

No. 896,997.

PATENTED AUG. 25, 1908.

A. E. LARD.
FIREARM.

APPLICATION FILED JAN. 15, 1902.

2 SHEETS—SHEET 2.

Fig. 8.

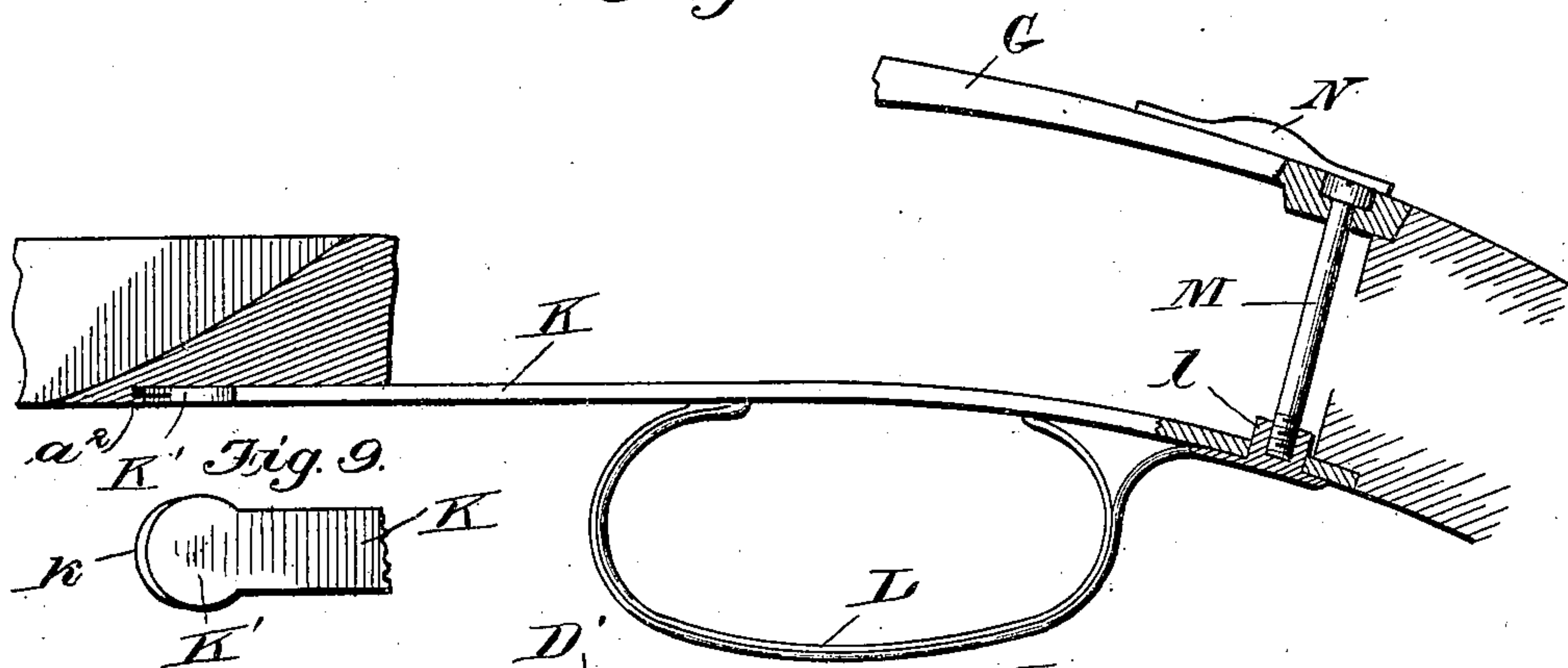


Fig. 10.

