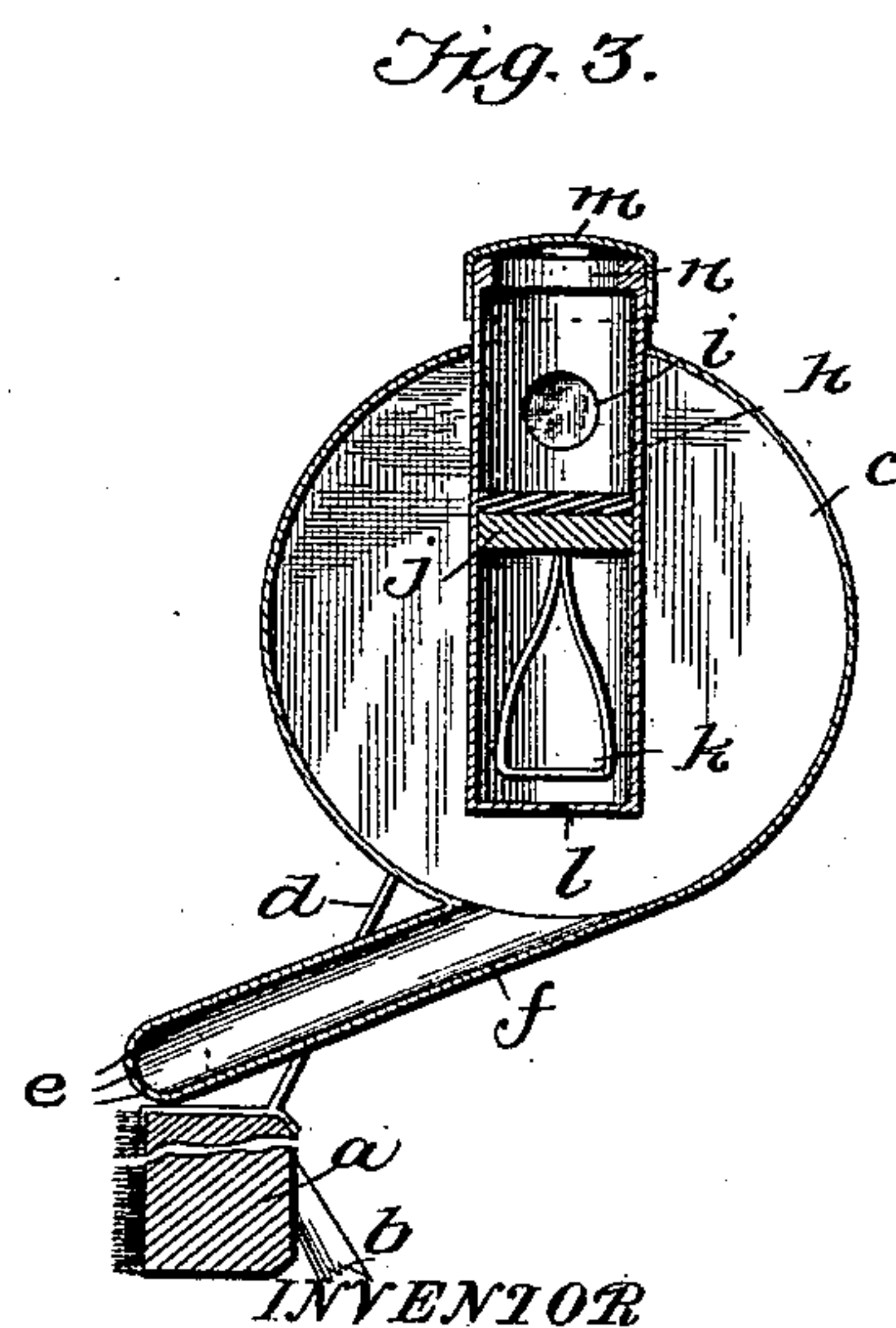
