G-88

## DON'T SAY IT-WRITE IT

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DATE Oct. 15, 1963

FROM W. E. LEEK - Ilion

## TECHNICAL INFORMATION - MODEL 600 RIFLE

I am assuming that you have available general specifications for this model so will ignore commenting on that particular area and concentrate mainly upon the background and the reasons for development of the new rifls.

As far as we know there is no really light, high powered rifle regardless of the type of action on the market today. It is indeed getting very difficult to penetrate the bolt action market with anything new in this line. We did succeed in the Model 700 by introducing new calibers and new styling. However, the Model 700 as far as general shape, length, overall calibers and weight is concerned is quite similar to others in existence. There appeared to be one niche left in the general overall bolt action market and that was one which might be filled by a very light carbine type rifle in calibers up to and including 35 short magnum calibers.

We are planning to introduce the M/600 the first of 1964 in three calibers; the 222 Remington, 35 Remington and the 308. Of these three, the 308 will probably be the most popular as it presents a very potent cartridge in such a light rifle. Generally speaking, you will find this caliber in rifles weighing 6 1/2 lbs. upward and ones that have a length of 43 to 45 inches; whereas the M/600 will weigh 5 1/2 lbs. and the length will be approximately 37 inches.

There was also a need for a rifle that would adequately fit a horse scabbard with no protrusions of the bolt handle in the scabbard. This was neatly accomplished by pulling the bolt handle inwardly toward the stock, cutting the curved shape of the knob in half so that protrusions of the knob against the scabbard would not take place. Another neat feature is the forward crooked leg of the bolt handle. This allows the handle to be far forward of the trigger finger, preventing impact of the bolt handle against the finger during heavy impact from the recoil of large calibers. This has been demonstrated recently by the test firing of this model with the new short 35 Magnum which produces tremendous energy and with a fairly heavy recoil. Nothing was felt between the bolt handle and the trigger finger, as is usually felt by other bolt action ritles of even lighter recoil.

In addition to this exclusive feature, a rib was added to the barrel giving it a finer, higher class appearance with better sighting availability. This principle has long been used in fine shotguns and also target revolvers and pistols, and is believed to enhance the appearance of the rifle in addition to providing quicker sighting arrangements.

The M/94 Winchester has of course given all other guns a great deal of competition since its original impact on the market years ago. We believe that this rifle has

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E. S. McCawley

been popular because of its light weight, slenderness and short length, in addition to its larger magazine capacity. It has been popularized of course by good advertising and TV shows, and has been a hand-me-down from father to son for several generations. It is our belief that the rifle popularized the caliber, the reverse not being true. Although the 30-30 Caliber is one of the best sellers it is certainly one of the least potent of deer killing calibers and has wounded and maimed a considerable number of deer during its history. It is our hope that the Model 600 will go into direct competition with the M/94, comparing favorably in price, length, weight and of course providing it with a more potent caliber, the 306, than the 30-30 in the M/94.

The quick handling of a short barrel carbine encourages our hope and the long distance shooting in the 308 Calibers tested in Idaho and Wyoming this summer produced some very astonishing results. Good hits at objects the size of an ordinary deer could be made at 800 yds., quite comparable to the M/700 in the 7mm cartridge. However, beyond 800 yds. the 7mm was most desirable.

As far as quick shooting was concerned the M/600 made very good account of itself on running jackrabbits up to 100 yds. Elmer Keith, who joined me in shooting this rifle, claims it will be an excellent rifle in the north woods, and especially in Alaska for fishermen and trappers who do not care to carry a heavy rifle around during their fishing and trapping seasons, but want something that is potent enough to stop a bear. He is, of course, very anxious to see it come out in the larger calibers, and is most anxious to hear of our results when we produce the 35 short magnum.

This leads us into a new area of calibers which are very potent and will popularize this model. We plan to produce the 35 short magnum and the 7mm short magnum for this model in the following year 1965. Testing of the 35 short magnum is already in progress and results are phenomenal, as Bridgeport people advised us of extreme accuracies of each group at 100 yds, with more potential energy and velocity out of an 18" barrel with this caliber than the 30-06 will produce in a 24" barrel.

Shoulder firing to date in the 35 short magnum indicates that the recoil when shooting 150 and 200 grain in 35's is relatively light in comparison to what was expected. However, in this model with the heavier calibers a rubber recoil pad will be necessary.

The 35 Remington has been quite popular in the eastern areas and it has been a good deer stopper at short ranges. Its trajectory is quite undestrable at long ranges, however. Its brush bucking capabilities are quite superior to the smaller calibers but it will be far overshadowed when the magnum makes its debut one year later. It is my belief that the 35 Remington will/De very popular in the western areas, but the impact of the 35 short magnum in the western states in the M/600 will get tremendous acceptance.

Ballistics data are not available for the 7mm short magnum at this time but it is believed that results will also be astonishing. We may find that other calibers in the short magnum case such as the 36mm and the 257 might become quite popular. These will have to be investigated at a later date.

We are also experimenting with a laminated stock of three to five plys which could be introduced into this model with the magnums, as a plus feature. Of course these items will require a higher selling price.

There is seldom that there is a requirement in the gun line for a new model, and especially in this bolt action line, and I feel that we are fulfilling a need and a requirement shead of our competitors. This has been demonstrated in the past by the introduction of the 222, 44 Mag., 7mm Mag., the Nylon line, the XP-100 Pistol. There was a need and a requirement for these items and proof was recorded by our high sales volume. Let's hope that this trend continues with the introduction of the new Model 600.

W. E. Leek Firearms Design & Develo, ment Ilion Research Division

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