33-241. OR 953,426 SR

Draftsman

T. G. MILLS.

GUN.

APPLICATION FILED APR. 6, 1908.

953,426.

Patented Mar. 29, 1910.

2 SHEETS—SHEET 1.

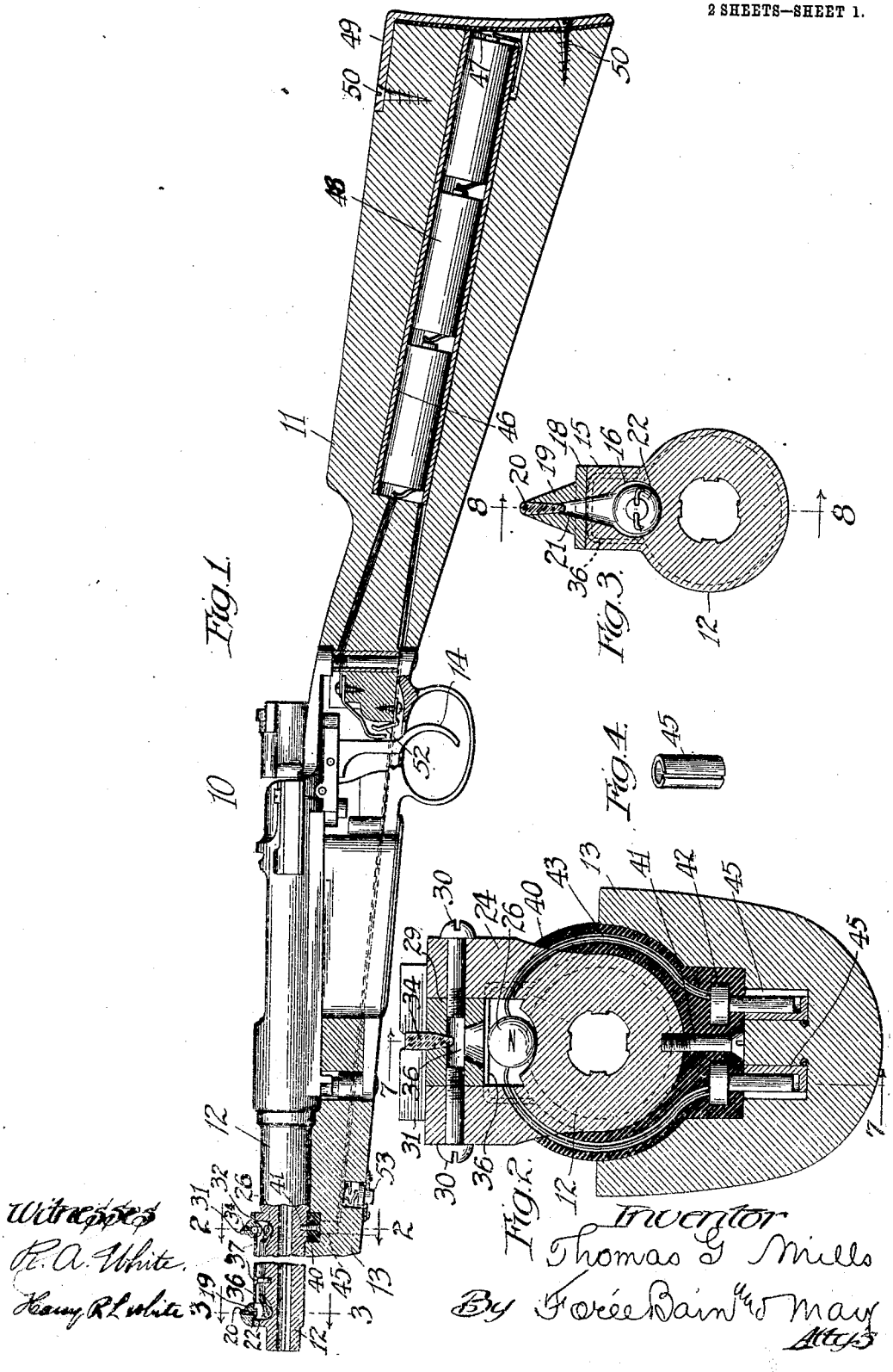

Fig. 1.

Fig. 3.

Fig. 4.

Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 5.

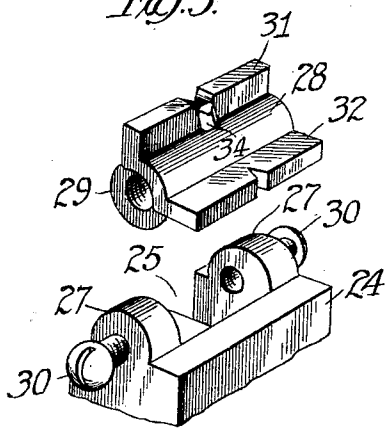


Fig. 6.

