

NAVY HAS CATAPULT TO LAUNCH PLANES

New Device Will Be Tested Soon
on One of the Fleet's
Battleships.

GIVES SPEED ON SHIPBOARD

Catapult Can Be "Built In" Not to
Interfere With Turrets
or Guns.

Special to The New York Times.

WASHINGTON, Oct. 16.—Secretary Denby announced tonight that, after much experimentation, the navy has developed a catapult for launching airplanes from battleships which will soon be tested. A complete catapult unit is now ready for installation on a battleship, and if the invention meets expectations in tests in service, the machine can be produced in quantity and all battleships of the fleet can be rapidly supplied with this new form of aviation equipment.

The catapult consists of a carriage moving on tracks. On this carriage is mounted the airplane. The carriage is caused to move on the tracks at an increasing speed until, near the end of the tracks, its speed is sufficient to permit the airplane to take the air. Then the carriage is brought to rest by means of suitable brakes and shock absorbers. The apparatus can be made in varying sizes so as to be adapted to the launching of any aircraft likely to be used from surface ships.

Normally, when an airplane takes off from the flying field, it runs along until it has attained a speed through the air sufficient to sustain it aloft. This is known as its minimum flying speed. After attaining such a speed on the ground, it can be so controlled as to take the air and to remain up so long as this minimum flying speed is maintained. The length of run necessary is dependent upon the type of plane concerned and its loading, the wind, and the nature of the terrain.

In case of a very lightly loaded plane, such as a single-seat plane, with a strong wind against the direction run, the length of run required before leaving the ground would be very short. However, as a rule, the length of run required is considerable, and under unfavorable conditions it may be several hundred feet. To supply this starting speed from the ships the catapult has been developed.

When a plane is launched from the deck of a battleship by means of a catapult it cannot land on the deck of the vessel at the end of the flight. Thus planes which will be used from battleships must possess some means of flotation. At the end of a successful flight they will alight on the water in the lee of the ship and be hoisted on board by cranes.

In the case of planes operated from

proper airplane carriers, they may be launched by means of catapults from the carriers, or, under favorable circumstances, may take off directly from the flying deck of the carriers, as from a field. Also, at the end of their flight they may alight on the landing decks of the carriers, where they will be brought to rest gradually by the arresting devices now being developed.

In the absence of the catapult in recent efforts to launch airplanes from battleships platforms were built on the tops of turrets and supported by the muzzles of the guns. The turret was so trained as to point the plane directly into the wind.

Under favorable conditions it was found possible to launch small light-loaded aircraft. The apparatus was heavy and cumbersome and interfered with the turret on which it was used. The plane was not locked to the platform while it was attaining flying speed, and a side gust was liable at any time to cause a serious accident.

The catapult will be built into the ship which is to use it and will be so installed as not to interfere with any other part of the vessel. It is believed in navy circles that in the near future all surface ships will be equipped with catapults and aircraft as they are now equipped with small boats. By a system of tracks the airplanes will be run from their hangars onto the upper decks of the surface ships and the carriages of the catapults.

Normally, while the ships are cruising or in bad weather, the planes will be kept under cover in the upper decks, some disassembled and some partially assembled. Up to the present, due to the fact that aircraft are of such recent development in use on ships, the apparatus necessary for them has not been "built in." Naval officers say the battleships of the future will be designed undoubtedly to take their catapults, necessary hangar space, machine shops, the tracks and their aircraft, just as they are now designed to take their turrets and guns.