

(No Model.)

J. P. GRUBER.
Automatic Air Vent for Beer Kegs.

No. 238,231.

Patented March 1, 1881.

Fig. 1.

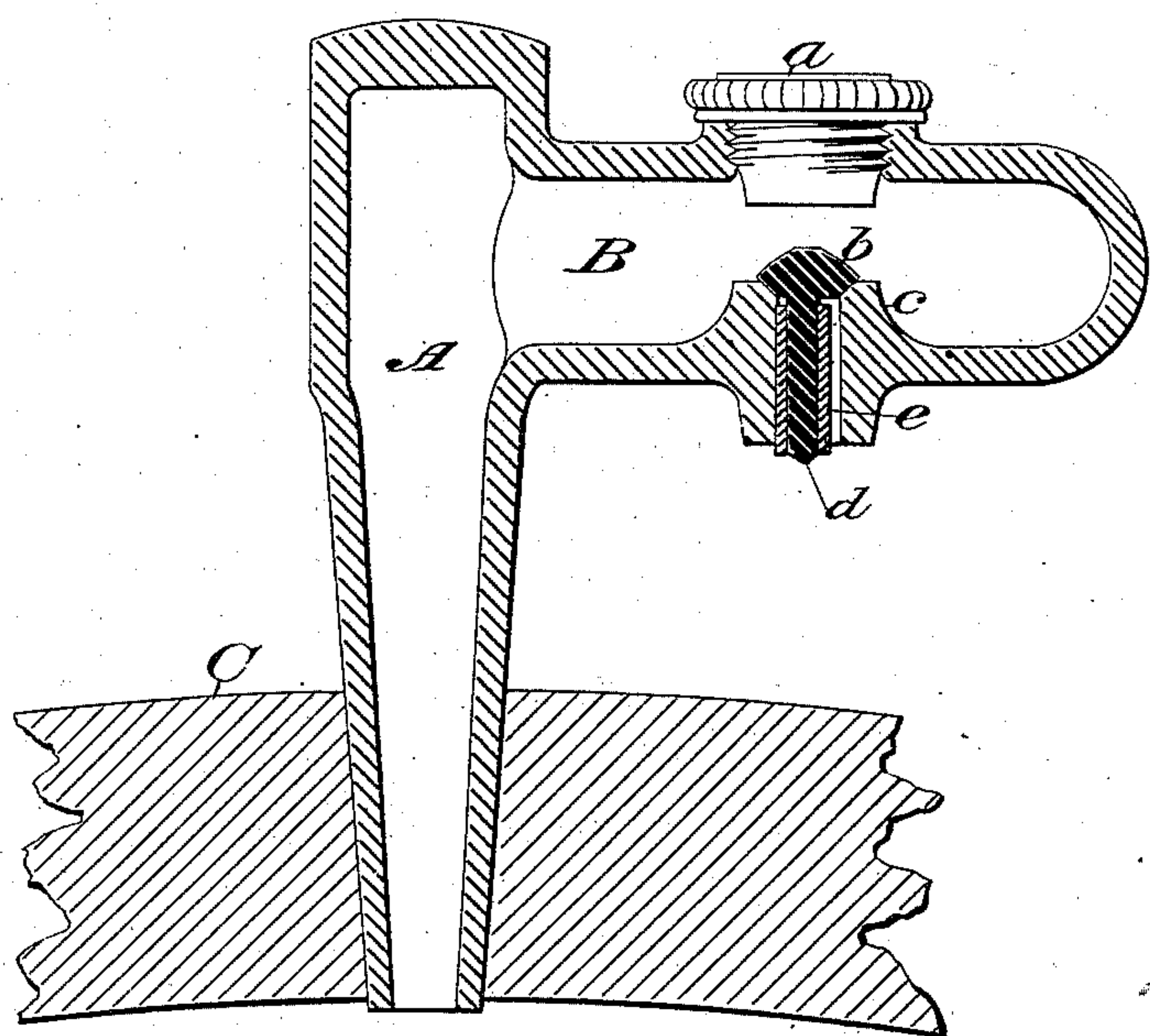


Fig. 3 Fig. 4

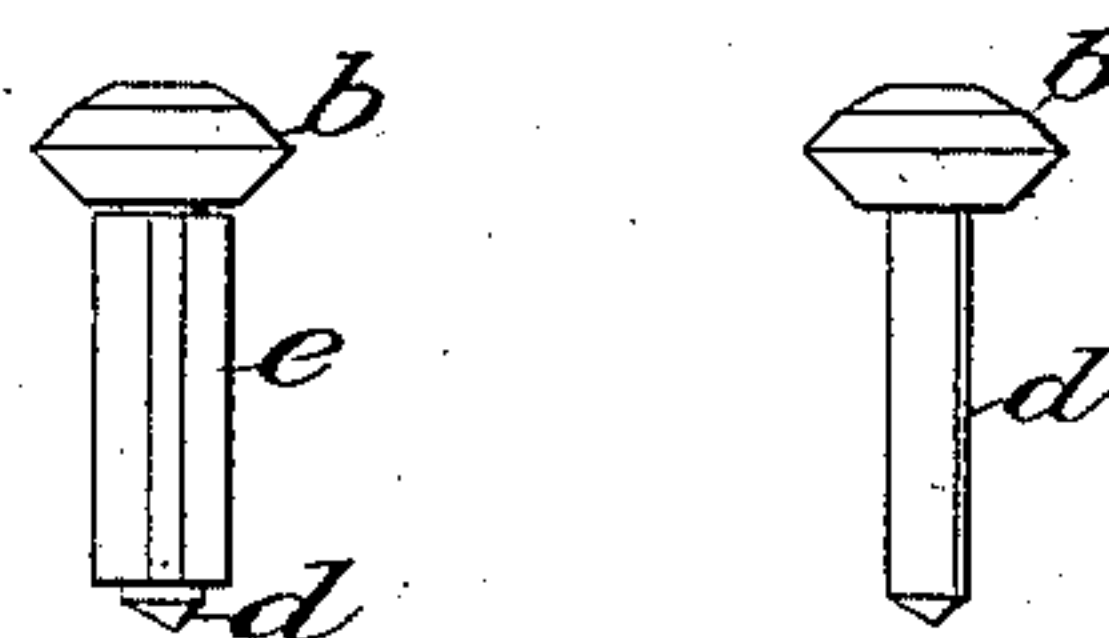
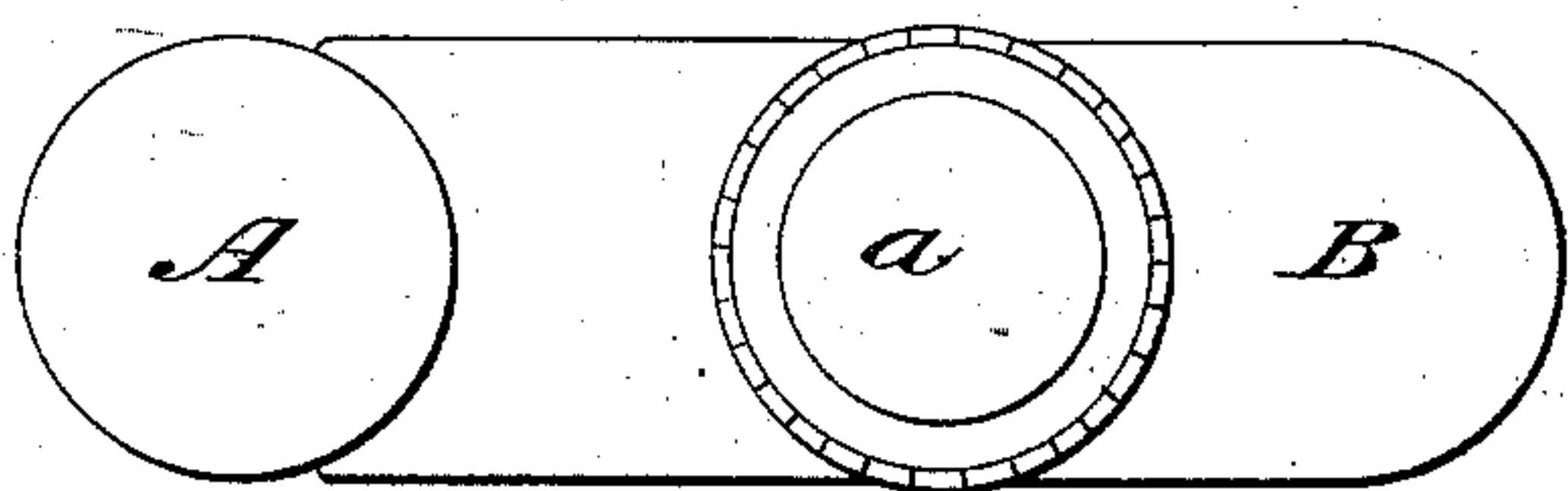


Fig. 5.



