F. H. LIPPINCOTT.

SODA FOUNTAIN.

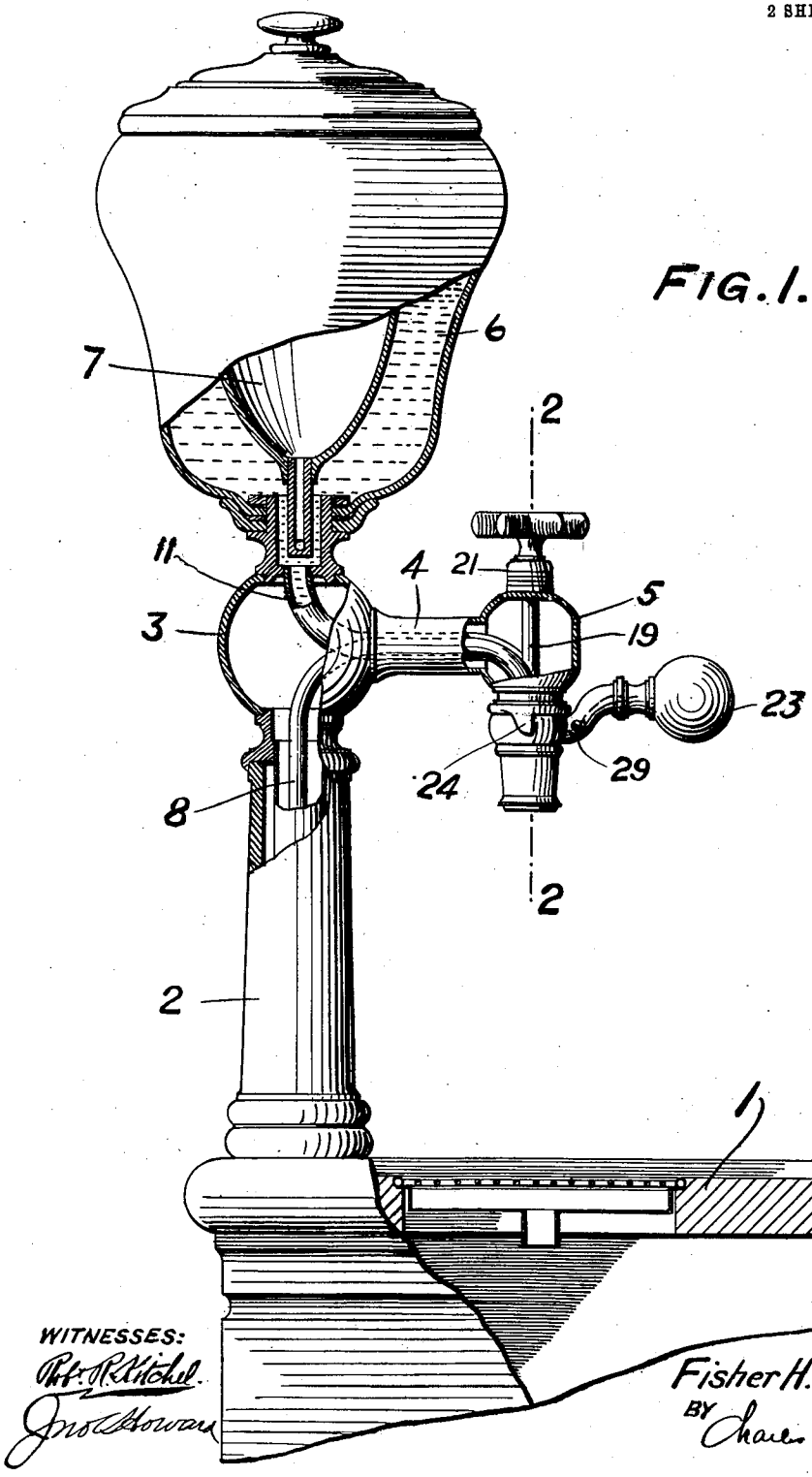
APPLICATION FILED OCT. 19, 1910.

1,024,515.

Patented Apr. 30, 1912.

2 SHEETS—SHEET 1.

FIG. 1.



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2 SHEETS—SHEET 2.

FIG. 8.

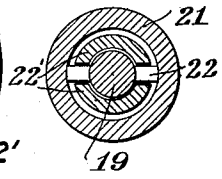


FIG. 2.