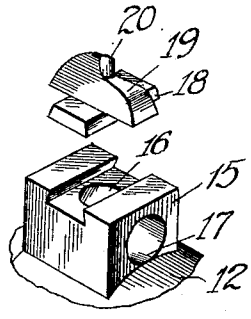


Fig. 7.

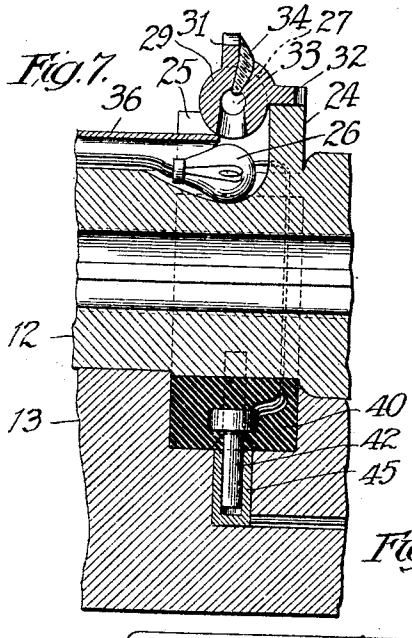


Fig. 8.

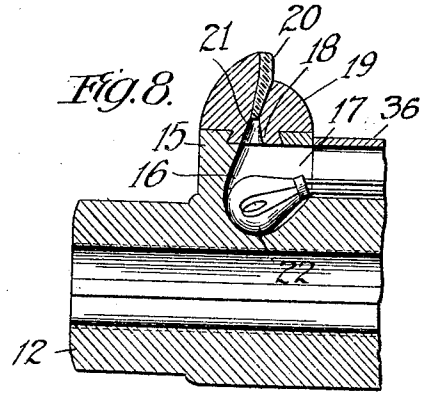
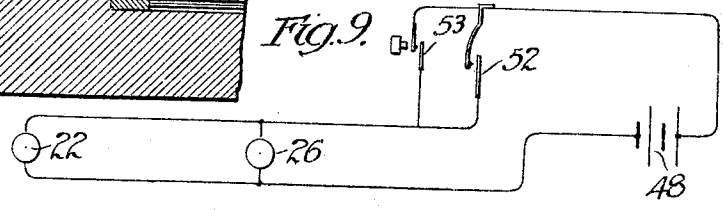


Fig. 9.



Witnesses
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33. GEOMETRICAL INSTRUMENTS.

Draftsman

UNITED STATES PATENT OFFICE.

THOMAS G. MILLS, OF CHICAGO, ILLINOIS.

GUN.

953,426. Specification of Letters Patent. Patented Mar. 29, 1910.

Application filed April 6, 1908. Serial No. 425,293.

To all whom it may concern:

Be it known that I, THOMAS G. MILLS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Guns, of which the following is a specification.

My invention relates to improvements in guns, and more particularly to gun sights, it being the salient object of my invention to provide a gun sight and illuminating means therefor, by which the sight may be readily made visible in the darkness.

Another object of this invention is to improve generally and in detail the construction and arrangement of luminous sights for guns, to provide an improved arrangement of the electrical devices and attachments employed in conjunction with the sights so as not to interfere with the ready manipulation of the gun or with the knocking down and reassembling of the parts.

Other and further objects of my invention will become apparent to those skilled in the art from the following description taken in conjunction with the accompanying drawings, wherein;

Figure 1 is a side view partly in elevation and partly in section, of a gun equipped with sights and electrical apparatus in accordance with my invention; Fig. 2 is an enlarged detail section on line 2—2 of Fig. 1, showing the arrangement of the rear sight and the electrical contact mechanism between relatively detachable parts of the gun; Fig. 3 is a section on line 3—3 of Fig. 1; Fig. 4 is a detail of a contact member shown in Fig. 2; Fig. 5 is a view of the parts of the rear sight; Fig. 6 is a similar view of the parts of the front sight; Fig. 7 is an enlarged vertical section through the gun in line with the rear sight; Fig. 8 is a similar view in line of the front sight, and; Fig. 9 is a detail of the circuit wiring.

In general my invention contemplates the provision of gun sights, and means controlled by the marksman for illuminating the sights at will, each sight preferably embodying in part a translucent body suitably arranged to overlie, and constitute the only outlet for rays from a concealed source of light, such as a small electric lamp.

Further it contemplates the provision in suitable relation to the gun of means for supplying electric current to the aforesaid lights, and mechanism for controlling the lights at will.

Further my invention contemplates many advantageous structural features which will hereafter be more apparent.

In the drawings 10 indicates in general a fire arm of the Mauser type, whereof 11 is in general the stock, 12 the barrel, 13 the fore-end and 14 the trigger, such parts being typical of any desired construction, and the construction shown indicating that the barrel and attached mechanism is separable from the stock and fore-end.

