

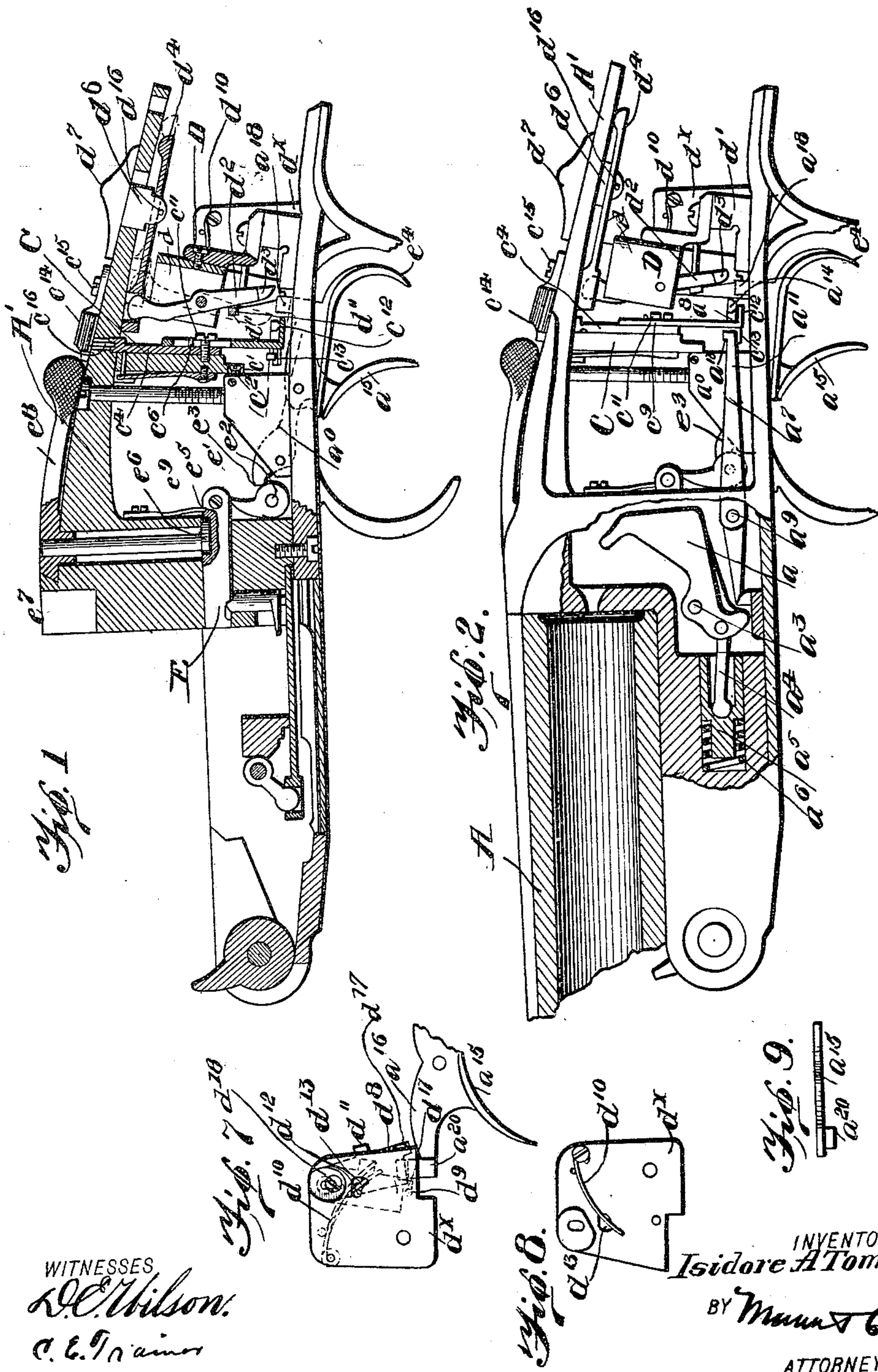
No. 859,153.

PATENTED JULY 2, 1907.

I. A. TOMASINI.
GUN.

APPLICATION FILED APR. 26, 1906.

