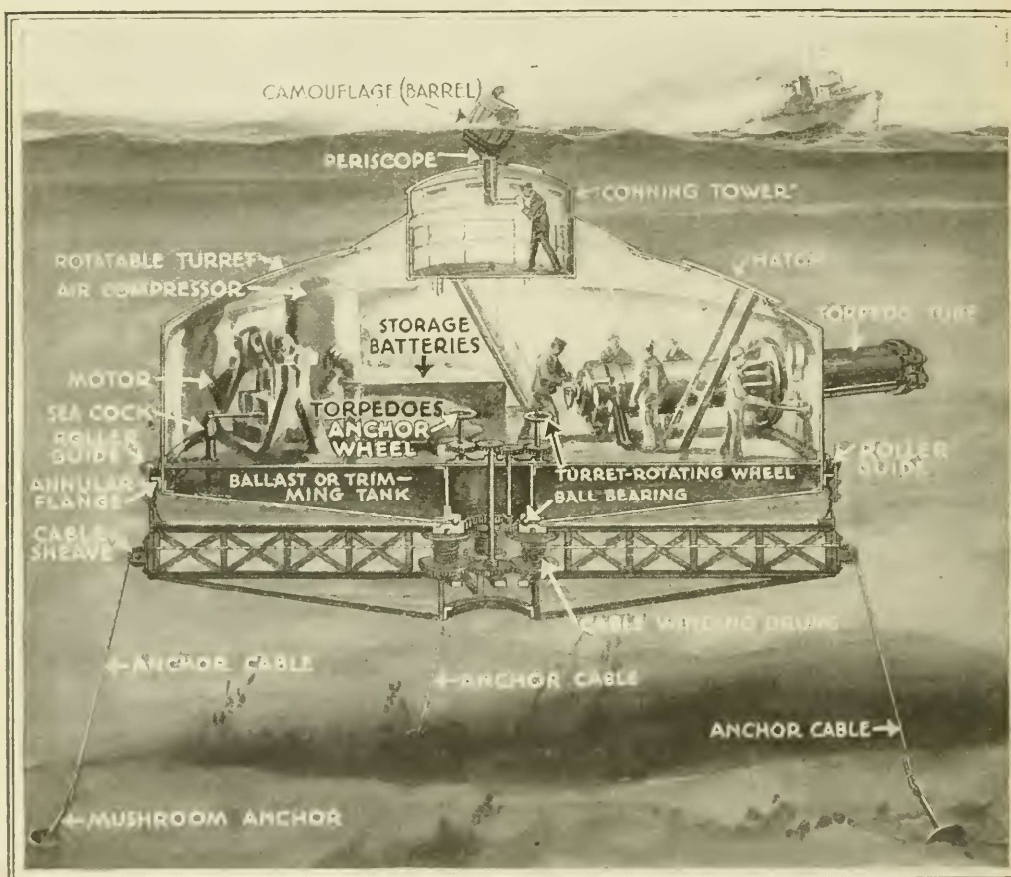


Submersible Forts to Protect Our Coast

They are conceived as anchored, floating turrets, capable of discharging torpedoes at the enemy's ships



The turret-shaped submersible fort can be rotated upon a substructure anchored by means of four mushroom anchors. Its only armament is represented by a single torpedo tube

IT is a short time before sunrise. The sea is fairly calm and reflects in undulating patches the gorgeous colors of the sky already visible in the East. The rhythmic sound of a whirling propeller is faintly audible. It is still far away, but approaching rapidly.

Fifteen minutes later the graceful yet forbidding form of a warship emerges from the light morning mist. It is an enemy raider headed for the roadway to one of America's important Atlantic ports.

On board the hostile ship the tension is great. There may be mines and sub-

marines, coast batteries and other defences. The deck watches have seen nothing suspicious and cautiously the raider continues its way toward the roadway.

The hostile craft has just passed a few hundred yards from a piece of wreckage, a waterlogged barrel, when the watcher notices a sharply defined line of bubbles rapidly approaching the ship.

