

R. W. TAVENER.  
Faucet.

No. 231,246.

Patented Aug. 17, 1880.

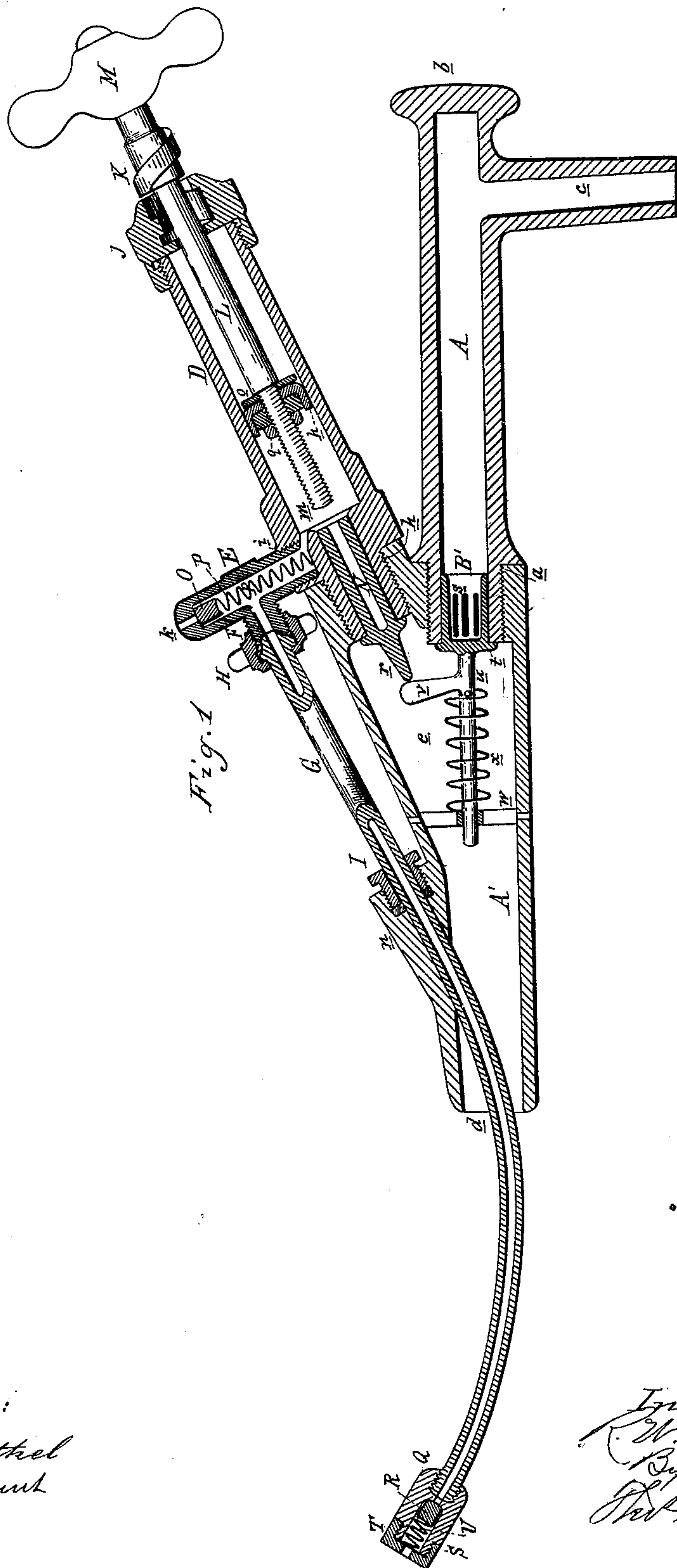


Fig. 1

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# UNITED STATES PATENT OFFICE.

ROBERT W. TAVENER, OF WEST BAY CITY, MICHIGAN, ASSIGNOR TO  
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## FAUCET.

SPECIFICATION forming part of Letters Patent No. 231,246, dated August 17, 1880.

Application filed January 28, 1880.

*To all whom it may concern:*

Be it known that I, ROBERT WM. TAVENER, of West Bay City, in the county of Bay and State of Michigan, have invented a new and useful Faucet, of which the following is a specification.

My invention relates to improvements in faucets of that class which are employed in drawing liquids from casks or other similar receptacles where an atmospheric pressure is required to compel the liquids to discharge through the faucet when opened. More especially is this invention designed for use in drawing malt liquors, and as an improvement upon a device for a similar purpose, for which Letters Patent of the United States, numbered 212,283, were issued to me February 11, 1879.

The invention consists in the peculiar construction of details and their various combinations, as more fully hereinafter described.

