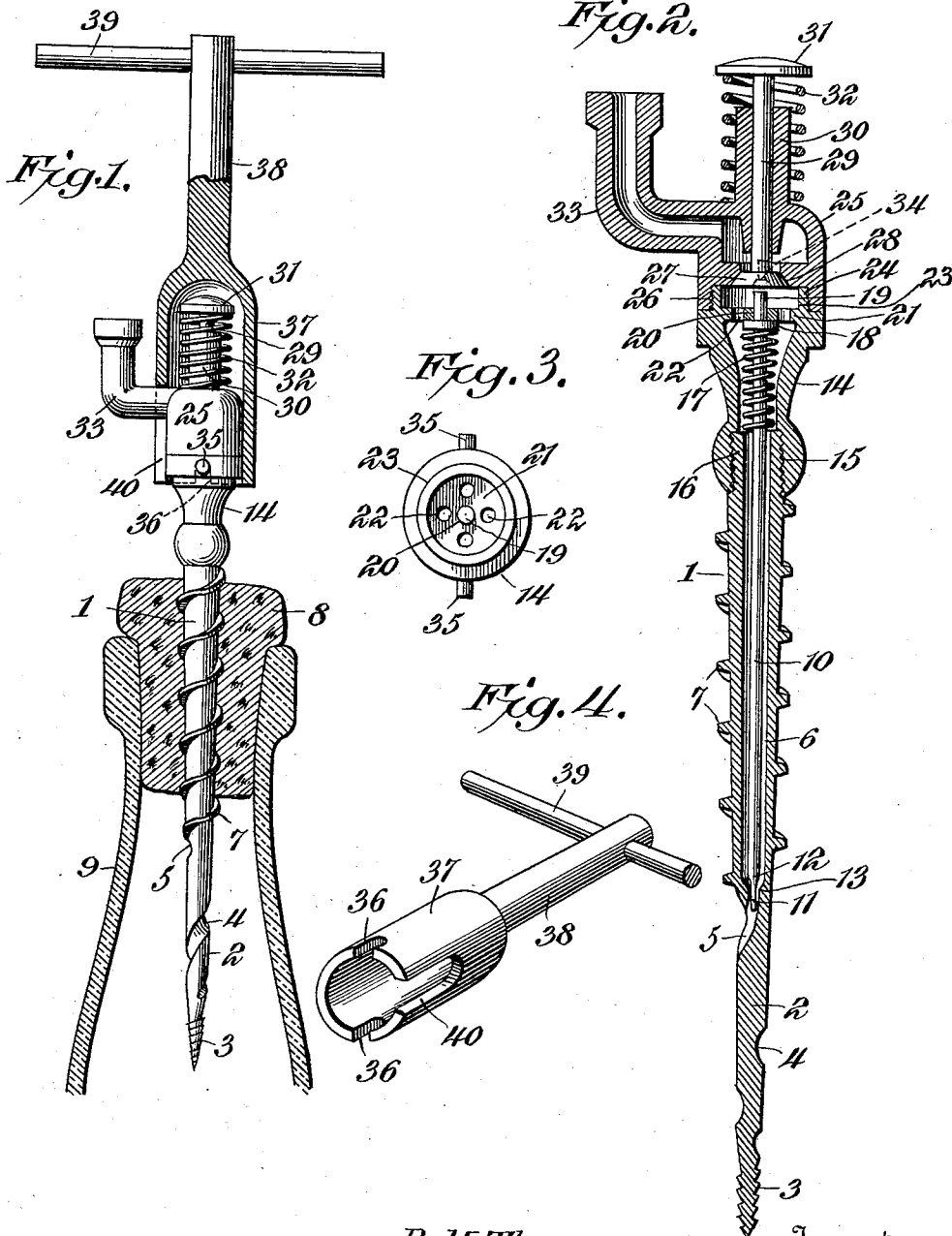


R. H. THOMPSON, JR.
BOTTLE FAUCET OR TAP.
APPLICATION FILED OCT. 14, 1911.

1,041,699.

Patented Oct. 15, 1912.



Witnesses

Howard D. Orr
J. F. Riley

R. H. Thompson, Jr.,

Inventor,

By

E. G. Siggers

Attorney

UNITED STATES PATENT OFFICE.

ROBERT HENRY THOMPSON, JR., OF PORTLAND, OREGON.

BOTTLE FAUCET OR TAP.

1,041,699.

Specification of Letters Patent.

Patented Oct. 15, 1912.

Application filed October 14, 1911. Serial No. 654,671.

To all whom it may concern:

Be it known that I, ROBERT H. THOMPSON, Jr., a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Bottle Faucet or Tap, of which the following is a specification.

The invention relates to a bottle faucet or tap.

10 The object of the present invention is to improve the construction of bottle faucets and taps, and to provide a simple, efficient and comparatively inexpensive device, designed for use on bottles containing champagne, carbonated mineral water and other beverages or liquids under pressure for controlling the discharge of the contents of such bottles, and adapted to permit such bottles to remain in an inverted position and to enable the contents of the same to be drawn off as required without leakage or waste.

