Copy to:

D. F. Carpenter
1 (W. U. Reisinger
(E. L. Bergland
C. B. Wells
M. R. Warden
A. J. Greene
W. L. Clay
W.F.H.Mattlage
H. N. Meixner
J.H.K.Abbott
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H. R. Dorr
*J. H. Chasmar
*H. A. Brown
*F. B. Clay
*W. R. Barrett
R. T. Van Ness
L. A. Burrows
1 (W. E. Lawson
(S. C. Lloyd

*To be returned

REMINGTON ARMS COMPANY, INC.
Bridgeport, Connecticut

NOTICED
AUG 27 1945
G. R. Mc

ACTIVITIES OF TECHNICAL DEPARTMENT

SECOND QUARTER, 1945

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Submitted by:

R. E. Evans - Manager, Ammunition Division
G. R. Mc Cormick - Manager, Arms Division
J. K. Hamil - Manager, Mechanical Development Laboratory
E. L. Wemple - Manager, Development Division

Approved by:

G. O. Clifford
Technical Director

C O N T E N T S

ARMS DIVISION, G. R. MC CORMICK, MANAGER

Project: Model 721, Bolt Action, High Power Rifle - L-3121
Personnel: M. H. Walker, Design Section; M. H. Smith, P. F. Henriksen, H. C. Moss, R. W. Angell, Engineering Section
Authorized Amount: $71,000 Total Expended to Date: $36,682

Nature of Problem:
Development of a low cost high power rifle to take the place of the present Model 720.

Summary of Progress from Inception:
A design was conceived and built in which the objective of simple parts was met very successfully. Twenty-three of the fifty parts are blank and form operations or springs which can be furnished by vendors specializing in this field. Basic process records have been written for the remaining twenty-seven parts, which are being reviewed by a committee representing Design, Tool Design, Estimating, and Production Engineering of the Technical Department. In processing the gun, operations little used at Ilion, such as internal broaching, rise and fall milling, induction brazing, swage rifling, and automatic machine finishing of barrels, are planned. The recommendations of the Arms Study Processing Report are being given careful consideration.

This Quarter's Work:
Military work has limited this quarter's progress; however, extractor revisions have been made, and work on minor alterations to comply with Products Committee action has been started. No further progress has been made on processing the 721.

Proposed Next Quarter's Work:
Test revised extractor, complete revisions, and submit for Products Committee approval. Make and test models in 30-06, .270, and .257 calibers. It is planned to resume processing work on this model. Further developments will be made on the rough process already established. Machine tool manufacturers will be contacted as an aid in selecting machines. Further efforts will be made to place orders for producing stamped and formed parts.

Project: Model 760 Slide Action Center Fire Rifle - H-1029
Personnel: J. D. Howell, C. C. Orloff, H. W. Young, Gun Design Section
Authorized Amount: $89,000 Total Expended to Date: $84,110

Nature of Problem:
Design a high power slide action rifle capable of handling ammunition more powerful than any previously handled in slide action rifles and yet weighing less and costing less to produce than our present medium power slide action center fire rifle.

Summary of Progress from Inception:
A model was constructed in .30-06 caliber and tested

This Quarter's Work:
No further work was attempted during this period because of the lack of funds. A project was prepared and is now being approved. The work not completed on this project will be finished under the proposed project.

Proposed Next Quarter's Work:
No further work will be done on this exploratory project. All work will be absorbed on the proposed High Speed Milling project.

Project: Cold Test Equipment - TP-3403-11
Personnel: H. C. Moss
Authorized Amount: $300 Total Expended to Date: $158

Nature of Problem:
(Exploratory) To design and specify equipment for testing all model guns at reduced temperatures.

Summary of Progress from Inception:
A perspective drawing has been made and a probable supplier contacted. Modification in design is progressing.

This Quarter's Work:
Same as above.

Proposed Next Quarter's Work:
A design and specification will be prepared, a quotation will be obtained, and a project prepared.

Project: Surface Peening - TP-3403-12
Personnel: H. C. Moss
Authorized Amount: $300 Total Expended to Date: $179

Nature of Problem:
(Exploratory) To determine the value of surface peening as a method of producing superior quality arms components; then, if the quality is increased sufficiently to justify further investigation, to determine the economic feasibility of the process to Remington.

Summary of Progress from Inception:
The Model 11 mainspring has in the past been a component of doubtful quality; therefore, the Model 11 mainspring was chosen to be the part with which to compare quality of regular production and surface processes.

This Quarter's Work:
Twelve Model 11 mainsprings were sent to the W. W. Sly Company for surface peening. Destructive tests show a variation in cycles of from 57,000 maximum to 16,000 minimum, with no definite trend noticeable.