INVENTION

Inventors Aid Government

Electronic experts are tackling the problem of preventing jamming of Voice of America broadcasts. Top problems are listed by National Inventors Council.

➤ INVENTORS of the nation are rushing to help solve the problems of rebuilding America's war machine, as they did during World War II.

The first big job that has been tackled in the last few months under the stimulus of the National Inventors Council is countering the jamming of the Voice of America broadcasts by the Soviets.

More than 60 top electronic experts have been working for the past six months on this situation at the joint request of the Department of State and the National Inventors Council. Details of progress have not been announced, but as a result the American radio messages should soon be getting through to the Russian people with more reliability.

The Korean situation has doubled the number of suggestions being received at the Department of Commerce by the National Inventors Council, headed by Dr. Charles F. Kettering, General Motors consultant. At present, ideas and inventive suggestions are being received at the rate of 8,000 a year. During World War II a total of 250,000 were received and evaluated by this voluntary but official committee of leading engineers and scientists.

The National Inventors Council is an open door for inventors who wish to present ideas to help the war effort. In addition, the Council issues on behalf of the armed services technical problems for which solutions are needed.

Among the new problems issued are:

A tool for the rapid splicing of military field wire, under adverse weather conditions and darkness.

A light-weight gasoline vehicle that can operate over snow.

Machinery for fabricating and welding titanium.

An adhesive that can stick explosive to a vertical surface for two months even when as cold as 40 degrees below zero.

An automatically coupling joint for bridges.

Foam that can be produced in the field to fill canvas tubes for buoyant floats.

Methods for discharging ships rapidly on the beach or dock.

A substitute for down and feathers for use in arctic sleeping bags.

Machinery for burrowing a large tunnel through packed snow or ice.

A personal heating system.

Practical method of destroying tell-tale tracks of men or vehicles over snowfields.

A way of transporting supplies over glaciers.

A way of making snow, bogs, marshes, ponds and frozen soil solid for use as roads, airfields, etc.

Inexpensive method of rapidly turning snow and ice into drinking water.

Rubber and other materials that keep their usefulness at temperatures from 65 degrees below zero to 160 degrees above.

Device for protection of head and nose against extreme cold.

Science News Letter, August 26, 1950

AGRICULTURE

Cobalt Speeds Up Hog Fattening

➤ COBALT, the mystery mineral of better nutrition, has been shown in Fargo, N. D., to produce the same speed-up in the fattening of hogs as has been found in sheep and cattle.

Significant because swine have a different stomach system from ruminant animals such as cows and sheep, experiments by four scientists at North Dakota Agricultural College have furnished a new link between cobalt and vitamin B-12 and new evidence in the stepped-up study of the so-called "trace elements" in the food which animals—and humans—eat.

Pigs fed tiny amounts of cobalt in carefully-controlled diets put on more weight, and put it on faster, than pigs not having the added mineral, Drs. Earle W. Klosterman, W. E. Dinusson, Earl L. Lasley, and M. L. Buchanan report in the journal, SCIENCE (Aug. 11).

Science News Letter, August 26, 1950

PSYCHOLOGY

Device Tests Afterimages Even in Children

➤ IF YOU look fixedly at a bright colored object, for some time afterwards you may see a shadowy image of the object in contrasting color, known to psychologists as a negative afterimage.

To observe these afterimages scientifically and report their appearance and disappearance has required a good deal of intelligence, reliability and special training.

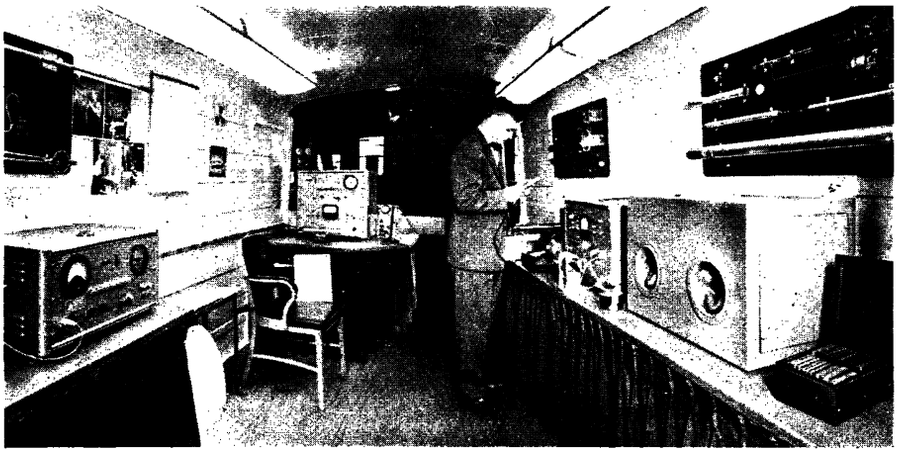
Now a device has been invented to test for afterimages so simply and objectively that it can be used even with children or mentally disturbed patients, Dr. H. Lehmann, of Verdun Protestant Hospital, Montreal, Can., reports (SCIENCE, Aug. 18).

The person seeing the afterimage is not even aware of seeing the original colored object that produces the afterimage, Dr. Lehmann says.

The device is a disk, half white and half black with a pie-shaped piece cut out of the black section. When this is spun rapidly in front of a red circle, the rotating disk will appear to the observer to be green. Because of the spinning he will not see the black or white separately, and neither will he be aware of seeing the red circle behind the cut away notch.

By regulating the intensity of the light by polaroid filters, Dr. Lehmann was able to determine at what degree of brightness the afterimage was visible—that is, when the rotating disk appeared green—and at what intensity the observer noticed the original color, red.

Science News Letter, August 26, 1950



FOR ATOMIC BOMB DEFENSE—All the instruments needed to detect and measure radioactivity are mounted in this truck-carried laboratory. In case of explosion, this mobile laboratory could speed to the scene to test for radiation, identify type of rays, and measure danger. It is built by Radiation Counter Laboratories, Inc., of Chicago.