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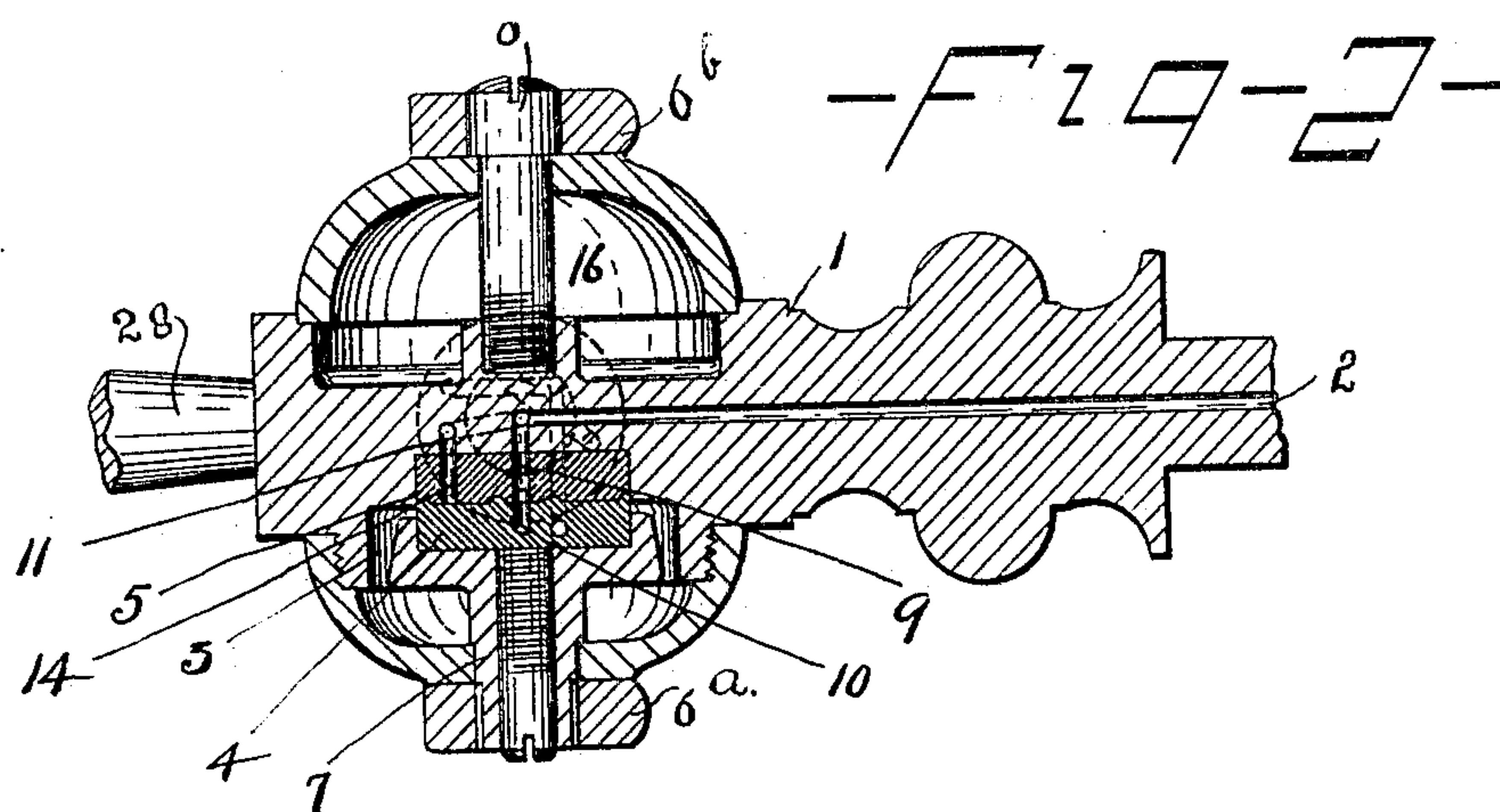
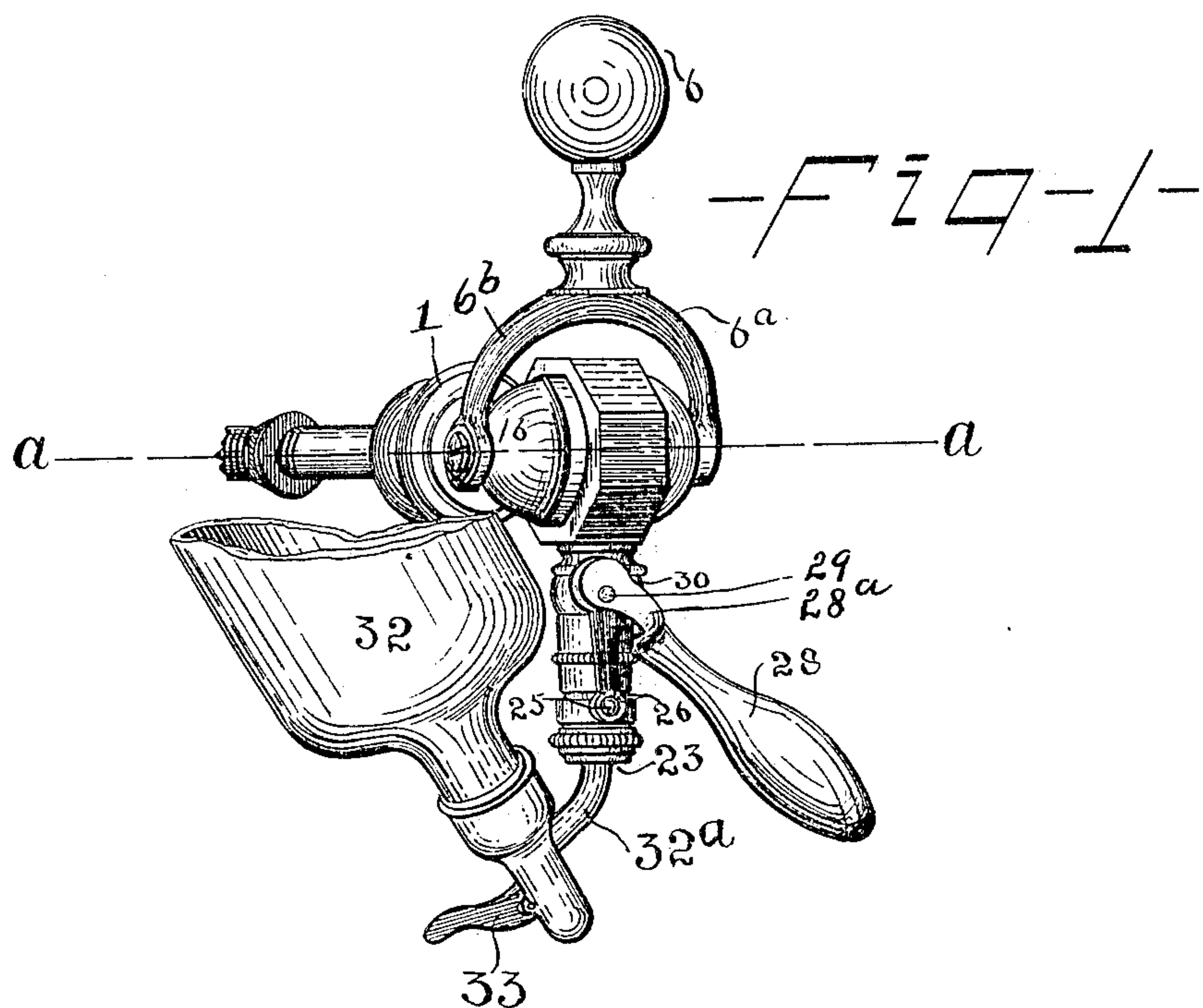
PATENTED SEPT. 12, 1905.

