

J. G. L. BOETTCHER.  
Pumping-Faucets.

No. 147,094.

Patented Feb. 3, 1874.

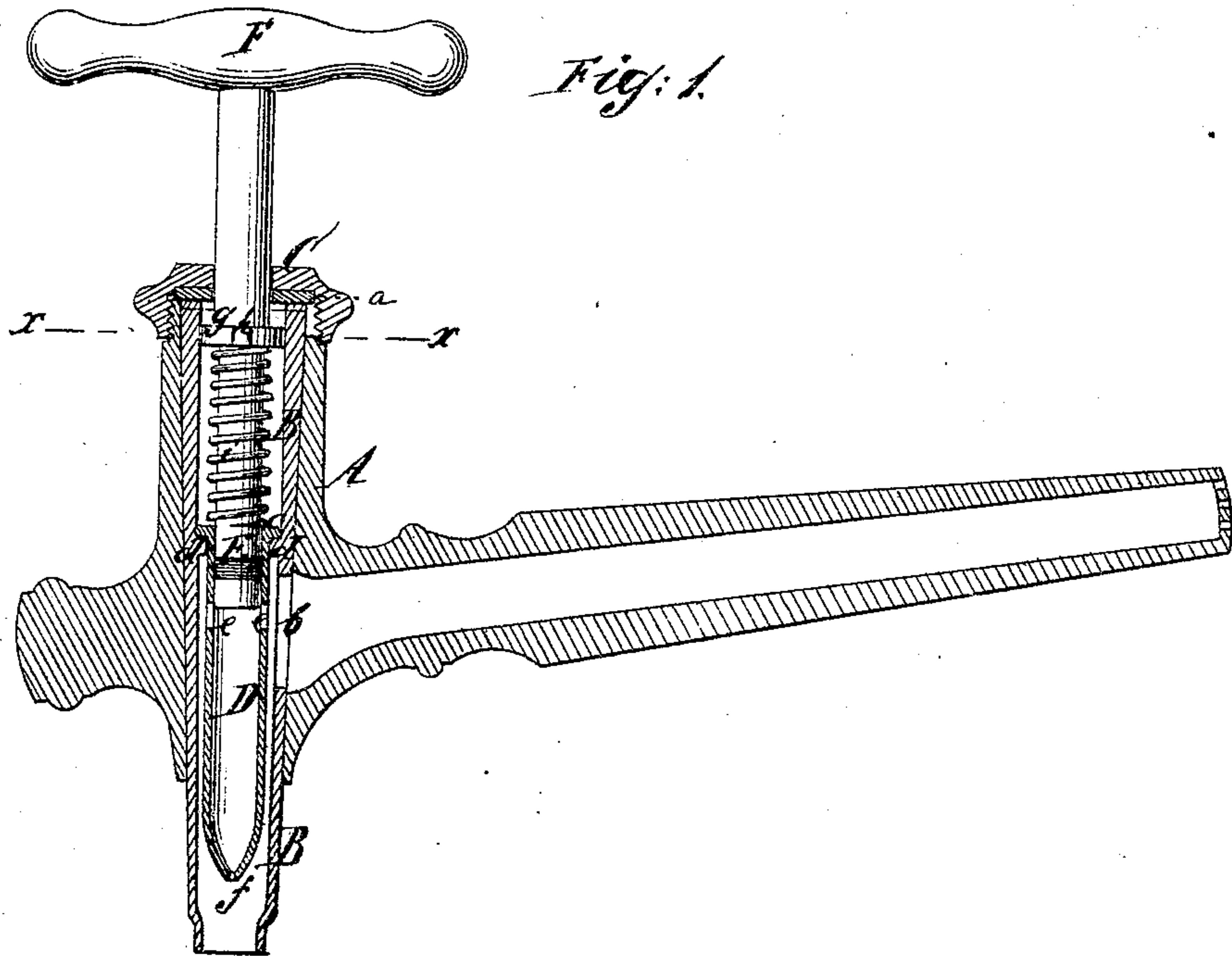
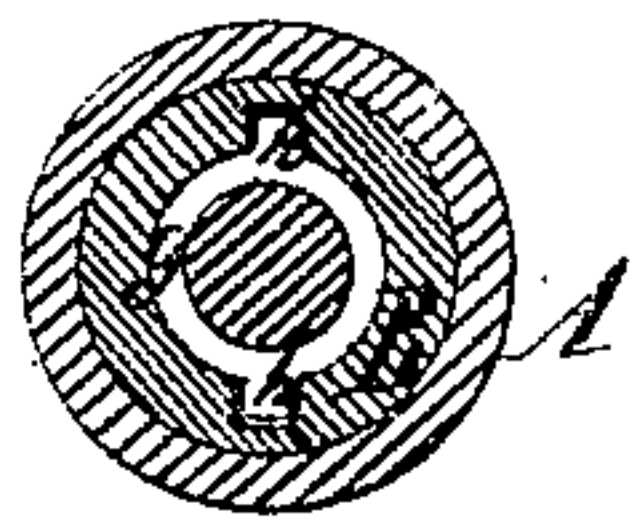


Fig: 2.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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

## IMPROVEMENT IN PUMPING-FAUCETS.

Specification forming part of Letters Patent No. **147,094**, dated February 3, 1874; application filed January 2, 1874.

