## Proposed Next Quarter's Work: This contract has been terminated.

Project: Electrical Ignition, 20 mm. - TM-3343

Personnel: G. E. Hutchinson, W. S. Reynolds, Sr., G. R. Eckstein, C. E. Newcomb, E. D. Tellin, P. F. Darby, R. M. Blunt, A. E. Watkins, L. Summers, R. R. Carey, J. R. Turner

Authorized Amount: \$79,250 Total Expended to Date: \$77,400

Nature of Problem:

To develop satisfactory means of electrical ignition for the 20 mm. Hispano Suiza cartridge and to develop automatic machines for assembly and electrical testing of the primers.

Summary of Progress from Inception:

An apparently satisfactory hot wire type without a booster was designed. This primer was redesigned to simplify manufacture by using components which could be made on conventional cartridge making machinery. At this stage an automatic assembly machine and an automatic electrical testing machine were designed and built. As a result of experimental work carried on simultaneously the primer was changed to a high tension wireless type. A total of 107,000 primers has been delivered.

This Quarter's Work:

Work has been concentrated on providing a strong contact button which would be simple to manufacture. This apparently has been accomplished.

Proposed Next Quarter's Work:

Completion of delivery of the remaining 100,000 primers awaits results of tests by the Ordnance Department.

Project: Adaptation of Primers to Center Fire Line - TM-3362
Personnel: E. H. Johnson, T. B. Johnson
Authorized Amount: \$9,500 Total Expended to Date: \$3,500

Nature of Problem:

To adapt existing non-corrosive, non-mercuric priming mixtures to the center fire line.

Summary of Progress from Inception:

Most of the tests are completed on seven cartridges.

An additional part to the project provides funds for a study of twelve additional cartridges.

This Quarter's Work:

Work completed this Quarter indicates that J-232 or
1348 can be used in .32 Winchester Self-Loading, .30-06, .38-40,
.44-40, .45 A.C.P., .22 Hornet and possibly .38 S&W Special.