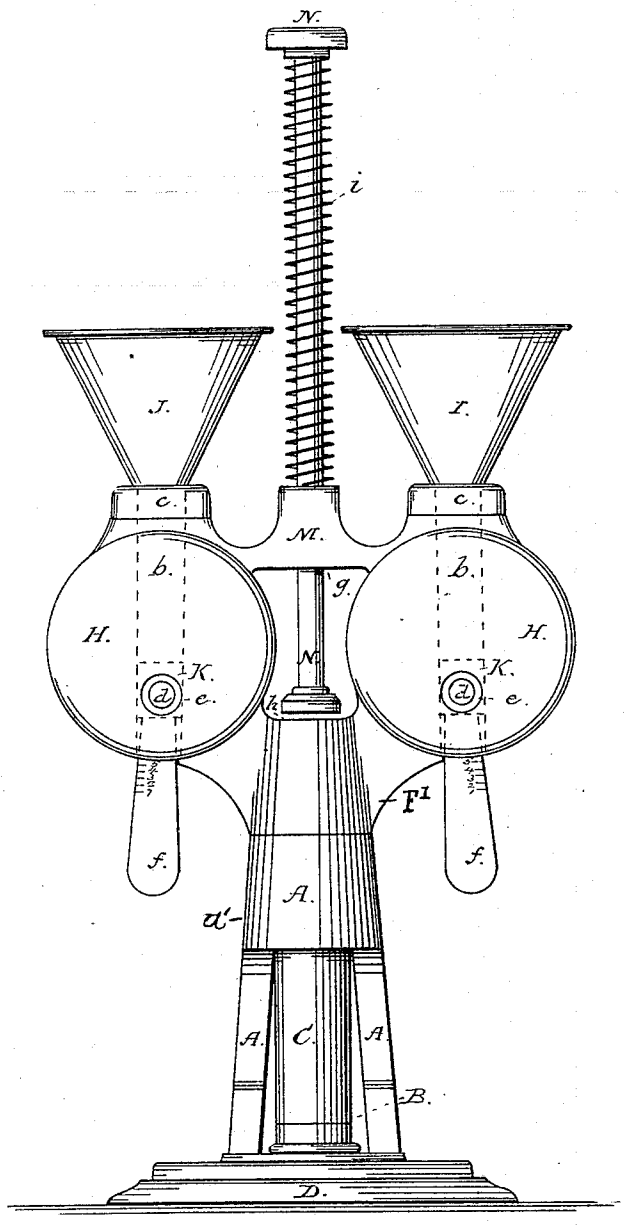
(Model.) 2 Sheets—Sheet 1.

A. P. LA PLANT.

CARTRIDGE LOADING MACHINE.

No. 283,791. Patented Aug. 28, 1883.

Fig. 1.



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(Model.) 2 Sheets—Sheet 2.

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Fig. 2.

