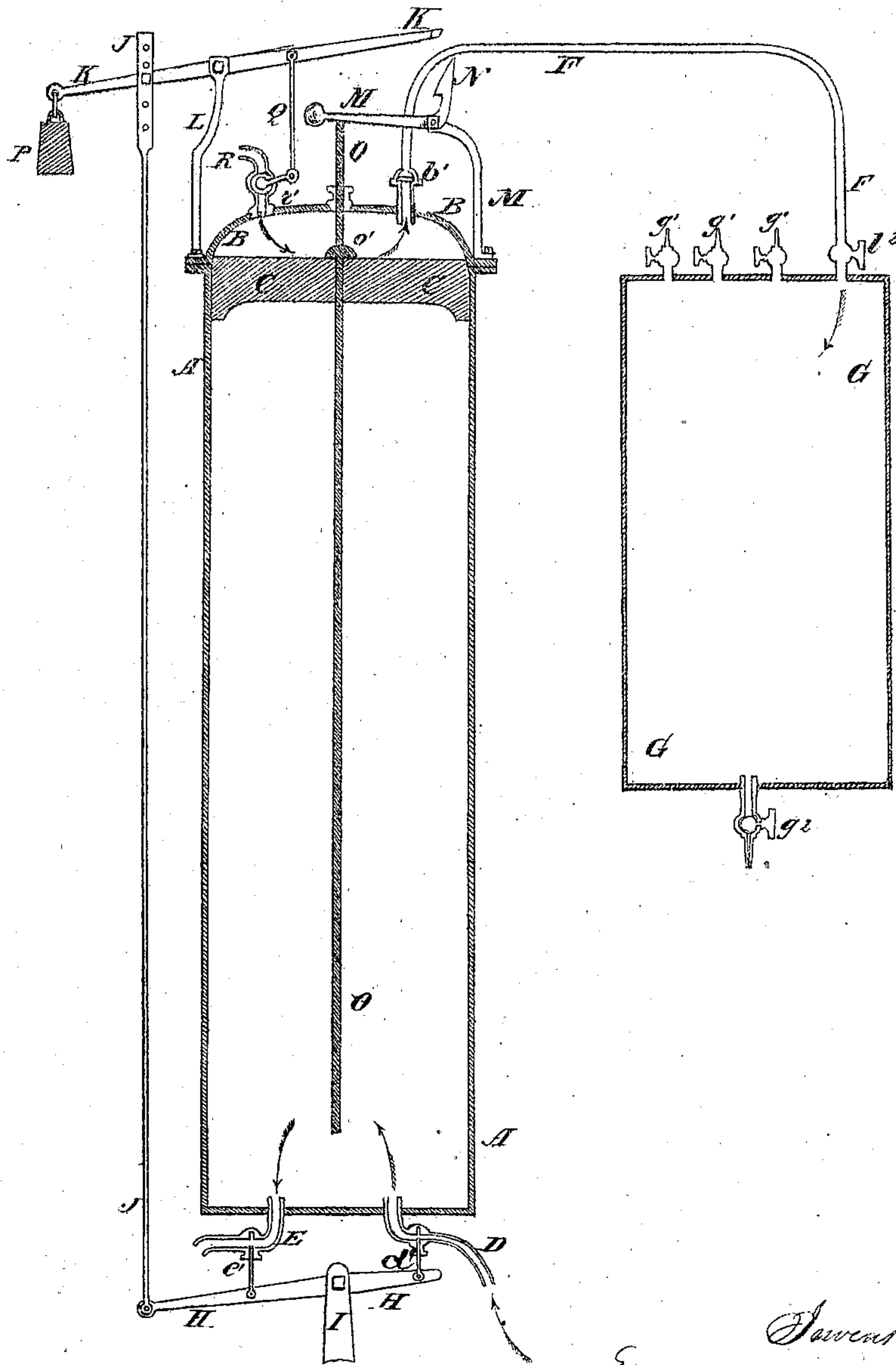


MANCELIA E. OGDEN.

Improvement in Apparatus for Forcing Liquids.

No. 120,895.

Patented Nov. 14, 1871.



Witnesses
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UNITED STATES PATENT OFFICE.

