

(No Model.)

A. LUTZ.
CARTRIDGE LOADER.

No. 387,171.

Patented July 31, 1888.

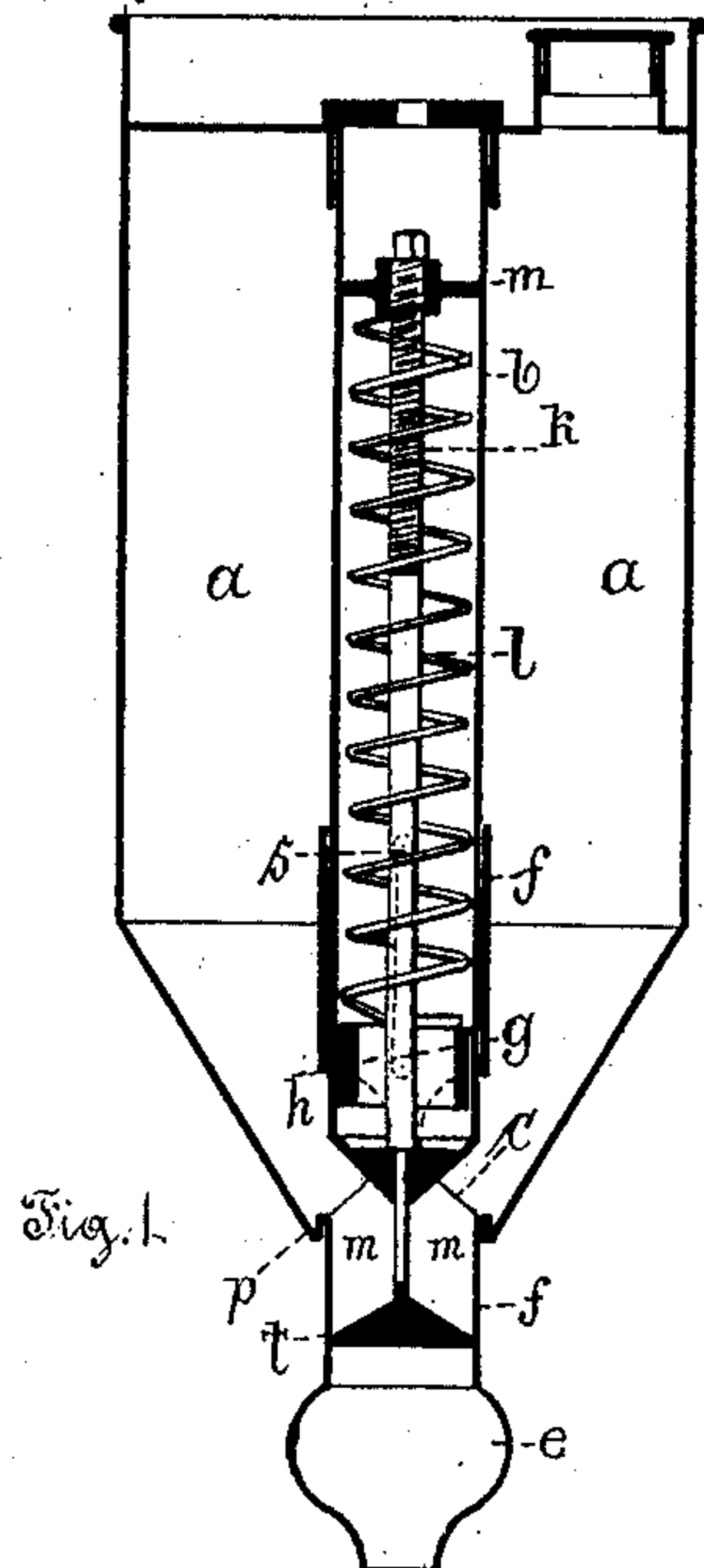


Fig. 1.