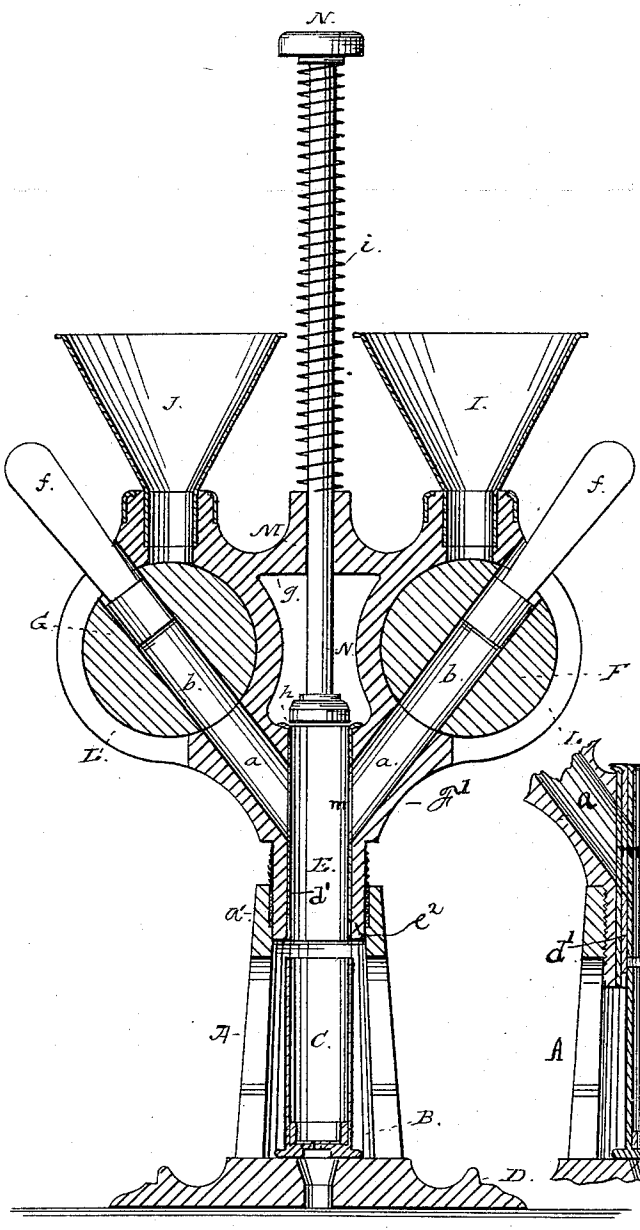
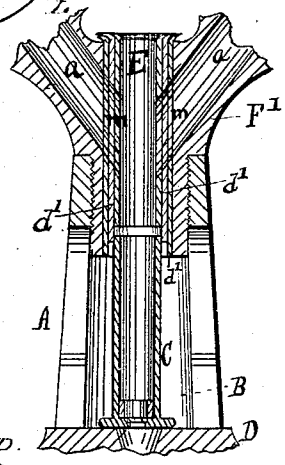


Fig. 3.



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UNITED STATES PATENT OFFICE.

ADONIJAH P. LA PLANT, OF TOWANDA, PENNSYLVANIA.

CARTRIDGE-LOADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 283,791, dated August 28, 1883.

Application filed April 19, 1883. (Model.)

To all whom it may concern:

Be it known that I, ADONIJAH P. LA PLANT, a citizen of the United States, residing at Towanda, in the county of Bradford and State of Pennsylvania, have invented certain new and useful Improvements in Cartridge-Loaders; and I do hereby declare the following to be a a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists of an improved cartridge-loader, by means of which cartridge-shells may be charged in a convenient, effective, accurate, and rapid manner. It is illustrated in the accompanying drawings, in which—

Figure 1 is a front view of my improved cartridge-loader; Fig. 2, a central vertical section thereof; and Fig. 3 is a sectional view of a part of the base of the loader, showing the means employed for accommodating shells of different diameters.

In the drawings, A is a suitable frame, on which is mounted the working parts of my invention, and is left open at its base on one side, as at B, for admitting the cartridge-shell C into a central position, for receiving the powder, shot, and wads. The frame A rests on a suitable base, D. The opening B is of sufficient width to admit the cartridge-shell C, and is of a height not quite equal to the length of the shell, so that when the shell is admitted it may extend above the opening, so as to be in no danger of falling out, and to be held firmly in position while being loaded. The upper closed portion, a', of the frame A may have an internal screw-thread, by which the frame A can be lowered or raised to a certain height on the lower tubular extension, e^2, of the upper frame, F', to accommodate it to shells of different lengths. When the cartridge-shell is admitted into the opening B it is exactly centered under a filling or charging tube, E, which conveys the powder, shot, and wad to the said cartridge-shell. From the charging-tube E extend obliquely upward two discharging-passages, *a a*, one extending to a powder charger or measurer, F, and the other extending to a shot charger or measurer, G. Each of these chargers or measurers F G is of cylindrical or other suitable shape, and revolves or oscillates in a case or socket, H, in which it fits closely, so as to prevent any shot, or especially powder, from getting between the measurer and case. A measuring-tube or cavity, *b*, extends diametrically through each of the measurers F G.

