Webber & Reifsnyder,

Filling Bottles.

No. 51,371. Patented Dec. 5, 1865.

Fig. 1.

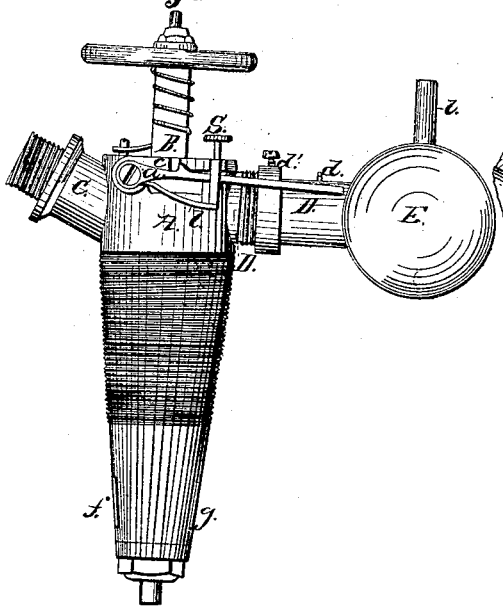


Fig. 2.

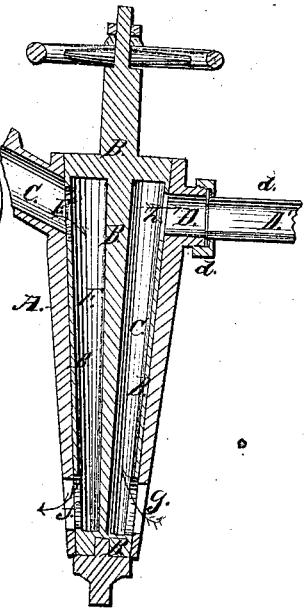
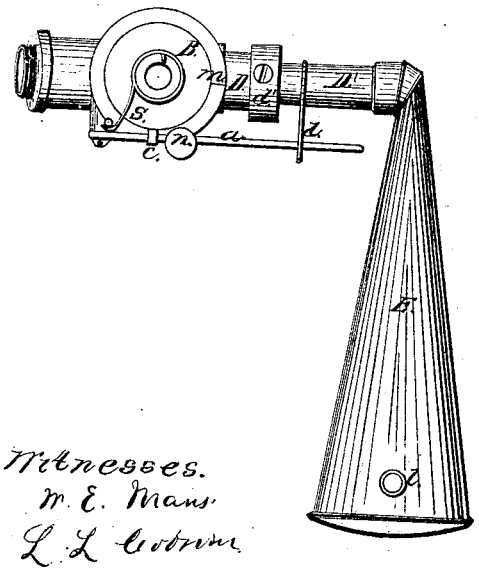


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

HENRY A. WEBBER AND CHARLES REIFSNYDER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN APPARATUS FOR FILLING BARRELS.

Specification forming part of Letters Patent No. **51,371**, dated December 5, 1865.

To all whom it may concern:

Be it known that we, HENRY A. WEBBER and CHARLES REIFSNYDER, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improved Self-Closing Barrel-Filler; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and the letters and figures marked thereon, which form part of this specification.

The nature of our said invention consists in a novel device to be inserted in the bung-hole of a barrel or other similar vessel, whereby the fluid may be introduced into the barrel or vessel, and whereby, when the vessel is filled, the weight or pressure of the fluid will automatically close the ports through which the fluid enters the apparatus and escapes therefrom into the barrel, as hereinafter more fully described.

To enable those skilled in the art to understand how to construct and use our invention, we will now proceed to describe the same with particularity, reference being made in so doing to the aforesaid drawings, in which—

Figure 1 represents a side elevation of our invention; Fig. 2, a vertical central section of the same, and Fig. 3 a plan or top view thereof.

Similar letters of reference in the several figures denote the same parts of our invention.

