CC: S. M. Alvis
S. W. Rose

February 11, 1952

TO: G. M. Calhoun

FROM: M. H. Walker

SUBJECT: M/37 - SERIAL NO. 10282
RETURNED BY WINCHESTER

Although this complaint of failure to fire when the trigger is pulled and subsequent firing when the bolt is lifted is not a common one, it can occur very easily on any block sear type fire control. If parts are not correct or if the assembly and inspection job is not complete, when the trigger is pulled removing the block from beneath the sear, it is necessary for the firing pin to cam the sear out of its holding position in order for the firing pin to fall. If the sear is too wide causing interference with the housing, or if the sear contact surface or the firing pin contact surface is rough enough to cause high friction between the two parts, cancelling out the component of force exerted by the firing pin, then the rifle will not fire upon pulling the trigger and may very readily fire at the time the bolt is moved, causing a lessening of the friction between the two parts.

Mr. Hartley's letter states that after disassembly and reassembly the condition was no longer evident. It is quite probable that during assembly of the original fire control the housing was distorted when the assembly pins were driven through it, causing a binding of the sear. High friction, of course, is aggravated by low temperatures and it is quite possible that the rifle worked satisfactorily here and later developed the difficulty.

The correspondence and the rifle are being turned over to S. W. Rose.

M. H. Walker
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MHW/mmc