"Torpedo coming, look out!" he yells with all his might. It is too late. Before the course of the ship can be changed the torpedo strikes amidships. A tremendous explosion makes the water rise like a

fountain and descend again upon the shattered and fast sinking hull of the ship. A few moments later all is over.

The torpedo, which was launched from the tube of a submersible anchored fort, the periscope of which was camouflaged by the barrel, has done its work.

An episode like that pictured here, in brief, would be entirely within the range of possibility, should the government adopt the idea of a submersible fort in accordance with the invention by J. A. Steinmetz of Philadelphia, recently patented. The fort, in the form of a turret, provided with a conning tower, may be submerged altogether or only so far that the conning tower is visible. It is the plan of the inventor to anchor such forts along the coast and near harbor entrances as a protection against hostile ships. The mechanism for winding and unwinding the anchor cables, for turning the turret upon the ball-bearings of its anchored base and for launching the torpedoes is controlled from inside the turret and storage batteries supply power for the airpumps, and for lighting the crew's quarters. For cases of emergency a supply of compressed air is stored in a pressure tank in the turret. The forts would be self-contained and would carry sufficient supplies to enable them to carry on between the periodical visits of a supply ship.

Italian War Dogs Are Well Cared For and Well Trained

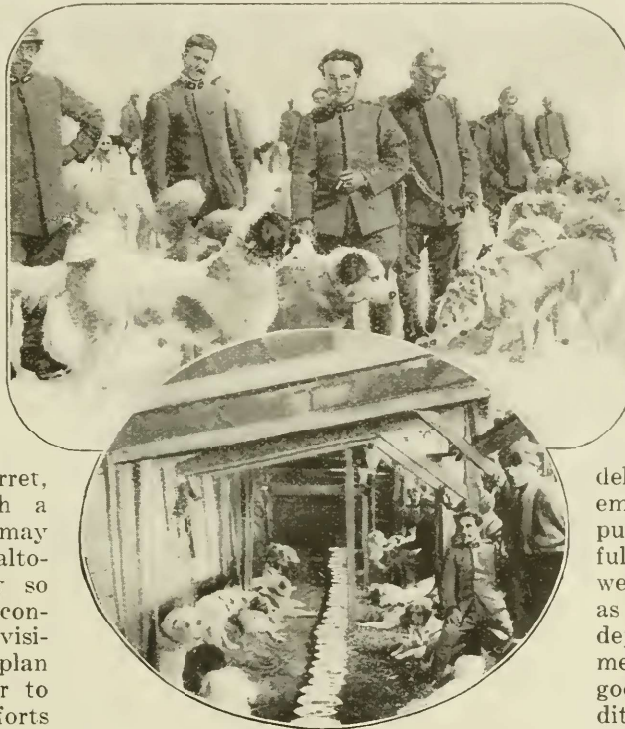
DOGS, at least some dogs, have proved themselves so valuable for military purposes during the present war, that they have been added to the equipment of every army engaged in the struggle.

The main purpose for which they are used is the finding of wounded soldiers after an engagement or skirmish in difficult territory, so that they may be carried to the field hospitals immediately behind the lines without

delay. The dogs employed for that purpose are carefully trained and well taken care of, as their usefulness depends in a large measure upon their good physical condition and their willingness to work.

Various breeds of dogs have been

tried by the governments of the belligerent nations, but only a few of them have been found of value. The dogs shown in the pictures are used by the Italian army in its difficult campaign in the mountains. They are of several different breeds, with the St. Bernard type predominating. St. Bernard dogs have been used in relief work in the high Alps for centuries and have proved themselves hardy, efficient and trustworthy even when working by themselves. The sagacity and courage of the St. Bernards are wonderful. They seem, at times, almost human.



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Two interesting pictures of "dogs of war." They are used for finding wounded men

Those of us interested in science, engineering, invention form a kind of guild. We should help one another. The editor of the POPULAR SCIENCE MONTHLY is willing to answer questions.