F. H. LIPPINCOTT.

BOTTLE CHARGING ATTACHMENT FOR SODA FOUNTAIN DRAFT TUBES.

APPLICATION FILED DEC. 31, 1903.

3 SHEETS—SHEET 1.



WITNESSES:

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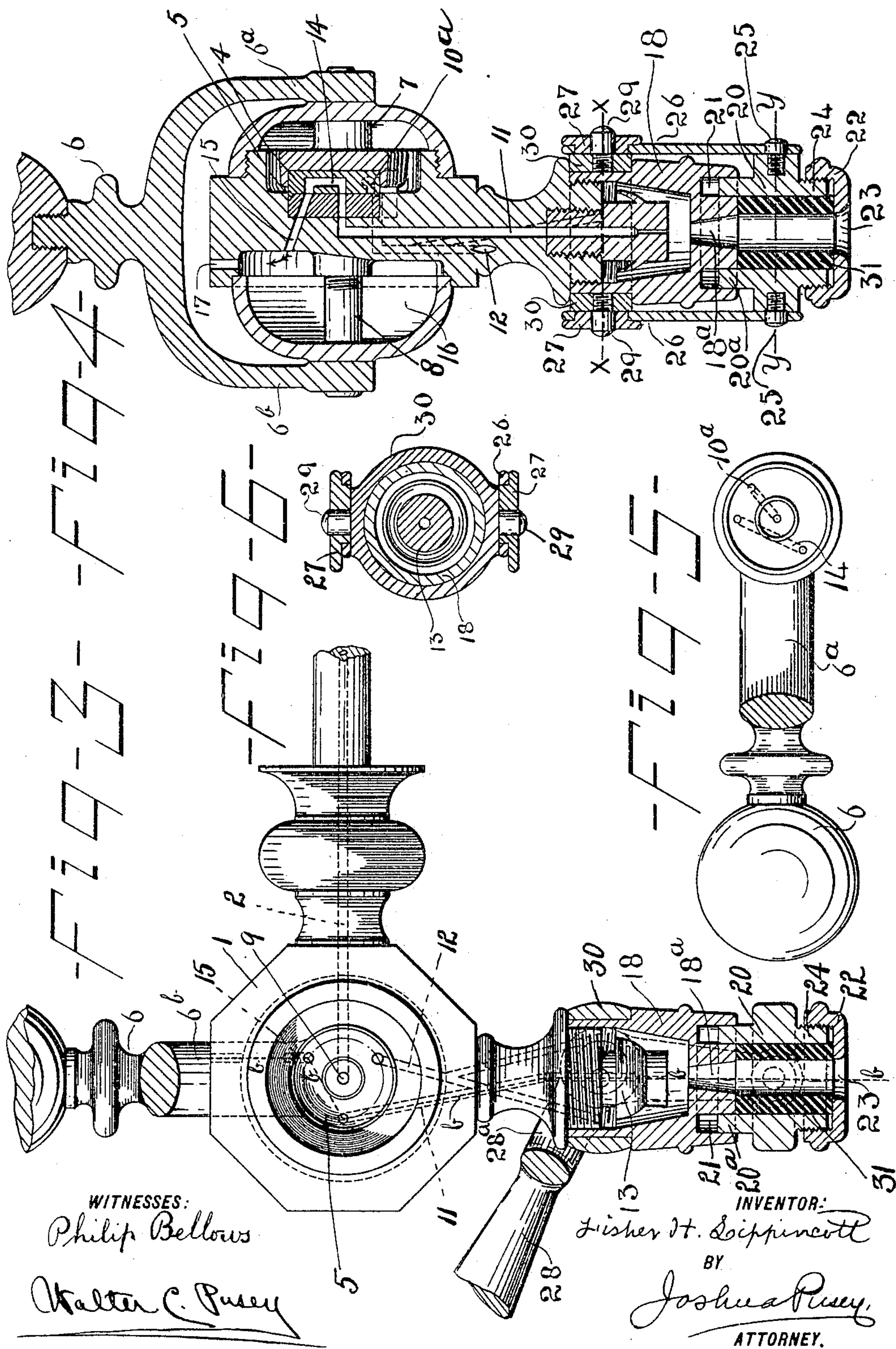
