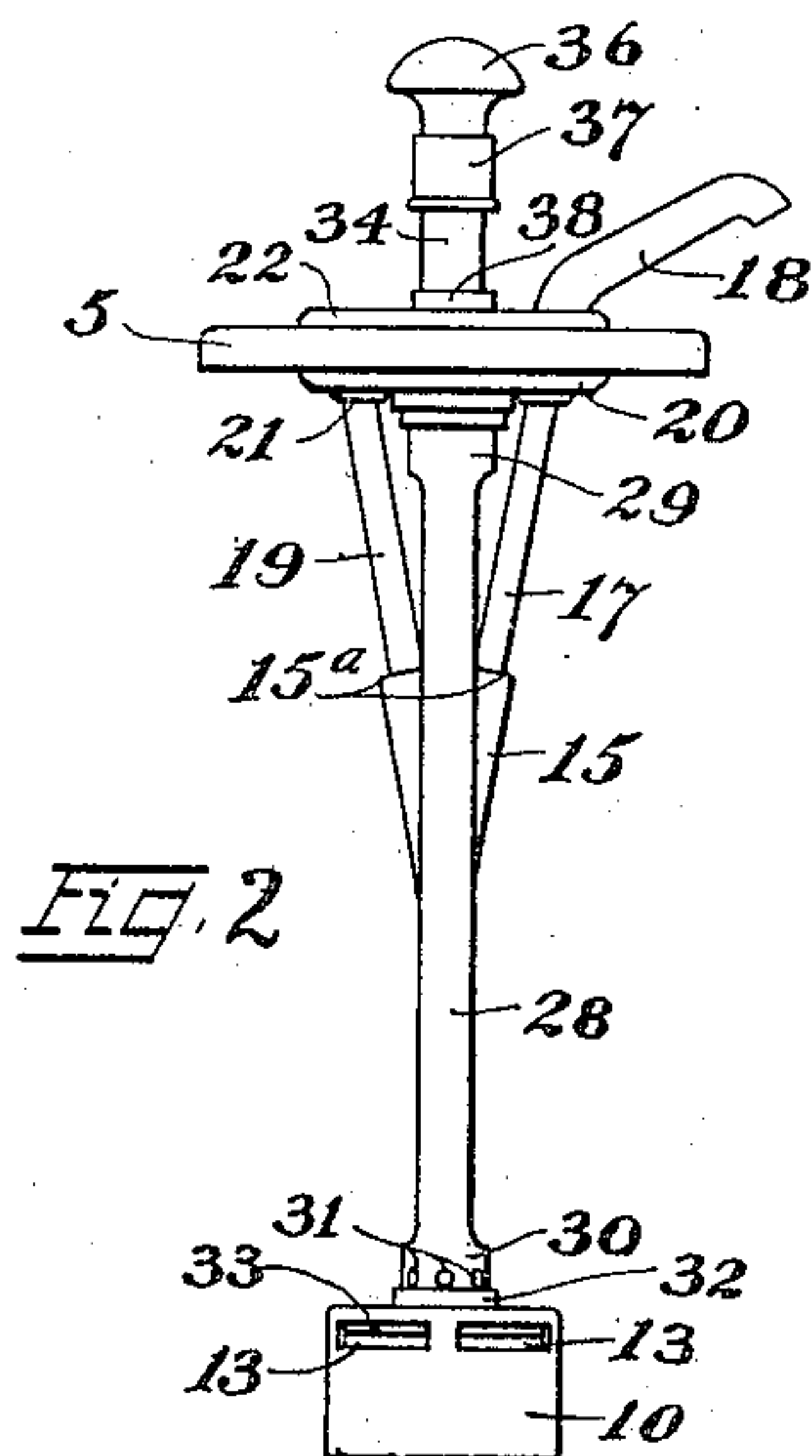
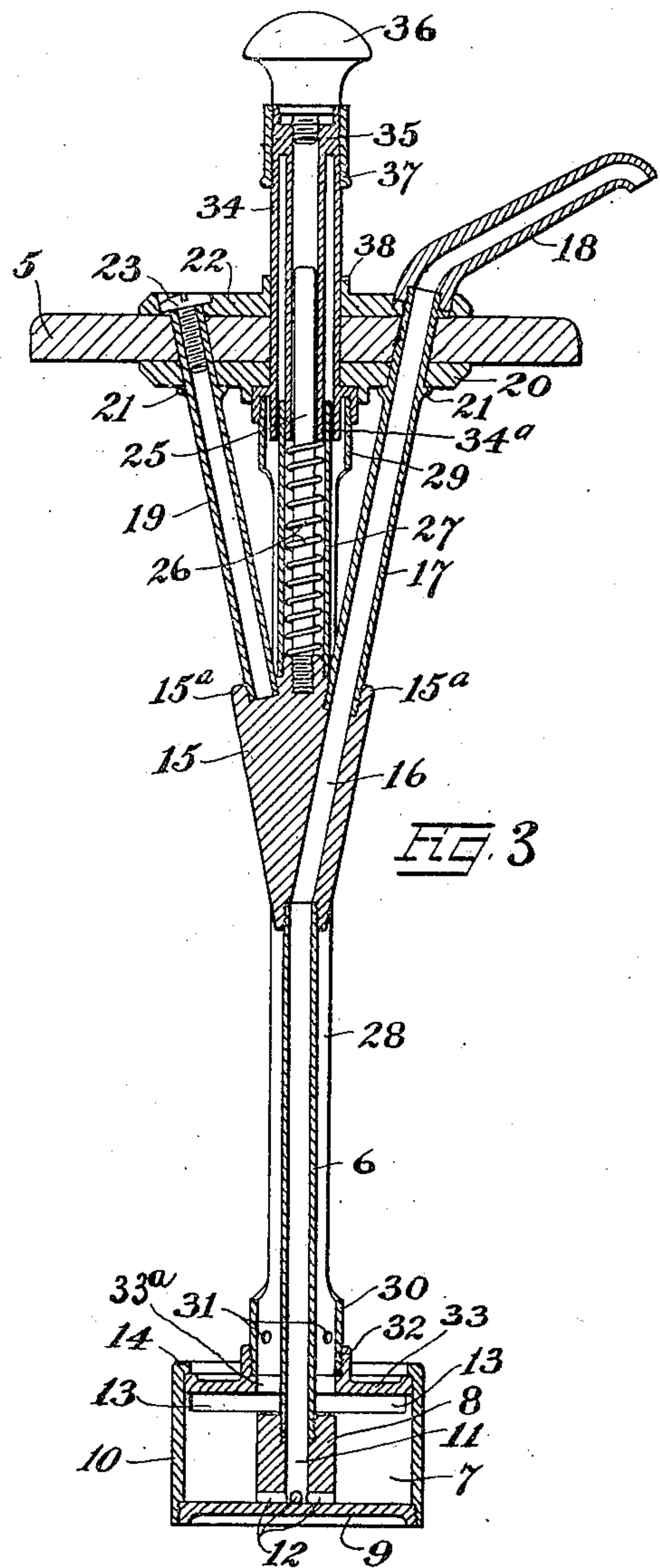
