



**ROCKET DEFENDER**—Capable of firing 24 2.75-inch "Mighty Mouse" rockets, the F-86D's rocket launching device is displayed for the first time. A bit from a single rocket can knock out a heavy bomber.

## METEOROLOGY

## Can Occupy Arctic Area

► "THE OCCUPATION of the Arctic Ocean area as opposed to its mere exploration has at last been accomplished," Lt. Col. Joseph O. Fletcher, discoverer of the floating ice islands of the Arctic, said in Atlantic City, N. J.

He told a meeting of the American Meteorological Society on the first anniversary of the landing on ice island T-3 that the experience gained in Arctic Ocean living by the weather and scientific station on the island has now made it possible for man to live on the ocean rather than to make short dashes over its ice covered surface.

"We have learned the techniques of living in this severe, unforgiving environment," he pointed out. The use of snow as a construction material came to be well known. The technique of melting snow two or three weeks before it would otherwise melt in the Arctic spring by spreading dark material on it was mastered.

Supply by air turned out to be easier than had been expected. Three methods of delivery were used. First, the sturdiest bundles were dropped in "free fall" from the C-54 supply plane. Second, parachutes were used for more tender equipment. Third, the most delicate instruments were brought in by a C-47 which landed on the ice island. It was learned by accident, when a few parachutes failed to open, that the two or more feet of soft snow with a crust on it

provided a perfect cushion. Thus even some instruments could be delivered in "free fall" drops.

The ice island seems to be circling around with the prevailing winds in the Arctic Ocean. Some fear was expressed that it would be caught in the Greenland current and drift down into the Atlantic, but this danger has passed. The island is presumably good for years yet.

"From our experience on T-3," Col. Fletcher said, "the Arctic Ocean area can now be regarded as a land mass. We can come and go as we please."

Science News Letter, April 4, 1953

## TECHNOLOGY

## Design Method Yields Miniature Transformers

► A NEW design method worked out by the Army Signal Corps helps engineers design the smallest possible transformer needed to handle a given load in electronic equipment. The method sacrifices low electrical losses in the transformer for a saving in weight.

Details are discussed in a 168-page micro-filmed report "Design and Development of Miniature Hermetically Sealed Power Transformers" available from the Library of Congress.

Science News Letter, April 4, 1953

## PHOTOGRAMMETRY

## Engraving on Plastic To Revolutionize Maps

► NEW METHODS of reproducing maps by "engraving" on plastics result in turning them out faster and with less labor, it was reported to the American Congress on Survey and Mapping meeting in Washington.

"Scratching," or line-scribing, is done on an opaque coating or emulsion applied to a semirigid transparent plastic sheeting such as Plexiglass. This is one of the new methods that will be the accepted map-making process within a short time. Such methods will soon replace drafting for the preparation of maps by most government agencies, Dr. William E. Wrather, director of the Geological Survey, predicted.

Using the "engraving" method, map-makers can be trained in a few days, production upped as much as 30% and the quality of the maps improved.

Science News Letter, April 4, 1953

## PUBLIC SAFETY

## Bathtub Less Dangerous Than Was Once Thought

► THE BATHTUB is less dangerous than most people think. Falls in it cause relatively few of the 28,000 home accident deaths in this country each year, Metropolitan Life Insurance Company statisticians find.

Almost half the fatal falls in the home were on stairs. A considerable number occurred when the victims were "merely walking about a room or going from one room to another."

A rug, highly polished or wet floors and objects "left carelessly around" were held responsible for many accidents.

Science News Letter, April 4, 1953

## GEOPHYSICS

## Trucks on Highways Produce "Earthquakes"

► HEAVY TRUCKS rumbling over English roads set up miniature earthquakes that produce background static in the "ears" of seismic equipment being used in the search for underground oil and water.

Aircraft, heavy machinery, wind, rain and squeaky waterworks pumps also are on the seismic prospector's black list, C.D.V. Wilson, British scientist, reported to the Royal Society in London.

Traffic noises can be picked up as much as two miles away from major highways or communities. A waterworks pump once was "heard" four miles away by the sensitive ears of the seismic equipment.

At night weak sounds can be detected in the country. Some of the noises can be traced to geophysical origin, but their precise nature is unknown.

Science News Letter, April 4, 1953