

Ilion, New York  
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**MODEL XB-700**  
**OPERATION OF THE TRIGGER MECHANISM and TRIGGER BALANCE**

Drawing No. L-1319 shows the details of the Trigger Mechanism and the Trigger Balance. It can be seen from this drawing that the Trigger and Sear Block are connected by a Trigger Link, this being contacted by the upper end of the Trigger Balance.

It should be noted here that the only function of the Trigger Balance is to keep the gun from jarring off when dropped on the muzzle.

Drawing No. L-1320 (Fire Control Mechanism) shows these same parts in line form. As shown by Fig. 1, the Firing Pin is held in the cocked position by the Sear, which in turn is located by the Sear Block. As shown in Fig. 2, clockwise rotation of the Trigger causes the Sear Block to be pulled out from under the Sear, thus allowing the Firing Pin to fall. It should be noted here that, in both cases, the Trigger Balance remains in contact with the Trigger Link.

Fig. 3 shows the relationship of these parts on impact when the gun is dropped on the muzzle. Note that the Trigger Balance has been removed. The momentum of the Trigger Link and Sear Block cause the mechanism to move forward, thus allowing the gun to fire.

In Fig. 4, the gun is again dropped on the muzzle, but this time the Trigger Balance is in place. The momentum of the Trigger Balance offsets that of the Link and Sear Block, thus the Sear Block does not move and the Firing Pin is not allowed to fall.

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Fig. 5 shows the mechanism as it would be if the gun was dropped on the breech end. The momentum of the Link and Sear Block cause the Sear Block to remain under the Sear, and the Trigger Balance pivots free of the Link.

The only function of the Trigger Balance Spring is to insure contact between the Trigger Balance and Link, except when the gun is dropped on the breech end.

H. L. Chambers, Research Engineer  
Ilion Research Division

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