

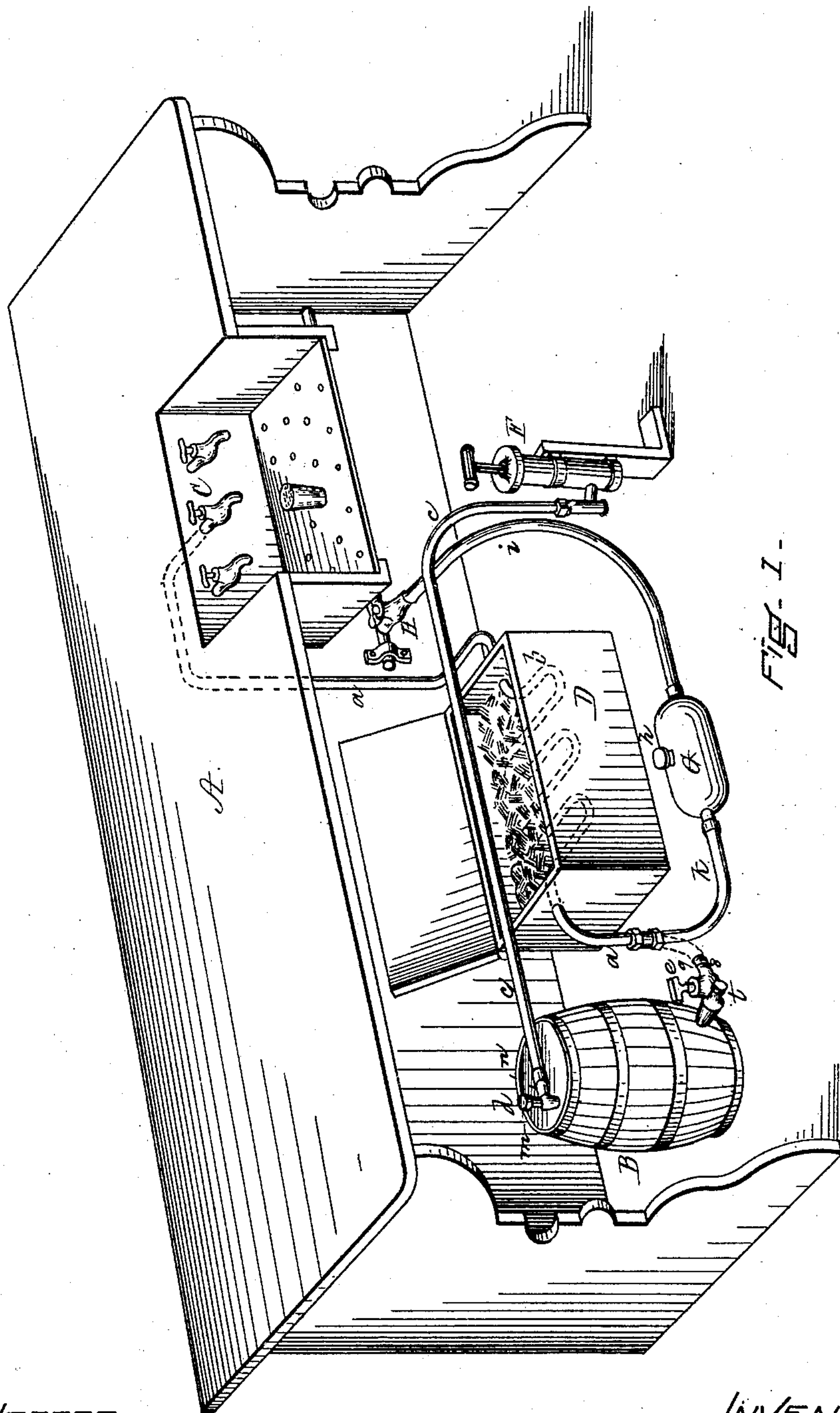
(No Model.)

2 Sheets—Sheet 1.

V. BONZAGNI.
ATTACHMENT FOR CLEANSING PIPES.

No. 353,413.

Patented Nov. 30, 1886.



WITNESSES

Herbert Baker
H. W. Stearns

INVENTOR

Vincenzo Bonzagni
per *Norman W. Stearns*
Attorney

(No Model.)

