

No. 670,792.

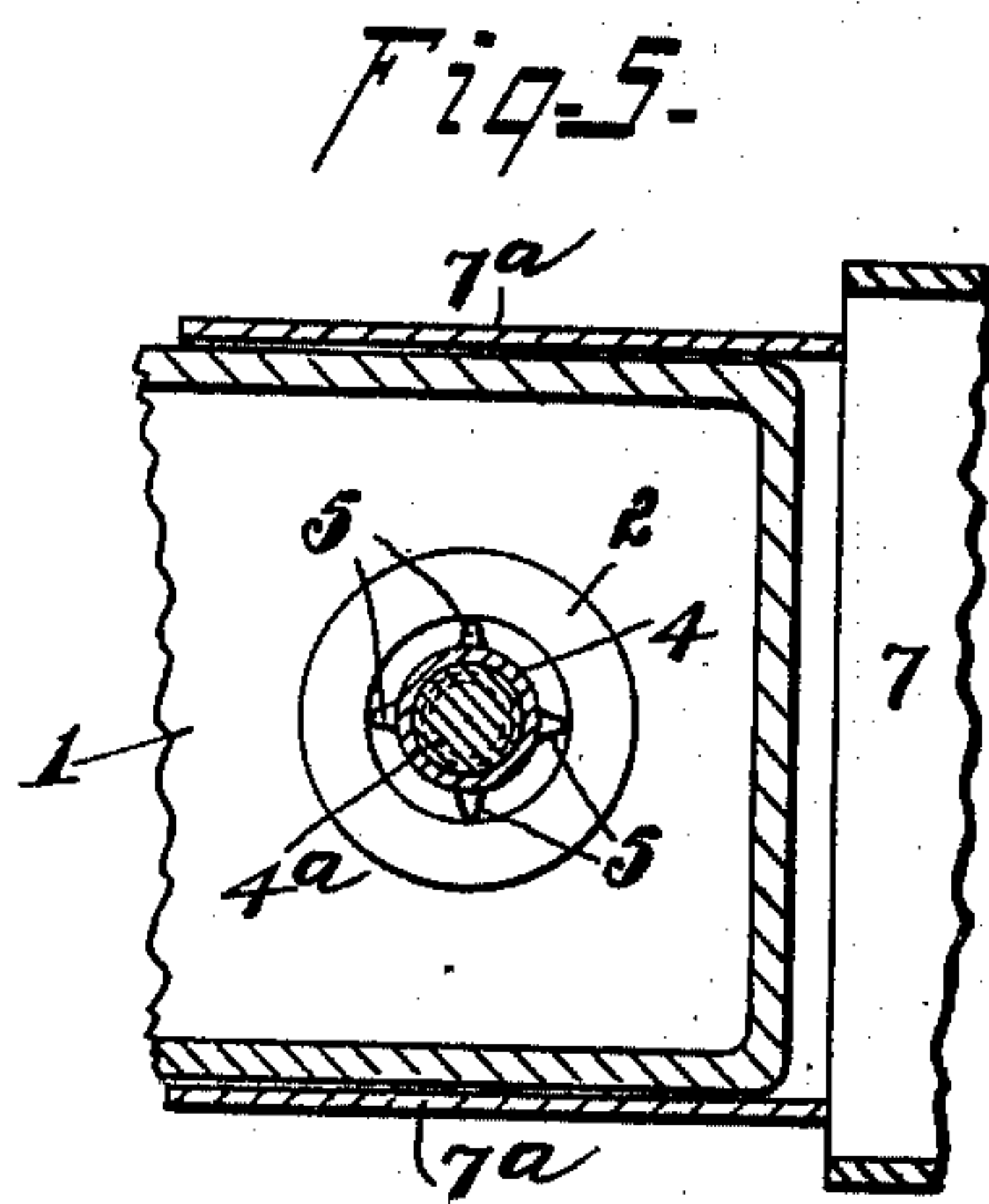
