

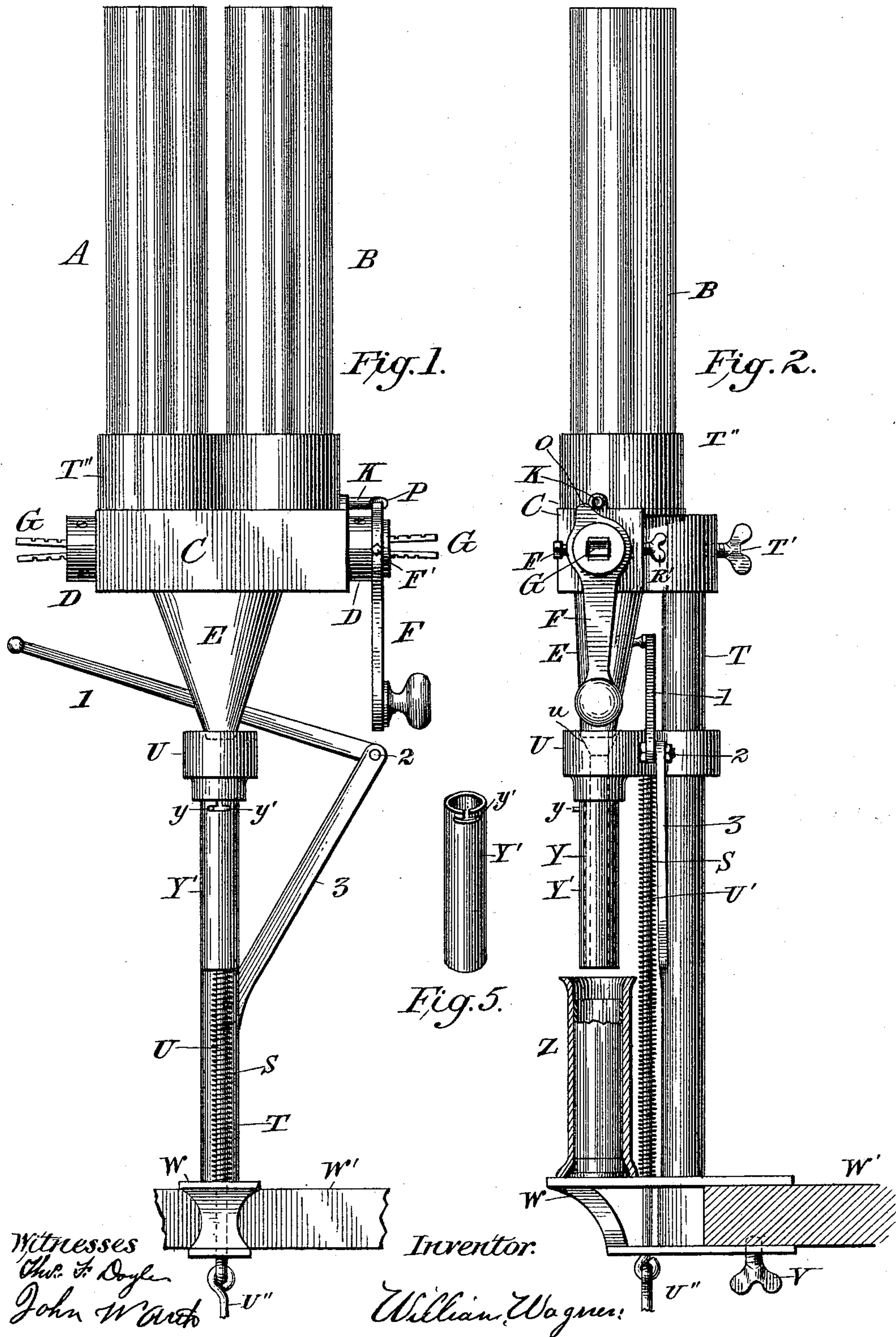
(No Model.)

