

(No Model.)

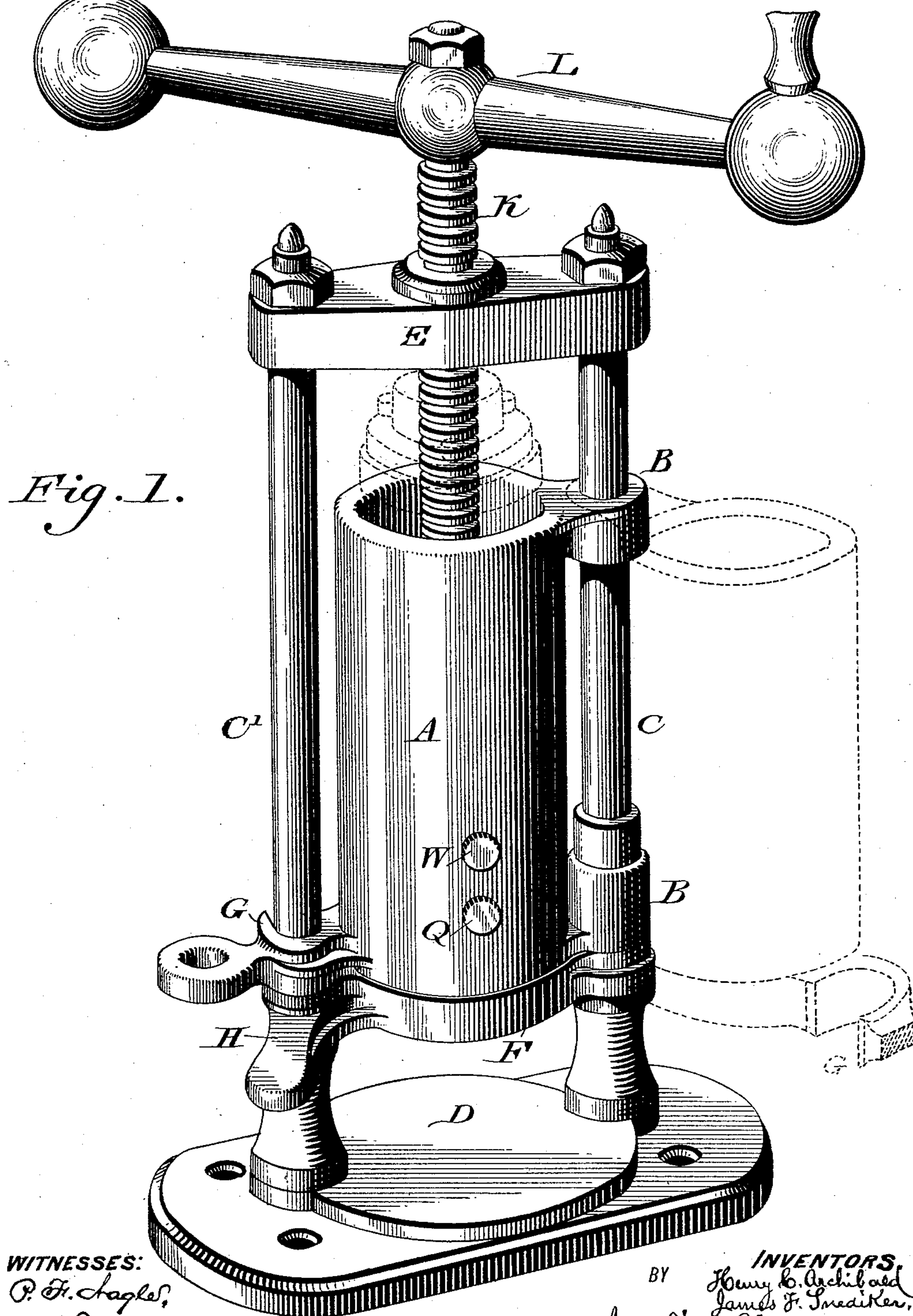
2 Sheets—Sheet 1.

H. C. ARCHIBALD & J. F. SNEDIKER.

SUPPOSITORY MOLD.

