

J. L. Abbott.
Liquid Measure.

N^o 68,931.

Patented Sep. 17, 1867.

Fig. 1.

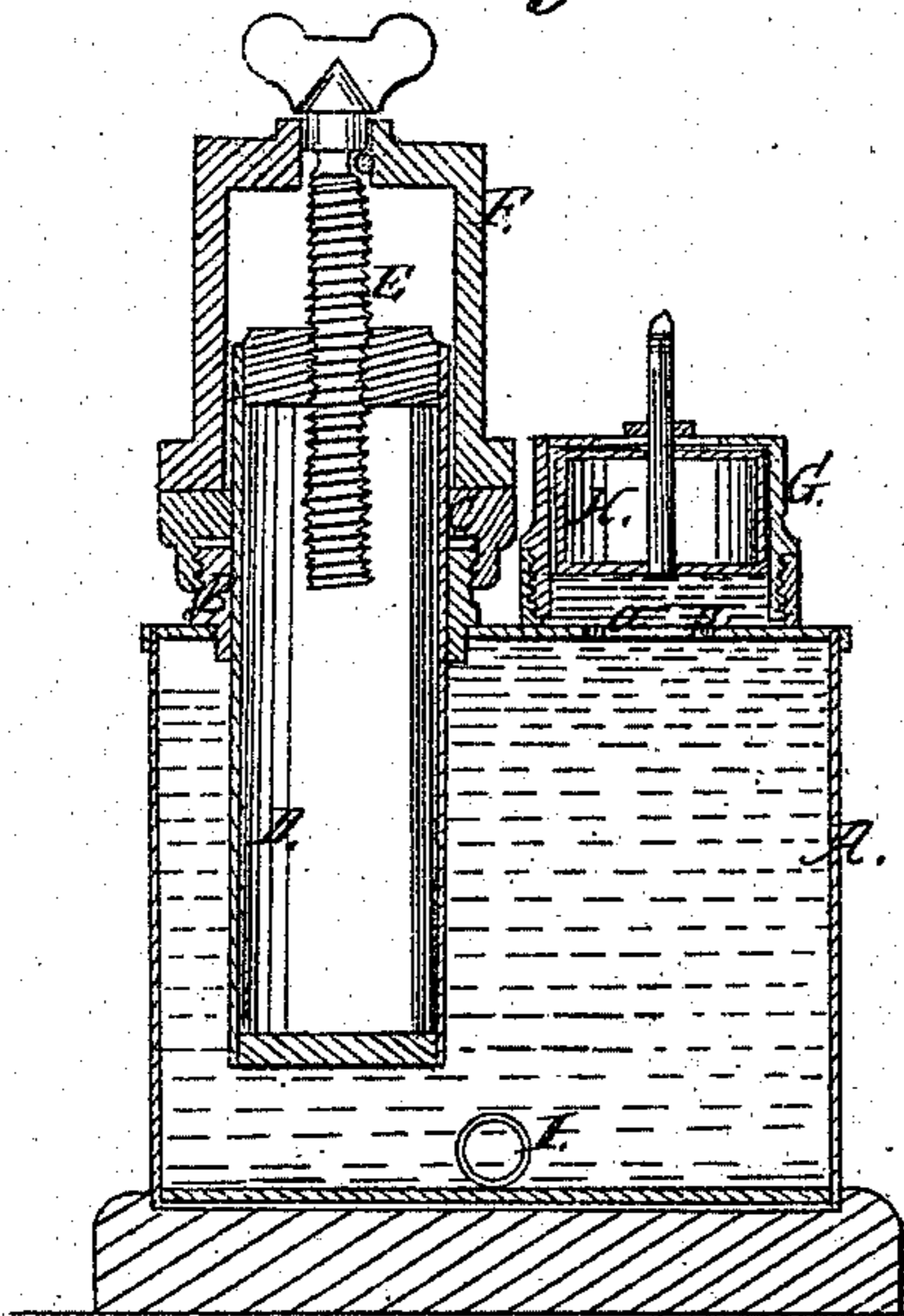


Fig. 3.