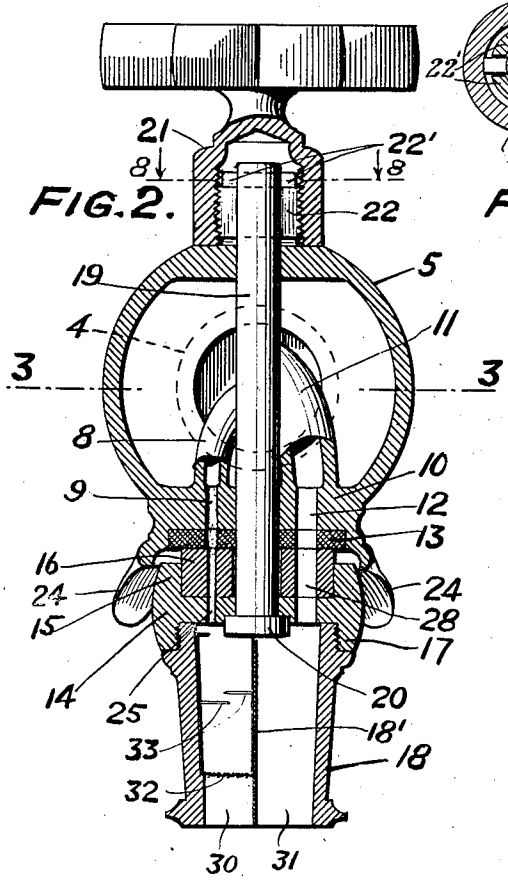
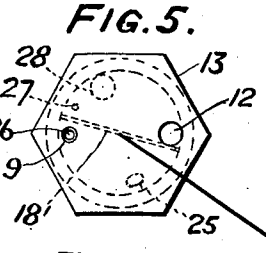


FIG. 3.

FIG. 5.



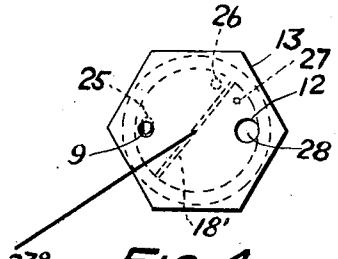


FIG. 4.

FIG. 7.

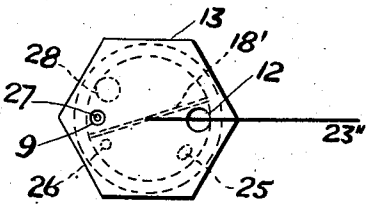
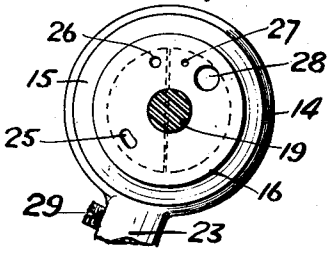


FIG. 6.



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UNITED STATES PATENT OFFICE.

FISHER H. LIPPINCOTT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO A. H. & F. H. LIPPINCOTT, INC., OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

SODA-FOUNTAIN.

1,024,515. Specification of Letters Patent. Patented Apr. 30, 1912.

Application filed October 19, 1910. Serial No. 587,798.

To all whom it may concern:

Be it known that I, FISHER H. LIPPINCOTT, a citizen of the United States, residing in the city of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented certain Improvements in Soda-Fountains, of which the following is a specification.

My invention relates to soda fountain faucets and it is characterized by improved means which effect the desired delivery of soda and syrup so that full soda can be drawn with any desired amount of syrup, full soda can be drawn without syrup and fine soda can be drawn without syrup.

The characteristic features of my improvements are fully disclosed by the description and the accompanying drawings in illustration thereof.

In the drawings, Figure 1, is a sectional elevation of a soda fountain embodying my improvements, Fig. 2 is an enlarged sectional view taken on the line 2—2 of Fig. 1, Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2, Fig. 4 is a plan view representing the position of the valve mechanism for delivering full soda and syrup, Fig. 5 is a plan representing the relation of the ports for delivering full soda with no syrup, Fig. 6 represents the position for delivering fine soda with no syrup, Fig. 7 represents a plan view of the valve and Fig. 8 is a sectional view taken on the line 8—8 of Fig. 2.

