(No Model.)

H. HOHL.

APPARATUS FOR DRAWING LIQUORS FROM KEGS.

No. 262,773. Patented Aug. 15, 1882.

Fig. 1.

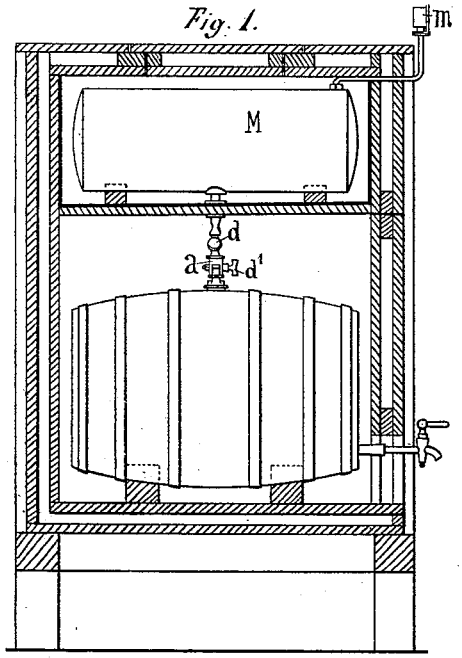


Fig. 2.

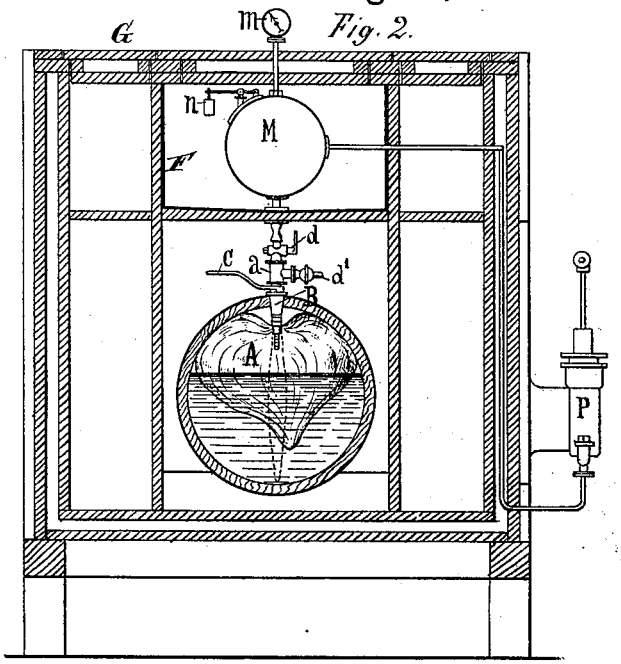
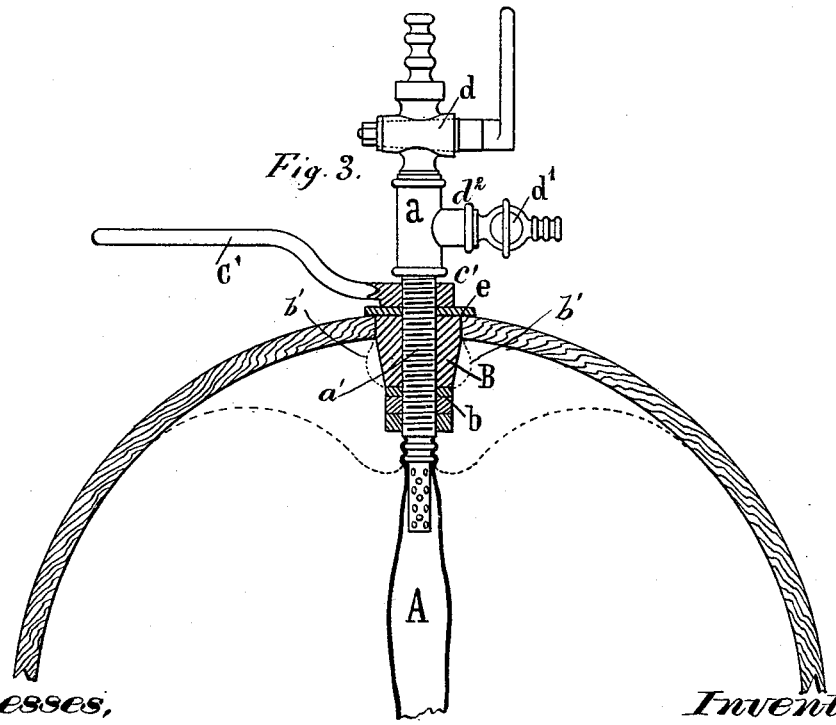


Fig. 3.



Witnesses,
J. A. Rutherford
Robert Everett.

Inventor.
Heinrich Hohl.
By James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

HEINRICH HOHL, OF EMMISHOFEN, SWITZERLAND.

APPARATUS FOR DRAWING LIQUOR FROM KEGS.

SPECIFICATION forming part of Letters Patent No. 262,773, dated August 15, 1882.

Application filed June 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH HOHL, a citizen of Switzerland, residing at Emmishofen, Switzerland, have invented new and useful Improvements in Apparatus for Tapping, Cooling, and Drawing Off Liquors from Kegs or Casks, of which the following is a specification.