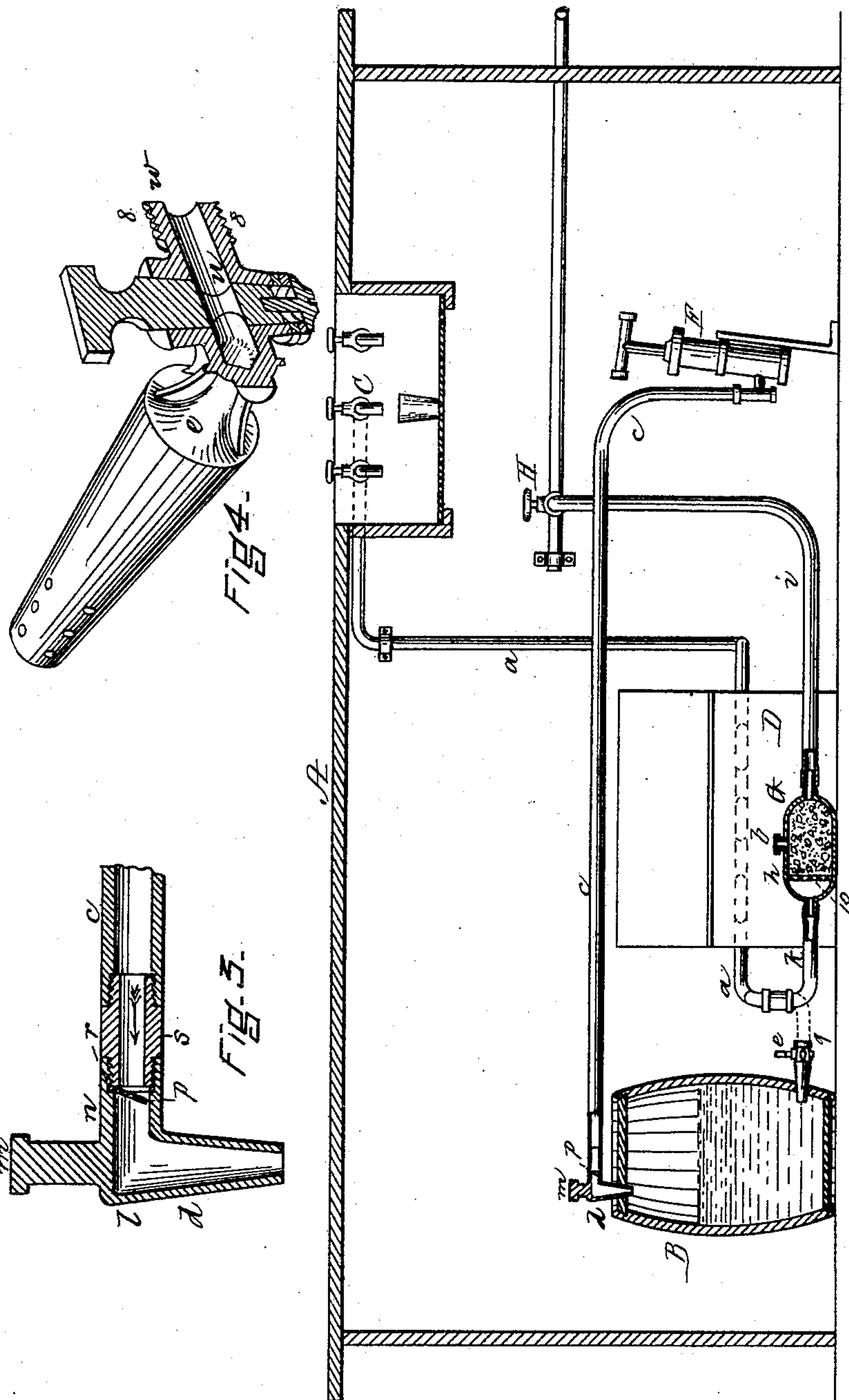
2 Sheets—Sheet 2.

V. BONZAGNI.

ATTACHMENT FOR CLEANSING PIPES.

No. 353,413.

Patented Nov. 30, 1886.



WITNESSES

Herbert Baker.
H. W. Stearns

INVENTOR

Vincenzo Bonzagni
per Norman W. Stearns,
Attorney

UNITED STATES PATENT OFFICE.

VINCENZO BONZAGNI, OF BOSTON, MASSACHUSETTS.

ATTACHMENT FOR CLEANSING PIPES.

SPECIFICATION forming part of Letters Patent No. 353,413, dated November 30, 1886.

Application filed September 23, 1886. Serial No. 214,321. (No model.)

To all whom it may concern:

Be it known that I, VINCENZO BONZAGNI, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Attachment for Cleansing Pipes through which Beer, Wines, and other Beverages are Drawn, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view illustrating the application of my invention for cleaning out the pipe or coil leading from a keg (containing beer or other beverage) to the draft-cock. Fig. 2 represents the same, partly in elevation and partly in section; Fig. 3, sectional detail; Fig. 4, stop-cock, to be referred to.

In serving beer, wine, &c., contained in kegs or barrels where the beverage is conducted through a straight or coiled pipe leading to a draft or supply cock the interior of the pipe sooner or later becomes coated with the sediment in said liquor, and if the flow is temporarily suspended—as, for instance, when not required for use during the night, and also when the contents of the keg, &c., are exhausted—the pipe becomes foul and the impurities therein taint the liquor, and frequently are injurious and cause sickness.

This difficulty has been partially remedied after the beverage was exhausted and the keg empty by filling it with water and forcing the same through the discharge-pipe, and also by forcing a cleansing-fluid through the pipes. This, however, besides necessitating the emptying of the beer, &c., was troublesome to perform, and consequently the evil was only partially and but seldom removed.

