

cc: G. M. Galhoun
 M. M. Walker ✓
 R. P. Kelly

Illion, New York
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F. E. MORGAN
 Bridgeport

MODEL 700 BOLT HANDLE

Yesterday I sent down to you via Remington truck a M/700 bolt having an experimental handle. It is proposed that this handle would be made from a different process than at present, i.e. formed instead of precision cast.

Assuming that the physical characteristics can be made equal or better than at present this process does require that we abandon the fine cut checkering on both sides of the ball. Fine cut tooling would not stand up for impressing such small checkering. Instead we would provide a "cameo frame" shape surface area. This is formed with smooth cup shaped dies under high pressure. Functionally, it is easier on the hands. Some people complained of the checkering being a little rough to operate a hard or stiff bolt. Many of us also like appearance better.

Why do we want to change the bolt handle? Mostly because of cost. This would be the same type of processing as on present M/800 bolt handle. Also, the Plant has from time to time experienced trouble with cracked castings in present bolt handles. We must continuously look for areas of savings in order to "stay ahead" of rising cost of labor, materials and taxes. I believe that the anticipated savings on this item is in the neighborhood of some \$10,000 per year (40 bolts).

Mike Walker has been skeptical since desirable to avoid changes. At the same time believe he admits that the cross-hatched checkering on present bolt is hard on one's hands. He was also skeptical of the process providing sufficient hardness for the primary extraction cam. I believe that tests showed the present process was not yielding as good or better physical properties in this manner as might be obtained from the formed steel. As to appearance, I believe that Mike will go along with opinions of majority since actually the change in looks is not very significant. We would hold the contour shape of the ball as at present.

Please put the bolt in a rifle and show it around, and let us have word on opinions. There is a small joint visible at the bolt handle stem. This is because we did not wish to pay for making up tooling for forming the entire bolt, but simply the ball and neck area. So we had this stub welded on another handle from which we had cut off the bolt handle ball.

S. M. Alvis
 Illion Research Division

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