(No Model.)

3 Sheets—Sheet 1.

C. J. WAHLQUIST.

MAGAZINE GUN.

No. 450,900. Patented Apr. 21, 1891.

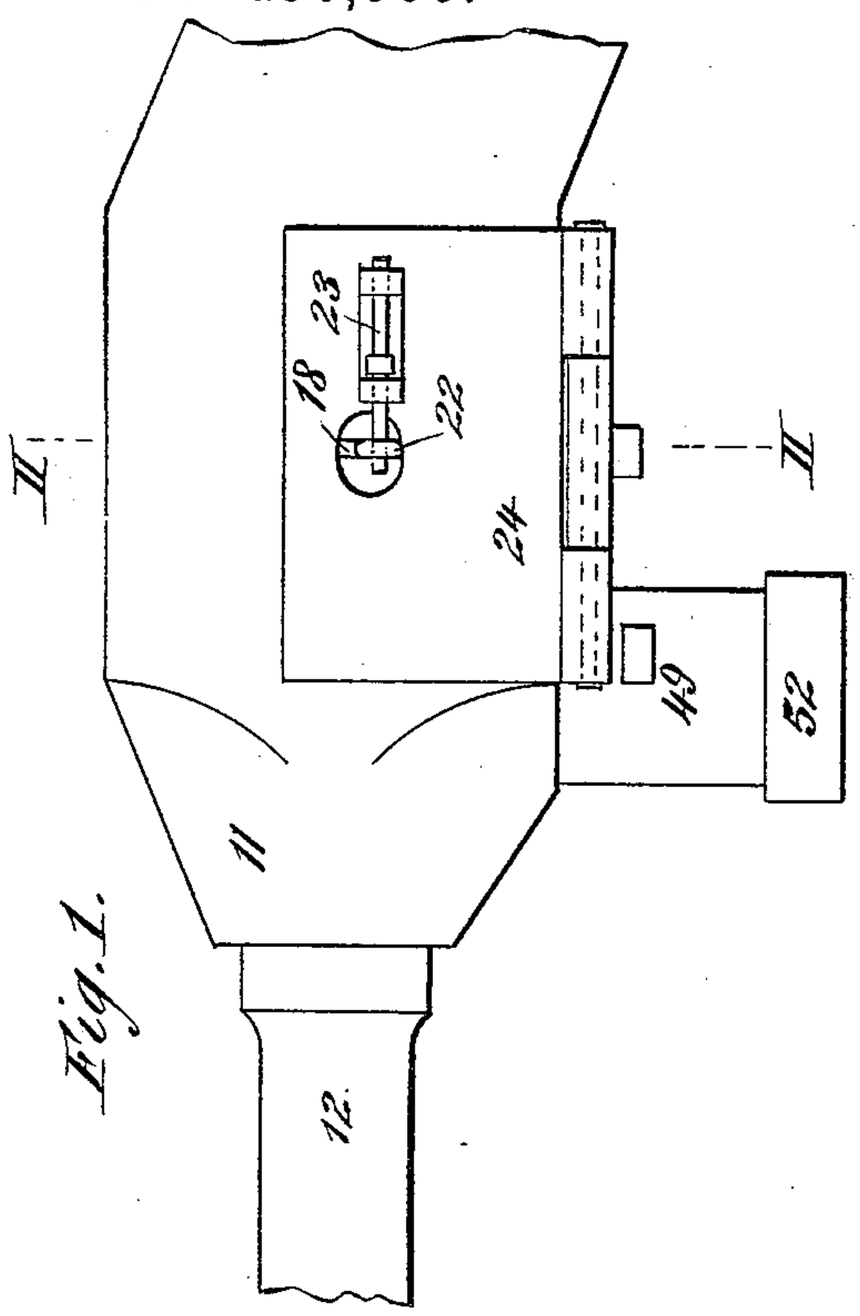

Fig. 1.

