2 Sheets—Sheet 1.

A. BURGESS.

Magazine-Gun.

No. 210,182. Patented Nov. 26, 1878.

Fig. 1.

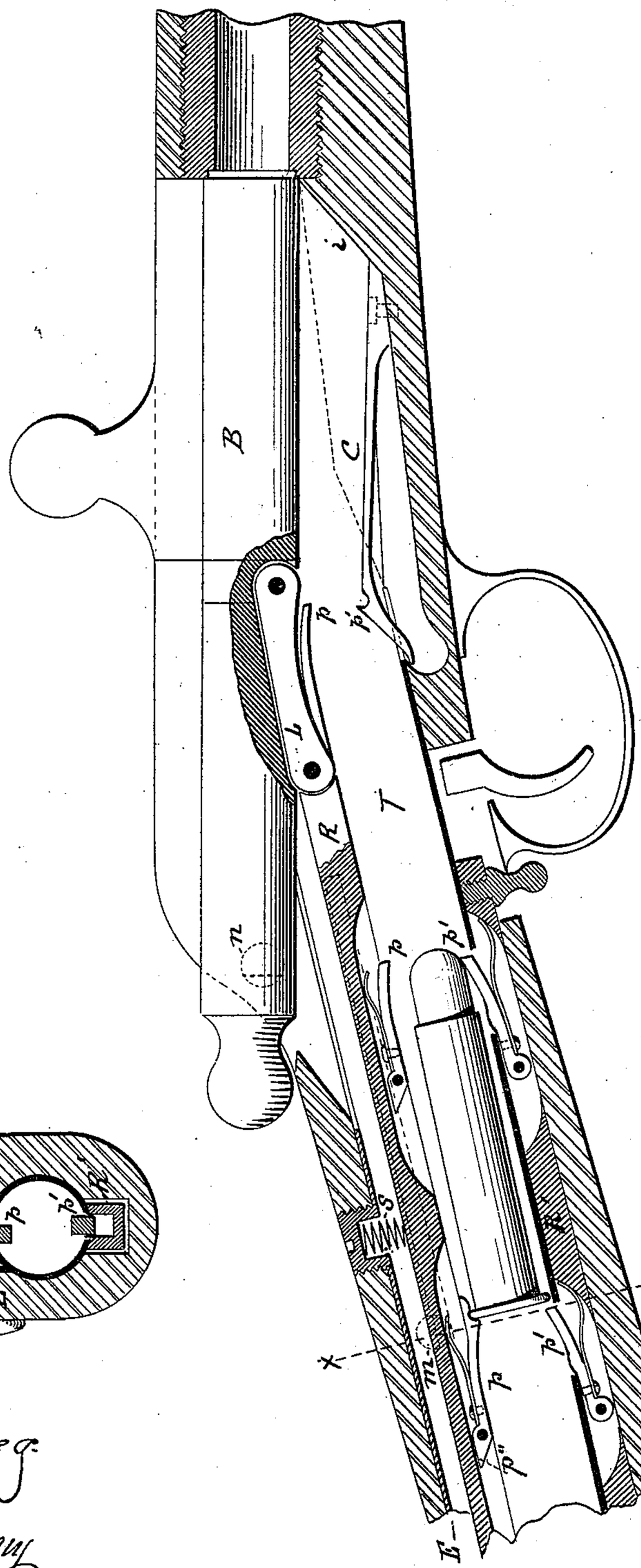

Fig. 2.

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A. F. Gilfarry

Andrew Burgess Inventor.

2 Sheets—Sheet 2.

A. BURGESS.

Magazine-Gun.

No. 210,182. **Patented Nov. 26, 1878.**

Fig. 3.