3 SHEETS—SHEET 1.



WITNESSES
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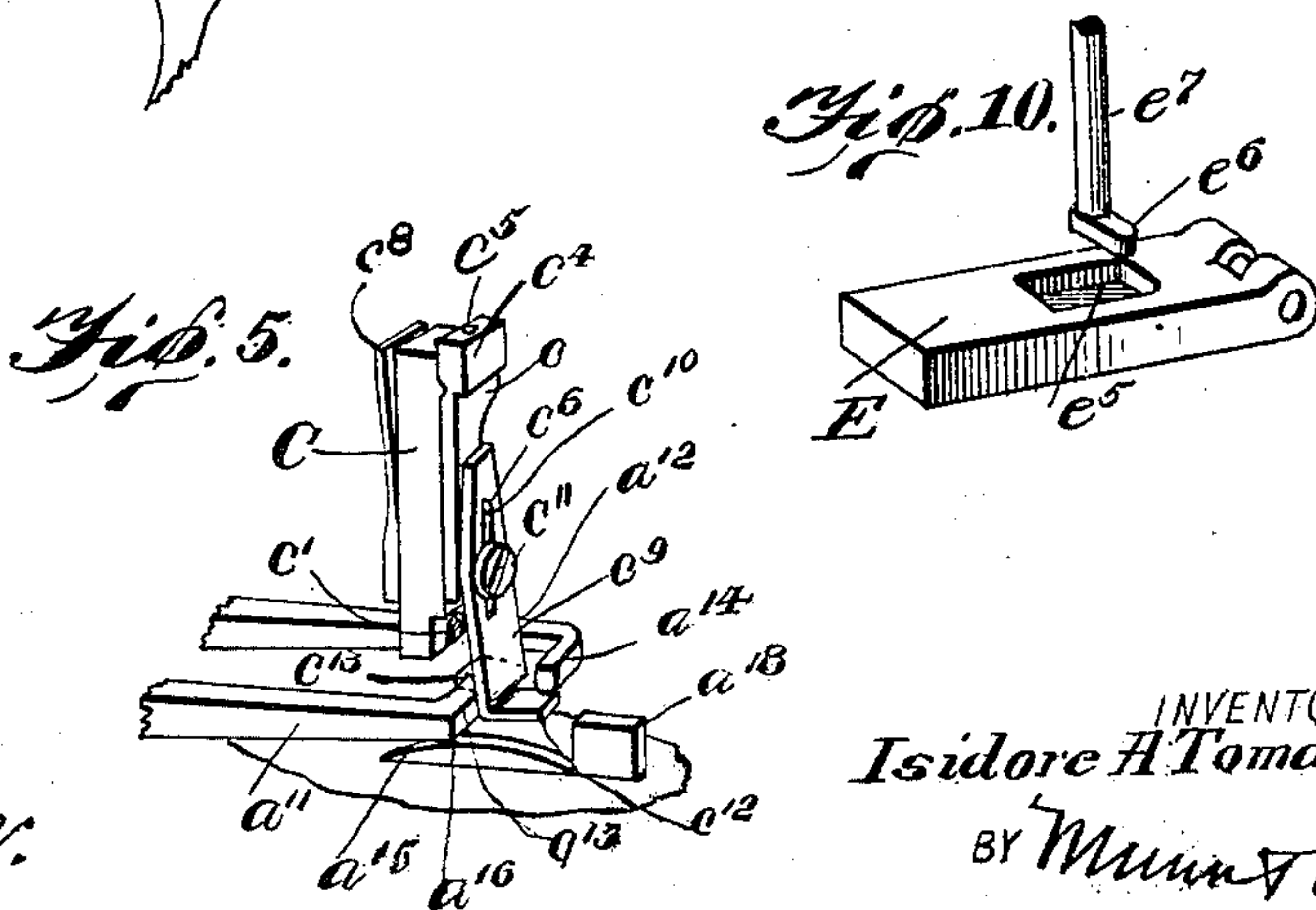