2 Sheets—Sheet 1.

W. WAGNER.
APPARATUS FOR LOADING CARTRIDGES.

No. 481,127.

Patented Aug. 16, 1892.



(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

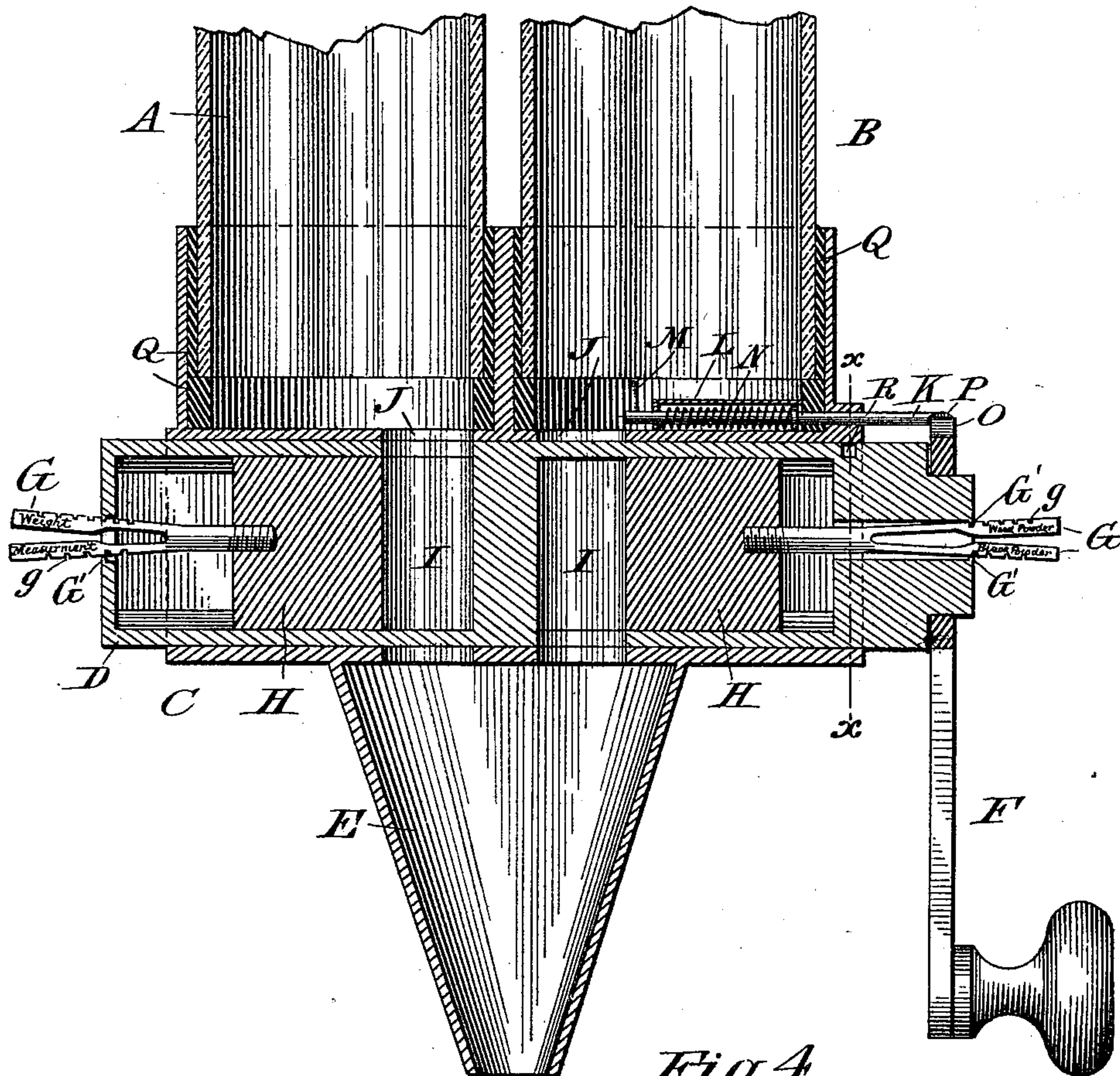
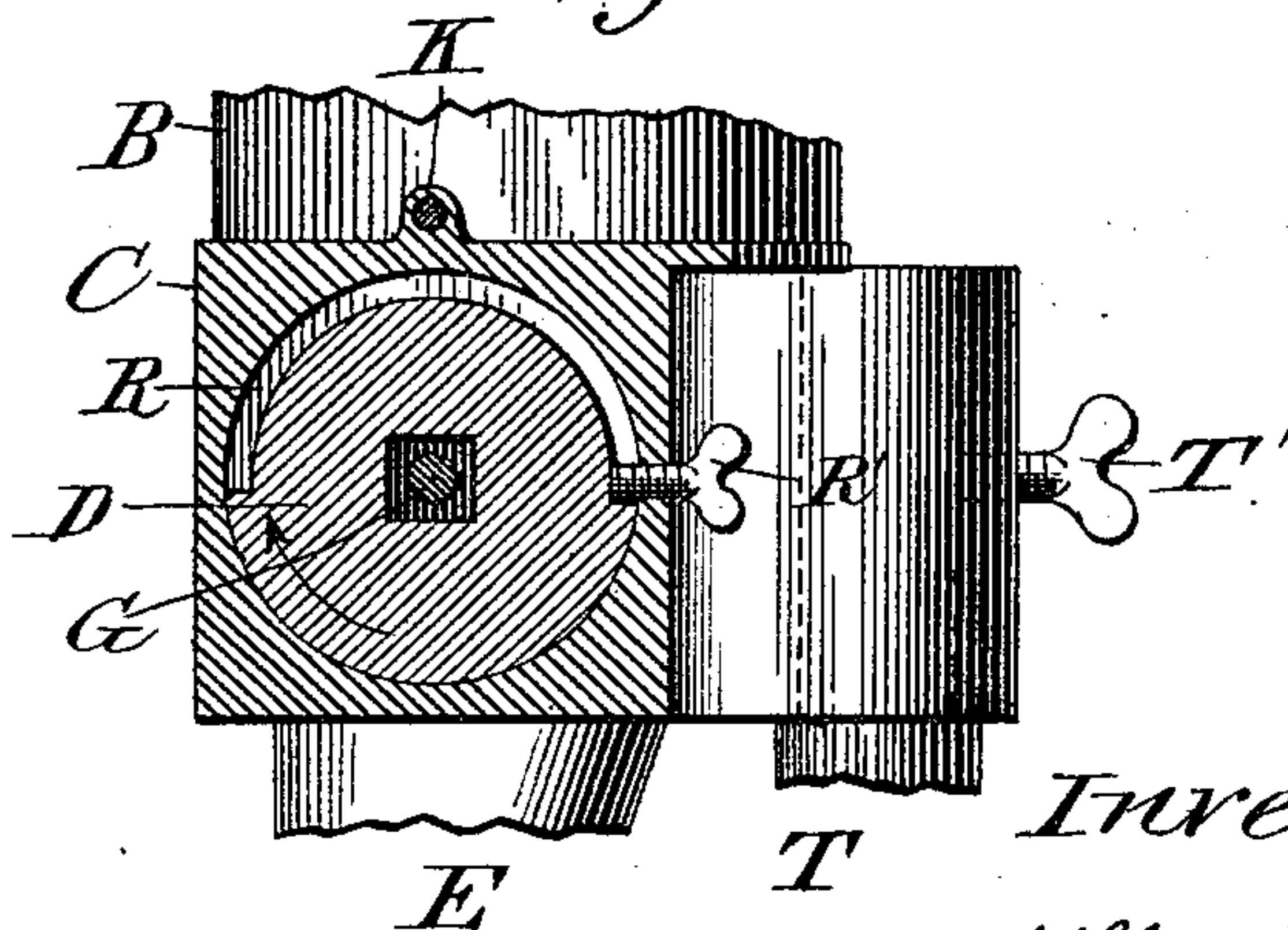


Fig. 4.



