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SHOTGUN.

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1,362,478. Patented Dec. 14, 1920.

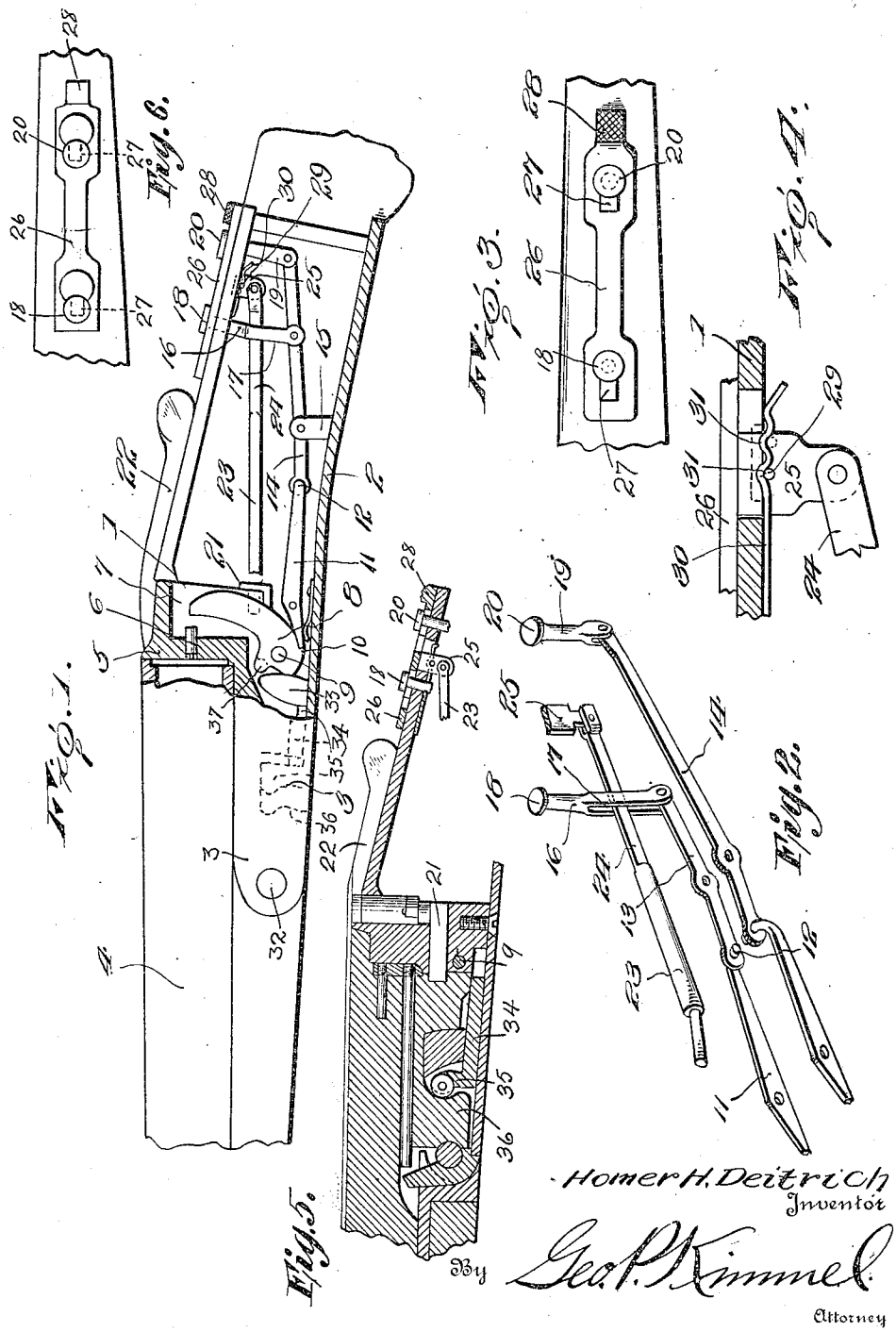


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

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SHOTGUN.

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To all whom it may concern:

Be it known that I, HOMER H. DEITRICH, a citizen of the United States, residing at Hegins, in the county of Schuylkill and State of Pennsylvania, have invented certain new and useful Improvements in Shotguns, of which the following is a specification.

This invention relates to new and useful improvements in shotguns and more particularly my invention resides in new and useful improvements in shotguns of the break type which are self cocking when broken, and the novelty in the device resides in the elimination of the conventional type of trigger ordinarily disposed beneath the mechanism carrying frame, and firing the gun through pressing down a pair of rods that project through the top of the frame adjacent the connection of the same with the stock.

