

METEOROLOGY

Weather Maps of Future

► TWO STARTLING developments in routine daily weather forecasting are being promised by weathermen for from three to ten years from now.

First, all the past history of the weather, so carefully collected by the world's weather bureaus, can be discarded for this purpose.

Second, the laborious drawing of large-scale weather maps by hand in regional and local weather forecasting stations all over the United States will no longer be necessary.

This happens when electronic "brains" take over the job of predicting the weather. Already the Air Weather Service, the Navy and the U. S. Weather Bureau are working on plans to put the electronic computers and the method of numerical forecasting into operation.

One small setback came when the Budget Bureau under ex-President Truman turned down a request by the Weather Bureau for funds for an electronic computer. It is not expected that the Eisenhower administration will put the computer back in the budget, but it is believed that the computing work can be handled by the more well-heeled military services.

Numerical forecasting will represent a sharp break with the belief that to forecast tomorrow's weather a forecaster has to know his weather history. (See SNL, March 28, p. 198.)

The computer will provide master maps for the United States, a map showing today's weather and another showing its prediction of tomorrow's. The local forecaster will then use these along with local influences known to him to determine what the weather will be in any one spot.

Work is being done in numerical forecasting at the Institute for Advanced Study, Princeton, the Cambridge Air Force Research Center, Mass., the University of Stockholm, the U. S. Weather Bureau and the University of Chicago.

Science News Letter, April 4, 1953

METALLURGY

New Alloy Saves Scarce Beryllium

► A NEW metal alloy of copper, nickel, silicon and aluminum has been found that promises to do the job of a strategic copper-beryllium alloy in accounting and billing machines, aircraft instruments and electrical instruments, the American Society for Metals meeting in Los Angeles was told.

The copper-base alloy has good qualities of electrical conductivity, corrosion resistance and springiness. Developed at Battelle Memorial Institute, Columbus, Ohio, for the International Business Machines Corporation, the metal also promises to be

"somewhat less" expensive than its copper-beryllium forerunner.

Although the copper-beryllium alloy is a little better, beryllium is critical because of its possible large-scale use in the atomic energy program. It also is expensive, selling for about \$71 a pound, as contrasted to the less-than-a-dollar selling price per pound for each of the new alloying elements.

Science News Letter, April 4, 1953

PUBLIC HEALTH

Uranium Cure Claims Combated by Food, Drug

► URANIUM IS such a glittering word in this atomic age that thousands of ailing persons were led to pay admission fees to abandoned uranium mines in Montana in the vain hope of being cured of arthritis and related conditions.

When the promoters of this started shipping radioactive ore and treatment devices in interstate commerce, the Food and Drug Administration stepped in and seized the shipments.

The ore, selling for \$10 per five-pound sack, gave off fewer gamma rays than the luminous dial of an ordinary wrist watch, FDA tests with Geiger counters showed. The treatment cabinets, valued by the shippers at about \$400 each, also emitted very weak radioactivity.

The Government's charges were based entirely on false and misleading claims. The radioactivity was too low to constitute a health hazard.

Any product emitting enough radioactivity to affect the functions of the body is dangerous to use without medical supervision, FDA warns, and must be labeled: "Caution: Federal Law Prohibits Dispensing Without Prescription."

Science News Letter, April 4, 1953

SURGERY

New Operation Stops Breast Cancer Spread

► MORE WOMEN will be saved from breast cancer death if a new type of operation lives up to present promise.

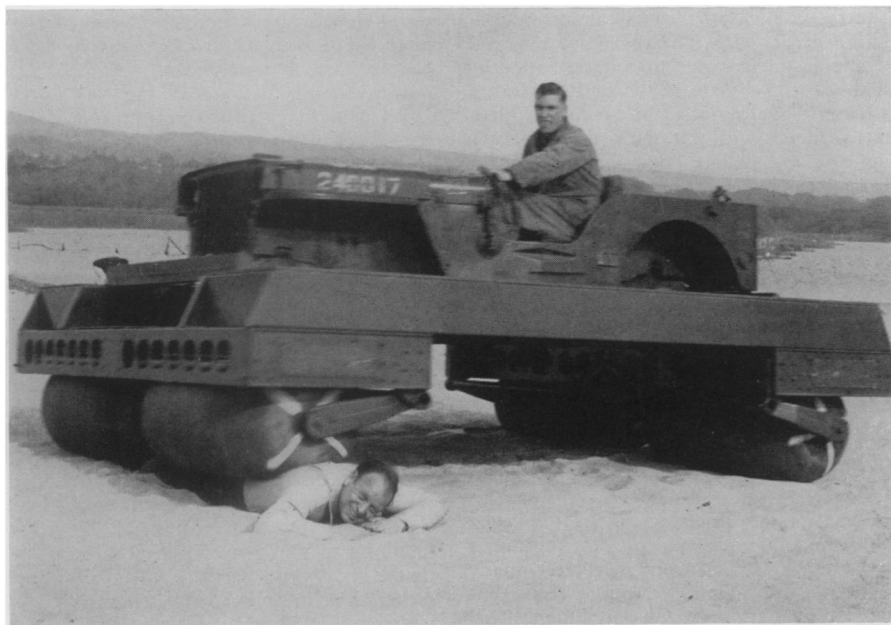
The operation was devised by Dr. Jerome U. Urban of Memorial Center for Cancer and Allied Diseases, New York. It is based on the fact that there are two main pathways by which cancer cells spread from the breast to other parts of the body.

One, the primary route, leads to armpit tissues. Conventional breast cancer operations include removal of these.

The second leads to tissues under the ribs, next to the breast-bone. Dr. Urban's operation removes this pathway also.

Of 90 patients operated on by the new method during the past 27 months, 41% were found to have had cancer cells spread to the previously unremoved tissues. Final evaluation of the effect on cure rates cannot be made until five years are up.

Science News Letter, April 4, 1953



ROLLIGON TIRES—These watermelon-shaped tires have an extremely low air pressure of only one and one-half to five pounds per square inch. They allow a Navy jeep to run over the inventor, William Albee, Carmel, Calif. Greater maneuverability of military and farm vehicles over sandy beaches and swampy land is claimed for them.