

(No Model.)

J. D. McKENNEY & T. W. BROWN.

CARTRIDGE LOADER.

No. 327,185.

Patented Sept. 29, 1885.

Fig. 1.

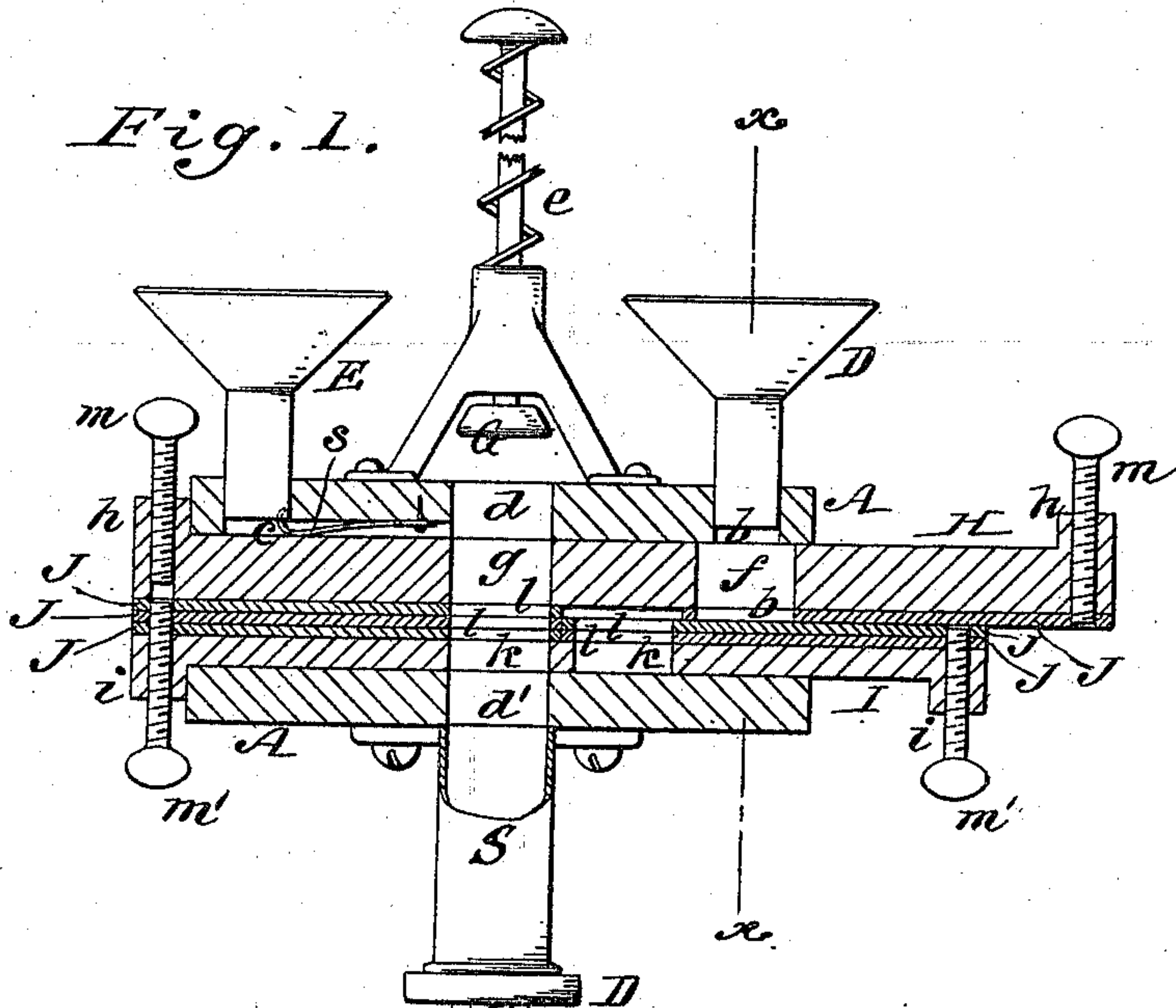


Fig. 3.