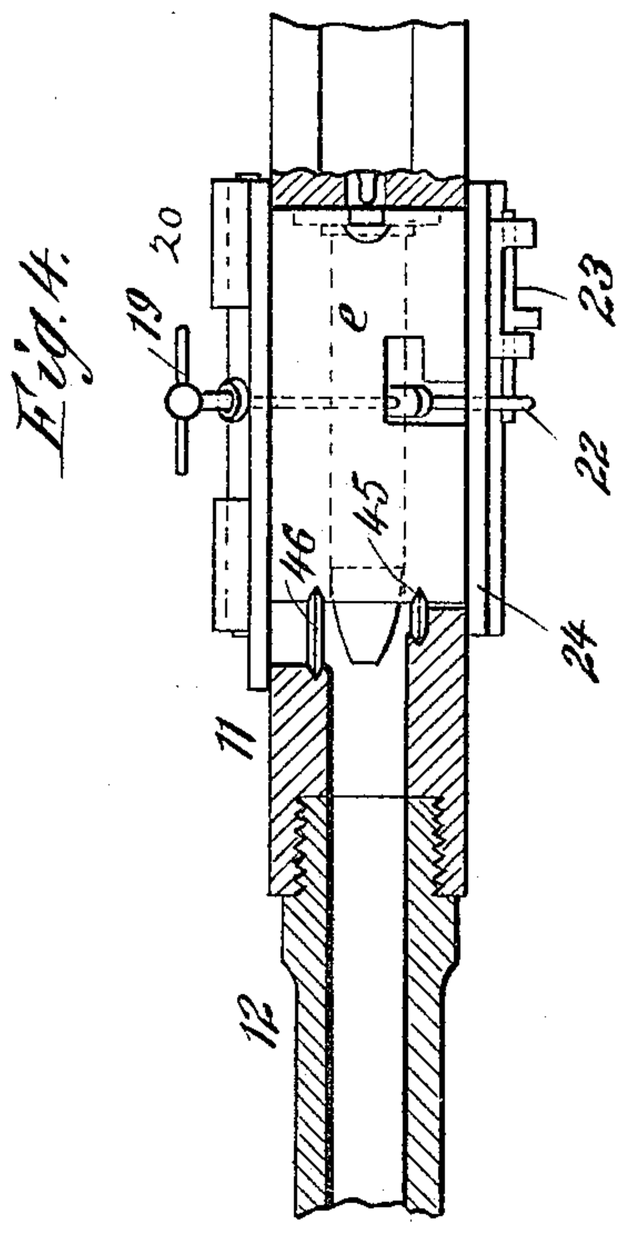

Fig. 4.

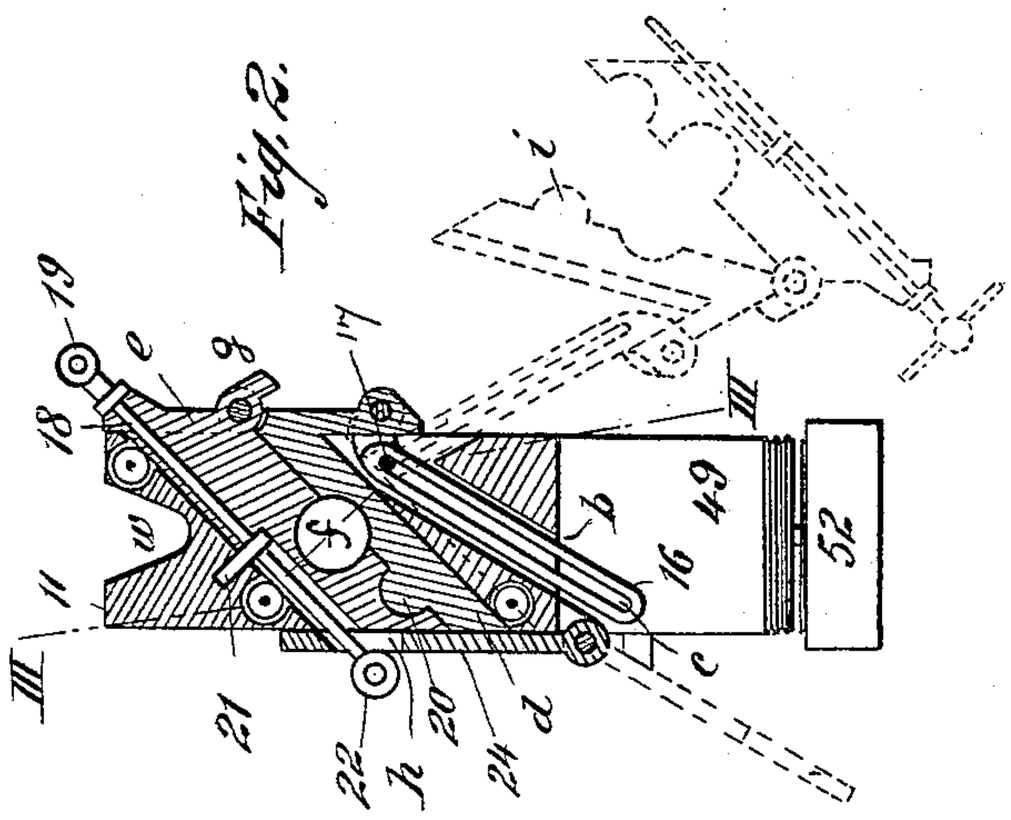

Fig. 2.

