N. J.

Science News Letter, May 21, 1960

**Do You Know**

Some of the known causes of Parkinson's disease are: hardening of blood vessels, carbon monoxide poisoning, and certain virus infections.

**Questions**

EDUCATION—What percent of underprivileged teen-agers studied wanted a professional career? p. 326.

GENERAL SCIENCE—How has the National Science Foundation helped to end the "translation gap"? p. 322.

PSYCHIATRY—To what is the degree of improvement in alcoholics related? p. 323.

Photographs: Cover, International Telephone and Telegraph Corporation; p. 323, Smith, Kline & French Laboratories; p. 325, Boeing Airplane Company; p. 336, Empire Enterprises.

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