*To all whom it may concern:*

Be it known that I, JOHN G. L. BOETTCHEER, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Pumping-Faucet; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a longitudinal central section of this invention. Fig. 2 is a horizontal section of the same in the plane  $x x$ , Fig. 1.

Similar letters indicate corresponding parts.

This invention consists in the arrangement of a pump-chamber, suspended loosely in the tubular plug of a faucet, and held in position by a shoulder in said plug and by a spring wound round the plunger, which also serves as the key for turning the plug in such a manner that the operation of pumping can be effected by alternately depressing the plunger and allowing it to rise when the faucet is open, and fresh life can be imparted to the liquid drawn through the faucet by an imperceptible motion of the hand, while the liquid can be discharged freely and without pumping, as long as it may be desirable. The liquid is prevented from rising into the spring-chamber by the joint formed between the top flange of the pump-chamber and the supporting-shoulder in the hollow plug of the faucet.

In the drawing, the letter A designates the shell of my faucet, which is cast of brass or made of any suitable material. This shell is bored out to receive the plug B, which is hollow, and held in place by a cap, C, that screws on the end of the shell, a packing-ring,  $a$ , being interposed so as to produce a yielding pressure on the plug, and to allow of turning the same with ease. In the side of the plug is an opening,  $b$ , and if said plug is turned in the proper position, this opening corresponds with the mouth of the hollow shank of the faucet, which is inserted into the barrel from which beer or other liquid is to be drawn, so that the liquid can discharge through the lower open end of the hollow plug. In the interior of said hollow plug is suspended a tubular pump-chamber, D, which is provided at its top with a flange,

$c$ , that bears upon a shoulder,  $d$ , in the interior of the hollow plug B, and, if desired, this flange may be provided with one or more noses, Fig. 2, which catch in corresponding grooves in the plug, so as to prevent the pump-chamber from turning round. These noses may, however, be dispensed with. The outside diameter of the pump-chamber is smaller than the bore of the plug, so that the liquid which is admitted to the hollow plug can discharge freely. In the pump-chamber are two or more holes,  $e$ , so that the liquid admitted to the hollow plug can pass freely into the pump-chamber, and the bottom end of said pump-chamber is perforated with a small hole,  $f$ , one or more, through which the liquid admitted through the holes  $e$  can be forced out in a fine jet by means of the plunger E. The shank of this plunger extends through the cap C into the pump-chamber, and it is provided with a collar,  $g$ , from which project noses  $h$ , Fig. 2, which catch in corresponding grooves in the interior of the plug, so that by turning the plunger round the plug is turned and the faucet is opened or closed. A handle, F, serves to turn the plunger and the plug. Under the collar  $g$  is placed a spiral spring,  $i$ , which bears against the top edge of the pump-chamber, and has a tendency to retain the plunger in its elevated position, as shown in Fig. 1. The lower end of the plunger is packed so that it fits the pump-chamber tightly, and by depressing the plunger against the action of its spring  $i$  the liquid contained in the pump-chamber beneath the plunger is forced out in a fine jet with great force. The flange  $c$  of the pump-chamber is made to fit tightly on the shoulder  $d$ , and, if desired, a suitable packing-ring may be placed between these two parts, so that the liquid which enters the hollow plug is prevented from finding its way into the spring-chamber, and the spring is saved from corrosion.

This faucet is intended particularly for drawing beer or other liquids of a similar nature from kegs, and as long as the beer is fresh and lively the plug of the faucet is simply turned, and the liquid is permitted to discharge without using the pumping mechanism. During this time the plunger E may be slightly depressed before and during the time the faucet is opened and held open, so that said plunger

covers the holes *e* in the pump-chamber, and no liquid is permitted to enter this chamber. But if the beer loses its life, and it is desired to fill a tumbler or other vessel, the faucet is opened, and when the tumbler is nearly filled, the plunger is depressed and allowed to rise once or twice in succession, and by the jet of beer thereby ejected from the pump-chamber new life is imparted to the beer in the tumbler. This operation of pumping can be effected by an imperceptible motion of the hand which grasps the handle *F*.

My pumping-faucet has the great advantage that it is simple in its construction, not liable to get out of order, and that it can be readily taken apart for the purpose of cleaning or for regrinding its plug.

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

1. The plug *B* and pump-chamber *D* in combination with the plunger *E* and the spring *i*, arranged within the plug *B*, substantially as and for the purpose specified.

2. The plunger *E* having shoulder *g*, and surrounded with a spring within the plug *B*, in combination with the cap *C*, flanged pump-chamber *D*, and faucet *A*, substantially as and for the purpose specified.

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Witnesses:

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