

No. 860,231.

PATENTED JULY 16, 1907.

J. E. NELMS.

FIREARM.

APPLICATION FILED FEB. 19, 1907.

3 SHEETS—SHEET 1.

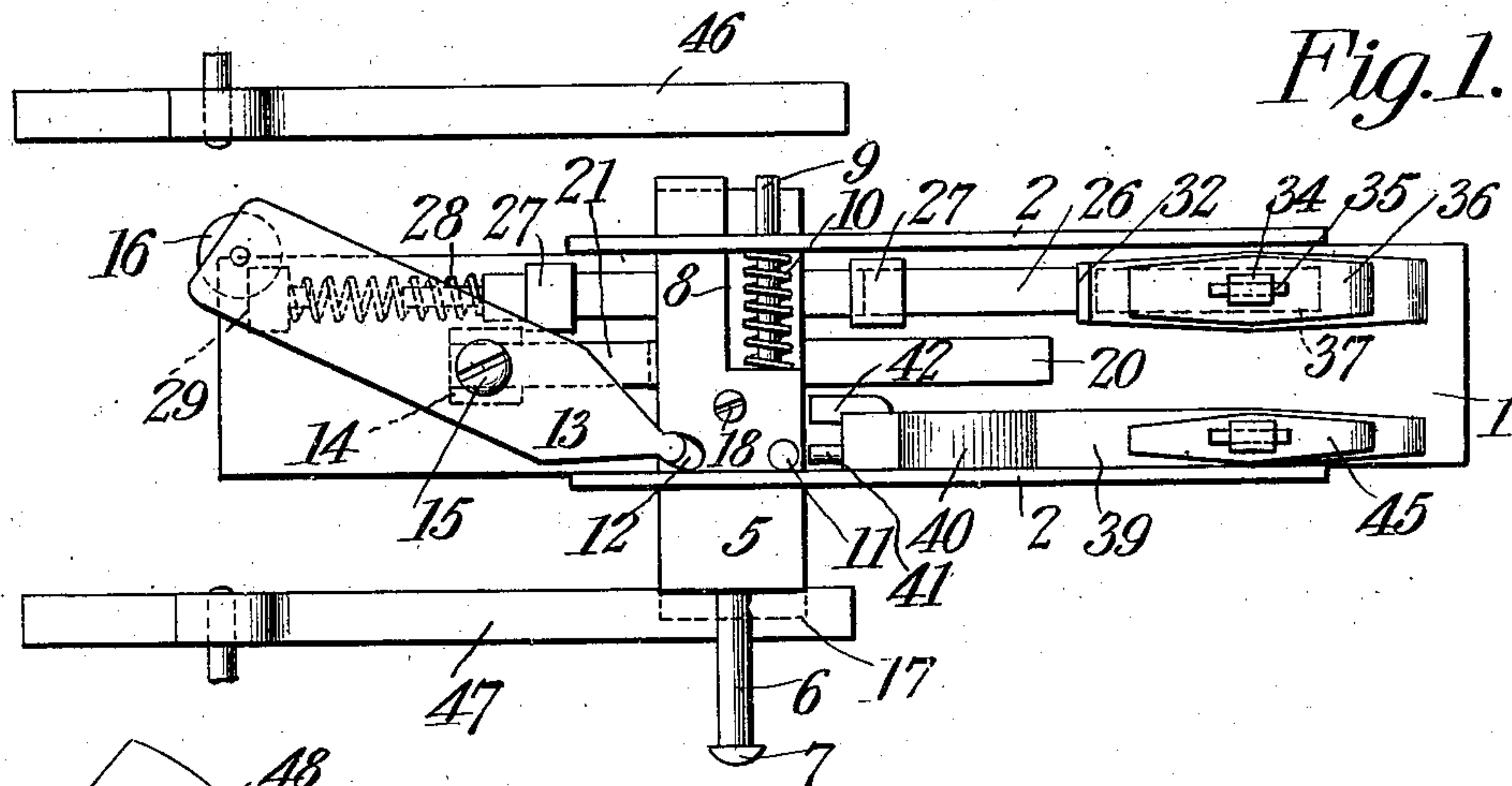


Fig. 1.

