No. 629,120. Patented July 18, 1899.

J. H. BARLOW.

CARTRIDGE LOADING MACHINE.

(Application filed Aug. 10, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

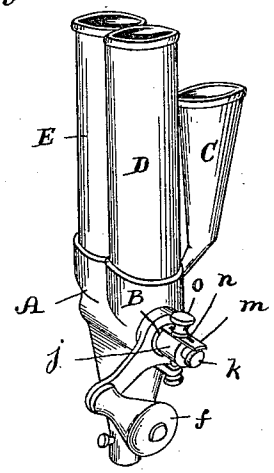


Fig. 2.

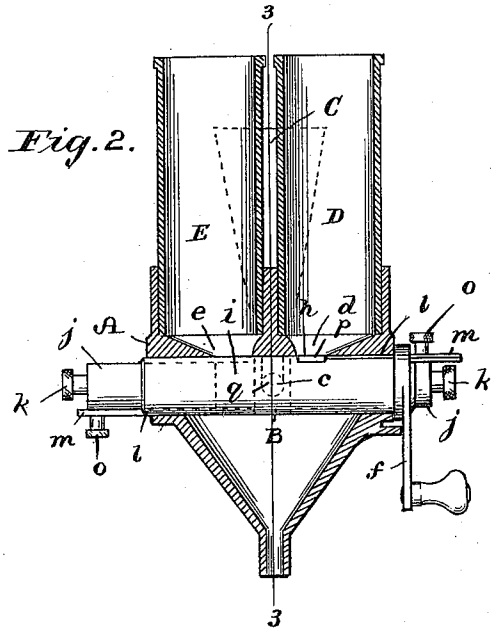


Fig. 3.

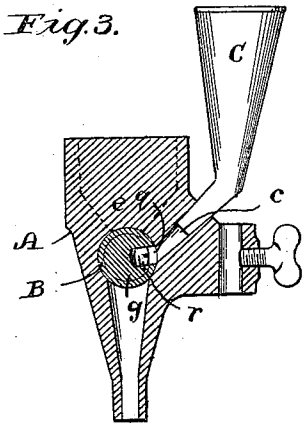


Fig. 4.

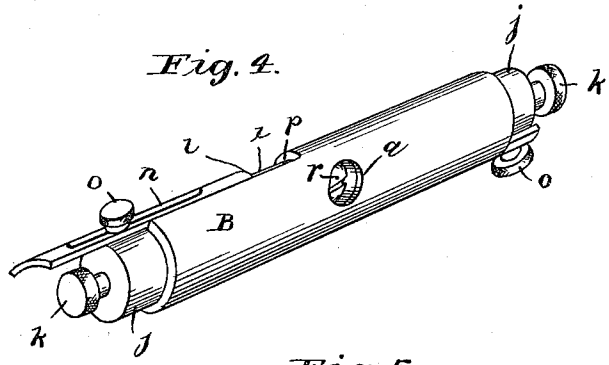
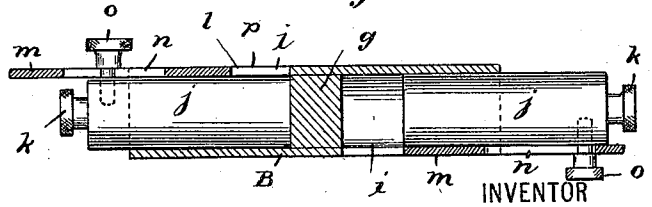


Fig. 5.



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Fig. 6.

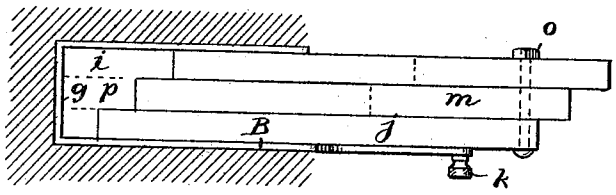


Fig. 7.

