J. F. McCLEARY.

FIREARM.

APPLICATION FILED JUNE 24, 1916.

1,222,778.

Patented Apr. 17, 1917.

2 SHEETS—SHEET 1.

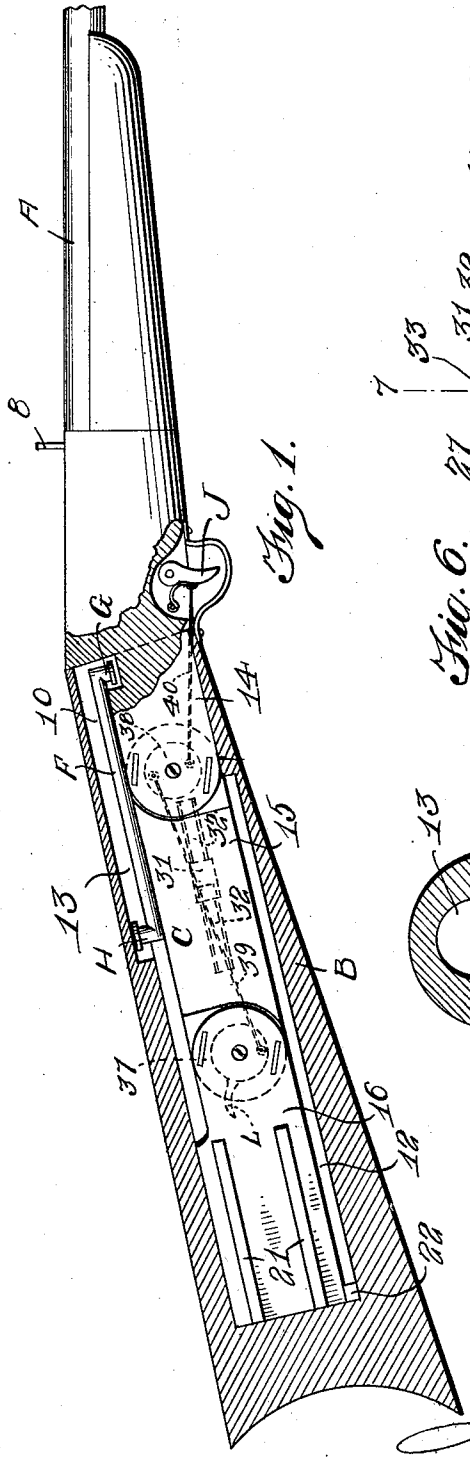


Fig. 1.

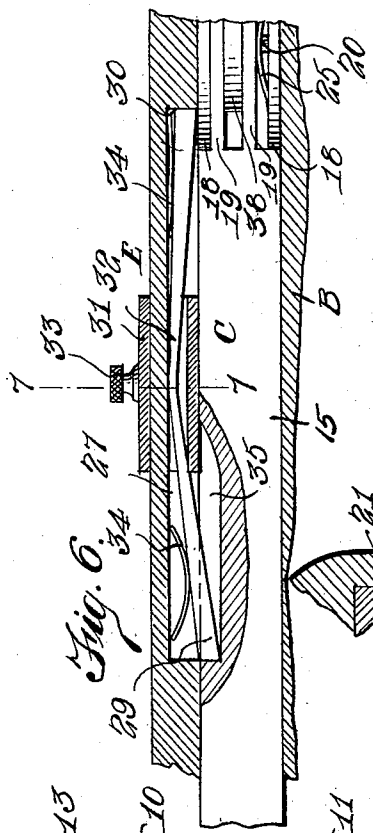


Fig. 6.

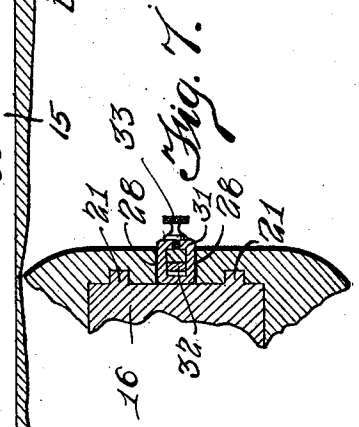


Fig. 7.

