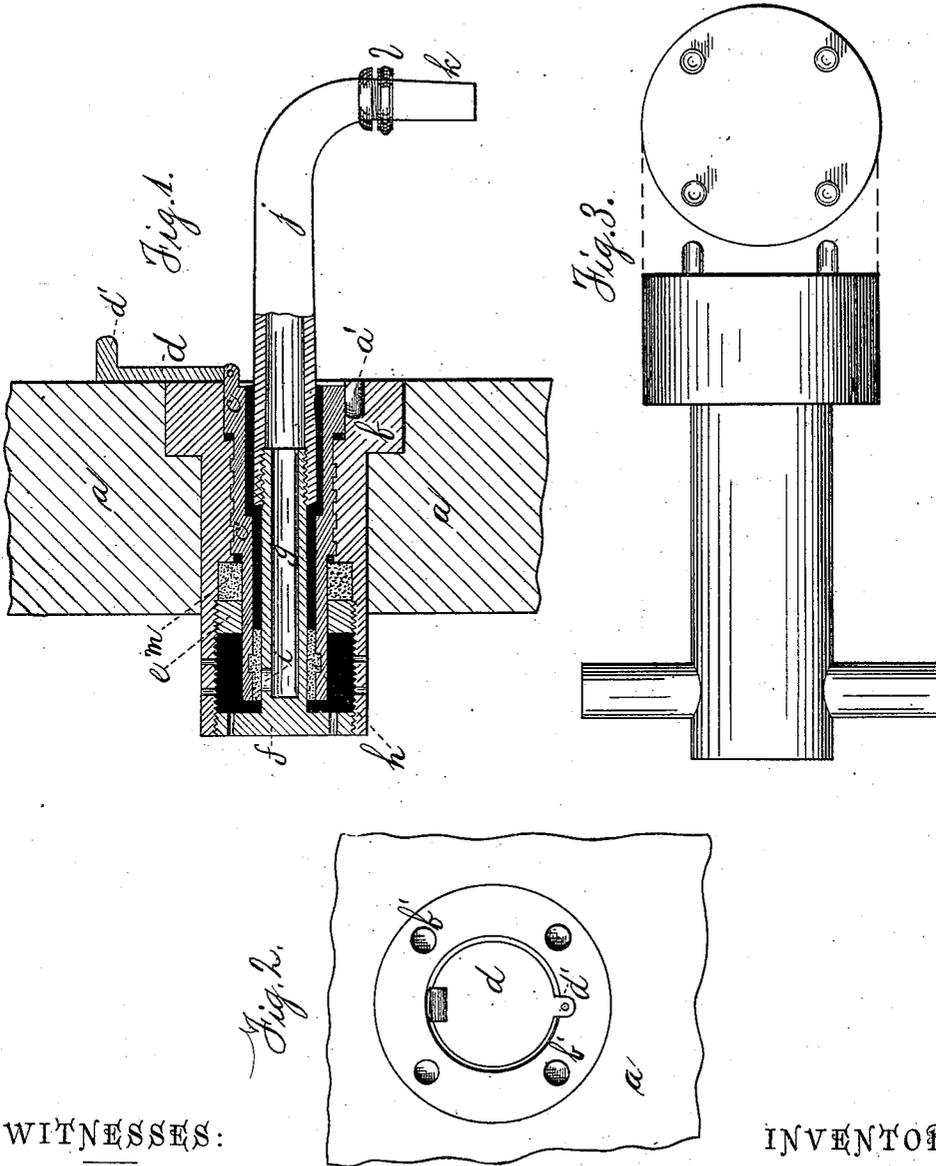


A. W. SPERRY.  
ALE AND BEER FAUCETS.

No. 193,676.

Patented July 31, 1877.



WITNESSES:

*R. F. Grayford*  
*John McQuinn*

INVENTOR:

*A. W. Sperry*  
By *M. E. Simonds*  
Att'y.

# UNITED STATES PATENT OFFICE.

ALFRED W. SPERRY, OF WALLINGFORD, ASSIGNOR OF ONE-HALF HIS RIGHT TO GILBERT F. HEUBLEIN, OF HARTFORD, CONNECTICUT.

## IMPROVEMENT IN ALE AND BEER FAUCETS.

Specification forming part of Letters Patent No. 193,676, dated July 31, 1877; application filed February 19, 1877.

*To all whom it may concern:*

Be it known that I, ALFRED W. SPERRY, of Wallingford, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements pertaining to an Ale and Beer Faucet, of which the following is a specification, reference being had to the accompanying drawings, where—

Figure 1 is a view in central longitudinal section, on enlarged scale. Fig. 2 is a top view, faucet closed. Fig. 3 is a top and end view of the wrench used to insert the faucet.

The object and aim of the invention is the production of a faucet for barrels of ale, beer, and other liquids, which shall be complete in itself, so that it may be opened, closed, and connected to draft-tubes without the aid of extraneous means—as wrenches—and which shall lie flush with, or sunken below, the surface of the barrel or cask, so that Internal-Revenue stamps may be pasted or attached over the faucet in order to create a necessity for breaking and destroying the stamp before the liquid can be tapped for use.