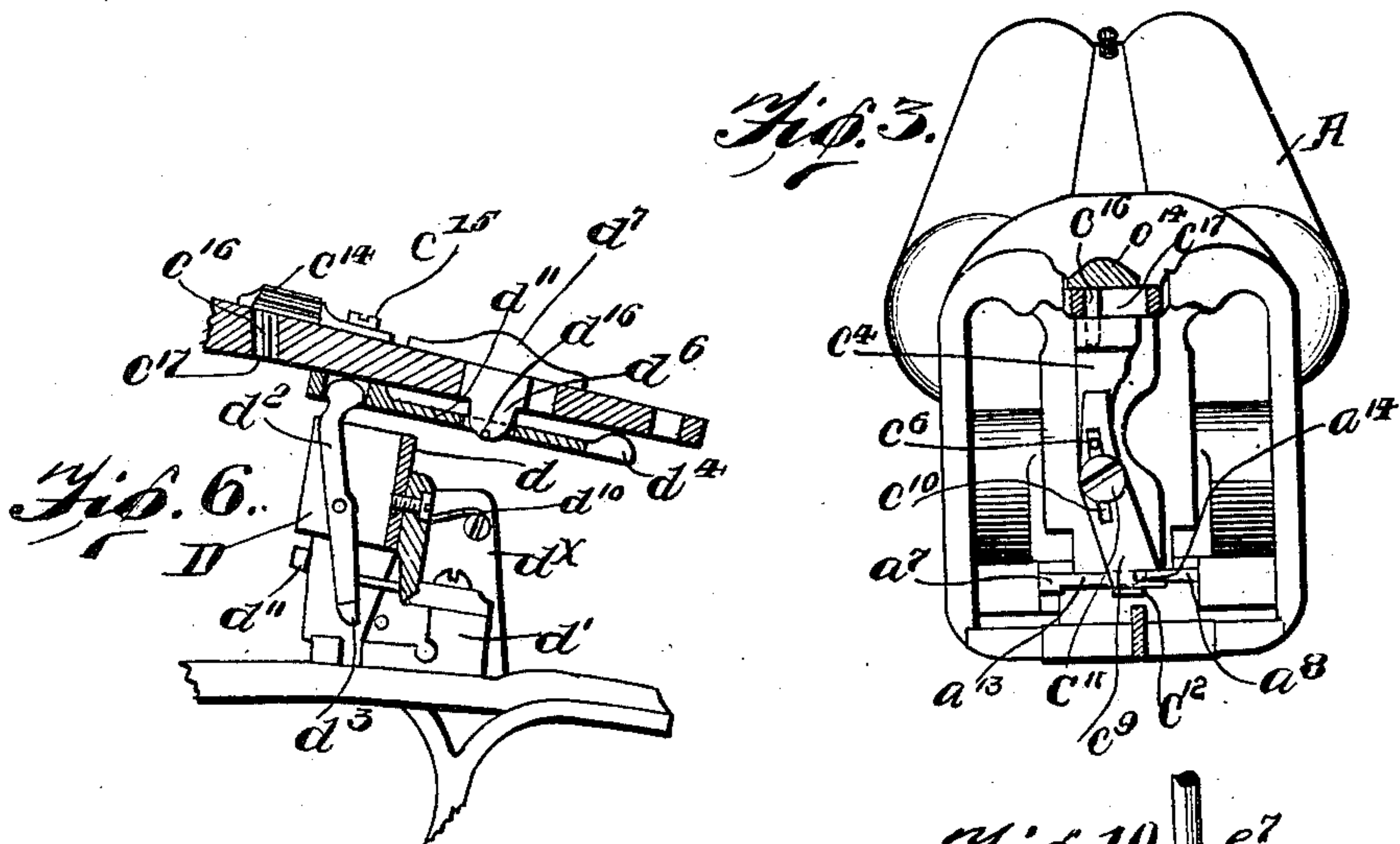
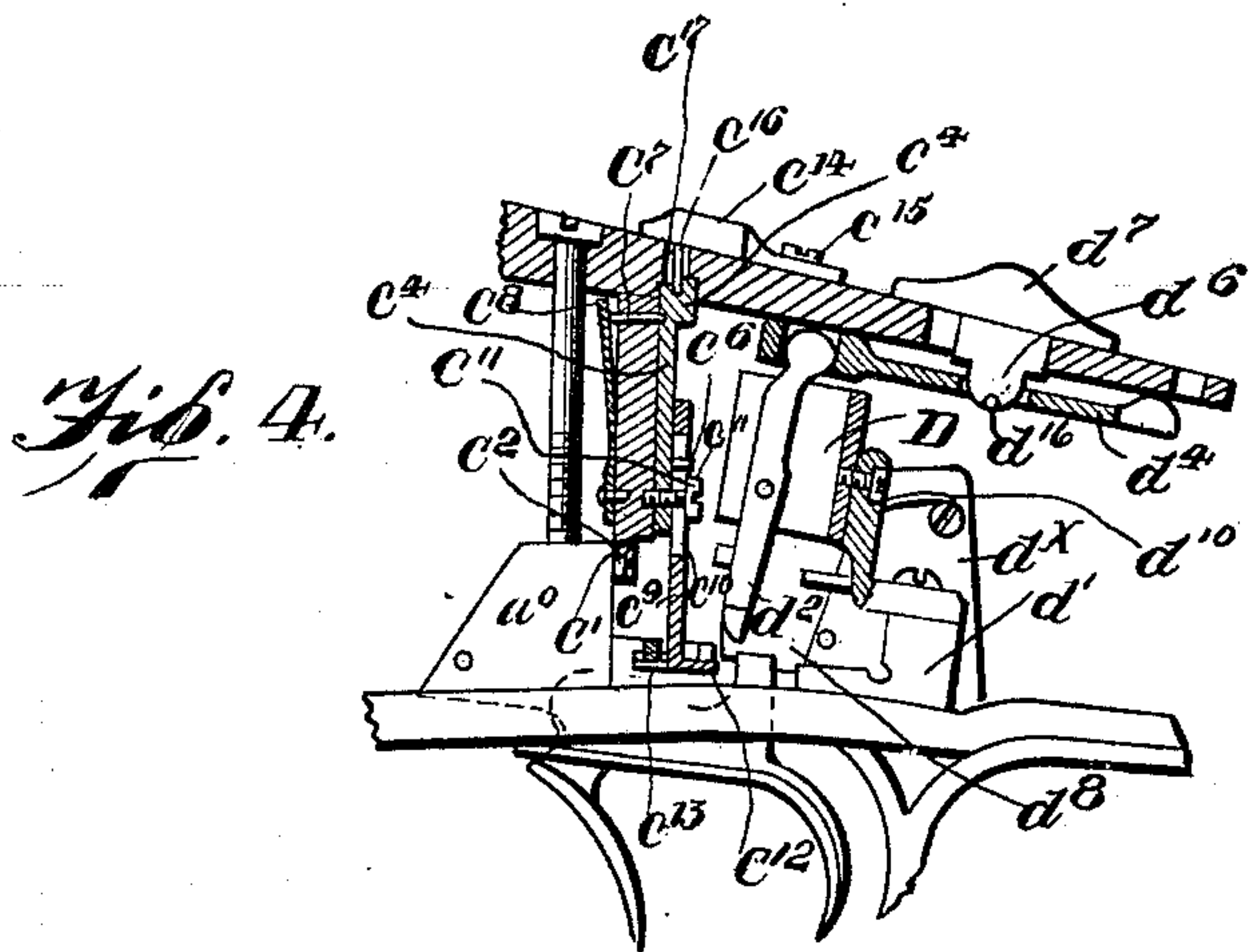
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