No. 452,743.

Patented May 19, 1891.



WITNESSES:

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Fig. 2.

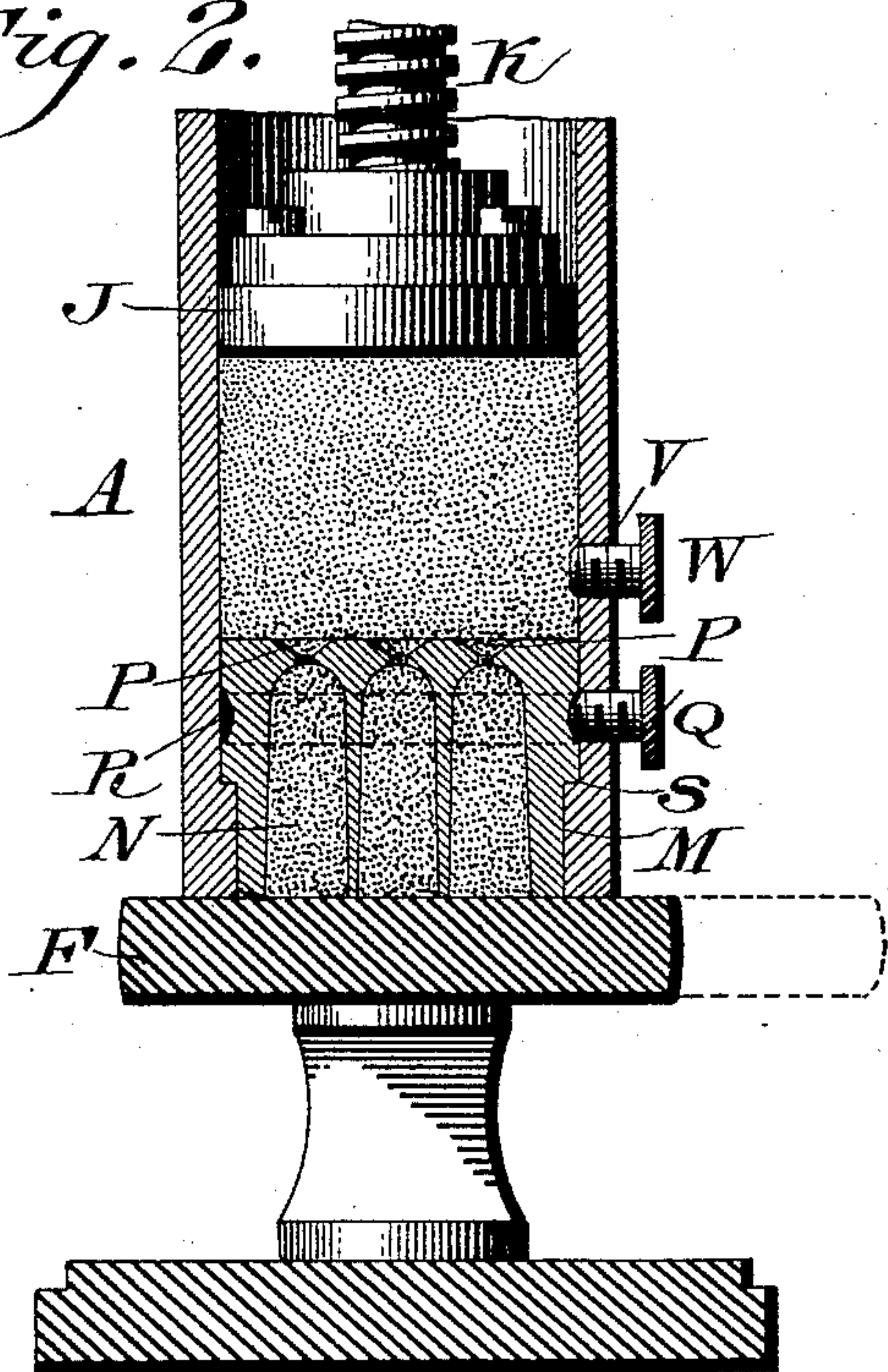


Fig. 3.

