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Petah-Tiqva, March 30-th, 1956.

Remington Arms Company, Inc.
Ilion, N.Y., U.S.A.

Dear Sirs:

As an admirer of your Mod. 37 Rifle, I was delighted to obtain the model 40X from Messrs. Zeniuk & Co., Haifa, Israel, as soon as it arrived in this country - namely on February 13th this year.

My rifle is the heavy barrel model, serial No. 0706. I am glad to inform you that, as much as the barrel and the action are concerned, the rifle surpassed all my expectations. The large locking surfaces, that were designed to insure the stability of the minimum head space for indefinite time, on my rifle, were found to be in contact with the locking surfaces of the receiver only at the edges (see fig. No.1). I hope that the above condition will not affect the head space to undesirable extent. I also found the firing pin hitting against the chamber edge, which resulted in a step on the chamber edge (see fig. No.2). After shortening the firing pin by about 0.01" the fault was removed, but the step still causes a slight scratch on each cartridge.

The disappointment came from the trigger action and here is the story: On the very day of the purchase, after several "dry shots" at home, the bolt got stuck and would not lock unless forced brutally. The safety lever would not function. The stock removed, the surface of the firing pin head was found to be riding over the sear surface. On further dismantling of the trigger mechanism, the cause was revealed: the trigger with the connector have sunk. I cannot state the cause; it was due, presumably to either the poor quality of the trigger alloy or to liberal tolerances (pins placings and such). Fig. No. 3 will illustrate the above.

I had to order a new connector with a thicker head and, seeing no reason why it should not be connected to the trigger, I fixed the two bodies together by means of a 1/8" screw. The latter arrangement enabled me to replace the original heavy trigger spring by a lighter one aiming for a lighter pull. Please inform me whether you approve of the above. The click adjustment of the trigger is most convenient but unscrewing the trigger adjusting screw too much, causes the "trigger adjusting ball" to be pushed outside by the spring and removing of the stock becomes necessary. I suggest that the above be eliminated by addition of a thin pin-extension to the "trigger adjusting screw" (see fig. No.4). It proved successful on my rifle.

The pull of the modified trigger is far from uniform and compares unfavourably with that of Mod. 37, but otherwise the rifle is in good working order and shows excellent accuracy. I am convinced that a suitable trigger is all that stands between the 40X and perfection (in the mass production class), and will be very grateful for your guidance in this matter.