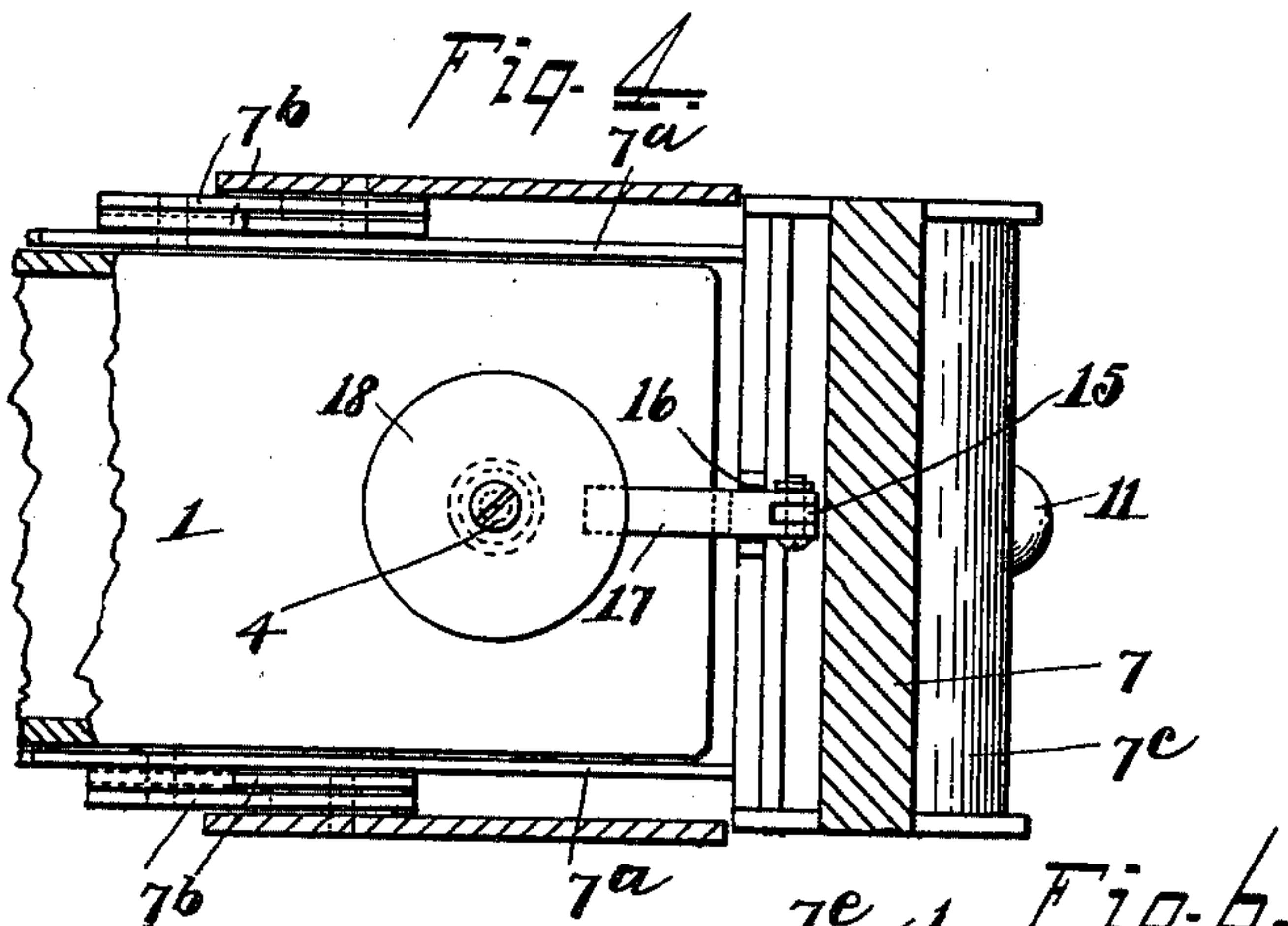
