E. STEWART.

BEER-PUMPS.

No. 194,010. Patented Aug. 7, 1877.

Fig. 1.

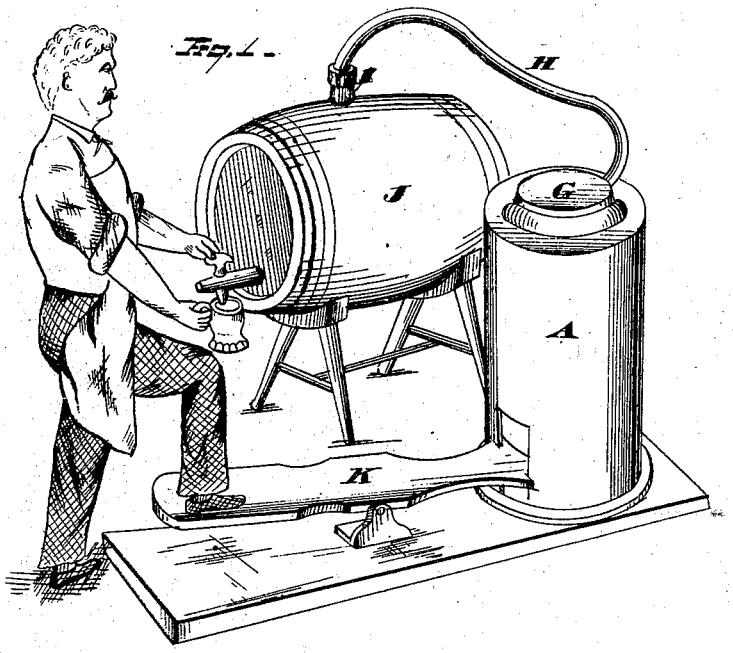


Fig. 3.

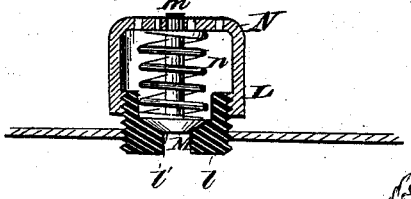


Fig. 2.

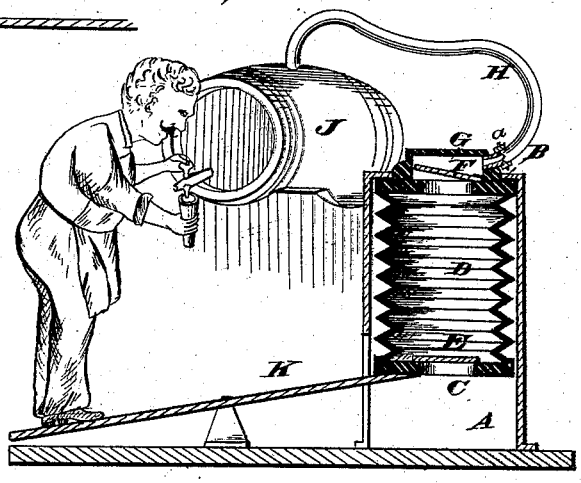
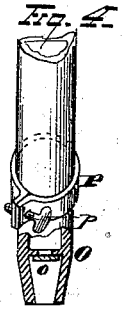


Fig. 4.



WITNESSES

Ed. L. Nottingham

A. M. Bright

INVENTOR

E. Stewart.

By H. A. Seymour.

ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWARD STEWART, OF FORT MADISON, IOWA, ASSIGNOR OF ONE-HALF HIS RIGHT TO HENRY C. SPREEN, OF SAME PLACE.

IMPROVEMENT IN BEER-PUMPS.

Specification forming part of Letters Patent No. **194,010**, dated August 7, 1877; application filed July 3, 1877.

To all whom it may concern:

Be it known that I, EDWARD STEWART, of Fort Madison, county of Lee, and State of Iowa, have invented certain new and useful Improvements in Beer-Pumps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in beer-pumps, the object being to provide a beer-pump of such construction that the vacuum formed within a barrel or keg of beer or other liquid as the same is drawn therefrom may be supplied with air, and any desired pressure maintained within the keg, thereby preventing the escape of the contained gases and rendering the beer pleasant to the taste.