In the accompanying drawing, which shows my invention in a longitudinal central section, and which forms a part of this specification, A A' represent the two parts of the faucet-barrel, which are detachable by means of the screw-thread *a*. The part A is provided with a solid driving-head, *b*, and a delivery-spout, *c*. The part A' is open at its inner end, *d*, and is enlarged to form the chamber *e*, into which the tube D is removably secured by the screw-thread *h*. Into this tube is removably secured the tube E by means of the screw-threads *i*. This tube E has a small orifice, *k*, in its outer end, and at its inner end communicates with the chamber of the tube D through the port *m*. The tube E is cast with a threaded nipple, F, into the outer end of which is inserted the conically-shaped end of the tube G, and the two parts are secured together by means of the flanged nut H, the flange of said nut engaging with a flange upon the head of the tube G and a thread upon the nipple F. The bore of the tube G is coincident with the bore of the nipple F, which communicates with the bore of the tube E. The tube G passes through the wall of the part A', which is enlarged and thickened for that purpose, as shown at *n*, and a packing-nut, I, through which the tube passes, makes the opening in the wall through which the tube also passes air-tight. This

tube G then passes out of the part A', as shown, through the inlet end *d*, into the barrel or cask. The bore of the faucet-barrel A, inserted in the cask, thus serves as a guide for the introduction of the tube G into the cask, and but a single orifice is required for the faucet and tube.

The tube D is provided with a screw-cap, J, internally threaded to receive the single spiral or screw thread K in the stem L, which is provided with a handle, M. Upon this stem L there is sleeved a disk, *o*, resting against a shoulder upon the stem; then a rubber packing is interposed between said disk and the nut *q*, which secures the parts forming the piston together.

N is a slide fitted into the inner end of the tube D and terminating in a flanged point, *r*, the flange of which prevents the slide from entering the tube farther than required.

O is a valve, between the inner end of which and that portion of the side wall of the tube D which incloses the slide N there is interposed the spiral spring P within the tube E.

The inner end of the tube G is provided with a cap or valve-case, Q, which is screwed onto said tube, with an opening coincident with the bore of the tube. Within this case is the valve R, designed to close the end of the tube G, and between this valve and the perforated cap T of the case Q is inserted a spiral spring, U. Fitted in the inner end of the part A is a hollow slide, B', provided with openings *s* in its walls, and with a flange, *t*, to prevent said slide entering said part A too far; and it is provided with a stem, *u*, the outer end of which is supported by a spider, *w*, and the stem is also provided with a lug, *v*, and between said lug and the spider there is sleeved the spiral spring X.

In practice the handle M is turned until the spiral K in the piston-rod or stem L is disengaged from the thread in the cap J, when an outward reciprocating motion of the piston-rod draws air through the orifice *k* in the tube E, and thence, through the port *m*, into the chamber of the tube D. A reverse of this motion forces the air out of the port *m* into the tube E, (closing the valve O by the expansion of the spring P,) thence through the tube G



and displacing the valve R, passes through the valve-chamber Q and cap T into the barrel. It being desired to draw off a portion of the contents of the cask, the piston-rod is rotated until the spiral K is inserted into the cap J and engages with the thread therein. This forces the inner end of the piston-rod against the head of the slide N, the point *r* of which impinges against the lug *v* of the stem *u* of the valve B'. The slide N, being thus projected, forces back said valve B' until the openings *s* in the wall thereof are disclosed within the part A', thereby giving a free passage for the liquids from the inlet *d* to the outlet *c* through the parts A A' and valve B'.

By this construction it will be seen that, no matter what the pressure may be upon the liquid in the cask, there is no possibility of its being forced into the tube D or into that part of the device which is employed to force air into or to give vent to the cask.

In my former patent, dated February 11, 1879, No. 212,283, the slide G, in its return movement into its seat, is operated by the pressure of the liquid upon it, which is somewhat objectionable, particularly when the liquid is low and there is not much pressure exerted by it; whereas in my present construction the slide is positively acted upon by the recoil of a spring, thereby under all conditions insuring the return of the valve into its seat

irrespective of the pressure of the liquid. In my former patent, also, an air-passage is constructed in the slide, and a passage for the admission of air in the upper part of the pump-tube. I dispense in my construction with both of these air-passages, and employ an independent valve governed by a spring, for the admission of air into the air-pump through a port leading thereto, and also force the air through said port into the cask through a separate tube, E, whereby the air in its passage is not forced through the beer or other liquid in the faucet, and the pump is worked with less power.

What I claim as my invention is—

1. The combination, with the pump-cylinder D, provided with a piston and port, *m*, of the tube E, having valve O, with spring P and tube G, provided at its inner end with the spring-valve R, substantially as described, and for the purpose set forth.

2. The combination, with the pump-cylinder D, provided with a piston and port, *m*, of the tube E, having a spring-valve O, air-tube G, valve B', having stem *u*, with arm *v*, spring *e*, and slide N, having point *r*, substantially as described, and for the purpose set forth.

ROBERT WM. TAVENER.

Witnesses:

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