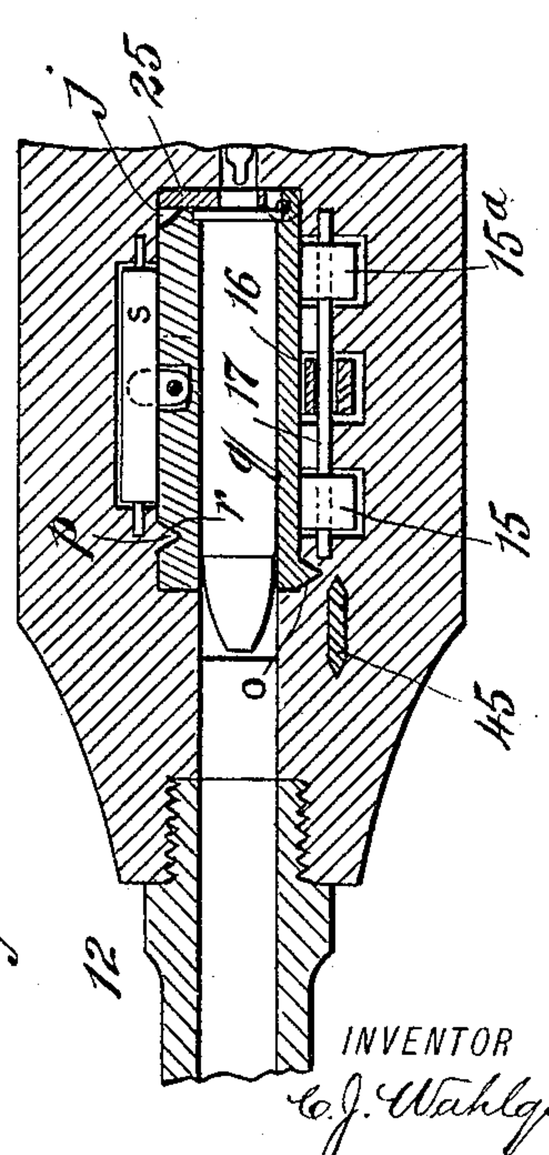

Fig. 3.

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Fig. 5.

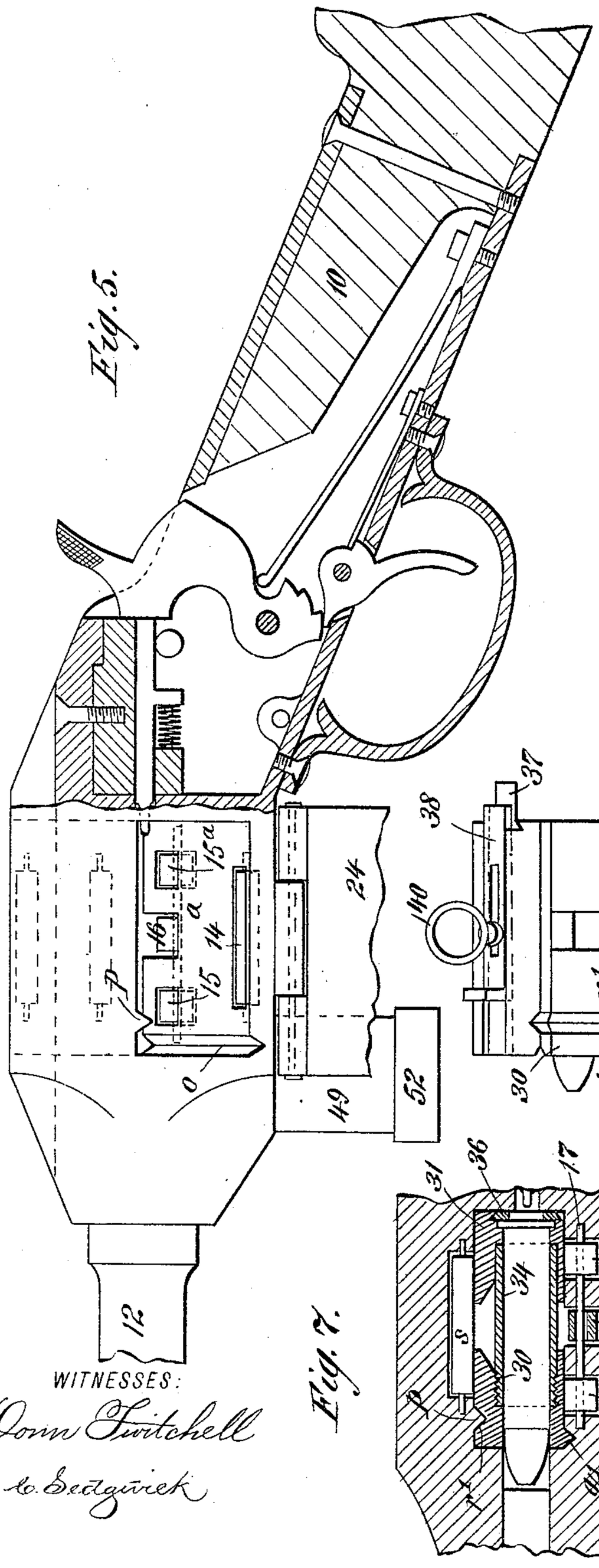

Fig. 6.

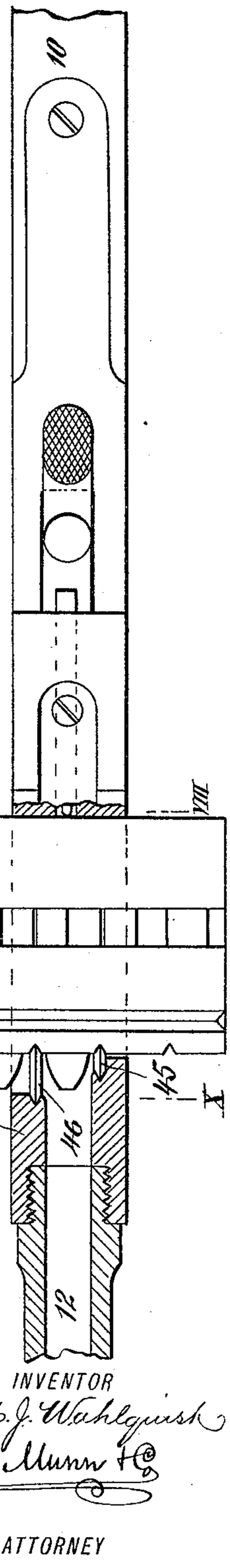

Fig. 7.