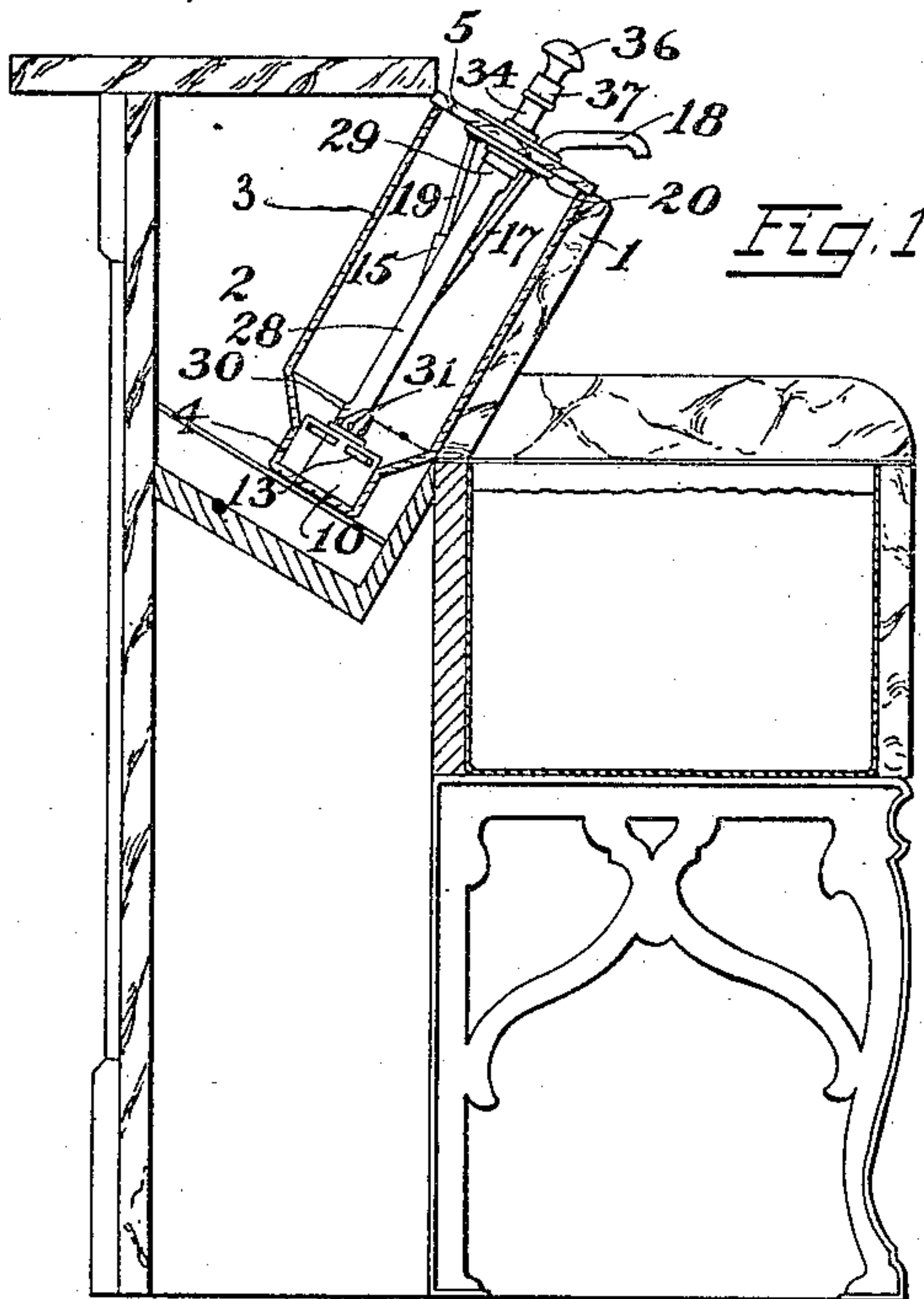