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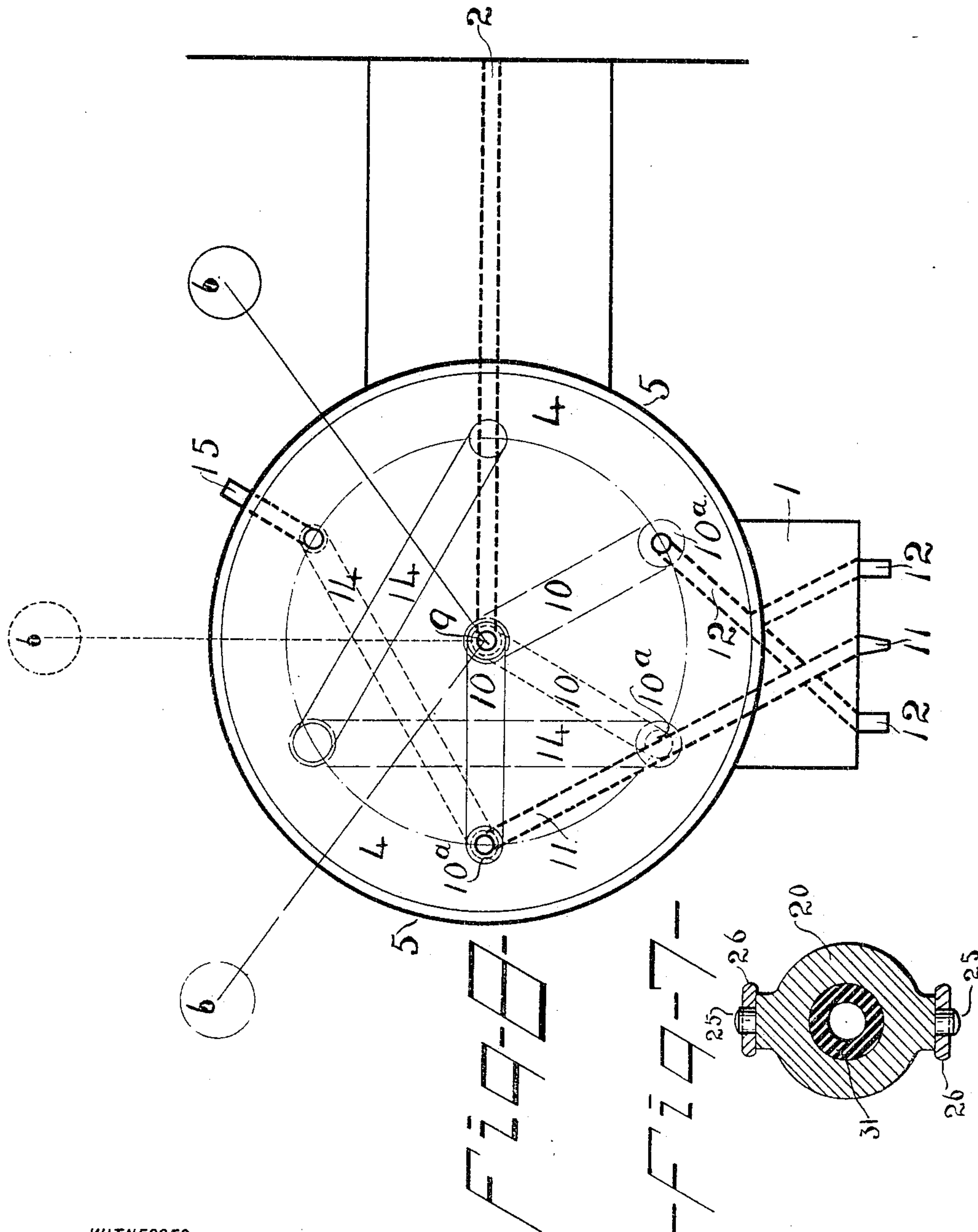
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UNITED STATES PATENT OFFICE.