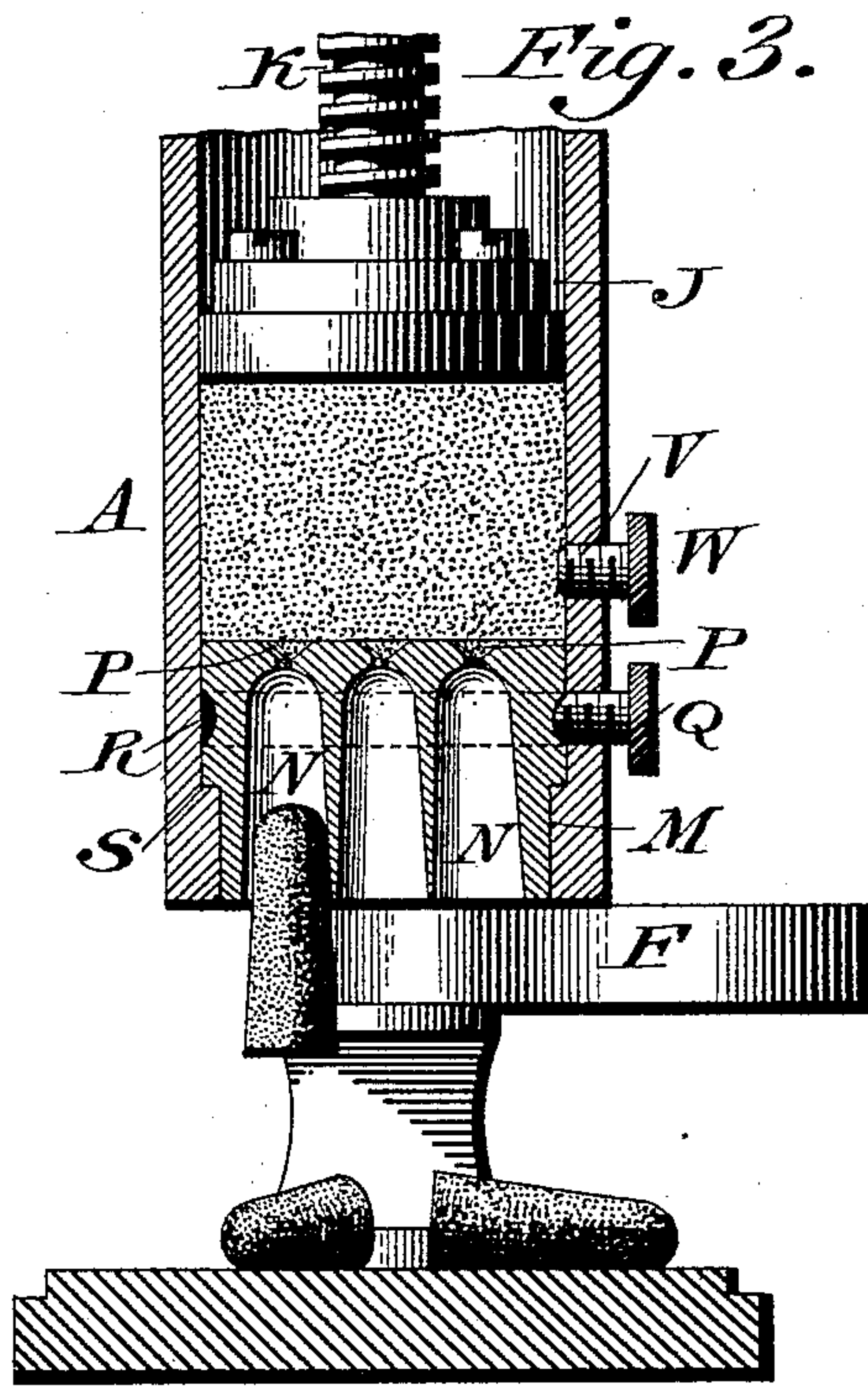


Fig. 5.

