

(No Model.)

W. LYMAN.
SIGHT FOR FIREARMS.

No. 541,558.

Patented June 25, 1895.

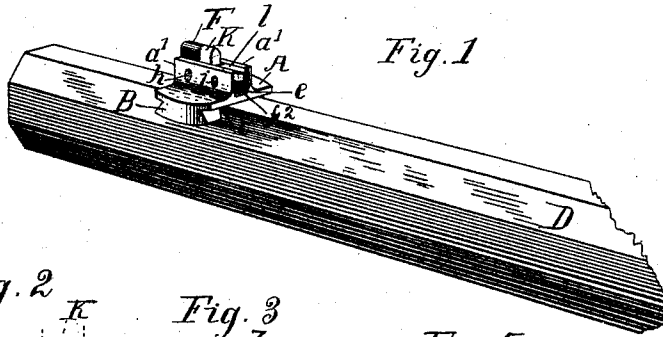


Fig. 2

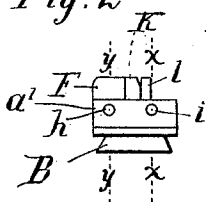


Fig. 3

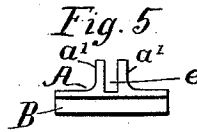
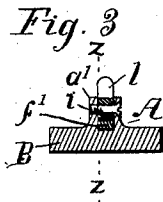


Fig. 6

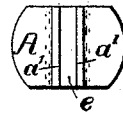


Fig. 7

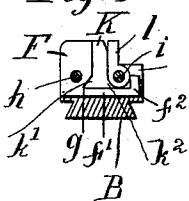


Fig. 4

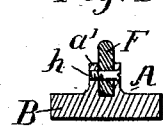


Fig. 8

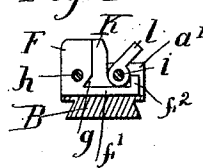


Fig. 9

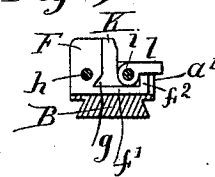


Fig. 10

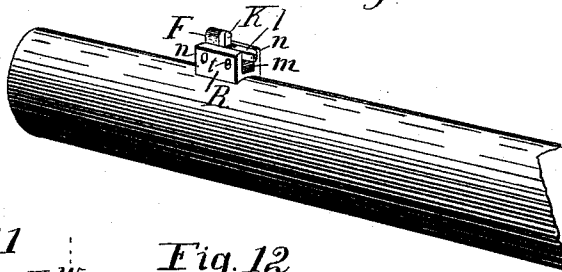


Fig. 11

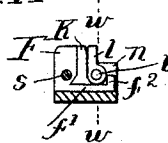


Fig. 12

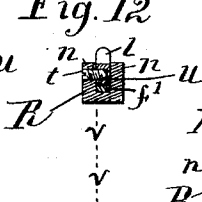


Fig. 15



Fig. 13

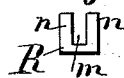
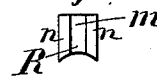


Fig. 14



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SIGHT FOR FIREARMS.

SPECIFICATION forming part of Letters Patent No. 541,558, dated June 25, 1895.

Application filed September 24, 1894. Serial No. 524,128. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LYMAN, a citizen of the United States, residing at Middlefield, in the county of Middlesex and State of Connecticut, have invented certain new and useful Improvements in Sights for Firearms, of which the following is a specification.

My invention relates to a sight for firearms and has for its object to provide an ivory combination front sight especially adapted for military use.

The requirement of a combination sight is to readily exhibit different sights by means of a folding device or otherwise, as for instance a white or ivory sight, and a dark or metal sight, as determined by the nature, direction, and intensity of the light, and the difficulty of applying ordinary existing front sights to military firearms resides in their delicacy and the necessity for rigidly and integrally attaching the sight to the gun barrel for use in firmly affixing a bayonet or other implement to the arm. My improved sight perfectly fulfills these requirements, and while particularly intended for military use, may also be made detachable from the barrel and adapted for general use, by a modification of the form of the base. Both constructions are illustrated in the drawings comprising a part of this specification, in which—