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TO AMERICAN SODA FOUNTAIN COMPANY, OF JERSEY CITY, NEW
JERSEY, A CORPORATION OF NEW JERSEY.

BOTTLE-CHARGING ATTACHMENT FOR SODA-FOUNTAIN DRAFT-TUBES.

No. 799,247.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed December 31, 1903. Serial No. 187,356.

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 Bottle-Charging Attachments for Soda-Fountain Draft-Tubes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a perspective view of a soda-fountain draft-tube, showing my invention applied thereto. Fig. 2 is a section, enlarged, on line *a a*, Fig. 1. Fig. 3 is a sectional side elevation. Fig. 4 is a full section on the irregular line *b b*, Fig. 3. Fig. 5 is a side elevation of the valve and operating-lever detached. Fig. 6 is a full section on line *x x*, Fig. 4. Fig. 7 is a full section on line *y y*, Fig. 4. Fig. 8 is a diagram illustrating the relation of the ports and passage-ways in the different positions of the valve-operating arm.

The object of this invention is to provide an attachment for draft-tubes of soda-fountains which, while not interfering with the usual operations of the tube, enables the convenient charging of bottles with soda-water.

The invention consists of the combination, with the draft-tube, having the usual or suitable valve and inlet and outlet ports and passage-ways, of means for tightly securing to the draft-tube, in registry with its exit, the inlet end or tube of the bottle to be charged with the soda-water and for releasing said inlet end or tube after the charging has been effected.

The precise character of the invention will appear from the following specification, reference being had to the accompanying drawings, which show the invention as applied to a form of soda-fountain draft-tube that has been in use for a number of years. It may, however, be applied to other forms of draft-tubes.