No. 887,171.

PATENTED MAY 12, 1908.

H. A. & G. W. WISE.
DISPENSING APPARATUS.
APPLICATION FILED OCT. 23, 1907.



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UNITED STATES PATENT OFFICE.

HENRY A. WISE, OF CLEVELAND, AND GEORGE W. WISE, OF WOOSTER, OHIO.

DISPENSING APPARATUS.

No. 887,171.

Specification of Letters Patent.

Patented May 12, 1908.

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To all whom it may concern:

Be it known that we, HENRY A. WISE and GEORGE W. WISE, citizens of the United States, residing at Cleveland, county of Cuyahoga, and State of Ohio, and Wooster, in the county of Wayne and State of Ohio, respectively, have invented certain new and useful Improvements in Dispensing Apparatus, of which the following is a specification.

Our invention relates to improvements in dispensing apparatus, and, more particularly to syrup-dispensing-pumps, designed with special reference for use in connection with soda-fountains, said pumps being preferably arranged in jars or containers and adapted to discharge measured quantities of syrups used in connection with such soda-fountains.

The primary object of the invention is to provide a generally-improved device of this class which will be exceedingly simple in construction, cheap of manufacture, efficient in use, and much better adapted to its intended purposes than any other device with which we are acquainted.

With these ends in view, the invention consists in the novel construction, arrangement and combination of parts, hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the drawings, forming a part of this specification, Figure 1, is a transverse sectional view of a soda-fountain dispensing-cabinet, showing a plan view of the improved dispensing-pump, and the preferable arrangement of the jar or container. Fig. 2, a side elevation of the improved pump removed from the container. Fig. 3, a longitudinal sectional view of the same.