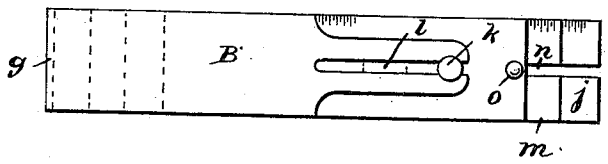
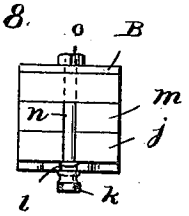


Fig. 8.



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UNITED STATES PATENT OFFICE.

JOHN H. BARLOW, OF NEW HAVEN, CONNECTICUT.

CARTRIDGE-LOADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 629,120, dated July 18, 1899.

Application filed August 10, 1898. Serial No. 688,236. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. BARLOW, a citizen of the United States, and a resident of New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Cartridge-Loading Machines, of which the following is a specification.

My invention relates to new and useful improvements in cartridge-loading machines, such as are employed for loading rifle, pistol, and shotgun shells.

The present invention is a further improvement upon that class of machine shown and described in my former patent, No. 547,058, of October 1, 1895. In that instance provisions are made for adjusting both the shot and powder measuring chambers whereby either can be quickly and easily changed to deposit larger or smaller charges of ammunition. My present improvement provides for a more accurate and smaller adjustment of the measuring-chambers and whereby speed and accuracy are also insured. It further provides for an intermediate measuring device, whereby a priming or additional charge can be measured and deposited into the shell, as will be later more fully described.

At the present time many shooters desire a small quantity of some one of the various grades of smokeless powders deposited at the base of the shell as a primer, which in practice is followed by a large charge of black powder. Others again use a multiple charge of different grades of powder—first, a small charge of slow-burning powder, followed by another charge of quicker-burning, and, lastly, a charge of quick powder. The gases thus generated are claimed to result in less recoil, increased velocity, and penetration, as well as accuracy.

It will thus be obvious that my invention is to supply the requirements of the above style of loading, and particularly to provide means for handling extremely-small charges quickly and uniformly.

With the above objects in view my invention resides and consists in the novel construction and combination of parts set forth in the accompanying drawings, forming a part of this specification, and upon which similar letters of reference denote like or corresponding parts throughout the several figures, and of which—

Figure 1 shows a perspective view of a loading-machine embodying my improvements. Fig. 2 is a central vertical longitudinal section. Fig. 3 is a central vertical cross-section on line 3 3 of Fig. 2. Fig. 4 is a detail perspective view of a rotary carriage comprising the several ammunition-measuring chambers. Fig. 5 is a further detail of said cylinders, representing a central vertical longitudinal section thereof. Figs. 6, 7, and 8 show a sectional plan, a sectional elevation, and an end view, respectively, of a modified form of construction of my invention.

Referring to the characters of reference marked upon the drawings, A indicates the base of my machine, which can be supported in any suitable way. Within this base and longitudinally therethrough is mounted a rotatable carriage which, I designate by B. Beneath the carriage is a funnel-shaped compartment, through which the different charges are conveyed to the shell. The top of the base is provided with sockets, in which are retained reservoirs C, D, and E, which may be employed to retain shot and two grades of powder, or they may be used for three grades of powder, as preferred. It will further be seen that said reservoirs are provided with ports *c*, *d*, and *e*, through which the powder is fed to the several compartments of the carriage.

The cylinder B, as before stated, is rotatable and is provided with a suitable handle *f*, by means of which it is manipulated. Said carriage comprises a tube having a central wall *g*, dividing the same into two chambers *h* and *i*. Within each of these chambers is fitted a plug *j*, which can be adjusted and locked in any desired position by means of screws *k*, as shown. The chambers *h* and *i* above referred to are filled through the ports *d* and *e* at such times when the cylinder is turned and said ports register therewith. Large charges of either shot or powder are measured within said chambers, as was the case in my former patent.