In said drawings, 1 is the draft-tube, having the usual passage-way 2, communicating with the soda-fountain. Within a chamber 3 of the tube is a valve 4, that is rotatable on a fixed seat 5 by means of a bifurcated handle 6, one limb of which, 6^a, is secured to the stem 7 of the valve, and the other limb 6^b is rotatable on a screw-pin 8, secured to the draft-tube.

The passage-way 2 communicates with a passage 9 through the center of the valve-seat 5, that registers with a central passage 10 of the valve, as seen in Fig. 2, which extends laterally, as indicated by dotted lines in Fig. 5, and then at right angles opening to the valve-seat 5, thus forming an exit-port 10^a. By suitably rotating the valve by means of the handle 6 this port may be brought into registry with a passage-way 11, Fig. 4, (also indicated by broken lines in Fig. 3,) through the valve-seat or into registry with a second passage-way 12 through the same. Both of these passage-ways communicate with the exit-nozzle 13 of the draft-tube, the first, 11, as seen in full lines in Fig. 4, delivering to the central part of the latter and the second, which is bifurcated, as indicated, delivering on opposite sides of the said nozzle. The passage-way 11 is used for drawing "sharp" and the bifurcated one for "soft" soda-water. There is a third passage-way 14, which is absent from draft-tubes not equipped with my attachment, as the same would be useless in the ordinary draft-tube. This passage-way 14 is in the valve 4 and is U-shaped, as seen in Fig. 4. One end of the same is adapted to register with the passage-way 11 and the other end at the same time with a passage-way 15 through the valve-seat. The latter passage-way leads into a chamber 16, from which is an outlet-opening 17. Thus when the passage-way 15 is brought into registry with passage-way 11 and 15, respectively, there will be a continuous communication from the nozzle of the draft-tube to the outlet 17. The said nozzle has screwed or otherwise secured thereto an outer nozzle 18, (usually of hard rubber.) For the purposes of my attachment and invention I modify the form of this latter nozzle, as will hereinafter appear. This attachment comprises a hollow cylinder 20, one end of which 20^a is adapted to slide longitudinally in a corresponding groove 21 in the end of the nozzle 18, Figs. 3, 4, 5, and 6, the exit 18^a of the latter opening centrally into the cylinder 20. The outer end of said cylinder is closed, except that it has a central opening 23. For purposes of adjustment and removal the said end is made as a cap 22, that is screwed into the threaded end 24 of the cylinder.

Pivoted to studs 25, projecting from opposite sides of the latter, are arms or rods 26, that are loosely mounted upon the hubs 27 of the bifurcations 28^a of a lever 28, which
 5 bifurcations are pivoted eccentrically on studs 29, projecting from an annulus 30, loosely encircling the upper part of the outer nozzle 18 and seated upon an offset of the latter. Thus the annulus and adjuncts are rotatable
 10 as a whole, although it is not essential (but convenient) that the same shall be rotatable.

Within cylinder 20 and seated against the ends of the nozzle 18 and the cylinder end or cap 22 is inserted a tube or washer 31, of
 15 india-rubber or other suitable soft and elastic material, the normal diameter of the opening 32 of which is about equal to the inlet-tube, neck, or nozzle of the bottle to be charged, as hereinafter described. The said washer
 20 has such normal diameter when the parts are in the retracted position shown in Figs. 3, 4, and 5—that is, the lever or handle 28 in the upward position and the cylinder 20 in its farthest outward projection or thereabout.

25 Having now described the construction of the parts, I shall describe the mode of using and operation of the same as follows, premising that in the present instance the device is adapted for charging siphon-bottles, ordi-
 30 narily termed "siphons," such as marked 32 in Fig. 1, having a bent tube or nozzle 32^a, which extends adjacent to the bottom of the bottle, and having the usual normally closed valve adapted to be opened by means of a
 35 spring-controlled thumb-lever 33. Preparatory to charging the siphon it is inverted, as shown, and its nozzle 32^a inserted through the opening in cap 22 into the washer 31, as seen in Fig. 1. The lever 28 is then rotated
 40 downwardly from the position seen in Fig. 3 to that of Fig. 1, thus obviously compressing the washer longitudinally, and consequently causing it to closely hug the nozzle 32^a and press against the inside of the cylin-
 45 der 20, thus forming a very tight joint. The thumb-lever 33 is now operated to open the siphon-valve. The arm 6 being now in the vertical position, as in the drawings, (in which position the ends of passage-way 14 are re-
 50 spectively in registry with passage-ways 11 and 15,) said arm is rotated to bring the valve-port 10^a into registry with the passage-way 11, thus allowing the soda-water to enter the siphon. As soon as the water ceases to flow
 55 into the latter by reason of its pressure being balanced by that of the air in the upper part of the inverted siphon the arm 6 is rotated to the vertical position for an instant sufficient for the air to escape by way of the passage-
 60 ways 11, 14, 15, and 17. Said arm 6 is then shifted to the former position. The air is allowed to escape in the manner described as often as may be necessary. When the siphon has been fully charged, the siphon-valve is
 65 allowed to close, the arm or handle 6 is shift-