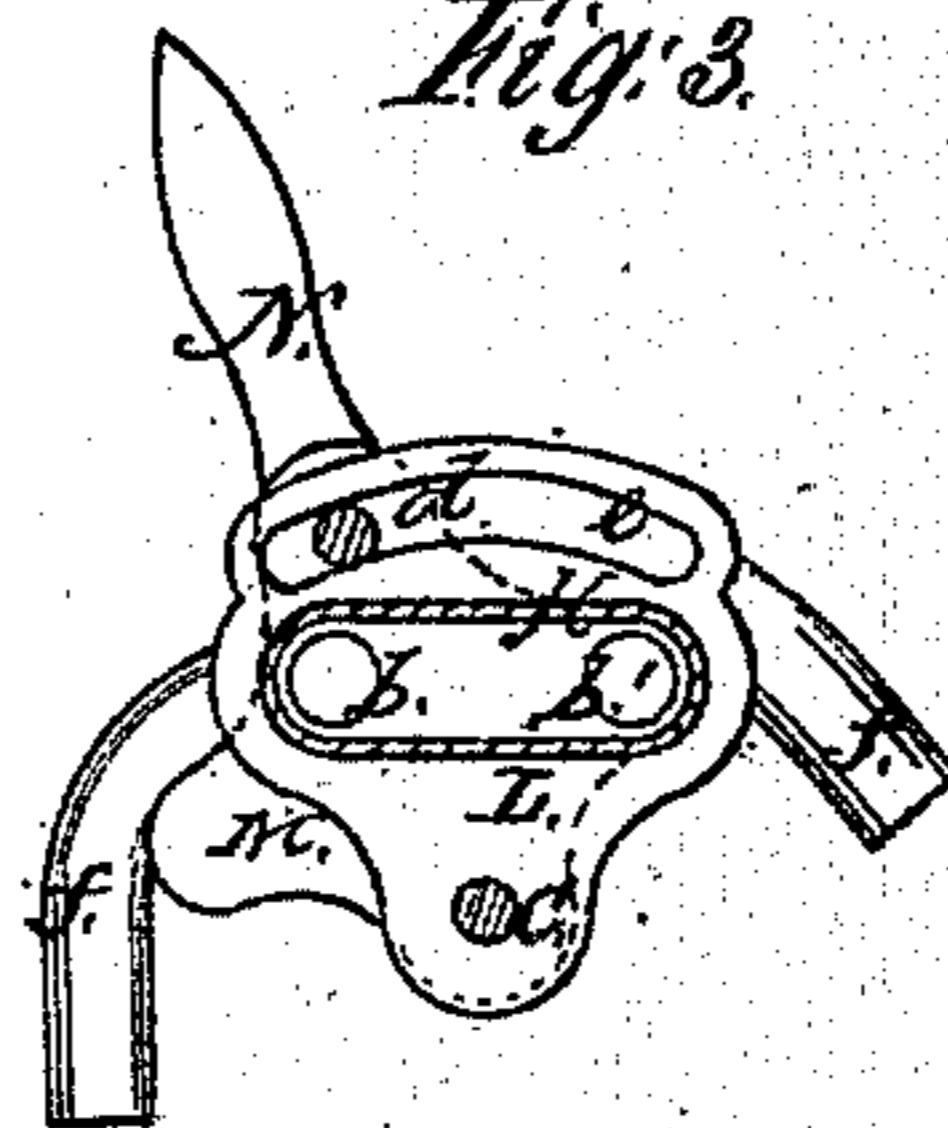


Fig. 4.

