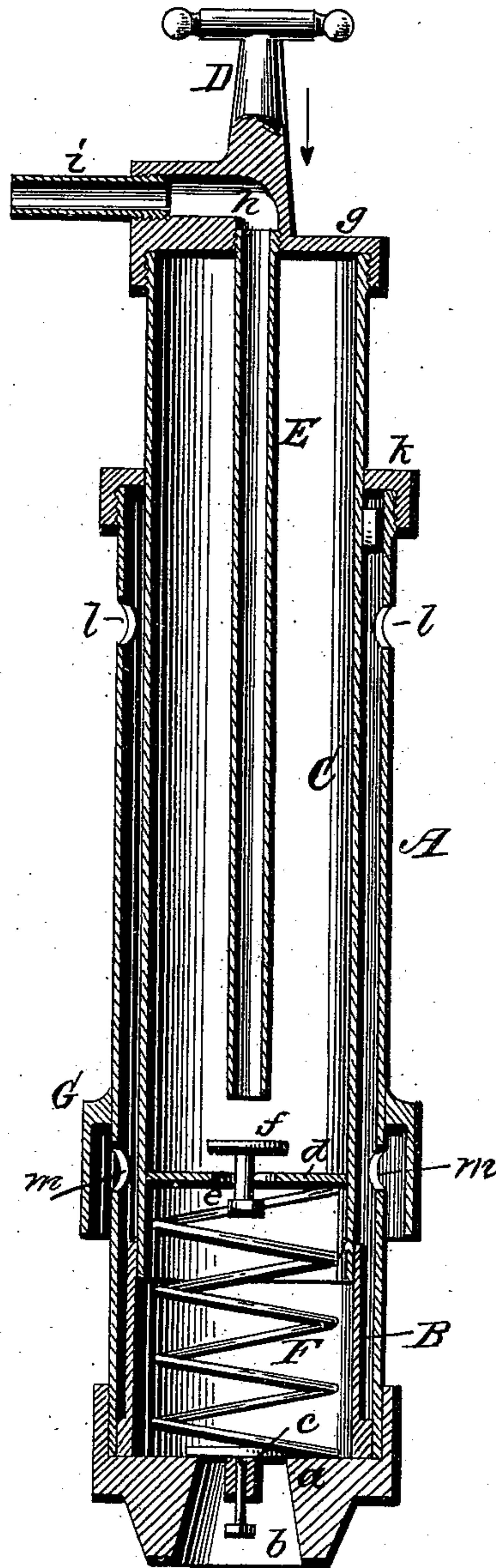


(No Model.)

M. B. BROOKS.
PORTABLE BARREL PUMP.

No. 523,757.

Patented July 31, 1894.



Witnesses
O. J. Williamson,
Geo. Manning.

Inventor
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Attorney.

UNITED STATES PATENT OFFICE.

MOTT. B. BROOKS, OF OAK POINT, NEW YORK.

PORTABLE BARREL PUMP.

SPECIFICATION forming part of Letters Patent No. 523,757, dated July 31, 1894.

Application filed April 16, 1894. Serial No. 507,694. (No model.)

To all whom it may concern:

Be it known that I, MOTT. BILLINGS BROOKS, a citizen of the United States, residing at Oak Point, in the county of St. Lawrence and State of New York, have invented certain new and useful Improvements in Portable Barrel Pumps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters of reference marked thereon.

The present invention has reference to that class of portable force pumps for which a patent was granted to me the 3d day of January, 1893, No. 489,367, and is designed as an improvement thereon whereby a more perfect action of the pump is secured in allowing the liquid to flow in and out of the pump freely and without obstruction and preventing it from overflowing at the top of the casing, and the usual rubber or leather valves and packing and also stuffing-boxes are wholly dispensed with.

The invention consists in a pump constructed substantially as shown in the drawing and hereinafter described and claimed.

In the accompanying drawing which represents a sectional elevation of my improved pump, A designates the outer cylinder and B the inner short cylinder at the lower end thereof, the two being connected together in any suitable manner. To the lower end of these cylinders is a valve-seat *a* and an opening *b* through which the liquid passes into the cylinder, said opening being controlled by a suitable valve *c*. A movable pump-cylinder C is located within the outer cylinder A, and near its lower end has a diaphragm *d* with a central opening *e* and a valve *f* to control the same.

To the upper end of the pump-cylinder C is a cap *g* and suitable handle D for operating said cylinder, and extending down centrally into the cylinder is a tube E which communicates at its upper end with a passage *h* which in turn communicates with a nozzle *i*. A spiral spring F is located between the two valves *c* *f*, the ends of said spring bearing respectively against the valve-seat *a* and the

diaphragm *d* which serves to force the cylinder C back after its downward stroke.

A cap *k* fits over the upper end of the cylinder A and forms a tight joint between the cap and the pump-cylinder C.

Near the upper end of the outer cylinder A are a suitable number of air-vents *l* so that when the pump is pressed down through the bung-hole of the barrel, the liquid will freely flow in at the lower end of the pump and rise to its level, thus acting as a packing.

The cylinder A near its lower ends have openings *m* which are located above the upper end of the short cylinder B, said openings enabling the free ingress and egress of the liquid being pumped, the openings being above the top of the short cylinder, the cylinder A will retain, while in action, sufficient of the liquid to prevent air from passing or being sucked in between the short cylinder B and the lower portion of the cylinder A.

The cylinder A has a circumferential apron G to act as a shield for the openings *m* to prevent any obstruction floating in between the cylinders A B.

The cylinder A with the openings *l* *m* near its upper and lower ends respectively, is the essential feature of my invention, rendering as it does the perfect operation of the pump, which, without the openings would be less effective in its action.

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

A portable barrel-pump consisting of a movable inner cylinder and a stationary outer cylinder, a short cylinder upon the lower inner end of the outer cylinder, and openings near the top and lower ends of the outer cylinder, and a circumferential apron to act as a shield for the openings near the lower end of the outer cylinder, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

MOTT. B. BROOKS.

Witnesses:

M. W. ZIMMERMAN,
RUFUS M. STEVENS.