Fig. 2.



ATTEST:

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AUTOMATIC AIR-VENT FOR BEER-KEGS.

SPECIFICATION forming part of Letters Patent No. 238,231, dated March 1, 1881.

Application filed September 21, 1880. (No model.)

To all whom it may concern :

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

My invention relates to devices for automatically admitting air to kegs or vessels containing beer or other aerated liquids while in the act of drawing therefrom; and it consists, essentially, in the construction of a valve and its arrangement with reference to the axis of the vent-opening in the keg, all as will be more fully hereinafter set forth.

In the drawings which serve to illustrate my invention, Figure 1 is a vertical mid-section taken through my improved vent, and Fig. 2 is a plan of the same. Fig. 3 is an elevation of the valve with its stem-covering. Fig. 4 is an elevation of the valve with the stem-covering removed, and Fig. 5 is a bottom view or plan of the valve.

A is a tapered hollow metal plug, closed at the top and provided with a hollow lateral branch, B. This branch is provided with an opening in its top, closed by a screw-plug, *a*, and immediately below this opening is a smaller one, closed by a valve, *b*, which rests upon a conical seat, *c*, raised above the bottom of the branch B.

The valve *b* (see Figs. 3 and 4) is made of rubber or other similar yielding material, with a slender stem, *d*, upon which is slipped a triangular or fluted metal sleeve, *e*, which fits snugly, but not tightly, into the hole below the valve-seat.

The branch B extends preferably beyond the valve, and forms a hollow chamber, as shown.

C represents the barrel or keg, into which the tapered portion of the vent is driven through the ordinary vent-hole. When inserted the foam and gases ascend into the plug and chamber, and the pressure from within keeps the valve down to its seat. As the internal pressure decreases by drawing from the spigot, the air will enter under the valve along the sides of the angular stem. The valve is prevented from rising too high by the tip of the screw-plug *a*, which is primarily adjusted

to serve as a stop. It is quite important that this screw-plug be arranged in the top of the lateral branch, as, if arranged underneath, it would be difficult or impossible to remove it when the plug is driven into the keg. At the same time, when placed over the valve, it serves, as shown, to form an adjustable stop.

The glutinous character of the beer is apt to stick the valve to the seat, and this renders some forms of vents entirely useless, especially those held to their seats by a spring. I provide against this, however, by arranging the valve-seat above the level of the bottom of the branch, so that the beer or liquid may drain away from it, and also by arranging the valve so that the axis of its stem will be substantially parallel with the axis of the plug A, whereby the hammering necessary to drive in the said plug will inevitably cause the valve to jump from its seat and clear itself should it be stuck fast. This I find to be quite important, as the valve must be light, and must be capable of lifting with a very moderate external pressure.

I provide the stem of the rubber valve with the metal sleeve to protect it and to form an anti-friction surface. Otherwise, if the rubber stem should be made to bear against the sides of the opening below the valve, it would inevitably stick fast.

After the vent is removed from the barrel it should be washed out before being again inserted; and if the valve be in any way deranged it may be got at by removing the plug *a*.

It is not important that the branch B extend far out from the plug A; but room must be given to properly seat the valve.

I am aware that various devices employing valves to close by gravity have been used for this purpose, some of which have their valve-seats arranged in plugs screwed into the under side of the projecting branch; but I am not aware of any in which the plug is screwed into the upper side of the branch and its inner end arranged to serve as an adjustable stop to limit the use of the valve.

Having thus described my invention, I claim—

1. A valve for the vent of beer-kegs and other like purposes, made of rubber or similar yielding material, and having its stem incased

with metal, substantially as and for the purposes set forth.

2. The combination, to form an automatic air-vent, of the hollow plug A, the lateral
5 branch B, and the rubber valve *b*, having a stem, *d*, and a metal stem-casing, *e*, the valve being arranged to rest on a raised valve-seat, *c*, and to control the ingress of air at the open-

ing below said seat, substantially as and for the purposes set forth.

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

Witnesses: JOHN P. GRUBER.
HENRY CONNETT,
ARTHUR C. FRASER.