(No Model.)

# J. W. SUTTON.

## SIRUP JAR OR BOTTLE.

No. 427,635. Patented May 13, 1890.

Fig. 1.

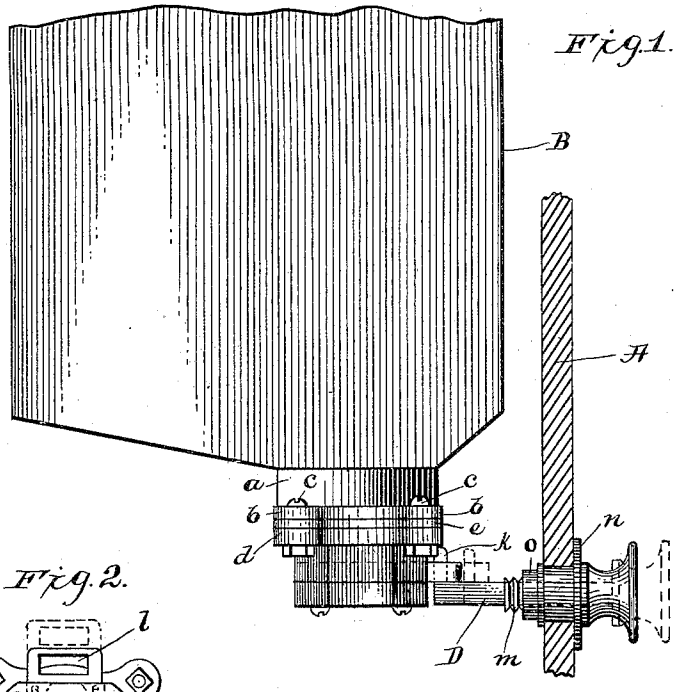



Fig. 2.

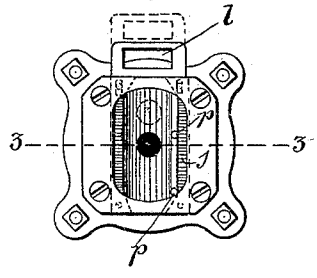



Fig. 3.

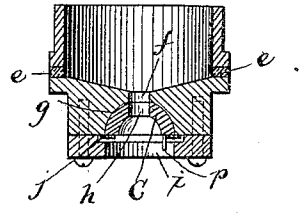
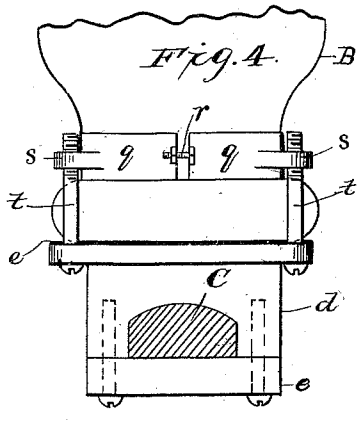



Fig. 4.




Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

JOSHUA W. SUTTON, OF BROOKLYN, NEW YORK.

## SIRUP JAR OR BOTTLE.

SPECIFICATION forming part of Letters Patent No. 427,635, dated May 13, 1890.

Application filed August 26, 1889. Serial No. 321,996. (No model.)

*To all whom it may concern:*

Be it known that I, JOSHUA W. SUTTON, a citizen of the United States, residing at Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Sirup Jars or Bottles, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to improvements in the valve apparatus and operating mechanism used in connection with the sirup jars or bottles of a soda-water fountain by which the flow of the sirup from the vessel containing it is controlled.

The valve mechanism of the present invention, briefly stated, consists of a valve sliding in a guideway provided in a plate connected to the sirup jar or bottle, and provided with an opening which, when sirup is to be drawn from the jar or bottle, is moved into register or coincidence with a similar opening leading from the jar or bottle.

My improved mechanism for moving the valve consists, briefly, of a bar sliding back and forth in bearings provided in the wall or casing of the fountain, and terminating at its outer end upon the exterior of said wall or casing in a handle or plate containing the name of the sirup in its jar, and at its inner end carrying a pin entering a slot provided in the valve, which pin upon the movement in and out of the bar correspondingly moves the valve. This bar is so positioned relatively to the position of the valve mechanism of the jar that upon the placing of the jar within the fountain its pin immediately enters the slot in the valve, and the connection between the latter and its operating mechanism is thus quickly and easily made, disconnection being secured by simply removing the jar.

The improvements of the present invention can best be understood from a detailed description and an illustration of an organization embodying the same. All further preliminary description will therefore be omitted and a full description given, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of an organization embodying my improved valve apparatus and its operating mechanism. Fig. 2 is a bottom view of the valve apparatus proper. Fig. 3 is a section of the same on the line 3 of Fig. 2, and Fig. 4 is a front elevation of a jar provided with means for connecting the valve apparatus to bottles or jars having necks of varying diameter.