The above form of adjustment and shape of compartment was not entirely satisfactory in all instances, and particularly when adjusted for very small charges, since the cham-

ber was necessarily narrow and deep, which was slow to fill and frequently resulted in ununiformity of the charges when deposited. I therefore provide the opposite sides and opposite ends of the carriage with broad slits *l*, in each of which are fitted one or more adjustable plates *m*. This plate is made adjustable by being provided with a slot *n*, through which a clamping-screw *o* passes for engagement in the plugs *j* before mentioned. From the above construction it will be obvious that the plugs are adjustable within the carriage and that the plates are adjustable upon the plugs, thus permitting the plug to be shoved in against the central wall *g*, as clearly appears at one end in Figs. 2 and 5, and the plate adjusted outward, forming a broad shallow chamber *p*, which is easily and quickly filled by either fine or coarse powder.

The cylinder B is further provided with an intermediate or primer measuring-chamber *q*, which clearly appears in Figs. 3 and 4. This chamber is preferably formed by boring and tapping a hole from the periphery through the shell of the carriage and into the wall *g*. Within said holes is fitted a screw *r*, which can be adjusted to vary the size of the chamber and the quantity of powder measured thereby.

In practical operation when using my machine for loading shells with two kinds of powder and one of shot the priming powder would be placed in the reservoir C, the second powder in D, and the shot in E. Beginning with the machine in the position shown in Figs. 1 and 2 both the chambers *q* and *h* are in position to be filled from their respective reservoirs, and by a forward turn of the carriage said supply is cut off, the priming charge in chamber *q* is first deposited, this is closely followed by the second from chamber *h*, after which the wad is inserted and driven home. The carriage is then in position to receive its charge of shot, and by a reverse one-half turn of said carriage it is brought to its normal position and the shot deposited. If in rifle or other cartridges it is desirable to use three kinds of powder, the third powder would be placed in receptacle E instead of the shot, as described.

From the foregoing it will be seen that I have devised means for measuring powder of various kinds, also for measuring multiple charges in a quick and handy manner, all of which may be delivered in the shell in uniform and accurate quantities, large or small, one after the other, yet positively separated, one on top of the other, and not mixed.

The construction shown in Figs. 6, 7, and 8 embraces three plugs or plates each of which is independently adjustable within the carriage to form the varying size of measuring-chamber. The carriage in this instance is square, as will be apparent, and would be reciprocated by any suitable mechanism in a manner to carry the chamber back and forth from port of powder entrance to port of delivery for cartridge-shell.

In this my invention I do not wish to be limited to the details of construction shown, since my invention is broad and may be carried into effect in various ways without departing from the essence thereof.

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

1. In a cartridge-loading machine, the combination with ammunition-reservoirs, of shot and powder measuring chambers, each provided with two or more separate graduated pieces adjustable within said chambers and in relation to each other, whereby there may be formed in each two or more distinct and separate measuring-chambers and the measuring capacity of each of the chambers thus formed may be separately increased or decreased, for said purpose specified.

2. In a cartridge-loading machine, the combination with ammunition-reservoirs, of a rotary carriage bearing powder and shot measuring chambers, a powder-priming chamber located in said carriage at a position of less than ninety degrees from the position of the before-mentioned powder-measuring chamber, both of which chambers are thus adapted to receive powder at the same time from reservoirs located above the same and to discharge successively, substantially as shown and described.

3. In a cartridge-loading machine of the class described, the combination in an ammunition-carriage bearing longitudinally-adjustable plugs, shallow plates mounted on said plugs adjustable relatively thereto, whereby the main chamber may be closed and form a shallow surface chamber, substantially as shown and described.

4. A cartridge-loading machine comprising a tubular rotatable carriage having longitudinal slots in its walls, adjustable plugs therein forming shot and powder measuring chambers, adjustable plates mounted in said slots and on said plugs whereby either deep or shallow chambers may be formed, an intermediate priming-chamber and reservoir to register therewith.

5. A cartridge-loading machine comprising a carriage having a recess therein, a plug adjustably mounted in said recess, a plate mounted on said plug and means for independently adjusting said plate to regulate the size of the chamber formed thereby, substantially as shown and described.

Signed at New Haven, in the county of New Haven and State of Connecticut, this 27th day of July, A. D. 1898.

JOHN H. BARLOW.

Witnesses:
C. M. NEWMAN,
JOSEPH A. DERBY.