T. C. JOHNSON.

TAKE-DOWN GUN.

APPLICATION FILED APR. 25, 1910.

962,899.

Patented June 28, 1910.

2 SHEETS—SHEET 1.

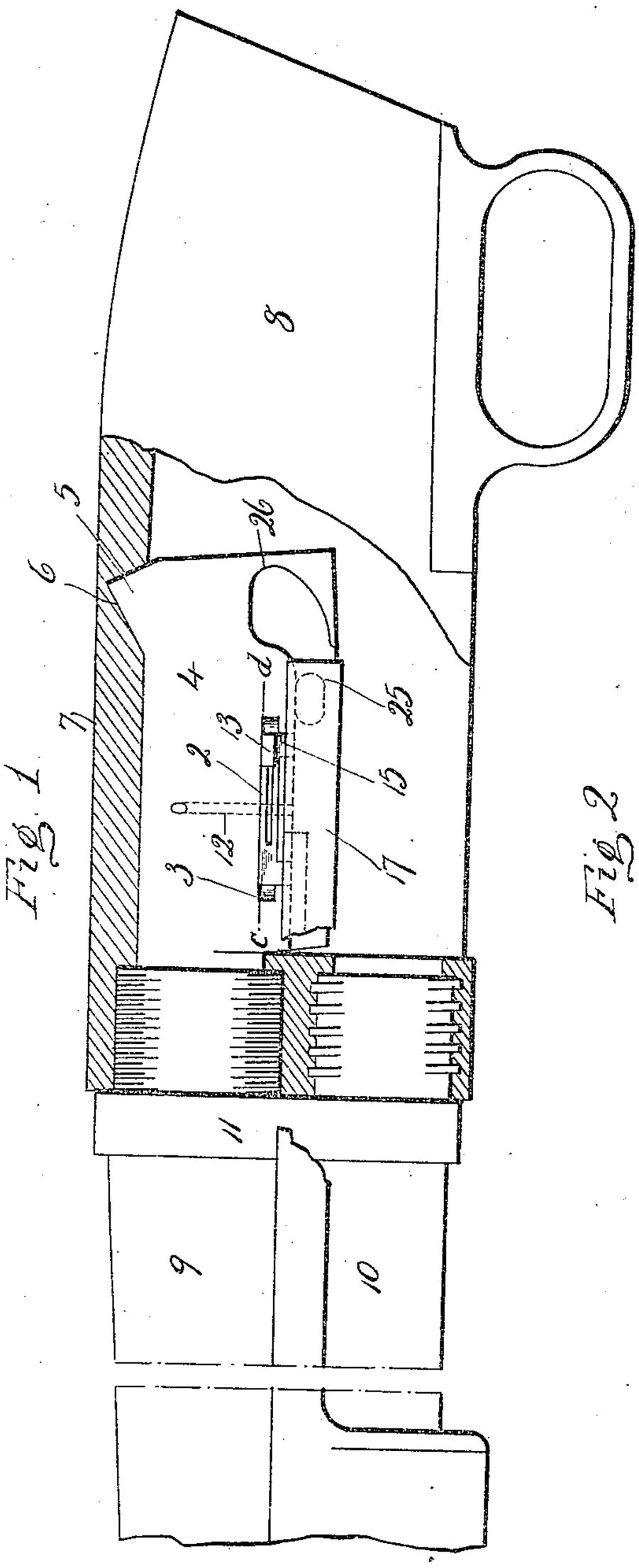

Fig. 1

Fig. 2

Fig. 3

Witnesses
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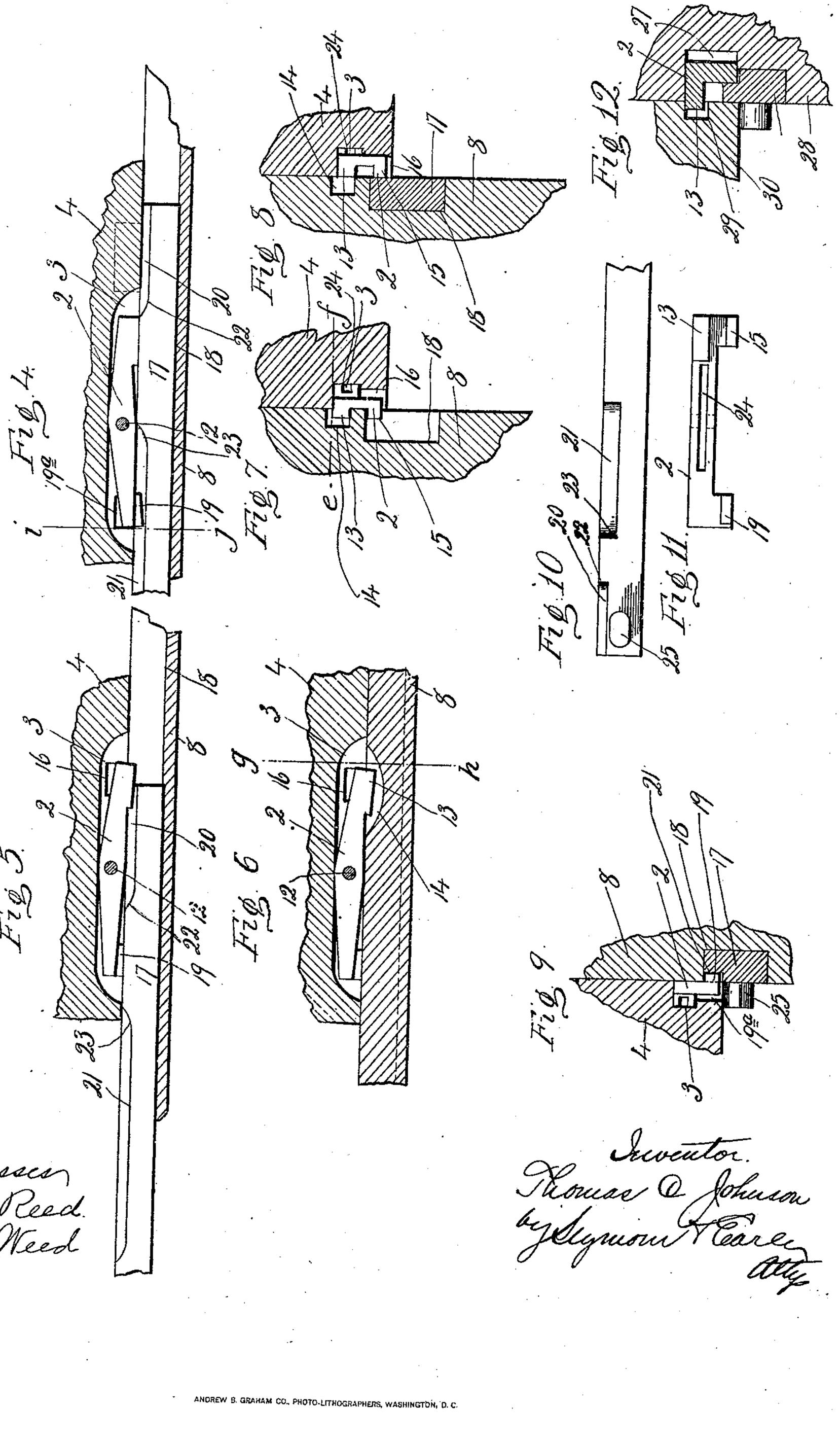

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UNITED STATES PATENT OFFICE.

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TAKE-DOWN GUN.

962,899. Specification of Letters Patent. **Patented June 28, 1910.**

Application filed April 25, 1910. Serial No. 557,357.

To all whom it may concern:

