

MEDICINE

Check Growth of Cancer in Animals by Dietary Means

Elimination of Lysine, an Amino Acid Essential to Growth, Stops Malignant Growth for Prolonged Time

A DIET which checked the growth of breast cancer in mice "for prolonged periods" is reported by Drs. Carl Voegtlin, J. R. Thompson, and Mary E. Mazer, of the U. S. Public Health Service's National Institute of Health (*Public Health Reports*).

"It is not to be understood that the reported results hold out any immediate hope of checking human cancerous growth by diet," the scientists emphasize.

Further extension of the dietary experiments reported, however, "may eventually furnish knowledge possibly leading to some practical applications," they cautiously state.

The diet which checked growth of cancer in animals was one that lacked lysine, an amino acid essential for growth. The scientists explain their work and its results as follows:

"Both normal and malignant tissues contain proteins and the continuous growth of both types of tissues requires the continuous construction of new proteins. Without this, tissues cannot grow because proteins are essential components of tissues. Proteins are very complex chemicals which are built up from 21 different simpler chemicals, the so-called amino acids. Some of these amino acids apparently cannot be made by the animal organism, but are manufactured by plants. They must therefore be present in the diet in adequate amounts, otherwise normal growth of young animals is impossible. This raises the question whether it is possible to check cancerous growth by feeding animals on a diet deficient in one of these amino acids which are known to be essential for normal growth.

"The present report shows that malign-

ant growth is checked for prolonged periods in animals fed on a diet deficient in the amino acid lysine. It is shown furthermore that after a period of inhibition of malignant growth the addition to the diet of a relatively small amount of lysine causes a striking stimulation of tumor growth.

"It is believed that these observations show for the first time that it is possible to check the growth of a typical cancer in animals by means of a specific dietary deficiency. This is contrary to the current belief based on clinical experience and previous results obtained by experimentation on animals."

Science News Letter, October 24, 1936

ASTRONOMY

Asteroid Found in August Has Had Its Path Computed

A NEW asteroid or minor planet discovered in August by Dr. Karl Reinmuth of Heidelberg, Germany, has had its path in the heavens computed. It is one of the Jupiter group of the solar system's small fry. Designated 1936QW, the asteroid is one of hundreds of fragments, many of them only a few miles in diameter, located between the orbits of Jupiter and Mars.

Science News Letter, October 24, 1936

BOTANY

Almost a Jungle Sprouts From One Single Root

See Front Cover

SUGARCANE is a giant grass, and "stools out" from the root as other grasses do. In a recent fair on the island of Kauai, Hawaii, a prize was offered for the biggest stool of cane. It was taken by the one shown on the cover of this week's SCIENCE NEWS LETTER. This one-root jungle of thirty-foot stalks would have yielded about 400 pounds of sugar. Lindsay Faye, manager of the plantation growing it, is also shown.

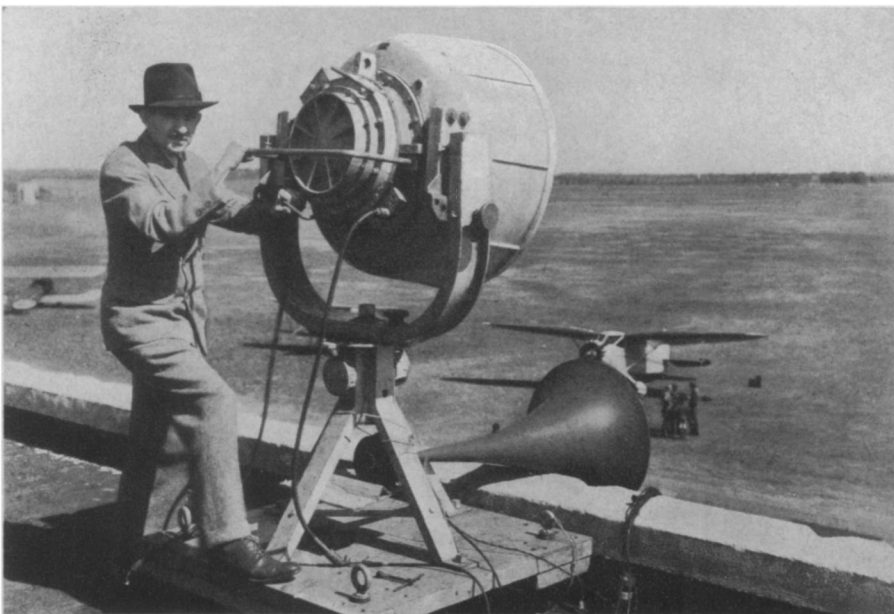
Science News Letter, October 24, 1936

CHEMISTRY

Solid Lather on Textiles Produces Pearly Effect

AN INGENIOUS way of producing pearly and iridescent effects on textiles has been invented in Austria. The process involves making a lather of solutions of cellulose or cellulose derivatives, and applying this to the material in such a way that the lather solidifies.

Science News Letter, October 24, 1936



SOUND PROJECTOR

A unit of what is believed to be the world's largest and most powerful sound projecting system, spraying sound out in any desired direction in a way parallel to that of a searchlight casting its beams. This is one of a cluster of mammoth sound projectors installed in a central tower at Roosevelt Raceway to provide spectators of the races with clear announcements free of the old confusion of jumbled sound coming from a multitude of loudspeakers.