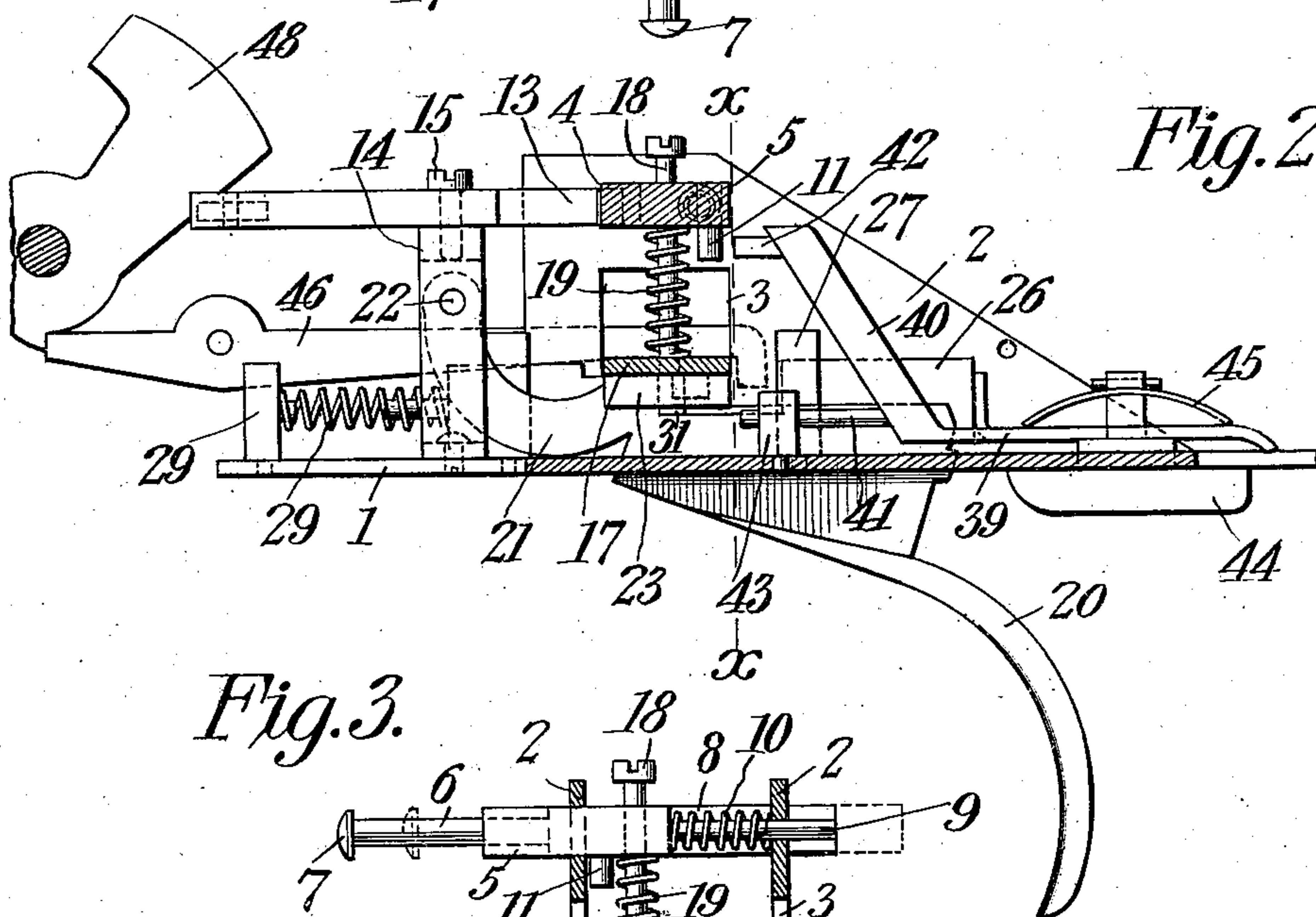
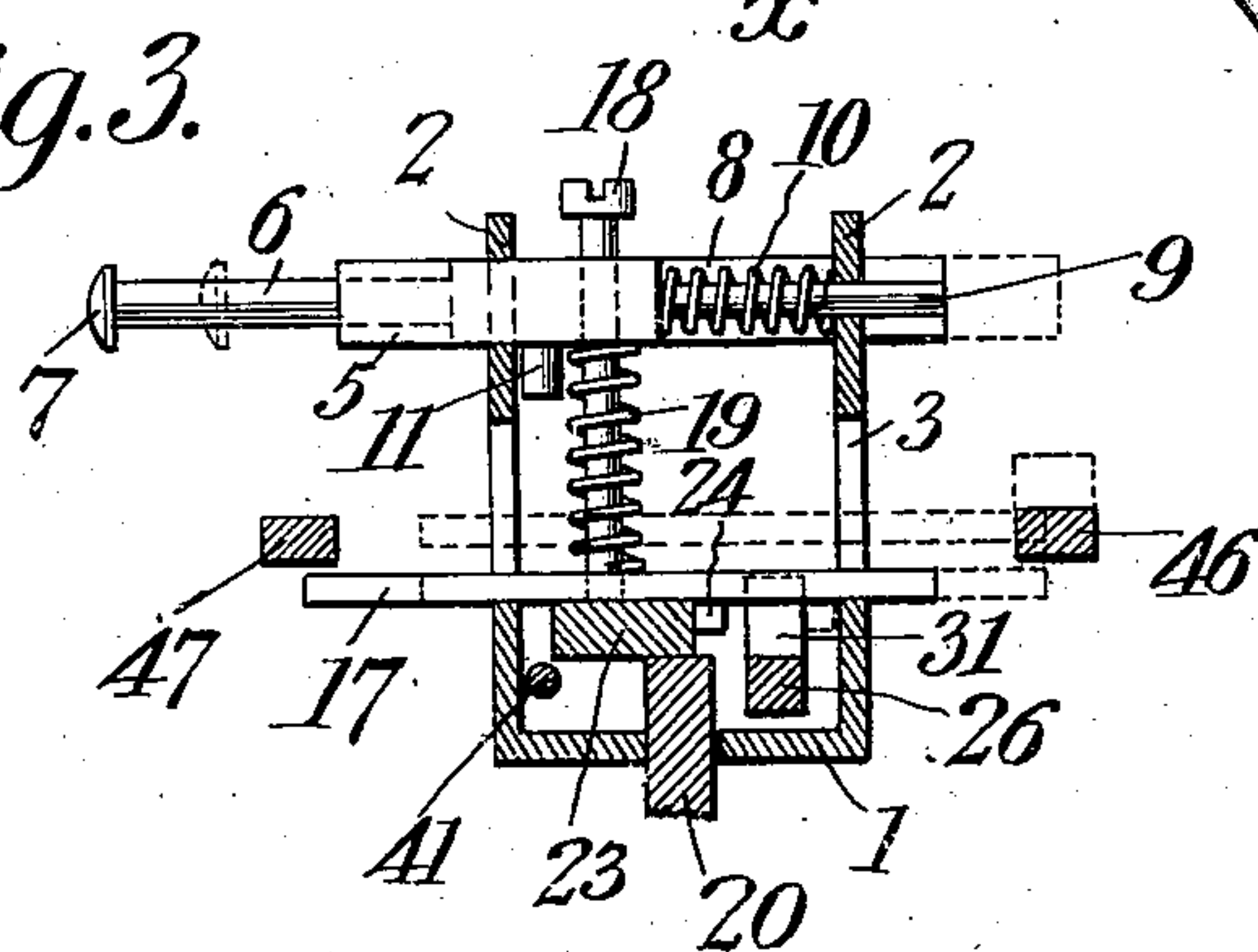


Fig. 2.

