

The snake has a pear-shaped nose that guides it along and assures its passage over rough land. The nose is flexible enough to guide the snake over rocks.

Special elliptical explosive cartridges, used with the snake, were placed in the trough at intervals of about two and a half feet. They were exploded by an impact fuze which was detonated by machine-gun fire from the propelling tank.

These snakes were used mostly at night in order that they would not be destroyed by the enemy. They were assembled in the field, carefully camouflaged with grass and protected with sandbags, and pushed forward in the hours of darkness when the pushing tanks would be difficult to see. The snakes moved forward at a rate of about two miles an hour.

*Science News Letter, January 26, 1946*

#### AERONAUTICS

### Long-Range Research For Aerodynamics

► A LONG-RANGE research program has been started by the Army Air Technical Service Command at Wright Field, looking forward to both peacetime flying and air warfare of the future. It will be in such fields as the aerodynamics of supersonic speed, means of aiding the human body to stand the forces of such speeds, development of propulsive forces capable of supersonic flight and pilotless aircraft, the push-button warfare forecast for the future.

Devices to control robot bombs and other guided missiles from ground installations comprise another project in the present program. Still another is research to bring about a change in the "molecular structure of suspended moisture in icing clouds" so that this moisture, gathering on an airplane, can be turned into snow and thus add to safety and speed of flight.

Radio and radar equipment for traffic and landing will be included. Radio control mechanisms for pilotless planes, rockets and guided missiles, will receive special attention.

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It is roughly estimated that 10% of American crops are destroyed by insects.

The drying and curing of rubber by *electronic heating* is six times faster than conventional processes, and turns out better products because heat is generated uniformly throughout the material.

#### ENGINEERING

## Naval Vessels Preserved

**Scientific methods include dehumidification and the use of film preservatives. Will be ready for quick return to duty.**

► SCIENTIFIC METHODS will preserve naval ships on an inactive list, yet allow them at any time to make a quick return to duty, the American Society of Civil Engineers was told by Rear Admiral John J. Manning.

Preservation procedure now being followed, he told the engineers, "would insure beyond question that inactive vessels will be susceptible of quick recommissioning when necessary."

The modern techniques for preservation of ships include dehumidification, protection with film preservatives and plastics and other similar measures, he stated. The imperative necessity of maintaining inactive vessels in a much higher degree of preservation than was possible heretofore, he declared, was demonstrated by our experience in attempting to recommission hastily the World War I vessels which were loaned to Great Britain.

Admiral Manning explained that the Navy now plans to divide its postwar fleet into three basic groups. First would

be an active fleet, manned about 70% of war complement; a reserve fleet, manned at 30% of war complement and rotated periodically with the active fleet; and, third, an inactive fleet, to be fully decommissioned and placed in a state of preservation such that it can be reactivated when necessary. In addition, he said, a considerable number of obsolete combat vessels, surplus auxiliaries and landing craft will be disposed of.

### Waste Land Reclamation

► THE RECLAMATION of millions of waste acres, particularly in 17 arid or semi-arid western states, offers the opportunity to provide much-needed, fertile fields for the production of food required to keep pace with growing world needs, Kenneth W. Markwell of the U. S. Bureau of Reclamation declared at the same meeting.

There is a great need for rebuilding the soil, bringing under cultivation new



**BEFORE AND AFTER**—At the left the "Snake" is in position for clearing a path through a jungle mine field. Right: results of detonation of the "Snake." Official U. S. Army photographs.