Similar characters of reference designate like parts throughout all the figures of the drawings.

The front wall or slab 1, of the receptacle 2, of the cabinet, for receiving the several syrup-jars or containers 3, is, preferably, inclined outwardly at an angle with its upper edge overhanging the counter as shown, for the purpose of providing for the more convenient insertion and removal of the several jars and pumps, and, more especially, for a convenient arrangement of the parts relative to each other, the inclination of the pump causing the handle of the plunger to move "down and away" from the operator when depressed in the syrup-discharging operation.

The jar or container 3, is, preferably, pro-

vided in its bottom with a supplemental chamber or trap 4, for the reception of the cup portion or measuring-chamber at the lower end of the dispensing-pump, the upper end of the pump being secured to and supported by the container or jar-cover 5, as hereinafter described.

The improved dispensing-pump comprises a stationary tubular stem portion 6, provided at its lower end with a communicating measuring-chamber 7, said chamber being formed by means of a stem-head 8, provided with a cup-bottom 9, carrying a cup-body 10, surrounding the stem-head 8, and, preferably, cylindrical in form as shown. The stem-head 8, is provided with a central bore or opening 11, communicating with the outlet or discharge-opening of the tubular stem 6, and a plurality of inlet-port-openings 12, at or near the cup-bottom 9. The stem-head 8, is preferably screw-threaded upon the lower end of the tubular stem 6, as shown, and the lower edge of the cup-body 10, is preferably secured to the cup-bottom 9, by being internally-threaded and taking over external threads on the edge of said cup-bottom. The cup-body 10, is provided near its upper edges with a plurality of circumferentially-extending inlet slot-openings 13, and, preferably, with an annular inwardly-extending flange 14.

The upper end of the tubular stem 6, terminates in a V-shaped head or supporting-block 15, having an opening or bore 16, leading from the discharge-opening of the tubular stem to a discharge-pipe 17, carrying at its upper end a discharge-spout or bib 18. The oppositely-disposed shoulders 15^a, of the head or block 15, are provided with threaded-openings, in the present instance, one of which receives the lower threaded end of said discharge-pipe 17, and the other a brace-pipe or member 19, said pipes 17, and 19, having their upper ends taking into openings in a plate 20. The plate 20, is held to the under side of the jar-cover 5, by means of annular flanges 21 on the pipes 17 and 19, and the ends of said pipes are secured in position by extending through similar openings in the cover 5, and a similarly-shaped cap-plate 22. One of the openings in the cap-plate 22, is enlarged, in the present instance, to receive the rear or base end of the spout or bib 18, which is internally-threaded and takes over the externally-threaded upper end of the discharge-pipe 17, the other opening of said

cap-plate being counter-sunk to receive the head of a cap-screw 23, taking into the upper end of said brace-pipe 19. The block 15, is provided with a guide-rod or member 25, surrounded by a coiled-spring 26, and a tubular

plunger-handle guide-stem or spring casing 27. The plunger-stem comprises two oppositely-disposed longitudinally-extending members 28, leaving oppositely-disposed longitudinally-extending slot-openings receiving the projecting sides and shoulders of the head 15, and terminating at each end in exteriorly-threaded tubular heads 29, and 30, the lower head 30, being provided with a plurality of inlet-openings 31, and taking into an interiorly-threaded flanged head 32, of a disk-plate or plunger-head 33, said plunger-head having a central opening 33^a, adapted to receive and take over the stem-head 8, when depressed, and being adapted to have a limited upward movement by abutting against the annular inwardly-extending flange 14, of the cap-body 10.

A plunger-handle 34, is mounted in registering openings of the plates 20, and 22, and the interposed jar-cap 5, said handle 34, comprising, in the present instance, an outer tubular portion adapted to take over the tubular guide-stem 27, and provided with a flanged head internally-threaded and taking over the tubular head 29, of the plunger-stem, the inner tubular portion 34^a, abutting against the upper end of the spring 26, and taking over the guide-rod 25.

The head 35, of the handle 34, carries a handle-knob 36, adapted to carry the name of the syrup contained in the jar, and said head 35, is externally-threaded and carries an internally-threaded adjustable sleeve-nut 37, adapted to limit the downward movement of the plunger by striking or abutting against the annular flange 38, of the cap-plate 22, and by adjusting the sleeve-nut 37, the length of the stroke may be regulated and thereby the amount of syrup discharged by the plunger at each stroke or downward movement of same.

