

Proposed Next Quarter's Work:

This model will be completed and tested. Such modifications will be made as are necessary and a number of bolts will be modified in accordance with the most promising designs.

<u>Active Projects For Which No Detailed Report Is Made At This Time</u>	<u>Authorized Amount</u>
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Micro-Analytical Equipment - TM-3369	\$ 1,420
Weighing Lead Styphnate - TP-3997	500
Use of Fine Polnol - TP-3416	1,000
Disposal of Lead Styphnate - TP-3426	500
Special Cartridges for Eastman Kodak - TP-3435	1,000
Special Primers for General Electric - TP-3439	250
Electrical Ignition for Sporting Arms - TP-3449	1,500
Special .410 Gauge Shot Shells for General Electric - TP-3402-16	200

Inactive Projects

<u>Authorized Amount</u>
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Evaluation of Priming Explosives - K-3022	\$ 8,500
R-VI Development - L-3098	15,000
Techniques of Primer Evaluation - TM-3329	5,000
New Priming Materials - TM-3330	8,600

Physics and Ballistics Group - P. F. Darby, Group Leader

Project: Study of Small Arms Interior Ballistics - TP-3427

Personnel: L. G. Stier

Authorized Amount: \$7,000      Total Expended to Date: \$1,566

Nature of Problem:

A mathematical procedure for calculating interior ballistic problems has been found to give good results. More rapid analytic procedures, more rapid measurement techniques for powder characteristics, and measurements of projectile bore resistance are needed to make this method practical. Also a study of shot shell ballistics is proposed.