(No Model.)

2 Sheets—Sheet 1.

F. P. DEVENS.

CARTRIDGE LOADER.

No. 379,636. Patented Mar. 20, 1888.

Fig. 2

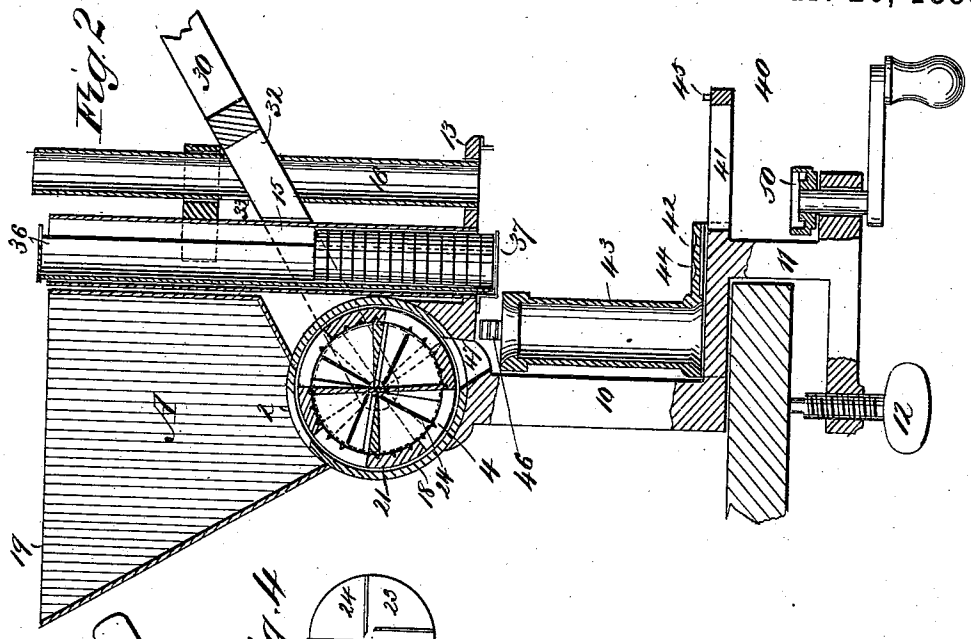


Fig. 4

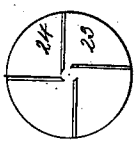


Fig. 5

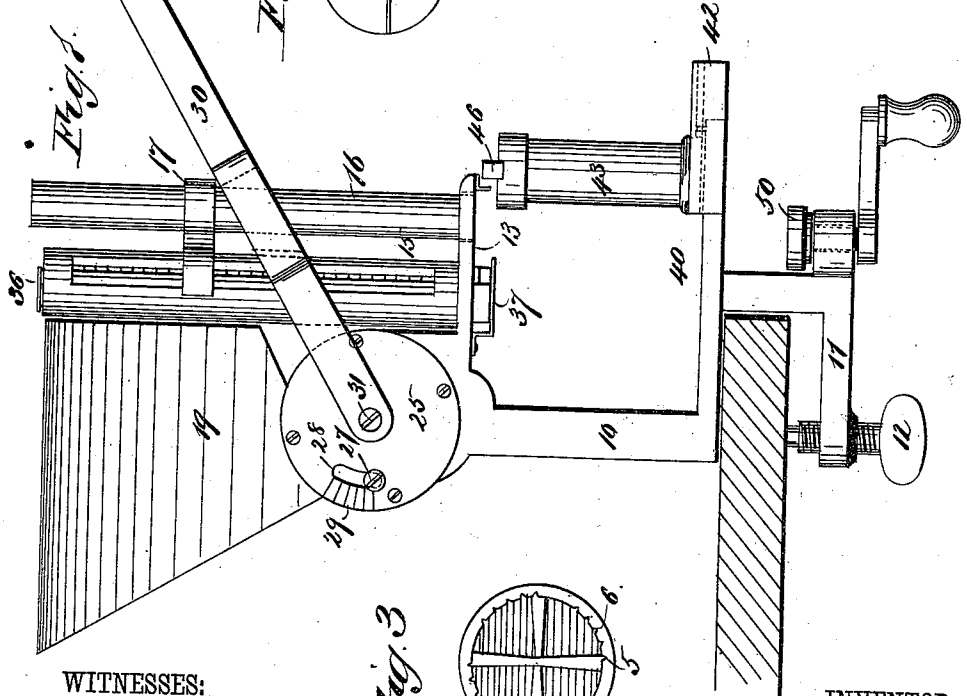


Fig. 3

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C. Sedgwick.