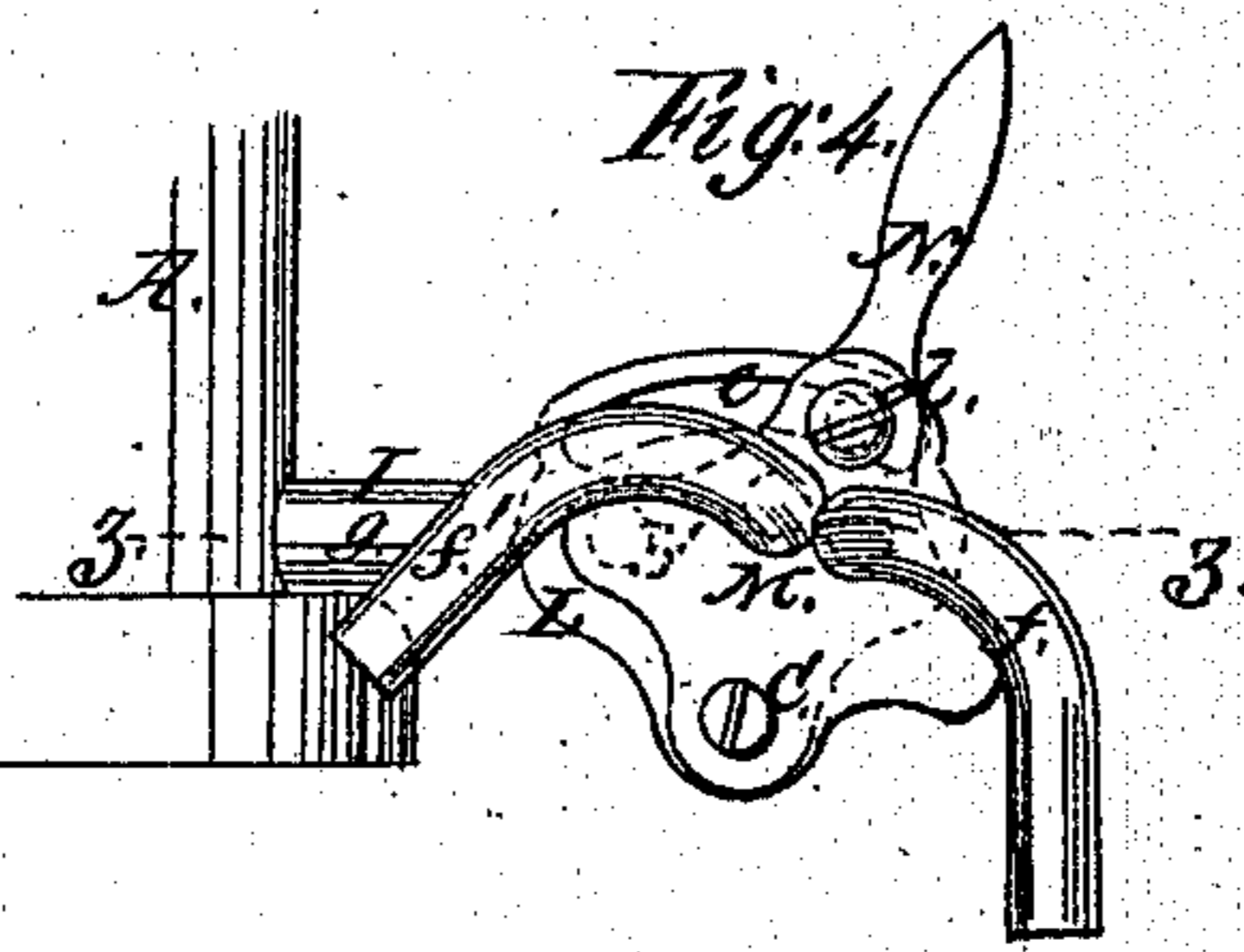


Fig. 2.