Fig. 3.



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3 SHEETS—SHEET 2.

Fig. 4.

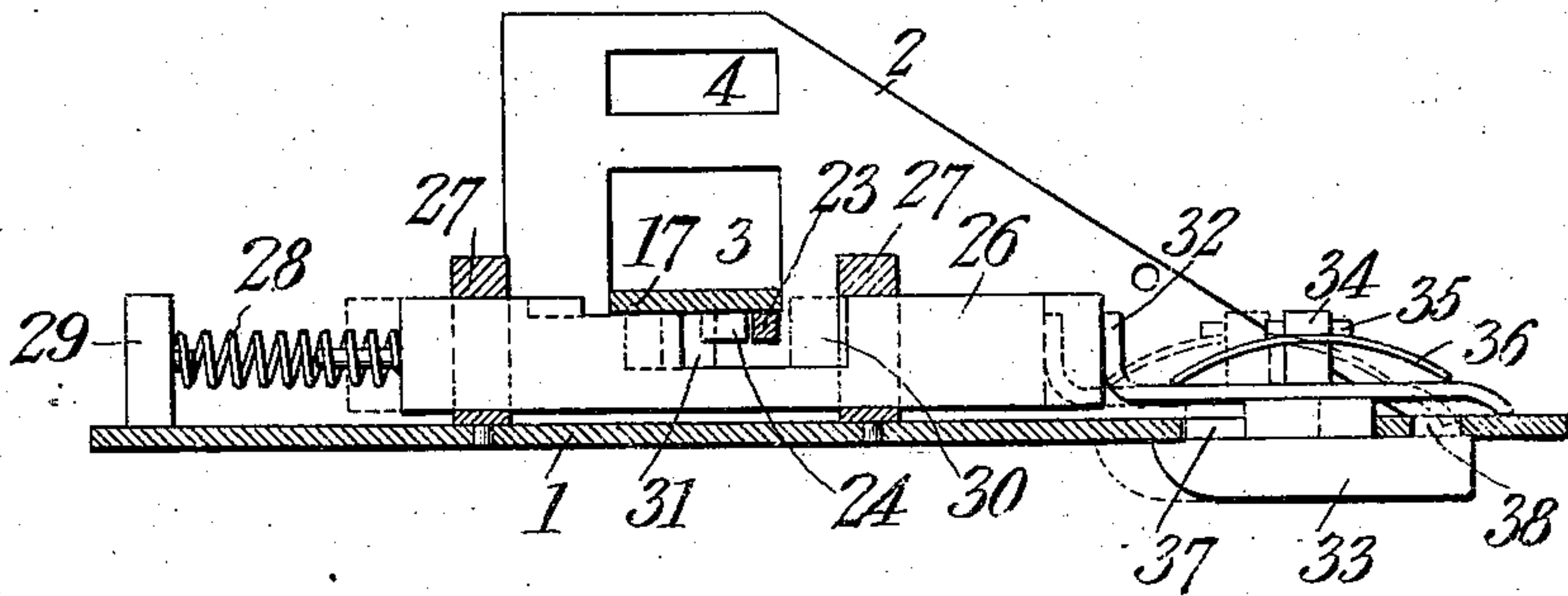


Fig. 5.

