

**CONFIDENTIAL**

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FILE

Elion, New York  
September 23, 1958

C. M. ALLEN

**WEEKLY PROGRESS REPORT - PROCESS RESEARCH SECTION  
Week Ending September 23, 1958**

**GENERAL SUMMARY**

**Research & Parts Development**

The tools for the Model 721 front sight have been received and installed in the Stokes 640 press. A small number of pieces have been run off to test the tools and to determine the differences in density in the various sections.

Two hundred pounds of M-30 powder with 15 Zinc Selenate has been pressed into 12 gauge barrel guide rings using a slight taper on the core. Subsequent pressing of 30,000 four-and rings resulted in excessive wear on the core rod. A sample of parts were pressed from Shieldalloy as a possible substitute.

**Tooling**

Development tooling for pressing the Center Fire Rifle front sight has been received and installed in the 640 press. Initial concepts are very encouraging.

A visit to tooling vendors plants is scheduled for next week to discuss tooling for the M-725 rifle components. It is planned to start tool design immediately following this visit.

**Finishing**

Tests are continuing to eliminate salt bleeding on Powder Metal parts. This work has been expanded to make a step by step check of components thru various operations to determine the effect of the different solutions involved on the Powder Metal parts.

**MODEL 572 RECEIVERS**

Approximately one hundred (100) aluminum receivers were processed in production equipment following procedure established in the laboratory. The test was successful and the process will be re-established as soon as sufficient die is received.

S. H. ALVIN

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September 25, 1956

### PROCESSES

The number of pieces per grind on milling Powder Metal triggers has dropped from 1,300 - 1,400 to 250 - 300. This condition appeared immediately when the triggers of the second pressing lot were machined. Steps are being taken to correct the condition.

### MACHINABILITY

A visit was made to Union Twist Drill Company to review H-sine milling. From six submitted, three applications L, are suitable for first test purposes. The necessary information is being forwarded to Union Twist Drill Company for fabrication.

### INSTRUCTION FOLDERS - MODEL 721-722

A revision of this folder has been submitted to the printer, proofs reviewed and delivery of the new issue is expected in the immediate future. This revision explains more fully the proper method of adjusting the "Pull" and "Travel" of the trigger mechanism.

### ANNUAL DISPLAY - F. E. WHEAT

A series of tentative displays have been prepared to emphasize the project developments for this section of R&D. A review of the material will be scheduled with responsible project personnel before the finished display is completed.

S. H. Wheat, Supervisor  
Process Research Section

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