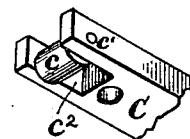
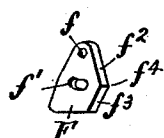
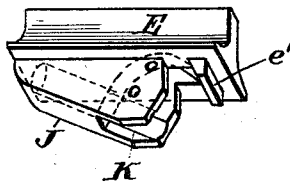
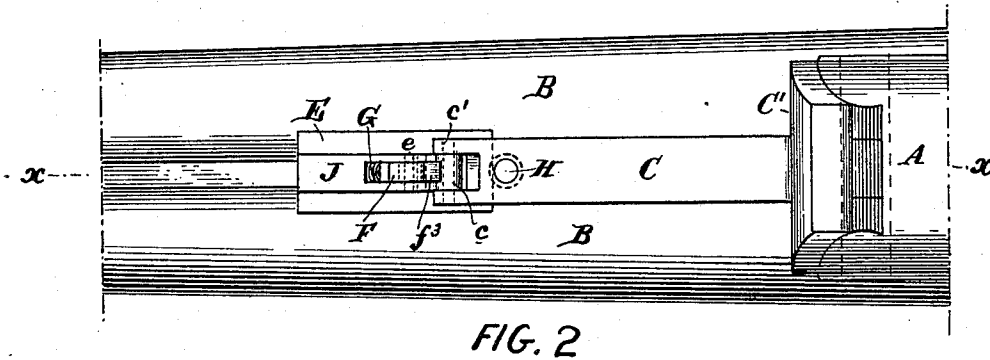
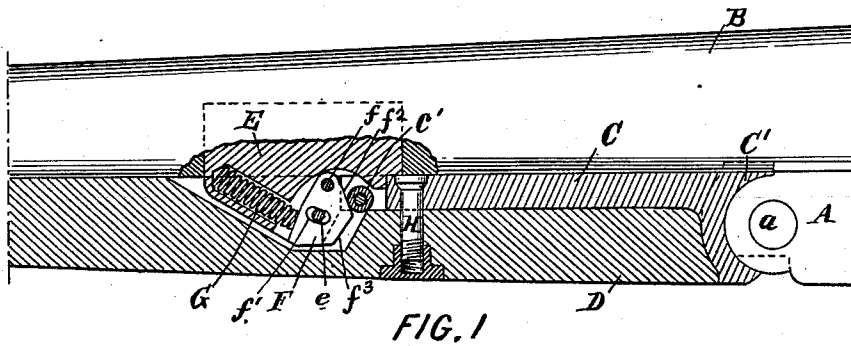


F. T. RUSSELL.
HAND FIREARM.
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1,029,229.

Patented June 11, 1912.



WITNESSES
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UNITED STATES PATENT OFFICE.

FREDERICK T. RUSSELL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO A. H. FOX GUN COMPANY, A CORPORATION OF PENNSYLVANIA.

HAND-FIREARM.

1,029,229.

Specification of Letters Patent.

Patented June 11, 1912.

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To all whom it may concern:

Be it known that I, FREDERICK T. RUSSELL, a citizen of the United States, resident of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Hand-Firearms, of which the following is a specification.

My invention has reference to hand fire arms and consists of certain improvements which are fully set forth in the following specification and shown in the accompanying drawings which form a part thereof.

More specifically, my invention relates to the means for detachably securing the fore end in position upon the gun barrels, and my object is to provide a construction which shall be effective without requiring too much of the wood of the fore end to be removed and, moreover, shall cause the fore end to be held tightly against the barrels and also against the hinging end of the gun frame adjacent to which the barrels are hinged, the construction being such that no visible portions of the locking or retaining devices are exposed or are required to be hand manipulated as a preliminary operation to removing the fore end.

My invention consists of means comprehended in providing the barrels with a lug slotted and in which there is movably pivoted a cam locking latch spring pressed into locking position, said cam locking latch engaging a latch keeper or roll on the fore end iron of the fore end, and the operation of the device being such that by placing the fore end in engaging position with the gun frame and forcing its forward end inward toward the barrels, the latch keeper or roll thereof will move over the cam edge of the locking latch and move it forward against the action of its spring and then, will pass back of a second cam edge of the locking latch by which it is forced inward and backward, so that the fore end is itself forced toward the barrels and backward into tight engagement with the gun frame adjacent to the hinge of the barrels therewith.