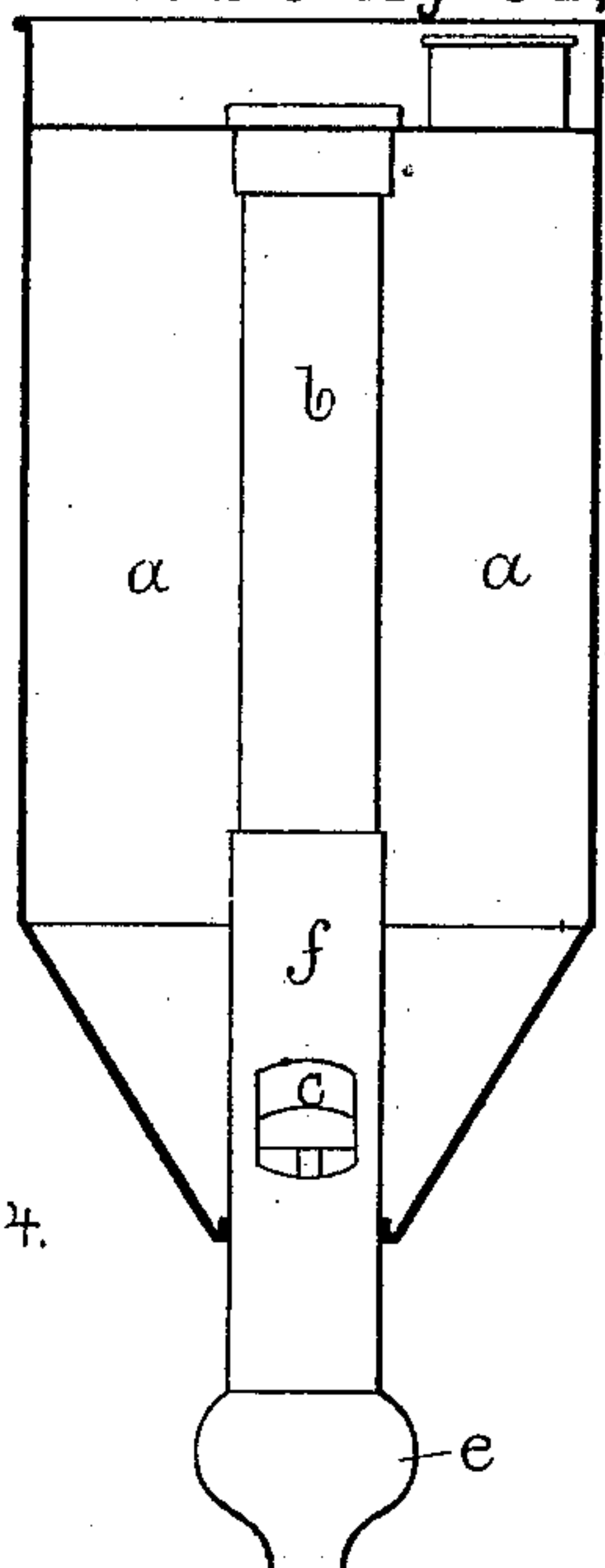


Fig. 4.

