

Proposed Next Quarter's Work:

The trap and skeet field test shells will be completed and the test will be conducted to evaluate the new binder.

Project: Torpedo Igniter - TP-3370

Personnel: T. B. Johnson, J. P. Catlin

Amount Authorized: \$22,000 Total Expended to Date: \$21,929

Nature of Problem:

Under a Navy sponsored OSRD contract the Columbia University Division of War Research sub-contracted Remington to improve the present design of torpedo igniter and to develop improved igniters.

Summary of Progress from Inception:

A considerable number of torpedo igniter designs has been conceived and evaluated. In addition, a large number of pyrotechnic mixtures has been devised and evaluated in conjunction with the new designs. Three designs have proved of particular interest to the Navy.

1. Type B. This type, designated by the Navy as Mark VIII, is interchangeable with but more reliable than the existing Navy igniter, designated as Mark VI. After preliminary models had given good performance Remington produced 100 Type B igniters for the Navy for airplane drop tests. They were so successful that the Navy is now manufacturing 1,000 Type B igniters for final testing prior to adoption for use in the present war.
2. Type D. This is an inertia-operated igniter which functions due to the deceleration of the torpedo when it strikes the water after an airplane launching. Several models have been submitted to the Navy for preliminary tests and, if successful, will be followed by production of 100 igniters for a reliability test.
3. Type E. This igniter model is fired by the internal pressure of the torpedo combustion pot by means of a snap diaphragm. It is the simplest and, in many respects, the best Remington igniter design. Its initial promising performance has prompted the Navy to request Remington to submit 20 igniter bodies with sufficient spare parts so that 200 airplane-launched drops can be made.

This Quarter's Work:

A Progress Report on the Type B igniter was submitted. Work was done to refine the types D and E leading up to submission of the final design to the Navy for preliminary tests.

Proposed Next Quarter's Work:

A report on the Types D and E development will be submitted. If requested, Remington will undertake the manufacture of a small quantity of Type D igniters.