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Fig. 10.

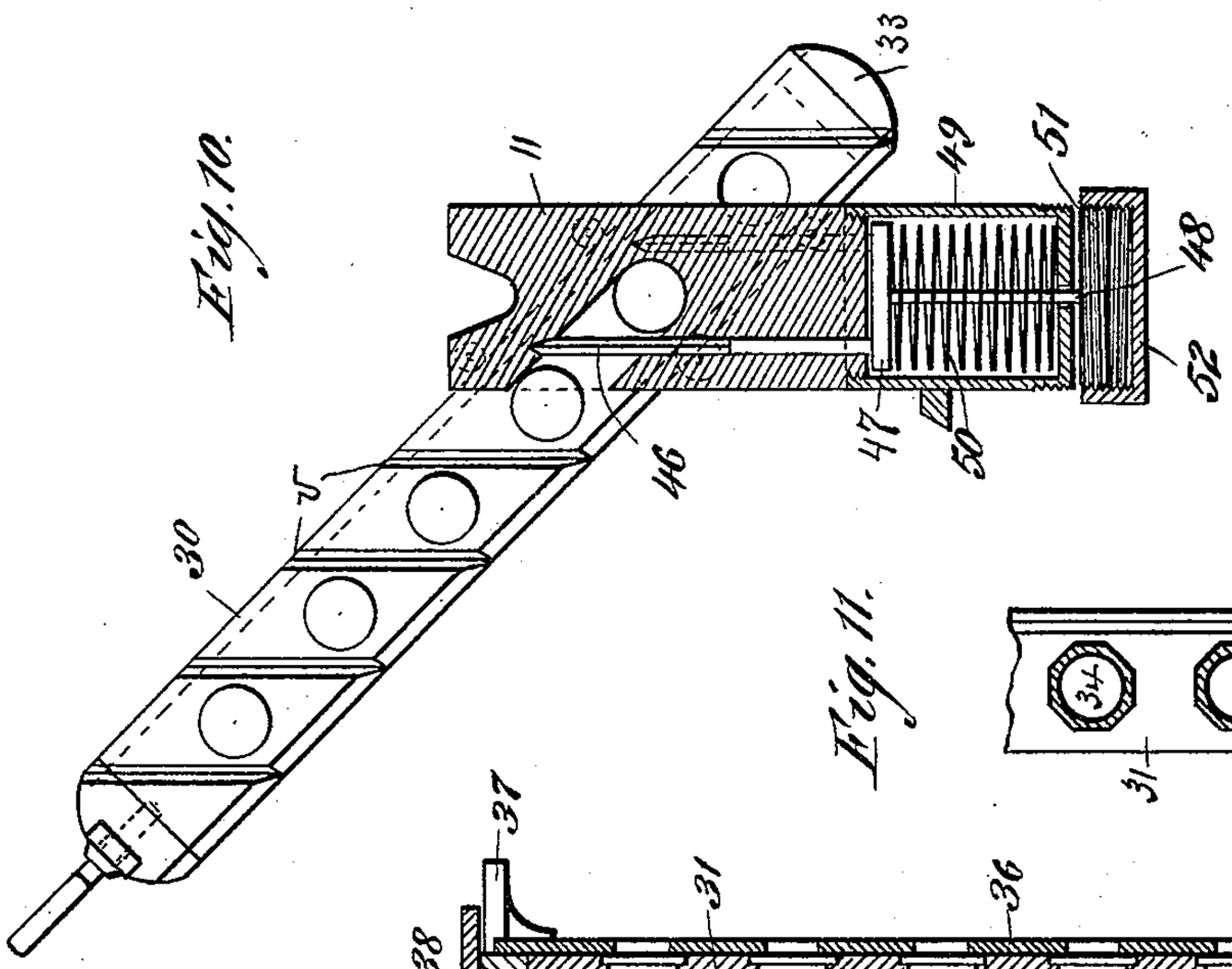


Fig. 11.

Fig. 9.