Yours truly,

Encl. 4

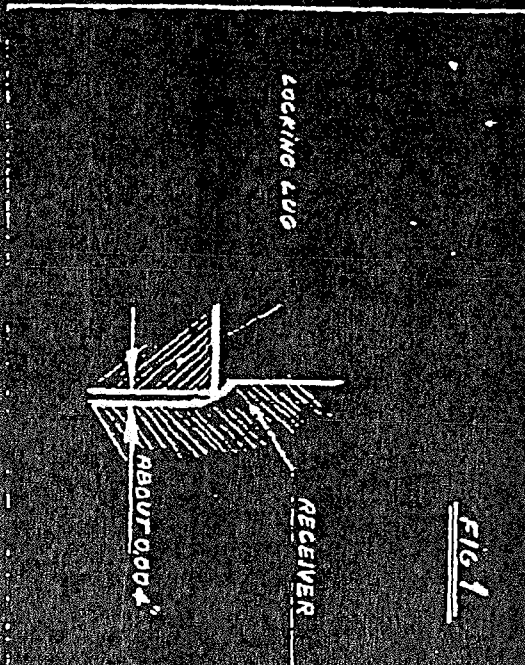
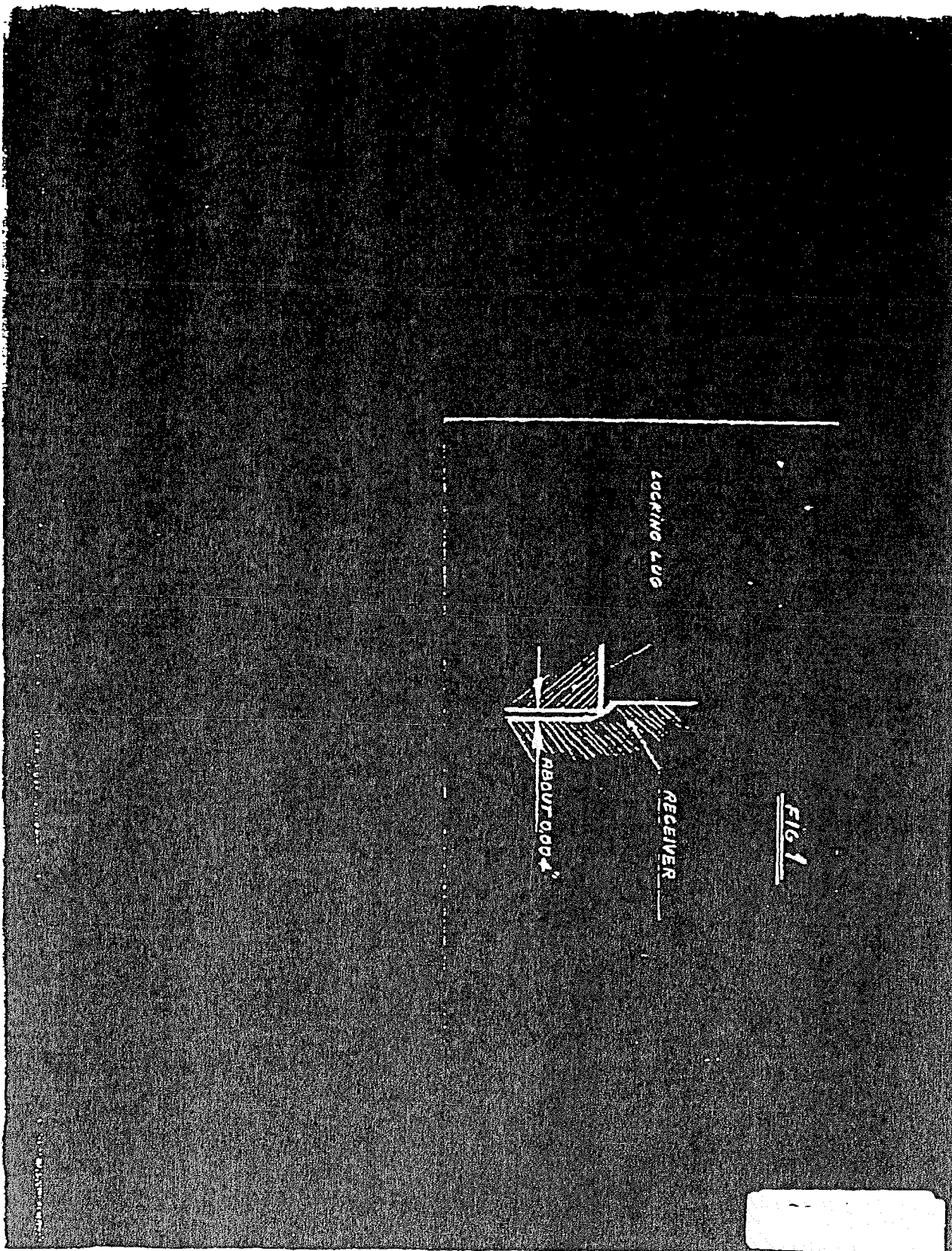


Fig 1

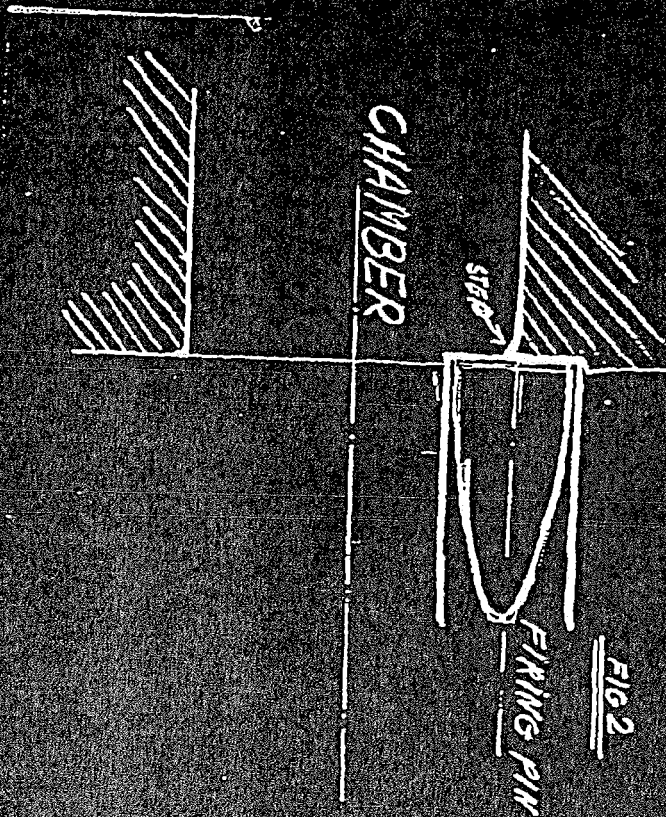
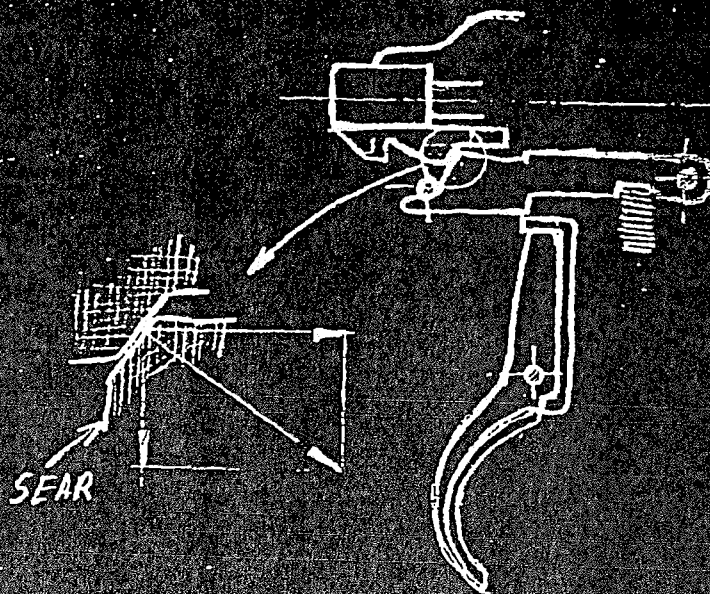