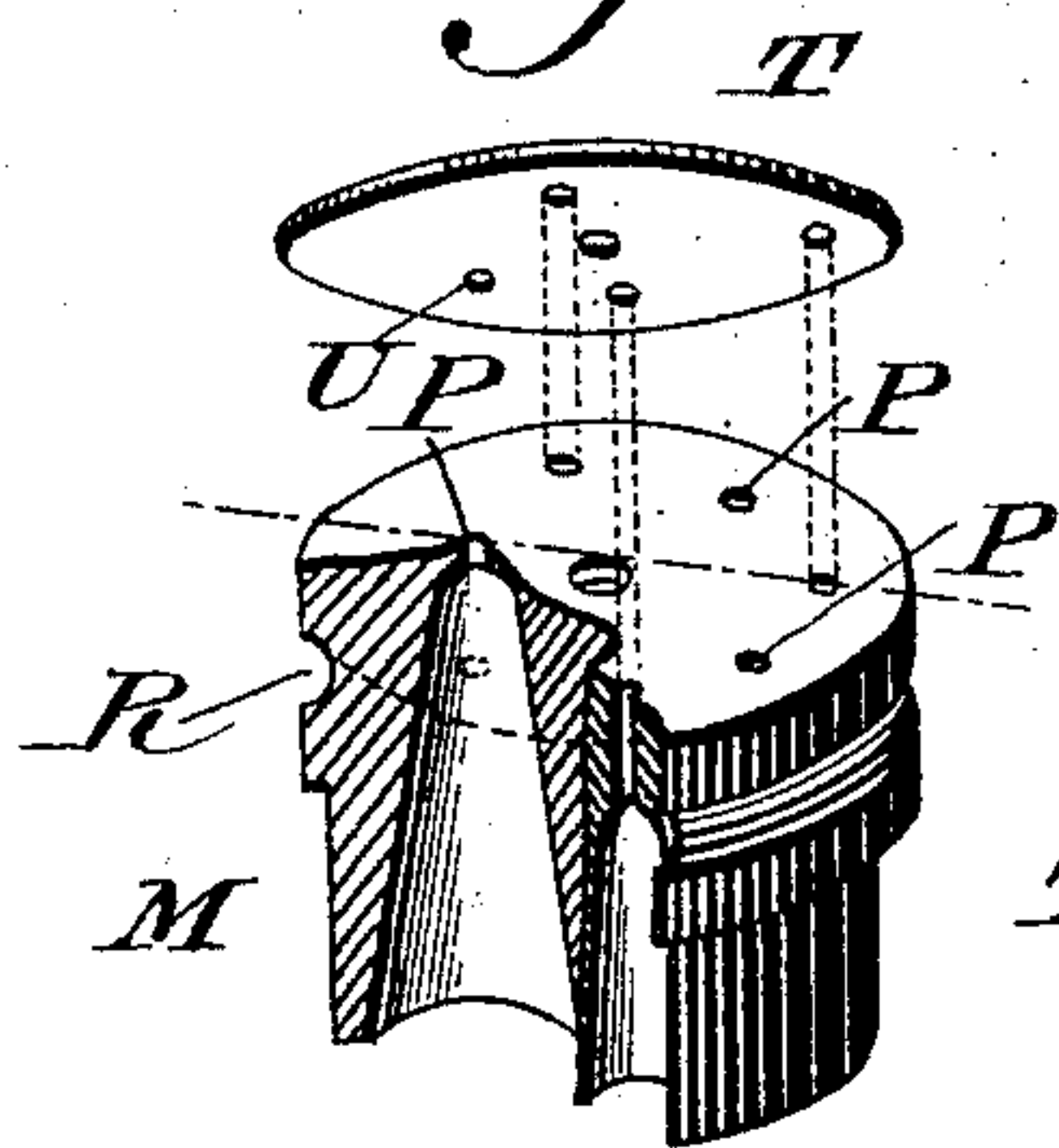


Fig. 4.