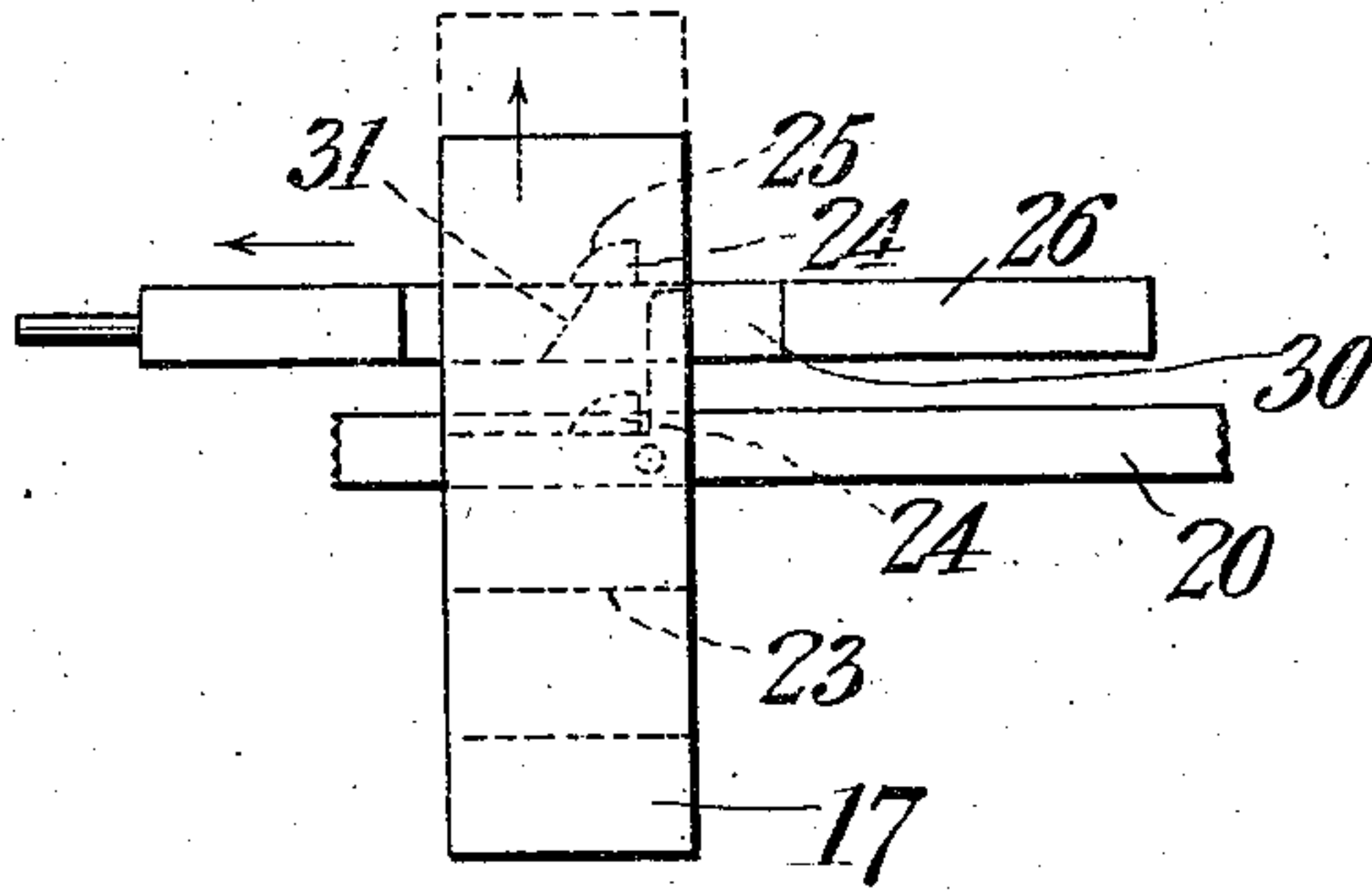
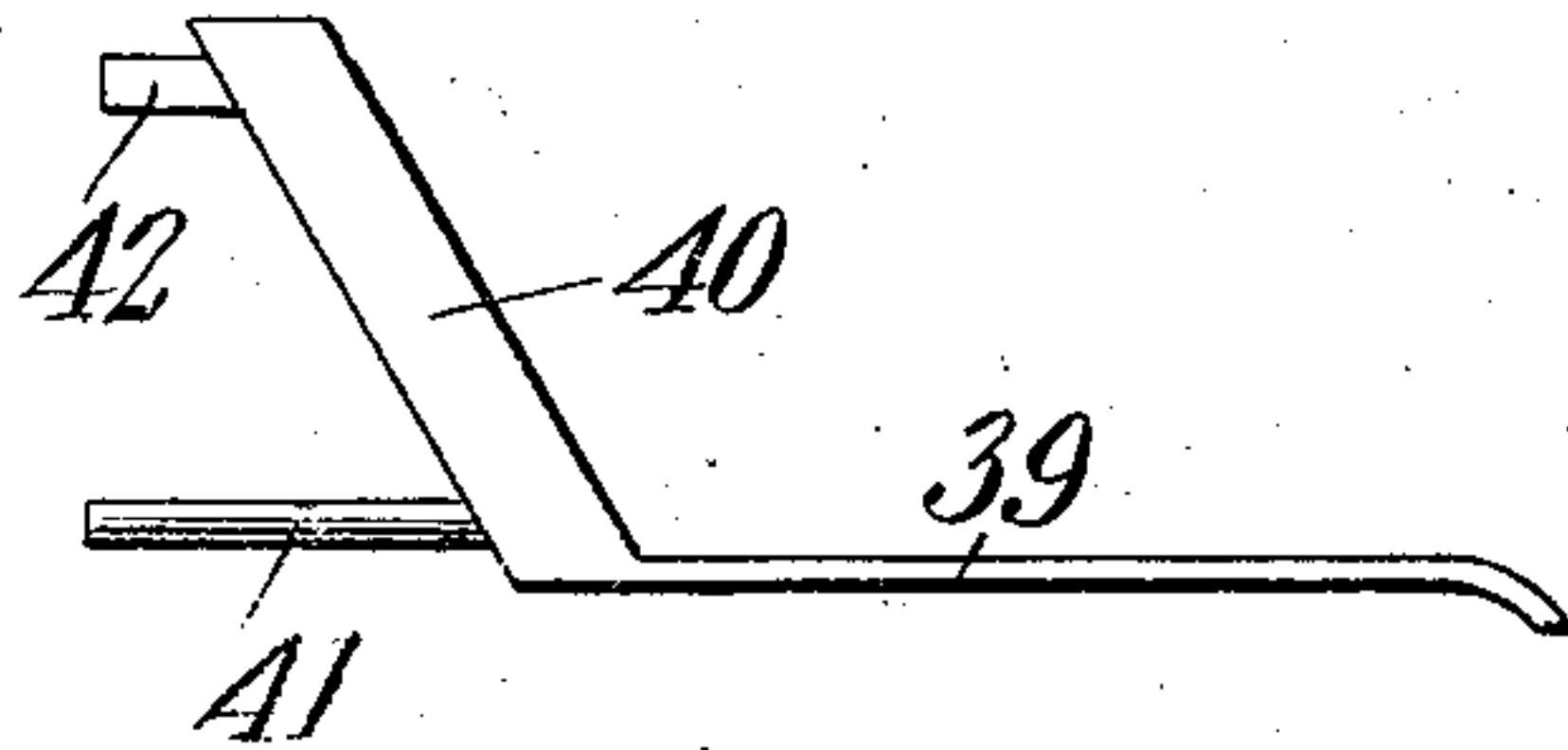


Fig. 6.



