

ILION WORKS

1-15-63

SUBJECT:

Model 700 Rifle Design - **HISTORY**

NAME OF EMPLOYEE

M. H. Walker

POSITION

Chief Designer - Special Products,
Ilion Research Division

DESCRIPTION OF PRODUCT
USED PRIOR TO ADOPTION OF
IMPROVEMENT FOR WHICH
AWARD IS RECOMMENDED

The Model 721 Center Fire Bolt Action Rifle was introduced in 1948 along with a companion version Model 722; the first of a series of post war models. Prior to this time Remington had never enjoyed a significant share of the market for the center fire bolt action rifle. With new features including the "world's strongest rifle action" and at a competitively lower price than the Winchester Model 70, the acceptance was so good that within an interval of several years the total sales had surpassed the combined records of all previous Remington bolt action center fire rifles. The cumulative sales for these models have now approached the half million mark. However, from a peak of 63,489 in the year 1951 the volume ~~has~~ diminished gradually and continually to low points in 1960 and 1961.

The earlier high sales volume was of course influenced by a seller's market following WW-2. Several years later we brought out the Model 760 Slide Action Rifle and the Autoloading Model 740, which together with outside competition, both foreign and domestic, certainly influenced the downward trend for the M/721 Line.

In January 1955 the Sales Department recommended that development work be started for a new model to "upgrade" the M/721-722 Line. The specifications and features were supplied by Sales (Operations Committee Minute No. 1 - 1955). In essence an attempt was made to match the Winchester Model 70 Rifle and the new item was designated as Model 725. Details of design were dictated rather closely by Sales and there was a third year volume forecast of 12,200 rifles. At the time M.H. Walker, the original designer for the M/721, was not available for participation because of priority commitments on the stud driver program.

The Model 725 failed to meet the desired sales objectives by a considerable margin, and at the same time the M/721 and 722 sales continued to diminish. It was subsequently held by many that introduction of this third bolt action model number tended to confuse customers.

DESCRIPTION OF IMPROVEMENT

In 1958 Walker undertook a research study aimed at recovering the sales position for our center fire bolt action line. This included an analysis of shipments in various calibers, grades, etc., and review of the elements of cost. He first proposed a "face-lifting" by way of designing an improved sporter stock together with several minor quality changes, and at the same time to reduce the total number of items in the line by discontinuing those having insignificant volumes.

At that time the number of calibers had increased to about a dozen. The Operations Committee (Minute No. 1 - 1959) approved this work and continued periodical reviews. The study led to recommendations from Walker that the scope of changes be extended towards an entirely new model light weight carbine type rifle, but retaining the basic design features of the M/721 action. As indicated in Operations Committee Minute No. 3 - 1959, there was opposition to this plan because of possible adverse affect to the M/725 sales. This position was reaffirmed in Minute No. 4 - 1959.

However, "Mike" was not easily discouraged, and in September 1959 displayed a sample of a redesigned "Sporter" rifle, which became the prototype for the subsequent Model 700. But the following November R&D was requested to defer this item until February of 1960 in effort to reduce the accumulated warehouse inventory for the Model 725.

In August of 1960 Walker proposed a new Model 723 having the following specifications:

1. Swept-back Bolt
 - a. Pear shaped ball
 - b. Streamlined handle
2. Move Trigger back 1/4
3. Change Guard shape
 - a. Move bow back
 - b. Streamline (Weatherby and Browning)
4. Inlet Magazine from top (no floor plate)
5. Improved Stock
 - a. New grip shape
 - b. Comb cuts
 - c. Cheek Piece with Monte Carlo
 - d. Grip Cap with White line
 - e. Fore-end tip with White line
6. Improved Receiver shape
 - a. Cut away tang as on Springfield
 - b. New Bolt Plug - bigger and with safety
7. Compensated barrel where required.
8. Provision for Sling Swivels (detachable screws)
9. Scope rifle without sights; sell with scope as ordered.
10. Grip blast top of Receiver.

The above rifle was received favorably by Sales as indicated by copy of letter W.H. Foster to J.D. Mitchell dated 9/28/60, and after further collaboration between R&D and Sales, agreement was reached on minor design details, and a development project was initiated. However, sales volume forecasts were relatively low and further persuasion was required by Walker to obtain the needed support to justify expenditures. This was finally resolved and development completed, with the new rifle being introduced to the trade early in 1962.

Consumer acceptance was excellent and as a result the first year sales exceeded 40,000, which was far above forecast and required that production operations be run on an overtime basis in effort to fill the orders. A number of months ago we asked Sales Research to determine for us the factors responsible for the unusual success of this model in light of the earlier more conservative forecast. However, J.J. Callahan advised that it was too early to reach any definite conclusions but thought the result of the combination of good design and promotion. It is our considered opinion that the combination of design improvements with the new custom checkering provide a quality standard for the Model 700 which results in a definite competitive advantage.

CALCULATION OF SAVINGS

(To be supplied)

RECOMMENDED PERCENTAGE ON WHICH AWARD IS BASED

A - Originality, ingenuity, alertness, or perseverance

Walker - %

Ingenuity - %

Considerable skill and resourcefulness were required in utilizing the basic M/721-722 actions as needed to avoid excessive new tooling cost, and at the same time come up with a pleasing new design to gain the desired objectives. Walker was in charge of all of the design, model making and test work, and provided the required leadership in preliminary processing and tooling. This involved going back into many of the basic operations, including the stock and receiver. He demonstrated a high degree of design and engineering aggressiveness in combination with practical experience in developing the Model 700 Rifle.

Alertness - _____%

Walker was first to request an opportunity to develop improvements for the center fire bolt action line, and foresaw means of regaining our sales position using an approach for a light weight carbine type sporter.

Perseverance - _____%

Throughout the Model 700 development program Walker encountered conflicting opinions regarding the acceptable design characteristics, and also as regards to the expected sales volumes needed to justify the project. However, he was not discouraged and continued to resubmit proposals, finally convincing Sales and Management as to the potential customer acceptance of his ideas.

ORIGINAL SUGGESTION
(IF ANY)

Copies of various selected correspondence records are attached.

S.M. ALVRS
SMA:T
1-15-63