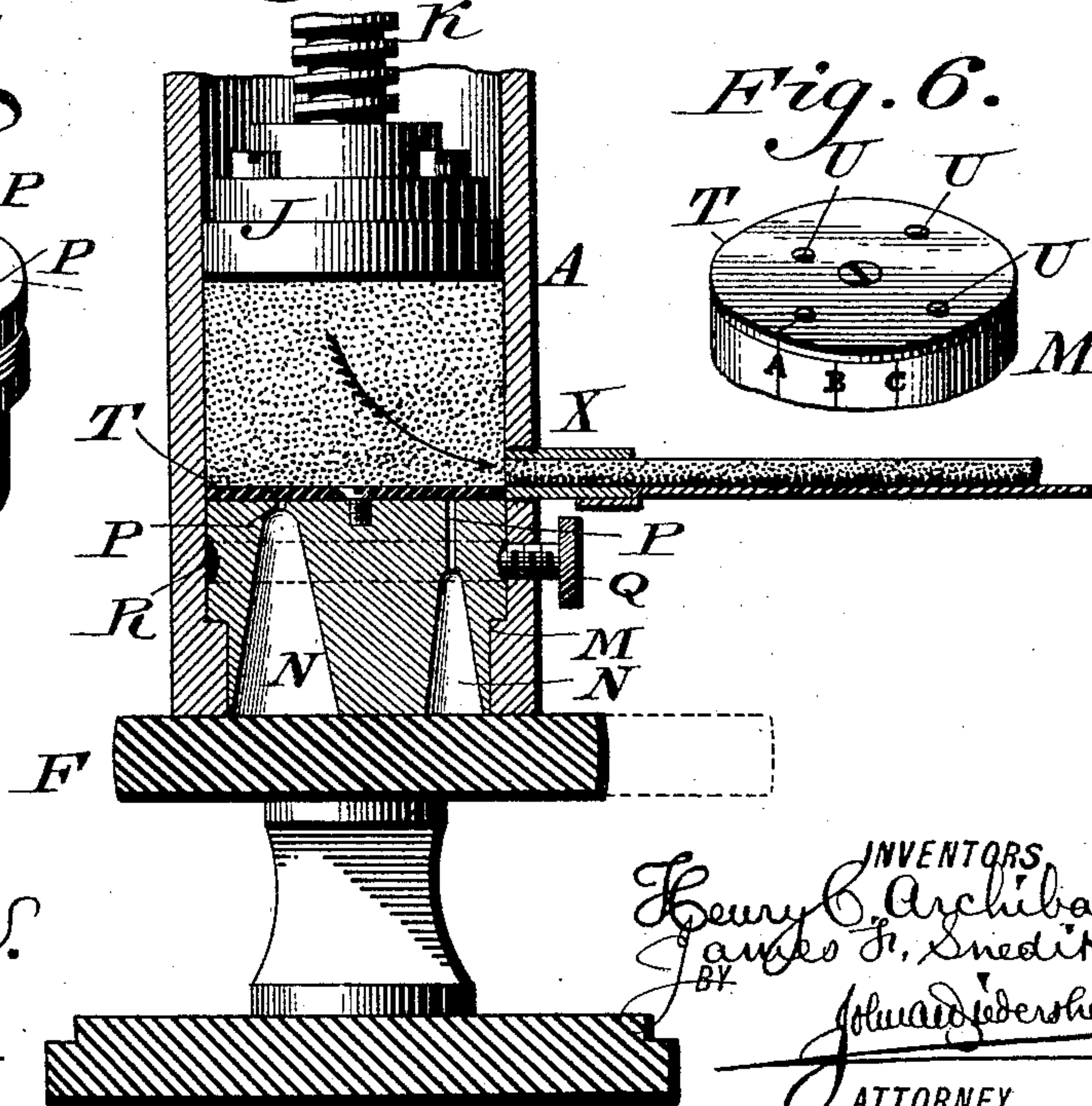
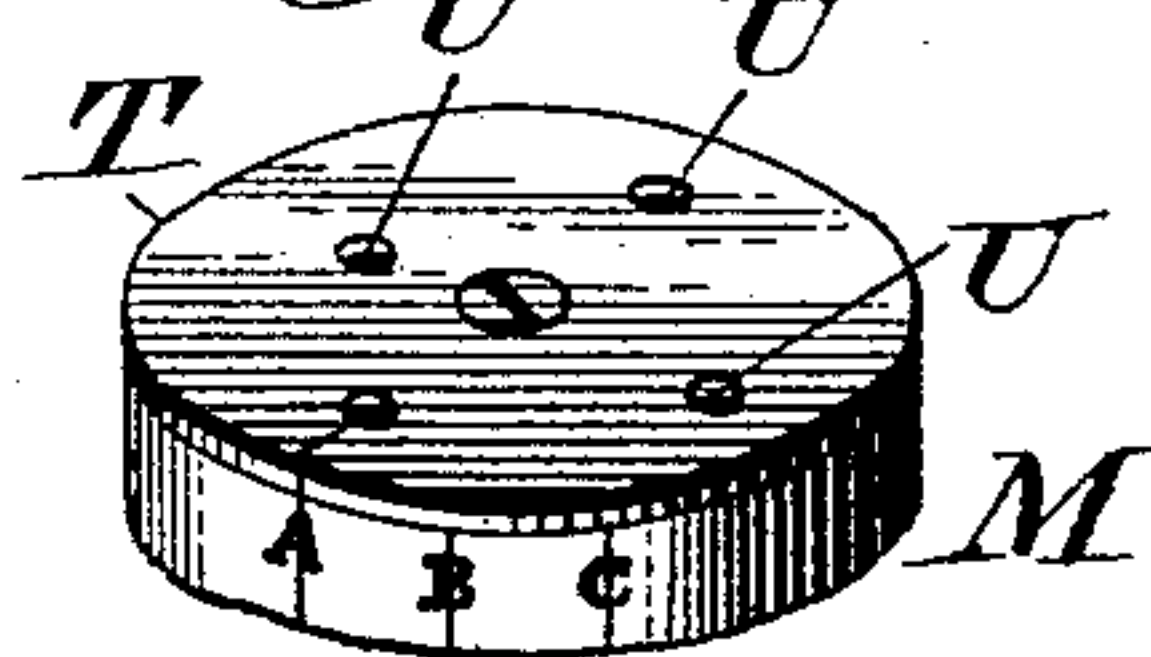