Referring particularly to Fig. 1, it will be understood that A represents the front wall or casing of a soda-water fountain, and B a sirup-jar of the common metal form located therein. The jar is open at its lower end and projects downward slightly, as shown, and is provided with lugs *b*, through which pass bolts *c*, by which a plate *d* is secured to the lower open end of the jar. A tight connection is secured between the rim *a* of the lower end of the jar B and the plate *d* by the insertion between them of a leather or rubber packing *e*.

The plate *d* is provided at or about its center with an opening *f*, communicating with the interior of the jar B, and upon its under surface is grooved, as best shown in Fig. 3, so as to provide a seat *g* for a valve C, the upper side of which is made convex, so as to fit snugly within its grooved seat *g*. The valve and its seat instead of being of the form described may be of any other suitable form, the form described being preferable, though not necessary to the practical working of the apparatus. Like the plate *d*, the valve C is provided with an opening *h*, which is normally out of register or coincidence with the opening *f* in said plate; but which, when the valve C is moved forward, registers with said opening and permits the sirup to flow from the jar. The valve C is held in position against its seat *g* by means of an annular ring *i*, bolted to the frame *d*, as shown, which, with the valve-seat *g*, forms a guideway for said valve. For the purpose of holding the valve C tightly against its seat the annular ring *i* is provided with a pair of spring-plates *j*, which, pressing against the under side of the valve, hold it firmly to its seat, and there is thus secured a connection between the two sufficiently close to prevent leaking of the sirup between them. The movement of the valve C back and forth will, where provision is not made for this in its operating mechanism, be limited by means of

stops *p*, which at its limit of movement in either direction come in contact with the inner periphery of the ring *i*.

The valve-operating mechanism consists of a bar D, terminating in a plate or handle at its outer end upon the exterior of the casing A, and at its inner end provided with an upwardly-projecting pin *k*, which when the jar B is in position enters a slot *l* in the valve C. The bar D is journaled loosely in a sleeve *m*, located in an opening in the casing A, The sleeve *m* upon its outer end is provided with a plate *n* or washer resting against the outer surface of the casing A, and is screw-threaded upon its inner end, and there provided with a nut *o*, by screwing up which, when inserted in the opening in the casing A, it is held tightly in position and prevented from movement. To prevent rotatory movement of the bar D, it is squared longitudinally, and the interior surface of the sleeve *m* is correspondingly shaped. The bar D, instead of being journaled as just described, may be journaled directly in the casing A, or in any other suitable manner.

The normal position of the valve C will be its rear position with its rear pin *p* in contact with the inner periphery of the ring *i*, as shown in Fig. 2, and the position it will occupy when sirup is drawn from the jar B will be its forward position, (shown by dotted lines, Figs. 1 and 2,) to which position it will be moved by drawing the bar D outward from the position in which it is shown in full lines to the position in which it is shown in dotted lines, Fig. 1, the forward movement of the valve C being also limited by its other pin *p*. To move the valve back to its normal position, the movement of the bar D will be reversed.

The means illustrated in Fig. 4 for connecting the valve mechanism of a sirup-jar to the jar consist of a band *q*, of metal, in two or more pieces which are connected together and tightened around the neck of the jar B by set-screws *r*, the band being thus rendered useful for jars the necks of which differ in size. The band *q* is also provided with lugs *s*, through which pass bolts *t*, which also pass through the flange of the plate *d*, as shown. By tightening up the nuts upon these bolts the valve mechanism is secured to the jar properly, the usual packing *e* being provided to secure a tight joint.

The valve and other parts of the apparatus described may be made of any suitable material. In some cases these parts may be made of metal, in others of hard rubber or other substance.

It is manifest that the valve C, instead of having its seat formed in the plate *d*, may have its seat formed directly in the bottom of the jar B. Such a construction is therefore to be considered within the scope of the present invention.

What I claim is—

1. In a sirup-jar, the combination, with a slide-valve, as C, of the sliding bar D for actuating the same, mounted in bearings in the casing A, and means whereby the valve and its actuating-bar are connected by the introduction of the jar into the casing, substantially as described.

2. In a sirup-jar, the combination, with a slide-valve, as C, of the sliding bar D for actuating the same, mounted in bearings in the casing A, and provided with a pin, as *l*, entering a slot in said valve upon the introduction of the jar into the casing, substantially as described.

3. In a sirup-jar, the combination of the valve C, having an opening, as *h*, the plate *d*, secured to said jar and having an opening, as *f*, and forming a seat for said valve, the ring *i* for holding said valve to its seat, and the bar D, having a pin *l* entering an opening in said valve for moving the same and bringing the openings *h f* into and out of register, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOSHUA W. SUTTON.

Witnesses:
J. J. KENNEDY,
EDWARD R. WOODS.