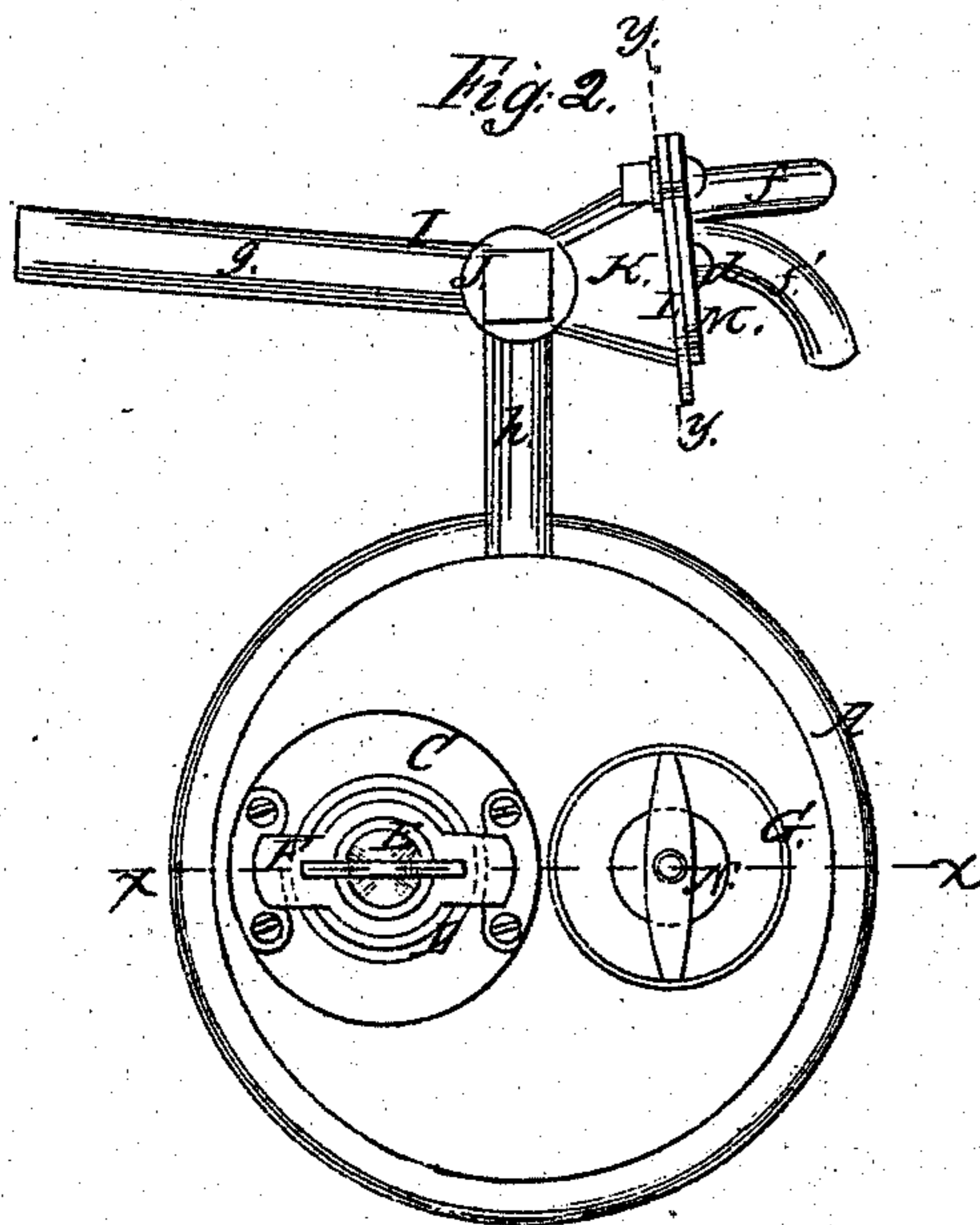
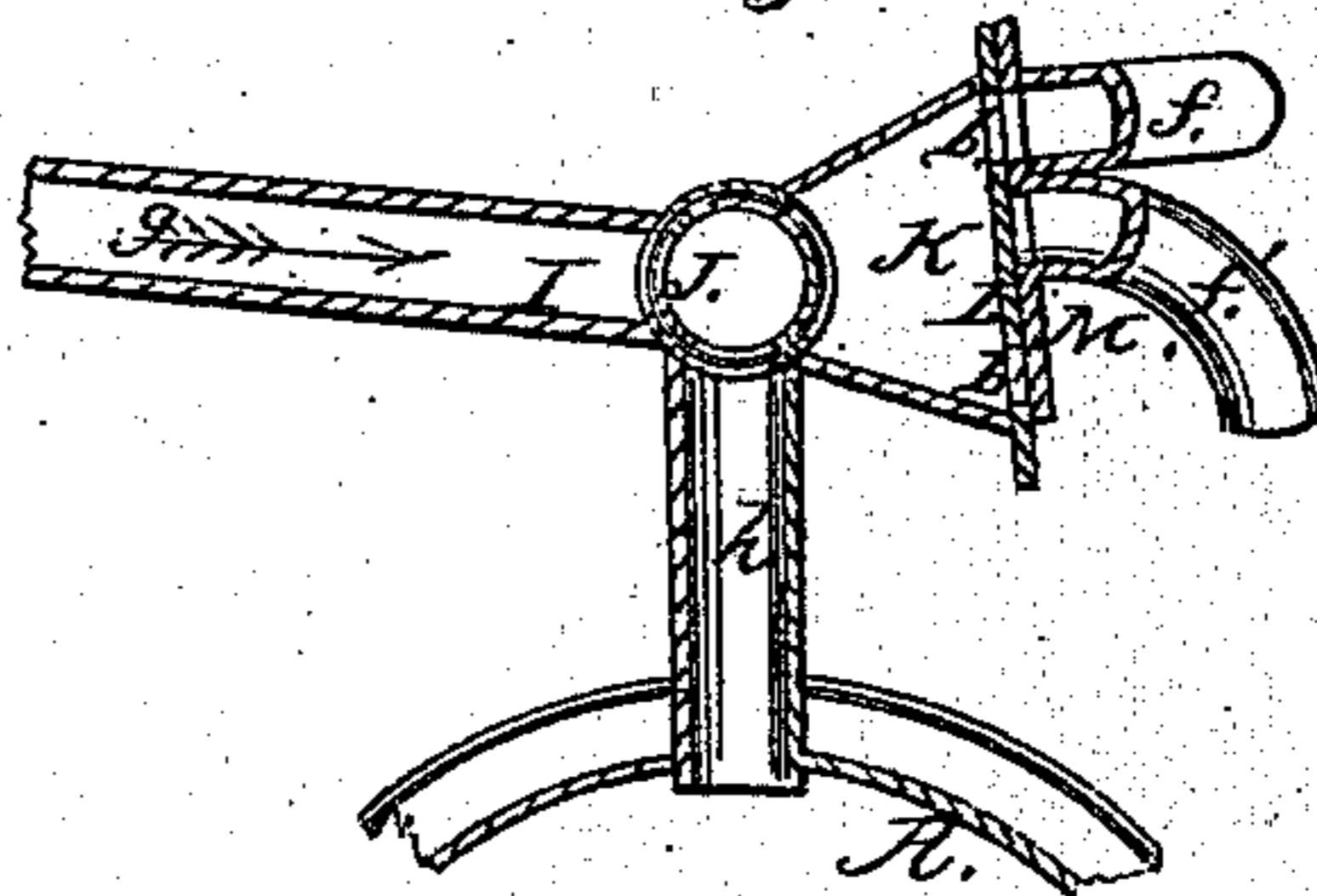


