Aug. 7, 1945. E. M. HARVEY 2,380,965

FRONT SIGHT FOR FIREARMS

Filed Oct. 21, 1943

Fig. 1.

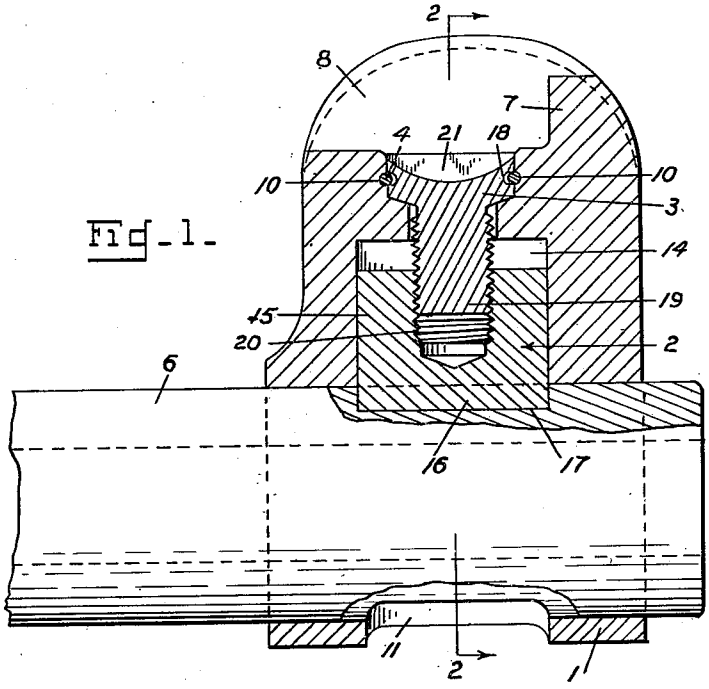
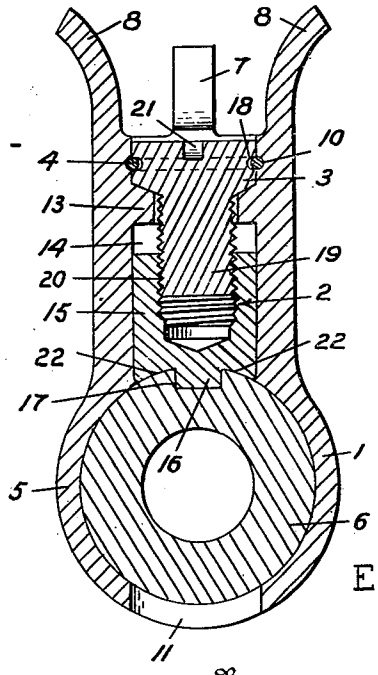


Fig. 2.



Inventor

Earle M. Harvey

By C. E. Henstrom & H. E. Thibodeau

Attorneys

Patented Aug. 7, 1945 2,380,965

UNITED STATES PATENT OFFICE

2,380,965

FRONT SIGHT FOR FIREARMS

Earle M. Harvey, Springfield, Mass.

Application October 21, 1943, Serial No. 507,088

3 Claims. (Cl. 33—47)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

The invention described herein may be manufactured and used by or for the Government for governmental purposes without the payment to me of any royalty thereon.

This invention relates to a front sight for a firearm and particularly to a removable front sight.

In a substantial number of modern firearms, particularly automatic rifles, it is necessary that the front sight, which is generally mounted on the end of the barrel, be readily removable in order to permit disassembly of other parts of the firearm, such as the gas cylinder and piston of a gas operated automatic rifle, for cleaning and repairing at frequent intervals. Such application requires a front sight assembly which may be assembled or disassembled from the firearm with the minimum of tools and effort and yet be capable of reassembly to the firearm in the identical position previously occupied in order to eliminate a realignment of the sights of the firearm or retargeting. Furthermore, for military use a removable front sight assembly should involve a minimum of parts and should particularly avoid small parts which may become separated from the assembly and lost.

Accordingly it is an object of this invention to provide an improved removable front sight for a firearm.

The particular object of this invention is to provide a removable front sight for a firearm which may be rapidly disassembled or assembled on the firearm by means of a single tool.

A further object of this invention is to provide a removable front sight for a firearm consisting of but four parts all of which are preassembled as a unit and cannot be separated, thereby eliminating the possibility of loss of any one of the parts.

Another object of this invention is to provide a removable front sight which automatically locates itself in the same position with respect to a firearm barrel regardless of the number of times of successive assemblage.

The specific nature of the invention as well as other objects and advantages thereof will clearly appear from a description of a preferred embodiment as shown in the accompanying drawing in which:

Fig. 1 is an enlarged longitudinal sectional view of the sight shown mounted on a firearm barrel.

