(No Model.)

H. C. HOYT.

FAUCET.

No. 589,472. Patented Sept. 7, 1897.

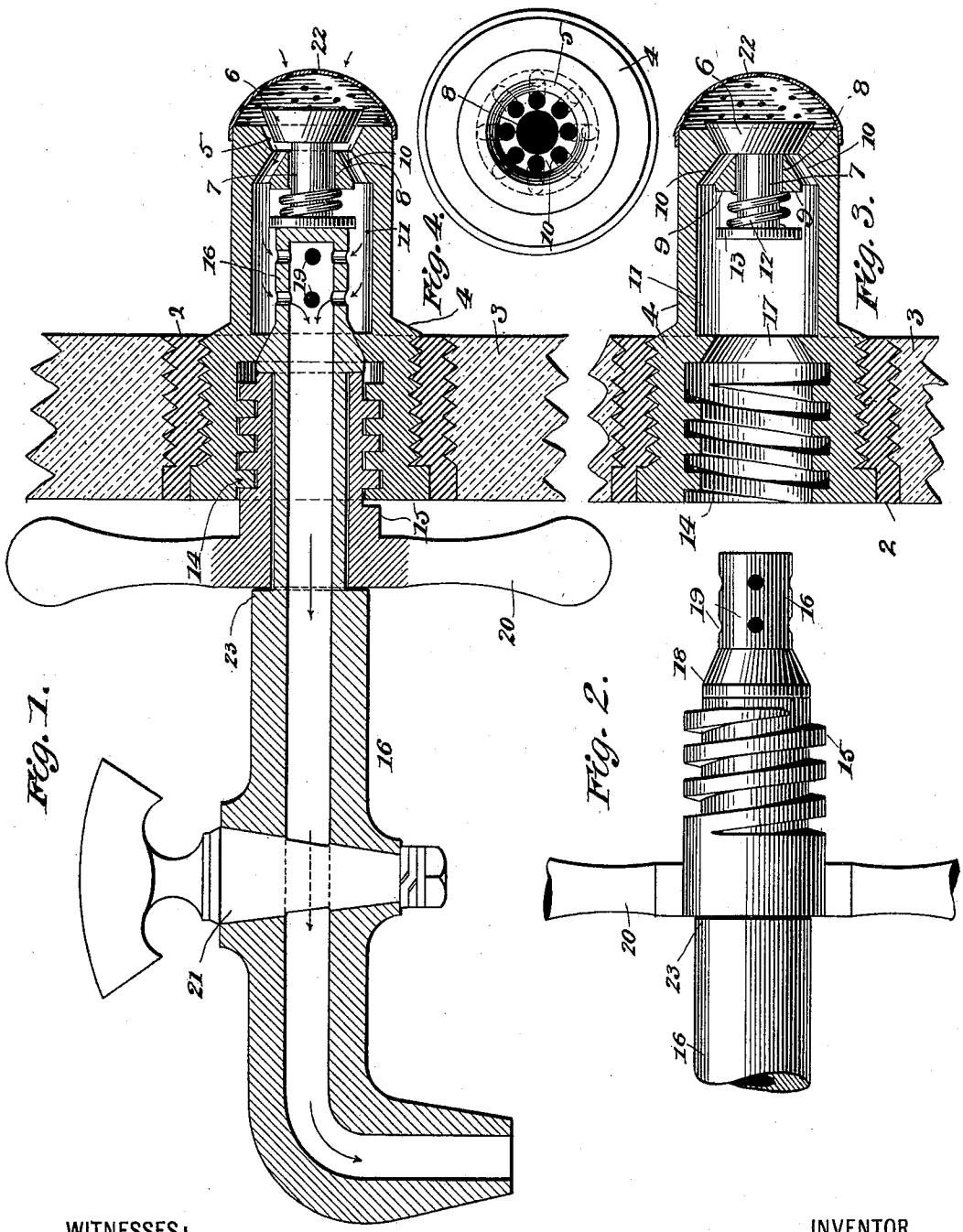


Fig. 1.

Fig. 2.

Fig. 4.

Fig. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

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FAUCET.

SPECIFICATION forming part of Letters Patent No. 589,472, dated September 7, 1897.

Application filed January 22, 1895. Serial No. 535,812. (No model.)

To all whom it may concern:

Be it known that I, HARRY C. HOYT, a citizen of the United States, residing at Stamford, county of Fairfield, and State of Connecticut, have invented certain new and useful Improvements in Faucets for Use with Fermented Liquors, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to taps or faucets used with packages containing fermented liquors and in which an automatically-closing tap-valve is opened by a faucet or key when the latter is mounted in position for use.

I have illustrated my invention in the accompanying drawings, wherein—

Figure 1 is a view of the device in section on a vertical plane extending longitudinally and centrally through the same. In this view the faucet is mounted in position for use and the valve is open. Fig. 2 is a side view of the inner portion of the faucet-key shown as detached or dismounted from the valve-casing. Fig. 3 is a sectional view of the tap-valve and its casing similar to that shown in Fig. 1, but with the valve closed. Fig. 4 is an end view of the inner end of the valve-casing with the valve removed.