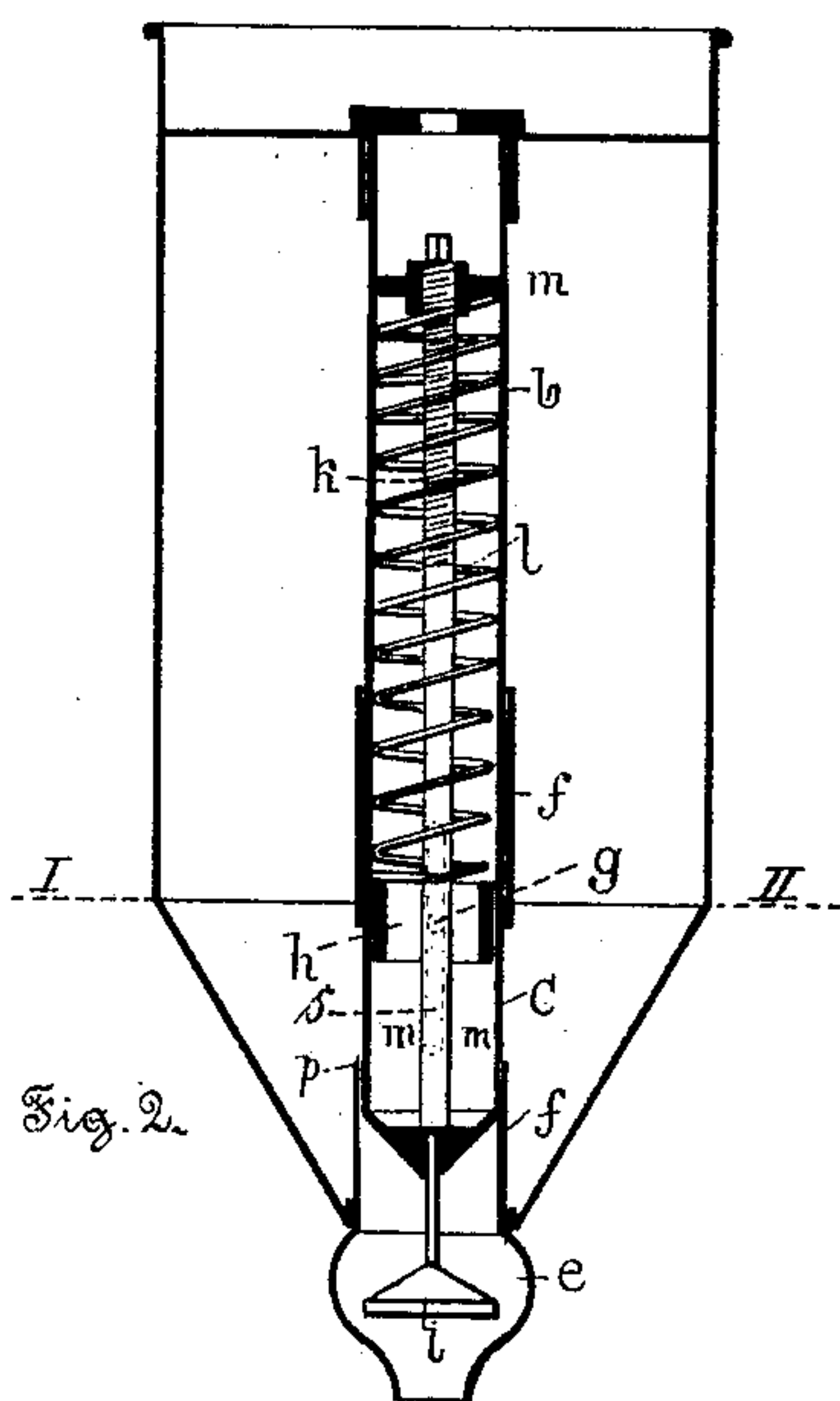


Fig. 2.