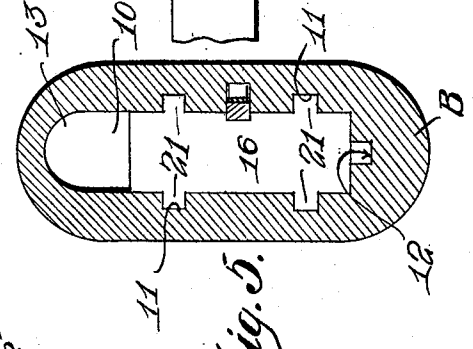


Fig. 5.

INVENTOR

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2 SHEETS—SHEET 2.

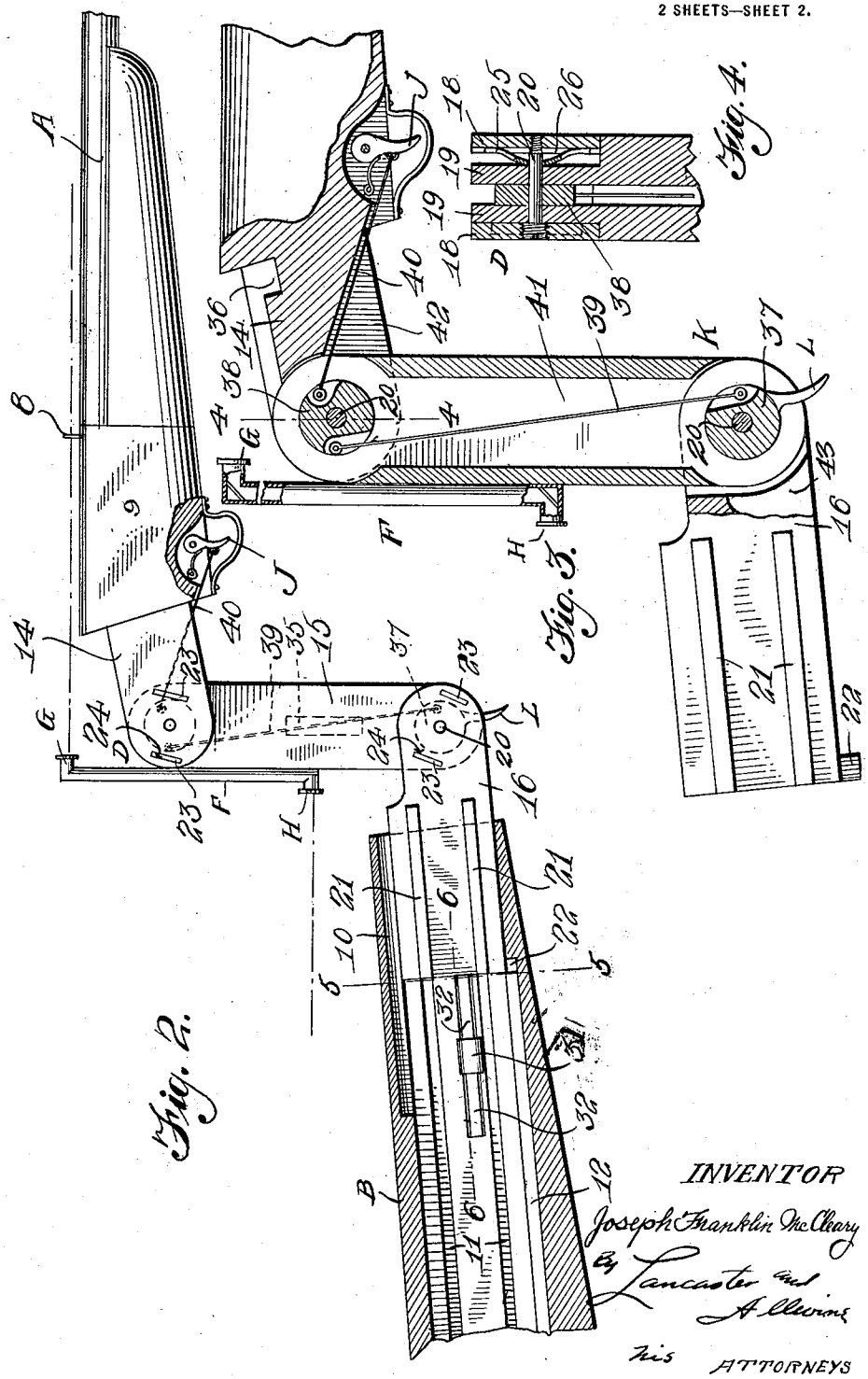


Fig. 2.