Fig. 11.

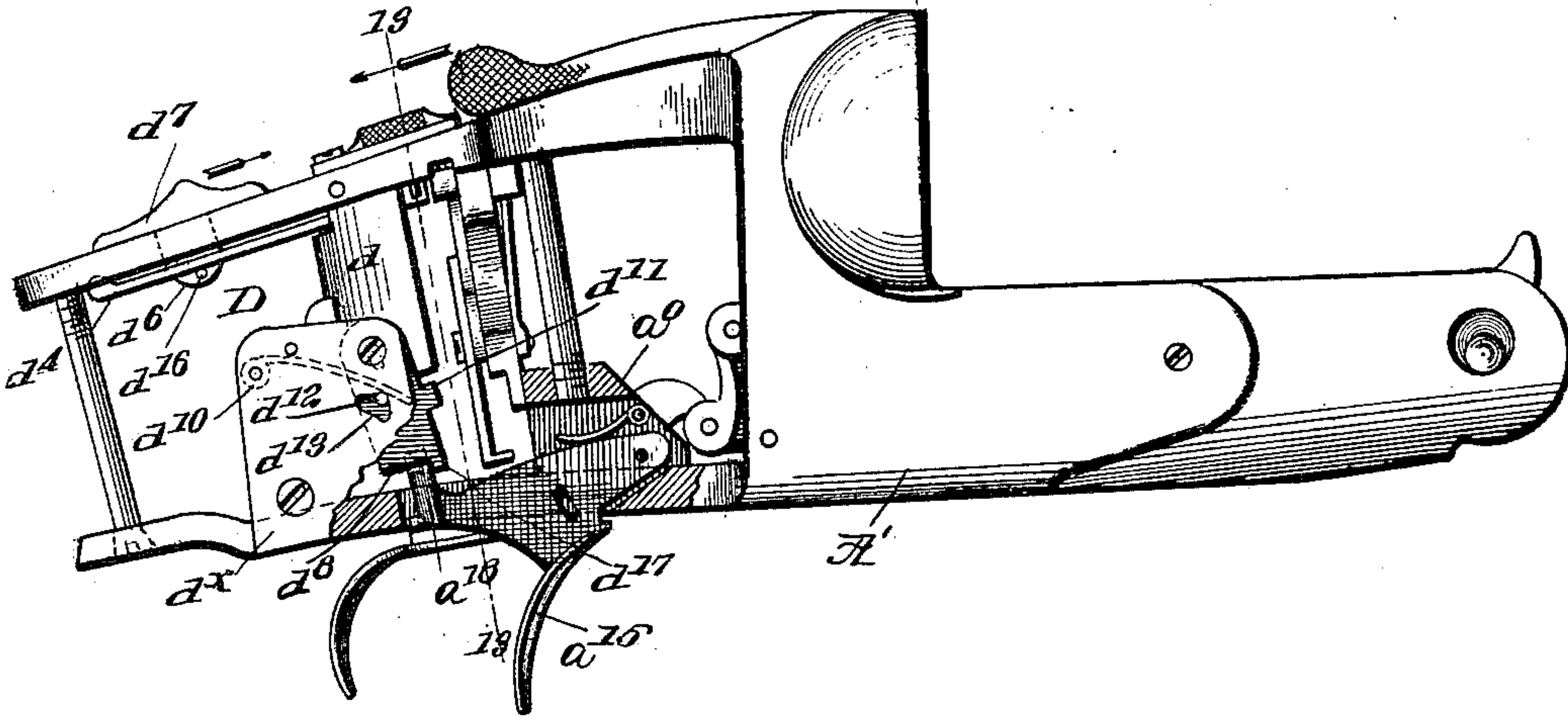


Fig. 12.

