

3,364,846

From the preceding description, it can be seen that the pistol has been provided with a trigger balance which is an independent member to the fire control mechanism. It is supported entirely by the rack and is spring loaded to insure constant contact with the trigger link. Its purpose is to release jar-off when the gun is dropped on the muzzle.

Tests have proven that the inclusion of the trigger balance has substantially eliminated jar-off due to dropping on the muzzle. One gun with an adjustable steel block spring was used throughout the test. The gun was dropped on the muzzle from various heights on to a plate of 1/4 inch fir plywood supported by cushions. The gun was dropped with and without the trigger balance and dropped ten times under each condition from each of the test heights. When the trigger balance was removed, the steel block spring was adjusted to make the original trigger pull. Test results are shown in the table below:

Drop Height Feet	Trigger Pull Pounds	Number of Jar-Offs With Trigger Bal- ance Spring in Place	Number of Jar-Offs Without Trigger Bal- ance Spring in Place
100	25	0	10
50	25	0	10
25	25	0	10

The above test demonstrates that the jar-off weight performs as desired. This weight was installed in the fire control mechanism to counterbalance the additional weight from the linkage which was necessary to connect the forward trigger to the fire control. This jar-off weight functions only when the gun is dropped on the muzzle to release and substantially eliminate the chance of accidental firing.

What is claimed is:

1. A firearm comprising a rack, a receiver mounted to said rack, a barrel secured to said receiver, a fire control mechanism mounted to said receiver at the rear end

closed, said fire control mechanism comprising a rear block pivotally mounted in said receiver, a trigger mounted forward of said rear block, a member connecting said trigger and said rear block, an inertia weight pivotally mounted between said trigger and said rear block adjacent said member, said weight biased toward said member whereby forward motion of said member is prevented when said firearm is dropped on the muzzle.

2. A drop firing prevention device for a firearm, said device comprising a rack, receiver, barrel and fire control mechanism, a rear block pivotally mounted in said receiver for forward movement to expose said firearm to fire, a trigger mounted forward of said rear block, a trigger link connecting said trigger to said block, a trigger balance mounted in said rack between said trigger and said rear block, a balance spring mounted on said balance, said spring being biased to engage said link whereby said link is prevented from moving forward when said firearm is dropped on said barrel.

3. A drop fire prevention mechanism for a firearm of the type having a trigger receiver on a rear block, said device comprising a rack, receiver, barrel and fire control mechanism, a trigger link connecting said trigger to said rear block, a trigger balance pivotally mounted intermediate the ends of said link and biased into engagement with said link, said trigger balance preventing forward movement of said trigger link when the firearm is dropped on the muzzle.

4. The combination described in claim 3, in which said rear block is pivotally mounted for forward movement to cause discharge of the firearm.

References Cited by the Examiner

UNITED STATES PATENTS

1,212,012 1/1917 Balphow 42-71
1,373,324 2/1942 Knutson 42-71
1,625,765 1/1953 Magers 42-71

FOREIGN PATENTS

489,727 2/1910 France.
255,824 10/1911 Germany.

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