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3 SHEETS—SHEET 3.

Fig. 7.

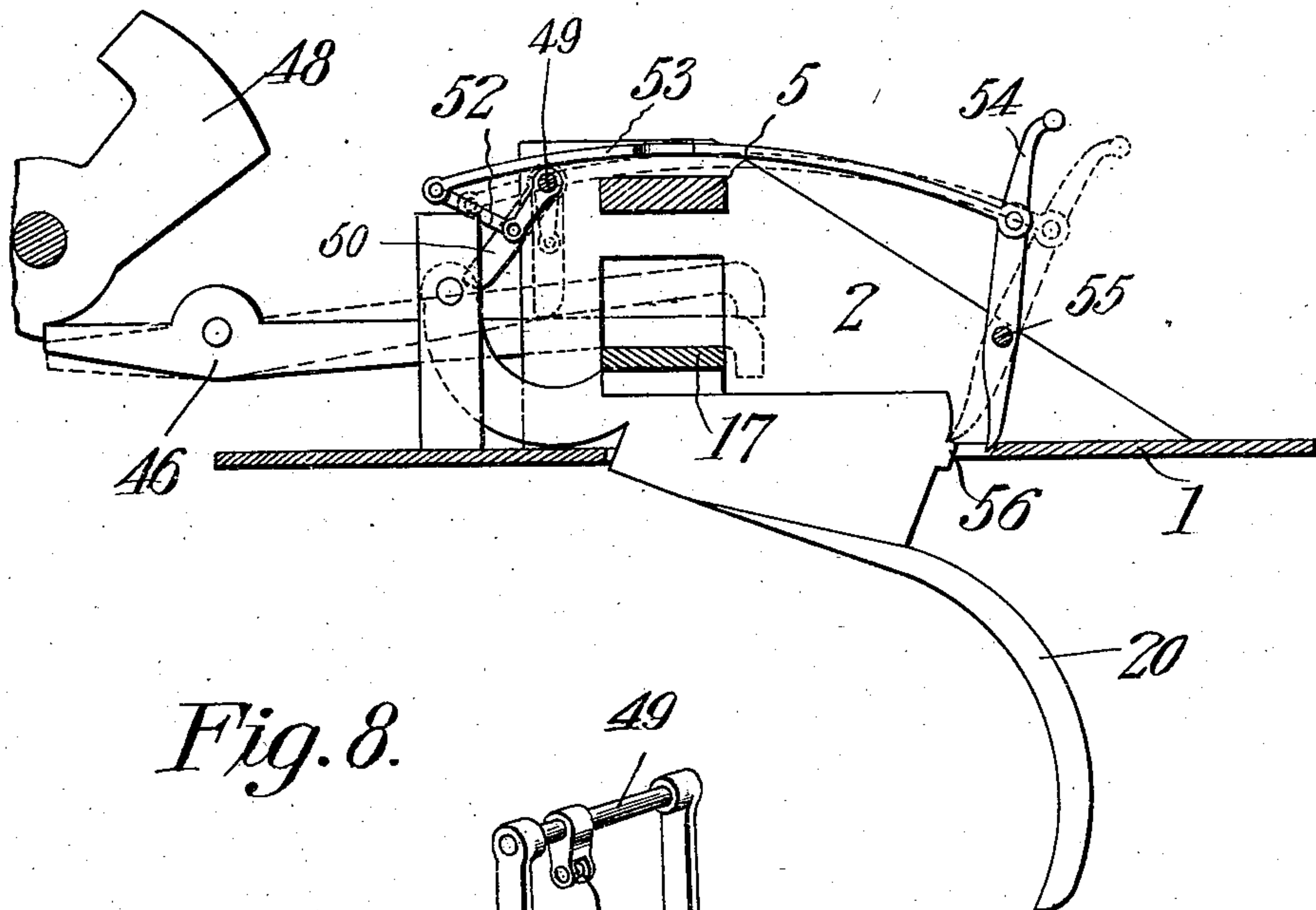


Fig. 8.