Another object of the invention is to provide a shotgun of this type which is operable by a pair of rods that are adapted to be forced down through the mechanism carrying frame to fire the gun and said gun is provided with an automatically operable safety attachment that is movable when the gun is broken and the hammer is cocked to prevent the rods being forced down to release the hammer, until the safety attachment has been manually retracted so that it is released.

A further object of the invention is to provide a device of this character which is easily and simply constructed, inexpensive to manufacture, and one which will be very efficient in operation.

With these and other objects in view, my invention consists of the novel features of construction, combination and arrangement of parts which will be hereinafter referred to and more particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a side elevation of the breech mechanism of a gun showing the same partly in section.

Fig. 2 is a perspective view of the operating mechanism.

Fig. 3 is a top plan view of the safety lock.

Fig. 4 is a vertical sectional view of the means for automatically securing the safety lock in operative position.

Fig. 5 is a fragmentary longitudinal section of the breech mechanism of the gun.

Fig. 6 is a plan view similar to Fig. 3, showing the locking strip in locked position.

Referring to the drawings in detail, wherein similar reference numerals designate corresponding parts throughout the several views, the numeral 1 designates the mechanism holding frame of the gun which is of the conventional construction, but which is not provided with the usual type of trigger secured to the base 2 thereof. The base of the frame is provided with a forwardly projecting portion 3 carrying a pin 32 upon which the barrels 4 of the gun are hingedly supported. The frame is provided with a front upright wall 5, against which the rear of the barrels are adapted to be positioned, and positioned through said front wall of the frame are the firing pins 6 that are disposed in axial alinement with the bores of the barrels of the gun. The front of the frame is divided by a partition 7 into a pair of chambers that receive the hammers 8, said hammers being rotatably mounted on an axis 9 and automatically cocked, when the gun is broken, by the ears 33 carried by the block 34 provided with an upstanding front terminal 35 engageable by a cam or projection 36 upon the gun barrels. As the gun barrels are swung downwardly with relation to the gun stock, the cam 36 engaging the terminal of the block 34 shifts the latter rearwardly and causes the ears 33 to engage the laterally projecting pins 37 of the hammers whereby the latter are cocked. These hammers are spring pressed in the usual manner, and when in operative position, are disposed as is clearly shown in Fig. 1 of the drawings. The lower faces of the hammers 8 are provided with shoulders 10 for a purpose to be hereinafter more fully described.

Pivotally mounted in the frame and having their front ends disposed within the hammer receiving chambers in the front portion of said frame 1, are a pair of sears 11, which have their front ends engageable with the shoulders 10 of the hammers when the latter are in cocked position to hold the same so disposed as is clearly shown in Fig. 1 of the drawings. The rear ends of the sears 11 are bent laterally toward each other as at 12, and connected with the laterally bent portions are a pair of different length, substantially parallel, levers 13 and 14 which are pivotally mounted as shown at 15, on the base of the frame within the same. The longer lever 14 extends rearwardly and up-

wardly and inclines inwardly toward the other lever and projects beyond the same. Connected with the free end of the short length lever 13 is an upwardly extending operating rod 16 that has its lower end bifurcated as shown at 17 for a purpose to be hereinafter more fully described, and said rod projects upwardly through the top of the frame 1 and has a button 18 formed on the projecting end thereof. A similar rod 19, only not bifurcated as is the rod 16, is connected with the free end of the lever 14, said rod projecting upwardly through the top of the frame 1 in longitudinally spaced relation to the rod 16, and having a button 20 formed on its upper projecting end.

The front end of the frame 1 has slidably mounted therein the usual type of barrel locking bolt 21, that is operable by the laterally movable lever 22 disposed on the top of the frame 1 to release the barrels of the gun so that the same may be rotated on their hinge to break the gun. This bolt 21 projects through the front of the frame, and is engageable at its rear end with a rearwardly extending bar 23 that extends through the frame, said bar having the rear end thereof flattened as shown at 24 so that it is slidable through the bifurcated lower end of the rod 16. Connected with the rear end of the rod 23 is an upwardly projecting flat member 25 that extends through the top of the frame 1 and is slidable longitudinally in a slot therein.