25 A further object of the invention is to provide a bottle tap or faucet of this character, adapted to be readily passed through the stopper of a bottle, and equipped with means for ejecting from its bore or passage particles of cork or any other substance, which may find lodgment in the same.

30 With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

45 In the drawing:—Figure 1 is a side elevation of a bottle tap or faucet, constructed in accordance with this invention, and shown applied to a bottle, the latter and the tool or key being in section. Fig. 2 is an enlarged longitudinal sectional view of the bottle faucet or tap. Fig. 3 is a plan view of the upper section of the tapered tube or body. Fig. 4 is a detail perspective view of the key or tool for screwing the device through the stopper of a bottle and for removing it therefrom.

50 Like numerals of reference designate corresponding parts in all the figures of the drawing.

In the accompanying drawing in which is illustrated the preferred embodiment of the invention, 1 designates a hollow tapered tube, designed to be constructed of brass or other suitable material and having a solid portion 2 of gimlet form, having a screw point 3 and a spiral groove 4, extending upwardly around the solid portion 2 from the tapered threaded gimlet point 3. The hollow tapered tube is provided at the inner end of the solid portion with a lateral opening 5, communicating with the longitudinal bore or opening 6 for permitting the contents of the bottle to flow outward or downward through the hollow tube when the device is in use. The tapered tubular portion is provided with a spiral flange 7, forming a screw or auger thread and extending around the outer portion of the tapered tube 1, and adapted to feed the same through a cork or stopper 8 of a bottle 9, and at the same time produce a tight fit to prevent leakage around the tapered tube when the latter is applied to a cork.

80 The longitudinal bore or opening 6 receives a rod 10, constructed of wire or other suitable material and having a reduced inner terminal 11, located at the lateral orifice 5 and adapted when the rod 10 is reciprocated to eject particles of cork or any other substance, which might find lodgment in the opening 5 of the tube 1. The rod which is normally located within the bore or opening 6 of the tapered tube is provided above the reduced terminal 11 with a tapered portion 12, arranged to fit a correspondingly tapered portion 13 of the interior of the tube 1 to form a valve for regulating the outflow of the liquid through the tube 1.

95 The tapered tube is provided with an enlarged outer tubular section 14, interiorly threaded at the inner portion at 15 to receive a reduced threaded portion 16 of the tapered tube 1, and forming a housing for a coiled spring 17, which normally moves the rod 10 outwardly or away from the tapered portion or valve seat 13. The coiled spring is preferably seated at its inner end against the threaded portion 16 of the tube 1, and its outer end bears against a collar 18 of the rod 10, but it may be connected with the latter in any other suitable manner. The outer end 19 of the rod extends through a central opening 20 of a transverse partition 21, which is provided with a plurality of perforations 22 for the passage of the contents

of the bottle. The partition 21 besides guiding the rod forms a stop for the collar and limits the outward movement of the same.

The outer tubular section 14 is exteriorly reduced beyond the transverse partition 21 to form an annular flange 23, having exterior screw threads 24 and adapted to screw into a cap 25. The cap 25, which has interior screw threads 26 to engage the threads of the outer section 14, constitutes a casing for an outer valve 27 and is provided with an annular seat 28 for the valve, which is arranged at the pressure side of the seat. The valve seat 28, which is formed by an interior annular flange or portion, is beveled to fit the valve 27, which consists of a beveled disk, arranged at the inner side of the valve seat and provided with an outwardly extending stem 29, passing through a tubular portion 30 formed integral with the cap 25, and extending into the same and projecting exteriorly thereof, as clearly illustrated in Fig. 2 of the drawing. The stem 29 is provided at its outer end with a push button or head 31, which is engaged by a coiled spring 32, disposed on the exteriorly projecting part of the tubular portion 30 and interposed between the button or head 31 and the cap 25. The coiled spring 32 normally holds the outer valve 27 on its seat, and the internal pressure also operates to seat tightly the valve and thereby prevent leakage and waste of the contents of a bottle, or other receptacle.

The cap or valve casing 25 is provided at one side with an approximately L-shaped nozzle or spout 33, consisting of an inner transverse portion and an outer longitudinal portion. The spout or nozzle 33 is formed integral with the valve casing or cap 25, which may be constructed of brass or any other suitable material. The valve 27 is secured to the lower end of the stem 29 by a screw 34, or other suitable means, and access may be readily had to the valve by unscrewing the cap from the outer section of the hollow tube 1. The outer section may be readily unscrewed from the hollow tube 1 to afford access to the spring 17 and to the rod 10, but the outer section 14 of the tube 1 may be integral with the latter, and the partition 4 may be removable to afford access to the rod and the spring. This may be done by threading or otherwise securing the partition 21 within the outer end of the tubular section 14.