MANCELIA E. OGDEN, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR FORCING LIQUIDS.

Specification forming part of Letters Patent No. 120,895, dated November 14, 1871.

To all whom it may concern:

Be it known that I, MANCELIA E. OGDEN, of the city, county, and State of New York, have invented a new and useful Improvement in Apparatus for Forcing Beer, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

The figure is a detail sectional view of my improved apparatus.

My invention has for its object to furnish a simple, convenient, and effective apparatus for forcing beer, ale, or other liquids out of their casks by atmospheric and hydraulic pressure; and it consists in the construction and combination of the various parts of the apparatus, as hereinafter more fully described.

A is an air and water-tight tank provided with an air-tight cover, B. C is a horizontal partition sliding up and down air and water-tight in the tank A. In the bottom of the tank A are inserted two pipes, D E, provided with ordinary compression or other suitable valves *d'* *e'*. D is the ingress-pipe, the outer end of which is designed to be connected with a water-pipe, so that when the valve *d'* is opened the pressure of the water will force the sliding partition C upward, which forces the air in the upper part of the tank A through the pipe F into the air-tank G. The pipe F, near the tank A, is provided with an ordinary check-valve, *b'*, that allows the air to pass through freely, but prevents its return; and near the tank G with a stop-cock, *l*², to enable the pressure of the air to be stopped, when desired. The tank G, at its upper end, is provided with any desired number of stop-cocks, *g*¹, which are designed to be connected, by rubber or other flexible tubes, with the casks containing the liquors. The tank G is provided, at its lower end, with a stop-cock, *g*², to enable any water of condensation that may collect in the tank G to be conveniently drawn off. E is the escape-pipe through which the water in the tank A is allowed to flow out. The stems of the valves *d'* *e'* are connected with the lever H upon the opposite sides of its pivoting-point, so that the valves *d'* *e'* may be opened and closed alternately by the

movements of the said lever H. The lever H is pivoted to some suitable support, I, and to its projecting end is pivoted the lower end of the connecting-rod J, the upper end of which is pivoted to the lever K, several holes being formed in the upper end of the said rod J to receive the said pivoting-pin to enable the apparatus to be adjusted as required. The lever K is pivoted to a standard, L, attached to the upper end of the tank A. M is a bent arm pivoted to the upper part of the tank A, and to it is attached a catch, N, in such a position as, when the inner end of the lever K is lowered, to catch upon the said end and hold it in position until the said catch N is removed. The end of the bent arm M projects inward over the upper end of the rod O, which passes down through the center of the tank A and slide C, and has a collar, O', formed upon or attached to its upper part, against which the slide C, when forced to the upper end of the tank A, strikes and raises the said rod O to strike against the bent arm M and move the catch N back, releasing the inner end of the lever K, which is immediately raised by the weight P attached to the outer end of the said lever K. With the inner part of the lever K is connected the upper end of the rod Q, the lower end of which is connected with the stem of the stop-cock *r'* of the pipe R, which passes in through the cover B of the tank A. As the inner end of the lever K rises the rod Q opens the cock *r'* and allows the air to pass into the upper part of the tank A freely. The same movement of the lever K opens the valve *e'* of the discharge-pipe E and closes the valve *d'* of the inlet-pipe D, allowing the water to flow out of the tank A and the slide C to descend. When the pressure is to be again applied the inner end of the lever K is lowered and caught upon the catch N, closing the stop-cock *r'* to prevent the escape of air through the pipe R, and, at the same time, closing the valve *e'* and opening the valve *d'*, allowing the water to again flow into the tank A, forcing up the slide C, and again forcing the air into the tank G.

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

The combination of the tank A B, slide C, pipes and valves D *d'* E *e'*, pivoted lever H, con-

necting-rod J, weighted lever K P, catch N, bent arm M, sliding rod O, rod Q, pipe and stop-cock R *r'*, pipe F' provided with valve *b'* and stop-cock *l'*, and air-tank G provided with stop-cocks *g*¹ and *g*², the whole being constructed and operating substantially as herein shown and described, and for the purpose set forth.

The above specification of my invention signed by me this 28th day of September, 1871.

MANCELIA E. OGDEN.

Witnesses:

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