ed to cut off the flow of the water to the pas-
 sage-way 11, and the lever 28 is returned to the first or normal position, thus sliding out-
 wardly the cylinder 20, and so releasing the
 pressure of the rubber washer 31, and so per-
 70 mitting the withdrawal of the siphon-tube. Instead of using the passage-way 11 in charg-
 ing the siphon the passage-way 12 may be used, in which case of course the lever 6
 would be rotated to bring the port 10^a into
 75 registry with the last-mentioned passage-way.

In Fig. 8 I have shown diagrammatically the various positions of lever or arm 6 and the ports and passage-ways, the heavy lines
 80 (both full and dotted) indicating the non-movable parts and the light lines (full, dotted, and broken) the movable parts. Light dot-
 ted lines indicate the position when the lever or arm 6 is in the vertical position, in which
 85 the flow of soda-water is cut off from both the passage-ways 11 and 12 and there is a continuous passage-way from 11 to the exit-
 opening 17, as previously described. Light full lines indicate the position when the port
 90 10^a is in registry with passage-way 11 and the light broken lines the position when the said
 port is in registry with passage-way 12.

My invention may be applied to various other forms of draft-tubes, whether having
 one or two outlet-passages. In any case it
 95 will be desirable to have some means for allowing the escape to air from the siphon or
 bottle as often as may be required when charging the latter. The particular means herein-
 before described for effecting this result have
 100 been found to be very convenient in practice.

While I have shown and described what I believe to be the best form and construction
 of my invention, the same may be made in
 various other forms without departing from
 105 the principle of the invention.

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

1. The combination with a soda-water draft-
 tube, having an external and an internal noz-
 110 zle, of the hollow cylinder slidably secured to said external nozzle, and communicating with the exit-opening thereof, the tube of suitable
 soft elastic material within said cylinder adapt-
 115 ed to receive the inlet end portion of a bottle, and means for effecting longitudinal move-
 ments of said cylinder to compress and release said tube, substantially as and for the pur-
 pose set forth.

2. The combination with a soda-water draft-
 tube, having the external and internal nozzles,
 of the hollow cylinder on the end of the ex-
 120 ternal nozzle, and adapted to slide in a guide-
 way of the latter, the lever-eccentric pivoted to said nozzle, the rods pivoted to said cylin-
 125 der and to said lever, together with the tube of suitable soft elastic material within said
 cylinder and adapted to receive the open end
 portion of a bottle, substantially as and for
 130 the purpose set forth.

3. The combination of the soda-water draft-tube, the rotatable valve having a port communicating with the soda-fountain and adapted to communicate with the exit passage-way
5 of said draft-tube, the arm for operating said valve, the hollow cylinder secured to said draft-tube and communicating with said exit passage-way, the tube of suitable soft elastic material within said cylinder and adapted to
10 receive the inlet end portion of a bottle, means for effecting longitudinal movements of said cylinder to cause the same to compress and release said tube, the passage-way in the draft-tube communicating with the external air, and
15 the passage-way in said rotatable valve adapted to communicate simultaneously with the said passage communicating with the external

air and said delivery passage-way, substantially as and for the purpose set forth.

4. The combination with a soda-water draft-tube, of the hollow cylinder secured thereto, 20 and having the end cap adjustably secured to the end of said cylinder, and having the exit-opening, the compressible tube seated within said cylinder, and means for effecting longitudinal movements of the latter, substantially 25 as and for the purpose set forth.

In testimony whereof I have hereto affixed my signature this 23d day of October, A. D. 1903.

FISHER H. LIPPINCOTT.

Witnesses:

J. HOWARD REBER,

WALTER C. PUSEY.