Fig. 3.

Fig. 4.

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UNITED STATES PATENT OFFICE.

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FIREARM.

1,222,778. Specification of Letters Patent. Patented Apr. 17, 1917.

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To all whom it may concern:

Be it known that I, JOSEPH FRANKLIN McCLEARY, a citizen of the United States, residing at Findlay, in the county of Hancock and State of Ohio, have invented a certain new and useful Improvement in Firearms, of which the following is a specification.

My present invention relates to firearms of the portable type.

The principal objects of my invention are to provide simple and compact firearms or guns which may be aimed without the users exposing themselves to confronting gunfire; and, to provide firearms equipped with periscopes which may be disposed in operative relation to the regular gun sight, but which in transportation or storage have the appearance of ordinary firearms or guns, the periscopes, when not in use, being concealed within the stocks.

Another object of my invention is to provide firearms of the character described with auxiliary triggers arranged in close proximity to the stocks but with the barrels in a plane considerably higher than the stocks. Thus, the firearms may be brought into use by persons familiar with the type of firearms now in common use.

Other objects of my invention will appear in the following detailed description, taken in connection with the accompanying drawings, forming a part of this specification, and in which drawings:

Figure 1 is a view partly in central vertical longitudinal section and partly in elevation of the rear portion of the firearms embodying my invention, parts being concealed within the hollow gun-stock.

Fig. 2 is a view similar to Fig. 1 but with the parts exposed, and a periscope in operative relation to the gun-sight.

Fig. 3 is an enlarged detailed view, parts being broken away and shown in section, to disclose details of a support adapted to couple the gun barrel with the stock.

Fig. 4 is a view in transverse section through coacting sections of said support and showing means for holding the said sections in rigid angular relation one to another.

Fig. 5 is an enlarged sectional view on the line 5—5 of Fig. 2.

Fig. 6 is an enlarged fragmentary longitudinal sectional view of approved means for retaining said support either in a concealed or exposed position with respect to the gun stock.

Fig. 7 is a sectional view on the line 7—7 of Fig. 6.

In the drawings, where similar characters refer to similar parts throughout the several views, A designates a barrel of the gun; B a hollow stock therefor; C a jointed support coupling the barrel A with stock B; D means for locking the sections of support C in angular relation one to another; E means for retaining the support in an extended or concealed position with respect to stock B; F a periscope including the sight opening G and eyepiece H; J a trigger in close proximity to barrel A; and, K means for operating trigger J and including a second or auxiliary trigger L which, when the gun or firearm is brought into use, is in close proximity to the stock B.

The invention is susceptible of application to portable firearms or guns embodying a barrel A, which may be equipped with any type of sight 8, thereabove, said barrel being carried by a receiver 9 which also supports the usual trigger J of firing mechanism, not shown in the drawings.

Referring first to the stock B, it is provided with a hollow 10 to accommodate elements, as hereinafter described, said hollow being open at the front end of the stock, and provided with longitudinally extending guideways 11 in the side walls of the hollow and a guideway 12 at the bottom of the hollow. If desired the said hollow may also be enlarged as at 13, at its upper wall, said enlargement open at the front end of the stock.

In order that the barrel A may be coupled with stock B, the jointed support C is provided, in the example shown, comprising sections 14, 15 and 16, the section 14 being integral with receiver 9 and projecting from the rear portions thereof, the section 15 being intermediate sections 14 and 16, while the latter is in direct connection with the gun stock B. As an approved means for pivotally connecting the sections one with another, at adjacent ends they are provided with coacting hinge extensions 18 and 19, in the example shown, the sections 14 and 16 having the extensions 18 which are outermost, while the section 15 is provided with extensions 19, spaced apart from one another and fitting between the extensions 18. Pins 20 extend through coacting hinge extensions,

so that the various sections of the support may be positioned in substantial alinement, or moved into angular relation one to another, as shown in Figs. 2 and 3 of the drawing. The section 16 is provided with longitudinally extending ribs 21 which fit into the guideways 11 effectively holding said section 16 against vibration or lateral movement with respect to the stock B. The section 16 is also provided with a lug 22 which extends into the guideway 12, limiting the amplitude of reciprocation of the support C with respect to stock B.