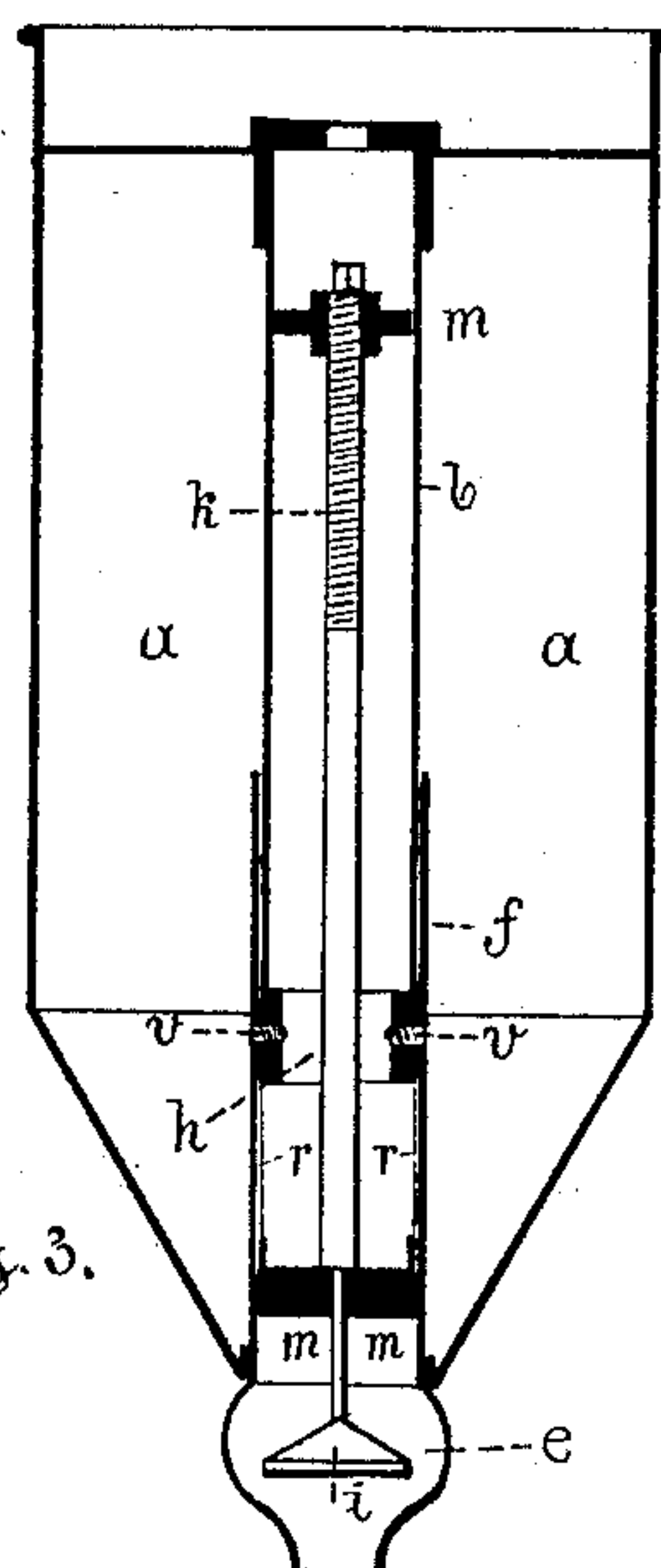
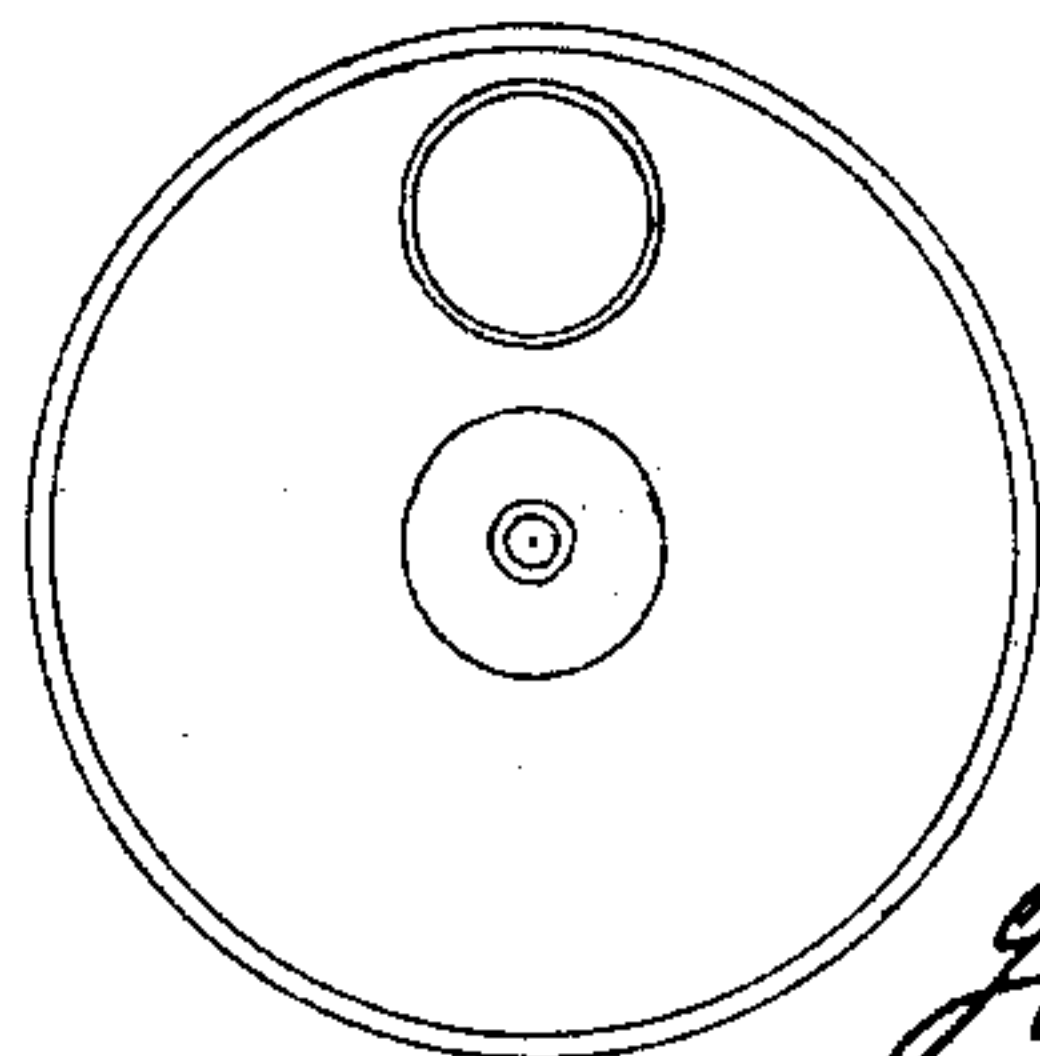
