Brooks & Munson,

Pump Brake.

No. 69,756. Patented Oct. 15, 1867.

Fig. 1.

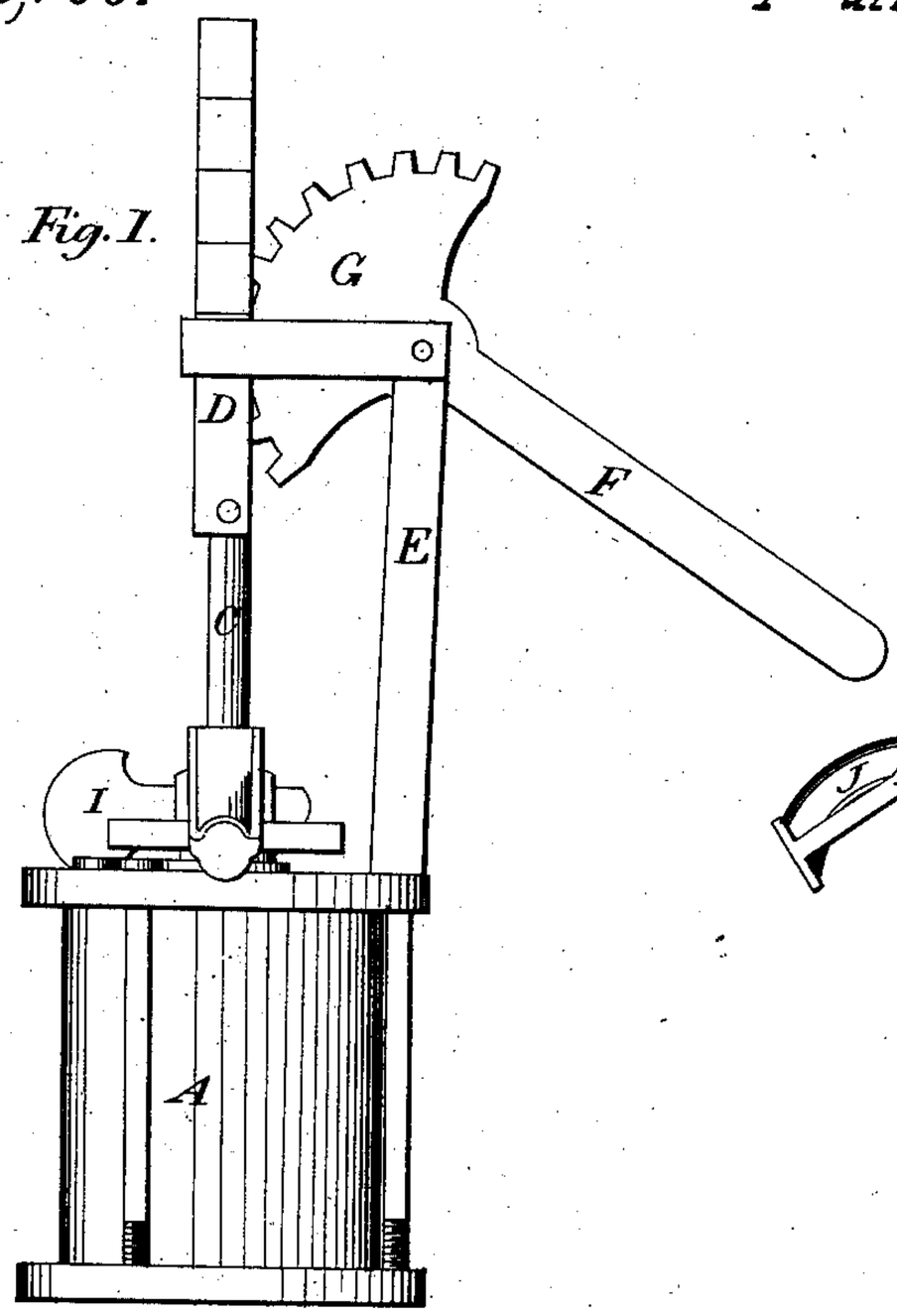


Fig. 2.