In order that the sections of support C may be held in angular relation one to another, so as to dispose the stock B in a plane considerably lower than the plane of barrel A, as shown in Fig. 2 of the drawings, the means D is provided at each joint between the sections of support C. This means comprises one or more lugs 23, rigid with one of the hinged extensions 19, at its outer face, a recess 24 being provided in the adjacent hinge extension 18 of the adjacent support section, for each lug and into which it may extend; and, a spring 25 fitting in a recess 26, in the inner face of the opposite hinge extension 18 from that provided with recess 24, said spring acting upon one of the hinge extensions 19 to normally force the said lugs 23 into close engagement with the internal face of the hinge extension 18 provided with the recess. The lugs 23 and recesses 24 of means D are so arranged that when the support C is exposed from stock B and said extensions are moved into angular relation, so as to dispose the stock B at the desired position relative to barrel A, the said lugs will be forced into their coacting recesses by the springs 25, and the support C is then rigid, and secure against accidental displacement. When it is desired to conceal the support C within the stock B, the operator has merely to move the section 15 carrying the lugs 23 in a direction to compress spring 25, whereafter the said sections are moved out of angular relation, as hereinbefore described, and the various sections disposed in substantial alinement, to fit within the hollow 10 of stock B, as clearly shown in Fig. 1 of the drawings.

To accommodate means for retaining the support C either in a concealed or exposed position with respect to the stock B, a recess 27 is provided in the side wall of the stock, at the interior thereof, two longitudinally extending slots 28 being open to said recess and to the side of the stock. The recess 27 accommodates catches 29 and 30, which may be formed of one integral piece of spring metal, adapted to project from said recess to the interior of hollow 10; and, a sleeve 31 for controlling catches 29 and 30, said sleeve having portions extending through the slots 28, and embracing the reduced portions 32 joining the catches, said sleeve being provided with a knob 33 to facilitate reciprocation thereof longitudinally of the gun stock. Springs 34 are also provided in recess 27, to effect their normal extension from recess 27, into the path of the support C. When the support C is concealed within the stock B, the catch 29 engages in a recess 35, in section 15 of the support, while when said support is in an extended position or exposed with respect to the stock B, the catch 30 engages the rear end portion of the section 14 of said support as clearly shown in Fig. 2 of the drawing. In order to release the catches from the support, the operator has merely to move the sleeve 31 so as to retract the catch, as is obvious from an inspection of Fig. 6 of the drawing.

Referring now to the periscope F, it may be of any suitable type, including the regular sight opening G and eye-piece H. The periscope is rigidly secured, in the example shown, to section 15 of support C so that when the means D retains the sections 14, 15 and 16 in angular relation one to another, as hereinbefore described, the sight opening G will be in operative relation to the gun barrel A, and more particularly in axial alinement with the gun sight 8, while the eye-piece H is in close proximity to the stock B. When the support C is concealed within the gun stock, said periscope is accommodated by the enlargement 13 of hollow 10, while the forward end of the periscope is accommodated in a recess 36 in section 14.

In connection with a firearm of this character, where the stock is positioned, when in use, on a plane considerably lower than the usual position of a stock with respect to its gun barrel, it is essential that the firearm operates in such a manner as to enable the user to accurately aim, and at the same time actuate the trigger, for firing the gun, without destroying the aim. If it is necessary for the operator to reach up out of the normal position, in order to actuate the trigger, he is very apt to destroy the aim owing to the muscles of the arm displacing the gun stock. Accordingly, the mechanism K is provided, including the auxiliary trigger L which, when the gun is in use, is in close proximity to the stock B. This mechanism includes oscillatable members 37 and 38, pivotally carried by the pins 20, the auxiliary trigger L being rigid with member 37; and, links 39 and 40, the links 39 operatively connecting members 37 and 38, while links 40 operatively connect member 38 with the trigger J. The member 37 is disposed between the hinged section 19 of section 15, and said section 15 is hollow as at 41 to accommodate the said link 39, while

the section 14 is provided with a recess 42, to accommodate the link 40. The various links are connected with coacting members in such a manner that, as auxiliary trigger L is drawn toward the rear of the stock B, the trigger J is likewise actuated, as is now common practice. When the support C is concealed within the stock B, the auxiliary trigger L fits in a recess 43 in section 16.