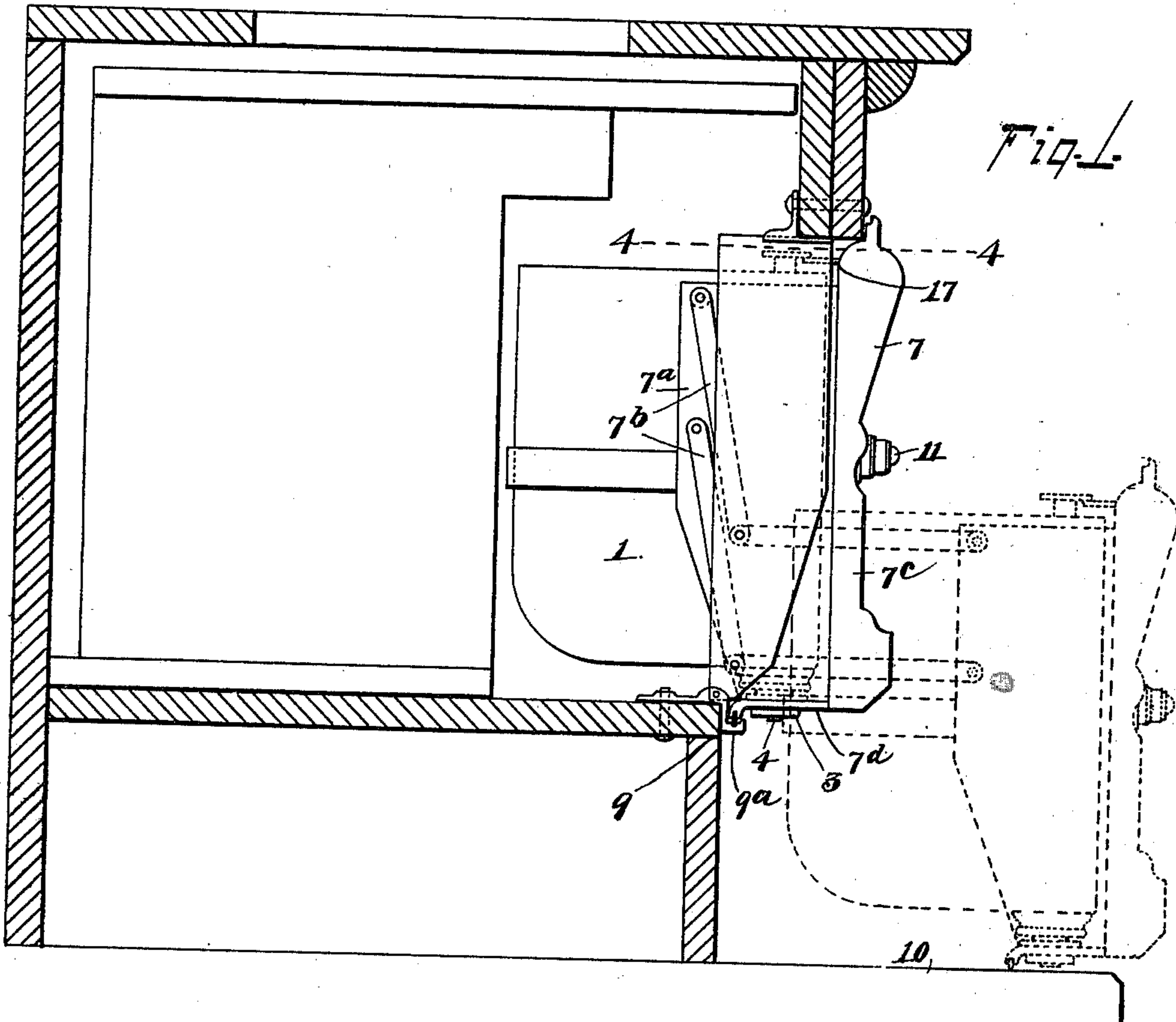
F. H. LIPPINCOTT.
SODA FOUNTAIN.

