

MILITARY SCIENCE

Fighters May Drop in Boxes

Container will serve for either cargo or men and also can be used as a shelter on the ground. Can be dropped by parachute with air bags to cushion landing.

► FIGHTING men of the future may be dropped from airplanes, not as individual parachuters but as entire infantry squads inside "boxes" being developed at the Wright-Patterson Air Force Base. Parachutes lower the containers slowly and shock absorbers ease the jar as they hit the earth.

So far, no persons have been parachuted down in the container, but if and when such tests are made it will be the first descent of Air Force men in an enclosure. Two types are planned. One, called the universal container, will have a capacity of 6,000 pounds of men or cargo. The other has a 500-pound capacity.

The container consists of a framework of tubular sections mounted atop a metal landing skid provided with plywood flooring. Four movable aluminum triangular compartments are attached to the framework, and can be arranged as a square box

to carry cargo, or can be rearranged to carry troops.

Two types of parachutes are used for the descent. A single 100-foot parachute may be used for loads up to 3,500 pounds. Two of these are used for heavier loads. The parachute equipment is placed atop the container. A small chute pulls out a 16-foot extraction chute, which pulls the container out of the plane.

Landing is eased by four large air bags constructed in the shape of barrels. They are fastened under the skid and remain completely deflated until the container is dropped. One-way openings in the bags permit air to rush in during descent, inflating them to form a landing cushion.

The 500-pound container is designed for dropping equipment, not men. It uses a 24-foot parachute. A 500-pound load can be dropped safely at an aircraft speed of 175

miles per hour, tests already made indicate. Lighter loads can be dropped at higher speeds.

Science News Letter, January 20, 1951

ETHNOLOGY

South American Tongues Older than in North

► SOME of the languages spoken in South America may be older than those once used by the natives of North America.

This judgment was put forth in the sixth and last volume of the Handbook of South American Indians, just issued by the Smithsonian Institution. Dr. J. Alden Mason points out that South America was probably settled by descendants of the first arrivals on the North American continent, by people who had been pushed southward by those arriving later.

This process probably covered a period of several thousand years, Dr. Mason believes.

He takes issue with experts who have claimed that the great number of different languages is an argument for the great antiquity of man in the New World. It is argued that milleniums would have been necessary for the wide differentiation of speech to have taken place from the common tongue brought from Asia by the ancestors of the Indians.

Dr. Mason believes that the facts are quite the opposite. He thinks it is likely that each group of Asian migrants spoke a different tongue, and that the tendency is for some languages to become extinct, making the total fewer.

Whatever the reason for its numerous languages, South America is a "tower of Babel" continent, a region of the greatest linguistic diversity in the world.

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METALLURGY

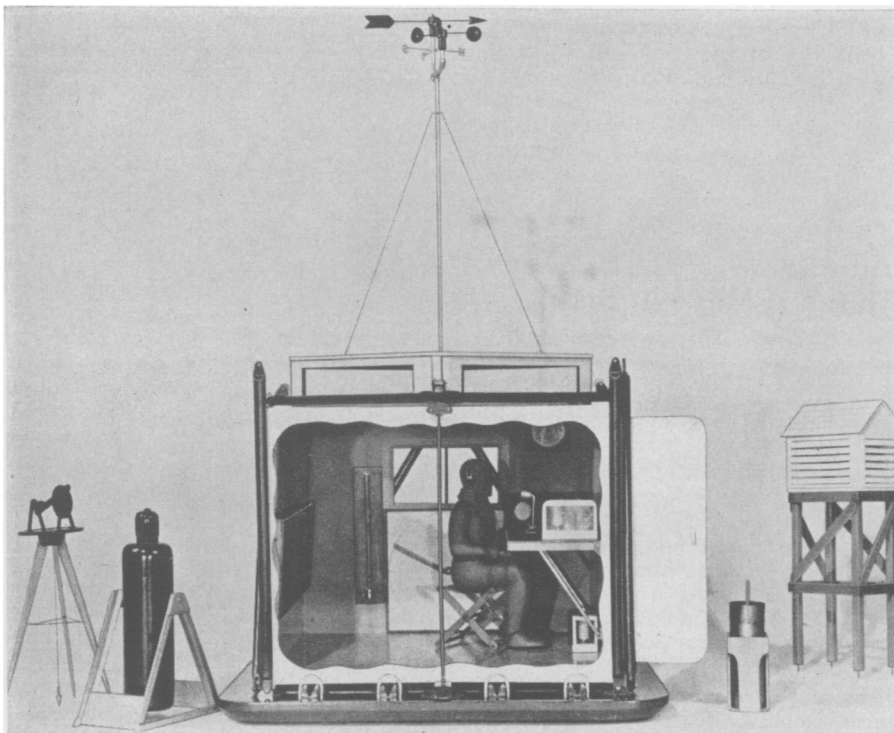
New Chemical Method Gives Home Manganese

► PRACTICAL refining of hundreds of millions of tons of manganese-containing ores in this country to give a domestic supply of this steel-alloying element is promised by a method developed by Dr. E. S. Nossen of Paterson, N. J.

In the process reported to the American Chemical Society's North Jersey section, the manganese in either oxide or carbonate form is converted to its monoxide and then dissolved in nitric acid, which is recovered and reused. The major steps in the process are simple and high pressures and temperatures and gas reactions are not involved.

Nine-tenths of the manganese needed in the ratio of 13 pounds for each ton of steel produced is imported into this country, most of it from India, Africa, Brazil and Russia.

Science News Letter, January 20, 1951



RESCUE HUT—This little house (the model is cut away to show interior) can be dropped from the air to provide shelter for those lost in the frigid Arctic. It is also possible to use it as a complete weather station or rescue station or it can hold cargo or an entire infantry squad with their equipment.