My invention also comprehends details of construction which, together with the features above specified, will be better under-

stood by reference to the drawings, in which:

Figure 1 is a sectional side elevation of a portion of a gun embodying my invention the sectional part thereof being taken on line $x-x$ of Fig. 2; Fig. 2 is a plan view looking at the back of the gun portion shown in Fig. 1, but with the wooden portion of the fore end removed; Fig. 3 is a perspective view of the fore end latch frame before attachment to the barrels; Fig. 4 is a perspective view of the fore end latch; and Fig. 5 is a perspective view of a portion of the fore end iron showing the latch keeper or roll.

A is a portion of the gun frame and a is a hinge pin upon which the barrels pivot. The forward end of this frame is made cylindrical or curved to receive the fore end iron C and permit it to swing in close contact when moved with the barrels when breaking down the gun.

B is a portion of the barrels which are secured to the gun frame A in the usual manner by the pivot pin a .

C is the fore end iron and D is a portion of the fore end wood to which the fore end iron is secured by means of the screw H. The rear end of the fore end iron C is formed with the usual cylindrical transverse groove to form a hinge joint with the forward end of the gun frame A and at the same time provide a retaining tongue C' to fit into the recess between the barrels B and the curved end of the frame A. The forward end of the fore end iron C is slotted as at c^2 and fitted with a transverse pin c' upon which keeper roll c is journaled. The forward end of the fore end iron is also preferably made with a transverse abrupt shouldered form to fit back of a lug e' on the latch lug and thereby be held against longitudinal shifting.

The latch lug E is formed to fit to the barrels to which it is brazed and is further provided with the transverse abutment lug e' , a latch slot K and spring socket J opening thereinto on an oblique angle to the alignment of the barrels.

F is the latch and consists of a flat plate pivoted in the slot K adjacent to the barrels on a pivot pin f and provided with a

slot f' through which a limiting pin e on the latch frame E passes to restrict the latch in its outward movement when the fore end is removed. This latch F is also
 5 provided on its rear edge with the inclined or cam edges f^2 and f^3 arranged at an angle to each other and to cooperate with the latch roll c in retaining the fore end in position. The latch is forced outward into
 10 locking position by a spring G arranged in the spring socket J of the latch iron and so arranged that it acts upon the latch F at its end most distant from the pivot f . The cam edge f^3 permits the latch roll to be
 15 pushed inward and force back the latch, and the cam edge f^2 is so inclined that it forces the latch roll backward and inward toward the barrels. This action causes the fore end to be snapped in close to the barrels and the
 20 fore end iron to take a position back of the lug e' and in close contact with the gun frame A.

It will be observed that the spring action on the latch is very strong since the leverage
 25 exerted by the spring is approximately twice that exerted upon the latch roll; and moreover the angle of the cam face f^2 is such that while it overhangs and retains the latch roll in locked position it presses upon said
 30 roll obliquely inward and backward to force the fore end into proper engagement with the barrels and gun frame. It will be further seen that the locking device as a whole is narrow and hence does not take up much
 35 room in the fore end thereby enabling the latter to retain its natural strength. Furthermore, the inclination of the spring G for the latch enables the latch frame to be inclined on its forward end and in this way
 40 obviate the necessity of cutting away much of the wood on the inner portion of the fore end wood D and this is especially important as at this part the wood is unsupported by the fore end iron.

To remove the fore end from the gun, the forward end of the fore end is pulled away from the barrels, the rear end revolving upon the front end of the gun frame A. This movement forces forward the fore
 50 end latch F against the action of the spring G by reason of the latch roll c contacting with the cam edge f^2 of the latch F, this movement continuing until latch roll c passes the high point f^4 of the cam edge and
 55 then the spring action of the latch acting through the cam edge f^3 forces the fore end outwardly until it is free to be removed. Upon the removal of the fore end the spring G forces the latch F rearward until the
 60 front end of the slot f' comes in contact with the stop pin e .

I have shown my invention in the form which I have found excellently adapted to commercial practice of the invention and
 65 therefore while I prefer the construction

shown, I do not restrict myself to the details thereof as they may be modified without departing from the spirit of the invention.