The letter *a* denotes the material of the cask or barrel pierced by a round hole, into which screws the faucet-body *b*, on which is cut a screw-thread, and the head or upper end of which is provided with socket-holes *b'*, into which fit the prongs or studs on the end of the wrench shown in Fig. 3. By means of this wrench the faucet-body is screwed into or unscrewed from the barrel; and I am enabled by this construction to sink the head of the faucet flush with or below the surface of the barrel.

The faucet body is interiorly screw-threaded, and contains the valve-tube *c* having a corresponding exterior thread, *c'*, fitting to the interior thread of the faucet-body, so that when the valve-tube is revolved or rotated to the left it runs downward in the faucet-body, and when turned in the opposite direction it runs upward in the faucet-body. Such rotation is effected by means of the cover *d* hinged to the top thereof, which, when shut down, as shown in Fig. 2, acts as a cover to the valve-tube, and when open, as shown in Fig. 1, acts as a handle, whereby to rotate the valve-tube. The stud *d'*, shutting into the socket *a'*, in the

faucet-body, locks the valve-tube from rotation when the faucet is closed. When the faucet is open this stud enables the user or operator to more readily rotate the valve-tube.

Within the faucet-body, and just below the said screw-thread, is an outwardly-receding shoulder, and next to this shoulder is an annular packing-ring, *m*, of rubber, or the like, fitting snugly between the faucet-body and the exterior surface of the valve-tube, just below the said thread on the valve-tube. This packing-ring is secured between said shoulder and the annulus *e*, which screws into the interior of the faucet-body. This packing-ring insures that the ale or beer shall not escape between the faucet-body and the valve-tube.

Into the lower end of the faucet-body screws the plate *f*, on which is fastened the stand-tube *g*, extending up within the valve-tube. Between the valve-tube and the stand-tube is an annular packing-ring, *h*, which prevents the ale or other liquid from escaping between the stand-tube and valve-tube. The liquid within the barrel finds access to the exterior of the stand-tube through perforations made either in the side surface of the lower end of the faucet-body, as seen in the drawings, or on the bottom plate *f*, or in both of these.

A short distance from the bottom of the stand-tube an orifice, *i*, (one or more,) is made in the side of the stand-tube, and it is through this orifice that all the liquid must find vent. When the valve-tube is clear down at the lowest limit of its vertical motion, the lower end of the valve-tube, and the within-contained packing-ring is below this orifice, and the liquid is shut off from finding vent through said orifice, but on running up the valve-tube this orifice is uncovered and the liquid finds escape through it.

The top of the stand-tube is exteriorly threaded, and on this screws the interiorly-threaded connection-tube *j*, to the upper end of which connection can be made to the draft-tube *k* by coupling *l* in the common way.

The mode and manner of using and operating this faucet is as follows: When the barrel

is full and the faucet closed the valve-tube is at the lowest limit of its vertical play, shutting off the liquid from the orifice in the stand-tube, and the lid or cover *d* is shut down. The dealer, receiving the full barrel and wishing to put it on draft, opens the cover *d* till the top of the valve-tube rises flush, or nearly so, with the upper end surface of the faucet-body. This enables the dealer to throw the cover back, as shown in Fig. 1, thereby giving the necessary purchase for readily rotating the valve-tube. This operation raises the lower end of the valve-tube somewhat, but not enough to uncover the orifice *i*, so that the faucet is yet closed. The operator now screws the connection-tube upon the upper end of the stand-tube and connects the draft-tube. Now, by running the valve-tube up a little higher, the orifice *i* is uncovered and the faucet is opened, so that the liquid in the barrel can flow out through the draft-tube.

In order to get the cover *d*, when closed, flush with the upper-end surface of the faucet-body, so that the Internal-Revenue stamp may be pasted or attached over the hole, the upper end of the valve-tube has to sink below the upper end of the faucet-body, and the cover *d* lie within the depression thus produced, and in order to allow the valve-tube to be raised so that the lid *d* may be turned back, as shown in Fig. 1, the orifice *i* has to be raised somewhat above the limit of the lowest vertical play of the valve-tube; otherwise the faucet would be opened before matters are in proper position for attaching the connection and draft tubes.

I claim as my invention—

1. In combination, the interiorly-threaded faucet-body *b*, the exteriorly-threaded valve-tube *c*, and the stand-tube *g*, provided with the orifice *i*, all arranged and operating substantially as shown and described, for the purposes set forth.

2. In combination, the interiorly-threaded faucet-body *b*, the exteriorly-threaded valve-tube *c*, bearing the hinged lid *d* flush with the upper end of the faucet-body, and provided with the spur *d'* shutting into the socket *a'*, all arranged and operating substantially as shown and described, for the purposes set forth.

3. In combination, the interiorly-threaded body *b*, the exteriorly-threaded valve-tube *c*, the stand-tube *g*, provided with the orifice *i*, and screw-threaded upper end, and the connection-tube *j*, all arranged and operating substantially as described, for the purposes set forth.

4. In combination, the interiorly-threaded faucet-body *b*, packing-ring *m*, exteriorly-threaded valve-tube *c* bearing hinged lid *d*, packing-ring *h*, stand-tube *g* provided with the orifice *i*, and rising from the plate *f* supported within the faucet-body—body *b* or plate *f* perforated—all substantially as described, and for the purposes set forth.

ALFRED W. SPERRY.

Witnesses:

ROBT. F. GAYLORD,  
G. F. HEUBLEIN.