A. HERSEY.

BEER-FORCING APPARATUS.

No. 195,126. Patented Sept. 11, 1877.

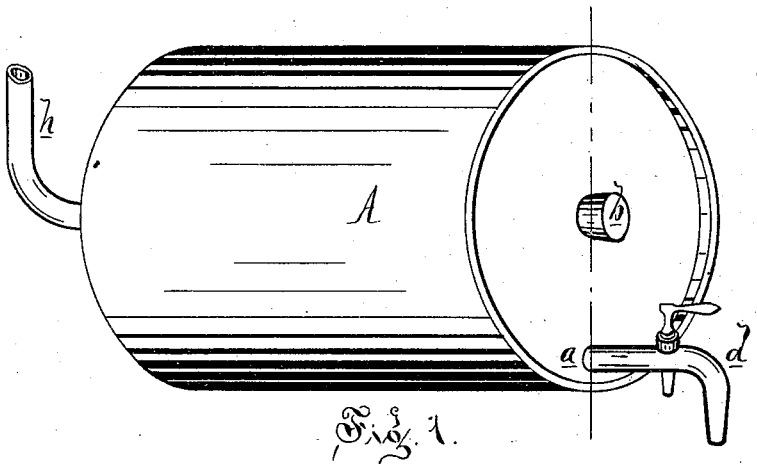

Fig. 1.

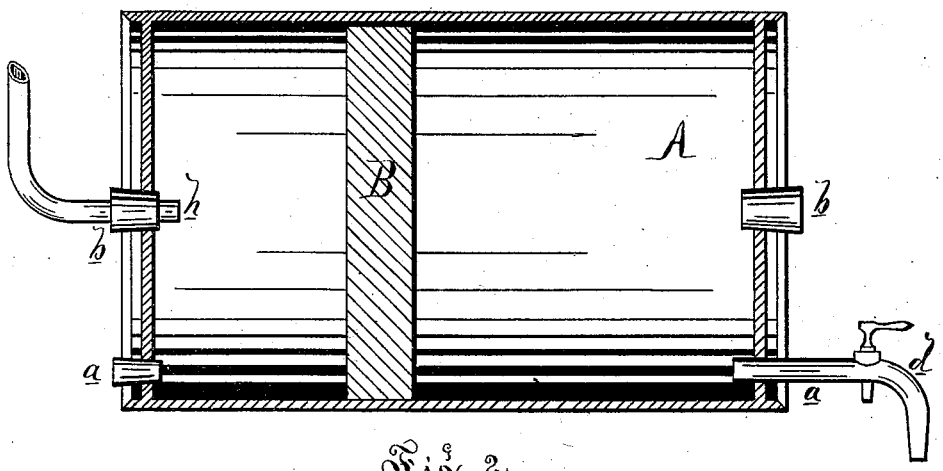

Fig. 2.

Witnesses:
H. L. Wells
Chas. J. Kind

Inventor:
A. Hersey
By Atty
Phil. S. Sprague

UNITED STATES PATENT OFFICE.

ALONZO HERSEY, OF MONROE, MICHIGAN, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES P. SCRANTON, OF SAME PLACE.

IMPROVEMENT IN BEER-FORCING APPARATUS.

Specification forming part of Letters Patent No. **195,126**, dated September 11, 1877; application filed July 23, 1877.

To all whom it may concern:

Be it known that I, ALONZO HERSEY, of the city and county of Monroe, and State of Michigan, have invented an Improvement in Devices for Forcing Beer from Casks, of which the following is a specification:

The object I have in view is the production of means for utilizing a head of water for the purpose of forcing beer from casks without introducing air or other foreign substance into the beer, which will be simple in construction and durable and efficient in use.

My invention therein consists, mainly, in providing a cylindrical barrel with a piston-head fitted water-tight in the said barrel, and adapted to slide from end to end of the same, means being provided for letting a water-pipe into the cask to furnish the necessary pressure behind the piston; and, further, in providing a cask having such a piston with holes to allow the cask to be tapped for drawing off the beer, and the water-pipe to be entered at either end of such cask.

In the drawings, Figure 1 shows a beer-cask with my improvement shown in part in perspective. Fig. 2 is a longitudinal vertical section through the center of the cask.

In the drawings, A represents a beer-cask, the inner walls or sides of which are parallel, like a steam-cylinder. This cask is fitted with two heads, as usual, each head being provided with two holes, *a b*, the former being for the purpose of inserting the faucet *d*, and the latter to receive the end of the water-pipe *h*. Within the cask is placed the piston-head B, provided with suitable packing.

When it is desired to draw off the contents of the cask, the faucet *d* is driven into the hole *a* in one head of the cask, while into the hole *b* in the other head the nozzle of a hose-pipe, *h*, is driven, so as to bring a hydraulic pressure on the back of the piston B. Then, as fast as the contents are drawn out through the faucet, the piston is moved forward to compel the outflow, while they are not subjected to atmospheric influences. When the beer is all drawn out the piston will have been moved up to the front head by the hydraulic pressure, so that, when refilled for subsequent use, the cask should be tapped on the opposite end.

If the piston be neatly fitted to the cask and properly packed, there will be no "blowing through" of the water into the beer.

It will be seen that the means employed by me are quite inexpensive, and will last for a great length of time, allowing the casks to be used over again as often as at present.

I am aware that elastic air-bags have been heretofore placed in casks and inflated when it is desired to force out the beer; that a follower operated by screw-power has been used for the same purpose; and also that a loose piston, with an inclosing-bag for holding the beer, has been inserted in a cask and moved forward to force out the beer by inclining the cask and allowing the air to flow in behind the said piston through a hole in the end of the cask; but it will be readily understood that these devices are much more expensive, as well as less durable, than mine.

What I claim as my invention is—

The combination, with the cylindrical cask A, of the piston B, fitted water-tight in the said cask, and adapted to be moved in the same by water-pressure, said cask having two holes at each end for the purpose of allowing a faucet, *d*, or pipe *h* to be entered into either end of the cask, substantially as described and shown.

ALONZO HERSEY.

Witnesses:
H. F. EBERTS,
H. S. SPRAGUE.