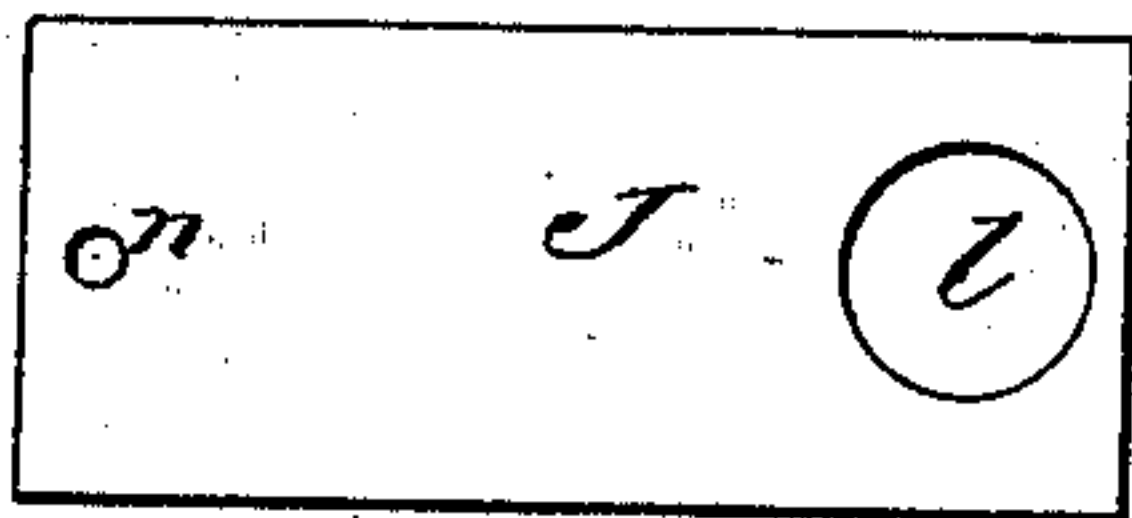
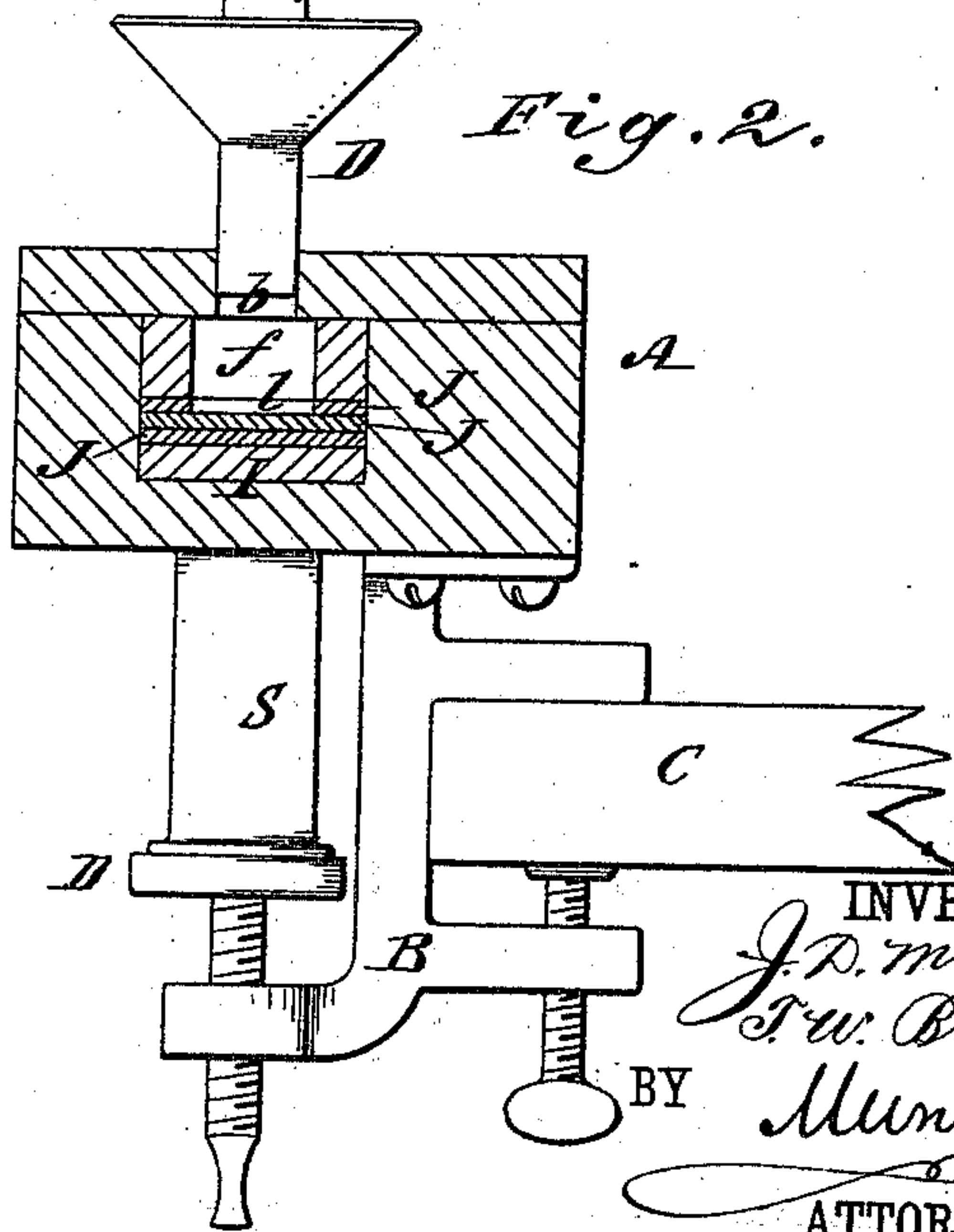