Be it known that I, THOMAS C. JOHNSON, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Take-Down Guns; and I do hereby declare the following, when taken in connection with the accompanying drawings and the numerals of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a broken view partly in left-hand side elevation and partly in vertical section, of a take-down gun constructed in accordance with my invention. Fig. 2 a detached view in left-hand side elevation of the breech-block. Fig. 3 a broken view in horizontal section of the breech-block on the line *a*—*b* of Fig. 2 and looking downward. Fig. 4 a broken view in horizontal section on the line *c*—*d* of Fig. 1 and showing the locking-dog in its normal or retired position in which it does not interfere with the free vertical movement of the breech-block. Fig. 5 a corresponding view illustrating the action of the action-bar in operating the locking-dog to swing the rear end of the same into engagement with the gun-frame for holding the breech-block in its elevated position when the gun is taken down. Fig. 6 a broken view in horizontal section on the line *e*—*f* of Fig. 7 and showing the position of the locking-dog with respect to the breech-block and gun-frame after the action bar has been withdrawn in taking the gun down, the section of Fig. 6 being the same as the section of Figs. 4 and 5 as far as the breech-block is concerned, but on a higher horizontal plane as far as the gun-frame is concerned. Fig. 7 a view in vertical section on the line *g*—*h* of Fig. 6, looking from rear to front and showing the locking-dog in its operating position. Fig. 8 a corresponding view on the same line with the action-bar introduced and the locking-dog pushed back into its retired position. Fig. 9 a view in vertical section on the line *i*—*j* of Fig. 4, looking from front to rear and showing the locking-dog forced into its retired position by the action-bar. Fig. 10 a broken view in inside elevation of the rear end of the action-bar. Fig. 11 a detached view in outside elevation of the locking-dog. Fig. 12 a broken view in vertical section of a modification of my invention, the locking-dog being in this instance located in the gun-frame instead of in the breech-block.

My invention relates to an improvement in that class of repeating take-down guns provided with longitudinally movable breech-blocks raised and lowered at their rear ends for being locked and unlocked and operated by sliding handles located in front of the gun-frame and having rearwardly extending action-bars connected with the breech-block for the operation thereof, the object of my present invention being to utilize the action-bar of such a gun in positively locking the breech-block in its elevated and locked position when the gun is taken down, and in positively unlocking the breech-block by the action-bar at the time the gun is put together.

With these ends in view my invention consists in a repeating take-down gun having certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

In carrying out my invention as herein shown, I employ a lever-like locking-dog 2 which I locate in a horizontal recess 3 formed in the left hand side wall of the breech-block 4 which is formed at its rear upper corner with a locking-nose 5 adapted to enter a locking-notch 6 in the inner face of the solid top 7 of the gun-frame 8 with the forward end of which the barrel 9 and magazine 10 are connected by a take-down band 11 fastened rigidly to the barrel in a manner well known and not needing detailed illustration or description at this time. The locking-dog 2 swings on a vertical pivot 12 mounted in the breech-block and is furnished at its rear end with a locking-rib 13 adapted to enter a locking-notch 14 formed in the inner face of the left-hand side wall of the frame 8 in position for registering with the rib 13 when the block is in its elevated or locked position as shown in Fig. 7. At its rear end the dog 2 is provided with a depending outwardly projecting operating finger 15 which extends downward through a notch 16 in the rear end of the bottom wall of the recess 3 into the path of the action-bar 17 which slides back and forth in a long groove 18 formed in the inner face of the left hand side wall of the gun frame 8. At its forward end the lock-

ing-dog 2 is formed with a depending outwardly projecting operating finger 19 extending downward through a notch 19ª in the forward end of the bottom wall of the recess 3 in the breech block into the path of the action-bar 17 as aforesaid.

For the positive operation of the locking-dog 2 by the action bar 17, I form a cam-cut 20 and a cam-cut 21 in the inner face of the action-bar near the upper inner corner thereof, the cam-cut 20 terminating at its forward end in a cam 22 which coacts with the outwardly projecting finger 15 of the dog in swinging the rear end of the dog inward, whereby its locking-rib 13 is swung out of the locking-notch 14 in the gun-frame for permitting the breech-block to be raised and lowered at its rear end. The rear end of the cam-cut 21 terminates in a cam 23 which engages with the outwardly projecting operating finger 19 of the locking-dog as the action-bar 17 is withdrawn from the gun-frame, whereby the dog is swung on its pivot 12 and its locking-rib 13 swung into the locking-notch 14 in the gun-frame.

In order to insure the retention of the locking-dog in its locked position when the gun is taken down, and when, therefore, the action-bar is no longer present to control the position of the locking-dog, I form the dog with a long slot 24 enabling the central portion of the dog to be slightly sprung apart. In assembling the gun the sprung central portion of the dog must be slightly compressed to permit it to be entered into the recess 3, whereby sufficient friction is developed for holding the dog against being jarred out of its locked position when the gun is taken down.

