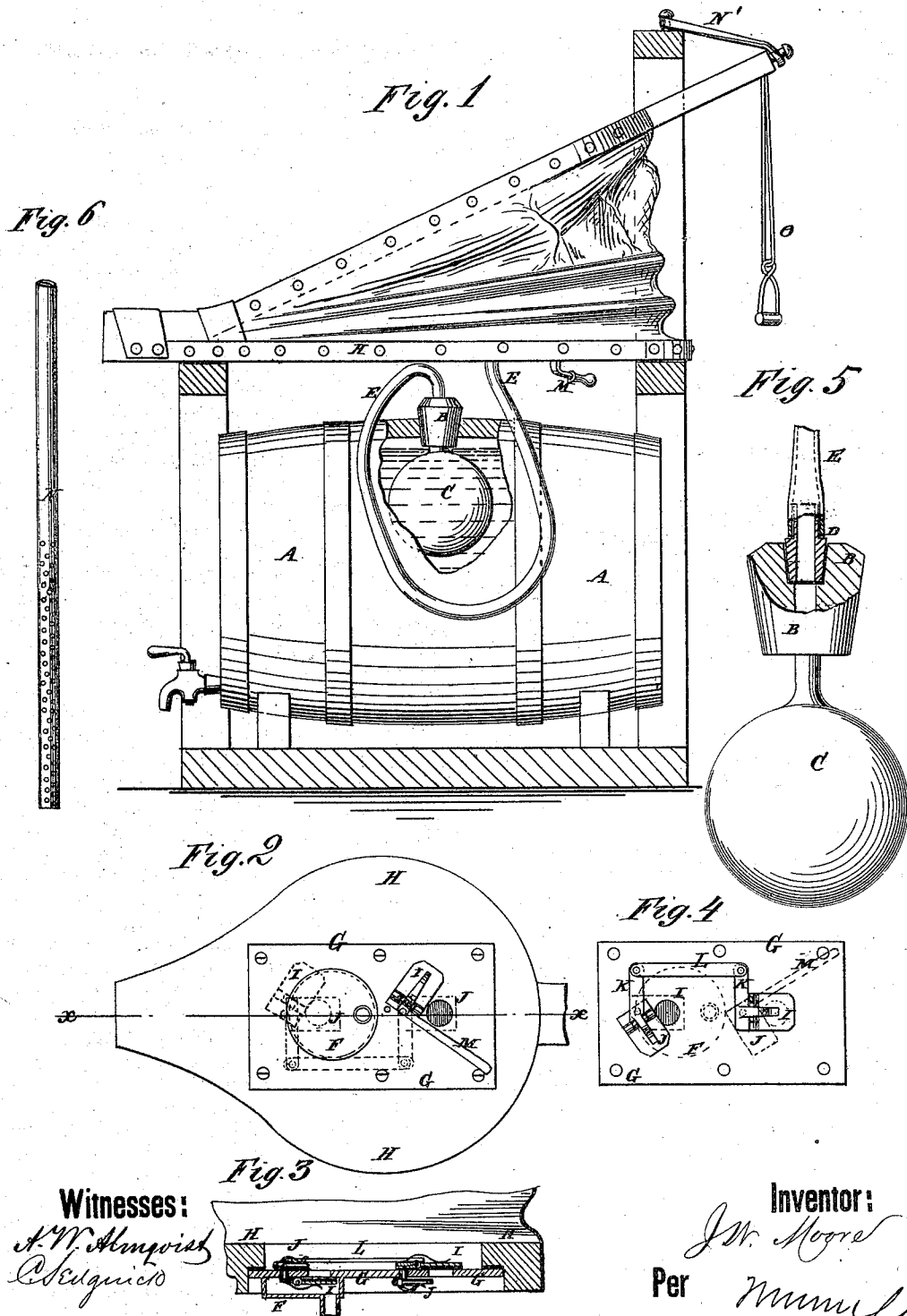


J. W. MOORE.

Apparatus for Preserving Beer on Draft.

No. 141,944.

