

M. H. WALKER

February 22, 1963

Weekly Report  
Week Ending Feb 15 1963

Primer Comparison Test

D. E. BULLIS

A number of different combinations have been shot on accuracy testing. In most instances the 44 primer seems to hold an edge on tighter groups, but this will still have to be proven.

L. J. HAGEN

Hand loaded .2225 Magnum using Remington hand made bullets and Sierra selected 53.1 gr.  $\pm$  .05 gr. and the 44 & 92 primers. No conclusions could be made at the present time.

M/700 & 40X Sear and Safety Cam Assemblies

D. E. BULLIS

Two sets of assemblies have completed the 10,000 round dry cycle test; the standard M/700 heat treat and the standard M/40X heat treat with chrome.

22 Rim Fire Varmit

No further work has been done on this project.

Model 700

Plant assistance has been given to process on M/700 and 40X-B production and procurement problems.

Bullis - Sanzo

Caliber 6mm <sup>has</sup> been added to model drawings and transmittal completed.

Evaluation has been started on changing from 20" to 24" barrel on Varmit calibers, 222 and 222 Mag.

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M/700 .222 Extractor

L. J. HAGEN

Finished manufacture 1 model bolt. Not enough clearance for the extractor. Will rework the extractor groove in the bolt head.

M/700 Strength Test

Made a new plug to fit the receiver for testing. Tested 2 bolt and receiver assemblies. One set sheared the bolt lugs at 54,600 lbs.; 2nd set sheared the bolt lugs at 54,200 lbs. In both cases the bottom bolt lug sheared farther than the top lug.

Bullet Manufacture

J. W. BROOKS

Two rolls have been mounted to size wire by rolling from one roll through a sizing die and onto another roll. It should be ready for trial next week.

The Alva Allen Press with the feed fingers attached has been set up to work with the Syntron hopper. An ejector for the swaging die is being made up. Once this is ready we should be able to feed sized and cut off lead slugs to the swaging die.

Wire was sized using two passes through the sizing dies and rolling by hand from one roll to another. Using the present cut off set up the length was held to a couple of thousand on length. Weight was within .5 grains. This can be improved.

The ejector is working fairly well but the machine is too fast for feeding from hopper to feed fingers. An air cylinder will be mounted on the feed tube next to the feed fingers to cut down on distance of travel of part to feed fingers.

M/415 Stun Safe Rifle

The parts list and prints were updated to include the new sear block mechanism. A Stun Safe Rifle from Bryan Bros. in Missouri was reported to have fired while sitting in a rack. The rifle was inspected and test fired. A letter to Carl Doerter covered this inspection.

M/415 - Contd.

Received, repaired, and returned rifle from Dubuque Packing Company. We were under the impression that they were not using the stun safe rifle. Rifle had 30,000 rounds on it. All parts were checked for wear.

Two racks were made to hold the rifle on the wall when not in use. Rough estimates are to be made on costs. The racks and costs will be sent to C. W. Doerter.

M 14 Simulator

Sales has requested that the prototype model be made into a working model for test by the army for qualification in its class. The feed ramp angle was increased to stop stemming. The present problem is the 9th round catches on ejection between bolt and port. The ejection port is to be opened to see if this will help alleviate the problem.

Remington Reloading Manual

NICK DAM

The format is finished. Did several rough cover layouts, one of which will be pasted on the cover for presentation. General layout of data is included.

High Pressure Rim Fire

Master pattern of the extractor is finished and ready to be mailed to Gray-Syracuse, Inc.

CUSTOM SHCP

PAUL GOSOL

Process Improvements

Steps taken to improve barrel quality include barrel turning, barrel drill and rifling.

Monarch Barrel Turning Lathe

Center on barrel lathe now holds to .001 or less on concentricity. With the old cone drive it could be up to .015".

P&W Barrel Drill

A check was made on the concentricity of the barrel between the drive chuck and centering cone. One chuck was .012 off center and the other was .007 off center. They are now being reground and then will be rechecked.

Spring Loaded Centering Cone

One cone was altered with a spring which will maintain a pressure on the barrel. We will check for possible improvement in straightness of the drilled hole as soon as the chucks are received. (Barrel expansion with 1000 F temperature change could increase barrel length .017).

Douglas Barrels

Ten heavy barrels have arrived and will be checked.

M/40X Stocks

A new lot of stocks has been started. This will include heavy (40) and light barrel (8). We will also start 16 light barrel stocks for the 5 shot M/40X.

M/40X Barrels

30 6mm barrels were rifled without Cuprodine - no difficulty. They are now ready for stress relief.

Rifles:- 26 Rifles shipped to date this month.

Model 700 Final Report

BILL BLAIR

The report has been printed and the pictures for the annex have been taken. As soon as these are ready reports can be sent to Bridgeport for making into final booklet form.

Checkering Machine

A work order has been written up requesting the checkering machine be moved to the 76 building. This move will be accomplished when the new milling machine arrives for installation.

Sabot Development

New broaches have not been hardened and ground. Remainder of the mold revisions have been completed.

M/11-'48 Recoil Study

A discussion was held with Test Lab personnel and it was felt a possible improvement could be made by using 28° cones in place of either the 25° or 30°. New cones have been made up but not tested as yet.

Rifle Barrel Processing Report

A Progress Report was written based on information developed by the Custom Shop on eliminating the Cuprodine process in the draw rifling operation. This report was written at the request of Mr. Alvis to speed up distribution.

Request for Quotation - Springfield Armory

Request for Quotation was reviewed at Mr. Alvis' request to determine the possibility of our quoting within the scope of time available. Based on the time limit (due in Bridgeport on Feb. 19th) and the amount of work to be done, a request for a 10 day to 2 week extension was made through Government Sales. The request was denied and we informed Government Sales to submit a no bid. We also asked for a week extension on the Flash Hider request. This request was also denied.