INVENTOR:

F. P. Devens

BY Munn & Co

ATTORNEYS.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.)

2 Sheets—Sheet 2.

F. P. DEVENS.

CARTRIDGE LOADER.

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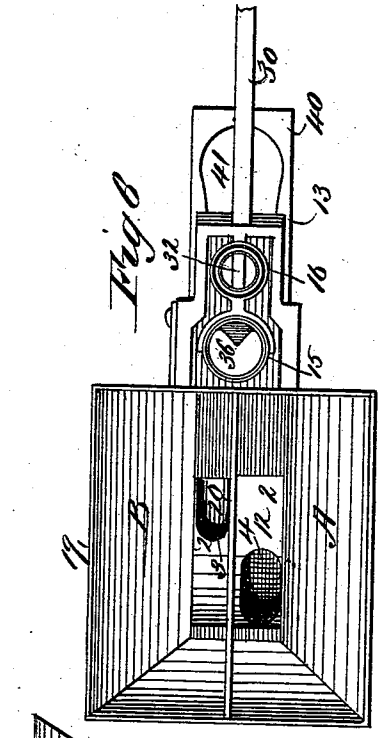


Fig. 6.

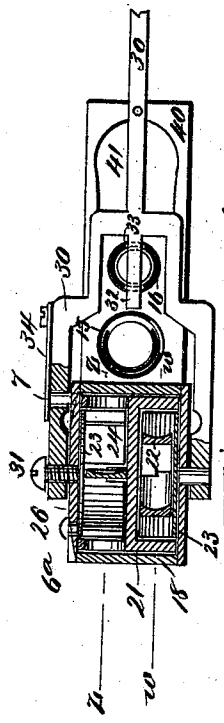


Fig. 7.

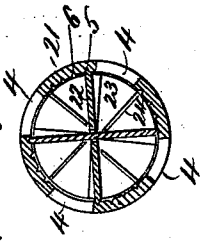


Fig. 10.

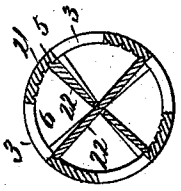


Fig. 9.



Fig. 11.

Fig. 5.

Fig. 8.

WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

FRANCIS PORTER DEVENS, OF KANSAS CITY, MISSOURI.

CARTRIDGE-LOADER.

SPECIFICATION forming part of Letters Patent No. 379,636, dated March 20, 1888.

Application filed December 31, 1887. Serial No. 259,483. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS PORTER DEVENS, of Kansas City, in the county of Jackson and State of Missouri, have invented a new and Improved Combination-Tool for Loading Cartridges, of which the following is a full, clear, and exact description.

This invention relates to a combination-tool for the loading of the ordinary form of paper-shell cartridge, the object of the invention being to provide an automatic shot and powder delivery apparatus that is applicable for use in connection with such a tube as the one illustrated, described, and claimed in my prior application, No. 238,394, filed on the 16th day of May, A. D. 1887.

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

Figure 1 is a side view of my improved cartridge-loading implement. Fig. 2 is a sectional elevation thereof. Fig. 3 is a view of one of the loading-cylinders with the face-plate removed. Fig. 4 is a view of the inner face of one of the adjusting-disks. Fig. 5 is a side view of the implement, taken upon the side opposite to that shown in Fig. 1. Fig. 6 is a plan view of the implement. Fig. 7 is a sectional plan view taken on line *x x* of Fig. 5. Fig. 8 is a sectional detail view taken on line *y y* of Fig. 5. Fig. 9 is a sectional view taken on line *z z* of Fig. 7, and Fig. 10 is a similar view taken on line *w w* of the same figure. Fig. 11 is a vertical central section of the charger-ring.

In constructing such a machine as the one illustrated in the drawings above referred to I provide a main frame, which consists of a standard, 10, a clamping-jaw, 11, carrying a set-screw, 12, a forwardly-extending arm or bracket, 13, which supports a wad-tube, 15, the arm 13 being apertured to provide for the passage of a plunger, 16, the upper end of which is guided by a bracket, 17, that is connected to the wad-tube 15.

Upon the standard 10 I mount a cylinder, 18, above which there is a hopper, 19, formed with a central partition, 20, at either side of which in the hopper-bottom there are apertures 2. Within the cylinder 18 I mount a centrally-divided ring, 21, that is formed with two sets of apertures in its peripheral face, said apertures being shown at 3 and 4 and being alternately arranged, as shown in Figs. 9 and 10, and as indicated in Fig. 6. At each side of the central partition of the ring 21 I insert dividing-partitions 22, which are each formed with central recesses, so that the two partitions may be interlocked, these partitions being held in place by end ribs, 5, which enter recesses 6, formed in the inner face of the ring 21. In connection with each side of the partitions 22, I arrange a disk, 23, having inwardly-extending wings 24, which wings, however, do not extend to the center of the disk, spaces being left between the approaching ends of the wings, so that the plate and the wings carried thereby may be adjusted to the position shown in Fig. 2.

