

COMET - DISCOVERER — David
Rotbart is shown in his home observatory. The binoculars he is holding
are the ones with which he spotted the
new comet, which will bear his name
along with that of its co-discoverer,
Pajdusakova, a European astronomer,
who cited it on May 29.

GENERAL SCIENCE

Seven Blind Spots Still Unsolved by Scientists

SEVEN SECRETS or mysteries, major unknowns that need scientific attention and exploration to conquer, were pointed out at the Southwest Chemurgic Conference by Watson Davis, director of Science Service, Washington, D. C.

The conquest of some of these blind spots may not come for years or decades, he said. The acceleration of science's achievements may bring some in a relatively short time.

First is the secret of photosynthesis. This is the greatest unknown. It is what the green leaves do when they capture the energy of the sun and store it in the form of food.

Second is the secret of life, and third, the secret of the universe, and then the secret of the chemical elements. The other three Mr. Davis called mysteries. They are the mystery of disease, the mystery of mind and emotions, and the mystery of war. "War is a major problem worthy immediately of our best research," he added.

Science News Letter, June 15, 1946

AERONAUTICS

Rainmaker Aids Landings

A RAIN-MAKING machine now under construction may solve the problem of clearing fog-bound landing fields and prevent many of the fatal air crashes now caused by "ceiling zero" visibility at airports.

The rainmaker sends out sound waves that drive the fog particles together, forming rain drops. The rain falls, clearing the air field. This attack on the fog problem proved effective in tests during the war at the Navy's Landing Aids Experiment Station at Arcata, Calif., where sirens were used to blast the fog, but the new machine may do a more subtle job.

Sirens not only turned the fog to rain but also made personnel on the field sick and knocked birds out of the sky, so the new machine will be able to generate sounds of such high frequency that they cannot be heard by human or animal ears.

The rainmaker, being built by Ultrasonic Corporation, is a high-powered sound generator equipped with a wide frequency range for experiments to determine how much sound of what fre-

quency will do the best job clearing different types of fog.

The Navy's Office of Research and Invention expects to spend \$100,000 for the construction and experiments with the rain machine that is scheduled to be tested at Arcata, where the Army, Navy and civilian air groups now test all-weather landing aids. The Navy hopes to try out the instrument in September at Arcata before the fog season there ends.

An air jet-type, acoustic generator, the rainmaker will be about eight feet in diameter with a parabolic reflector. An earlier model gave good results in the laboratory, but lacked the controlled frequency range of the new machine.

Tests to be made at Arcata with the acoustic generator include experiments with the effects of sound waves on the structure of airplanes and on personnel in planes.

Most successful wartime fog dispersal systems, the famous FIDO (fog, intensive dispersal of), used controlled fires along the runways to clear the fog over landing strips. The greatest disadvantage of these units, the high fuel cost per landing, is being overcome by a new thermal installation nearing the test stage at Arcata, but the Navy is looking to the possibility of sound replacing heat in the fight against fog.

Even if the sonic system does not prove practical for airports, officials of the Office of Research and Invention declare that new and important information about sounds and their uses will be gained from the rainmaker.

Science News Letter, June 15, 1946

SURGERY

Removing Brain Tumor Restores Sight

➤ AN UNUSUAL case of recovery from blindness that had lasted six months is reported by Dr. J. Grafton Love and Dr. C. Wilbur Rucker of the Mayo Clinic. The recovery was due to removal of a brain tumor that "interrupted" the left nerve of sight and practically all the nasal fibers of the right one.

On the morning of the operation the patient was totally blind in the left eye and could not see enough with his right eye to count fingers held 12 inches from his eye. Two weeks later examination showed "excellent improvement and return of vision in the nasal portion of the field of the left eye." Improvement of eyesight also occurred in the less seriously affected right eye.

Within three months after the operation the patient was back at his work as repair foreman in a railway yard, a job he had had to quit six months before the operation because of the blindness, which had been coming on for a year.

Science News Letter, June 15, 1946

NUTRITION

Baby Food to Be Kept In Freezer, Not a Can

➤ BABIES WILL eat frozen foods in the near future. Dr. Leonora Hohl, food technologist on the Berkeley campus of the University of California, says that frozen foods are better for babies than some types of canned foods.

The frozen foods retain a large percentage of the vitamins over long periods. They have more eye-appeal and are more palatable in many cases. Only what is wanted for a serving need be thawed at one time.

Hospitals and other large institutions will be the first large users of frozen baby foods, Dr. Hohl predicts.

Science News Letter, June 15, 1946