Figure 1 is a perspective view of the sight in the form designed for general use and detachably secured to the gun-barrel. Fig. 2 is a side elevation of the same; and Figs. 3 and 4 are vertical cross-sections, respectively, on the lines xx and yy , Fig. 2. Fig. 5 is a front and Fig. 6 a plan view of the base-plate. Figs. 7, 8, and 9 are longitudinal sections on the line zz , Fig. 3, respectively, showing the folding sight in vertical, inclined, and horizontal positions. Fig. 10 is a perspective view of the military sight proper rigidly affixed to the barrel. Fig. 11 is a vertical lengthwise section of the same on the line vv , Fig. 12. Fig. 12 is a vertical cross-section on the line ww , Fig. 11. Figs. 13 and 14 are end and plan views, respectively, of the base of the military sight; and Fig. 15 is a lengthwise vertical section similar to Fig. 12, but showing a modification.

The invention consists in the novel con-

struction, arrangement and combination of the parts, as hereinafter more fully described and claimed.

Referring to the drawings, A designates the base of the detachable sight, or that intended for general use. Shown in Figs. 1 to 9 inclusive. Said base is formed with two parallel, vertical lengthwise flanges a' on its upper side and provided with a transverse dovetailed part B on its lower side adapted to fit in a suitable transverse recess c milled in the barrel D, in the ordinary and well known manner. In the front end of the groove e formed by the flanges a' —that is, the end nearest the muzzle of the piece—is fitted a vertical abutment F having a rearwardly projecting tongue f' extending nearly the whole length of the groove and bent upward at its rear end to form a short vertical projection f^2 . The rear side of the abutment is a vertical plane except that it is cut under at its junction with the tongue f' to form a triangular notch g in the abutment for the purpose hereinafter specified. The abutment is held in place by a screw h passing through it and the flanges a' , being screwed into one of the flanges, and having its head countersunk in the other, as shown in Fig. 4. The flanges are sufficiently thin and light to enable them to spring together under the force of the screw and thus clamp the abutment firmly between them.

Fitted in the groove e back of the abutment F is a sight K of ivory or other suitable white material, standing upon the tongue f' in contact with the abutment, and having a forwardly projecting spur k' fitting the triangular notch g therein. A similar spur k^2 projects rearwardly from the sight, having its upper side curved to fit the hub of a folding metal sight l fitted in the groove e , and hinged and adapted to be folded from the vertical position against the ivory sight K shown in Figs. 2, 3, 4 and 7 to the horizontal position shown in Figs. 1 and 9, or set to occupy an intermediate inclined position as shown in Fig. 8. The pivot on which the dark or metal sight is hinged, is a screw i , similar to the screw h , being passed through the folding sight and screwed into one of the flanges a' and having its head countersunk in the opposite flange as shown. By the clamping ac-

tion of the screw upon the thin yielding flanges a' any required amount of friction may be imposed upon the folding sight, whereby it will be retained in any desired position while admitting of being readily turned on its pivot. The rear side of the ivory sight is beveled or "backed off" as shown for the purpose of reflecting light and allowing the insertion of the finger nail when about to be turned down from the vertical position, and the rear edges of the flanges a' are beveled inward slightly, or the folding sight is otherwise proportioned so as to project sufficiently to obtain a suitable hold upon it to raise it from the horizontal position. The hub of the folding sight exactly fills the space between the ivory sight and the upturned projection f^2 of the tongue f' , which projection is of such height that the sight when folded down to the horizontal position, will rest upon it, as shown in Figs. 1 and 9.

The upper rounded surfaces of the abutment, the ivory sight, and the folding sight are of exactly similar outline and in the same horizontal plane. Hence in operation, when the folding sight is turned down flat, as shown in Fig. 1, the ivory sight will be exhibited to the view of the marksman, in glancing along the gun barrel, presenting a bright, white surface, but if the folding sight is raised to the vertical position, as shown in Fig. 2, the ivory sight will be entirely hidden, and a dark metallic surface will be exposed, according as conditions may require. If the folding sight is partly folded down as shown in Fig. 8, only a slight crescentic white line will show, corresponding to the height of the ivory sight, above the metallic sight which is a combination sometimes desired. The front angle of the abutment F is preferably rounded off as shown, to avoid a sharp corner.