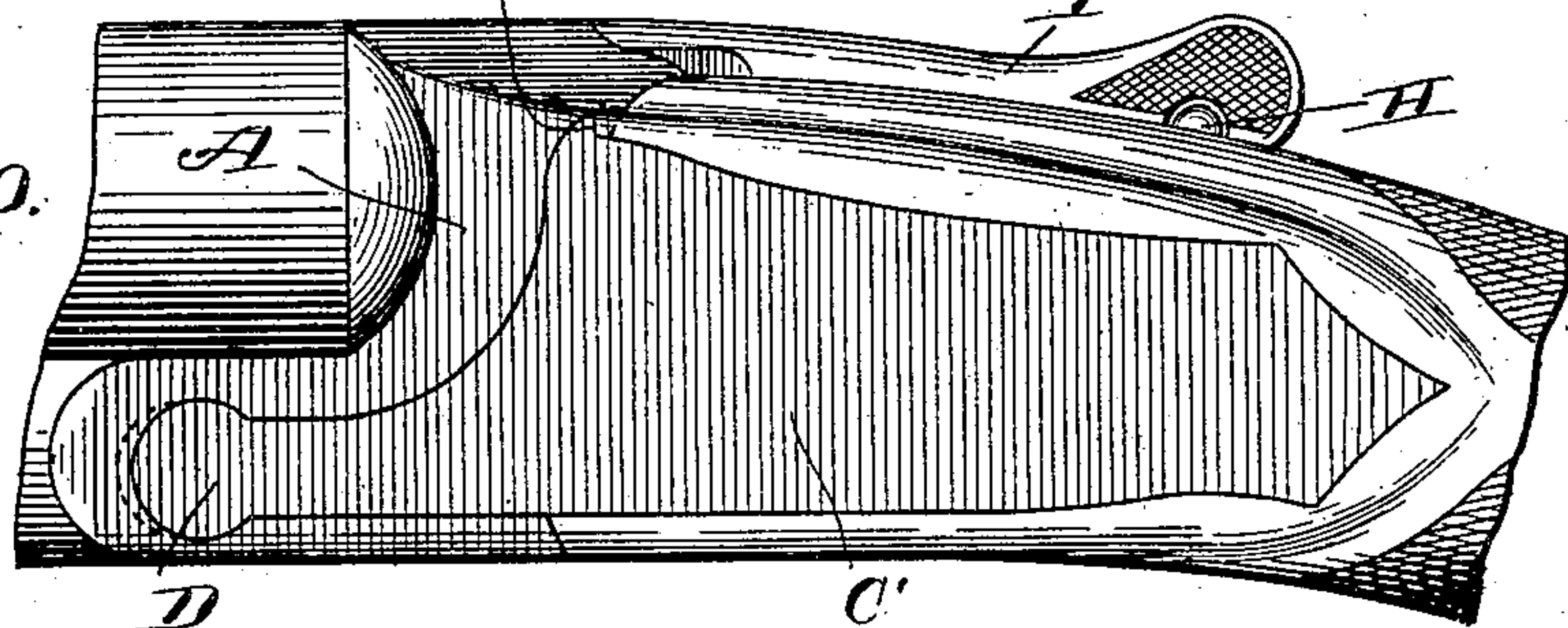


Fig. 11.