A is a hollow tapering casing, provided with screw cut upon its exterior surface so as to fit closely into the bung-hole, and provided also with the inlet-pipe C and outlet-pipe D at its upper end and the two ports or apertures *f* and *g* at its lower end, which enters the barrel. Fitting within said casing is the correspondingly-shaped turning plug or block, (marked B,) which extends up above the top of the casing A, and is provided with some suitable device to facilitate the turning of the same, as shown. The said adjustable or rotating block B is constructed with two separate longitudinal chambers, (marked F and G in Fig. 2.)

The chamber F is provided at its upper end with the port *e*, and at its lower end with the port *f*, so arranged that when the block B is so arranged that the upper port corresponds with the inlet-pipe P the lower port corresponds with the outlet-aperture in the lower end of A, as shown.

The chamber G is provided with the corresponding ports *g* and *h*, adapted to the lower aperture in A and the outlet-pipe D, as shown.

There is a spring coiled around that part of the turning block projecting above the casing A, as shown, for the purpose of holding the block B in such a position with respect to the casing A that all the ports *e f g h* are closed, which is the case when the arm *c*, attached to B, is at *m*.

When the turning block is in the position shown in the drawings, the arm *c* being held in that position by the catch upon the lever *a*, said lever *a* being held up for that purpose by the spring *b* or its equivalent.

D′ represents a pipe forming a continuation of the outlet-pipe D, being connected or attached thereto by the box *d′* in such a manner as to turn freely or revolve in either direction. To the said adjustable pipe D′ there is attached a conical-shaped vessel or chamber, (marked E,) provided with the small outlet-pipe *l*, as shown.

Upon the revolving tube D′ there is fixed an arm or lever, (marked *d*,) its end projecting out over the hereinbefore-described arm *a*, as shown.

The operation of our invention is as follows: The device is screwed or otherwise tightly inserted in the bung-hole of the barrel or vessel to be filled, and the turning block B arranged or turned to the position shown in the drawings, and there firmly held by the operation of the catch *a* and spring *b*, as aforesaid. The fluid then flows into the chamber F and out into the barrel, as indicated by the red arrows, the air in the meantime passing up through the chamber G and pipe D′ into the chamber E, whence it escapes through the outlet *l*. When the barrel is full the fluid also rises in said chamber G, and passes in like manner into the chamber E and flows down into the opposite end thereof, when its weight (the vessel E acting as a lever) turns the pipe D′, bringing the rod or arm *d* down upon the catch *a*, and thus release the pin *c*, when the spring *s* revolves the turning block, bringing the said pin *c* around to the point *m*, and thus effectually closes all the ports of the apparatus, which may then be removed and inserted in another barrel and the operation repeated, a flexible tube or other suitable arrangement being attached to the apparatus at C, connecting it with the vat or tank containing the fluid to be drawn off.

Instead of the springs *s* and *b*, any suitable or equivalent devices may be used.

S represents a set-screw, whose foot rests upon the top of the catch *a*, so as to limit and regulate the motion given to said catch by the spring *b*.

This device is for the purpose of adjusting the apparatus for fluids of different degrees of specific gravity, as a less amount of a heavy fluid is required to close the ports than of lighter fluids; and when light fluids are being drawn off the screw S is turned down, so that a slight rotating movement of the pipe D′ will release the catch *a* from the pin *c*.

Having described our invention, we will specify what we claim and desire to secure by Letters Patent:

1. Closing the ports of the turning block B automatically by the weight or pressure of the fluid, substantially as and for the purposes specified and shown.

2. In combination with the casing A and turning block B, the employment of the pin *c*, catch *a*, and spring *s*, or its equivalent, substantially as and for the purposes specified and shown.

3. The combination of the turning block B, constructed as shown, with the casing A, arranged and operating substantially as shown and described.

4. The combination of the turning block B, chamber E, arm *d*, catch *a*, and pin *c*, operating as and for the purposes specified and shown.

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Witnesses:
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