Patented Mar. 26, 1901.

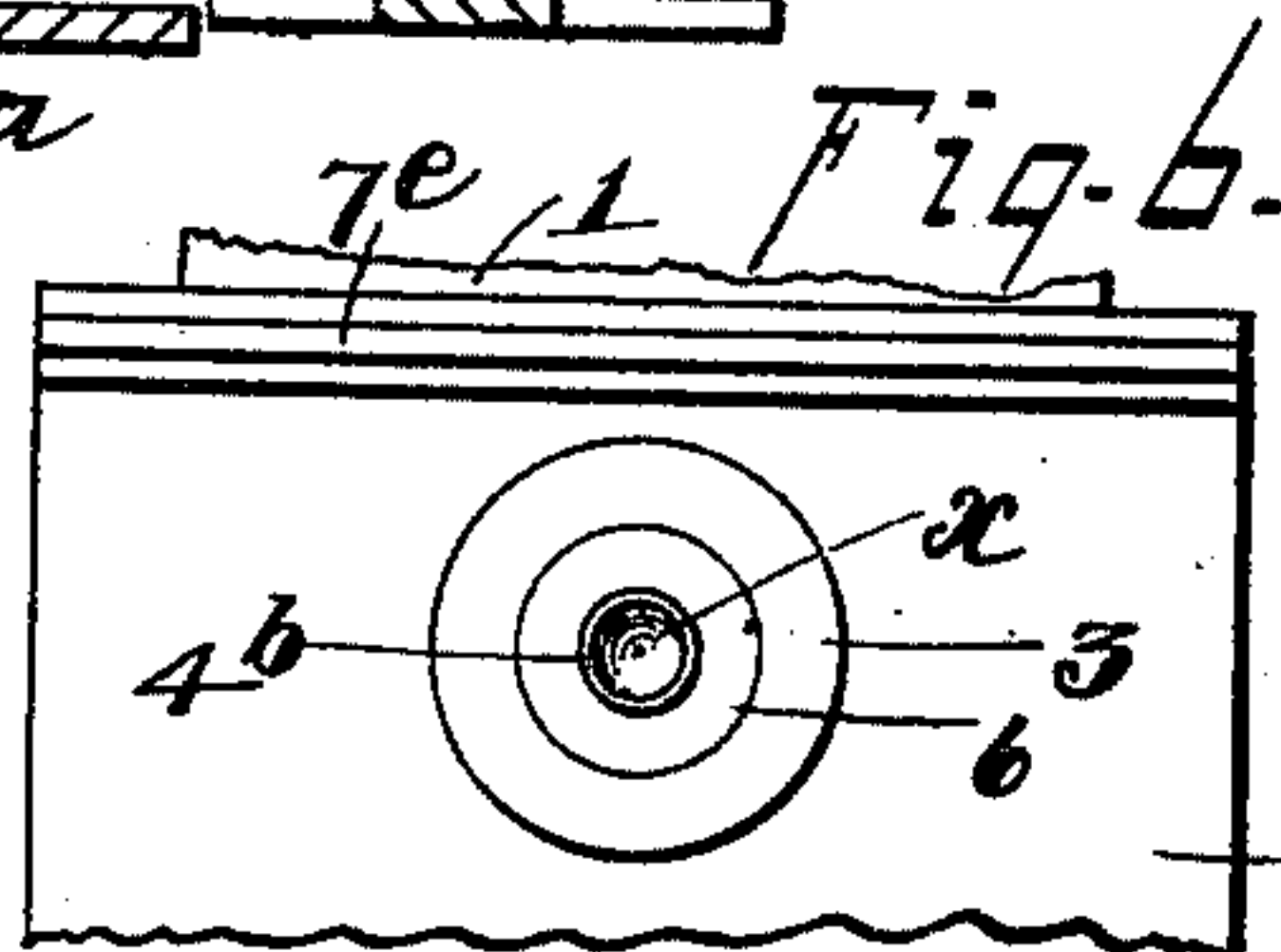
(No Model.)

(Application filed Apr. 1, 1899.)

