J KLEIN.

APPARATUS FOR TREATING BEER ON DRAUGHT.

No. 188,150. Patented March 6, 1877.

Fig. 1

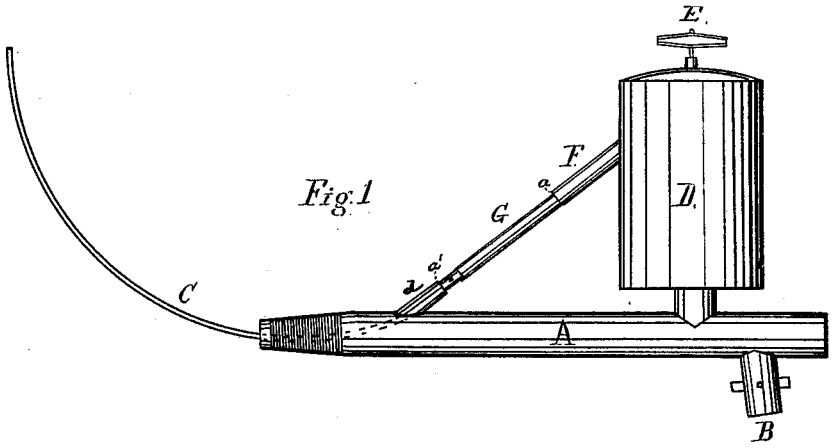
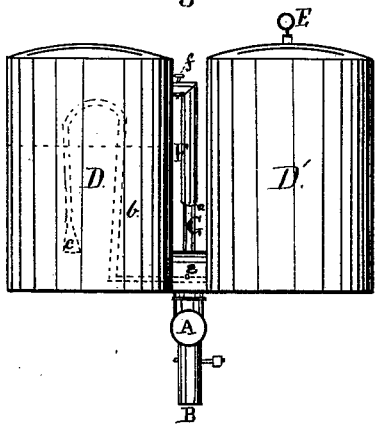


Fig. 2



Witnesses

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UNITED STATES PATENT OFFICE.

JACOB KLEIN, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN APPARATUS FOR TREATING BEER ON DRAFT.

Specification forming part of Letters Patent No. **188,150**, dated March 6, 1877; application filed February 15, 1877.

To all whom it may concern:

Be it known that I, JACOB KLEIN, of the city of Baltimore, State of Maryland, have invented certain new and useful Improvements in Apparatus for Treating Beer on Draft; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a side view, and Fig. 2 an end view of the device, the internal construction of the same being shown in dotted lines in Fig. 2.

This invention relates to devices for supplying air to casks of beer while on draft; and it consists in certain features and details of construction, as hereinafter described and claimed.

Various forms of devices have been in use for supplying air to the cask as the beer is drawn, some consisting in a mere ventilating-bung, or a tube leading from the faucet to the upper part of the cask, but the objection exists to this class of device that the beer, being subjected to no pressure in excess of the ordinary atmospheric pressure, soon loses its carbonic acid, and becomes flat and unpalatable. To remedy this evil, another class of devices have been used, which operate upon the principle of supplying the air to the cask under pressure, whereby the escape of carbonic acid is prevented. These devices consist essentially of an ordinary air-pump, having its delivery-tube entering the cask near the top. By these means the noxious fetid air of the bar-room, laden as it is with tobacco-smoke, is forced into the cask, resulting in the inevitable contamination of the beer.

By the device hereinafter described these objections are obviated.

In the accompanying drawings, A represents an ordinary faucet or spigot, having the usual tapering threaded end and air-tube C, the latter passing air-tight through the short tube *d* on the stem of the faucet. B represents the ordinary nozzle, having a suitable stop-cock. Upon the spigot are secured the cylinders D and D′, constituting, respectively, the purifier and air-pump. The latter is of the ordinary construction, and communicates with the former by means of the bent tube *b* terminating in the rose *c*. From the upper part of the purifier leads the pipe F, having a sleeve, G, whose lower end is fitted with a female screw to engage with the threaded end of the air-tube C. The pipe F is furnished with a stop-cock, *f*, whose function will be hereinafter described.

The operation of the device is as follows: The tube C is withdrawn as far as the end of the spigot, which is then placed upon the head-bung of the cask, and driven in with a mallet in the usual way. The tube C is then forced into the cask until its end is above the level of the beer. The sleeve G is then screwed upon the threaded end of the tube C, and the device is in order for use.

As long as the beer spontaneously flows from the spigot by the pressure of its carbonic-acid gas, it is not necessary to introduce air into the cask; but when this flow ceases, pressure is supplied by means of the air-pump D′. Upon withdrawing the handle E, air flows through the valve *e* into the cylinder. Upon driving the piston down the air is forced through the tube *b* and rose *c* into the purifier D, which is partially filled with any suitable liquid, dilute alcohol or spirits of any kind being preferred. From the purifier the air passes through the tubes F, G, and C into the cask. When sufficient pressure is obtained within the cask, the cock *f* is closed, to prevent the pressure of the gas from forcing the liquid in the purifier through the pipe *b* into the air-pump cylinder. Of course the cock *f* must also be closed during the withdrawal of the piston of the air-pump. Instead of the cock *f*, or in addition to it, an ordinary valve, opening outward, may be used at any point between the exit-orifice of the air-pump and the end of the tube C. I prefer in any case to use the cock *f*, as it is almost impossible to make the valve perfectly air-tight.

The liquid in the purifier, as stated, may be of any suitable nature, dilute alcohol or spirits being preferred, or it may consist in whole or in part of any volatile flavoring-essence, to impart a pleasant flavor to the beer.

Care should be taken to make the joints in the pipes F, G, and C perfectly air-tight, and to this end a suitable packing, preferably of rubber, is inserted at *a* and *a′*

I am aware that air-pumps and purifiers have heretofore been attached by hose to the bungs of barrels; such I therefore do not claim.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a beer-spigot, an air-pump and a purifier or washer for eliminating impurities from the air supplied to the cask, substantially as described.

2. The combination, with the pump D′, of the purifier D, having the bent tube *b* and rose *c*, substantially as described.

3. In combination with the purifier D, the pipe F and sleeve G, substantially as described.

4. In combination with the spigot A, having pipe C, the pump D′ and purifier D, substantially as described.

In testimony whereof I hereunto set my hand this 14th day of February, 1877.

JACOB KLEIN.

Witnesses:
R. D. WILLIAMS,
W. A. BERTRAM.