The operation of the invention is as follows: When the plunger is elevated to the position shown in the drawings, the liquid enters the measuring-chamber 7, through the inlet slot-openings 13, of the cup-body 10, through the lower head 30, by way of the lower portions of the oppositely-disposed longitudinally-extending slots, intermediate the members 28, and the inlet-openings 31, and downwardly through the central opening 33^a, of the plunger-head 33, entirely filling the chamber 7. When the plunger-head 33, is depressed by the plunger-handle 34, said plunger-head 33, will move downwardly in the chamber 7, and as soon as its edge passes the lower edges of the inlet slot-openings 13, the upper edge of the stem-head

8, enters the central opening 33^a, of the plunger-head 33, thereby cutting off communication between said openings 13, and 33^a, and forcing the liquid into the inlet-port-openings 12, through the central opening 11, of the stem-head 8, and upwardly through the discharge-opening of the tubular stem 6, discharge-pipe 17, and spout or bib 18.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of our invention will be readily understood.

Having thus described our invention, without having attempted to set forth all the forms in which it may be made, or all the modes of its use, we declare that what we claim and desire to secure by Letters Patent, is,—

1. A dispensing-apparatus, comprising a stationary tubular stem portion carrying a stem-head and a communicating measuring-chamber, and a spring-resisted movable plunger-stem carrying a plunger-head having an opening closed by said stem-head when said plunger-head is depressed.

2. In a dispensing apparatus, the combination with a tubular stem portion provided with a stem-head having inlet-ports and carrying a cup-body provided with inlet-openings; of a plunger-stem outside of said tubular stem portion and carrying a plunger-head having a central opening adapted to receive and be closed by said stem-head when said plunger-head is depressed.

3. In a dispensing apparatus, the combination with a stationary stem portion provided with a stem-head having inlet-ports and a cup-bottom carrying a cup-body provided with inlet-openings above said inlet-openings; of a plunger-stem outside of said tubular stem portion and carrying a plunger-head having an opening closed by said stem-head when said plunger-head is depressed.

4. In a dispensing apparatus, the combination with a tubular stem portion provided with a stem-head having inlet-ports and a cup-bottom carrying a cup-body provided with inlet slot-openings above said stem-head; of a plunger-stem carrying a plunger-head having an opening closed by said stem-head when depressed, said plunger-head normally resting above the lower edge of said inlet slot-openings.

5. A dispensing apparatus, comprising a stationary tubular stem portion carrying a discharge-spout and a measuring-chamber communicating with said stem portion by means of a stem-head provided with radially-extending inlet-ports, and a spring-resisted movable plunger-stem outside of and in axial line with said tubular stem portion and carrying a plunger-head movable in said measuring-chamber, said plunger-head being provided with a central opening taking over said stem-head.

6. A dispensing apparatus, comprising a tubular stem portion terminating at its upper end in a supporting-block provided with a guide member and a discharge-pipe communicating with said stem portion, and at its lower end in a stem-head provided with inlet-ports and a cup-bottom carrying a cup-body provided with inlet-slot-openings, a plunger-stem outside of said tubular stem portion and terminating at one end in a plunger-head movable in said cup-body and normally resting above said inlet-slot-openings and at its other end provided with a spring-resisted plunger handle slidably mounted on said guide member.

7. A dispensing apparatus, comprising a stationary tubular stem portion carrying at its upper end a discharge-spout and at its lower end a central stem-head provided with

radially-extending inlet-ports and a cup-bottom below said inlet-ports, a cup-body carried by said cup-bottom and provided with circumferentially-extending inlet-slot-openings, and a spring-resisted movable plunger-stem outside of said tubular stem portion and carrying a plunger-head movable in said cup-body and normally resting above the lower edge of said inlet-slot-openings, said plunger-head being provided with a central opening adapted to receive said central stem-head.

In testimony whereof we have affixed our signatures, in presence of two witnesses.

HENRY A. WISE.

GEORGE W. WISE.

Witnesses:

E. J. HOPPLE,

H.-B. HOWELLS.