2 Sheets—Sheet 1.



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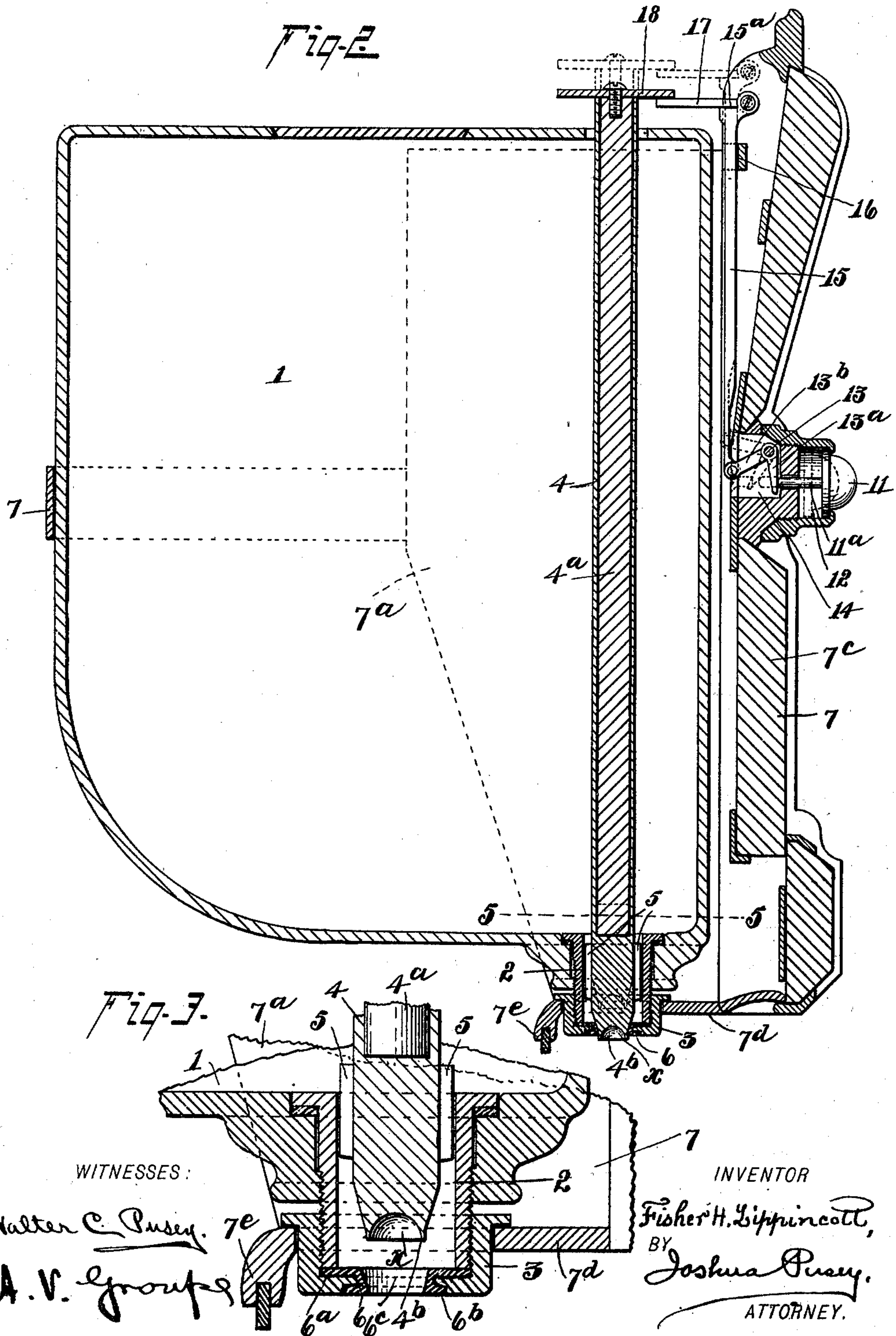
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2 Sheets—Sheet 2.



UNITED STATES PATENT OFFICE.

FISHER H. LIPPINCOTT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
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SODA-FOUNTAIN.

SPECIFICATION forming part of Letters Patent No. 670,792, dated March 26, 1901.