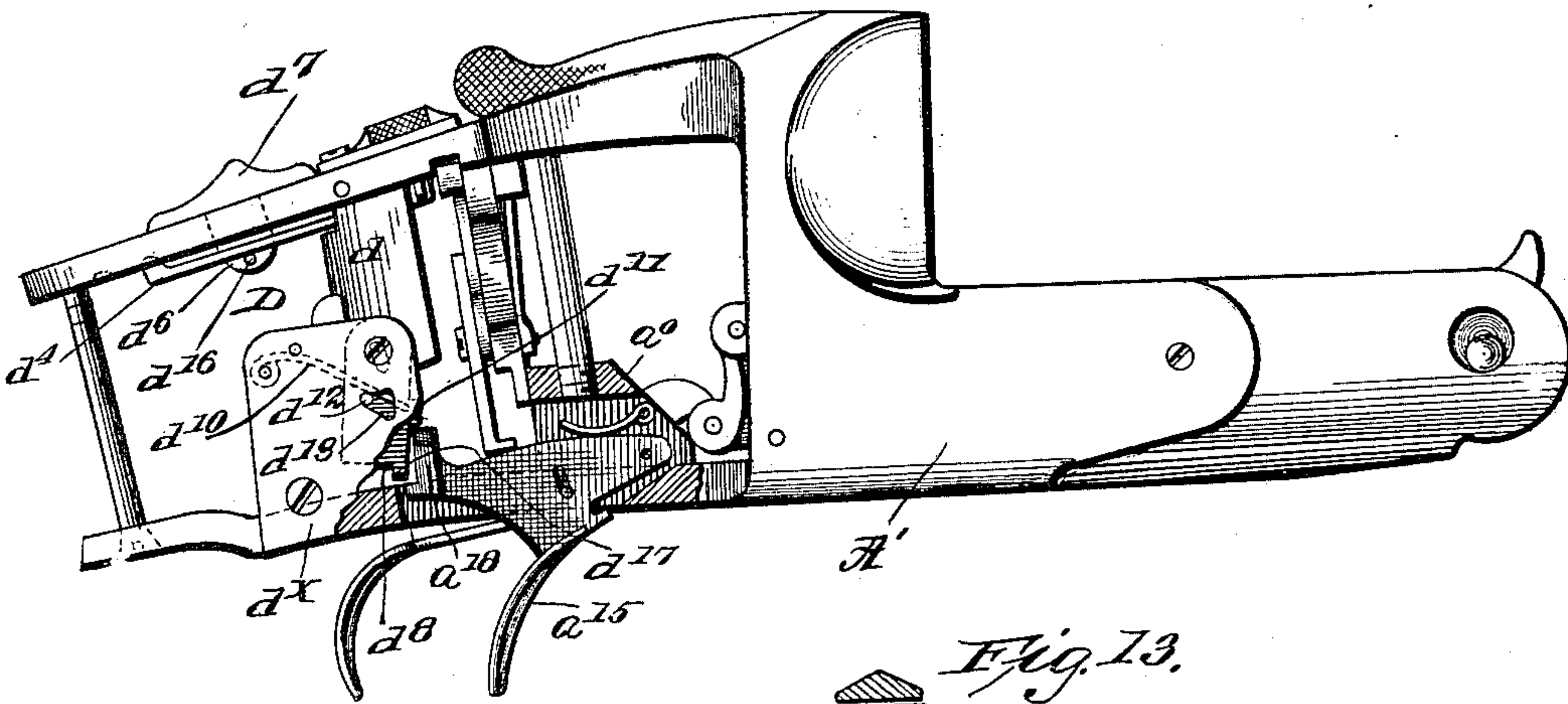
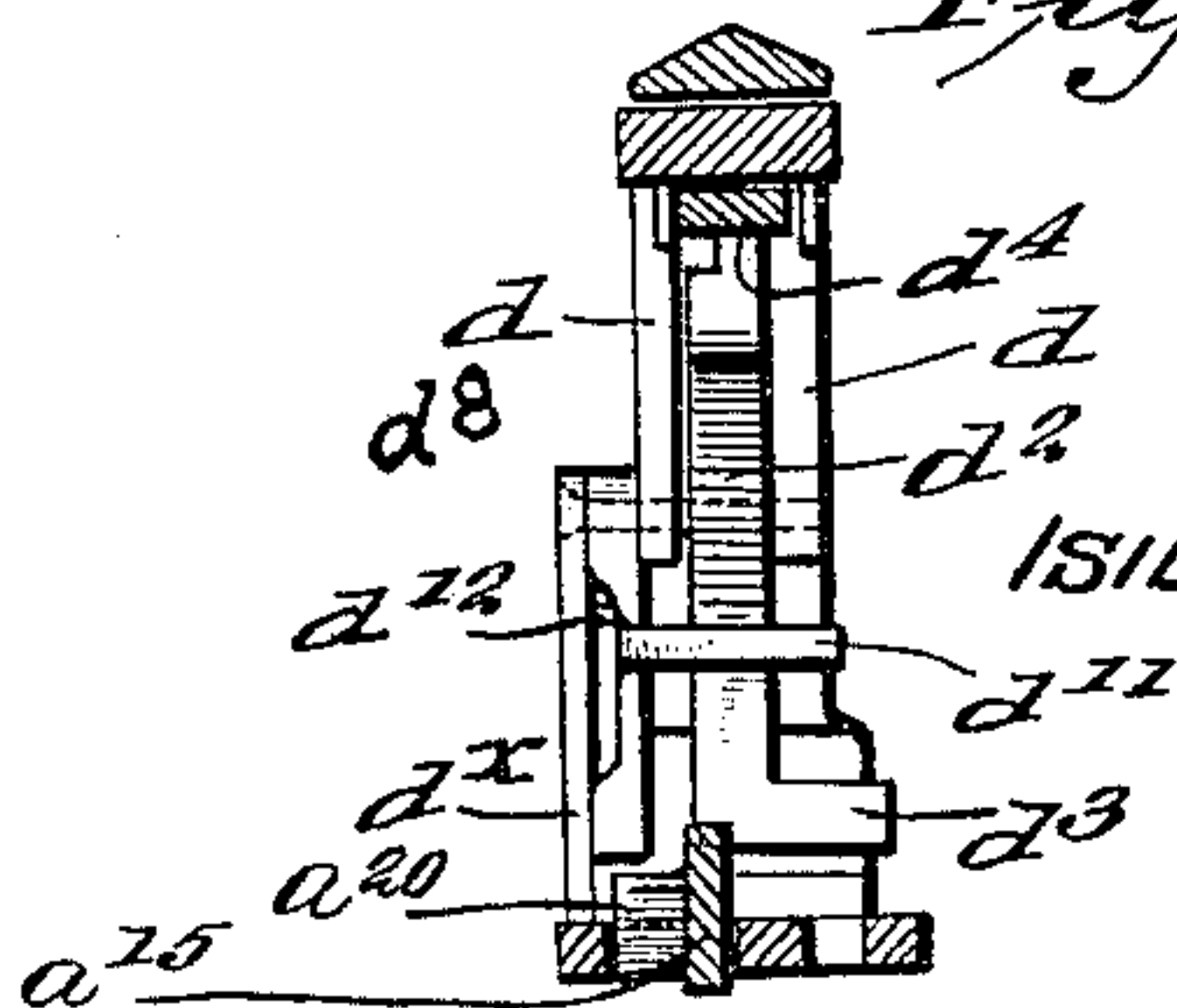


