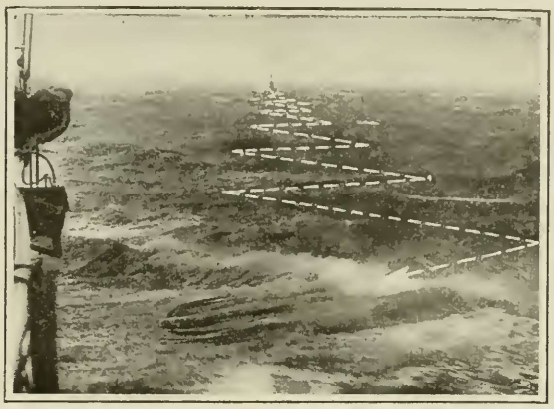
Wouldn't This Puzzle the Enemy?

A mine or torpedo that zig-zags
under water to find its prey

A MINE which travels under water in a zig-zag fashion, somewhat like a drunken man on the sidewalk, and which therefore makes a terrible nuisance of itself, has been invented by a foreign officer, a noted authority on mines and explosives who is co-operating with the U. S. Government. The mine consists of two parts fastened together, but separated by a wall. One of the chambers, that in front, contains the explosive charge and has at its forward end the contact trigger which explodes the charge when it hits the object for which it is intended. The other compartment contains the motor and a mechanism which alternately drives first one then the other of the two propellers, thereby giving to the mine a zig-zag course, but tending in the general direction of the objective point, while crossing and recrossing the medial line at oblique angles. It is the theory of the inventor that by this zig-zag motion the chances of the mine's hitting the objective are greatly increased. A weighted keel maintains the mine in the desired depth under the surface and also prevents its rolling. As it may sometimes be desirable to drive the mine at a different depth, the keel is removable and may be supplanted by a heavier or lighter keel or fin, as the case may require.

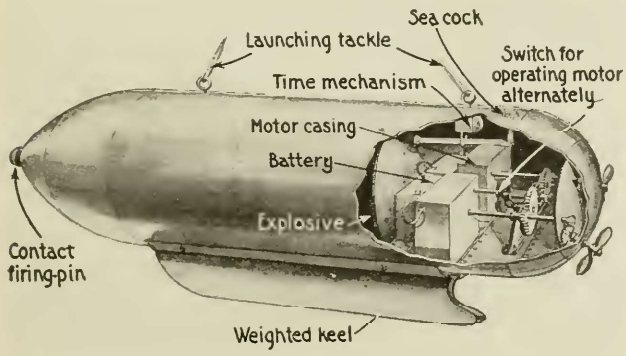


This picture shows the zig-zag path which the new submarine mine follows in its under-water course

Any kind of explosive may be used in this mine, but the inventor favors T. N. T., wet gun-cotton or dynamite, and also advocates the additional use of mono-nitro-naphthalene which, when the mine is exploded, gives off a dense black smoke, which will envelop the vessel struck and prevent signaling, repairs or rescue.

As the presence of such a mine in the water constitutes a constant danger to shipping, provision is made to cause it to sink after a predetermined period. A timing mechanism opens a valve in the rear end of the mine, allowing the water to enter. The weight of the water causes the unexploded mine to sink to the bottom, preventing accidental discharge.

To propel the mine, each propeller may have its own motor, and the motors work alternately, or there may be but a single motor, the power of which is applied alternately to the propellers by an oscillating gear or otherwise. The invention permits of many non-essential variations.



The front part of the mine contains the explosive; the rear part the propelling mechanism and control