Application filed April 1, 1899. Serial No. 711,394. (No model.)

To all whom it may concern:

Be it known that I, FISHER H. LIPPINCOTT, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Soda-Fountains, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1, Sheet 1, is a longitudinal vertical section of a soda-fountain in which my invention is embodied. Fig. 2, Sheet 2, is an enlarged vertical section of the syrup-jar and its containing-frame, the faucet-exit being closed. Fig. 3, Sheet 2, is an enlarged view of the lower portion of Fig. 2, broken away, but showing the faucet open. Fig. 4, Sheet 1, is a section, enlarged, on line 4 4, Fig. 1. Fig. 5 is a full section as on line 5 5, Fig. 2. Fig. 6 is an inverted plan view, partly broken away, of the jar-containing frame.

The object of this invention is to provide an improved faucet construction and means for operating the same, more especially for the syrup-jars of soda-fountains.

The invention is particularly useful and was more particularly designed for use with syrup-jars of that class of soda-fountains in which the jars are contained in compartments of the fountain and are inserted and removed when required longitudinally from the front of the fountain.

The precise nature of my improvements will appear from the following description, in connection with the accompanying drawings, which illustrate that form or embodiment of the invention which I have put into use.

Referring to the said drawings, 1 designates a syrup-jar of known form and having inserted in a suitably-located opening in its bottom a tubular bushing or nozzle 2, upon the lower projecting end of which is screwed an external cap 3, having a circular opening in its bottom.

4 is a vertically-disposed rod, hereinafter termed the "faucet-rod," whose upper end extends through a guide-aperture in the top wall of the syrup-jar and whose lower end extends into and concentrically with the nozzle 2. As seen, the rod is of less diameter than

the interior of the nozzle and is provided with projections or lugs 5, four in number in this instance, as seen in Fig. 5, which, fitting against the wall of the nozzle, serve to guide the rod 4 in its vertical movements, as hereinafter described. The lower end of the rod is made tapering, as shown, so that when it is in the depressed position, as in Fig. 2, the said end will enter the aforesaid opening in the bottom of the cap 3 and become seated therein, or rather in a soft-rubber bushing of the orifice, as hereinafter described, and so prevent the escape of the syrup within the jar.

In order to insure a tight joint, I prefer to employ a construction that is shown more clearly in Fig. 3. This consists of an annular gasket or bushing 6, of soft india-rubber, preferably of the tapering form seen in said figure—that is to say, having an upper flange 6^a and a lower flange 6^b and an opening 6^c, which when the annulus is in place forms the exit of the faucet. This annulus is placed over the edge of the opening in the cap 3, that part of the bottom of the latter occupying the groove between the two flanges 6^a and 6^b. The cap is now screwed onto the nozzle 2, and thus the rubber annulus will be held firmly in place, as seen in Fig. 3.

The faucet-rod 4 is made of vulcanite and is tubular, except at and near the lower end, and is fitted with a solid metal rod 4^a. In this way I secure a desired weight within and a material externally which will not be affected by the syrup with which the jar is charged. The extreme lower end 4^b of the rod 4 is substantially straight-sided for a short distance below the tapering portion and of a diameter to fit closely the lower part of the bushing 6. This straight-sided portion of the rod is made tubular with quite thin walls, as a knife-edge, as clearly seen in Figs. 2, 3, and 6, the end of the rod being hollowed out at α , so as to produce that result. This straight portion 4^b projects beyond the end of the bushing 6 when the faucet-rod is in the depressed or closed position.

It will be obvious that if the faucet-rod be raised from the position shown in Fig. 2 to that of Fig. 3 syrup contained within the jar will flow out from the exit-opening 6^c and

that upon depressing the rod the flow will be cut off.

The object of the aforesaid thin-edged straight portion of the faucet is to obviate a certain difficulty that has heretofore existed in syrup-jar faucets of the general character of that shown in the drawings. This difficulty or objection has been that when the rod was depressed to cut off the flow of syrup a quantity or drop of the latter would adhere to the broad underside of the end of the rod, and finally the successive drops would solidify and gum up the end of the rod. In my improved construction the edge of the rod being a knife-edge presents little surface for the syrup to adhere to, and in practice it will fall off or be shaken off when the rod descends to close the exit-opening.

