

ROBOT OF DESTRUCTION: ("Readers' Digest".)

The torpedo against which naval engineers have found no satisfactory protection, is man's most intricate engine of destruction. It is the smallest warship afloat - 34 ft long. For it is a ship, complete with engine room, cargo, and mechanical crew. If so directed it will describe a complete semicircle before settling down to its course. Like a big battleship, it is given tests before it joins the fleet. A 3000 pound fish of steel with 600 pounds of H.E. in its warhead, it knifes its way through the sea at nearly a mile a minute. Its wallow staggers the heaviest battleship.

The self propelling torpedo was born in 1864, when Captain Luppis of the Austrian Navy went to the famous Scottish engineer Robert Whitehead with a plan for an automatic, self-steering, underwater projectile. Whitehead, fascinated, went to work at once and two years later the first Whitehead torpedo slid into the water. It was a crude little machine, 10 feet long, travelling at 6 m.p.h., and carrying six pounds of dynamite. But so sound was Whitehead's work that his basic design has been changed only slightly.

The early torpedo was notoriously erratic in the water and menaced the mother ship as much as the target. Even in the last war, several U-boats were blown up by their own torpedoes. The modern torpedo is so accurate, it can run for miles without appreciable deviation from its set course and depth. Its mechanism comprises 1325 precision built parts. To make one requires some 20,000 man-hours, and it costs the navy about \$4,000.

Just before the torpedo is launched a torpedo-man, on instructions from the fire control officer who has computed the target's position, speed and range, sets direction and depth by adjusting a small spindle like a radio dial. It is no longer necessary to aim the torpedo direct at the target. It may be launched in any direction, and so set that it will turn to its proper course.

The principle member of the crew is a gyroscopic pilot, a bronze flywheel the size of a saucer, whirled at 13,000 revolutions per minute by a jet of compressed air. This gyro-compass controls a small engine which operates the directional rudder, instantly correcting any deviation from the torpedo's fixed course.

The underwater course of the torpedo is usually about 15 feet below the surface, and must be kept level. A sensitive hydrostat, measuring depth by external water pressure, controls a second small steering engine, which operates horizontal tail rudders. If

the torpedo runs closer to the surface than ordered, or deeper, these steer it back to its correct depth. All these mechanisms are fitted tidily within the torpedo's slim diameter of 21 inches.

The torpedo used to leave tell-tale wake of white bubbles from the compressed air which streamed from its exhaust pipe. This sometimes gave the victim time to dodge, and clearly marked the position of the submarine which fired it. The modern leaves almost no wake. The white hot mixture of air and steam is exhausted through a hollow bronze propeller shaft. The steam on striking the cold sea condenses into water - the hot air forms tiny slow rising bubbles which cannot be seen from a distance when the torpedo is well down.

The decision in the next phase of the war may well turn on our ability to defeat the torpedo in the Atlantic and to win with it in the South Pacific. The tin fish is still making history.

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"SPORTS" -- BOXING

The enthusiasm shown by all ranks over the recent pugilistic efforts of members of the Regt. is indeed gratifying. The recent contest staged at the Navy Velodrome between "Duke" Eddington, the "Tim & Rue Tornado", and "Full Count" Foeste, "who never a fight has lost" ???, resulted in a decision on points for "Full Count". The bout consisted of three 5-minute rounds and was fought at a furious pace. Although not belittling "Full Count's" prowess, we feel confident that if the "Duke" had undergone a longer period of training the decision might easily have been reversed.

Unfortunately, owing to unforeseen circumstances, the tournament scheduled for this Saturday evening has been cancelled. However, we are all eagerly looking forward to the return bout between "Full Count" and the "Duke", which is to be staged at the official opening of the "Beer Garden", next Saturday night.

With the "atmosphere" more to his liking, and from "inside" information received from his trainer (who, by the way, is none other than "Killer Koster the K.O. Kid"), we feel sure that the "Duke" will "swing" his way to victory for honour of the "Fighting 3rd".

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Excerpts from "Pensioner's Problems".

I cannot get sick pay. I have six children. Can you tell me why this is so?

Mrs. Brown has no clothes for a year and has been regularly visited by the clergy. Can you do something?

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