My invention consists in the combination, with an air-pump, the upper end of which is provided with a flexible tube to connect with a barrel or keg, of a pivoted platform, one end of which rests in contact with the lower head of the bellows or piston, while the opposite or free end of the platform projects outwardly to allow the party engaged in drawing the beer to stand on the treadle and operate the pump by his weight to force air into the keg as the beer is being drawn therefrom, whereby the hands of the operator are entirely free to hold the glass or other vessel into which the beer is to be drawn, and also to regulate the faucet and accurately govern the flow of beer, the weight of the operator on the movable platform serving to force a sufficient quantity of air into the barrel or cask to effect the desired object.

In the accompanying drawings, Figure 1 is a view, in perspective, of my improved beer-pump in position for operation. Fig. 2 is a vertical section of the pump. Fig. 3 is an enlarged view of the pressure-regulating air-vent, and Fig. 4 is an enlarged view of the bung, illustrating the method of securing the check-valve therein.

A represents the pump-casing; B and C, the respective upper and lower ends of the collapsible cylinder or bellows D, the material of which is constructed to withstand the desired pressure of air. To the inner side of the lower head C is hinged the inwardly-opening induction-valve E, and to the outer surface of the upper end B of the pump is hinged the air-eduction valve F.

G represents a chamber, of any desired size, secured to the upper head of the pump, and inclosing the eduction-valve F therein.

H is a rubber or other flexible tube, one end of which is attached to a coupling, *a*, on chamber G, while the opposite end is connected to a bung, I, the latter constructed to snugly fit within the bung-hole of the cask J.

The pump is operated by a pivoted platform, K, one end of which rests in contact with the lower end of the pump, while the free end is of sufficient length that the person engaged in drawing the beer may stand on the free end of the pivoted platform K, and thus cause his weight to serve as the power to operate the pump, thereby forcing air into the cask as the beer is being drawn therefrom. As the free end of the pivoted platform is depressed the lower and movable end of the air-pump is forced in an upward direction, and the contained air expelled through the eduction-valve. As the weight is removed from the platform the lower end of the pump descends at the same time the induction-valve opens, and a fresh supply of air enters the pump, and the latter is thus always ready for use. If necessary, the lower head of the pump may be weighted, in order to cause the pump to fill quickly.

In order to regulate the pressure within the cask, and prevent too great an accumulation of air therein, I attach a safety-vent, L, to the air-chamber. This vent consists of an outwardly screw-threaded plug, *l*, having a conical valve-seat, *l'*, formed therein.

M is a conical valve; *m*, the valve-stem, the upper end of which extends slightly through the perforated cap N, which latter is screwed onto the plug *l*. The lower end of a spiral spring, *n*, rests on the top of the valve, while the upper end rests against the inner surface of the cap.

The valve may be readily adjusted so that it will raise and release the contained air at

any desired pressure by adjusting the cap N, it being obvious that when the cap is screwed downwardly on the plug it operates to compress the spring and increase the force of the spring on the valve.

Fig. 4 represents a bung especially adapted for use in connection with my improved pump.

O is the bung, and is provided with an upwardly-closing valve, *o*. The rubber tube is secured to the barrel by a spring-clamp, P, and tightening thumb-screw *p*. As the air is forced into the barrel the air is retained therein by the upwardly-closing check-valve *o*, whereby all pressure on the tube is obviated. This bung is readily secured in position, and when the cask is emptied of its contents the bung may be withdrawn and inserted in a fresh cask.

It is obvious that instead of employing the pivoted platform as a support for the operator, a small standard, adapted to raise and fall, may be connected with the pivoted platform and secure the desired results.

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

1. A beer-pump consisting in the combination, with a pump having a vertically-moving head, of a pivoted platform, one end of which rests in contact with the movable head of the pump, while the other end serves as a support for the person engaged in drawing beer or other liquid, substantially as described.

2. In a beer-pump, the combination, with an outer casing and a fixed upper head, the latter having an eduction-valve attached thereto, of a collapsible cylinder, a movable lower head, the latter provided with an induction-valve and a pivoted platform, one end of which bears on the movable head, while the opposite end serves as a support for the operator, substantially as described.

3. The combination, with a casing provided at its upper end with an air-chamber, a fixed pump-head located below the same, and valve opening upwardly into said chamber, of a collapsible cylinder, movable lower pump-head, and a pivoted platform, one end of which rests against the movable pump-head, while the opposite end serves as a support for the operator, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of June, 1877.

EDWARD STEWART.

Witnesses:
HENRY C. SPREEN,
F. O. MCCLEARY.