From the top of the measurers extend charging ducts or passages *c c*, extending, respectively, from the powder-measurer F and the shot-measurer G to a powder hopper or canister, I, and a shot hopper or canister, J.

The measuring-tube *b* of each of the measurers F G is provided with an adjustable bottom or plug, K, for retaining the ammunition in the said tube and for regulating the quantity of powder or shot for each charge. This plug K may be provided with a graduated scale for accurately determining the size of each charge. The plug K is adjusted by means of a set-screw, *d*, access to which is had by means of a suitable opening, *e*, in the case H. Each plug is preferably extended to form a handle, *f*, for operating the measurer.

To allow the handle to be moved so as to revolve or oscillate either of the measurers F G, as desired, a suitable opening, L, is left in each case H. This opening is so arranged that when either measurer is turned into the position shown into Fig. 1, where the handle *f* is turned as far down as the opening L will permit, the measuring-tube *b* will exactly coincide with the charging-passage *c*, as shown by dotted lines, and the contents of canister J above will descend, filling the said measuring-tube, and when the measurer is turned as far as the opening will permit in the other direction, as seen in Fig. 2, the measuring-tube *b* will exactly coincide with the discharging-passage *a*, and the contents of the tube *b* will be discharged through the said passage into the charging-tube E, and thence deposited in the cartridge-shell.

Between the two cases H H extends a cross-bar, M, in which is a central guide tube or way, *g*, through which the rammer N extends.

The charging-tube E is open at its top *h*, and the guideway *g* is so situated in the cross-bar M that it is exactly centered over the said charging-tube, so that the rammer N will pass freely up and down through the charging-tube. The opening *h* also serves as the place for admitting the wads. The rammer N is operated

by being pushed or driven down, and is returned to its normal position by the counter-spring *i*. When a cartridge-shell is to be filled, it is placed in position under the charging-tube E, the powder-measurer F is operated, and the proper quantity of powder is deposited in the cartridge-shell; then the first wad is admitted through the opening *h*, and is driven into the cartridge-shell by the rammer N, thus compacting the powder; then the shot-measurer is turned and the proper quantity of shot is deposited; and, finally, the second wad, being placed over the opening *h*, is driven into place by the rammer N.

An aperture is formed in the base D of the frame, situated centrally under the charging-tube so as to be directly under the cap of the cartridge-shell when the cartridge is in position, and secures the powder from exploding when the rammer is being operated.

To accommodate cartridge-shells of different diameters, I fit within the charging-tube E a set of sheet-metal thimbles, *d' d'*, of different diameters, so that one thimble can be inserted inside of the next larger one. The inside one of the thimbles is in each instance a little shorter than the one next in size, thus allowing the top of the shell to enter far enough to hold it securely in an upright position. The thimbles are of a thickness to correspond with the shells, and each is provided with holes or apertures *m m* in the sides, to correspond with the passages *a a*, leading from the measurers.

What I claim as my invention is—

1. In a cartridge-loader, the combination of passages conducting from powder and shot measurers, and a wad-feeding tube centering in a single charging-tube, substantially as set forth.

2. In a cartridge-loader, passages conducting from powder and shot measurers, and a wad-feeding tube centering in a single charging-tube, in combination with a rammer situated centrally over said charging-tube, substantially as set forth.

3. In a cartridge-loader, the combination of a charging-tube, E, open at its bottom to receive the cartridge-shell to be charged, a powder-measurer, F, situated above said charging-tube, on one side, a shot-measurer, G, situated above said charging-tube, on the opposite side, and passages *a a*, conducting from said measurers to said charging-tube, substantially as set forth.

4. In a cartridge-loader, the combination of a charging-tube, E, open at its bottom to receive the cartridge-shell to be charged, a powder-measurer, F, situated above said charging-tube, on one side, a shot-measurer, G, situated above said charging-tube, on the opposite side, passages *a a*, conducting from said measurers to said charging-tube, and a wad-receiver, *h*, situated centrally over said charging-tube, substantially as set forth.