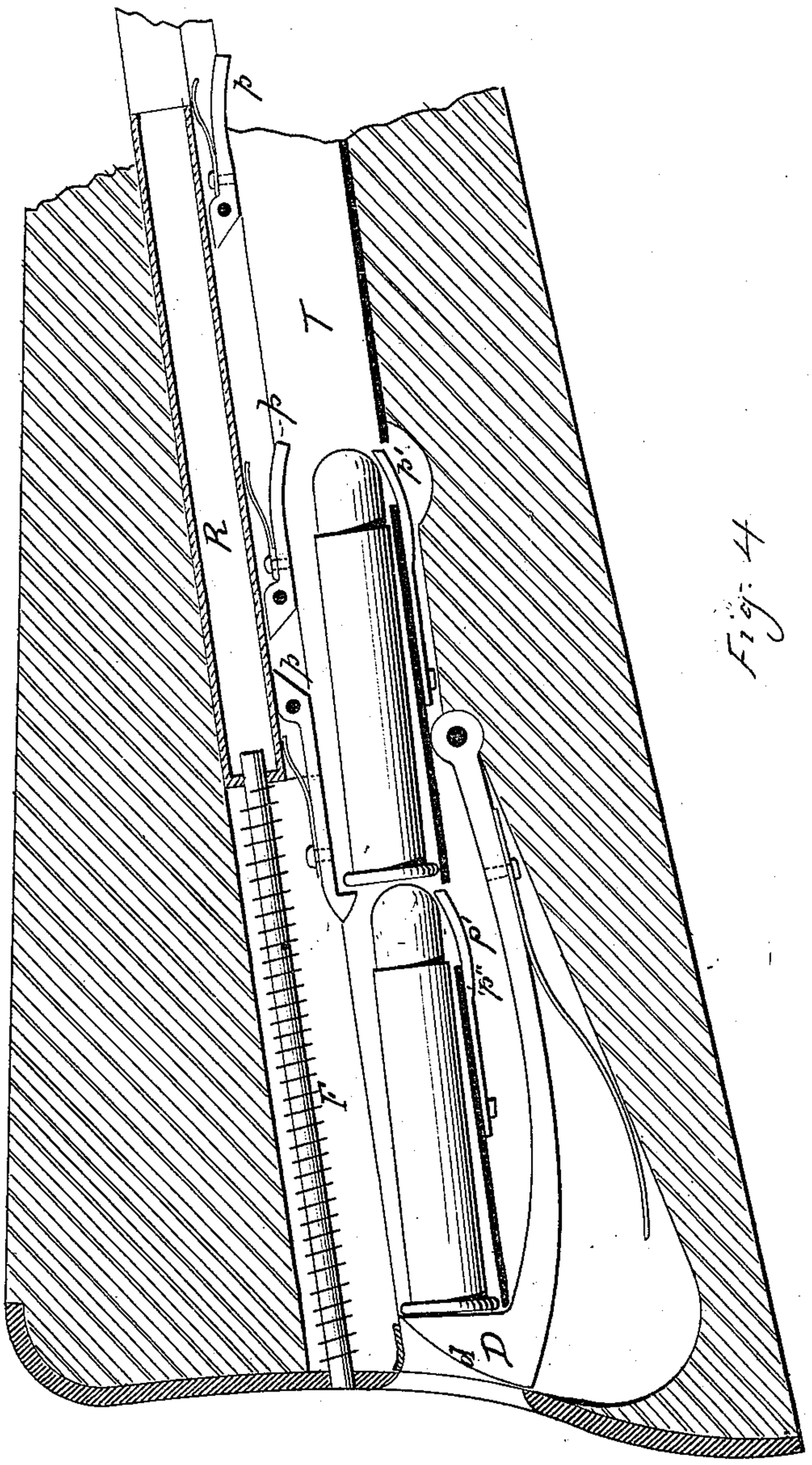
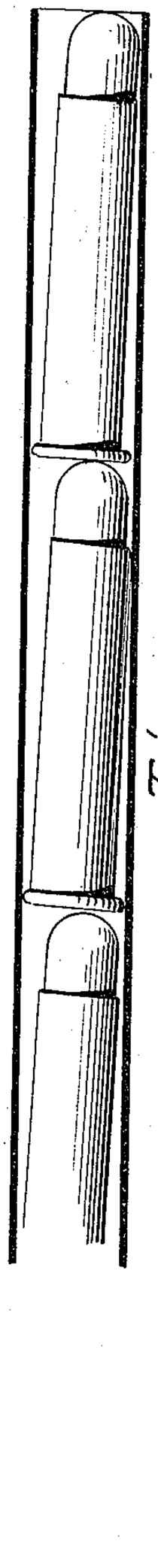


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

ANDREW BURGESS, OF OWEGO, NEW YORK.

IMPROVEMENT IN MAGAZINE-GUNS.

Specification forming part of Letters Patent No. **210,182,** dated November 26, 1878; application filed September 19, 1878.

To all whom it may concern:

Be it known that I, ANDREW BURGESS, of Owego, Tioga county, in the State of New York, have invented certain new and useful Improvements in Magazine Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention is an improvement on that class of guns that have a magazine in the butt and reciprocating bolt or breech-block; and consists, principally, of a device for loading the magazine, feeding forward the cartridges by the operation of opening and closing the breech, together with the general arrangement and combination of parts, hereinafter more fully set forth and described.

In the accompanying drawings, Figure 1 represents a vertical section of an arm having these improvements. Fig. 2 is a cross-section on line *x x*. Fig. 3 shows a modification of the feeding device and the trap through which the magazine is loaded. Fig. 4 is a tube or cartridge-holder for charging the magazine.

Similar letters of reference indicate corresponding parts.

B is the breech block or bolt; T, the magazine; R, the feeding-rod; L, the connecting-link; E, the magazine-extension; *p*, the pawls or ratchets to drive the cartridges forward; *p'*, the pawls or abutments to prevent the rearward movement of the cartridges. C is a spring to raise the rear of forward cartridge and keep back those in the magazine. S is a spring to keep rod R in contact with and its teeth into the magazine. *m* is a cut-off to lift rod R away from the magazine. *n* is a stop to limit the backward movement of the bolt. R' is a rod to retire the pawls *p'* from the interior of the magazine. D is a trap to close the magazine, and T' is a charging-tube.

My improvements are applicable to the systems known as "bolt"-guns, or arms wherein a reciprocating breech-block provided with an extractor and firing mechanism is used. These arms are too well known to require a minute description here.