When the device is applied to a bottle and the latter is inverted, the contents of the same may be discharged by pressing the push button or head 31 upwardly or inwardly, which movement will open the valve. The continued upward movement will actuate the rod 10 sufficiently to carry the tapered valve portion 12 thereof into engagement with the valve seat 13 and

check the flow of the contents of the bottle. By this means the outward flow of the liquid may be regulated by inward pressure on the push button or head 31 of the outer valve. When the push button is released the spring 32 will automatically close the valve and shut off the flow of the liquid.

The outer section of the tapered tube is provided at opposite sides with laterally projecting studs 35, adapted to engage opposite notches 36 of a socket 37 of a key or tool 38. The key or tool 38 consists of a stem having the socket 37 at one end and provided at the other end with a transverse handle 39. The socket is fitted over the cap or valve casing 25 to engage the opposite notches 36 with the studs or projections 35, and it is provided at one side with a recess 40 to enable the socket to straddle the transverse portion of the spout or nozzle 33.

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

1. A bottle faucet or tap including a hollow tapered end having a lateral opening at a point intermediate of its ends and provided with a solid inner end of gimlet form, said tapered tube being provided at its outer portion beyond the lateral opening with a spiral flange forming a thread, an outwardly closable valve located at the outer portion of the tapered tube for controlling the flow of liquid through the same, and a reciprocable rod normally located within the tube and extending from the opening to a point adjacent to the valve and arranged in the path of and spaced from the same when the valve is closed and adapted to be actuated by the valve, whereby when the said valve is operated the rod will be caused to project into the lateral opening for cleaning the same.

2. A bottle faucet or tap including a hollow tapered tube provided at a point intermediate of its ends with a lateral opening and having the wall thereof adjacent to the opening forming a valve seat, which is located between the said opening and the outer end of the tapered tube, said tube being also provided with a solid inner portion of gimlet form and having at its outer portion beyond the lateral opening an exterior spiral flange to form a thread, and a reciprocable rod normally located within the tube and arranged to project into the lateral opening for cleaning the same and coacting with the said valve seat to form a valve for controlling the flow of liquid through the opening.

3. A bottle faucet or tap including a hollow tube having an opening at the inner end of its bore, a valve located at the outer portion of the tube and movable inwardly and outwardly in a direction longitudinally of the tube for controlling the flow of liquid

through the same, a reciprocable rod mounted in the tube and normally spaced from the valve and extending from a point adjacent the latter to the opening of the tube, said rod being located in the path of the valve and adapted to be moved inwardly by the same and being of a length to project into the opening of the tube to dislodge accumulation therefrom and coacting with the walls of the bore of the tube to form a valve to control the flow of liquid through the said opening.

4. A bottle faucet or tap including a hollow tube having an opening at the inner end of its bore and provided beyond the opening with an interior valve seat, a rod operating within the hollow tube and extending to the opening for ejecting accumulation therefrom and provided with a valve portion co-acting with the said valve seat to regulate the outflow and movable inwardly to carry it to the said seat, and an outwardly closable valve for controlling the flow of the liquid through the tube, said outwardly closable valve being located beyond the rod and arranged to move the same inwardly.

5. A bottle faucet or tap including a hollow tube having an opening at the inner end of its bore and provided beyond the opening with an interior valve seat, a rod operating within the hollow tube and extending to the opening for ejecting accumulation therefrom and provided with a valve portion co-acting with the said valve seat to regulate the outflow and movable inwardly to carry it to the said seat, an outwardly closable valve for controlling the flow of the liquid through the tube, said outwardly closable valve being located beyond the rod and arranged to move the same inwardly, and a spring housed within the tube and connected with the rod for moving the same outwardly for holding the valve portion normally away from the valve seat.

6. A bottle faucet or tap including a hollow tube having an opening at the inner end of its bore and provided at the outer portion

thereof with a transverse partition having an outlet aperture, a rod operating within the hollow tube and guided at its outer portion by the said partition and extending therefrom to the opening of the tube for dislodging accumulation, a spring housed within the hollow tube for moving the rod outwardly, a cap or valve casing mounted on the outer portion of the tube and having a nozzle or spout and provided with an interior valve seat, a valve arranged at the pressure side of the seat in position for moving the rod inwardly, and means for operating the valve.

7. A bottle faucet or tap including a hollow tube, a cleaning rod mounted within the hollow tube, a cap or casing connected with the outer end of the hollow tube and provided with an interior valve seat and having an outlet, said cap or casing being also provided with a tubular portion, a valve co-acting with the valve seat and arranged to move the cleaning rod inwardly and having a valve stem extending through the said tubular portion, a head arranged at the outer end of the valve stem, and a spring surrounding the tubular portion of the cap and engaging the head of the stem for seating the valve.

8. A bottle faucet or cap including a hollow tube, a cleaning rod mounted within the hollow tube, a cap or casing mounted on the outer end of the hollow tube and provided at one side with an approximately L-shaped nozzle and having a centrally arranged projecting tubular portion, said cap or casing being also provided with an interior valve seat, a valve arranged to engage the cleaning rod and having a stem extending through and guided by the tubular portion of the cap or casing.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ROBERT HENRY THOMPSON, JR.

Witnesses:

GEO. H. SMITH,
OTIS E. WISE.