

been cast using pressure casting technique with encouraging results.

This Quarter's Work:

Visited Watervliet Arsenal to observe their semi-works scale precision casting unit in operation. Several ideas were noted, including gravity casting. Approximately twenty-five Model 11 operating slides were cast in steel. Some experience has been gained in steel melting technique. A set of cast iron bending dies for the Paratrooper's Rifle was produced.

Proposed Next Quarter's Work:

Electric arc melting furnace is scheduled for delivery February 1, 1945. This will permit investigation of gravity casting process used at Watervliet Arsenal.

1. Produce 250 Model 11 operating slides by pressure casting.
2. Produce 100 Model 31 slides by gravity casting.

Project: Test Bench - TP-3393

Personnel: L. Snow

Authorized Amount: \$1,900 Total Expended to Date: \$2,725

Nature of Problem:

To design a test bench providing facilities for testing guns without ammunition.

Summary of Progress from Inception:

A bench was equipped with a motor drive for operating guns and mechanisms. Fixtures were made to hold all guns in the line and the bench has already been used in at least six life tests of guns or mechanisms.

This Quarter's Work:

All work was completed on October 27, 1944 and steps taken to close out the project.

Proposed Next Quarter's Work:

Final closing.

* * * *

The following items summarize the principal Plant Assistance work done by the Engineering Unit under Category A during the Quarter:

Project: Investigation of Complaints on Firearms - TM-3051

Personnel: G.H.Hart, R.P.Kelly, L.A.Rix, J.D.Howell, F.G.duPont, D.R.McNally, Gun Design Unit

A revised design of Model 11 trigger was made and tested. A new Model 11 trigger spring was designed to make the