

J. BRYAN.

Improvement in Glass Cylinders of Pumps.

No. 130,896.

Patented Aug. 27, 1872.

FIG. I.

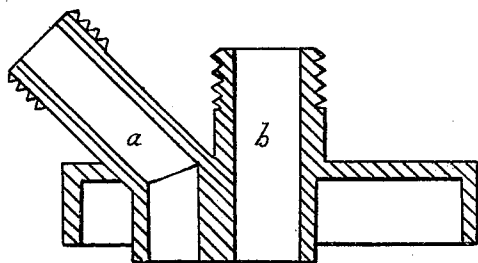
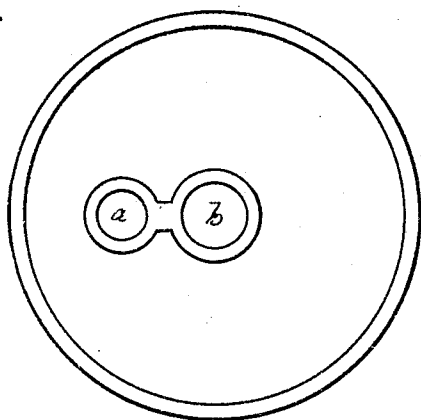


FIG. II.



WITNESSES

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JAMES BRYAN, OF NEW YORK, N. Y.

IMPROVEMENT IN GLASS CYLINDERS OF PUMPS.

Specification forming part of Letters Patent No. 130,896, dated August 27, 1872.

I, JAMES BRYAN, of New York, in the county and State of New York, have invented a certain new and useful Improvement in Ale-Pumps, of which the following is a specification:

Nature and Object of the Invention.

The said improvement relates to the incorrodible pump, consisting of a glass working-cylinder, with white-metal fittings, inclosed in iron clamps, and supported on brackets by adjustable screw-bolts, for which Letters Patent were issued to me on the 8th day of March, 1870. It has been found by experience, with pumps made in accordance with the said patent, that the glass barrels, although proved to a pressure of one hundred pounds per square inch, were likely to be broken under certain circumstances by moving the handle of the pump. If the outlet were closed when the piston was up, and the barrel full of liquor, the movement of the handle that would bring the piston down and introduce an additional piece of piston-rod inside the barrel, would produce an excessive pressure on hydrostatic principles that would not be obviated by an ordinary external air-vessel. The object, therefore, of the said invention is to construct an internal chamber within the barrel that will not be dependent for its efficiency upon the tightness of a stuffing-box; and the improvement consists in making the upper cap of the said pump with the outlet nozzle projecting below the inner

face of the cap about three-quarters of an inch, and in also fitting it with a tube which similarly extends around the piston-rod about the same distance. By this means the liquor will be prevented rising above the level of the nozzles, and the air-space will be preserved; and, as the barrel cannot be entirely filled with liquor, no excessive pressure will be likely to be obtained that will endanger the glass or other parts of the pump.

Description of the Drawing.

Figure 1 is a section of a cap made for the said pump according to my said invention, and Fig. 2 is a plan of the same inverted.

The outlet or discharge nozzle *a* and the tube *b* around the opening for the piston-rod project below the face of the cap, so that when the cap is combined with the barrel an air-chamber is formed at the upper part of the latter.

Claim.

I claim as my invention—

In combination with the pump constructed and arranged substantially as described in the said patent heretofore issued, the cap fitted with internal-projecting nozzles, in the manner and for the purpose described.

JAMES BRYAN.

Witnesses:

NATHAN LEWIS,
WM. KEMBLE HALL.