The disks 23 are connected to facing-plates 25 and 26 by means of set-screws 27, which pass through slots 28, formed in the disks. The facing-plates 25 and 26 are connected to the ring 21 by screws, as shown, and upon each facing-plate there are formed graduating-marks 29, by means of which the size of the compartments between the wings 24 and the partitions 22 may be regulated and determined.

A bifurcated lever, 30, is connected to the facing-plates of the ring 21 by means of screws 31, which pass through the extending arms of the lever into threaded apertures at the center of the plates 25 26, which arms rest against the facing-plates, as shown. The lever 30 is formed with a nose, 32, which enters a slot, 33, that is formed in the plunger 16. The facing-plate 26 is formed with notches 6^a, which are entered by a pin, 7, that is carried by a spring, 34, said spring being connected to one of the lever-arms and the arrangement being such that as the lever is raised the facing-plate 26, and consequently the ring 21, will be carried in the direction of the arrow shown in connection therewith in Fig. 5, all retrograde movement of the disk and ring being prevented by a spring-clip, 35, which enters notches 8, formed in the peripheral edge of the facing-plate 26.

In connection with the wad-tube I employ a semicircular tube, 36, in which the wads are placed prior to their being inserted in the

tube 15, this arrangement greatly facilitating the handling of the wads; and beneath the wad-tube I arrange a forwardly-extending tongue, 37, said tongue serving as a support for the wads within the tube 15, and being at such a distance from the under side of the arm or bracket 13 as to allow for the passage of but a single wad from the tube 15.

The clamp 11 is formed with a forwardly-extending plate, 40, in which there is an elongated aperture, 41, and the edges of the plate are inclined inward from the upper face thereof, in order that the plate may fit within a dovetailed groove that is formed in the base 42 of a shell-tube, 43, said base being provided with a forwardly-extending projection that has a convex-faced recess, 44. A stop or limit pin, 45, is carried by the plate and prevents the withdrawal of the cartridge-tube 43. At each side of the tube 43 there are upwardly-extending prongs 46, the approaching faces of which are serrated, said prongs being so spaced as to bear against a wad when the tube 43 is moved forward from beneath the wad-tube 15 to a point beneath the plunger 16. In the lower portion of the cylinder 18 there is an opening, 47.

In operation the compartment A is filled with powder and the compartment B with shot. The tube 43 is moved forward to a position such that a cartridge may be inserted through the opening 41. The tube is then moved to the position in which it is shown in Fig. 2 and the lever 30 is raised a short distance, which movement of the lever will discharge a quantity of powder to the cartridge-shell within the tube 43. The tube 43 is then drawn forward, taking as it goes a wad from the tongue 37, the tube 43 being moved to a position just beneath the plunger 16. When in this position, the lever is depressed to throw the plunger against the wad and to force it home upon the powder. The lever is then raised to carry the plunger from the tube 43, and said tube is returned to the position in which it is shown in Fig. 2, the lever 30 being still further raised to discharge a load of shot from one of the compartments adjacent to the facing-plate 26, after which the tube 43 is drawn forward and another wad taken, as will be readily understood.

Capping and decapping devices such as those described in my prior application above referred to may be arranged in connection with the plunger 16, and a crimper, 50, may also be provided.

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

1. In a cartridge-loading machine, the combination, with a hopper, of a cylinder formed with receiving and discharging openings, a ring mounted within the cylinder and formed with openings in its peripheral face, partitions arranged within the ring, a plate carrying wings which enter the spaces between the partitions, a means for adjusting the plate, and a means for turning the ring, substantially as described.

2. In a cartridge-loading machine, the combination, with a centrally-divided hopper, of a cylinder formed with receiving and discharging openings, a ring mounted within the cylinder and formed with a central partition and with alternately-arranged openings in its peripheral face, radial partitions arranged at either side of the central partition of the ring, plates provided with wings which rest between the radial partitions of the ring, facing-plates connected to the ring and to which the wing-carrying plates are adjustably connected, one of the facing-plates being formed with notches in its side face, a lever, and a spring-pressed pin carried by the lever and arranged to enter the notches of the facing-plate, substantially as described.

FRANCIS PORTER DEVENS.

Witnesses:
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W. J. HOLLIS.