FIG 3

PROPER POSITION



POSITION ON MY RIFLE

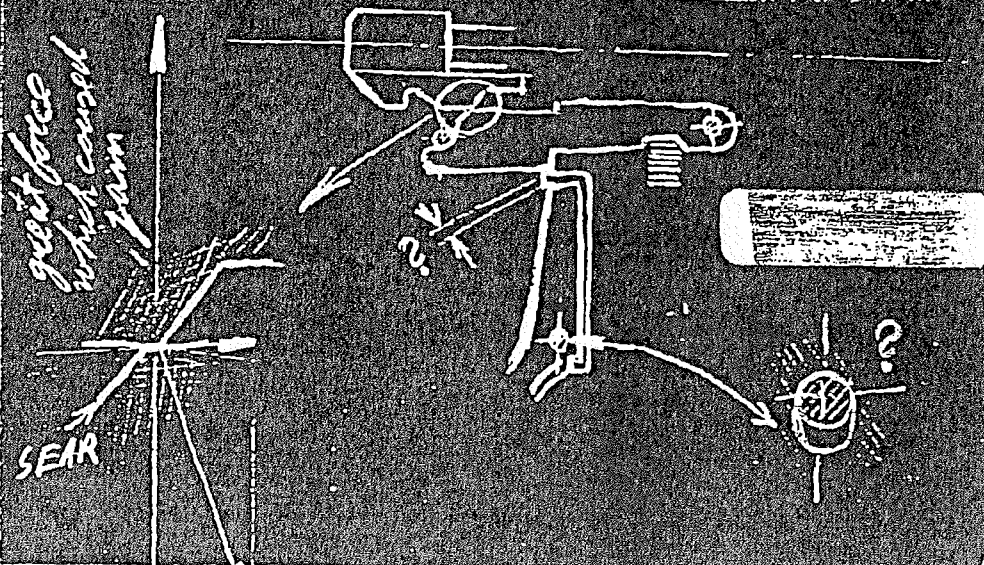
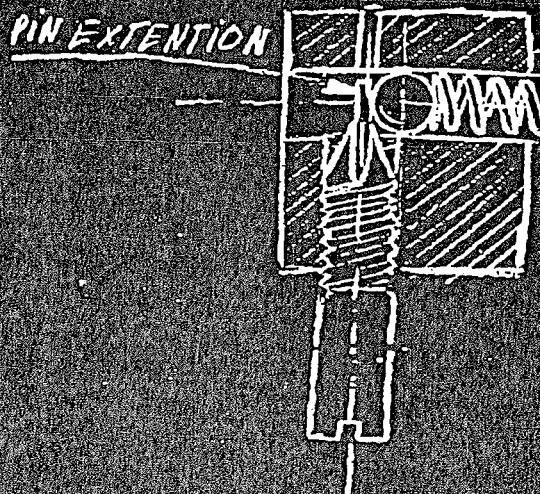


FIG 4



cc: J.B. Maupin
H.J. Hackman

ILLION RESEARCH DIVISION

MONTHLY REPORT

APRIL 1956

SHOTGUNS

SPORTSMAN-58

12 Gage

A molded nylon Magazine Spring Stop has been designed which, together with a new retaining pin, will eliminate need for staking in assembly and also provide a better means for retaining the Magazine and Action Springs. A trial lot of samples has been received and a production quantity is anticipated early in May.