When bringing the gun or firearm into use, the operator has merely to arrange the support C, so that the periscope F is in operative relation to the gun barrel A for sighting. The gun barrel may then be rested upon a parapet or other barrier and the gun may be aimed without the user exposing himself above said barrier. It is not necessary for the operator to reach up in order to actuate trigger J since movement may be imparted thereto by mechanism K, the auxiliary trigger L being in the normal position with respect to stock B, as is now common practice. When the firearm is being transported or stored, the periscope together with the support is concealed within the stock B and in all appearances the firearm resembles that now in common use.

Changes in details may be made without departing from the spirit or scope of my invention; but,

I claim:

1. In a firearm, the combination of a barrel, a hollow stock, a support coupling said barrel and stock, said support comprising a plurality of pivotally connected sections adapted to fit and slide into and out of the hollow of said stock when said sections are substantially alined, and means for retaining the said sections of said support in rigid angular relation one to another when exposed from said stock and with the said stock below its normal position relative to said barrel.

2. In a firearm, the combination of a barrel, a hollow stock, a support coupling said barrel and stock, said support comprising a plurality of pivotally connected sections adapted to fit and slide into and out of the hollow of said stock when said sections are substantially alined, means for retaining the said sections of said support in rigid angular relation one to another when exposed from said stock and with the said stock below its normal position relative to said barrel, and a periscope carried by said support with its sight opening in operative relation to said barrel and the eyepiece in close proximity to said stock when the latter is below its normal position with respect to said barrel.

3. In a firearm, the combination of a barrel, a hollow stock, a support coupling said barrel and stock, said support comprising a plurality of pivotally connected sections adapted to fit in said stock when said sections are substantially alined, means for retaining the said sections of said support in rigid angular relation one to another when exposed from said stock and with the said stock below its normal position relative to said barrel, a periscope carried by said support with its sight opening in operative relation to said barrel and in close proximity to said stock when the latter is below its normal position with respect to said barrel, and means for retaining said support in a concealed or exposed position relative to said stock.

4. A firearm comprising in combination, a barrel, a receiver, a hollow stock, means for rigidly supporting said stock from said receiver as an abutment in close proximity to the said barrel or adjustable to lie a substantial distance below said barrel and serve as an abutment for said barrel through the intermediacy of said means, and a periscope carried by said means, adapted to fit wholly within said stock and to be concealed thereby when said stock is in close proximity to said barrel, or be positioned in operative relation to said barrel to facilitate aiming of the firearm when said stock is positioned at a substantial distance below said barrel.

5. In a firearm, the combination of a barrel, a hollow stock, a support coupling said barrel and stock, said support comprising a plurality of pivotally connected sections adapted to fit in said stock when said sections are substantially alined, means for retaining the said sections of said support in rigid angular relation one to another when exposed from said stock and with the said stock below its normal position relative to said barrel, a trigger in close proximity to said barrel, and mechanism for operating said trigger and including an auxiliary trigger in close proximity to said stock when the latter is below its normal position relative to said barrel.

6. A firearm comprising in combination, a barrel, a hollow stock, a support coupling said barrel and stock, and including a plurality of sections adapted to fit in said stock when said sections are substantially alined, said sections at ends adjacent one another provided with spaced-apart coacting hinge extensions, a pin through said coacting hinge extensions, an oscillatable member carried by each of said pins, a trigger in close proximity to said barrel, an auxiliary trigger in close proximity to said stock carried by one of said oscillatable members, and links operatively connecting said oscillatable members and first trigger to impart movement to the latter upon actuation of said auxiliary trigger.

7. A firearm comprising in combination, a barrel, a hollow stock, a support coupling said barrel and stock, and including a plurality of sections adapted to fit in said stock when said sections are substantially alined,

said sections at ends adjacent one another provided with spaced-apart coacting hinge extensions, a pin through said coacting hinge extensions, an oscillatable member carried by each of said pins, a trigger in close proximity to said barrel, an auxiliary trigger in close proximity to said stock carried by one of said oscillatable members, links operatively connecting said oscillatable members and first trigger to impart movement to the latter upon actuation of said auxiliary trigger, and means for retaining the said sections of said support in rigid angular relation to one another when exposed from said stock with the said stock below its normal position relative to said barrel.

JOSEPH FRANKLIN McCLEARY.

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