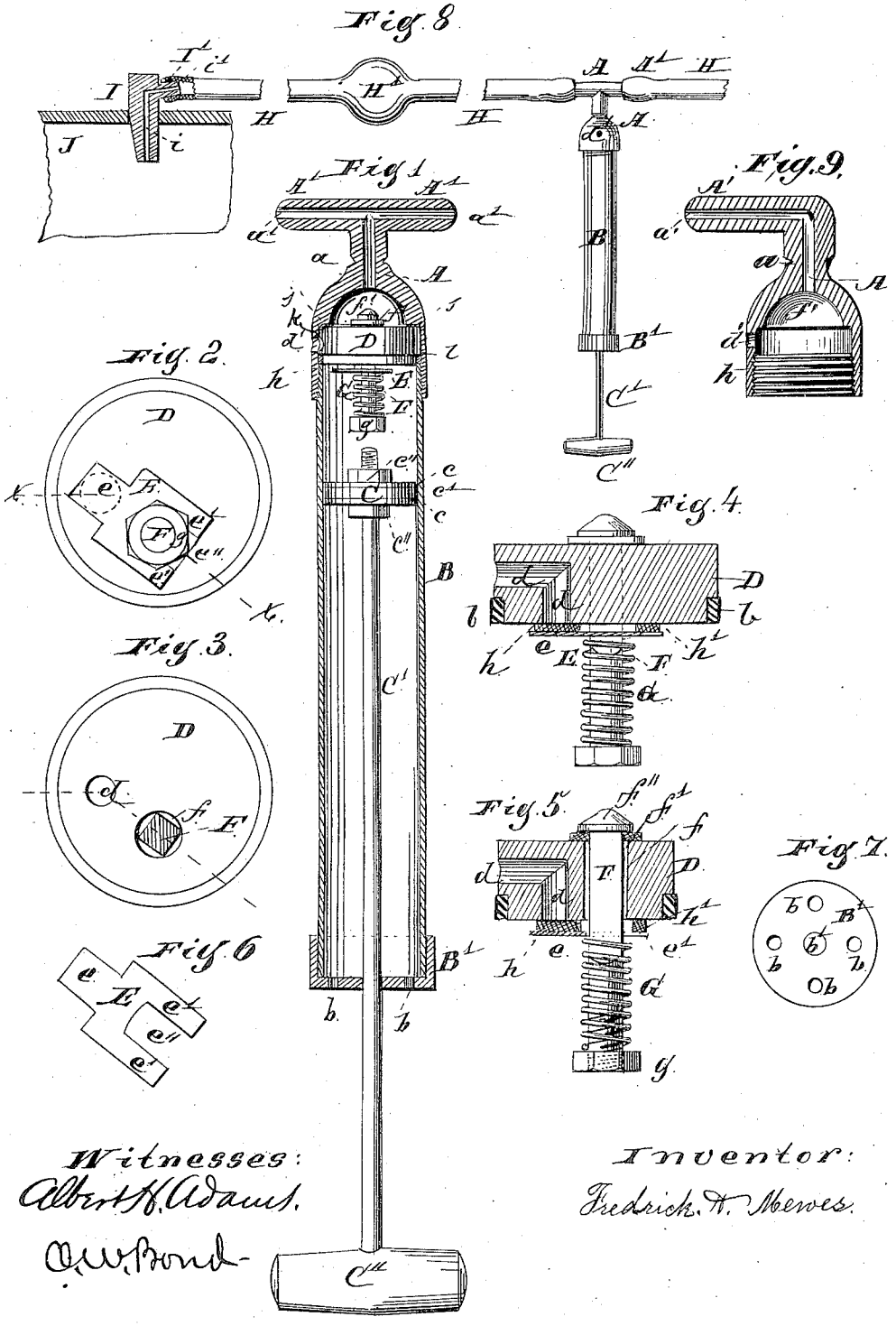
(No Model.)

F. H. MEWES.

VENT FOR BEER BARRELS.

No. 302,577. Patented July 29, 1884.



Witnesses:
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FREDRICK H. MEWES, OF SOUTH CHICAGO, ILLINOIS.

VENT FOR BEER-BARRELS.

SPECIFICATION forming part of Letters Patent No. 302,577, dated July 29, 1884.

Application filed January 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK H. MEWES, residing at South Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented a new and useful Improvement in Vents for Beer-Barrels, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section through the case and nozzle, showing the plunger and the receiving and discharging valve in elevation; Fig. 2, a top or plan view of the receiving and discharging valve; Fig. 3, a similar view with the receiving-valve removed, showing the stem of the discharge-valve in section; Fig. 4, a transverse section through the plug of the receiving and discharging valve, showing the form of the inlet-opening; Fig. 5, a section on the line *x x* of Fig. 2, through the plug of the receiving and discharging valve; Fig. 6, a detail of the plate carrying the receiving or inlet valve; Fig. 7, a detail of the cover for the piston-tube, and Fig. 8 a view showing the vent connected with a barrel. Fig. 9 is a sectional view of the nozzle with only one branch.

The object of this invention is to construct a vent for beer and other barrels or kegs which will do the work required in a reliable manner, and which can be readily and quickly operated, both to supply air for the pressure and to relieve the pressure when too strong; and its nature consists in providing a discharge-nozzle having one or more openings, in which nozzle is located a plug having an inlet and a discharge opening, both openings being controlled by valves, and combining such nozzle and plug with a tube and a piston or plunger, all substantially as hereinafter described, and pointed out in the claims as new.