The magazine T is placed in the rear stock, and extends through the butt-plate to the chamber of the arm. The opening in the butt is provided with a latch or trap, D, to close the opening and hold the cartridges in the magazine. The magazine is provided with an extension, E, Figs. 1 and 2, which I place on one side of the top, that the dog or trigger may engage the lock on the other side. This extension contains the rod R, which is attached to the reciprocating breech-block by a link, L, or other suitable device. This rod is provided with pawls or notches *p*, and is forced down upon, and the pawls into, the magazine by one or more springs, S, Fig. 1, but may be raised by the eccentric-pin *m* (which operates in a groove in the rod R, Figs. 1 and 2) out of operative relation with the magazine.

To operate an arm provided with this improvement, load the cartridges into the magazine through the butt-plate, their points forcing open the trap D, and as they proceed forward their flanges will push back the pawls *p p'* until the magazine is filled, the forward cartridge resting on the spring C; or I carry a plurality of cartridges in thin tubes T', Fig. 4. The insertion of such a tube presses back the spring-cover D and all the pawls in the magazine, (including, or not, point *p'* of the spring C,) when the cartridges will drop their length forward. Then the tube is withdrawn, and slides from over its containing cartridges, leaving them all in the magazine. Then to use the arm as a single loader, the rod R is raised by the pin *m*, or equivalent device, whereby the pawls *p* are thrown out of engagement with the cartridges, so that the movement of the rod R in opening and closing the breech will not move them forward; but when the breech is fully opened the spring C will raise the cartridge lying on it in front of the bolt. This can be prevented by turning the stop *n*, which limits the backward movement of the bolt, so that its face cannot get to the rear of the head of said cartridge, and the arm may be loaded by dropping a cartridge on top of this one, when the closing-bolt will force it into the chamber, and firing may be proceeded with in the ordinary manner of breech-loading bolt-guns. To use the magazine-charges, turn back the stops *m* and *n*, so as to allow the pawls *p* to engage the car-

tridges and the breech to fully open. Then the opening of the breech pushes back the rod R until the pawls each snap behind one cartridge to the rear, (the pawls *p'* and trap D preventing their moving back,) and the spring C will then raise the rear of the cartridge resting upon it, when the closing of the breech will drive it forward, its point being forced up the incline *i* into the chamber, and the pawls of rod R will move all the rear cartridges their length along forward, the front one resting on spring C, as before; then the one in the chamber being fired, again opening the breech extracts and ejects the shell. The head of forward cartridge is raised by spring C partly in front of the bolt, the curved bore of magazine above its center preventing its rising too high or flying out, and, closing the breech, moves the series of cartridges forward, as before.

In Fig. 1, I show the lower series of pawls pivoted to a rod, R', which has a knob at the bottom of the arm, by which it can be pushed back. This presses the pawls against the abutments formed by the openings in the magazine, which press the pawls out of engagement with the cartridges. This, by also throwing pawls *p* out of engagement by pin *m*, enables us to remove any obstructions that may occur, or immediately vacate the magazine at the rear.

I prefer to connect the rod R to the breech-bolt by a link, L, as shown in Fig. 1, by which said rod is made to partake positively of the reciprocating movement of the breech; but when the spring F, Fig. 3, is applied, to press the rod R forward a dog or pawl may be used in place of the link.

Fig. 1 also shows the spring-pawls *p*, pivoted to the rod R; but a notched rod, as shown in Appleby's patent No. 45,466, may be used, and, in place of the pawls *p'*, notches may be made in the bottom of the magazine, to prevent the cartridges from sliding rearward.

I do not in this application claim a feed-bar moved backward by the bolt and moved forward by spring-pressure.

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

1. A fire-arm having a reciprocating breech-bolt, a magazine in the breech, a spring, C, to raise the head of a cartridge when the breech is open, and an incline, *i*, to raise the point of cartridge, substantially as described.

2. The pawls *p*, attached to the feeding-rod R, and provided with springs to press them into engagement with the cartridges in the magazine, and having the bearings *p''*, to limit their entrance into the magazine, all combined and arranged to propel the cartridges forward, substantially as described.

3. The combination, with the rod R, of the spring S, to effect its engagement with the cartridges, and a lifting device to disengage the cartridge in the magazine, substantially as and for the purpose specified.

4. The pawls *p'*, springing into the magazine to prevent the cartridges from moving rearward, and attached to the rod R', for retiring them from the interior of the magazine, in combination with an opposite propelling device to move the cartridges forward, substantially as described.

5. The combination of the reciprocating breech-bolt, the link L, and the feed-bar R, when said feed-bar is provided with mechanism by which it may be lifted out of operative connection with the magazine, as set forth.

6. In combination with the loading-orifice of the magazine in the butt of the arm, a transverse cover having the incline *d*, and constructed, substantially as described, so as to be adapted to yield for the admission of cartridges and hold them when in the magazine, substantially as shown and described.

7. A loading-tube holding a plurality of cartridges, a magazine of a size to admit the insertion of said tube, said magazine having pawls or teeth, which spring into the periphery of the magazine, and are depressed by the loading-tube when the latter is inserted, all in combination, substantially as and for the purpose described.

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