J. G. L. BOETTCHER.

Faucet.

No. 162,608. Patented April 27, 1875.

Fig. 1.

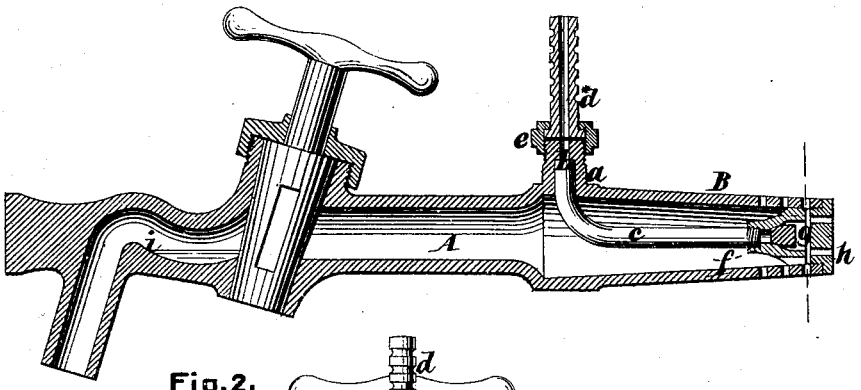



Fig. 2.

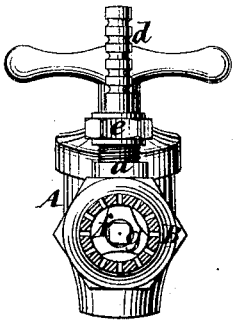



Fig. 3.

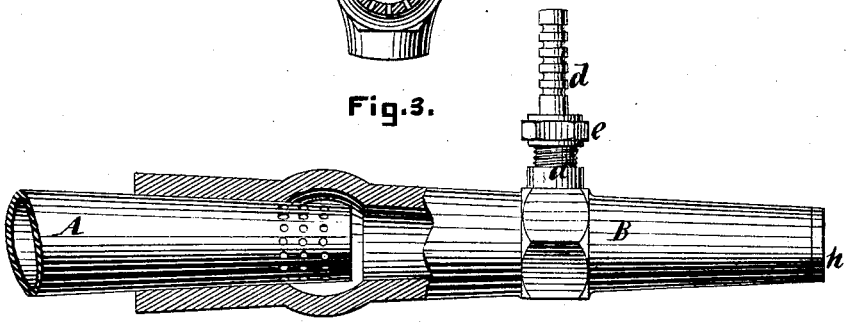
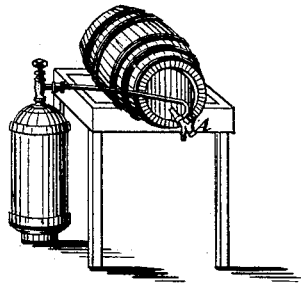



Fig. 4.



Witnesses.
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Otto Hufeland.

Inventor.
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# UNITED STATES PATENT OFFICE

JOHN G. L. BOETTCHER, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN FAUCETS.

Specification forming part of Letters Patent No. **162,608**, dated April 27, 1875; application filed March 24, 1875.

*To all whom it may concern:*

Be it known that I, JOHN G. L. BOETTCHER, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Faucets, of which the following is a specification:

This invention is illustrated in the accompanying drawing, in which—

Figure 1 represents a longitudinal central section. Fig. 2 is a transverse section in the plane *x x*, Fig. 1. Fig. 3 is a section of the shank detached. Fig. 4 is a perspective view, illustrating the application of my invention.

Similar letters indicate corresponding parts.

This invention relates to an improvement in that class of faucets which are provided with a vent-channel, so that when the faucet is applied to a closed barrel or vessel, and said faucet is opened for the purpose of drawing out the contents of said vessel, the external air is free to enter through the vent-channel, and the liquid flows freely.

My invention consists in constructing the hollow shank of a faucet with a screw-threaded projection, a corrugated discharge-nipple being connected with said projection by means of a coupling-nut.

From the projection on the shank extends a vent-tube projecting backward through the shank, and a check-valve being arranged at the rear end of the shank, all in such a manner as will be fully hereinafter described, when the faucet is secured in a barrel or other closed vessel, and the detachable nipple is connected with a fountain containing carbonic-acid or other gas under pressure.

The liquid from the barrel will discharge, when the faucet is opened, as soon as the pressure in the barrel becomes less than that of the gas in the fountain. The gas forces the check-valve off from its seat at the rear end of the shank, and passes through the liquid into the barrel.

In the drawing, the letter A designates a faucet, from the tubular shank B of which extends a projection, *a*, through which extends a channel, *b*, that connects with a pipe, *c*, situated in the interior of the shank. With the projection *a* is combined a nipple, *d*, which is secured in position by a coupling-nut, *e*, and which is intended to receive a pipe of india-rubber or other suitable material extending from and communicating with a fountain containing carbonic-acid or other gas under pressure, said detachable nipple serving to make this connection with ease and facility. Said pipe *c* extends close to the end of the shank B, and it is provided with an enlargement, *f*, forming a chamber for the reception of a valve, *g*, which is held in its seat by the pressure of the liquid in the barrel or vessel to which the faucet may be attached. The valve-chamber *f* is partly cut away, so that the liquid from the barrel can pass more freely through the faucet when the plug is opened. A perforated cap, *h*, closes the end of the shank, and protects the valve and the valve-chamber.

After the faucet is secured in a barrel or closed vessel containing beer or other liquid, I connect the nipple *d* with a fountain containing carbonic-acid or other gas under pressure; and if the faucet is opened, the liquid from the barrel discharges as long as the pressure in said barrel exceeds the atmospheric pressure; but whenever the pressure in the barrel becomes lower than that in the fountain connected to the nipple *d*, the carbonic-acid or other gas contained in said fountain opens the valve *g*, and passes through the beer into the barrel. By these means the pressure in the barrel is kept at a uniform point, and the life of the beer is constantly renewed.

The shank B may be made detached from the faucet, as shown in Fig. 3, so that any common faucet can be secured in said shank, which latter is provided with the detachable nipple *d*, vent-pipe *c*, and valve *g*.

The discharge-spout of my faucet is provided with a trap, *i*, which is formed as shown in Fig. 1 of the drawing, so that when the plug of the faucet is closed the liquid still contained in the spout is sucked back into said trap, and the dripping of the faucet is prevented.

The manner of connecting my fountain and barrel is shown in Fig. 4.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, with the screw-threaded projection *a* on the shank B, of the corrugated nipple *d*, the coupling-nut *e*, connecting the nipple with the projection, the vent-pipe *c*, and the valve *g*, all constructed substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 17th day of March, 1875.

JOHN G. L. BOETTCHER. [L. S.]

Witnesses:
E. F. KASTENHUBER,
FRANCIS FORBES.