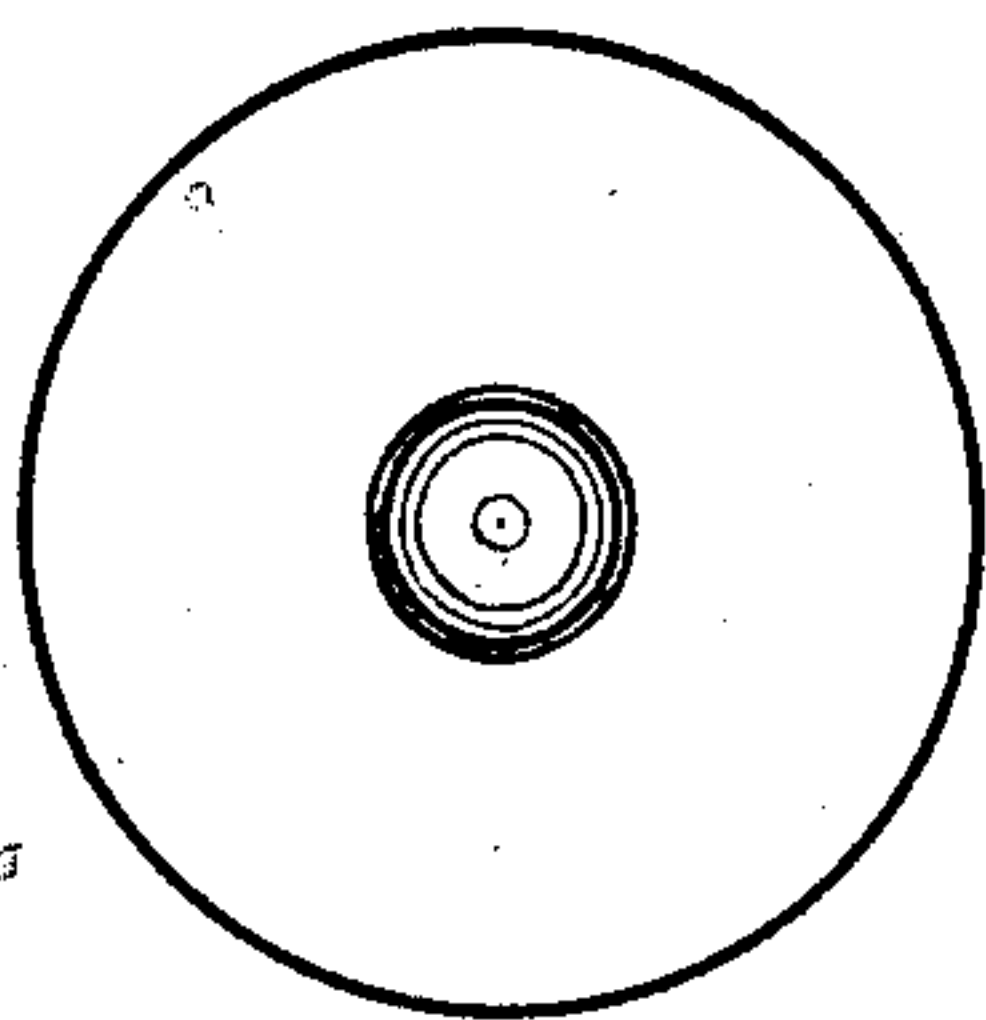