Upon the inner face of its rear end, the action-bar is provided in the usual manner with an inwardly projecting operating-lug 25 entering a cam-slot 26 formed in the left hand wall of the breech-block and shaped as required to cause the block to be moved back and forth with the action-bar and raised and lowered at its rear end thereby for being locked and unlocked by the entrance of its nose 5 into the notch 6 and the clearance of its nose from the said notch. It will be noted that the longitudinal movement of the action-bar with respect to the breech-block is relatively slight, this movement being represented practically by the travel of the lug 25 back and forth as required for raising and lowering the rear end of the breech-block.

As shown in Fig. 12, the locking-dog 2 is located in a recess 27 in the gun-frame 28 and its rib 13 takes into a slot 29 in the breech-block 30. The dog 2 is constructed and operated by the action-bar 17 in the manner described for the construction shown by Figs. 1 to 11 inclusive, the cams 22 and 23 being, of course, on the outer face of the action-bar instead of on the inner face thereof, as shown in the preceding figures.

I claim:—

1. In a take-down gun, the combination with the frame thereof, of a longitudinally and vertically movable breech-block, a sliding operating-handle, an action-bar extending rearwardly from the said handle and connected with the breech-block for the operation thereof, and means positively operated by the action-bar for locking the breech-block in its elevated position at the time the gun is taken down.

2. In a take-down gun, the combination with the frame thereof, of a longitudinally and vertically movable breech-block, a sliding operating-handle, an action-bar extending rearwardly from the said handle and connected with the breech-block for the operation thereof, and a locking-dog coacting with the breech-block and gun-frame, and positively operated by the action-bar for locking the breech-block in its elevated position when the gun is taken down and for positively unlocking the breech-block when the gun is assembled.

3. In a take-down gun, the combination with the frame thereof, of a longitudinally and vertically movable breech-block, a sliding operating-handle, an action-bar extending rearward from the said handle and connected with the breech-block for the operation thereof, and a locking-dog carried by the breech-block, coacting with the gun-frame for holding the breech-block in its locked position when the gun is taken down and positively operated in either direction by the action-bar.

4. In a take-down gun, the combination with the frame thereof, of a longitudinally and vertically movable breech-block, a sliding operating-handle, an action-bar extending rearwardly therefrom, and a locking-dog coacting with the breech-block and gun-frame, and formed at its respective ends with depending fingers which are directly operated upon by the action-bar for positively swinging the dog into its locking and unlocking positions.

5. In a take-down gun, the combination with a gun-frame having a locking-notch formed in the inner face of one of its side walls, of a longitudinally and vertically movable breech-block having a recess in one of its side walls, a sliding operating-handle, an action-bar extending rearwardly therefrom, and a locking-dog located in the said recess in the breech-block and formed with a locking projection for entrance into the said locking-notch in the gun-frame, and also formed with outwardly projecting fingers for coaction with cams upon the action-bar which cams positively swing the dog into its locking and unlocking positions.

6. In a take-down gun, the combination

with the frame thereof, of a longitudinally and vertically movable breech-block, a sliding operating-handle, an action-bar extending rearwardly from the said handle and connected with the breech-block for the operation thereof, and a locking-dog coacting with the breech-block and gun-frame for holding the said block in its locked position when the gun is taken down, and positively operated in being swung into its locking and unlocking positions by the action-bar, the said dog being constructed to be frictionally held in its locking position when the gun is taken down.

7. In a take-down gun, the combination with the frame thereof, of a longitudinally and vertically movable breech-block having a horizontal recess in one of its side walls, a sliding operating-handle, an action-bar extending rearwardly from the said handle and connected with the breech-block for the operation thereof, and a locking-dog located in the said recess in which it is pivoted about midway of its length and formed at its rear end with a depending outwardly projecting finger coacting directly with the action-bar for swinging the dog into its unlocking position and provided at its forward end with a depending outwardly projecting finger engaging with the action-bar for swinging the rear end of the dog into its locking position in engagement with the gun-frame when the action-bar is withdrawn from the gun-frame in taking the gun down.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

THOMAS C. JOHNSON.

Witnesses:
FREDERIC C. EARLE,
CLARA L. WEED.