

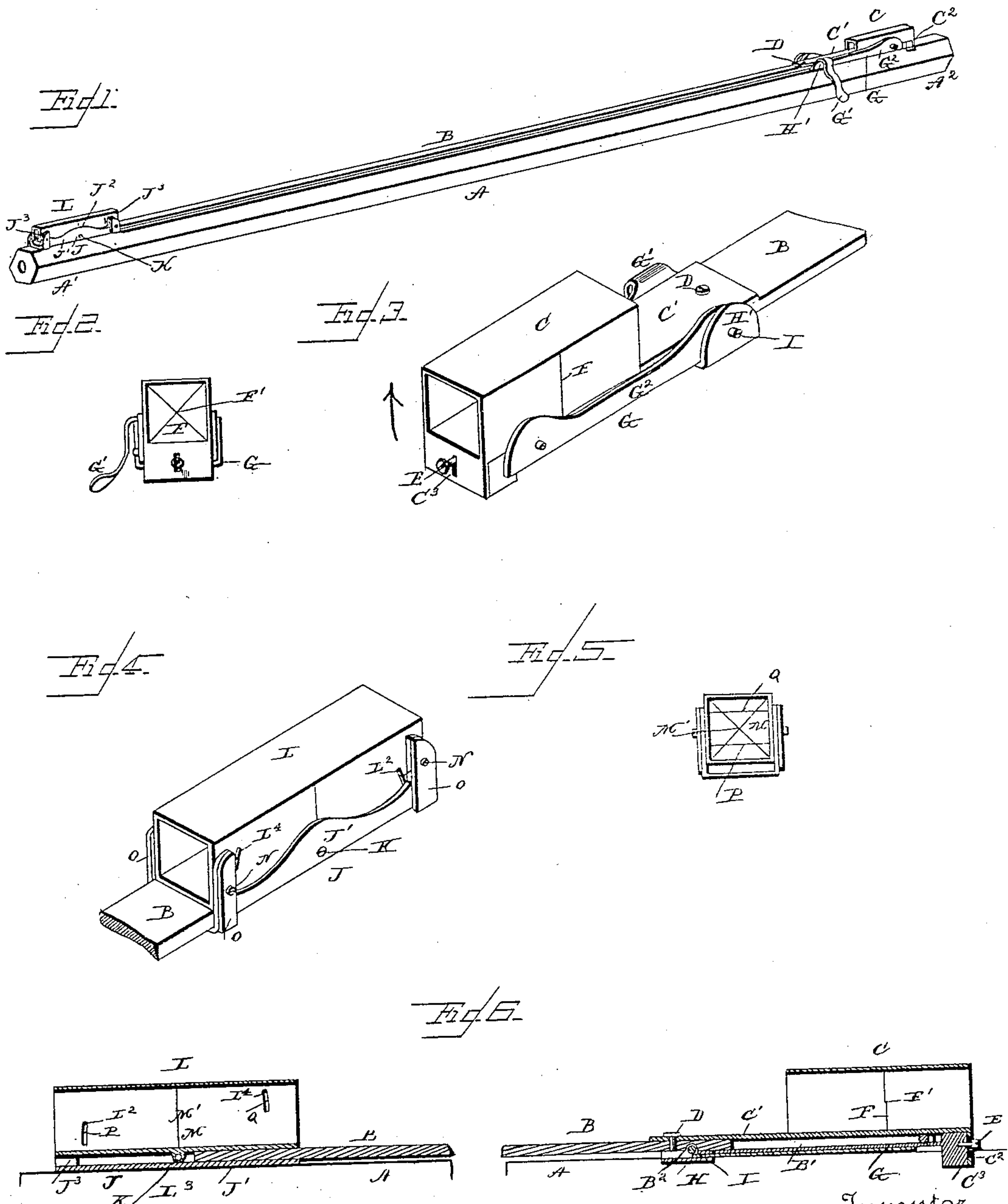
(No Model.)

B. LONG.
GUN SIGHT.

X/95

No. 370,344.

Patented Sept. 20, 1887.



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1511

1410

28

adjustable
wires

UNITED STATES PATENT OFFICE.

BENJAMIN LONG, OF BOULDER, COLORADO.

GUN-SIGHT.

SPECIFICATION forming part of Letters Patent No. 370,344, dated September 20, 1887.

