

As a human being, you have the power of running toward the thing that you see. You have eyes—organs sensitive to light. Suppose a torpedo had eyes. Suppose that it were given the power

A Torpedo with Eyes

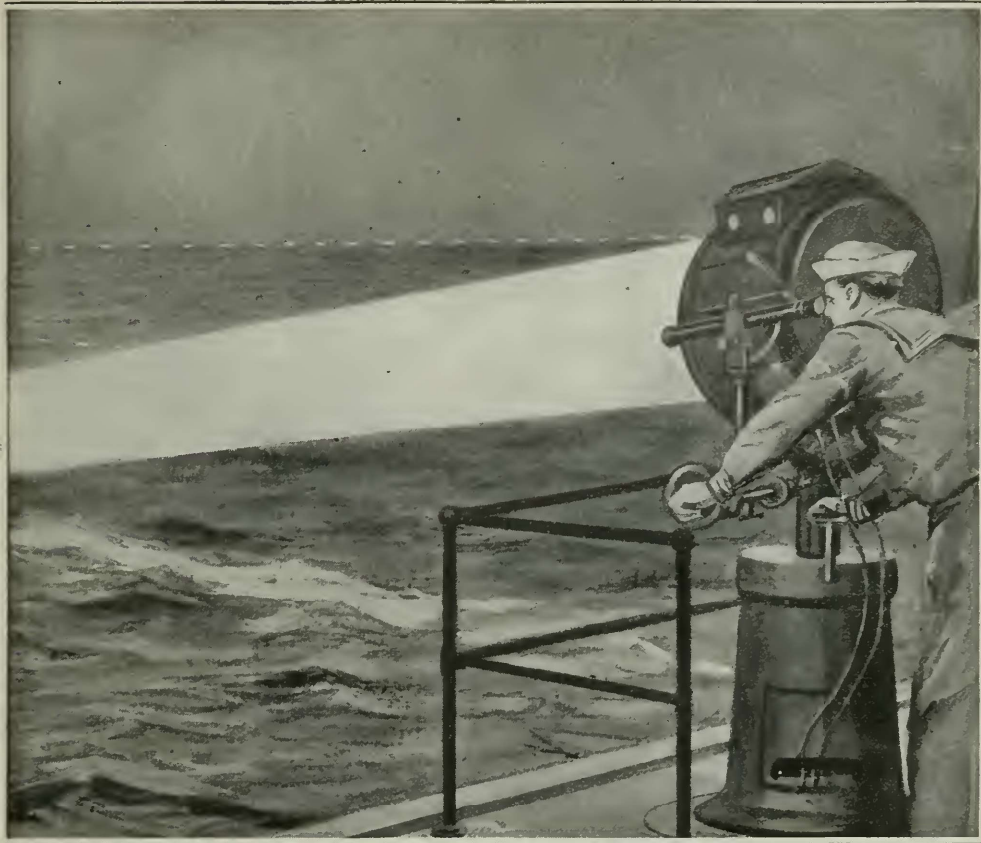
By Walter Bannard

SUPPOSE we have at our command torpedoes that obey the orders of a single master; torpedoes that heed faithfully the wish of an operator expressed through a simple directing apparatus; torpedoes that can be projected six or eight miles through the water, being constantly under the control of the man and his machine on shore; in a word, torpedoes which carry out the intention of one man to destroy an oncoming vessel of the enemy. This torpedo would simply be the projection mechanically, of this man's will to destroy that vessel.

Theoretically, we have the materials

at hand to render this achievement possible. In fact, the "light-directed torpedo," as it is called, is virtually on the threshold of reality, but it has not yet crossed the threshold. This delay is caused by the present unreliability of a chemical substance, selenium, and it is upon selenium that the eventual success of the light-directed torpedo depends. In an article on the Hammond electric dog, appearing elsewhere in this issue, will be found an explanation of the way in which selenium does the work.

A boat has been directed wirelessly from shore—most all of us have read of that—and a boat can be directed by wire-



either of running toward the thing it sees, or of fleeing from it. That is the basic idea of the weapon here pictured. Its movements are absolutely controlled by the beam that comes from a searchlight

less from shore now; can be made to stop, start, stop and swerve to right and left. Nevertheless, the secret of a reliable, light-controlled torpedo—for light-rays are more desirable than wireless—has not yet been entirely solved.

John Hayes Hammond, Jr., who has been widely heralded for his wireless experiments, joined hands not long ago with B. F. Meissner, an electrical engineering student of Purdue University, and together they designed and constructed an ingenious mechanism on wheels that would trail after a pocket lamp held before its selenium eyes in a most uncanny way. Using this same principle, a torpedo with selenium eyes that will follow the directions of light rays from shore, will eventually be developed; soon, it is to be hoped.

There have been two big obstacles to

prevent the evolution of a controllable torpedo:

One is the lack of a suitable apparatus for transmitting sufficient light to control the mechanism at useful distances; the other is to accomplish the directing without interference from the enemy's ship. The solution of the problem demands a more scientific knowledge of selenium and its chemical properties.

Suppose that day had come and a hostile ship was booming into the harbor of New York, grimly determined to scatter our fair buildings to the four winds.

"Sic!" says the man on shore.

Almost with human intelligence, the glistening steel cylinder darts out towards the enemy, at a forty-mile-an-hour clip. Though at present such an occurrence is only a fancy, it may become a reality.