Fig. 13.



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UNITED STATES PATENT OFFICE.

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GUN.

No. 859,153.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed April 26, 1906. Serial No. 313,786.

To all whom it may concern:

Be it known that I, ISIDORE A. TOMASINI, a citizen of the United States, and a resident of Guadalupe, in the county of Santa Barbara and State of California, have made certain new and useful Improvements in Guns, of which the following is a specification.

My invention is an improvement in guns and consists in certain novel constructions and combinations of parts hereinafter described and claimed.

Referring to the drawing forming a part hereof, Figure 1 is a vertical longitudinal section of a lock frame provided with my improvement. Fig. 2 is a side view thereof with the frame partly broken away to show the hammer. Fig. 3 is a rear view of the mechanism for varying the order of sequence of operating the sears. Fig. 4 is a detail side view of the same mechanism. Fig. 5 is a perspective view of the said mechanism. Fig. 6 is a detail side view of the safety mechanism. Fig. 7 is a detail view of the supporting plate for the swinging arm. Fig. 8 is a similar view from the opposite side. Fig. 9 is a top plan view of a portion of the front trigger, and Fig. 10 is a detail perspective view of the locking bolt and lower end of the pin. Fig. 11 is a side view of the lock frame on the opposite side from that shown in Figs. 1 and 2, a part thereof being broken away, and Fig. 12 is a similar view with the parts in another position. Fig. 13 is a transverse section on the line 13—13 of Fig. 11.