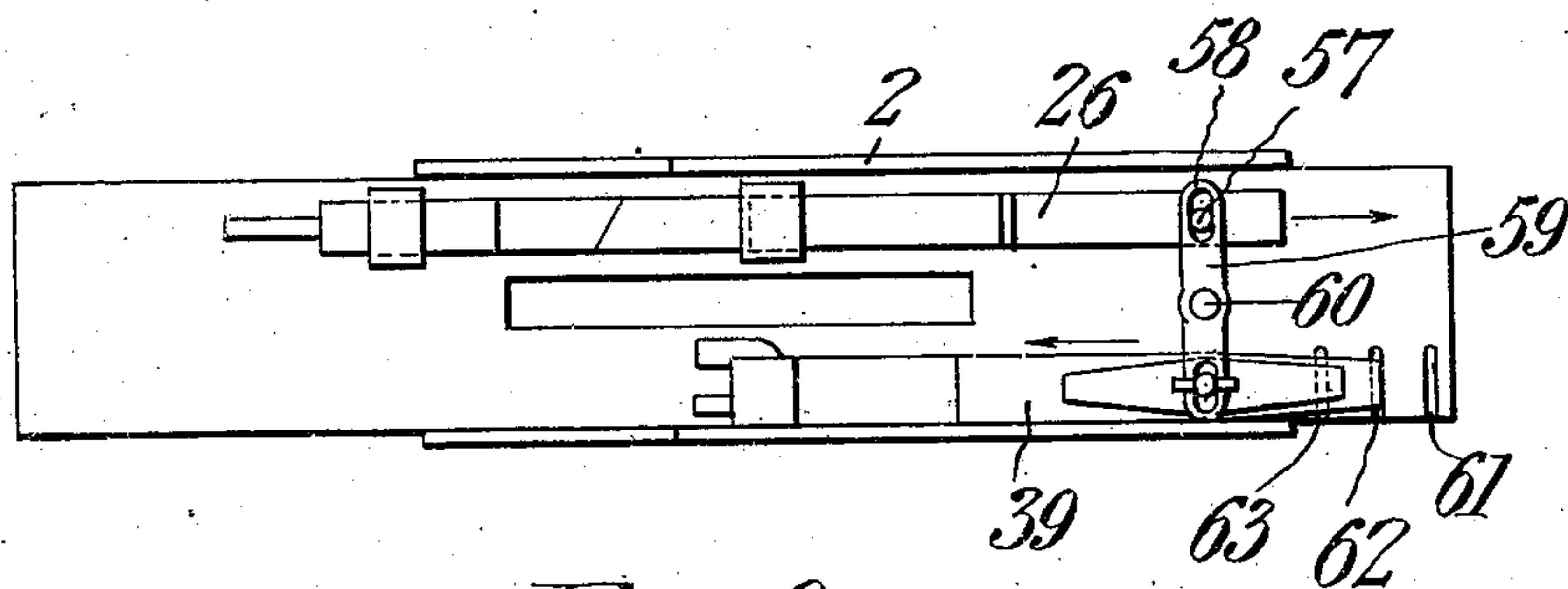
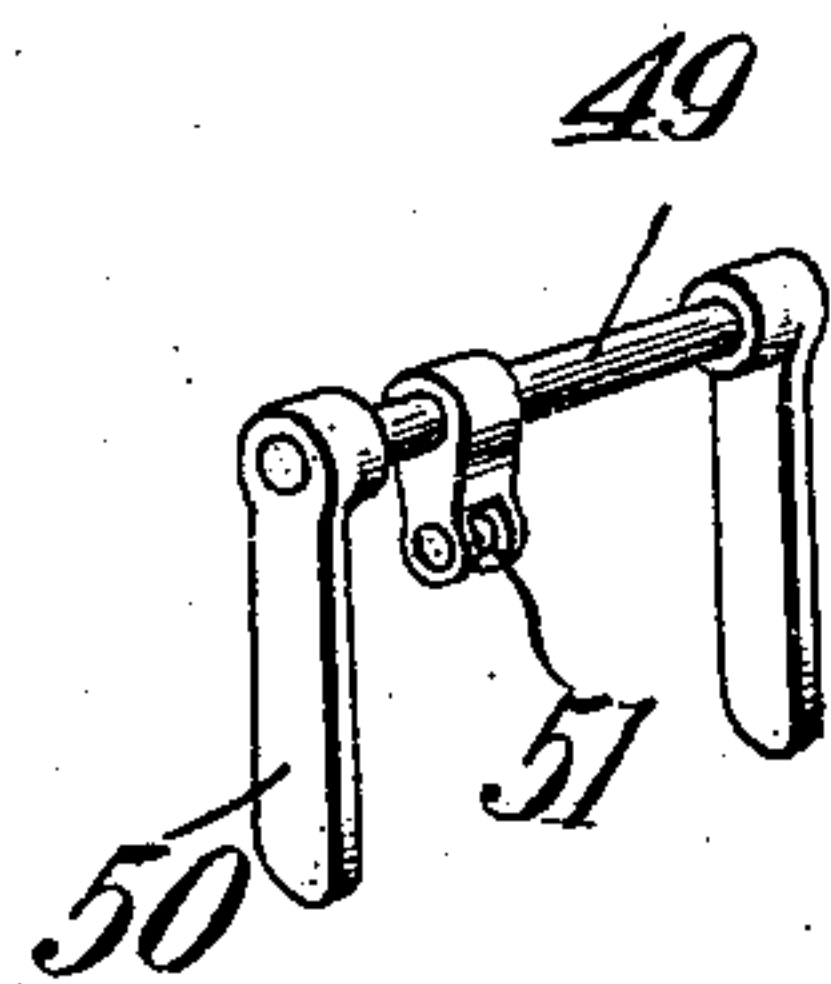


Fig. 9.

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UNITED STATES PATENT OFFICE.

JAMES E. NELMS, OF ROANOKE, VIRGINIA.

FIREARM.

No. 860,231.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed February 19, 1907. Serial No. 358,228.

To all whom it may concern:

Be it known that I, JAMES E. NELMS, a citizen of the United States, residing at Roanoke, in the county of Roanoke and State of Virginia, have invented a new and useful Firearm, of which the following is a specification.

This invention relates to fire arms and its object is to provide a double barrel gun having a single trigger and mechanism operated thereby by means of which two movements of the trigger will cause the barrels to be successively fired from right to left.

A still further object is to provide means whereby the mechanism can be locked so as to enable either the right barrel or the left barrel to be fired continuously.