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR LOADING CARTRIDGES.

SPECIFICATION forming part of Letters Patent No. 481,127, dated August 16, 1892.

Application filed June 2, 1892. Serial No. 435,298. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WAGNER, of Washington city, in the District of Columbia, 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 principal object of the invention being to provide an automatic shot and powder delivery apparatus.

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

Figure 1 is a front view. Fig. 2 is a side elevation of same. Fig. 3 is a sectional view showing the cut-offs and measuring mechanism for loading. Fig. 4 is a sectional view on line *xx* of Fig. 3, showing the groove R. Fig. 5 is a view of one of the sleeves for increasing or decreasing the size of plunger to suit the size of shell to be loaded.

Referring to the drawings, W represents the supporting-frame of my improved cartridge-loader, and T the vertical standard thereon, to which the magazine and its immediate appurtenances are secured by means of the thumb-screw T'. The magazine which I employ in this instance comprises two chambers—one for the powder and the other for shot. Both are secured to suitable framework, as T''. These magazines have open bottoms, which communicate with a revolving cylinder located beneath the same, and which will be more fully described, as this forms a novel and very important feature of my invention. This cylinder is located in a casing, which in this instance forms a part of the casing which supports the magazine and the hopper E. This cylinder has two oppositely-located openings on its surface, and within it at either end are two adjustable blocks H, which have their adjacent faces cut away to form in each a semicircle. Midway the cylinder is a solid or wall portion which has recesses or semicircles therein to correspond with those in the blocks, and thus form chambers I for the reception and measurement of powder and shot received from the magazines. The opposite end of the blocks H have rods G extending therefrom and passing through the respective ends of the cylinder. The free ends of

these rods are bifurcated and of such thickness as to give each tine a certain degree of springiness. These are provided with serrations *g* for engagement with lips or projections G' on the openings in the cylinder for holding the blocks in locking adjustment.

On one end of the cylinder D is secured the crank F for giving a partial rotation to the same on the cylinder D, and adjacent to the crank-handle is a groove R, which extends half-way round the same and into which projects the end of the thumb-screw R'. This screw allows a half-revolution of the cylinder D, which will be explained farther on.

In the powder-magazine B, at the bottom thereof and located in suitable housings L, is an agitator-rod K, which is encircled by a retraction-spring N. The end of the rod within the magazine B is provided with the agitator proper. This is designated by the letter M. The projecting end of this rod is beveled, as shown at P, and is designed for engagement with the projection O on the end of the hand-crank.

Upon the standard T is the double collar U, one loop of which receives the lower end of the funnel or chute, and beneath this is the discharge tube or plunger Y. This tube or plunger may be secured to the collar in any desired manner, or it may be integral therewith. The upper face of the collar has a funnel-shaped depression which is merged into the tube Y. The loop of the collar which embraces the standard is free to reciprocate thereon, being supported by the rod N', which is fixed upon the base W. This rod is surrounded by a spiral spring, which causes the return movement of the collar and through it the tube or plunger.

An arm 3 projects from the standard T, and at a suitable angle thereto and to its free end is pivoted the lever I, which extends therefrom and over the collar. This lever serves to actuate the collar and through it the plunger Y. The spring V' acts in conjunction with this lever and elevates the plunger and thereby contributes to its reciprocating motion.

In Fig. 5 of the drawings I have shown a sleeve Y', which is designed to be used upon the plunger Y when cartridge-shells whose diameter is greater than that of the plunger are to be filled. The sleeve is provided with a slot analogous to those used on bayonets, and thus

engages with the stud *y* on the plunger and holds it in position.

A treadle may be used in connection with the lever *I*, and this will give the operator the use of both his hands.