In tapping kegs or casks of beer and other liquors according to the method commonly practiced air is either forced into the keg or cask so as to expel the liquor or the air is allowed to enter the keg or cask as the liquor is drawn off; but in either case the quality of the liquor is, as is well known, considerably impaired by such introduction of air into the cask, and not only a large portion of the carbonic-acid gas lost, but frequently air impregnated with noxious gases is brought into contact with the liquor.

It is the object of this invention to obviate such defects in tapping kegs or casks of liquor, and to provide a novel and efficient apparatus for expelling the liquor from the keg or cask without subjecting the liquor therein to the action of the external atmosphere.

Another object of the invention is to cool the liquor within the keg or cask by the same means which I employ for expelling it.

These objects I attain by means of the apparatus illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of the cask and apparatus for forcing out the liquor therefrom, the casing in which the cask and apparatus are placed being shown in section. Fig. 2 is a transverse section, taken in a vertical central plane through Fig. 1; and Fig. 3 is an enlarged view, illustrating a portion of the apparatus, which is shown partly in section.

The letter A indicates a flexible bag or bladder, which can be of animal or other substance—as, for example, india-rubber. This bag or bladder, which is designed to be placed within the filled cask in a collapsed state, must possess sufficient elasticity to admit of its being distended by air, water, or other fluids, so as to fill the entire space within the cask, and thereby expel all of the liquor therefrom. The neck of this bladder is fitted upon one end of tubular stem, *a*, which is provided near its opposite end with an ordinary cock, *d*, and at a point between said cock and the bladder also provided with a branch pipe, d^2, having a cock, d'. The stem *a* is screw-threaded for a portion of its length, as at a', and upon this screw-threaded portion is fitted an elastic bushing, B, which, when the apparatus is applied to a keg or cask, fits in the bung-hole thereof.

As best illustrated in Fig. 3, the lower end of the elastic bushing fits against a shoulder or nut, *b*, upon the screw-threaded stem within the cask, and a washer, *e*, loosely arranged upon said stem, rests against the upper end of the bushing just outside of the cask or barrel.

A tightening-nut, C, provided with a handle, C′, is fitted upon the screw-threaded stem above the washer, so that after the bushing has been inserted in the bung-hole, as shown, the stem can be drawn outwardly through the elastic bushing, turning the nut C, so that the shoulder or nut *b*, acting against the lower end of the elastic bushing, will compress and cause the same to bulge out, as shown by dotted lines b', and bear against the edge of the bung-hole, thereby making a perfectly-tight joint.

The tubular stem *a* connects with a receiver, M, into which air, gas, water, or other liquid can be forced by a suitable pump, P. This receiver will be provided with a suitable safety-valve (indicated by letter *n*) and a manometer, *m*, of ordinary construction.

In using this apparatus the bladder affixed to the stem is introduced through the bung-hole into the cask and the elastic bushing fitted into the bung-hole and compressed, as before described. Air or water can then be forced by pump P into the receiver and the cock *d* opened, when desired, so as to allow the air or water to enter and distend the flexible receptacle or bladder, and thereby expel the liquor from the keg or cask in a quantity proportionate to distention of the bladder.

Where water is used for filling the bladder and a sufficient head is attainable the supply-pipe can be connected to the branch pipe d^2, so that by opening the cock d' the water will flow into the bladder and distend the same.

When it is desired to remove the apparatus

from the emptied cask the cock *d* can be closed, the cock *d'* opened, and the apparatus slowly raised, so as to draw the bladder out through the bung-hole, the air or water from the bladder escaping through pipe d^2.

I have herein shown a double-walled casing, G, which is especially serviceable for containing kegs or casks of beer, and which serves as a cooler or refrigerator.

The receiver M is located within an upper ice-chamber, F, so that by placing ice within this chamber the air or water will be cooled before entering the bladder, and hence the liquor can be cooled, and thus preserved in a cool and palatable condition.

The casing G will be provided with suitable doors, and can be constructed in any suitable manner.

Having thus described my invention, what I claim is—

1. In an apparatus for tapping or drawing off liquor from kegs or casks, a tubular stem provided with a suitable cock, and having at one end a flexible bag or bladder capable of being introduced within the keg or cask, and distended therein by means of air, water, or other fluid, substantially as described.

2. The combination, in an apparatus for tapping kegs or casks, of the tubular stem connected with a flexible bag or bladder and screw-threaded along a portion of its length, with the elastic bushing fitted upon the stem and adapted to be inserted in the bung-hole of the keg or cask, the nut or collar held upon the tubular stem against one end of said bushing, and the tightening-nut which works upon the stem and bears against a washer that fits against the remaining end of the elastic bushing, whereby by tightning up said nut the elastic bushing will be compressed and caused to bulge out, so as to form a tight joint at the bung-hole of the cask, substantially as described.

3. The combination, in an apparatus for tapping kegs or casks, of a cock, *d*, and a branch pipe, d^2, having a suitable cock, of the flexible bag or bladder connected with one end of the tubular stem, substantially as described.

4. The combination, with the casing having an ice-chamber, of the receiver M, located within said chamber, the tubular stem connecting at one end with the receiver and at its opposite end connected with a flexible bag or bladder, and a suitable cock for controlling the flow of air or water from the receiver into the flexible bag or bladder, substantially as described.

5. In an apparatus for tapping kegs or casks, the tubular stem *a*, connected with a pipe, d^2, having a suitable cock, in combination with the flexible bag or bladder A, connected to one end of the tubular stem, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HEINRICH HOHL.

Witnesses:

EDUARD RETTICH,

OSCAR J. RUH.