

## ENTOMOLOGY

# World Flies Resist DDT

► DDT-RESISTANT HOUSE FLIES can now be found throughout the world, Dr. Ralph E. Heal, executive secretary of the National Pest Control Association, reported at the Association's meeting in Elizabeth, N. J.

Other insects menacing man's health are also developing strains that literally thrive on DDT and other chlorinated hydrocarbons, Dr. Heal warned.

"Almost all of the medically important pests now have shown resistance to one or more of the insecticides heretofore effective against them," he said. "The problem is world-wide in its scope and of serious concern to all who are responsible for the health of animals and man."

Calling the insecticide-resistant pests "super" insects, Dr. Heal pointed out that new strains of flies, cockroaches, fleas, bedbugs and ticks have tossed "a new challenge at science and the pest control industry."

For some reason not fully explained, he

said, certain individuals among a group of insects survive treatment by a given insecticide. A chemical process makes the poison harmless to that individual and his progeny. From these individuals, a whole new strain of insect appears.

Dr. Heal said that the first case of DDT-resistant flies was spotted in a Swiss scientist's laboratory in 1947. Since then, the fly has been found to be resistant to DDT and similar chlorinated hydrocarbons the world over. The German cockroach resists DDT and chlordane, and cat and dog fleas resist DDT. Bedbugs are now becoming resistant, and the brown dog tick is the newest resistant insect to be reported.

The battle between man and insect continues. Where DDT has failed malathion has worked, Dr. Heal said, but scientists fear that soon insects will develop a resistance to malathion and newer insecticides, just as they have to DDT.

Science News Letter, April 13, 1957

## AERONAUTICS

# Build Gander Radio Link

► CANADA will build a "forward scatter" radio station near Gander Airport, Newfoundland, to help speed air traffic across the North Atlantic.

Part of a chain to improve communications in this region, it will cost \$650,000, the International Civil Aviation Organization reports. Canada may also jointly finance other stations in Iceland and Greenland with countries whose aircraft fly the North Atlantic.

The network is aimed at providing one direct voice channel and four teletypewriter channels between Gander, Greenland, Iceland, Scotland and Ireland.

"Forward scatter" uses high-powered transmitters working in the very high frequency radio band. A small portion of the signals from especially designed antennas are scattered by an ionized layer of air about 55 miles above the earth and picked up by ground receiving stations considerably beyond the horizon.

This communications method is being used because existing high frequency radio teletype circuits are subject to frequent radio blackouts due to ionospheric disturbances.

Recommendation for the new chain resulted from the prediction that development of air traffic in the North Atlantic will be more and more handicapped as traffic increases, unless collective action is taken by all governments whose airlines fly the Atlantic. This prediction was made by the jet age task force of the International Civil Aviation Organization, a specialized agency of the United Nations.

The task force found that, in the summer of 1956, more than half the flights across the North Atlantic suffered substantial difficulties originating in communications or air traffic control services.

Using the forward scatter network is expected to alleviate this situation at least partially.

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## EDUCATION

# Medical Schools Create Oversupply of Specialists

► THE NATION'S MEDICAL SCHOOLS are not giving adequate training in general medical practice and have helped create an oversupply of specialists, Dr. Malcom E. Phelps of El Reno, Okla., newly elected president of the American Academy of General Practice, told members of the Academy meeting in St. Louis.

A man can be a trained specialist but, at the same time, an inadequately trained general practitioner, Dr. Phelps reported.

The concentration of specialists in the more populated areas has resulted in an intense competition for patients. Because of it, many specialists have been forced for economic reasons to enter general practice, he pointed out.

Unless the country's family doctors take an active part in shaping professional policy, "selfish and unscrupulous persons may soon further deny them the opportunity of performing many services for which they are adequately trained," he said.

Science News Letter, April 13, 1957

# Do You Know?

It is now possible to withdraw whole blood from a donor and simultaneously separate the red blood cells and plasma and return the red cells to the donor.

*Pyrethrum* is a daisy-like flower that yields a natural insecticide.

The U. S. population has grown by 100,000,000 since 1895.

Cows "short changed" on protein in their diets may be in danger of falling ill with ketosis which will cut milk output seriously.

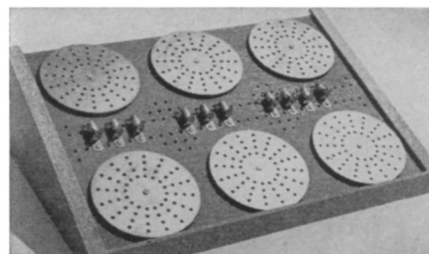
Horizontal and vertical movements of the ocean water masses influence the climate of our world.

The Jackpile Mine in New Mexico, which is estimated to contain at least 15,000,000 tons, is the largest single uranium deposit in the United States.

*Weathervision*, the use of industrial TV techniques to allow one forecaster to service a number of customers simultaneously, is now operating.

Two large eggs provide about the same amount and quality of protein as an average serving of meat.

# Can you think faster than this Machine?



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