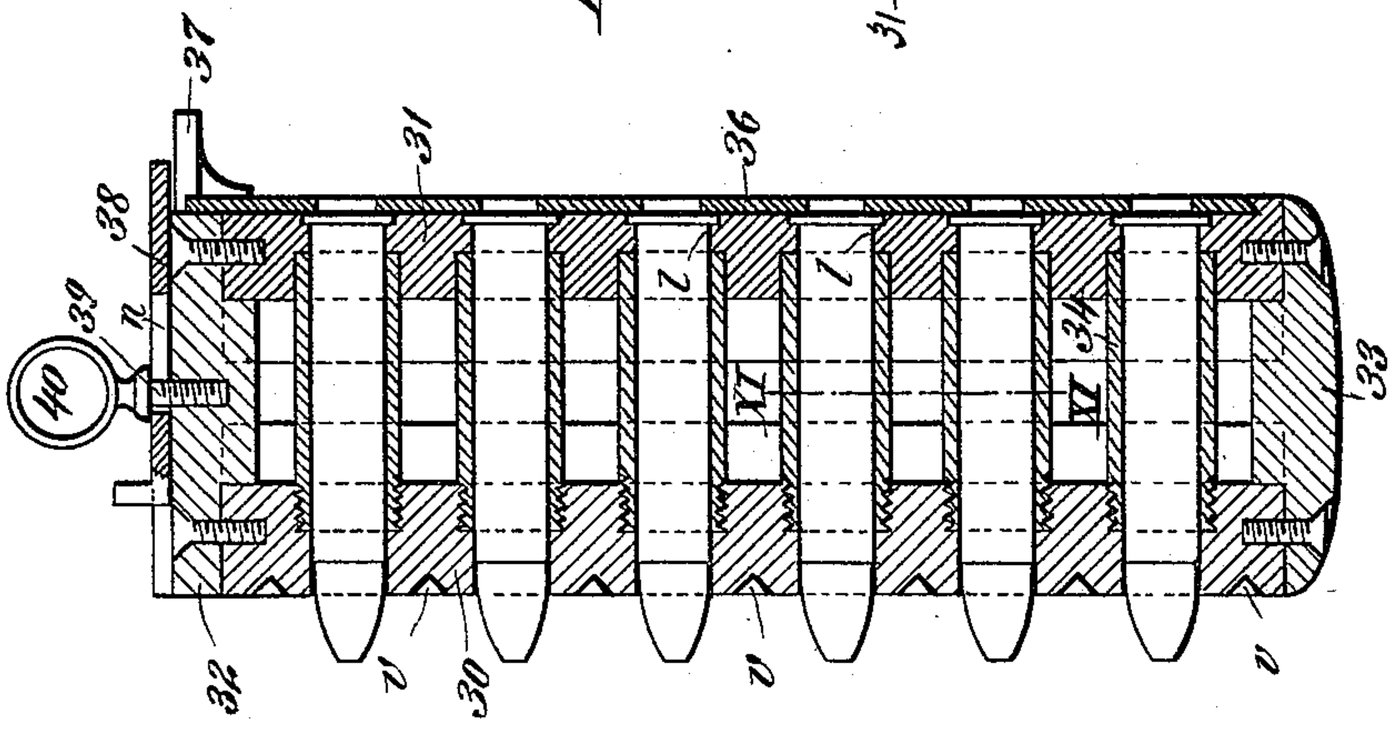
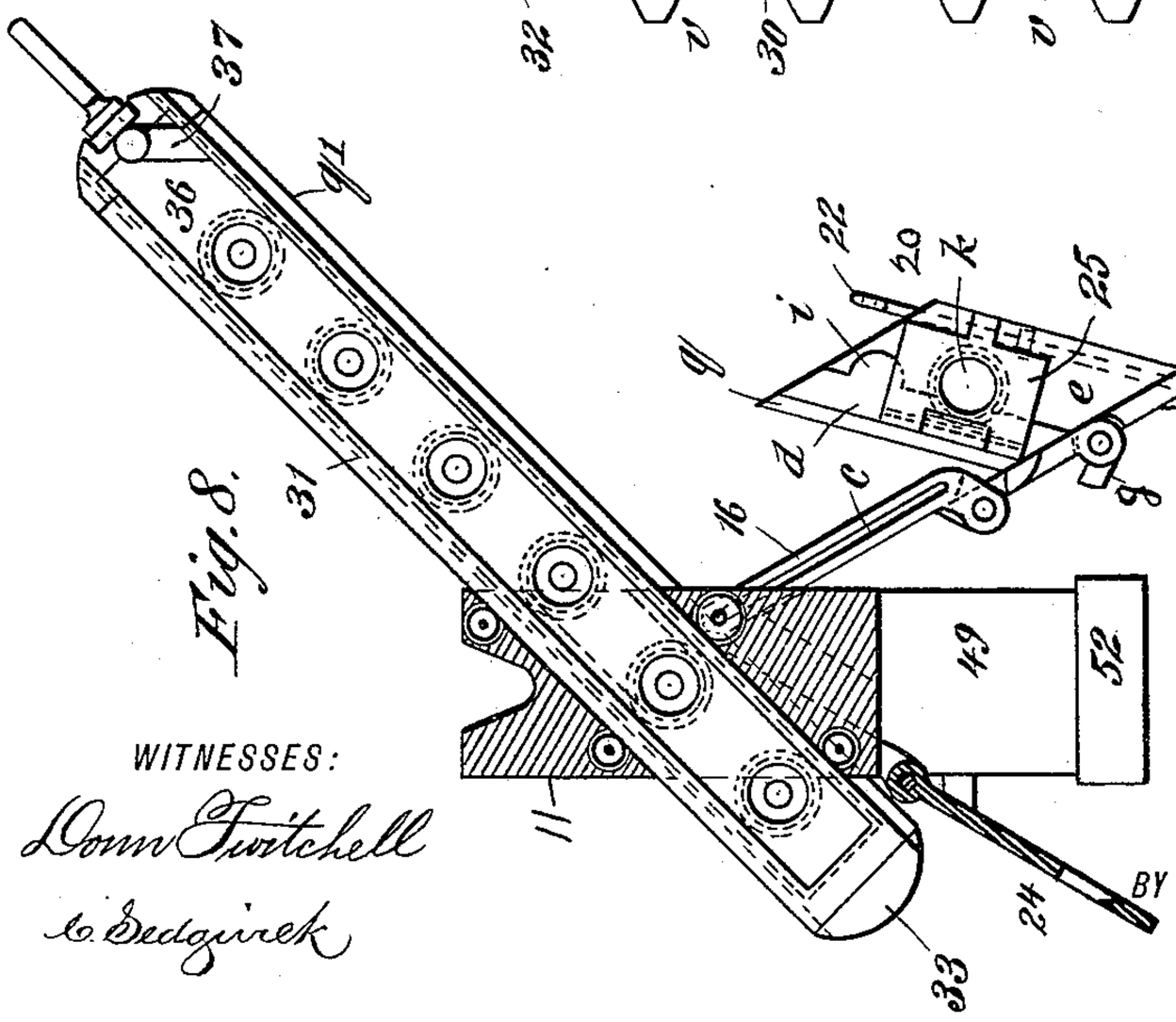