Upon the base *W* is placed the guide or socket *z*. Into this the cartridge-shells are placed for loading. This device does not require further description, as the formation and purposes are obvious. The tines of the rod *G*, as before stated, are provided with serrations *g* for engagement with the lugs *G'* on the openings in the ends of the cylinder. In the shot-cylinder the tines are marked "weight" and "measurement," respectively, which indicates that in the first instance setting the tine to that gage will give a charge of shot of a predetermined weight, while in the last the shot are discharged by measurement, an expedient well known to sportsmen. On the opposite rod, which controls the powder-magazine, one series of gages may be set for the well-known Work powder and the other for the well-known black powder. Of course it will be understood that the difference in the quality and compactness of the several kinds of powder requires that this distinction should be made in the adjustment of the blocks *H*, so as to vary their capacity.

The operation of the device is as follows: The magazines *A* and *B* are charged with shot and powder, respectively. The cartridge-shell is placed in the receptacle *z* and the crank *F* is given a half-revolution, which brings the opening in that side of the cylinder which registers with the discharge-orifice *J* in the powder-magazine uppermost and it is filled by gravity. The crank is dropped down and the opening beneath the shot-magazine is brought beneath the orifice *J* in the shot-magazine, and this receives a charge of shot, and when the crank drops down again this is precipitated into the hopper *E* and upon the powder which preceded it in the shell. This alternate semi-rotary movement of the cylinder *D* may be continued as long as desired and with the result indicated above. It will be observed that the projection *O* on the upper end of the crank is shown in contact with the beveled end of the agitator-rod *K*. The object of this is to give a reciprocating movement to the rod as the crank is actuated, and this causes the agitator *M* to loosen the powder and thereby keep it from packing. At each discharge of the powder and shot the plunger *Y* is brought into use by means of the lever *I*, which forces the charge into the shell, which operation is continued as long as desired.

Other means for getting the necessary adjustment of the blocks *H* may be used in place of the bifurcated rods. For instance, the rods may be solid and provided on their outer ends with a series of grooves or notches and a latch may be used for locking engagement with them. These and other modifications will suggest themselves to the skilled mechanic,

and this without departing from the spirit of my invention.

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

1. A cartridge-loading machine having magazines mounted thereon, an oscillating cylinder having horizontal chambers connected therewith, provided with horizontal adjustable heads therein, and a hopper with which said chambers communicate.
2. A cartridge-loading machine having magazines thereon, an oscillating cylinder having adjustable horizontal chambers communicating therewith, and a hopper with which said chambers also communicate.
3. A cartridge-loading machine having magazines thereon, an oscillating cylinder provided with horizontal chambers connecting therewith, horizontal adjustable blocks in said chambers, having stems projecting through the heads of said cylinders, and means thereon for indicating the capacity of the charge-chambers.
4. A cartridge-loader provided with ammunition-magazines, an oscillating cylinder having horizontal chambers communicating therewith, blocks horizontally adjustable in said chambers, provided with bifurcated stems projecting from each head, and means thereon for locking the respective tines to the cylinder-heads.
5. A cartridge-loader provided with ammunition-magazines, a rotary cylinder beneath the same provided with chambers communicating with the hopper, adjustable heads or blocks therein, bifurcated stems projecting from each head, and notches thereon for engagement with lugs on the cylinder-heads.
6. A cartridge-loader magazine having a spring-actuated reciprocating agitator therein and having a stem protruding therefrom and projected in the path of a cam or projection and acting in a direction transversely to the line of feed of the ammunition, and means for actuating the same.
7. A cartridge-loader magazine having a reciprocating agitator transverse to the bottom thereof and a projection on the operating-crank of said loader for imparting a reciprocating motion to said agitator.
8. A cartridge-loader magazine having a reciprocating agitator within the same, the protruding end of said agitator being beveled to afford sliding contact with a projection for the operating-crank.
9. A cartridge-loader having a standard, a magazine thereon, a sliding collar on said standard having an orifice which serves as a conveyer from the hopper to the plunger, a plunger thereon, and mechanism for imparting a reciprocating motion to said plunger.

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