Fig. 6.



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UNITED STATES PATENT OFFICE.

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SUPPOSITORY-MOLD.

SPECIFICATION forming part of Letters Patent No. 452,743, dated May 19, 1891.

Application filed December 8, 1890. Serial No. 373,899. (No model.)

To all whom it may concern:

Be it known that we, HENRY C. ARCHIBALD and JAMES F. SNEDIKER, citizens of the United States, both residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Molding Suppositories, which improvement is fully set forth in the following specification and accompanying drawings.

Our invention consists in improvements in apparatus for molding suppositories, embodying a cylinder or casing, a plunger, and a die or mold, together with a movable bottom or bed, whereby material may be pressed into the die or mold and then discharged therefrom.

It also consists of novel means for molding suppositories of different sizes.

It further consists of novel means for forming the suppository material into a strip or stream.

Figure 1 represents a perspective view of an apparatus for molding suppositories embodying our invention. Fig. 2 represents a vertical section of a portion thereof, showing the dies or molds in filled condition. Fig. 3 represents a similar section showing the ejection of the molded suppositories. Fig. 4 represents a vertical section showing dies or molds for suppositories of different sizes. Fig. 5 represents a perspective view, partly sectional, of the die or mold, Fig. 4, the top plate or cap thereof being separated. Fig. 6 represents a perspective view of a portion of said die or mold, the top plate or cap being in position.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a cylinder, which is open at top and bottom and provided with ears B, through which freely passes the standard C, which, with the opposite standard C', rises from the base D, the top of the standards being connected by a cross-head E, whereby said standards are firmly braced.

F designates a plate, which is mounted on the standard C and occupies the position beneath the cylinder A as the bottom thereof.

The cylinder A is provided with an open

eye G and the bottom plate F with an open eye H, said eyes engaging with the standard C', whereby the cylinder may be connected with said standard and firmly retained in stationary position. When, however, the holding power of said eyes G H is overcome, the cylinder and bottom plate may be turned or swung laterally on the standard C as an axis, for purposes to be hereinafter explained.