Fig. 8.



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UNITED STATES PATENT OFFICE.

CHARLES J. WAHLQUIST, OF FORT ASSINABOINE, MONTANA.

MAGAZINE-GUN.

SPECIFICATION forming part of Letters Patent No. 450,900, dated April 21, 1891.

Application filed June 5, 1889. Serial No. 313,137. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. WAHLQUIST, of Fort Assinaboine, in the county of Choteau and Territory of Montana, have invented a new and Improved Rifle, of which the following is a full, clear, and exact description.

The invention consists in the novel construction and combination of parts, as hereinafter described and claimed, whereby the cartridge-shells may be preserved and other desirable results effected, including the rapid operation of the gun.

In the preferred form of my invention the cartridge-holder is provided with a series of cartridge-chambers to form a magazine, which cartridge-chambers act as firing-chambers; also, the cartridge-holder so formed when its cartridges have been discharged may be quickly replaced by a filled holder, as hereinafter set forth.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of a portion of an arm constructed in accordance with the terms of my invention, the part shown being represented as it appears when the single-loading attachment is in the firing position. Fig. 2 is a cross-sectional view on line II II of Fig. 1. Fig. 3 is a sectional plan view on the broken line III III of Fig. 2. Fig. 4 is a sectional plan view of the fire-arm frame, the single-loading attachment being represented in full lines. Fig. 5 is a side view of a portion of the arm, representing it as it appears when the single-loading attachment is removed, parts being shown in section. Fig. 6 is a sectional plan view of the gun barrel and frame, showing in full lines a cartridge-holder constructed to receive a series of cartridges. Fig. 7 is a sectional plan view upon a line corresponding with the line III III of Fig. 2, but representing a cartridge-holder of the form to receive a series of cartridges. Fig. 8 is a sectional plan view on line VIII VIII of Fig. 6. Fig. 9 is a central longitudinal sectional view of the cartridge-holder in the form to receive a series of cartridges. Fig. 10 is a cross-sectional view on line X X of Fig. 6; and Fig. 11 is a sectional view of a portion of the cartridge-holder of the form to receive a series of cartridges, the view being taken on line XI XI of Fig. 9.

Referring now by reference figures and letters to the drawings, 10 represents a gun-stock and 11 a frame, which is connected to the stock in the ordinary manner, and to the forward end of which the barrel 12 is secured. The frame 11 is formed with an opening *a*, which extends diagonally from the upper right-hand side of the frame, the width of the opening being greater upon the right-hand side than upon the left-hand side of the frame, as will be seen by inspecting Figs. 3, 4, and 6, which opening *a* is adapted to receive a cartridge-holder having one or more cartridge-chambers, as hereinafter described. The under defining wall of the opening *a* is formed with a groove *o*, and to the rear of this groove there are mounted anti-friction rolls 14, 15, and 15^a, the roll 14 being arranged adjacent to the left-hand side of the frame, while the rolls 15 and 15^a are supported in position near the right-hand side of the frame.

The cartridge-holder employed in connection with the gun may be greatly varied in practice. I illustrate two forms, one being constructed to receive a single cartridge and the other constructed to receive a series of cartridges, and thus form a magazine. When constructed to receive only a single cartridge, it is preferably arranged as follows, with a view of positively holding it to the gun for convenient use and operation:

The frame 11 is centrally slotted, as shown at *b*, to accommodate a bar 16, formed with a slot *c*, through which slot the shaft 17, upon which the rollers 15 and 15^a are mounted, passes. To the rod 16 I hinge a block *d*, to which block there is in turn hinged a block *e*, the two blocks being formed with recesses, which recesses, when the blocks are folded to position as represented in full lines in Fig. 2, form a cartridge-receiving chamber *f*. It will be noticed that the block *e* is of greater thickness than the block *d*, and that said block *e* is formed with a projection *g*, which constitutes a stop, preventing all undue movement upon the hinge-joint by which the blocks are

connected when the parts are moved to the position in which they are shown in dotted lines in Fig. 2.

