

This modern submarine has a disappearing gun which folds away below deck

A Gun Which Will Lie Down

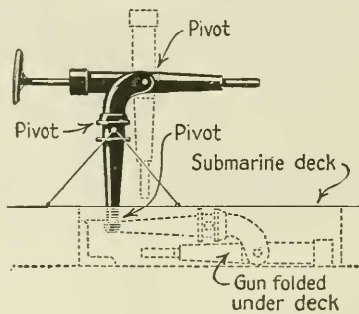
THE submarine has been a defensive weapon in most navies. Apparently the Germans were the first to realize that it had offensive possibilities. We found a patent the other day applied for in the United States, by Julius Becker, an employee of the Krupps. It proves our point.

It is interesting to note that the patent was applied for in 1909, showing that even then Germany was awake to the uses of the submarine as an offensive weapon.

A hollowed-out compartment on the deck of the boat receives the gun. The gun barrel is mounted on a pivot fork, turned toward the muzzle, so that when not in use, the gun can be folded down horizontally. The pivot support also folds down, coming either over or under the barrel of the gun. Four removable rods, which are joined to the platform, support the gun column when in use.

A pipe extends from the compartment to the water. This takes care of any overflow which may enter when the gun is in action.

When folded away the gun takes but



Detail showing how neatly and compactly the gun and its support are packed under deck

little of the limited space on a submarine, and thus low-lying and protected by a water-proof cover, it offers no resistance to the submerged travel of the boat. In other words, Becker boldly attacked

the problem of arming a submarine with a weapon which could be raised or lowered at will, as the vessel came to the surface or submerged.

Magnetized Birds? Another Explanation of Accurate Migratory Flight

ONE of the many explanations that have been offered to account for the fact that migrating birds are able to find their way by night and in cloudy or foggy weather is that they are sensitive, in some way, to currents of terrestrial magnetism, and therefore direct their flight by the magnetic meridians. This suggestion was put forth by M. A. Thauziès, a French pigeon-fancier, who declares that carrier-pigeons make poor flights during the occurrence of magnetic storms. He also asserts that the general use of wireless telegraphy has diminished the reliability of these birds to a surprising extent.

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.