In the present embodiment of my invention, I have shown the same applied to a double-barreled shot gun, of the breech-loading type, the barrels A being hinged to the lock frame A' in the ordinary manner.

Within the lock frame are pivoted the hammers a , as at a^3 , the lower ends of the hammers being connected by a link a^4 with a plunger a^5 , movable in an opening in the lock frame, and normally pressed outward by a spring a^6 . The hammers are set by the operation of breaking the gun, in the usual and well understood manner, and since such mechanism forms no part of my invention, I have not deemed it necessary to show the same.

The sears a^7 , a^8 are of the usual form and are pivoted as at a^9 , within the frame, and the tails a^{11} a^{12} of the sears are provided with inward extensions a^{13} , a^{14} spaced apart horizontally from each other, the extension of the left sear being placed in advance of the extension of the right sear.

The front trigger a^{15} is pivoted within the casing a^0 extending inwardly from the frame, and is provided with a raised portion a^{16} , to compensate for the shorter distance of the extension of the left ear from the pivot of the trigger, and the rear end of the trigger is provided with a lug a^{18} for a purpose to be hereafter described. It is evident from the description that with the construction described the trigger would engage

the extensions of the sears approximately simultaneously, but I have provided additional mechanism whereby to cause the trigger to release the sears in a sequence commencing with either sear.

In Figs. 1 to 5, I have shown such mechanism, the said mechanism comprising a bar C provided with a fork c' engaging a screw c^2 threaded into the trigger casing a^0 , and secured at its upper end to the lock frame. A swinging plate c^4 provided in its upper end with a longitudinal opening c^5 and near its lower end with a pin c^6 , is pivotally connected to the bar by a screw c^{11} , and is normally maintained in its adjusted position by a pawl c^7 traversing the bar, and maintained in its outward position by a plate spring c^8 upon the opposite side of the bar.

A rock lever c^9 is provided with a longitudinal slot c^{10} engaging the pivot screw c^{11} , the said slot being also engaged by the pin c^6 upon the swinging plate. The lower end of the rock lever c^9 is provided with a lug c^{12} adapted to be interposed between the trigger and the extension of the right sear when the said lever is rocked in one direction, a second lug c^{13} being arranged upon the opposite side of the lever and engaging beneath the extension of the left sear when the lever is rocked in the opposite direction.

Upon the upper face of the lock frame a catch c^{14} is mounted to swing, by means of a screw c^{15} traversing the catch and engaging the lock frame, and the free end of the catch is provided with a pin c^{16} traversing a slot c^{17} in the frame and engaging the longitudinal opening c^5 in the upper end of the swinging plate whereby to swing the same. It is evident that when the catch is moved in either direction, it will swing the plate upon its pivot and through the pin and slot connection with the rock lever will swing the same whereby to move the respective lugs between the trigger and the inward extension of the corresponding sear.

In the operation of the above described device, when the rock lever c^9 is moved into the position shown in Figs. 3 and 5, the lug c^{13} is removed from beneath the extension a^{13} of the sear a^{11} , and the lug c^{12} is inserted beneath the extension a^{14} of the sear a^{12} . When in this position, an upward movement of the trigger a^{15} will move the rock lever upward so that the lug c^{12} engages the extension a^{14} , tripping the right sear, after which a further movement of the trigger will trip the left sear. When the rock lever c^9 is moved into the opposite position, the lug c^{12} is removed from beneath the extension a^{14} , and the lug c^{13} is inserted beneath the extension a^{13} . In this position, when the trigger is moved upward, it engages the lug c^{13} , moving the rock lever upward in such manner that the lug c^{13} engages the extension a^{13} , tripping the left sear, after which a further movement of the trigger will trip the right sear. It will be evident that when the rock lever is in the

first position, the sears are tripped in a sequence, and when it is in the second position, the sequence is reversed.

A safety mechanism D for preventing premature discharge of the gun is arranged behind the above described mechanism, the said safety mechanism comprising a casing d secured to a bracket d' rising from the lower inner face of the lock frame, and within the casing is pivoted a lever d^2 having at the lower end thereof a lateral lug d^3 . The upper end of the lever d^2 is engaged by a sliding plate spring d^4 , connected to the lug d^6 of a slide d^7 arranged upon the upper face of the lock frame, the said lug traversing a slot in the lock frame and connected to the spring plate by a pin d^{16} .