Fig. 5.



Witnesses.
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JOSEPH L. ABBOTT, OF NORTH PROVIDENCE, RHODE ISLAND, ASSIGNOR
TO CHARLES PRATT, OF BROOKLYN, NEW YORK.

Letters Patent No. 68,931, dated September 17, 1867.

IMPROVED MEASURE FOR LIQUIDS.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOSEPH L. ABBOTT, of North Providence, Providence county, Rhode Island, have invented a new and improved Adjustable Measure for Packing Liquids; 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.

This invention relates to a new and improved measure whereby liquids may be drawn from a tank or reservoir in certain limited quantities very expeditiously.

The invention is more especially designed for the drawing off of coal-oil from large tanks or reservoirs in specific quantities for canning, and has for its object the varying of the capacity of the measuring-can to suit the variation of measurement peculiar to different countries, as the gallon, for instance, which varies materially, an "Imperial" gallon being greater than the gallon United States measurement. The invention has further for its object the ready admission of the oil or other liquid into the measure by providing a free escape for the air therefrom during the process of filling. And finally, the invention has for its object a speedy withdrawal of the contents of the measure without loss by leakage or drip in adjusting the cans to or removing them from the discharge faucet of the measure. In the accompanying sheet of drawings—

Figure 1 is a vertical section of my invention, taken in the line *x x*, fig. 2.

Figure 2 is a plan or top view of the same.

Figure 3, a detached vertical section of the faucet pertaining to the same, taken in the line *y y*, fig. 2.

Figure 4 is a front or face view of the faucet.

Figure 5, a horizontal section of the same, taken in the line *z z*, fig. 4.

Similar letters of reference indicate corresponding parts.

