



**OVER-SIZE CARRIER-BASED PLANE**—The Navy's newest attack plane, a Martin AM-1 Mauler, is shown making contact with the cable which will bring this largest and most powerful plane ever to operate from a flattop's deck to a swift, safe halt.

## BIOCHEMISTRY

## Germs Hit by Inflation

➤ GERMS are now feeling the pinch of inflation and high living costs. This, contrary to what you think, is bad news for humans. The germs now asking for relief include such aristocratic and important ones as the mold from which penicillin is made, the Waksman strain of the *Actinomyces griseus* which yields streptomycin, TB germs descended from some isolated by Robert Koch when he discovered that they are the cause of tuberculosis.

These and some 5,000 other useful microorganisms make up the American Type Culture Collection. The collection may be compared to a library, museum, zoo or herbarium. But besides its value in this respect, it serves as a source of living material for study, research and industrial use.

Assay of many vitamins is made by testing their effect on the growth of certain species of germs. Unless the germs are pure-bred, the assay is no good. Cultures of pure-bred strains of germs for this important work can be bought, at \$2.00 per culture plus packing and postage charges, from the American Type Culture Collection.

For the same price, a cheese maker

wanting to add a special flavor to his product can get the microorganism that will do the job. Or a doctor with a patient ailing from some strange infection can get cultures to compare with the germs afflicting his patient and thus get help in identifying the cause of the patient's illness.

Income from these sources, however, is too small to maintain the collection and continue its service in the face of rising costs. The germs need daily attention and care to keep them alive and "pure" in type, generation after generation. Scientists expert enough to do this would grow stale on the job and leave unless they also had opportunities to do research of their own. Living costs have forced up their salaries as well as those of the non-scientific personnel.

A ways and means committee for the germs has now been set up by the National Research Council in Washington. The committee will attempt to develop a long-range plan for the support of the collection on a permanent basis. Meanwhile, NRC authorities declare that financial support for the year 1949 is urgently needed.

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## AERONAUTICS

## Carrier-Based Heavy Plane Has Proved Successful

➤ THE Martin Mauler, one of the heaviest planes ever designed for use from the deck of a Navy carrier vessel, has proved successful in several hundred on-deck landings made in tests now underway in the Atlantic.

It is a one-seat, single-engine plane, with a gross weight of 22,000 pounds, a speed of 300 miles an hour, and a range of some 2,000 miles. It combines the heaviest concentration of torpedoes, rockets and machine guns ever incorporated in a single-engine carrier-based plane. Except for guns mounted in the leading edges of the wings, all armament is carried in shackles under the wings and fuselage.

The plane is powered with a Pratt and Whitney engine. It has a wing span of 50 feet, and a length of slightly over 41 feet. In the first two days of testing, more than 120 landings on a carrier deck were made.

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## INVENTION

## "Super-Jeep" Light Truck Patented for Heavy Loads

➤ A SUPER-JEEP, a rough-tough, low-slung, flat-bedded light truck that steers as well as drives with all four wheels, may presently be asserting itself on the highways and dodging in and out at military maneuvers. The vehicle on which U. S. patent 2,457,400 has been issued to Delmar G. Ross of Toledo, Ohio, embodies a number of boldly novel features which the inventor expects to adapt for the roughest uses.

The framework is of tubular steel, with a completely flat platform body on which any desired kind of superstructure, seats, etc., can be placed. The driver's seat is placed directly on the platform, at the extreme front edge, with a forward-projecting footrest. Steering is by tiller instead of steering-wheel, with throttle control taken care of by a finger-lever on the tiller's hand-grip, with a flexible cable leading back to the engine, which is placed at the rear.

There are no springs; balloon tires are expected to take out the worst of the bumps—the rest you'll have to absorb yourself, in the natural way.

The inventor expects his truck to be able to carry more than its own weight over average roads. He also states that it can be parachuted from a transport plane in flight, or even "plummeted" without benefit of parachute.

Patent rights have been assigned to Willys-Overland Motors, Inc.

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