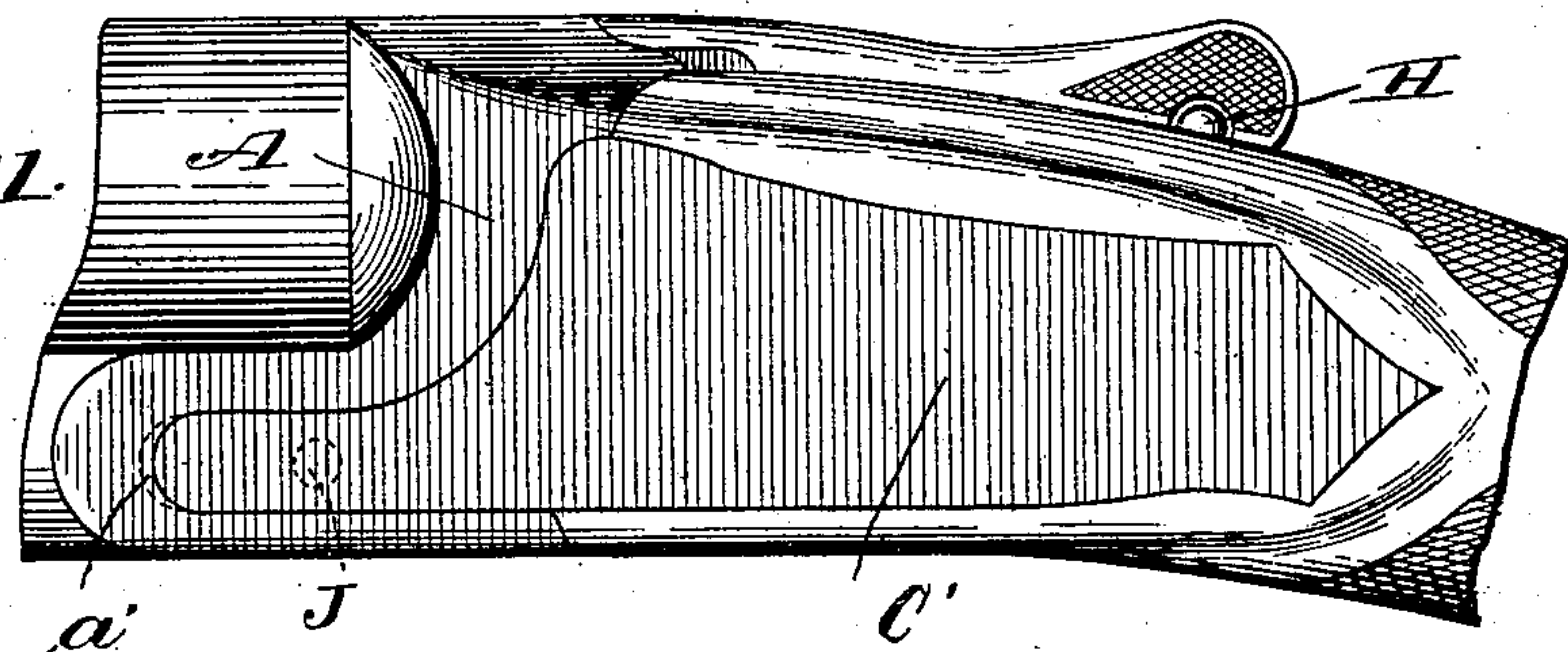


Fig. 12.

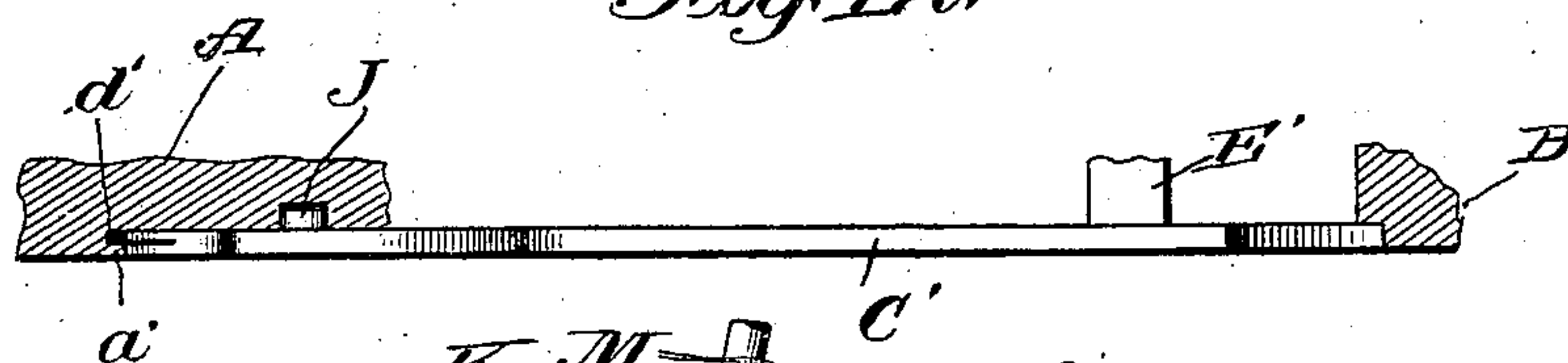
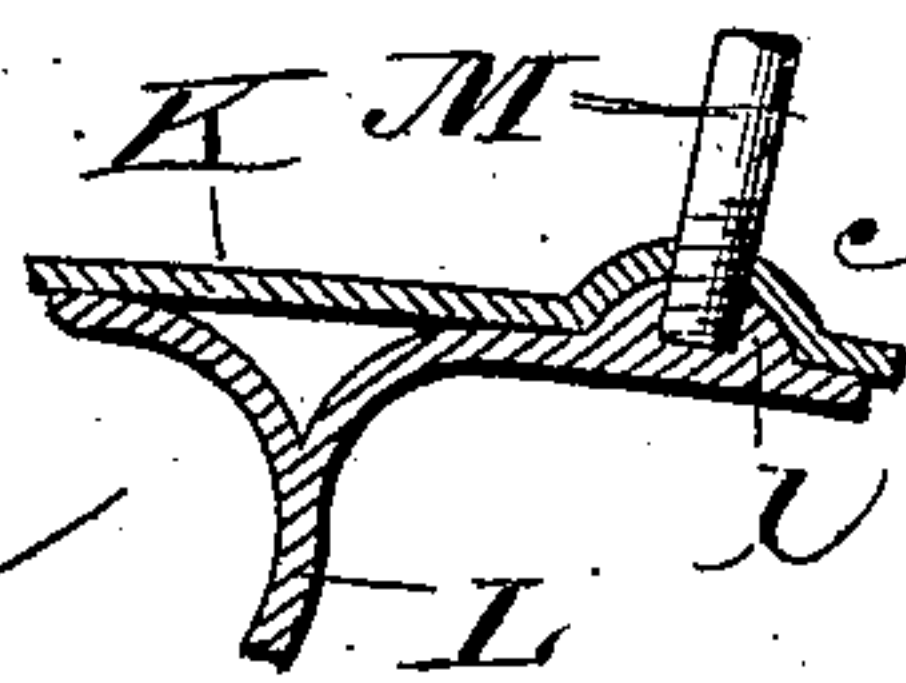