Referring to the drawings, in which like numbers of reference designate like parts throughout, 2 indicates an ordinary bushing that is screwed into an opening in the stave 3 of a package or barrel containing fermented liquor, such as beer or ale. Within this bushing 2 is mounted by means of a screw-thread a tubular valve-casing 4, which projects a considerable distance within the vessel and is provided at its inner end with a tapering or conically-shaped valve-seat 5, upon which closes the tap-valve 6, which is correspondingly tapered, so as to closely fit upon the seat. This tap-valve has its larger end disposed toward the interior of the vessel and is automatically closed in an outward direction. From the smaller end of the valve projects a valve-stem 7, which passes loosely through a central perforation 8, formed in the stationary member or diaphragm 9, having perforations 10, which lead from the valve-seat to the interior 11 of the valve casing. A coiled spring 12 surrounds the valve-stem 7 and is interposed between the diaphragm 9 and a fixed piece 13 upon the outer end of the stem, and this spring tends constantly to close the valve, so that when it is free to act it holds the valve firmly upon its seat.

The interior of the valve-casing is provided at its outer end with an internal screw-thread 14 for receiving the threaded collar 15, which is mounted loosely upon the faucet 16, so as to be capable of turning upon the same, but is held from moving longitudinally thereon. This collar is mounted in position upon a reduced portion of the faucet and between the enlargement 18 and a shoulder 23 thereon, each of which parts serves as an abutment for preventing longitudinal movement of the collar upon the faucet, at the same time permitting it to turn easily thereon. Between the thread 14 and the chamber 11 of the casing 4 is formed a beveled annular shoulder 17, which is designed to receive a tapering enlargement 18, formed upon the inner end of the faucet or key 16, and forms a liquid and gas tight joint therewith when the faucet is mounted in position for use. The inner end of the faucet is formed with a number of lateral perforations 19 for placing the interior of the faucet in communication with the interior of the chamber 11 of the valve-casing. In order to prevent any solid particles that may be in the liquid from being drawn off, I provide the inner end of the valve-casing with a strainer 22.

From the foregoing description the operation of my invention will be readily understood.

Suppose the faucet to be detached from the casing of the tap-valve, as shown in Fig. 2. Under this condition the valve is closed, as shown in Fig. 3, and the vessel is tightly sealed against escape of its contents. If now it is desired to tap or draw off any of the contents of the vessel, the faucet is introduced into the outer end of the valve-casing, and the loose collar 15, which is provided with the oppositely-projecting handles 20 for readily turning it, is tightly screwed into the valve-casing, thereby bringing the beveled portion 18 of the faucet tightly against the annular shoulder 17 within the casing, while at the

same time causing the inner end of the faucet to push upon the valve-stem and force the valve open, as shown in Fig. 1. Under such condition the contents of the barrel have a free passage, as indicated by means of the arrows, by the valve, through the perforations 10, thence through the chamber 11 and the lateral perforations 19 in the faucet into the same, the exit from which is controlled by an ordinary hand-operated plug-valve 21.

Among the important advantages of my invention it may be stated that the device is composed of but a few simple parts, which will be found to be very durable, and the fitting of the parts together to prevent leakage is such as to wholly dispense with the necessity of using rubber or leather washers of any kind whatsoever, and there is thus no liability of the contents of the vessel being tainted with such materials.

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

1. In a device of the class described, the combination of an automatically-closing valve adapted to be held open by an extension or key of the faucet when the latter is mounted in place, an ordinary faucet 16 having an extension or key upon its inner end for engaging said valve and holding it open when the faucet is mounted in place, said faucet having its stem provided upon the exterior with the abutments 23 and 18, a collar 15 loosely mounted upon the said stem intermediate said abutments and held against lengthwise movement thereon, said collar being attached to and carried by the stem of said faucet and adapted to engage and lock with a fixed part or bushing by rotary movement at the same time seating the faucet in place for use and leaving it freely adjustable on its axis within said collar, so that it may be readily turned to any angle at will.

2. In a device of the class described, the combination of the casing 4 formed upon the interior with an annular beveled shoulder 17, an automatically-closing valve adapted to be held open by an extension or key of the faucet when the latter is mounted in place, an ordinary faucet 16 having an extension or key upon its inner end for engaging said valve and holding it open when the faucet is mounted in place, said faucet having its stem provided with an abutment 23 and an annular beveled shoulder 18 fitting against said shoulder 17 of the casing to form a tight joint therewith, a rotary collar 15 loosely mounted upon the stem of said faucet intermediate said shoulder 18 and the abutment 23 whereby the faucet may be adjusted on its axis within said collar, said collar fitting within said casing 4 and adapted to lock therewith by rotary movement and to force said beveled shoulder 18 of the faucet tightly against the shoulder 17 of said casing thereby holding the faucet in adjusted position at the same time cutting off the escape of gas or liquid between said shoulders 17 and 18, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand, this 12th day of January, 1895, in the presence of the two subscribing witnesses.

HARRY C. HOYT. [L. S.]

Witnesses:
JOHN H. ROMAINE,
FRANK H. HOYT.