Application filed March 28, 1887. Serial No. 232,749. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN LONG, a citizen of the United States, and a resident of Boulder, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Gun-Sights; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved gun-sight, showing the same mounted in operative position on the barrel of a rifle or gun. Fig. 2 is an end view of the rear sight. Fig. 3 is a perspective detail view of the same. Fig. 4 is a perspective detail view of the front sight. Fig. 5 is an end view of the same, and Fig. 6 is a longitudinal central vertical sectional view of the entire sight.

The same letters of reference indicate corresponding parts in all the figures.

My invention consists in an improved sight which is adapted for use on all kinds of guns and fire-arms, whether rifles, shotguns, pistols, cannon, mortars, dynamite guns, &c., and which will be hereinafter fully described and claimed.

Referring to the several parts by letter, A indicates the barrel of a rifle of ordinary construction, of which A' is the muzzle, and A² the breech. Upon the top of this barrel is mounted longitudinally my improved sight, of which B indicates a flat longitudinal bar or plate, which extends the usual distance between the two sights of a gun, and on the rear end of which the rear sight is mounted, and which is connected at its forward end to the forward sight.

C indicates the rear sight, which is constructed in the form of a hollow metal tube, preferably square in cross-section, and which is usually about an inch and a quarter in length. The lower side of this sight is formed with a forward extension, C', of about an inch in length, and the forward end of this extension is secured, by means of a set-screw, D, to and upon the connecting-bar B at the rear end of the same, as shown, and the rear end of the lower side of the said sight is formed with a

downwardly-bent extension, C², which extends immediately over and back of the rear end of the bar B, and which is formed with a vertical slot, C³, through which extends a set-screw, E, which works in a threaded aperture in the rear end of the bar B.

Within the tube or rear sight, at about the center of its length, are secured or arranged two diagonal cross-wires, F, which extend diagonally from opposite corners of the said tube and cross each other at their centers at F'.

Beneath the rear end portion of the connecting-bar B is arranged a lever, G, which is formed with an operating thumb-piece, G', and which I shall denominate for convenience the "thumb-lever," this lever consisting of a flat plate having upwardly-bent parallel side edges or flanges, G², between which the edges of that part of the bar B lie, and which serve to prevent lateral or side movement of that end of the said bar, and the forward end of this lever is pivoted between lips or bearings H' H' of a casting, H, which is rigidly secured upon the gun-barrel at that point, and in the rear ends of the side flanges of the thumb-lever is secured a transverse screw or pivot, I, which extends through and slides in a longitudinal slot, B', formed horizontally in the rear portion of the bar B beneath the rear sight. The bar B is also formed with a transverse groove, B², in its under side, near its rear end, which groove, when the bar and rear sight are lowered, fits over the pivot of the forward end of the thumb-lever, and thus assists in holding the rear end of the bar B steady against lateral movement, preventing it from shaking, and wearing loose when not in active use.

Upon the forward end of the gun-barrel is secured longitudinally a casting, J, having the upwardly-bent side flanges, J', forming the central and end lips, J² J³ J³, and through the central lips, J², extends a transverse screw or pivot, K, which extends through a transverse bearing, L³, on the center of the under side of the forward sight, L. This forward sight, L, is constructed in substantially the same shape as the rear sight, but is preferably about an inch longer, being in the form of a hollow tube, square in cross-section, and the pivot K is arranged at a sufficient height above the bottom of the casting J to permit of the said

forward sight turning on its pivot as the rear sight and the rear end of the bar B are raised and lowered.

Within the forward sight, at the center of its length, are arranged two diagonal cross-wires, M, which extend diagonally from opposite corners of the said tube and cross each other at their centers at M', as shown.

The side walls of the front sight, at the forward end thereof, are formed at a point below the center of the height with slightly-curved nearly-vertical slots L², directly opposite each other, and the side walls of the front sight, near the rear end thereof, are formed at a point above the center of their vertical height with slightly-curved nearly-vertical slots L⁴, arranged directly opposite each other.

On the outer side of the forward and rear lips, J³, of the forward casting, J, are secured, by means of small screws N, clamping-plates O, and in the clamps thus formed are secured the ends of the stationary forward and rear horizontal sight-wires, P and Q, respectively, the lower horizontal wire, P, extending through the lower forward slots, L², of the front sight, and the upper horizontal wire, Q, extending through the upper rear slots, L⁴, of the said sight.