As my improved faucet construction is particularly intended to be applied to the syrup-jars of that kind of soda-fountains wherein the jars are wholly contained within compartments of the fountain, it is necessary in such case that the faucet-rod shall be capable of being conveniently operated to open and close the faucet exit-opening from the exterior of the fountain. I have shown in the drawings and shall now proceed to describe a construction and devices whereby such operation may be readily effected, at the same time without interference with the ready removal and replacement of the syrup-jar.

In the particular construction shown in the drawings the jar, although normally occupying a compartment of the fountain, is contained within a frame 7, whose sides 7^a have pivotally connected thereto two bars 7^b, whose lower ends are pivotally connected to the inner sides 8 of the compartment. Said frame has a front 7^c and a bottom 7^d, with a downwardly-turned rear end 7^e, that rests upon a ledge 9^a of the casing 9 of the fountain, the bottom 7^d being provided with an opening which receives the cap 3. When it is required to withdraw the syrup-jar from its compartment, the frame 7 is drawn outwardly, swinging upon the pivoted bar 7^b, and with the contained jar is carried into the position indicated by the dotted lines in Fig. 1—that is, with its lower side, or rather the downturned end, resting upon the table 10, which supports the fountain itself. As this construction, which I have described in a general way, will form the subject of an application for Letters Patent to be filed simultaneously with this application for my present invention, I do not deem it necessary to describe the same more particularly herein.

The means and devices for operating the faucet-rod are as follows: 11 is a push-button adapted to work in a circular recess 12 of the front 7^c of the aforementioned jar-containing frame 7. This button has a stem 11^a, whose inner or free end is adapted to impinge against the vertical arm 13^a of a bell-crank lever 13, which is pivoted in a cavity 14 in the inner

side of the front 7^c. To the other arm, 13^c, of said lever is pivoted the lower end of a bar 15, that is adapted to slide vertically in a guideway 16 of the part 7^c. Connected to the upper end of this bar is a horizontal rearwardly-extending arm 17, whose free end takes under a flange or disk 18, that is fastened to the upper end of the faucet-rod, as clearly shown in Fig. 2.

In order to permit the ready insertion and removal of the syrup-jar from its containing-frame when the latter is withdrawn from the compartment of the fountain, as hereinbefore described, I hinge the forward end of the arm 17 to the top of bar 15, which is outwardly bent, and allow the arm to rest upon the flat top 15^a or offset of the rod, as seen in Fig. 2. Obviously when the jar is lifted out of its frame the arm will turn upward on its pivot and allow the jar to pass, and when the jar is replaced the arm may be returned to the operative position.

Normally the described parts occupy the positions seen in Fig. 2, the faucet-rod being weighted, as before described, so as to tend to close the exit-opening, and at the same time through the described mechanism connecting the rod and the push-button to maintain the latter in the outward position shown in said figure. When it is desired to draw off a quantum of the syrup, which may be received in a glass placed upon the table beneath the exit-opening 6^c, it is merely required to push in the button 11, whereupon through the mechanism before described the faucet-rod will be elevated, as indicated by the dotted lines in Fig. 2. On releasing the button the rod will descend, and so return the button, &c., to the former position. It will be obvious that the quantity or size of the stream of syrup allowed to flow from the jar may be nicely regulated by the extent to which the button is pushed in.

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

1. The combination with the syrup-jar having the faucet-opening, of the vertically-slidable faucet-rod having its lower end tapering and adapted to seat in said opening, and having also the knife-edge extremity projecting below said opening when the said rod is seated in the latter, substantially as and for the purpose set forth.

2. In a faucet device of the nature described, the vertically-slidable faucet-rod formed of a tube of vulcanite, with a solid tapering lower end portion of the same material, and the cylindrical body of metal within the tubular part of said rod, as and for the purpose specified.