Connected with the top of the flat member 25 is a locking strip 26 that has enlarged portions adjacent its opposite ends, said portions being provided with keyhole slots 27 and said slots surrounding the portions of the rods 16 and 19 directly beneath the buttons or heads thereof. This strip 26 is provided at its rear end with a raised portion 28 that is roughened so as to permit manual operation of the locking strip in a manner to be hereinafter more fully described. The member 25 has a laterally extending pin 29 projecting therethrough beneath the top of the frame 1 and the same is engageable with a spring 30 positioned against said top and having a pair of offset portions 31 therein that the pin is adapted to be positioned in to hold the member and consequently the strip in different positions as will be hereinafter more fully described.

In operation, when the various parts of the mechanism are disposed as is shown in Fig. 1 of the drawings, the gun is cocked and also the safety attachment is in operative position. To release the safety attachment, it is only necessary to move the safety strip 26 forwardly along the top of the frame 1, whereupon the rods 16 and 19 are permitted to be pressed downwardly through the frame, and their heads will register with the enlarged terminals of the slots of the strip. To fire the gun, the rods are forced downwardly whereupon the levers 13 and 14 are rocked to raise the rear ends of the sears 11, thereby disengaging the front ends thereof from the spring pressed hammers 8, and permitting said hammers to strike the firing pins 6 to force the same through the front wall of the frame 1 and fire the shells disposed within the barrels of the gun.

To recock the gun, and apply the safety attachment automatically, the lever 22 is moved laterally to withdraw the locking bolt 21 as is obvious, and the barrels 4 will be permitted to turn on their hinge. This will permit the fired shells to be removed and replaced, and at the same time, by the operation of the conventional cocking mechanism, the hammers are moved back to the position clearly shown in Fig. 1 of the drawings, and the sears 11 are once more operatively engaged therewith. This will force the rods 16 and 19 up through the top of the frame 1. Movement of the lever 22 will of course retract the bolt 21 and as the bolt engages the rod 23 the latter is also shifted rearwardly and the strip 26 owing to its connection with the bolt through the rod 23 will be moved back to operative position to prevent the rods from being accidentally forced down. The safety strip will be held in this position and the pin 29 carried by the member 25 will be operatively engaged by the spring 30, in one of the offset portions thereof as is clearly shown in Fig. 4 of the drawing to prevent accidental movement of the strip. It will take a positive manual operation to move the strip forwardly so as to release the safety from the gun. When the lever 22 is released, the bolt 21 is returned to locked position and its rear terminal is withdrawn from engagement with the rod 23, thus permitting the latter to move forwardly with the strip 26 a sufficient distance to release and permit depression of the rods 16.

This type of shotgun forms a very simple and safe weapon and one which is more easily operated than where the conventional triggers are used for firing the same. The novel arrangement of the operating rods in alinement with each other permits the firearm to be discharged by the user's thumb, as he may force down upon the rods either simultaneously or one at a time. This arrangement does not interfere with the sight, as is obvious. The safety attachment is automatically operated when the barrel is returned to normal position and when once placed in operative position, will hold the operating mechanism of the gun safe against accidental operation.

From the foregoing description taken in connection with the accompanying drawings, it is thought that a clear and compre-

hensive understanding of the construction, operation and advantages of the invention may be had, and while I have shown and described the device as embodying a specific structure, I desire it to be understood that such changes may be made in said structure as do not depart from the spirit and scope of the invention as claimed.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. In a gun including a frame and a barrel hingedly connected therewith, a pair of sear-controlled spring pressed hammers supported in said frame, a pair of longitudinally extending substantially parallel levers pivoted intermediate their terminals on the base of said frame and connected at one end each with the free end of a sear, operating rods connected with the free ends of the levers and projecting through the top of the frame, buttons carried by the exposed terminals of the rods, a slidable locking strip on the top of said frame having key hole slots receiving the rods and coacting with the buttons to prevent depression thereof, a bar connected with said strip and adapted to move the latter rearwardly when the barrels are unlocked to lock the rods against operation.

2. In a gun including a frame and barrels hingedly connected therewith, a pair of sear-controlled spring pressed hammers supported in said frame, a pair of longitudinally extending levers pivoted intermediate their ends on the base of the frame and connected at one end each with the free end of a sear, operating rods connected with the free ends of the levers and projecting through the top of the frame, buttons carried by the exposed terminals of the rods, a slidable locking strip on the top of the frame having key hole slots receiving the rods and coacting with the buttons to prevent depression thereof, a bar connected with said strip and adapted to move the latter rearwardly when the barrels are unlocked to lock the rods against operation, and spring means associated with the locking strip to yieldably maintain the latter in its alternate positions.

In testimony whereof I affix my signature hereto.

HOMER H. DEITRICH.