In use the person using the gun looks through both the rear and front sight, keeping the central point of the crossed wires F and M in the rear and front sight-tubes directly in line, and the line joining the intersection of the two sets of diagonal cross-wires is the line of sight of the gun. It will be seen that as the rear end of the bar B is raised by means of the thumb-lever G the upper and lower horizontal sight-wires, P and Q, in the forward sight will seem to approach each other—that is, the space between them will seem to lessen as the rear sight is raised and the muzzle of the gun or rifle is correspondingly raised, and it will be found by practical experiment that the apparent space between these horizontal wires shows where to hold the gun, and at what height to raise the muzzle in order to hit an object whose distance from the shooter is unknown, as by raising the rear sight until the upper and lower horizontal wires seem to touch, respectively, the top and bottom or head and feet of the object aimed at it will be found that the object is precisely covered in the line of fire, and by following with the eye the line between the intersecting central point of the diagonal wires in both the rear and front sight any point of the object so covered can be accurately covered and hit. As the muzzle of the gun is elevated as the rear sight is raised, it will be seen that, of course, the farther away an object is the higher will the rear sight be elevated and the muzzle raised.

When it is known that a certain class or size of objects is to be hunted or shot at—as soldiers, when the gun-sight is used in the army, or large game, when used for hunting purposes—the horizontal wires can be moved

and adjusted perpendicularly in their end clamps and secured in their adjusted positions, and the gun is thus sure of doing effective work at any distance without any further adjustments.

When a target or other object or objects is to be shot at over a known given distance, the set-screw E at the rear end of the rear sight and the set-screw D at the forward end thereof are both loosened, and one or more thin strips or washers are placed between the rear sight and the bar B and the set-screws, and then tightened to secure the said sight firmly in position on the rear end of the bar, and it will be seen that the gun may be then used to shoot over the stated distance without any adjustment of the thumb-lever.

The horizontal sight-wires are always arranged exactly equidistant from the center of the height of the bore of the front sight. All of the "wires" in both sights may be composed of hair, thread, or the like material.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my improved gun-sight will be readily understood.

It will be seen that my invention is simple and strong in construction and exceedingly effective in its operation.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination, with the longitudinal bar pivotally secured at its forward end, of the forward sight having the fixed cross-wires and the rear sight having the fixed cross-wires, such sights mounted upon the bar, substantially as set forth.

2. The combination, with the longitudinal bar, of the pivoted forward tubular sight secured to the forward end of the said bar, and having the fixed cross-wires, and the tubular rear sight secured to the rear end of said bar and having the fixed cross-wires, substantially as set forth.

3. The combination of the bar having the longitudinal slot in its rear end, the pivoted tubular forward sight secured to the forward end of the said bar, and having the fixed cross-wires, the tubular rear sight having the fixed cross-wires, and the pivoted thumb-lever arranged to secure the rear sight to the bar, substantially as set forth.

4. The combination, with the centrally-pivoted forward sight having the upper and lower side slots, of the horizontal sight-wires extending through such slots and across the sights, substantially as set forth.

5. The combination, with the centrally-pivoted forward sight having the upper and lower side slots, of the adjustable horizontal sight-wires extending through such slots and across the sight, substantially as and for the purpose herein set forth.

6. The combination, with the longitudinal bar, of the rear tubular sight secured thereon

and having the fixed cross-wires, the tubular forward sight having the central fixed cross-wires and formed with the upper and lower side slots, and the horizontal sight-wires, arranged
5 substantially as and for the purpose set forth.

7. The combination, with the longitudinal bar, of the rear tubular sight secured thereon and having the fixed cross-wires, the tubular forward sight having the central fixed cross-
10 wires and formed with the upper and lower side slots, and the adjustable horizontal sight-wires extending through such slots and across the sight, substantially as and for the purpose
set forth.

15 8. The combination, with the longitudinal bar, of the forward tubular sight having the fixed cross-wires and the rear tubular sight having the fixed cross-wires and formed with the forward extension, and the rear extension

having the vertical slot, and the set-screws, 20 substantially as and for the purpose set forth.

9. The combination, with the longitudinal bar, of the forward tubular pivoted sight having the fixed cross-wires and formed with the upper and lower side slots, the horizontal 25 sight-wires extending through such slots and across the sight, and the rear tubular sight having the fixed cross-wires and formed with the forward extension, and the rear extension having the vertical slot, and the set-screws for 30 securing and adjusting the sight in place.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

BENJAMIN LONG.

Witnesses:

CHAS. M. CAMPBELL,
W. W. WELLS.