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

1. In a gun, the combination of the barrel and gun frame structure, with a fore end resting against the barrel and gun frame structure, and locking means for retaining
 75 the fore end in position consisting of a pivoted latch plate carried by the barrel portion and having two cam edge portions forming a high point at their juncture, a spring to force the latch backward toward
 80 the gun frame, and a keeper on the fore end adapted to move over the two cam edges of the latch plate successively and pass the high point at the juncture thereof in applying or removing the fore end.

2. In a gun, the combination of the barrel and gun frame structure, with a fore end resting against the barrel and gun frame structure, and locking means for retaining
 90 the fore end in position consisting of a latch frame secured to the barrel portion and having a latch slot and an obliquely arranged spring socket, a pivoted latch plate arranged in the slot of the latch plate and
 95 having two cam edge portions forming a high point at their juncture, a spring arranged in the oblique spring socket of the latch frame to force the latch backward toward the gun frame, and a keeper on the
 100 fore end adapted to move over the two cam edges of the latch plate successively and pass the high point at the juncture thereof in applying or removing the fore end.

3. In a gun, the combination of the barrel and gun frame structure, with a fore end
 105 resting against the barrel and gun frame structure and having a fore end iron, and locking means for retaining the fore end in position consisting of a latch frame secured to the barrel portion and having a latch slot
 110 and an obliquely arranged spring socket, and also a shoulder to form an abutment for the end of the fore end iron, a pivoted latch plate carried by the barrel portion and having two cam edge portions forming a high
 115 point at their juncture, a spring to force the latch backward toward the gun frame, and a keeper on the fore end iron adapted to move over the two cam edges of the latch plate successively and pass the high point
 120 at the juncture thereof in applying or removing the fore end.

4. In a gun, the combination of the gun frame and barrel structure, with a latch frame secured to the barrel structure, a
 125 latch plate guided in the latch frame and having a retaining cam edge said latch plate being pivoted at its end next to the barrel structure, a spring carried by the latch frame and pressing upon the end of the
 130

latch most distant from the pivot thereof, and a fore end having a fore end iron engaging the gun frame and having a keeper arranged for engagement with the cam edge of the latch between the points of its pivot and application of the spring pressure.

5. In a gun, the combination of the gun frame and barrel structure, with a latch frame secured to the barrel structure, a latch plate guided in the latch frame and having a retaining cam edge said latch plate being pivoted at its end next to the barrel structure, a spring carried by the latch frame and pressing upon the end of the latch most distant from the pivot thereof, and a fore end having a fore end iron engaging the gun frame and having its forward end slotted and provided with a keeper roll arranged for engagement with the cam edge of the latch between the points of its pivot and application of the spring pressure.

6. In a gun, the combination of the gun frame and barrel structure, with a latch frame secured to the barrel structure, a latch plate guided in the latch frame and having a retaining cam edge said latch plate being pivoted at its end next to the barrel structure, a spring carried by the latch frame and pressing upon the end of the latch most distant from the pivot thereof, means for the latch plate to limit its oscillation under the action of the spring, and a fore end having a fore end iron engaging the gun frame and having a keeper arranged for engagement with the cam edge of the latch between the points of its pivot and application of the spring pressure.

7. In a gun frame having a cylindrical pivot structure at its forward end and a barrel structure, pivoted thereto, combined with a latch frame secured to the barrel structure

and having a lug, a fore end iron having one end shaped to engage the hinge end of the gun frame and the other end to engage the lug, locking means between the fore end iron and the latch frame comprising a pivoted latch plate having an angular cam edge and a spring to move the plate carried by latch frame and a keeper carried by the fore end iron, and a fore end wood secured to the fore end iron and recessed to fit over the locking means.

8. In a gun, the combination of the gun frame, the barrel structure and the fore end, with a locking device between the fore end and barrel structure consisting of a keeper on one of the parts and a spring actuated pivoted latch plate on the other of the parts and having a working locking cam part formed of two cam edges meeting on an angle to form a high part said cam edges coacting with the keeper to force the fore end backward into close engagement with the gun frame.

9. In a gun, the combination of the gun frame, the barrel structure pivoted thereto having a lug secured thereon, and a fore end having a fore end iron engaging the gun frame and fitting back of the lug, and locking means for the fore end consisting of a spring actuated pivoted latch carried by the structure and pressing the end of the fore end iron adjacent to the lug toward the barrel structure and backward toward the gun frame.

In testimony of which invention, I hereunto set my hand.

FREDERICK T. RUSSELL.

Witnesses:

R. M. HUNTER,
R. M. KELLY.