When a firearm is intended to be used with a bayonet or other implement attached at the muzzle of the barrel, a detachable sight cannot be employed, as the sight is required for holding the bayonet in place, and therefore must be rigidly secured to the barrel by being brazed thereto or integrally formed thereon. My improved sight for this purpose is shown in Figs. 10 to 14 inclusive and differs from the detachable sight hereinbefore described only in the construction of the pivot of the folding sight, and in the form of the base R, which is that of a simple oblong block brazed or otherwise rigidly fixed to the gun barrel, and having the central lengthwise groove m , forming the flanges n , which are proportionally thicker than the flanges a' of the detachable sight, and practically devoid of elasticity, as the use of the sight in holding the socket of a bayonet requires greater strength in those parts than in the form shown in Figs. 1 to 9. In the groove m is received the abutment F having the tongue f' and projection f^2 secured by a suitable screw or rivet S, passing through the parts as explained with reference to the detachable sight. The

groove also receives the ivory sight K and the folding metal sight L, fitted snugly between the flanges n as described with reference to the detachable sight; but the absence of elasticity in the flanges n requires the use of a different pivot from that employed in the Figs. 1 to 9, and comprising a conically pointed screw, t , which is screwed through one flange, with its end received in a suitable socket u in the folding sight, and its point bearing on the bottom of the socket, as shown in Fig. 12, thus pressing the folding sight against the opposite flange and imposing the friction necessary to hold the sight in any position. The rear side of the base is made concave as shown, to permit the folding sight to be readily raised with the thumb nail, while at the same time not projecting beyond the rear corners of the base. The operation of this sight is precisely like that of the detachable sight as hereinbefore set forth.

In the construction of this improved sight, the purpose of the tongue f' is to afford ample bearing of the abutment on the base, and thus steady it in position, since, if it were lacking, as the abutment is cut under to form the notch g it would have very little bearing on the base at the bottom, and would tend to rock slightly from the vertical position under strain, unless an additional rivet be employed to secure it; also, the upwardly projecting part f^2 on the tongue helps to hold the folding sight in place. Fig. 15 shows a modification in which the said tongue and projection are dispensed with, an additional rivet being used to hold the abutment in place.

I claim as my invention—

1. A sight for firearms comprising in combination a base provided with a pair of vertical lengthwise flanges, an abutment secured between the flanges at the front end of the base, a folding sight pivoted between the flanges at the rear end thereof, and a sight adapted to contrast in color with the folding sight secured intermediate of the folding sight and abutment, the folding sight being adapted to a folding movement in the lengthwise plane of the barrel to conceal or to expose the intermediate sight, as and for the purpose specified.

2. A sight for firearms comprising in combination a base adapted to be secured to the gun barrel, and provided with a pair of vertical lengthwise flanges, an abutment secured between said flanges at the front end of the sight, a folding sight pivoted between the flanges at the rear end thereof, and an ivory sight secured intermediate of the abutment and folding sight, the latter being adapted to a folding movement in the lengthwise plane of the barrel to conceal or to expose the ivory sight, as and for the purpose specified.

3. In sights for firearms the combination of a base adapted to be secured to the gun barrel and provided with a pair of vertical longitudinal flanges, an abutment riveted in

place between the flanges at the front end thereof and provided with a rearwardly extending tongue having an upturned projection at its end, and fitting the bottom of the
5 groove between the flanges, a folding sight pivoted between the flanges at the rear end of the sight above said tongue and forward of the upturned projection thereof, an ivory or light colored sight, secured intermediate of
10 the folding sight and abutment, and corresponding in cross sectional outline therewith, the folding sight and abutment being arranged to overhang the base of the ivory sight to firmly hold it in place, and the folding sight
15 being adapted to be swung rearwardly from its vertical position to expose the ivory sight, as and for the purpose specified.

4. In sights for firearms, the combination

of the base provided with the transverse dovetailed part B for attaching it to the gun barrel, and the vertical lengthwise flanges a' , the
20 abutment F secured between the flanges and provided with the tongue f' projection f^2 and notch g , the folding sight l pivoted between the flanges and the ivory sight K secured in-
25 termediate of the folding sight and abutment between the flanges and provided at its base with the spurs k' and k^2 respectively fitting the notch g , and extending under the hub of the folding sight, all arranged substantially
30 in the manner and for the purpose specified.

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Witnesses:

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