The apparatus, as illustrated in the drawings, comprises the receptacle 1 having thereon the pedestal 2 whose globe 3 supports the arm 4 with the faucet 5 thereon and the syrup urn 6 containing the ice vessel 7.

The soda duct 8 passes through the parts 2, 3 and 4 to a port 9 which extends through the valve seat 10; and the syrup duct 11 passes from the urn 6 through the parts 3 and 4 to the port 12 which extends through the valve seat; the valve seat comprising the inset leather plate 13 through which the ports 9 and 12 extend.

A valve 14, having a flange 15 which holds a rubber plate 16 and a flange 17 which holds a nozzle 18, revolves on a stem 19, having a head 20 on which the valve rests and by which the valve plate 16 is held in engagement with the seat plate 13. The stem 19 is supported adjustably by the wheel-nut 21 which engages a threaded cross-piece 22 extending through the stem between the parts 22′ of a split sleeve fixed to the body of the faucet.

The valve, including the plate thereon, is turned by the movement of the lever 23 between the stops 24. The valve contains the ports 25, 26 and 27 adapted for registration with the port 9 and the port 28 adapted for registration with the port 12. The elongated port 25 registers with the port 9 when the port 28 registers with the port 12, and a set screw 29 adapted for engaging a stop 24, is adjustable in the handle to regulate the passage from the port 12 to the port 28.

The nozzle 18 is divided by the longitudinal diaphragm 18′ into the passage 30 with which the ports 25 and 26 communicate and the passage 31 with which the ports 27 and 28 communicate. The passage 30 contains the wire cloth diaphragm 32 and the plates 33 for baffling and spraying the discharge from the ports 25 and 26.

In operation, when the valve lever 23 is in the position 23° the port 25 registers with the port 9 and the port 28 registers with the port 12, with the result that full soda is discharged through the baffled passage 30 while syrup of any amount from the maximum to nothing can be discharged through the passage 31 by a proper movement of the valve, since the peculiar construction of the port 25 permits the valve to be moved so as to reduce the passage through the syrup ports 12 and 28 without reducing the passage through the soda ports 9 and 25. When the valve lever is in the position 23′, the port 26 is in registration with the port 9 and full soda is discharged through the passage 30, the flow of syrup being cut off. When the valve lever is turned to the position 23″, the port 27 registers with the port 9 and a jet of fine soda is discharged through the passage 31, the flow of syrup being cut off.

The peculiar construction of the nozzle is for the purpose of preventing excessive foaming which takes place when the syrup and soda are combined in the nozzle and the mixture discharged together under pressure.

By the term "full" soda as used in the specification is meant a coarse or expanded stream and by the term "fine" soda is meant a jet or unbroken stream.

Having described my invention, I claim:

1. In a soda fountain, a soda duct, a syrup

duct, a nozzle having several passages therethrough, baffling means in one of said passages, and valve mechanism for controlling the flow from said ducts to said passages, said mechanism comprising a rotary valve adapted for connecting said soda duct with said baffled passage and a port for connecting said syrup duct with the other of said passages.

2. In a soda fountain, a soda duct, a syrup duct, a nozzle having several passages therethrough, and valve mechanism for controlling the flow from said ducts to said passages, said mechanism comprising a rotary valve having several ports for connecting said soda duct with one of said passages and several ports for connecting said soda duct and said syrup duct with the other of said passages.

3. In a soda fountain, a soda duct, a syrup duct, a valve seat having a soda port communicating with said soda duct and a syrup port communicating with said syrup duct, and a rotary valve having a port adapted to communicate with said soda port and a port adapted for simultaneous communication with said syrup port, said first named valve port and said soda port having different sizes and being arranged so that full soda can be maintained during a limited movement of said valve.

4. In a soda fountain, a faucet having several discharge passages, baffling means in one of said passages, a valve having several ports communicating with each of said passages, and a valve seat having a port with which said baffled passage is adapted to communicate through each of the several valve ports communicating with said baffled passage, said valve seat having a port with which the other of said passages is adapted to communicate through each of the several valve ports communicating with said other passage.

In witness whereof, I have hereunto set my name this 18th day of October 1910, in the presence of the subscribing witnesses.

FISHER H. LIPPINCOTT.

Witnesses:
JOS. G. DENNY, JR.,
JNO. C. HOWARD.