In order that the single-chambered cartridge-holder, which as an entirety we will designate by the numeral 20, may be held to place within the frame 11 when adjusted to position, as represented in full lines in Fig. 2, I provide the block *e* with a rod 18, which passes upward through a bore formed in the block *e* to engage a handle 19 at the upper right-hand edge of the block. This rod 18 is formed with a tongue 21 and with an eye 22, the tongue being placed so as to enter a recess formed for its reception in the frame 11, and the parts being so adjusted that when the handle 19 is turned to a horizontal position the tongue will enter its recess in the frame 11 and the eye 22 will rest so that its aperture will be in a horizontal plane and in position to receive a retaining-bolt 23, that is carried by a leaf 24, which said leaf is hinged to the lower edge of the left-hand side of the frame, the leaf being apertured at *h* to provide for the passage of the eye 22. In this way I provide for the secure locking of the single-loading attachment 20 when it is desired to use the arm as a single loader.

After the cartridge contained within the single-loading cartridge holder or attachment 20 has been discharged the bolt 23 is thrown back out of engagement with the eye 22, the handle 19 is turned to a substantially vertical position, the single-loading attachment is drawn up out of the recess *a*, and the blocks *d* and *e* are separated in order that the cartridge may be readily removed.

Although not absolutely essential to the proper working of the single-loading attachment, I prefer to form the block *d* with a rib or projection *i*, which fits in a corresponding recess formed in the block *e*, and I also prefer to provide the attachment with a keeper 25, which is hinged to the block *d* and arranged to overlap the cartridge-rim, as shown in the drawings, the block *e* being recessed at *j* to provide for the introduction of the thumb-nail at times when desired to throw the keeper away from the block in order that the cartridge-shell may be readily removed or a loaded cartridge introduced. The keeper 25 is centrally apertured, as shown at *k*, to provide for the impingement of the firing-pin against the primer of the cartridge.

In order that the single-loading attachment or cartridge-holder may be properly guided within the chamber *a*, I form said chamber with a groove *o*, and with a downwardly-extending rib or flange *p*, and I form the block of the single-loading attachment with a keel *q*, that fits in the groove *o*, and with the groove *r*, that is entered by the rib *p*, the weight of the attachment being supported by the rollers 14, 15, and 15[a], while the upper face of the attachment is borne upon by rollers *s*, that are mounted so that their peripheral faces will extend slightly within the recess *a*.

The cartridge-holder may, as stated, be constructed to receive a series of cartridges, and thus form a magazine, in which case it will not be desirable to positively connect it with the gun, as in the case of the above-described holder having a single-cartridge chamber. The magazine cartridge-holder, which as a whole, I designate 20[a], is shown in detail in Figs. 6 and 11, wherein 30 and 31 represent two apertured bars that are connected by end cross-bars 32 and 33, the bar 33 being slightly rounded, as shown. Between the bars 30 and 31 I arrange tubes 34, which are threaded to engage the bar 30, and formed with bores which register with the apertures of the bars 30 and 31, the rear ends of the tubes resting in recesses formed in the bar 31, as shown. About the apertures of the bar 31 there are formed recesses *l*, adapted to receive the cartridge-rims, the cartridges being held to place by means of a keeper 36, which fits within a dovetail groove formed in the bar 31, the keeper being formed with a projection 37, by means of which it is moved inward or outward; and in order that the keeper may be locked to place I provide a bolt 38, which rides in a dovetail groove formed in the cross-bar 32, the bolt being held from displacement by a set-screw 39, which passes through a slot *n* formed in the bolt, and engages a threaded aperture formed in the bar 32, and in order that the attachment may be readily carried I form the set-screw 39 with a ring 40, as represented in the drawings. The bar 30 is formed with a keel *q'* and with a recess *r'*, which register with the groove *o* and the rib *p* of the frame 11.

In order that the gases generated by the explosion of the powder within the cartridge-shell may be confined and find exit only through the mouth of the barrel, and after the bullet has been projected therefrom, I mount two thin metallic wings or leaves 45 and 46 in vertical slots that are formed in the frame 11, the wings being connected at their lower ends to a plunger 47, to which there is in turn connected a stem 48, that extends downward through an opening formed in a housing 49, the housing being connected to the under side of the frame 11. Within the housing there is arranged a spring 50, which assists in raising the leaves 45 and 46 to the position in which they are shown in Fig. 4, there being diagonal grooves *v* in the bar 30, adapted to receive the leaves, similar grooves for leaves or slides 45 46 being formed in the single-cartridge holder, as shown in Fig. 4. The extending end of the stem 48 carries a threaded head 51, that is engaged by a cap 52, and in order that the parts may be locked to place, as shown in Fig. 8, I thread the outer face of the housing 49, so that the cap 52 may be turned to the position in which it is shown in said Fig. 8.

When the leaves or wings 45 and 46 are in the position in which they are shown in Fig. 10, they act to prevent the passage of the gas

from between the forward edge of the cartridge-carrying blocks and the bore of the gun at the time when the powder is exploded, and the leaves also assist in holding the blocks to place.

It will be noticed that when the magazine cartridge-holder 20^a is employed, one attachment after another may be used in rapid succession, and it will also be understood from the description of the magazine attachment that all of the empty cartridge-shells will be saved.

In using the magazine cartridge-holder 20^a, after a shot has been fired the leaves or wings 45 and 46 are drawn downward by grasping the cap 52, which, as shown in Fig. 10, engages the thread upon the peripheral face of the head 51, and as the leaves are so drawn downward the weight of the cartridge-holder 20^a will carry it forward until the bullet of the cartridge above the one just exploded comes into register with the bore of the barrel 12, the bullet striking at this time against the left-hand side of the frame, as will be readily understood from an inspection of Figs. 4 and 6. In case the weight of the cartridge-holder 20^a should not be sufficient to carry it, as above described, it may be pushed forward by hand.