Another object is to provide means operated by the breaking of the gun for setting the mechanism to cause the actuation of either of the hammers.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a plan view of the mechanism constituting the present invention, the right and left hand dogs or sears being shown in position adjacent thereto; Fig. 2 is a longitudinal section through the mechanism, the parts being shown in their normal positions; Fig. 3 is a section on the line $x-x$, Fig. 2, the pressure releasing pipe being shown in section and the positions of the parts during the actuation of the right dog being shown in dotted lines; Fig. 4 is a longitudinal section through the mechanism with the upper plunger removed and showing the spring catch in elevation; Fig. 5 is a plan view of said catch and of the lower plunger thereon, the relative positions of said plunger and catch for actuating the left hand and right hand dogs being shown in full and dotted lines respectively; Fig. 6 is an elevation of one of the locking bolts; Fig. 7 is a longitudinal section through the base plate and showing the trigger and sear locking mechanism; Fig. 8 is a perspective view of the locking arms of the sears; and Fig. 9 is a plan view showing a modified means for actuating the plunger locking bolts.

Referring to the figures by characters of reference, 1 is the base plate carrying the mechanism and this plate is provided with side shields or guards 2 each of which has an elongated rectangular opening 3 and an upper smaller opening 4. Within these upper openings 4 is mounted a laterally movable actuating plunger 5 having a stem 6 projecting from one end and provided with a head 7 adapted to extend beyond the side of the frame of the fire-arm where it can be conveniently pressed by one of the fingers of the user. This plunger has a recess 8 formed longitudinally therein and in which is arranged a stem 9. A coiled spring 10 is mounted on

this stem and bears at one end against one wall of the recess 8 and its other end bears against one of the guards 2 thereby serving to hold the plunger normally pressed toward the left. The movement of the plunger in this direction is limited by a stop pin 11 which extends downward therefrom. A recess 12 is formed in the front edge of the plunger and constitutes a seat for one end of an actuating lever 13. This lever is fulcrumed on a post 14 as shown at 15 and carries a friction roller 16 at its free end adapted to be shifted to the left in any preferred manner by the breaking of the gun. Inasmuch as this mechanism constitutes no part of the present invention it is not deemed necessary to show or describe it.

Mounted within the lower openings 3 in the guards 2 is a lifting plunger 17 having a pin 18 extending upward therefrom and slidably mounted in the actuating plunger 5. A spring 19 is coiled around this pin and bears at opposite ends upon the adjoining faces of the two plungers so as to hold the lower plunger 17 normally pressed downward. The trigger 20 has a neck 21 extending forward therefrom and pivoted within the post 14 as shown at 22 and secured on the trigger is a pressure distributing plate 23 which extends laterally from the trigger and under the pin 18 on plunger 17 so that the positive lifting of the plunger 17 without danger of tilting is insured. A lug 24 is formed upon the bottom face of the lifting plunger 17 and has one side rounded as shown at 25. Disposed normally in the path of this lug is a locking slide 26 mounted in guide posts 27 and having a spring 28 interposed between one end thereof and a post 29 adjacent the front end of the base 1. This bolt 26 is formed with a notch 30 which is provided with a beveled face 31. When the bolt 26 is in its normal position this beveled face is in the path of the lug 24 and when the plunger 17 is shifted to the right the rounded face of lug 24 is adapted to contact with the beveled face 31 and press the bolt 26 longitudinally against the tension of spring 28. After the lug passes through the notch 30 the spring will return the bolt to normal position and lock the lug, as shown by dotted lines in Fig. 5. In order that the bolt 26 may be held with the notch 30 positioned so as to permit the lug 24 to pass freely in either direction therethrough a sliding bolt 32 is mounted upon the base 1 and has a button 33 connected thereto by means of a stem 34. This stem is slidably mounted in the bolt 32 and has a pin 35 extending therethrough which bears on a bow spring 36 contacting with the bolt 32. Button 33 slides in a slot 37 in the base and the spring 36 serves to hold it normally pressed against the base so that the bolt 32 will be clamped in any position to which it may be moved.

In order that the spring pressed bolt 26 may be positively held by means of this sliding bolt an opening 38 is provided into which one end of the bolt is adapt-

ed to be pressed by spring 36, as shown by dotted lines in Fig. 4.

In order that the movement of the plunger 5 toward the left may be limited a locking bolt such as shown in Fig. 6 is provided. This bolt comprises a base strip 39 having an upstanding portion 40 from which extends a guide stem 41 and a locking stem 42. The guide stem is mounted in a suitable guide disk 43 while the stem 42 is adapted to assume a position between the lug 11 and the adjoining guard 2. This strip 39 is adapted to be actuated by means of a button 44 slidably mounted in the base and which is held clamped against the base by a bow spring 45 which bears on strip 39, as shown in Fig. 2.

The mechanism herein described is adapted to be interposed between the right hand dog 46 and the left hand dog 47 of the mechanism of a double barrel gun each dog serving to lock a hammer 48 as disclosed in Fig. 2. When the parts are in their normal positions the two plungers 17 and 5 are extended to the left with plunger 17 in position beneath the left hand dog 47. When it is desired to fire the right and left barrels of a gun successively by two pulls upon the trigger 20 the locking bolts 32 and 39 are drawn backward to their normal positions. The plunger 5 is then shifted to the right either by breaking the gun and causing the lever 13 to be swung on its fulcrum or by pressing inward on the head 7 of stem 6. This movement of plunger 5 results in the compression of spring 10 and the pin 18 which moves with plunger 5 carries the lower lifting plunger 17 therewith so that lug 24 will press against the beveled wall of notch 30 and become locked at the right of the bolt 26, as shown by dotted lines in Fig. 5. This movement of plunger 17 will be sufficient to bring it in position beneath the right hand dog 46. When the trigger 20 is pulled the plate 23 which is secured thereon will press upward upon the lower plunger 17 and cause the dog 46 to swing on its fulcrum and release the hammer 48. When this plunger has been raised a predetermined distance by the trigger the lug 24 will be lifted above the bolt 26 and the tensioned spring 10 will therefore throw the two plungers 5 and 17 back to their initial positions. This will cause the lower plunger 17 to assume a position beneath the left hand dog 47 and the next pull on the trigger will result in said dog being actuated and its hammer released. Should the parts be set to fire the right barrel on the first pull on the trigger and the operator should desire to fire the left barrel it is merely necessary to press forward on the button 33 so as to cause the bolt 26 to move longitudinally and release the lug 24. Plunger 17 will therefore spring into position beneath the left hand dog.