Fig. 13.



Witnesses:

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FIREARM.

No. 896,997.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALLAN EDWARD LARD, of St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Firearms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a gun with side locks which may be removed by hand without the use of a tool and without the necessity of removing the usual screw or screws which hold the locks in place in the frame and also to so attach and construct the lock-plates, the trigger plate and trigger guard that no screws or pin heads will be visible on the outer face of the parts to mar the appearance and finish of the arm.

As shown in the accompanying drawings:—Figure 1 is a side elevation of the parts at the junction of the barrel and stock of a double-barrel single trigger shot gun, showing means for holding the lock-plate from being forced or jarred rearwardly from the action of the recoil or hammer. Fig. 2 is a plan view showing the lock-plates and means for connecting the same, together with the parts of the breech-frame and stock immediately adjacent to the said lock-plate. Fig. 3 is a view of the rear ends of the lock-plates and the connecting lugs, showing the latter separated from each other. Fig. 4 is a sectional view of the same parts shown in Fig. 2. Fig. 4^a is a sectional view showing a modified form of spring for actuating the bolt or latch of the lock-plate connecting devices. Fig. 5 is a detail section taken on line 5—5 of Fig. 2, showing in section the interlocking parts by which the lock-plates are connected with each other, together with the means for disconnecting the same in removing the lock-plates. Fig. 6 is an enlarged detail section, taken on line 6—6 of Fig. 3. Fig. 7 is an enlarged detail section showing the spring for lifting the vertically movable pin forming part of the disconnecting device shown in Fig. 5. Fig. 8 is a side view of the trigger plate, the trigger guard and rear end of the tang, showing the connection of the trigger-guard with the tang, and also the connection of the forward end of the trigger plate with the breech frame.

Fig. 9 is a detail face view of the end of the trigger plate which engages the breech frame. Fig. 10 is a view in side elevation like Fig. 1, showing a modified construction in the means for holding the lock-plate from rearward movement. Fig. 11 is a view like Fig. 10 showing still another means for holding the lock-plate from rearward movement. Fig. 12 is a plan view of the lock-plate shown in Fig. 11, with adjacent parts of the breech frame and stock in section. Fig. 13 is a detail section through the rear parts of the trigger plate and trigger guard, showing a modified construction in means for attaching the trigger guard.

As shown in the said drawings, A indicates the breech frame, B the stock, and C C¹ the lock-plates. The locks or hammer actuating devices, not shown in the drawings, are mounted on the inner faces of said lock-plates in the usual manner.

In carrying out my invention the several screws and studs or pins on which the parts of said locks are mounted, extend only partially through the thickness of said lock-plates, so that the outer surfaces of the latter will be perfectly smooth and will be unmarred by the ends of said screws, studs or pins.

