

C. H. Mellor.

Rubber Rings.

No 85,749.

Patented Jan. 12, 1869.

Fig. 1.

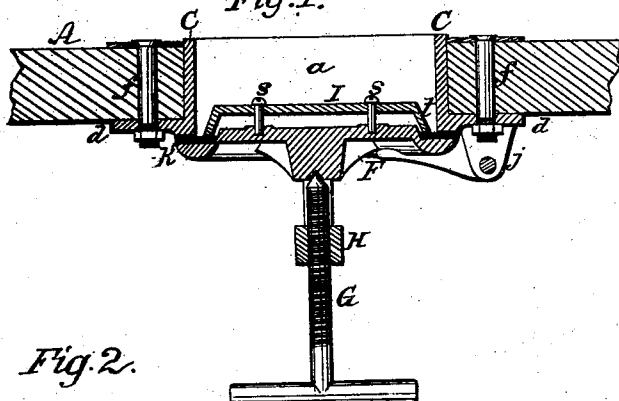


Fig. 2.

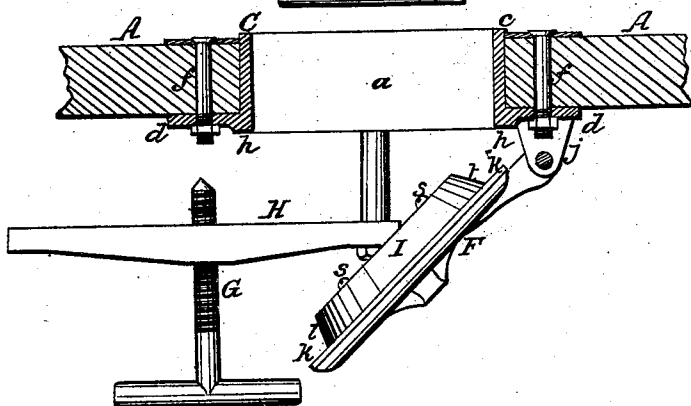
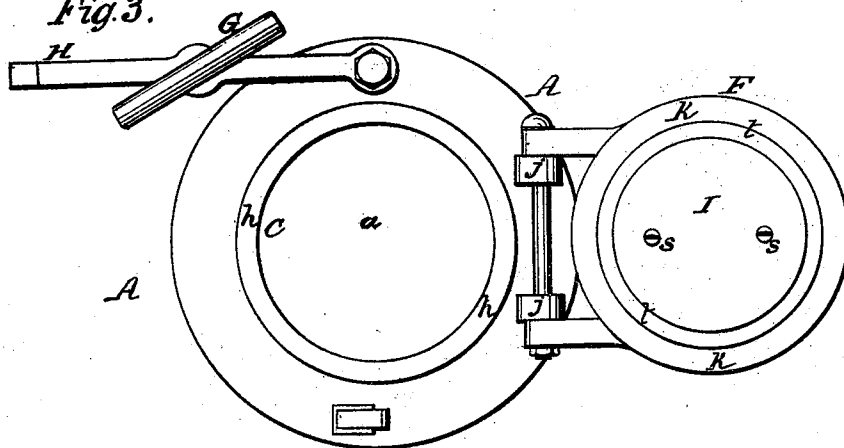


Fig. 3.



Witnesses.

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United States Patent Office.

CHARLES H. MELLOR, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 85,749, dated January 12, 1869.

IMPROVED METHOD OF SECURING RUBBER RINGS OR DISKS TO THE DOORS OF VATS, &c.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES H. MELLOR, of Philadelphia, Pennsylvania, have invented a Method of Securing Rubber Rings or Disks to the Doors of Vats, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of a metal cap, which is so secured to the door or valve, at the bottom of a vat, that an annular rim of the said cap shall be caused to bear against and secure a packing-ring or disk of rubber to the said door or valve, all as fully described hereafter.

In order to enable others skilled in the art to make and apply my invention, I will now proceed to describe the mode of constructing and applying the same, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a sectional view of a portion of the bottom of a vat, with my improvement;

Figure 2, the same, with the door or valve partly opened; and

Figure 3, an inverted plan view, with the door opened to its full extent.

Similar letters refer to similar parts throughout the several views.

A represents a portion of the bottom of a vat, (of the kind generally used by brewers, distillers, &c.,) in which is an opening, *a*, the edges of the latter being protected by a cast-iron cylinder, C, which has on its lower end a flange, *d*, by means of which, and bolts *f*, it is secured to the bottom of the vat.

There is also extending around the lower edge of this cylinder a seat, *h*, for a valve or door, F, which is hinged to projections *j j* of the flange *d* in such a manner that it may close the opening *a*.

The valve F, unless otherwise supported, has a tendency to fall back from its seat, but is held up to the same, in the present instance, by a screw, G, the latter, together with the bar H, in which it turns, being arranged to swing laterally, (in a manner readily understood on reference to the drawing,) when it is desired to open the valve.

In order to prevent leakage of the contents of the vat between the valve and its seat, the former is provided with a gum ring, *k*, which is caused to bear

against the seat with a pressure determined by means of the screw G.

It has been customary to secure this intervening ring to the valve by rivets or screws, the heads of which either cut into or destroy the gum, or else project sufficiently to strike the seat *h*, and prevent the gum ring from being brought into that close contact with the same, which is necessary in order to prevent leakage.

To overcome these objections, arising from the employment of screws or rivets which pass through the gum, I employ a cap, I, the form of which is best observed in fig. 1.

This cap is secured to the inner side of the door F, by screws *s s*, and has an inclined rim or flange, *t*, which bears upon the inner edge of the gum ring *k*, with sufficient pressure to hold the same in its proper position.

It will be seen, on reference to fig. 1, that the central portion of this cap, through which the screws *s* pass, is raised above and free from contact with the valve, so that, by merely operating these screws, the rim *t* can be caused to bear upon the gum with any desired pressure; or the cap can be readily detached, and as easily replaced, when it is necessary to change a worn-out ring for a new one.

In some cases it may be preferable to employ a disk of rubber, instead of the narrow ring *k* above described, and when the valve and opening *a* are of large diameter, the central portion of the cap I may be cut away until it assumes the form of a ring; a portion of the cap, sufficient for the passage of the screws *s*, and the entire rim *t*, being, however, in all cases retained.

I claim as my invention, and desire to secure by Letters Patent—

The cap I, secured to the valve or door of a vat, so as to be readily detached therefrom, and having an annular rim, *t*, for securing a rubber ring or disk to the said door or valve, substantially as herein described.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

Witnesses:

JOHN WHITE,
HARRY SMITH.

O. H. MELLOR.