At request of Sales an improvement has been made and is being tested to the ^{for} design of a fore end ring which will better retain the neoprene seal. If found satisfactory, cost estimates will be obtained.

Request has been made to the Plant for detail cost information on components and operations which should be reviewed for cost reduction.

16 & 20 Gages

Testing of guns assembled with the revised Breech Block assemblies has been favorable and drawings were released to the Plant in April in order to proceed with the processing and tool design.

TB and TC (Trap) Grades

Specifications have been prepared for these two grades as recommended by Sales; however, because of the indicated unfavorable economics for the TC Grade it appears that only the "TB" will be used.

SPORTSMAN X

The model designation for this proposed new autoloading shotgun has been changed from "Sportsman-50" to "Sportsman X". Work is proceeding on basis of completing the first mock-up model in August.

CENTER FIRE RIFLES

MODEL 725

The sample of the proposed model has been reviewed with Sales and was generally accepted with exception of the safety. It has now been recommended by Sales that the present M/721 style of safety be redesigned and this work has been started. However, it is probable that this will involve a major change that will impose additional cost and delay completion of the design to extent that the new rifle would not be available for introduction in January of 1957. Recommendation has also been made that the development program be further simplified by bringing out the proposed Model 725 in a "regular" A-Grade together with an ADL Grade, replacing the Models 721 and 722. Specifications are being prepared for formal approval and the proposed new stock has been designed for use with either open sights or telescope. This would make it unnecessary to produce both high comb and low comb stocks. Except for the new safety the model should be ready for re-submitting to Sales within approximately one month. It will involve revisions to the rear sight leaf (for more rugged appearance), additional taper on the fore end, and relocation of the front sight ramp. In the meantime it is planned to release preliminary information to the Plant for estimating product cost.

MODEL 740 - CALIBER 308

The Plant reports having completed tooling for this new caliber and pilot parts should be ready for initial assembly during the first week in May.

MODEL 740 - CALIBER 244

The design for this caliber has been completed and rifles submitted to preliminary test firing. This appears to be satisfactory and more extended testing will be accomplished pending approval for completing the development in this caliber.

MODEL 760 - CALIBER 308

Design for this addition has been completed for several months but no action taken on tooling pending authorization for addition to the line. It will require a new Magazine Follower together with marking rolls for the Barrel. Two months' procurement time has been estimated in order to have parts for initial assembly and pilot testing.

MODEL 760 - CALIBER 222

One rifle has been built and submitted to design testing, and results appear very encouraging, especially from standpoint of inherent accuracy. In addition to the requirement of a new magazine filler piece, it also involves a change to the bolt head and extractor in order to accommodate the smaller diameter cartridge.

RIM FIRE RIFLES

MODEL 552

Design is essentially complete. Drawings have been turned over to Methods & Standards and P.E. & C. for the economics of this current design.

MODEL 552 Continued

The field grade model has been fired 16,000 rounds with the following results:

Breakages

Extractor spring at 10,000 rounds.

The bolt expanded at the hammer slot causing difficulty in dis-assembling the gun. Present heat treat calls for cyaniding.

It is believed that carborizing will correct this trouble.

It was necessary to adjust the trigger in fire control at 13,000 rounds due to elongation of the hammer and sear pin holes in the casting affecting the connector and sear engagement.

Function

Feeding problems experienced earlier in the test have been corrected.

Ejection on 22 cal. longs is the current problem and is being investigated.

The gallery version has been fired 11,000 rounds to date. There have been no breakages and function appears to be satisfactory.

MODEL 555

Molds for making the first nylon stocks are still expected to be available during the first part of September. Because of the shrinkage characteristics of this material it has been necessary to hold up on final dimensions of the interior metal parts until the stock and receiver forms are molded. Dimensions would then be changed as required to accommodate these factors. The design has been maintained in such a manner that this shrinkage is not expected to effect any of the dimensions of the metal component parts which might effect functioning. Effort is being made to meet with consultants regarding

MODEL 552 Continued

selection of colors, after which Sales Department indicates readiness to try and resolve these specifications. If standard colors are acceptable there will be no procurement problem; however, if special shades are required this will necessitate several additional months for formulation of the molding powders.

MODEL 524 BOLT ACTION RIFLE

Research work to date in connection with this rifle has been accomplished by the Plant. Two models were built for evaluation, one of which was shipped to the field. Some revisions have been made as requested by Sales; however, it is now understood that the economics do not appear favorable with the proposed selling price, and this is to be further reviewed.

S. N. Alvis

SMA:T
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