My present invention has for its object to speedily and efficaciously cleanse the interior of said supply-pipe at any desired time, and whether the keg be partly or entirely full, as well as empty; and this invention consists in a receptacle for containing lime, potash, or other cleansing agent interposed between and connected at will with the water-supply which enters the house at one end and at the other end with the exit-tap of the keg, the escape of the beverage therefrom being first prevented by turning a stop-cock, after which the pressure of the water-supply forces the

cleansing ingredient (in a soluble state) through the beverage supply-pipe to be cleaned and ejects the obstruction therein, and renders it free from all impurities.

To enable others skilled in the art, &c., to understand the use of my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents the counter of a store over which malt and vinous liquors are to be sold.

B is a keg for containing the beverage—beer, for instance—which is forced (by the pressure of air) through a pipe, *a*, (arranged in a coil at *b*,) to the draft-cock C, said coil being located in the ordinary ice-box, D.

F is an air-pump, having a pipe, *c*, leading therefrom to a stop-cock or plug, *d*, located in the top of the keg, by which air is forced upon the upper surface of the beer, which (when the stop-cock *e* at its bottom is open) is thereby forced through the coil *b* and elevated to the draft-cock C. The outer end of the stop-cock *e* is provided with a screw-thread, 8, for the reception of a screw-coupling, 9, at the lower end of the beer-pipe *a*, an interposed washer (not shown) being also provided to insure a water-tight connection being made.

G is a receptacle provided with an opening controlled by a screw-plug, *h*, at its top, said opening permitting of the introduction within the receptacle of any suitable cleansing agent—such as carbonate of lime, potash, &c. This receptacle has a pipe, *i*, leading from one end and a pipe, *k*, from its opposite end, the pipe *i* being provided with a screw-coupling at its outer end for attaching it to an ordinary water-supply draft-cock, H, and the end of the pipe *k* also having a screw-thread thereon to admit of its temporary connection with a screw-thread, 9, on the side of the stop-cock *e* at the lower end of the beer-keg. Inside the receptacle G, at the end remote from the water-cock H, is located a perforated plate, 10, which keeps the cleansing material from passing into and obstructing the pipe *k*.

When it is desired to cleanse the interior of the beer-pipe *a*, the stop-cock *e* at the bottom of the keg is first turned so as to shut off the flow of beer. The end of the beer-pipe *a* is then uncoupled therefrom and coupled with the pipe *k*, leading from the contiguous end of

the receptacle, and the coupling at the end of the pipe *i* being connected with the water-supply and its cock H opened, as also the beer draft-cock C, the water under pressure is free to flow from the cock H through the receptacle G and beer-pipe *a* up to and out of the beer-cock C, carrying with it the cleansing ingredient in its soluble state, the effect of which is to remove all impurities and to scour out the pipe *a*, this operation being performed at any time, whether the keg be full, partially full, or empty, it being simply necessary to shut off the cock *e* in the keg, uncouple the beer-pipe *a* therefrom, and couple it with the pipe *k* of the receptacle G.

The particular kind of plug I employ in the top of the keg will now be described. *l* is the vertical portion of the plug, terminating in a flat head, *m*, to form a suitable bearing for the face of the hammer in driving it home. *n* is a short horizontal portion, having at its outer end a valve, *p*, which swings freely from its seat in the direction of the arrow when air is forced by the air-pump F into the top of the keg, but is closed against its seat *r* by the air in the keg, which is thus prevented from escaping therefrom, so that a constant pressure of air is maintained in the keg to force the beer through the pipe *a* and up out of the faucet C when open. The seat *r* of the valve *p* is formed by the contiguous end of a screw-connection, *s*, interposed between the horizontal portion *n* of the plug and the end of the air-pipe *c*.

The tap or cock at the bottom of the keg is preferably constructed as shown in Fig. 4—*i*, *e.*, with a projecting horizontal portion, *t*, having a flat head for convenience in driving, and with a vertical plug, *u*, to shut off the beer, and with a passage through a horizontal screw-threaded portion, *w*, between the plug *u* and the flat head for coupling the end of the beer-pipe *a* therewith.

Serious sickness may be averted by the application of my invention to apparatus for drawing malt liquors and wines, and as a sanitary measure inspectors should be appointed to enforce the cleansing of the pipes through which they pass to the draft-cock.

I claim—

A pipe-cleaning attachment to beverage-drawing apparatus, consisting of a water-pipe having in its line a receptacle provided with a strainer and containing lime, potash, or other cleansing agent, in combination with and attached at the barrel end to the draft-pipe provided with a detachable coupling and having a stop-cock between it and the barrel, whereby the barrel may be cut out and the pipes be cleaned without having to empty its contents, substantially as described.

Signed this 18th day of September, 1886.

VINCENZO BONZAGNI.

In presence of—

N. W. STEARNS,

H. W. STEARNS.