When the hammer falls in firing the gun, the tendency is to force the lock-plate backwardly from the breech-frame. To overcome this tendency I provide on the lock-plate an enlarged end D preferably of circular form, as shown in Figs. 1 and 2, which fits within a corresponding recess formed in the side of the breech frame; the outer face of the lock-plate being made flush with the side of the frame, in the usual manner. The forward end of the lock-plate is prevented from coming out of its recess in the frame by having a portion of its forward end extended to form a lip *d* which fits beneath an overhanging ledge *a* on the frame, as clearly seen in Fig. 2.

The rear ends of the lock-plates are held in position by means of two lugs E E¹ which extend inwardly from the rear ends of said plates; and are adapted to meet each other at a point between the plates and are there provided with interlocking devices by which they are interlocked or held together. Said interlocking devices are so constructed that when the forward ends of the lock-plates are engaged with the breech frame and the rear

ends thereof are then inserted and pressed in place by the hand, said lugs will become interlocked with each other, as shown in Fig. 2.

The devices illustrated for connecting the lugs are made as follows: One of the lugs E in the drawings is provided with a spring latch or bolt F, as seen in Figs. 3, 4, 5 and 6, and the lug E¹ of the opposite lock-plate is provided with a part or projection *e* which overlaps the end of the lug E and is provided with an aperture *e*¹ to receive the latch. The bolt F may be thrown or forced outwardly by a coiled spring *f* placed between the inner end of the bolt and bottom of the guide recess in the lug E, in which it slides, as shown in Fig. 4, or by a flat spring *f*¹ attached to the said lug E and pressing on the end of the bolt which extends through said lug, as shown in Fig. 4^a. The bolt is held in its place by a set-screw *f*², Fig. 6, which is inserted through the lug and the inner end of which enters a groove in the bolt. The outer or end face of the bolt F is inclined or beveled so that said bolt will be pushed inwardly against its actuating spring by the pressure of the part *e* when the two lugs are brought together.

Means for unlatching the lugs is shown in Figs. 5 and 7. The devices for this purpose illustrated consist of a rod H passing through the tang and located at its inner end in position for contact with the outer end of the latch or bolt F, which outer end of the bolt is directed upwardly or towards the tang. Said rod H is lifted or thrown outwardly by a spiral spring *h*, which is seated in a recess in the tang beneath a head *h*¹ on the rod. The upward movement of the rod may be limited by a stop pin *h*² inserted through the rod, (or any other suitable stop,) as shown in Fig. 7. The upper end of the rod is preferably located directly under the end of the top lever I of the arm, said top lever being recessed on its under surface to receive the head *h*¹, as shown in Fig. 5. The aperture *e*¹ of the lug E¹ is provided with a gate or opening *e*² located in line with the rod H, so that the rod will not interfere with the movement of the lug E¹ in the latching and unlatching operation. When it is desired to remove the lock-plates, the top lever is pushed to the right in the usual manner and the rod H is then pressed down. This forces downwardly the bolt F until the same is free from the aperture *e*¹ and thus unlatches or uncouples the lugs and releases the lock-plates. Each lock-plate may then be permitted to drop out of its seat, when the gun is turned in position to bring it face downward. Manifestly the disconnecting or releasing rod H must be held down while the first lock-plate is being removed; it being readily understood that when the lock-plate having the lug E¹ is taken out, the releasing rod H will pass through the gate *e*² and will in no way interfere with the

removal of the lock-plate. When it is desired to insert the locks, the lip on the circular head of first one and then the other lock-plate is slipped under the respective ledges of the breech frame, and the rear ends of the lock-plates are then pressed together until the meeting ends of the lugs thereon are latched or interlocked.

Instead of employing the enlarged circular head D to hold the lock-plate from backward movement, I may employ a rearwardly facing step or shoulder D¹ such as is shown in Fig. 10. Such shoulder on the lock-plate is adapted to engage a corresponding, forwardly facing locking shoulder on the upper part of the breech frame. Said shoulder D¹ is shown in Fig. 10 as used in connection with the enlarged head D but it may be used separately therefrom, if desired. In Figs. 11 and 12 I have shown still another means for interlocking the lock-plate with the breech frame, the same consisting of an inwardly projecting stud J which projects inwardly from the plate and fits within a recess in the breech frame; said stud being used in connection with a lip or projection *d*¹ which enters beneath a ledge *a*¹ on the plate, as clearly shown in Fig. 12.

