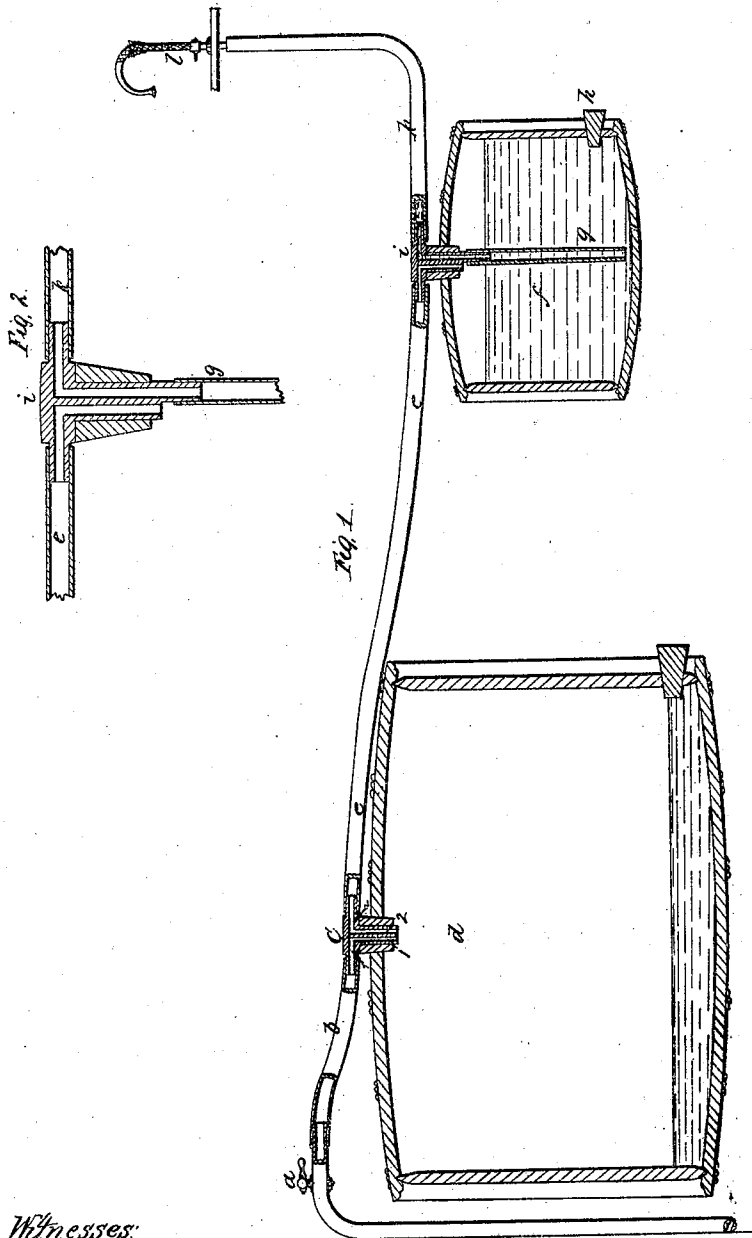


O. Ernst,
Beer Pump,

No 36,143,

Patented Aug. 12, 1862.



Witnesses;
Lemuel M. Small
Chas Geo. Harwood

Inventor;
O. Ernst

UNITED STATES PATENT OFFICE.

OTTO ERNST, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR GIVING VENT TO BARRELS OF BEER AND OTHER LIQUIDS.

Specification forming part of Letters Patent No. 36,143, dated August 12, 1862.

To all whom it may concern:

Be it known that I, OTTO ERNST, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Apparatus for Emptying Barrels of Beer, &c.; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a vertical section of a beer-barrel with my apparatus as applied thereto; and Fig. 2 is a section, in larger size, of the bung and its pipes applied to the beer-barrel.

Similar letters denote the same parts.

Beer, ale, and similar liquids are generally contained in barrels, and to discharge the same into tumblers or glasses various devices have been proposed. In all instances, however, air has to be let or forced into the barrel as the liquid runs out. Cocks with air-valves have been provided to be driven into the bung-hole of the barrel, and large metallic vessels have been provided into which air has been forced by a pump, and then a pipe conveying said air to the barrel has been the means for forcing said beer or other liquid out. This latter means requires considerable manual labor in compressing the air, and then, unless the pumping is constantly done, the pressure becomes less and less. It is found practically that unless a uniform pressure is maintained on the beer it will not retain its original flavor; hence these devices heretofore employed do not entirely meet the demands in the premises; besides, they are objectionable in consequence of the constant attention required.

The nature of my said invention consists in the arrangement of an apparatus whereby the pressure from a head of water is made to force the beer or other liquid out of the barrel through the agency of air. It is usual in cities to have a supply of water under pressure from a head, and I make use of this supply, or one from any suitable source, as the controlling power, whereby a uniform or nearly uniform pressure is maintained on the beer, to force the same out of the barrel as required.

In the drawings, *a* is a faucet on a pipe communicating with any suitable supply of water. *b* is a pipe from this faucet, which for convenience should be of india-rubber.

c is a two-way bung or plug introduced in a large cask or other suitable vessel, *d*. This two way plug *c* forms an inlet for the water through the pipe 1 and an outlet for the air by the pipe 2 to the flexible tube *e*, that leads to the beer-barrel *f*, where it is introduced by means of a plug or bung, *i*. By this means air under a pressure equal to that due to the head of water is introduced into the barrel containing beer or other liquid, which causes therein the pressure necessary for the proper delivery of the liquid. Said liquid may be drawn off by the bung or vent at *h*; but under almost all circumstances it is preferable to introduce pipe *g* below the two-way bung *i* and a flexible pipe, *k*, to the fountain or delivery-pipe *l*.

The size of the vessel *d* should be such that it will not fill with water except with the emptying of three or four barrels of beer, and a float-valve may be provided at the pipe 2 to prevent any risk of water passing over. A pipe may lead away to a sewer from this vessel *d*, so as to allow of its being emptied when necessary.

The pipe leading from the vessel *d* may be formed with branches to several barrels *f*, and stop-cocks may be applied to shut off the exit of air while changing an empty barrel *f*, for a full one.

What I claim, and desire to secure by Letters Patent, is—

The arrangement of the vessel *d*, water-pipe *b*, air-pipe *e*, and two-way plug *c*, in combination with the barrel *f* of beer or other liquid, for the purposes and as specified.

In witness whereof I have hereunto set my signature this 18th day of June, 1862.

OTTO ERNST.

Witnesses:

LEMUEL W. SERRELL,
THOS. GEO. HAROLD.