A represents the measure, which may be constructed of sheet metal or other suitable material, and of cylindrical or other desired form. In the top of this measure there is fitted a metallic collar, B, on which a ring or annular nut, C, is secured to form a stuffing-box, through which a cylindrical bar, D, passes into the measure, said bar D being hollow, if necessary or desired, and having a screw, E, passing into its upper end and working in a female screw cut therein. This screw E is fitted in a yoke, F, attached to the top of the measure, and by turning the screw the bar D may be adjusted higher or lower, and the capacity of the measure consequently varied as desired. This will be fully understood by referring to fig. 1. On the top of the measure A there is secured a chamber, G, in which a rising and falling valve, H, is placed, the valve opening as it descends, and closing when it is fully up. The chamber G communicates with the measure A by means of openings *a*, and the valve H is sufficiently smaller in diameter than the chamber G to admit of the air escaping out through the chamber G when the valve is down and open, and the measure is being filled by the entrance of oil or other fluid from below. The oil or other fluid passes from the tank or reservoir through a pipe, I, into the lower part of the measure A. This pipe I is of bent form, the angle at the bend being obtuse, and having a two-way cock, J, fitted in it at said bend or angle, as shown clearly in fig. 5. The pipe I has a tube or chamber projecting from its angle or bend, the outer end of said tube or chamber having a vertical plate, L, attached, which is provided with two perforations *b b'*, shown clearly in figs. 3 and 5. M is a plate which is attached at its lower part by a pivot, *c*, to the lower part of the plate L, and has a handle, N, attached to its upper part by a screw, *d*, which passes through a curved slot, *e*, in the upper part of M, and serves as a guide for the lever and plate. From the plate M two nozzles *f f'* project, as shown in figs. 2, 3, 4, and 5.

The operation is as follows: Suppose, for instance, the measure A is empty, and the operation of canning to be commenced. The two-way cock J is turned so as to admit the oil or other liquid from the tank or reservoir to flow through the pipe I into the measure A, the tube K being cut off from I by this adjustment of the cock. As the measure A fills the air escapes up through the chamber G, the valve H being down, and when the measure is filled, which is indicated by the stem of valve H, or the valve itself, the valve H is raised and closed by the liquid, the valve being sufficiently buoyant to admit of that event. The plate M is then turned so that one of the nozzles (say *f*) is forced down into the opening of the can to be filled, and said nozzle

f will be in line with hole v in plate L . The two-way cock J is then turned so that the part g of pipe I will be cut off from the other part h , and the communication between the tank or reservoir and the measure is cut off, while a communication is formed between the measure and the tube K , and the oil or other liquid passes through the nozzle f into the can. When the measure A is empty the plate M is turned so that the other nozzle f' will enter the opening of an empty can, the filled one being soldered before being removed, it being understood that when the nozzle f' is forced down into an empty can the other nozzle f will be raised up out of the filled one in order to admit of the latter being soldered. The cock J is then turned so as to cut off the tube K from I , and open the communication between the two parts g h of the pipe I , so that the measure A will be again filled from the tank or reservoir.

This simple invention will greatly facilitate the process of canning liquids. There will be no loss by leakage or drip from the nozzles f f' , as they are designed to enter some distance into the openings of the cans.

One man can attend to quite a number of measures, all communicating with one and the same tank or reservoir, and placed side by side to facilitate the manipulation of the cocks and cans.

By varying the capacity of the measure A , through the medium of the adjustable bar D , the varying measurements of different countries may be compensated for. This is an important feature, especially in the canning of coal oils, large quantities of which are exported, and to countries where standards of measurement differ from those of ours. Besides this, many liquids vary in bulk according to their temperature, and this can readily be compensated for by adjusting the bar D .

The filling of the measure A from the bottom prevents the potting of the oil or other liquid in the measure, and insures correct measurement, an important item in canning coal oil and turpentine, as a correct measurement by filling with a downward discharge from a faucet cannot be obtained.

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

The arrangement of the measure A , pipe I , two-way cock J , tube K , adjustable bar D , valve H , and chamber G , as and for the purpose specified.

The above specification of my invention signed by me this 8th day of April, 1867.

JOSEPH L. ABBOTT.

Witnesses:

ROYAL LEE,

JOHN BAYLEY.