5. In a cartridge-loader, the combination of a charging-tube, E, open at its bottom to receive the cartridge-shell to be charged, a powder-measurer, F, situated above said charging-tube, on one side, a shot-measurer, G, situated above said charging-tube, on the opposite side, passages *a a*, conducting from said measurers to said charging-tube, a wad-receiver, *h*, situated centrally over said charging-tube, and a rammer, N, for driving in the wads and compacting the ammunition, substantially as set forth.

6. In a cartridge-loader, a powder or shot measurer having a measuring-cavity extending diametrically therethrough, arranged in a suitable case, and having an oscillating movement on its axis from a position for charging said cavity to a position for discharging the same, substantially as set forth.

7. In a cartridge-loader, a reciprocating measurer provided with a measuring-cavity extending diametrically therethrough, in combination with an adjustable plug or bottom fitting in said cavity, substantially as set forth.

8. In a cartridge-loader, a reciprocating measurer provided with a measuring-cavity extending diametrically therethrough, in combination with an adjustable plug or bottom fitting in said cavity, provided with a graduated scale, substantially as set forth.

9. In a cartridge-loader, a reciprocating measurer provided with a measuring-cavity extending diametrically therethrough, in combination with a plug or bottom adapted to fit in said cavity and to extend beyond said measurer to form a handle for operating the same, substantially as set forth.

10. In a cartridge-loader, a reciprocating measurer provided with a measuring-cavity extending diametrically therethrough, in combination with an adjustable plug or bottom fitting in said cavity, extending out beyond said measurer to form a handle for operating the same, and provided with a graduated measuring-scale, substantially as set forth.

11. In a cartridge-loader, the combination of the charging-tube E, reciprocating powder and shot measurers F G, feeding-hoppers I J, passages *c c*, conducting from said hoppers to said measurers, and passages *a a*, conducting from said measurers to said charging-tube, substantially as set forth.

12. In a cartridge-loader, a charging-tube constructed with an opening at its lower end for discharging ammunition into the cartridge-shell, openings in its sides, through which powder and shot are received from the measurers, and an opening at the top for receiving the wads and admitting the rammer, substantially as set forth.

13. In a cartridge-loader, and in combination with the co-operative parts thereof, the charging-tube and a set of thimbles of different diameters located therein, substantially as set forth.

14. In a cartridge-loader, and in combination with the co-operative parts thereof, the charging-tube and a set of thimbles of different diameters and different lengths, located in

said charging-tube, substantially as set forth.

15. In a cartridge-loader, and in combination with the co-operative parts thereof, a charging-tube, E, and a set of thimbles, *d' d'*, of different diameters and lengths, located in said charging-tube, and provided with apertures *m m*, corresponding with the passages leading from the measurers, substantially as set forth.

16. In a cartridge-loader constructed with an upper frame, F', and a lower frame, A, the former vertically adjustable on the latter, the combination of said frames and the co-operative parts of the loader with the charging-tube located in said frames, and a set of thimbles of different diameters and lengths, located in said charging-tube, substantially as and for the purpose specified.

17. In a cartridge-loader, the combination of the feeding-canisters I J, the reciprocating measurers F G, provided with measuring-cavities *b b*, extending diametrically therethrough, adjustable plugs or bottoms K K, fitting in said cavities, extending out beyond said measurers to form handles for operating said measurers, and provided with graduated measuring-scales, a central charging-tube, E, open at its bottom to receive the cartridge-shell to be charged, passages *c c*, conducting from the canisters I J to the measurers F G, passages *a a*, conducting from said measurers to the charging-tube E, a wad-receiver, *h*, situated centrally over said charging-tube, and a rammer, N, for driving in the wads and compacting the ammunition, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ADONIJAH P. LA PLANT.

Witnesses:
W. H. DODGE,
JOHN W. CODDING.