Should it be desired to fire only the right hand barrel upon each pull on the trigger the parts are shifted to the right as heretofore described and the bolt 39 is moved forward so that the stem 42 will assume a position in the path of lug 11. When the trigger is first pulled and the lug 24 rests above the bolt 26 this stem 42 will prevent movement of plunger 17 toward the left and therefore the next pull on the trigger will result in the same dog being actuated. Should it be desired to fire the left barrel only, the button 33 is pushed forward and locked as shown by dotted lines in Fig. 4 and the spring 10 will therefore promptly re-

turn the two plungers 5 and 17 to their normal positions after they have been shifted to the right by the breaking of the gun. Successive pulls upon the trigger will therefore result in the lower plunger 17 lifting only the left hand dog 47. It is of course understood that the lever 13 is left free to move upon its fulcrum after the same has once been shifted by the breaking of the gun.

In order that the trigger and the sears may be locked a safety attachment such as shown in Figs. 7 and 8 may be employed in addition to the mechanism shown in the other figures. This safety mechanism consists of a rock pin 49 journaled in the upper portions of the guards 2 and provided at its ends with arms 50 adapted, when in their lowermost positions, to prevent the sears from being raised. Another arm 51 extends from the pin 49 and is connected by means of a link 52 with a bow spring 53, the rear end of which is pivoted to an actuating lever 54. This lever is fulcrumed between the guards 2, as shown at 55, and its lower end is adapted, when the sears are locked, to engage a projection 56 extending from the trigger. It is obvious that by pulling backward on the upper end of lever 54 that the trigger and the sears may be locked and by pushing forward on said lever the sears and trigger will be simultaneously unlocked. The spring 53 is designed to bear against the frame or casing of the fire arm 2 so as to hold the parts in adjusted position by frictional contact with the frame. Instead of providing separate knobs or buttons 43 and 44 for adjusting the bolts 26 and 39 the construction shown in Fig. 9 may be utilized. By referring to this figure it will be noted that the two bolts 26 and 39 have projections 57 thereon which are locked within slots 58 formed longitudinally within opposite portions of a lever 59. This lever is fulcrumed between its ends as shown at 60. Preferably three notches 61, 62 and 63 are formed in the base plate 1 and are designed to be engaged by the end of the bolt. By placing said bolt in engagement with notch 61 the bolt 26 will be pressed forward and the mechanism will therefore be held so that only the barrel can be fired. By placing the bolt 39 in engagement with the second notch 62 the bolt 26 is partly retracted so that first the right and then the left barrels of the fire arm can be discharged in succession. By placing the bolt 39 in engagement with the third notch 63 the plunger 17 will be locked by bolt 39 so that only the right hand barrel will be discharged.

What is claimed is:

1. The combination with the right and left dogs of firing mechanism; of a plunger normally in engagement with one of the dogs, means for shifting said plunger into engagement with the other dog, a manually operated lock for securing the plunger in normal position, a lug for automatically securing the plunger in the position to which it is shifted, and means for shifting the plunger when in either of its locked positions.

2. The combination with the right and left dogs of firing mechanism; of a spring pressed actuating plunger, a vertically movable lifting plunger connected to and movable laterally with the actuating plunger, said lifting plunger being normally in engagement with one of the dogs, means for shifting the actuating plunger against the tension of its spring to bring the lifting plunger into engagement with the other dog, means for locking the plungers in shifted position, and means for lifting the dog engaging plunger to actuate the dog engaged thereby and unlock said plunger.

3. The combination with the right and left dogs of firing mechanism; of a plunger normally engaging one of the dogs, a projection thereon, a spring pressed bolt having a beveled locking face normally in the path of said projection, manually operated means for shifting and locking said face out of the path of the projection, means for shifting the plunger out of normal position, means for automatically returning it to normal position, and means for lifting the plunger to actuate the dog engaged thereby.

4. The combination with right and left dogs of firing mechanism; of a plunger normally engaging one of the dogs, means for shifting said plunger into engagement with the other dog, a manually operated lock for securing the plunger in normal position, means for automatically securing the plunger in the position to which it is shifted, and means for actuating the plunger when in either of its locked positions to operate the dog engaged thereby.

5. The combination with the right and left dogs of firing mechanism; of a spring pressed plunger, spring pressed means for holding the plunger normally in engagement with one of the dogs, means for shifting the plunger out of normal position and into engagement with the other dog, means for automatically securing said plunger in shifted position, and separate manually operated means

for locking the plunger in either normal or shifted position.

6. The combination with right and left dogs of firing mechanism; of a plunger normally engaging one of the dogs, a projection thereon, a spring pressed bolt having a beveled locking face normally in the path of said projection, manually operated means for shifting and locking said face out of the path of the projection, means for shifting the plunger out of normal position, means for automatically returning it to normal position, a trigger for lifting the plunger to actuate the dog engaged thereby, rock arms for holding the dogs against movement, a lever disposed to engage the trigger and lock it against movement, and means operated by the movement of the lever upon releasing the trigger for simultaneously shifting the arms away from the dogs.

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

JAMES E. NELMS.

Witnesses:

LAWRENCE S. DAVIS,
D. J. BEETON.