In the drawings, A represents the body of the discharge-nozzle, having, as shown, two branches, A′. Each branch A′ has a longitudinal opening, *a′*, communicating with a central opening in the body A, as shown in Fig. 1; but in case only one nozzle or branch, as shown in Fig. 9, is used, the central opening, *a*, will be all that is required, as the nozzle can be formed by the end of the body A, if so desired.

B is a tube or cylinder, screw-threaded at one end to receive the nozzle, the body A of which has its interior screw-threaded to fit the end of B; or the attachment may be made in some other suitable manner.

C is a piston, formed, as shown, of two circular disks or plates, *c*, between which is located a suitable packing, *c′*, the parts being held together and the packing pressed by set-nuts *c″* on the piston-rod C′, which rod passes through the cover B′ of the cylinder B, and is provided with a suitable handle, C″, for operating purposes, and, as shown, the cover B′ slips onto the end of the cylinder B, and is provided with a series of holes, *b*, to allow the air back of the piston to escape, and has a central opening, *b′*, for the passage of the rod C′.

D is a plug corresponding in diameter to the diameter of the interior opening in the body A, and resting, as shown, on a shoulder, *j*, between which shoulder and the plug is a packing-ring, *k*, and when in place the ring is made air-tight by suitable gaskets, *l*. This plug has an opening, *d*, formed as shown in Fig. 4, which opening communicates with an opening, *d′*, in the shell or body A for the passage of the air into the cylinder B, and the plug is also provided with a second opening, *f*, passing through the plug, as shown in Figs. 3 and 5.

E is a plate having on one side a tongue, *e*, and on the other two tongues, *e′*, leaving an opening, *e″*, between them. The tongue *e* carries the packing *h*, and is arranged to have such packing cover and close the opening *d* in the plug, and, as shown, the plate is supported on the other side by a packing, *h′*.

F is a stem, the body of which passes through the opening *f* in the plug D, and, as shown, the portion which lies within the opening when the parts are in working order is square or rectangular in cross-section, so as to leave openings on each side, as shown in Fig. 3, and the opening *f* is covered and closed by a packing-ring, *f′*, located between the plug D and the head *f″* of the stem, as shown in Figs. 4 and 5.

G is a coiled spring located around the body of the stem F, which projects beyond the face of the plug between a head or nut, *g*, on the end of the stem and the plate E, which spring acts to hold the packing *f′* down to close the opening, except as the stem F is pushed endwise against the resistance of the spring. As

shown, the tension of the spring can be regulated as required by turning the nut *g*.

H is a hose—one for each nozzle A′—in the form of construction shown, and, as shown, each hose is provided with an enlarged portion, H′, which forms a receptacle to receive and retain a body of air; but the hose could have this enlarged portion omitted and be of the same diameter its entire length.

I is a vent-plug having a nozzle, I′, the plug I having an opening, *i*, and the nozzle I′ an opening, *i′*, which openings communicate with each other.

J is a section of the barrel in which the vent-plug I is located, and when the parts are in position for use the hose H is connected with the discharge-nozzle A′ and the nozzle I′, as shown in Fig. 8, so that the air can be forced into the barrel or keg.

The operation is as follows: The hose is connected with the discharge-plug and with the vent-plug in the barrel or keg, forming a communication between the air-supplying device and the barrel or keg. As the plunger C is drawn up, air enters the cylinder or tube B through the openings *d d′*, the drawing up of the plunger or piston raising the plate E and the packing *h* to allow the air to enter, and when the piston or plunger is pushed down the plate E and packing *h* are forced down, closing the opening *d*, and allowing the air to escape through the opening *f* around the stem F and to enter the discharge-nozzle through the openings *a a′*, to be forced into the hose, and thence through the vent-plug into the barrel or keg, the pressure of the air, as the piston is forced down, forcing out the packing *f′* to allow the air to escape, and when the air in the cylinder is discharged and the plunger is drawn up the spring D acts and draws the packing *f′* down to close the opening, while the air enters through the opening *d d′*. The device is to be operated to the extent required to produce the necessary pressure in the barrel or keg. In case there is too much pressure of gas in the barrel or keg, the plunger can be pushed down so as to engage the end of the stem F and open the passage *f*, allowing the gas to escape through the vent and the hose into the discharge-nozzle, and thence into the cylinder.

What I claim as new, and desire to secure by Letters Patent, is—

1. The discharge-nozzle A, tube or cylinder B, and piston or plunger C, in combination with a plug, D, having an inlet-opening and a discharge-opening, both controlled by valves, substantially as and for the purposes specified.

2. The combination, with tube B, provided with cover B′, having openings *b*, the plunger C in said tube, and discharge-nozzle A, having opening *d′*, and secured to said tube, of the plug D, having an inlet, *d*, and outlet *f*, and provided with stem F, plate E, and packing *h* and *f′*, substantially as described.

3. The combination, with tube B, provided with cover B′, having openings *b*, the plunger C in said tube, and discharge-nozzle A, having opening *d′*, and secured to said tube, of the plug D, having an inlet, *d*, and outlet *f*, and provided with stem F, plate E, packing *h* and *f′*, and spring G, substantially as described.

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