Fig. 2.



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# UNITED STATES PATENT OFFICE.

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## CARTRIDGE-LOADER.

SPECIFICATION forming part of Letters Patent No. 327,185, dated September 29, 1885.

Application filed February 16, 1885. (No model.)

*To all whom it may concern:*

Be it known that we, JACOB DILL MCKENNEY and THOMAS WALTER BROWN, both residents of Chattanooga, in the county of Hamilton and State of Tennessee, have invented certain new and useful Improvements in Cartridge-Loaders, of which the following is a full, clear, and exact description.

This invention consists in a shell or cartridge loader having great capacity, yet simple in its construction and operation, and in which a series of slides are used to increase or diminish the charge, as desired, substantially as hereinafter described and claimed.

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

Figure 1 represents a mainly sectional longitudinal elevation of a cartridge-loader embodying our invention; Fig. 2, a transverse section on the line *xx* in Fig. 1, and showing the device as attached to a table or bench; and Fig. 3 is a plan view of one of a series of small slides used in the loader.

A indicates the body of the loader, which may be made of wood, carried by a screw-clamp, B, for attachment to a bench or table top, C, said clamp being provided with an adjustable screw-stand, D, for support of the shell S to be loaded, and so as to bring its mouth or open end immediately beneath or up against the body A, midway of the length of the latter, or thereabout.

Mounted on and projecting down at their spout ends into the upper portion of the body A, or top cover thereof, at like distance from opposite sides of the axial line of the shell, are arranged a powder-hopper, D, and shot-hopper E, of any suitable construction, the top or cover of the body being suitably perforated, as at *b c*, for the purpose, and so as to pass the charges to the filling or graduating slides within the body. Centrally intermediate apertures, *d d'*, immediately over or in line with the shell, are also made in the upper and lower portions of the body A for the rammer G to force the charges and wads home into the shell, said rammer being returned by a spiral spring,

*e*, up to its normal position after being depressed to load the shell.

Arranged to work within or through the body in direction of its length immediately below the apertures *b*, *c*, and *d* is an upper slide, H, having apertures *f g* through it, situated at only half the distance apart of the apertures *b* and *c*. The length of travel of this slide is limited, as by stops *h h*, or otherwise, so as to bring either aperture *f* or *g* alternately under the central upper aperture, *d*, and either one of the apertures *b c*, according to the direction in which the slide is moved.