After the holder 20^a has moved downward, as above described, the cap 52 is pushed upward, and as it rises the leaves 45 and 46 will be moved to their upper position and there held by the spring 50 and the left hand of the operator. After all of the cartridges carried by one of the magazine-holders have been discharged, said magazine-holder is withdrawn and a filled attachment introduced, as before stated, the exploded cartridge-shells being retained within the chambers of the holder, so that all shells may be saved and may be recharged.

In practice the tubes 34 of the cartridge-holder 20^a should be made strong enough to resist the force of the explosion; but the attachment should be made as light as is consistent with safety.

When constructed as above described, it will be seen that the arm may be used as a single breech-loader, or that it may be used as a magazine-gun, and that when used as a magazine-gun the firing will be very rapid and may be brought about without lowering the gun from the shoulder, which is a great advantage in this class of arm.

It will of course be understood that the gun may be manufactured with only a holder having a series of cartridge-chambers; or it may have the single chambered holder in connection with the first-named holder, as shown in the drawings.

The holder having a series of chambers and forming a magazine is to be preferred, either alone or in conjunction with the single holder.

I do not herein claim the special construction of the single hinged cartridge-holder.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a gun formed with an aperture extending through it from side to side at a downward incline, of a cartridge-holder in which the cartridge is exploded, adapted to be slid into and out of said aperture, and means for securing the holder in firing position in the said aperture, substantially as set forth.

2. In a gun, the combination, with the firing mechanism, of a frame formed with an inclined aperture, and a cartridge-holder fitting said inclined aperture and formed with a series of cartridge-chambers, said chambers forming firing-chambers, substantially as described.

3. The combination, with a cartridge-holder formed with a series of chambers adapted to receive cartridge-shells, of a keeper mounted to slide upon said holder and formed with apertures registering with the chambers, and a bolt arranged in connection with the keeper, substantially as described.

4. The combination, with a cartridge-holder formed with a series of chambers adapted to receive cartridge-shells, of a keeper mounted to slide upon said holder and formed with apertures registering with the chambers, a slotted bolt arranged in connection with the keeper, and a set-screw passed through the bolt-slot into the holder, substantially as described.

5. A cartridge-holder for guns, made up of bars 30 and 31, tubes 34, arranged as described, a keeper, and a keeper-holding attachment, substantially as described.

6. A cartridge-holder for guns, made up of bars 30 and 31, the bar 30 being formed with V-shaped grooves, tubes 34, arranged as described, a keeper 36, and a bolt 38, substantially as described.

7. The combination, with a gun formed with an inclined recess or aperture, of anti-friction rollers arranged substantially as described, and a cartridge-holder adapted to said inclined aperture and removable therefrom, substantially as described.

8. The combination, with a gun formed with a recess or aperture, of anti-friction rollers arranged substantially as described, and a removable cartridge-holder adapted to said aperture and formed with a series of cartridge-chambers, substantially as described.

9. In a gun, the combination, with a frame formed with an inclined aperture, one of the defining walls of which is grooved, of anti-friction rollers arranged in said aperture, and a cartridge-holder adapted to said aperture and formed with a rib to enter the above-named groove, substantially as described.

10. In a gun, the combination, with an apertured frame, of a cartridge-holder adapted to fit within said frame-aperture and formed with parallel grooves v in its front side, at

opposite sides of its cartridge-holding aperture, of two vertically-sliding leaves 45 46, carried by the frame at opposite sides of its bore and arranged to enter said grooves, and a stem to which both of the leaves are connected, substantially as described.

11. In a gun, the combination, with an apertured frame, of a cartridge-holder formed in its front face at opposite sides of the cartridge-aperture with grooves, and slides operating in said frame at opposite sides of the bore to enter said grooves, substantially as described.

12. The combination, with the apertured gun-frame, of a cartridge-holder adapted to be slid in and out thereof, and parallel vertically-reciprocating slides mounted in the frame at opposite sides of the bore of the barrel working in connection with the front side of the holder, substantially as set forth.

13. The combination, with an apertured frame, of a cartridge-holder adapted to the aperture of the frame and formed with a series of cartridge-chambers, and formed with grooves *v* in its front face at opposite sides of each aperture, slides 45 46 in the frame at opposite sides of the bore and arranged to enter said grooves, and a spring pressing the slides upward, substantially as described.

14. The combination, with an apertured frame, of a cartridge-holder adapted to the aperture of said frame, and formed with grooves *v*, leaves 45 46, mounted to slide in said frame and arranged so that their edges enter the grooves *v*, a stem to which the leaves are connected, a spring arranged in connection with said stem, a housing arranged about said spring and formed with a thread, and a threaded cap which engages the thread of the housing, substantially as described.

15. In a fire-arm, the combination, with the frame having an inclined aperture through it from side to side and provided with ribs across its top and bottom, of a cartridge-holder in which the cartridge is to be exploded, adapted to be slid into and out of said aperture, and having grooves in its upper and lower faces receiving the said ribs, substantially as described.

CHARLES J. WAHLQUIST.

Witnesses:
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JOHN WALTERS.