A plate d^x is secured to the side of the bracket d' , and has pivotally connected to the inner side thereof a swinging arm d^8 , normally maintained in outward position by a spring d^{10} , the said plate being provided with a lug d^{11} extending transversely of the lock frame above the lug a^{18} on the trigger and in front of the lever d^2 . The plate d^x is provided with an angular slot d^{13} , engaged by a pin d^{12} on the side of the arm d^8 , and upon the inner face of the plate is arranged a stop d^9 , Figs. 7 and 8, engaged by a projection d^{17} upon the lower end of the swinging arm whereby to limit the backward movement of the same. The swinging arm is pivoted to the plate d^x by a screw d^{18} , the said screw traversing a slot in the plate and engaging the arm, whereby to permit a slight vertical movement of the said arm with respect to the plate.

When the slide d^7 is moved rearwardly, the lower end of the lever d^2 is swung forwardly and engages the lug d^{11} of the swinging arm d^8 , and swings said arm forward with the lever. In this position the lug d^3 of the lever d^2 stands directly above the lug a^{18} of the trigger, thus preventing the upward movement of the said trigger. The swinging arm d^8 when in the forward position is forced slightly downward by the spring d^{10} , and is retained in such forward position by the engagement of the pin d^{12} with the angular portion of the slot d^{13} .

The trigger a^{15} is provided with a lateral projection a^{20} adjacent to the lug a^{18} , which, when the swinging arm d^8 is in its forward position, is behind the projection d^{17} upon the said arm. When now the trigger a^{15} is moved upwardly, the lateral projection a^{20} engages the swinging arm behind the projection d^{17} , and elevates the said arm a sufficient extent to release the pin from the angular portion of the slot, and a slight downward movement of the trigger releases the lateral projection a^{20} thereon from the projection d^{17} of the arm, permitting the arm to be swung to the rear by its spring, and leaving the trigger free to operate the sears.

The lug d^3 of the lever d^2 engaging above the lug a^{18} of the trigger when said lever is moved to the safety position, positively locks the trigger until said lever is rocked in the reverse direction. When, however, this reverse movement of the lever takes place, the swinging arm d^8 being retained in its forward position by the engagement of the pin d^{12} with the angular portion of the slot d^{13} , limits the upward movement of the trigger, preventing a further movement of the trigger than is necessary to trip one sear. After the tripping of the first sear, a relaxation of the pressure

on the trigger permits the swinging arm to swing rearwardly, releasing the trigger so that by a second upward movement the remaining sear may be tripped. It will thus be seen that when the lever d^2 is at safety, the trigger is locked, and when the lever is moved away from the position of safety, the sears may be tripped in sequence with a positive interval between the acts of tripping.

A locking bolt E is slidably mounted in the lock frame, and engages the barrels in a well understood manner, whereby to secure the parts in alinement. The locking bolt is normally maintained in its locking position by means of a spring e^9 and its rear end has pivoted thereto a depending curved arm e' , provided with a tail e^2 , adapted to be engaged by a lug e^3 upon the rear trigger e^4 . The depending arm e' is curved forwardly as shown, and engages the solid part of the lock frame, and is adapted to rock upon said point of engagement when actuated by the trigger, whereby to withdraw the locking bolt from its engagement with the notch. In the upper face of the locking bolt is provided a slot e^5 , engaged by a crank arm e^6 , upon a vertical pin e^7 arranged within an opening in the lock frame and provided at its upper end with a swinging lever e^8 whereby to rotate the said pin.

It will be evident from the description that the said locking bolt may be released by either the rear trigger, or by the lever e^8 upon the upper face of the lock frame, and that each acts independently of the other. When the locking bolt is drawn to the rear by the trigger, the slot in the upper face of the said locking bolt permits the passage of the crank arm, and when the lever is turned to rotate the pin, the depending arm e' turns upon its pivotal connection with the locking bolt without affecting the trigger.

It will be evident from the description that by manipulating the swinging plate upon the upper face of the lock frame, the trigger will be caused to release the sears in sequence beginning with either barrel as may be desired.

I claim—

1. In a gun, the combination with the lock frame, and the hammers therein, of sears coöperating with the hammers, a trigger for tripping the sears, an arm for engaging above the trigger whereby to limit the movement thereof, means for swinging said arm into engaging position, a spring for retaining the arm in its normal position, means for retaining the arm in its engaging position, and means whereby the relaxation of pressure on the trigger after the tripping of one sear may release the arm.

2. In a gun, the combination with the lock frame and the hammers therein, of sears coöperating with the hammers, a trigger for operating the sears, a casing secured in the frame adjacent to the trigger and provided with an angular opening, an arm provided with a slot at the upper end thereof and with a pin for engaging the angular opening, a screw traversing the slot and threaded into the casing, a spring acting upon the pin to normally retain the arm in its retracted position, means for swinging the arm whereby to bring the lower end thereof above the trigger to prevent upward movement thereof, said spring acting to engage the pin with the angular portion of the slot, and means whereby a preliminary movement of the trigger may release the pin from the angular portion of the slot to permit the retraction of the arm.

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Witnesses:

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