I is a lower slide arranged to similarly work through the body A, but situated at some little distance apart from and beneath the upper slide, H, and having only half the length of motion of the upper slide, H, its throw being determined by stops *i i*, or otherwise. This lower slide, I, has duplicate apertures *k k* through it, arranged and spaced at such a distance apart as to bring one or other of said apertures in line with the apertures *d d'*, according to the direction in which said slide is moved. Between these slides H and I are any number of shorter or half slides, J, mounted one upon the other at both or opposite ends of the lower slide, I, and meeting in the center thereof. These intermediate slides, J, are much thinner than the upper slide, H, or upper and lower slides, H I, and have each an aperture, *l*, in them near their inner ends corresponding to the apertures *k k* in the lower slide, I. Said intermediate slides are not designed to have an independent motion apart from the upper and lower slides, H I, with either of which they may be connected by screws *m m*, arranged to engage with holes *n* in or near the outer ends of the intermediate slides; or their attachment may be made by mere pins or catches, instead of screws.

In the operation of the cartridge-loader, first move the upper and lower slides, H I, with their attached intermediate slides, J, to their extreme right. This will deposit the powder from the hopper D in the upper slide, H, and in such, if any, of the intermediate slides, J, that may be attached by the right-hand screw *m* to the said upper slide. This determines



the charge of powder. Then move the upper and lower slides, H I, with their attached intermediate slides, J, to the extreme left. This carries the powder in the upper slide, H, and in any intermediate slide, J, that may be attached thereto over the right-hand aperture *k* in the lower slide, I, and aperture or apertures *l* in any of the right-hand intermediate slides, J, that may be attached to the lower slide, and over the fixed lower aperture, *d'*, to empty the powder into the shell. Such movement also carries the left-hand aperture, *g*, in the upper slide, H, under the shot-hopper E. The wad is then inserted at *d* and driven down by the spring-rammer G, over or on the powder in the shell. Pressure being relieved from the rammer the latter returns to its normal raised position. After this the upper and lower slides, H and I, with their attached intermediate slides, J, are moved back to the right again, which carries the shot to the shell, when the second wad inserted at *d* is driven home in the shell by the rammer G. This completes the loading of the shell, and the loader is left in a proper position to receive a charge of powder for deposit in a succeeding shell.

The left-hand intermediate slides, J, serve to increase the amount of shot in a charge, according to the number of said slides which may be attached by the left-hand screw *m* to the upper slide, H, just as the number, if any, of the right-hand intermediate slides, J, when attached by the right-hand screw *m* to the upper slide, H, increase the quantity of powder in a charge; but by applying independent intermediate slides, J, both at the right and left hand sides of the loader, detachable from the lower slide and attachable to the upper slide at pleasure, the proportion of powder and shot in a charge may be varied, as desired.

Washers of brass or other metal may, if desired, be inserted in the holes in the slides to further regulate the charge. Furthermore, if desired, a small spring, *s*, may be let into the body A, and be secured at its one end thereto, and its other or free end, which projects into the shot-charging aperture *c*, be suitably bent, so that the shot, when passing

from the hopper, will not catch on moving the slides.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination, with the body of the shell-loader having upper and lower central or intermediate apertures, *d d'*, and upper opposite side apertures, *b c*, of the powder-hopper D, shot-hopper E, the upper slide, H, with its duplicate apertures *f g*, arranged to be brought alternately under the central aperture, while the other is under one of the side apertures of the body, and the lower slide, I, also having duplicate apertures *k k*, arranged to be alternately under the central aperture and having only half the motion of the upper slide, for operation together, substantially as specified.

2. The combination of the independent intermediate half-slides, J, having apertures *l* near their inner ends, the upper and lower slides, H I, having different lengths of motion, as described, and provided with duplicate differently-spaced apertures *f g* and *k k*, means, substantially as described, for attaching the intermediate slides to either the upper or lower slides, and the body A, having hopper-apertures *b c* and upper and lower intermediate apertures, *d d'*, essentially as and for the purposes herein set forth.

3. In cartridge-loader, the combination, with the body A, provided with the apertures *b c d d'*, the hoppers D E, and the plunger G, of the slides H I, provided with the apertures *f g* and *k k*, arranged with relation to the apertures of the body, as described, the intermediate half-slides, J, having apertures *l* near their ends, and the screws *m m'*, for securing the said intermediate half-slides to the slides H I, substantially as herein shown and described.

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Witnesses:

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