Adjacent the muzzle of the gun the barrel is provided with a lug, or sight base 15, having formed therein, and to a sufficient extent in the barrel of the gun, a recess 16, having a rearwardly opening mouth 17 and a top opening 18, said lug carrying a removable sight 19, generally shaped in conformity with approved practice, and having a bead 20, of translucent material, such as ivory, forming its rear, upper surface visible in sighting the gun, and arranged in substantially vertical relation in an aperture 21 directly opening to the aperture 18 in the lug 15. In the recess 16 below said bead is arranged a source of light, such as a miniature lamp 22, which when energized illuminates the bead 20, by the passage of light rays therethrough, and causes it to glow to an extent dependent on its opacity. By using an ivory bead of proper proportions I am enabled to obtain a sight which glows sufficiently, or with sufficient brilliance to be readily visible at night, but without occasioning a glare which would interfere with the marksman's vision. The rear sight is in a general way similarly constructed although I prefer that the detail construction be modified to an extent, as indicated in the drawing, wherein 24 indicates a lug or sight base upon the barrel, recessed from the front as at 25 for the reception of an electric lamp 26, and provided at its sides with ears 27 in which is pivotally mounted the sight member 28, shown as consisting of a cylindrical body 29, pivotally mounted on screws 30 carried by the ears 27 aforesaid. From the cylinder 29 project, preferably at approximately right angles to each other, two notched sight leaves 31 and 32, and immediately back of the leaf 31 an aperture, 33, is made entirely through the wall of cylinder 29, and is closed with a translucent bead 34,

preferably extending up to and slightly along the sides of the sighting notch in the leaf 31. Between the lugs or bases 15 and 24 extends a channel iron 36, secured to the barrel as by screw 37, said channel member with the barrel forming a closed passage connecting the lamp recesses and affording a convenient, protected channel for the lamp wiring.

It will be understood by those skilled in the art, that the particular construction which I have shown and thus described constitutes only part of a convenient means of adaptation of my invention to the particular fire-arm illustrated, and that various departures from the specific construction shown may be made in adapting the invention to different specific guns, the salient idea of the sight described being the provision of translucent beads in such association with concealed lighting means that upon the illumination of the lighting means the beads are sufficiently illuminated to be visible in darkness yet not sufficiently to interpose a glare between the marksman and the mark.

For convenient storage of the source of electric current supply I may hollow out the stock of the gun and dispose small electric batteries therein, wiring the same through convenient connections to the lamps associated with the sights. It is preferable, further, in such connection, that separable parts of the gun be fitted with separable circuit connections in said circuit, so that the provision of the electrical appliances will not interfere with the knocking down of the gun. In the specific construction shown, an insulating body 40, extending beneath the barrel from side to side of lugs 24, is secured to the barrel, as by the screw 41, and has connected therewith two projecting contact pins 42, connected as by wires 43 extending through the insulation 40 and through the channels in the lugs 24, with the lamps. The fore-end 13 is suitably recessed to receive the insulation member 40 and has embedded therein slit bushings 45 to which are connected the pair of electric wires constituting part of a circuit shown in Fig. 9. Such wires are connected through suitably protected channels formed in the gun stock, with electric batteries 48, stored in a recess 47 in the stock 11, said recess being preferably lined as at 46 with a metal sheath which may constitute part of the circuit connection, and the recess being overlain by the shoulder plate 49, detachably secured to the stock, as by screws 50.

In the electric wiring shown in Fig. 9, the circuit for the lamps 22 and 26 includes such lamps in parallel with the battery 48, and in the circuit are arranged two normally open circuit closers in parallel relation, one such circuit closer 52 comprising a pair of springs associated with the trigger 14 to be closed by the initial movement of the trigger before the trigger releases the firing mechanism, and the other circuit closer 53 comprising a push button, preferably mounted on the fore-end or other convenient point where it may be radially operated by the hand of the marksman while the marksman is in shooting position. It will be obvious that the particular arrangement of the source of electric current supply for the gun and the disposition of the circuit controlling means will depend in a measure upon the structural details of the fire-arm to be equipped, and may be varied widely without departure from the spirit and scope of the invention.

Having described my invention, what I claim is;

1. In combination with a gun having a sight at the muzzle and the breech end respectively of the barrel and a channel extending therebetween, an electric circuit, a part of which is included within the channel above the bore of the gun, an electric lamp for each sight inclosed partly in cavities made in the barrel part and covered by the respective sight part, said sight parts carrying translucent sights, and a means for closing the circuit including both lamps to illuminate the translucent part of the sights.

2. In combination with a knock-down gun having sights on the barrel-part thereof, electric lamps for illuminating the respective sights, wires, carried by the barrel, electrically joining said lamps, a source of electric current carried in the stock of the gun, wires leading from the source of current to the front part of the stock, terminals for the wires carried by the stock, and terminals for the wires carried by the barrel part adapted to engage the terminals in the stock part, and adapted to be readily separated when the gun is taken apart.

In testimony whereof I hereunto set my hand in the presence of two witnesses.

THOMAS G. MILLS.

In the presence of—
FORÉE BAIN,
MARY F. ALLEN.