Fig. 2 is a cross sectional view taken along the plane 2—2 of Fig. 1.

In Figs. 1 and 2 there is shown in assembled relation a front sight assembly embodying this invention. The front sight assembly essentially comprises a sight base 1 in which are assembled a key 2, a screw 3, and retaining ring 4.

More specifically the sight base 1 comprises a collar 5 (Fig. 2) which may be slipped over the muzzle end of the barrel 6 of the firearm. Integrally formed on the top of collar 5 is a sight blade 7, and on each side of blade 7 are provided protective arms 8—8. Directly in the rear of sight blade 7, a counterbored vertical hole 13 is provided which communicates with a rectangular recess 14 opening into the interior of collar 5. This recess 14 may be conveniently machined thru a hole 11 provided in the bottom of collar 5. A circumferential groove 10 is provided in the counterbored portion of hole 13.

A key 2 having a rectangular body portion 15 and an integral depending key tongue 16 is slidably mounted within the rectangular recess 14 in the sight base 1. The bottom surfaces 22 of key 2 on each side of key tongue 16 are preferably shaped to correspond to the periphery of the barrel 6. When assembled on the barrel 6 of a firearm the key tongue 16 engages a correspondingly shaped groove 17 provided in the top surface of barrel 6.

The key 2 is positioned within recess 14 by the screw 3, the head of which rests in the counterbored portion of hole 13. A circumferential groove 18 is provided in the head of screw 3. A retaining ring 4 is assembled under compression in the groove 18. When the screw 3 is inserted in hole 13 in sight base 1 and the groove 18 aligned with groove 10, the retaining ring 4 snaps out into engagement with the groove 10 and thus serves to retain the screw 3 in fixed position in the hole 13. The threaded end 19 of screw 3 engages a threaded vertical hole 20 provided in the body portion 15 of key 2. The key 2 may then be raised or lowered within recess 14 by actuation of screw 3. A slot 21 in the head of screw 3 permits actuation of the screw by a screwdriver or similar tool. The threads on screw 3 are preferably left handed inasmuch as a right hand turn of the screw 3 will then produce a tightening of the assembly on the barrel of the firearm.

For assembly to the barrel 6, the key 2 is raised to its highest possible position within the recess 14 by turning the screw 3. The assembly is then slipped over the muzzle end of barrel 6 to the position where the key tongue 16 is in alignment with the key slot 17 in the barrel. Screw 3 is then turned toward the right and the key 2 is accordingly forced downward until the key tongue 16 is firmly seated in the keyway 17.

If the keyway 17 is properly dimensioned with respect to the key tongue 16 so that there is a snug engagement between these two elements, it will be obvious that the sight will always be assembled in identical position with respect to the barrel 6. Furthermore, with this arrangement the sight is locked in place so firmly that misalignment by the operation of the firearm or by chance blows is eliminated. Disassembly of the sight is of course, accomplished merely by turning screw 3 to the left.

I claim:

1. A firearm sight assembly comprising a bracket having an opening arranged to snugly receive a firearm barrel, a sight blade on said bracket, said bracket having an interior recess communicating with said opening, a key movably mounted in said recess, one surface of said key arranged to engage the firearm barrel, a screw rotatably mounted in said bracket but fixed in said bracket with respect to linear movement, said key having a threaded hole engageable by said screw whereby rotation of said screw will advance or retract said key in said recess with respect to the firearm barrel.

2. The combination with a cylindrical firearm barrel having a groove in its upper side adjacent its forward end, of a front sight assembly comprising, a sight blade bracket having an opening through which said barrel extends and an interior recess in communication with said opening, a key member movably mounted in said recess of the bracket and having a lip seated in said groove of the barrel, said key member being provided with a threaded hole, a screw rotatably mounted in said bracket and fixed in said hole with respect to linear movement relative thereto, all adapted and arranged whereby rotation of said screw will advance or retract said key member in said recess with respect to said firearm barrel.

3. The combination with a cylindrical firearm barrel having a downwardly-extending longitudinal groove in its upper side, said groove having substantially flat surfaces, of a front sight assembly comprising, a sight blade bracket having an opening arranged to snugly receive a firearm barrel and an interior recess communicating with said opening, a key movably mounted in said recess and provided with a threaded hole, one portion of said key being provided with flat surfaces arranged to engage said flat surfaces of the groove of the barrel, a screw rotatably mounted in said bracket and engageable in said hole but fixed therein with respect to linear movement, all adapted and arranged whereby rotation of said screw will advance or retract said key in said recess with respect to said firearm barrel.

EARLE M. HARVEY.