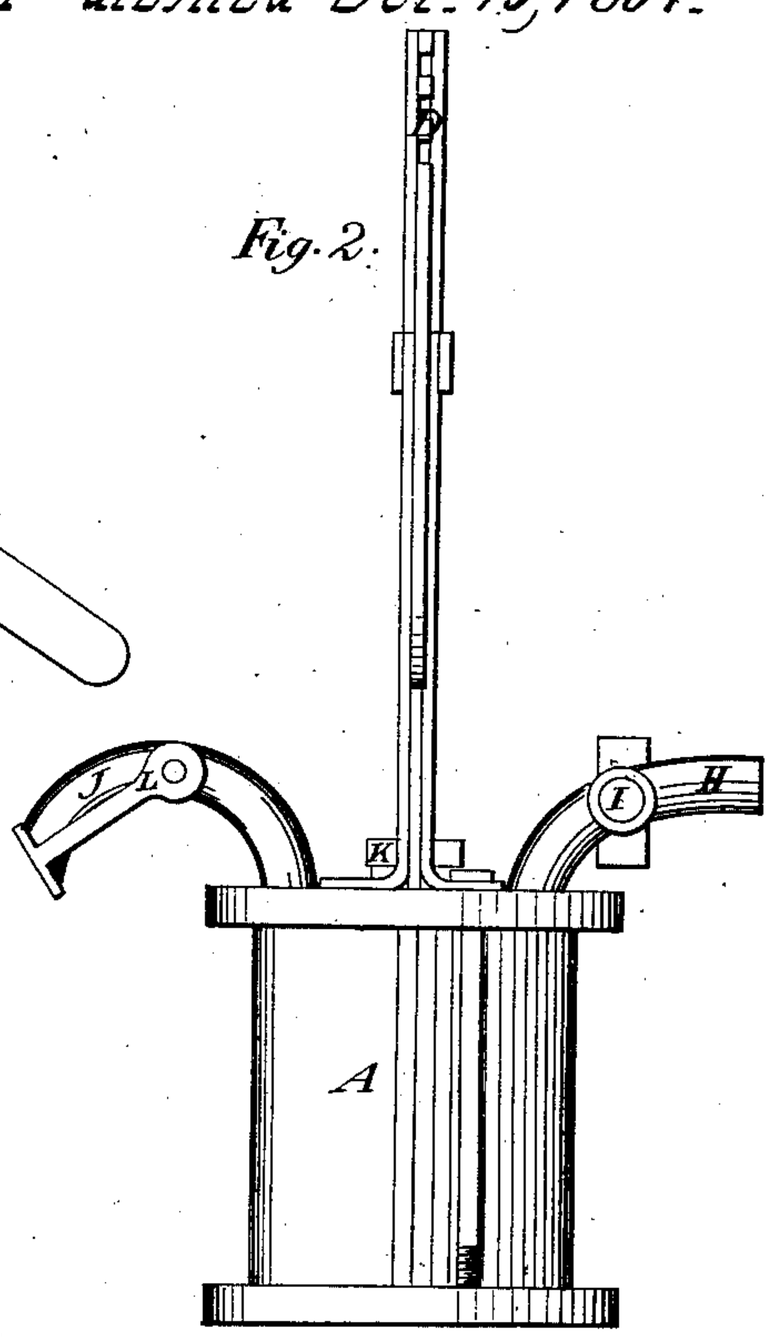


Fig. 3

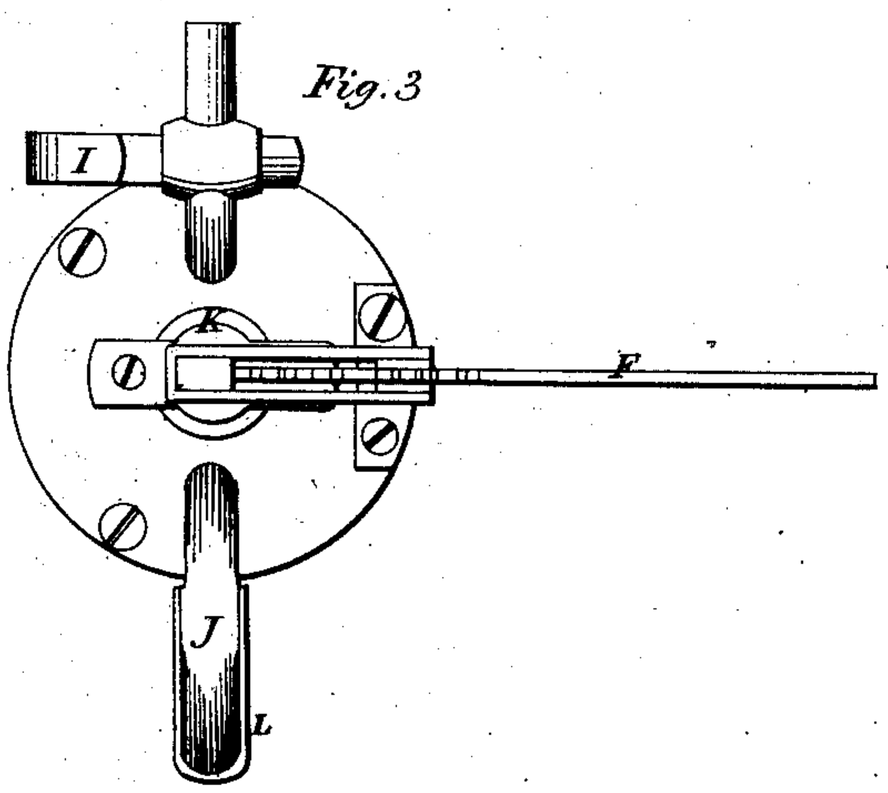
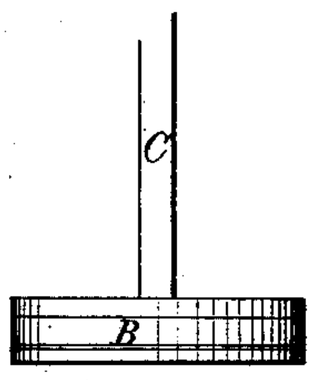