Patented August 19, 1873.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN W. MOORE, OF BELLEFONTE, PENNSYLVANIA, ASSIGNOR TO HIMSELF
AND P. GRAY MEEK, OF SAME PLACE.

IMPROVEMENT IN APPARATUS FOR PRESERVING BEER ON DRAFT.

Specification forming part of Letters Patent No. **141,944**, dated August 19, 1873; application filed April 19, 1873.

To all whom it may concern :

Be it known that I, JOHN W. MOORE, of Bellefonte, in the county of Centre and State of Pennsylvania, have invented a new and useful Improvement in Elastic Air-Bung, of which the following is a specification :

Figure 1 is a side view of my improved device, part of the cask being broken away to show the construction. Fig. 2 is a bottom view of the bellows. Fig. 3 is a detail section of the lower part of the bellows taken through the line *x x*, Fig. 2. Fig. 4 is a detail view of the inner side of the valve-plate attached to the lower plate of the bellows. Fig. 5 is a detail view of the parts of the device connected with the cask, parts being broken away to show the construction. Fig. 6 represents the perforated tube.

This invention relates to means for introducing air into casks to take the place of the liquid drawn out; and it consists in the combination, with a flexible bag or air-holder, of a valve and bellows mechanism of a novel construction, as will be hereinafter more fully described. It further consists in the employment of a perforated tube for withdrawing the air from the flexible bag.

A represents a cask containing beer or other liquid that would be injured by contact with air. Into the bung-hole of the cask A is fitted a hollow bung, B, having a nozzle formed upon its inner end, to which is secured the mouth of a bag, C, made of rubber or other suitable material, and which should be of sufficient size and elasticity to fill the cask A when expanded. By this construction, as the liquid is drawn out of the cask A, the air will enter the bag C through the hollow bung B, and expand said bag to take the place of the liquid drawn out.

The upper part of the cavity of the bung B is enlarged in conical form, and into it is fitted a hollow plug, D, to the outer end of which is secured the end of a flexible tube, E. The other end of the tube E is secured to a nozzle projecting from the chamber F formed upon, or attached to, the plate G, which is secured in an opening in the lower

plate of the bellows H. In the plate G are formed two holes, one opening into the chamber F, and the other opening into the air. I are two valves, one placed below the plate G and within the chamber F, and the other placed above the plate G and within the bellows H. The valves I are rigidly attached to two pins which pass through the plate G, and to which, upon the other sides of the plate G from the valves I, are attached two valves, J. To the upper ends of the valve-pins are attached two crank-arms, K, the outer ends of which are connected by a connecting-rod, L. To the lower end of the valve-pin, outside of the chamber F, is attached a lever, M, so that, by moving the said lever M in one direction, the valves I will be brought over the holes in the plate G, and the air, when the bellows is worked, will be forced through the tube E into the bag C, causing the liquid to flow out of the cask A with violence when the faucet is opened. By moving the lever M in the other direction the valves I will be moved away from the holes through the plate G, and the valves J will be moved over the said holes, so that, when the bellows H are worked, the air will be drawn from the bag C and tube E to enable said bag to be withdrawn from the cask, in which case the bung B must be started to allow the air to enter the cask around the bag.

In case so much air may remain among the folds of the bag as to prevent it from being drawn out through the bung-hole of the cask, the plug D is removed, and the perforated pipe N inserted, when the bung, bag, and pipe may all be removed together.

The valves that prevent the air from escaping from the bag C should be provided with a light spring to hold them closely to their seat to prevent the air from leaking out through said valves.

The upper plate of the bellows H is connected with the frame-work in which the apparatus is placed by a rubber spring, N', which holds the bellows open, and thus in position to force air instantly into the bag C by drawing the said upper plate of the bellows down-

ward, the elasticity of the spring N' again opening the bellows.

The bellows may be operated by a handle or cord, O, connected with its upper plate.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The two sets of valves I and J, the arms K, connecting-rod L, and lever M, in combination with the bellows H, pipe E, and bag C,

substantially as herein shown and described, and for the purposes set forth.

2. The perforated pipe N, in combination with the hollow bung B and bag C, substantially as herein shown and described, and for the purposes set forth.

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