Within the cylinder A is a plunger J, with which is connected the screw-stem K, which is fitted to the cross-head E and provided with a suitable lever or handle L for operating purposes. Within the cylinder, at the lower portion thereof, is the head M, containing the dies or molds N, which are of the form of suppositories, the upper wall of the molds having ducts P, which form communications between the interior of the cylinder and said molds. The head is removably held within the cylinder by means of a screw Q, which passes through the wall of the cylinder and enters a circumferential groove R in the head, said head also resting upon a shoulder S within the cylinder, whereby it is well enabled to endure the downward strain or pressure to which it is subjected while the apparatus is in operation.

The operation is as follows: The plunger J is raised and the cylinder thrown back, as shown by the dotted lines, Fig. 1, after which said cylinder is supplied with suppository material and then returned to its normal position. By swinging the cylinder from under the plunger, as stated, the upper end is thereby unobstructed and readily filled with the material to be molded. The plunger is now depressed, whereby the material is forced through the ducts P into the molds N, the base of the latter being formed by the plate F. (See Fig. 2.) When the molding is accomplished, the plate F is thrown back or from beneath the cylinder, whereby the suppositories are permitted to drop from the molds, as will be seen in Fig. 3. The plate may be returned to its first position, thus again closing the bottom of the cylinder, and the molding of suppositories continued. The cylinder may be replenished as required and the molds or molding-head removed for re-

pairs, cleansing, &c., or replaced by a head having molds or dies of different sizes.

In order to mold suppositories of different sizes in the same head, we employ the head M, (shown in Figs. 4, 5, and 6,) the same having dies or molds of different dimensions with ports P in the top wall thereof. Pivoted to said wall and resting thereon is a gage plate or cap T, which has openings U therein registering with the ducts P of the dies or molds N, so that when the plate is rotated the dies or molds of a certain size are in communication with the cylinder, and when the plate is further rotated the dies or molds of another size are in communication with the cylinder and provision may be made for other sizes, it being evident that the dies or molds that are in communication with the cylinder may be filled with suppository material when pressed or forced downwardly by the plunger J. It will also be noticed that when said plate T is turned in a certain position it will entirely cut off communication with the molds, as seen in Fig. 4, and then form a supplemental bottom to facilitate the operation of the nozzle X, hereinafter referred to.

The wall of the cylinder is provided with an opening V, which is normally closed by a screw or plug W; but when the latter is removed a nozzle X is inserted in place thereof and the head T rotated so as to cover all of the ducts of the head M, whereby when the press is operated the material flows from the cylinder in the form of a stream, as illustrated in Fig. 4, the same being severed or cut into lengths or pieces, as desired.

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

1. An apparatus for molding suppositories, having a cylinder and plunger, a mold in said cylinder, and a swinging plate covering one end of said cylinder, the latter constituting

the bottom of the cylinder, substantially as described.

2. In an apparatus for molding suppositories, the swinging cylinder A, having an opening in one side and swinging bottom plate F thereof, substantially as described.

3. In an apparatus for molding suppositories, the standards C C', the supporting-base D, and the cross-head E, in combination with the swinging cylinder A, the swinging bottom plate F, the plunger J, and operating screw-system K, said cylinder and plate being mounted on the standard C and adapted to engage with the standard C', substantially as described.

4. In an apparatus for molding suppositories, a cylinder having a shoulder, a die or mold in said cylinder resting on said shoulder and having a circumferential groove, and a screw on the cylinder engaging in said groove of the die or mold, said parts being combined substantially as described.

5. An apparatus for molding suppositories, having a head provided with dies or molds of different sizes, the same being provided with a gage plate or cap, which is adjustable, so as to place one or more sets of dies or molds of a kind in communication with the pressing-cylinder, said parts being combined substantially as described.

6. In an apparatus for molding suppositories, a cylinder having a gage plate adapted to form a supplemental bottom, and a discharge-opening in its side, in combination with a nozzle adapted to be fitted in said opening for ejecting the suppository material in the form of a strip or stream, substantially as described.

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