Fig. 3.

Fig. 5.

Fig. 6.

Witnesses
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UNITED STATES PATENT OFFICE.

ANSELM LUTZ, OF MANNHEIM, BADEN, GERMANY.

CARTRIDGE-LOADER.

SPECIFICATION forming part of Letters Patent No. 387,171, dated July 31, 1888.

Application filed November 12, 1886. Serial No. 218,728. (No model.) Patented in Germany February 18, 1886, No. 36,628, and in France June 2, 1886, No. 163,793.

To all whom it may concern:

Be it known that I, ANSELM LUTZ, of Mannheim, in the Grand Duchy of Baden and German Empire, have invented new and useful
5 Apparatus for Filling Gunpowder in Cartridge-Shells, of which the following is a specification, reference being had therein to the accompanying drawings, no patents being obtained anywhere until now by me for this in-
10 vention, except in Germany, No. 36,628, dated February 18, 1886, and in France, No. 163,793, dated June 2, 1886.

My invention relates to apparatus for filling gunpowder in cartridge-shells.

15 The present method of filling cartridge-shells with powder—that is to say, by using a funnel and measure for the purpose—causes much loss of time in wholesale filling. I have constructed a cartridge filling or prim-
20 ing apparatus in which the quantity of powder necessary for each cartridge is measured by a self-acting appliance and poured into the open cartridge-shell by means of a simple pressure to the apparatus.

25 Figure 1 shows a vertical section of the apparatus before use. Fig. 2 shows a vertical section of the apparatus when acting. Fig. 3 shows a vertical section of a modification of the apparatus. Fig. 4 is a partial vertical
30 section of the apparatus, showing the side opening, *c*, of the tube *f*. Fig. 5 is a cross-section through Fig. 2, following the line I I. Fig. 6 is a top view of Fig. 3.

a is a vessel filled with gunpowder, into the
35 lid of which a tube, *b*, is firmly screwed. Upon this tube slides a shell, *f*, which is provided with a lateral aperture, *c*, and a globular enlargement, together with funnel *e*. Shell *f* is firmly connected by means of a pin, *g*,
40 with a slide-piece, *h*, in the tube *b*, and is guided in a slit, *s*, on tube *b*. A screw-bolt, *k*, connected with a valve or locking-piston, *i*, passes in a vertical direction through the tube. A spiral spring, *l*, winds round the screw-bolt
45 *k* and ends in the slide-piece *h* and screw-piece *m*. The object of this spiral spring *l* is to push down the slide-piece, together with the shell *f*, of itself as soon as the pressure has ceased.

The powder is filled into the cartridge-shell 50 in the following way: The apparatus is taken up in the full hand and its funnel-shaped part *e* is put into the hole of the cartridge-shell. By pressing on the latter the shell *f* is shoved up to its globular part over tube *b* into the
55 vessel *a*, and owing to the simultaneous and forced ascending of the slide-piece the spring is compressed. The lateral aperture *c*, through which the powder runs into the measuring space *m*, is closed by part *p* of the shell *f* reach-
60 ing over tube *b*, by which means any subsequent fall of powder is avoided. The quantity of powder intended for the cartridge-shell is thus measured, and when the valve or
65 locking-piston *i* enters the globular part of the shell *f* it falls from all sides into the cartridge-shell, Fig. 2. As soon as the pressure ceases, spring *e* shoves the slide-piece and at the same time the shell *f* out of the vessel,
70 valve *i* shuts the bottom of measuring-space *m* again, and the powder can again run in through the reopened lateral aperture *c*.

The measuring-space is regulated as regards its size and according to the quantity of powder required for the different cartridges by
75 screwing bolt *k* in or out, by which means the space is made larger or smaller.

Fig. 3 represents a modification of this invention. A slit is made on each side of tube
80 *b* and in it run screws *v*, which connect the shell *f* with the slide-pieces *h*. The slits let the powder pass into the measuring-space and from there into the cartridge. The globular funnel falls back into its original position
85 every time after being used.

By the construction of this cartridge-filling apparatus I have rendered it possible to fill a
great number of cartridge-shells in a short time with a certain quantity of powder by
90 simply setting and pressing the filling apparatus on the hole of the cartridge-shell.

What I claim, and desire to secure by Letters Patent of the United States, is—

An apparatus for filling powder into cartridge-shells, consisting in the combination of
95 a vessel, *a*, with a tube, *b*, fastened in it and intended to hold a bolt, *k*, round which a spiral spring, *l*, winds, the said bolt being

provided with a valve or locking-piston, *i*, and a shell, *f*, made to slide over the tube and provided with lateral apertures *c* and funnel *e*, for the purpose of measuring the quantity
5 of gunpowder for the cartridge shell about to be filled, and, further, in combination with a slide-piece, *h*, contained in the tube, which presses the spring together, all for the purpose

of filling a cartridge-shell automatically by pressing said apparatus on the hole of the cartridge-shell, substantially as described.

ANSELM LUTZ.

Witnesses:

TH. EDEN,
K. PFÜND.