(Model.)

J. P. GRUBER.

AIR VENT FOR BEER KEGS.

No. 259,682. Patented June 20, 1882.

Fig. 1.

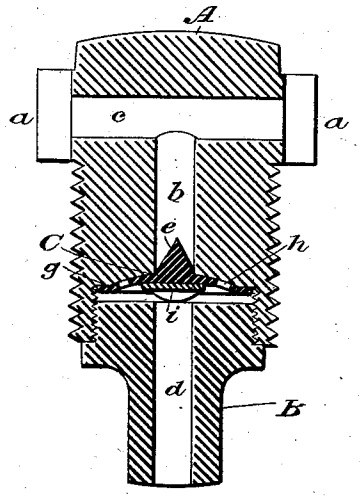


Fig. 2

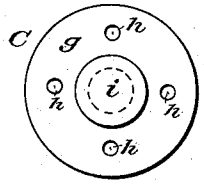


Fig. 3

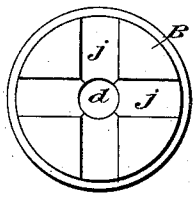


Fig. 2a

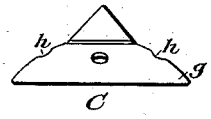
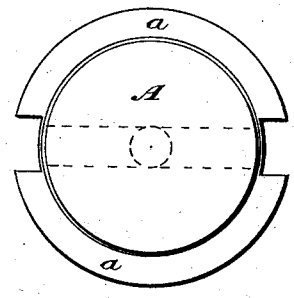


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN P. GRUBER, OF JERSEY CITY, NEW JERSEY.

AIR-VENT FOR BEER-KEGS.

SPECIFICATION forming part of Letters Patent No. 259,682, dated June 20, 1882.

Application filed April 11, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOHN P. GRUBER, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain Improvements in Air-Vents for Beer-Kegs, &c., of which the following is a specification.

My present invention relates to an improvement in air-vent devices to be employed for the admission of air to kegs or other tight receptacles containing beer and similar gaseous liquids, in order that the liquid may be drawn freely therefrom. This class of vents are generally constructed with valves which are kept closed normally by the gas-pressure within the receptacle; but when this pressure is relieved by drawing off the liquid at the faucet the air will displace the valve and enter to replace the liquid drawn out. The glutinous character of beer, however, tends to stick these valves fast, and either close the vent permanently or leave it open, so that the gas will escape.

The object of my present invention is to provide a simple and cheap vent, the valve of which can be easily and cheaply replaced when worn out, and which will be washed when the keg is washed, so as to free it from the gluten of the beer, and thus leave it free to play at all times.

In the drawings which serve to illustrate my invention, Figure 1 is a sectional elevation of the vent, taken in the plane of its axis. Fig. 2 is a plan of the valve detached. Fig. 2^a is a side elevation of the same. Fig. 3 is a view of the end of the stopper. Fig. 4 is a plan of the vent-plug.

A is a vent-plug, provided with a recessed flange, *a*, whereby the plug is screwed in with a wrench, an axial bore, *b*, a cross-bore, *c*, and an external thread. This plug, so far as described, has been before employed in vents.

In the lower end of the plug A is formed a recess, the inner wall of which is internally screw-threaded to receive a stopper, B. The threaded end of the stopper does not extend to the bottom of the recess, whereby the space is left for a rubber valve, C. The stopper B has a shoulder which rests on the end of the plug, and a bore, *d*, extending through it.

The valve is concave and disk-like, having a central cone or protuberance, *e*, which stops up the axial bore *b* of the plug, and a thin flange, *g*, having perforations *h*. On its concave under side (which is shown in Fig. 2) is fixed a metal disk or plate, *i*, the function of which will be hereinafter described.

In the top of the stopper B are formed cross-grooves or recesses *j*, best shown in Fig. 3. Fig. 1 shows the condition of the valve when the gas from the keg is acting under it to press its cone *e* up into the bore *b*, whereby all egress for said gas is cut off.

To prevent the pressure of the gas from forcing the valve entirely through the bore *b* or up into it so far as to permanently close said bore, I employ the plate *i*, which is a little larger than said bore *b*, as shown, while not large enough to affect the flexibility of the flange *g* of the valve.

When the pressure on the under side of the valve is relieved by drawing from the faucet, for example, the valve falls far enough to admit air through the bores *b* and *c*. The air enters the keg by passing around the valve and through the holes *h* therein, and thence through the cross-recesses *j* in the plug and bore *d* to the interior of the keg.

In washing and rinsing out the keg the water passes freely through the vent in agitating the keg, and by passing over the entire surface of the valve cleanses it from all glutinous matter, as will be well understood.

Should a valve become injured or worn by long use another can be readily substituted by simply removing the stopper B. The vent-plug described is screwed into a hole bored in the bung-stave of the keg, as will be understood, so as to be on the upper side of the keg at all times when in use; or the valve may be arranged in the bung itself, or it can serve as the bung when constructed as herein shown.

The bung or plug is screwed in by inserting the prongs of a wrench in the recesses in the flange *a* in a manner well understood.

I am aware that flap-valves have been provided with weights of some heavy material, and that these weights have been sometimes made larger in diameter than the valve-apertures; but I am not aware of a light, free valve

of this character, arranged to close upward, having ever been provided with a thin light plate to perform the functions of the plate *i*.

Having thus described my invention, I claim—

1. The combination, with the plug provided with an air-passage and a valve-recess in its end and a stopper to close said recess, provided with an air-passage and recesses, *j*, of the rubber valve C, provided with the protuberance *e* and perforated flange *g*, all constructed and arranged substantially as set forth.

2. The rubber valve C, made concave on its under side and provided with a protuberance, *e*, a plate, *i*, and a thin perforated flange, in combination with a vent-plug having a recess to receive it, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN P. GRUBER.

Witnesses:

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