3. The combination of the syrup-jar having the annular tapering faucet-opening, the soft or elastic rubber bushing thereof, and the vertically-slidable faucet-rod having the tapering end adapted to seat in the opening of said bushing, said rod having also a knife-

edge extremity at its lower end for preventing accumulation of drip thereon, substantially as and for the purpose specified.

4. The combination of the syrup-jar, the tubular bushing removably secured in the bottom thereof and projecting below the same, the cap secured to said bushing exterior of the jar and having the opening in the bottom thereof, the annular flanged bushing of said opening, and the vertically-slidable faucet-rod having the tapering end adapted to seat in the opening of the last-mentioned bushing, substantially as and for the purpose described.

5. The combination of the syrup-jar, the frame in which the same is contained having the sides, front and bottom, the tubular bushing removably secured in the bottom of said jar and projecting below the same, the flanged cap secured to said bushing exterior of the jar and having the exit-opening, and seated in an opening in the said jar-containing frame, the vertically-slidable faucet-rod having the tapering end adapted to seat in the said exit-opening of the cap, and means for operating said rod from the outside of the jar-containing frame, substantially as and for the purpose set forth.

6. The combination of the syrup-jar-containing frame, the jar therein having an exit-opening in the bottom thereof, the faucet-rod adapted to slide vertically in guideways of said jar and thereby to open and close said exit-opening, the push-button in the front of said jar-containing frame, the bell-crank lever, and the vertically-movable bar having its lower end pivotally connected to and carried by said lever, and having an arm hinged to its upper end adapted to engage the upper end of said faucet-rod, substantially as and for the purpose described.

7. The combination of the syrup-jar-containing frame, the jar therein having the exit-opening in the bottom thereof, the gravity faucet-rod whose lower end is adapted to seat in said opening, and which rod is adapted to slide vertically in guideways of said jar, a lateral projection on the upper end of said faucet-rod, the vertically-movable bar, 15, the horizontally-extending arm hingedly connected to the upper end of said bar adapted to engage the under side of said projection of the faucet-rod, the bell-crank lever pivoted to the front of the said jar-containing frame, to the inner arm of which lever the lower end of said

bar is pivoted, and the push-button adapted to impinge against the outer arm of said bell-crank lever, whereby, when said button is pushed inwardly the faucet-rod will be elevated, thereby opening the said exit-opening of the syrup-jar, and when said button is released, the said rod will descend by its gravity, and close said opening, and at the same time return the push-button and the aforesaid connections between it and the faucet-rod to the normal position, substantially as described.

8. The combination of the syrup-jar-containing frame, the vertically-removable jar therein having the exit-opening in the bottom portion thereof, the vertically-slidable faucet-rod adapted to open and close said opening, a projection, as 18, on the upper end of said rod, the push-button in the front of the jar-containing frame, the vertically-movable bar, 15, suitable connections between said bar and push-button, the horizontally-extending arm pivoted to the upper end of said bar, and its face adapted to engage the under side of said projection of the faucet-rod, and a suitable stop for limiting the downward movement of the said bar on its pivot, all constructed and adapted to operate substantially as and for the purpose described.

9. The combination with a syrup-jar provided with an exit-opening, a nozzle fitting within said opening, a cap mounted upon said nozzle, and a gasket interposed between said cap and said nozzle, of a faucet-rod for closing said opening, said rod being provided with lugs or projections adapted to coact with the walls of the nozzle for guiding the faucet-rod in its movements, and means for operating said rod.

10. The combination with a syrup-jar provided with an exit-opening, a nozzle removably secured within said opening, a cap mounted upon said nozzle, and a gasket interposed between said cap and said nozzle, of a faucet-rod for closing said opening, said rod being provided with radially-arranged lugs or projections adapted to coact with the walls of the nozzle for guiding the faucet-rod in its movements, and means for operating said rod.

In testimony whereof I have hereunto affixed my signature this 11th day of February, A. D. 1899.

FISHER H. LIPPINCOTT.

Witnesses:

WALTER C. PUSEY,
JOSHUA PUSEY.