Fig. 4.



Witnesses,

W. H. Burridge.

Frank S. Alden.

Inventor,

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J. M. BROOKS AND PERRY MUNSON, OF INDEPENDENCE, IOWA.

Letters Patent No. 69,756, *dated October* 15, 1867.

IMPROVEMENT IN COMBINED PUMPS AND MEASURES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, J. M. BROOKS and P. MUNSON, of Independence, in the county of Buchanan, and State of Iowa, have invented certain new and useful improvements in a Combined Pump and Measure; and we do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front view.

Figure 2 is a side view.

Figure 3 is a top view.

Figure 4 is a view of the piston.

Like letters of reference refer to like parts in the different views.

A, fig. 1, represents the body of the measure, which is a cylinder, and in which works the piston B, fig. 4. C is the piston-rod, to which is attached the rack D, the sides of which form a scale for measuring. E is a standard, to which is pivoted the lever F, the end of which forms a segmental pinion, G, which, with the rack, works the piston in the cylinder. H is a faucet, which enters the cask or other receptacle for the fluid, and leads to the cylinder. I is a key. J is a nozzle, by which the fluid is ejected from the cylinder. K is a stuffing-box, into which the piston-rod C fits tightly, and prevents the fluid from escaping.

The manner in which it is operated is as follows: The pipe or faucet H is inserted into the cask and the key I turned so there may be a free passage from the cask to the cylinder, the piston having been previously lowered to a point indicated on the scale, which may be any quantity desired. The liquid will then fill up the space in the cylinder, which will be known by forcing down the piston on the fluid; it striking the liquid at that point arrests its further descent, and thus is discovered when the space in the cylinder is filled, when the key can be turned and the piston moved up, the liquid being thus forced out the nozzle in the quantity desired, when the piston can be again lowered, the key turned, and the same operation repeated.

It is well known, in drawing liquid from a cask, that after a certain quantity has been taken out it ceases to run. This is caused by a vacuum being created in the top, the external pressure of air being so great that it prevents the liquid from escaping. By this pump the difficulty may be avoided in this manner.

A cut-off, L, figs. 2 and 3, is pivoted to the nozzle. When the piston is forced down and the cylinder filled with air, this cut-off is dropped over the nozzle, as seen in fig. 2, thus closing it and preventing the escape of the air. The key H is then turned, opening the passage to the cask, the piston raised, and the air forced into the cask. The key is then turned and the passage closed. The cylinder is again filled with air, which is forced into the cask in the same manner. This can be repeated till the liquid runs freely.

A small opening is made in the lower head of the cylinder, that the air may enter or escape when the piston is forced up or down.

We are aware that pumps have been operated by pinions and by segments in connection with racks, and that graduated pumps and syringes have been made, but what we claim as our improvement, and desire to secure by Letters Patent, is—

The arrangement of the scale-rack D, segmental pinion G, and piston B, in combination with the cylinder A, nozzle J, and faucet H, substantially as and for the purpose set forth.

J. M. BROOKS,
PERRY MUNSON.

Witnesses:
A. E. BROOKS,
GEORGE HEAD.