To avoid the presence of visible screw-heads in attaching the trigger plate to the frame, I provide said trigger plate with an enlarged head K¹ which fits within a correspondingly shaped recess in the bottom of the breech-frame and has a lip *k* which fits beneath an overhanging ledge *a*² on the frame, as clearly seen in Figs. 8 and 9. As an improved means for holding the trigger guard L in place without the use of any visible screw-heads, I screw the forward end of said trigger guard to the trigger plate in the usual manner and, on the rear end of said guard, I provide a solid lug *l*, which lug preferably passes through an opening in the trigger plate, as shown in Fig. 8, and is engaged by the lower end of the screw M which passes from above through the tang and, by screw-threaded engagement of its lower end with the lug, acts as a bolt to connect the rear end of the trigger guard with said tang and thereby hold said trigger plate, guard and tang firmly together. The head of the screw M will be countersunk in the rear end of the tang and located in such position that it will be covered and concealed by the usual safety slide N, which is located on the rear end of the tang.

It is not, however, necessary that the lug *l* should pass through an opening in the trigger plate, as shown in Fig. 8, as it may enter a recess formed in the lower face of said plate. I have shown in Fig. 13 a construction of this kind, in which the said lug *l* is made oval or rounding and the trigger plate is formed or recessed to receive said lug.

I claim as my invention:—

1. The combination with a breech frame, of side lock-plates having interlocking engagement with the breech frame and provided with spring actuated locking means located between the plates, and releasing means for said locking means extending through the top of the said breech frame.

2. The combination with a breech frame, of side lock-plates, and spring actuated locking means for detachably connecting said plates with each other.

3. The combination with a breech frame, of side lock-plates provided with inwardly extending projections, locking means located on said projections for securing the said plates in place and manually operable disconnecting means adapted to act on the locking means for disconnecting said plates.

4. Side lock-plates having inwardly extending lugs which meet between the plates and are provided with locking means for connecting said plates with each other and manually operable disconnecting means adapted to act on said locking means for disconnecting the plates from each other.

5. The combination with a breech frame, of side lock plates having interlocking connection at their forward ends with the breech frame and provided near their rear ends with inwardly extending projections, and locking means located on one of said projections for detachably holding the said rear ends of the plates from outward movement.

6. The combination with a breech frame, of side lock plates provided with inwardly extending projections, locking means on one of said projections for detachably holding the plates in place, and manually operable disconnecting means for releasing the plates.

7. The combination with parts of the gun which inclose the locks, and side lock-plates provided with inwardly extending projections, of locking means on one of said projections for detachably holding the plates in place, and a disconnecting rod for operating said locking means, said rod extending to the exterior of the parts which inclose the locks.

8. The combination with a breech frame, tang, top lever, and side lock-plates, of lock-

ing means for detachably holding the lock-plates in place, and a disconnecting rod for operating said locking means to release the plates, said rod extending through the tang beneath the top lever.

9. The combination with lock-plates provided with inwardly extending lugs, of locking means comprising a spring actuated bolt or catch in one lug and a recess in the other lug to receive the same.

10. The combination with lock-plates provided with inwardly extending lugs, of locking means comprising a spring actuated bolt or catch in one lug and an aperture in the other lug, and a disconnecting rod arranged to act on the said bolt or latch for releasing the plates.

11. The combination with lock-plates provided with inwardly extending lugs, of locking means comprising a spring actuated bolt or catch on one lug and an aperture in the other lug, and a disconnecting rod arranged to press on the latch or bolt; the lug in which the aperture is formed being provided with a gate or opening for the passage of the said disconnecting rod.

12. The combination with a breech-frame and a side lock plate, of means for interlocking the ends of the plate with the frame consisting of an enlarged recess in the frame provided with a ledge and an enlarged head on the plate provided with a lip adapted to enter beneath the ledge.

13. The combination with a breech-frame, provided with an enlarged recess in its lower surface, of a trigger plate provided with an enlarged head adapted to enter the said recess, the recess in the breech-frame being provided with a ledge and the head on the trigger plate with a lip which enters beneath said ledge.

In testimony, that I claim the foregoing as my invention I affix my signature in presence of two witnesses, this 11th day of January A. D. 1902.

ALLAN EDWARD LARD.

Witnesses:

JOHN W. PETERSON,
DAVID L. BARTLETT.