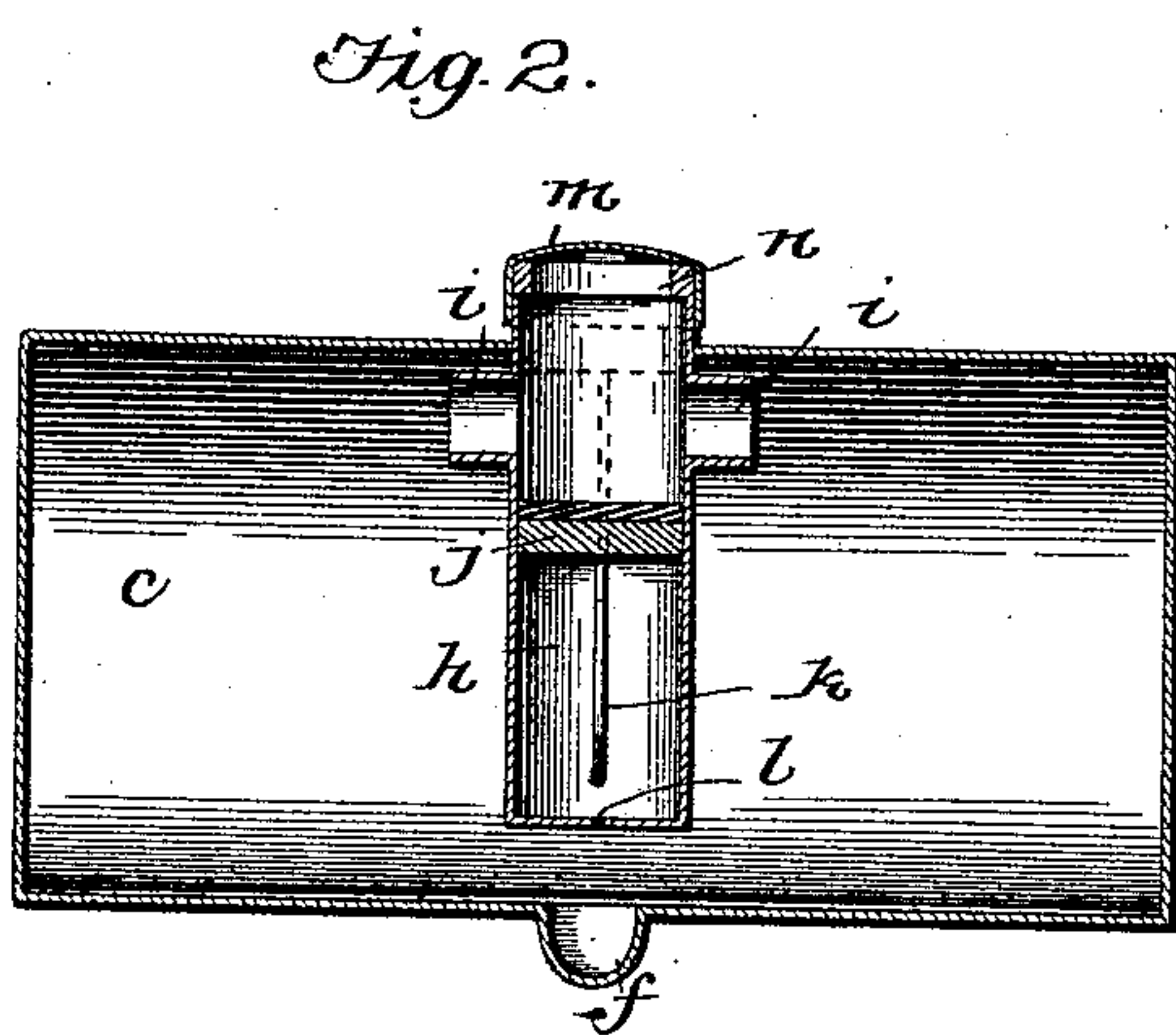
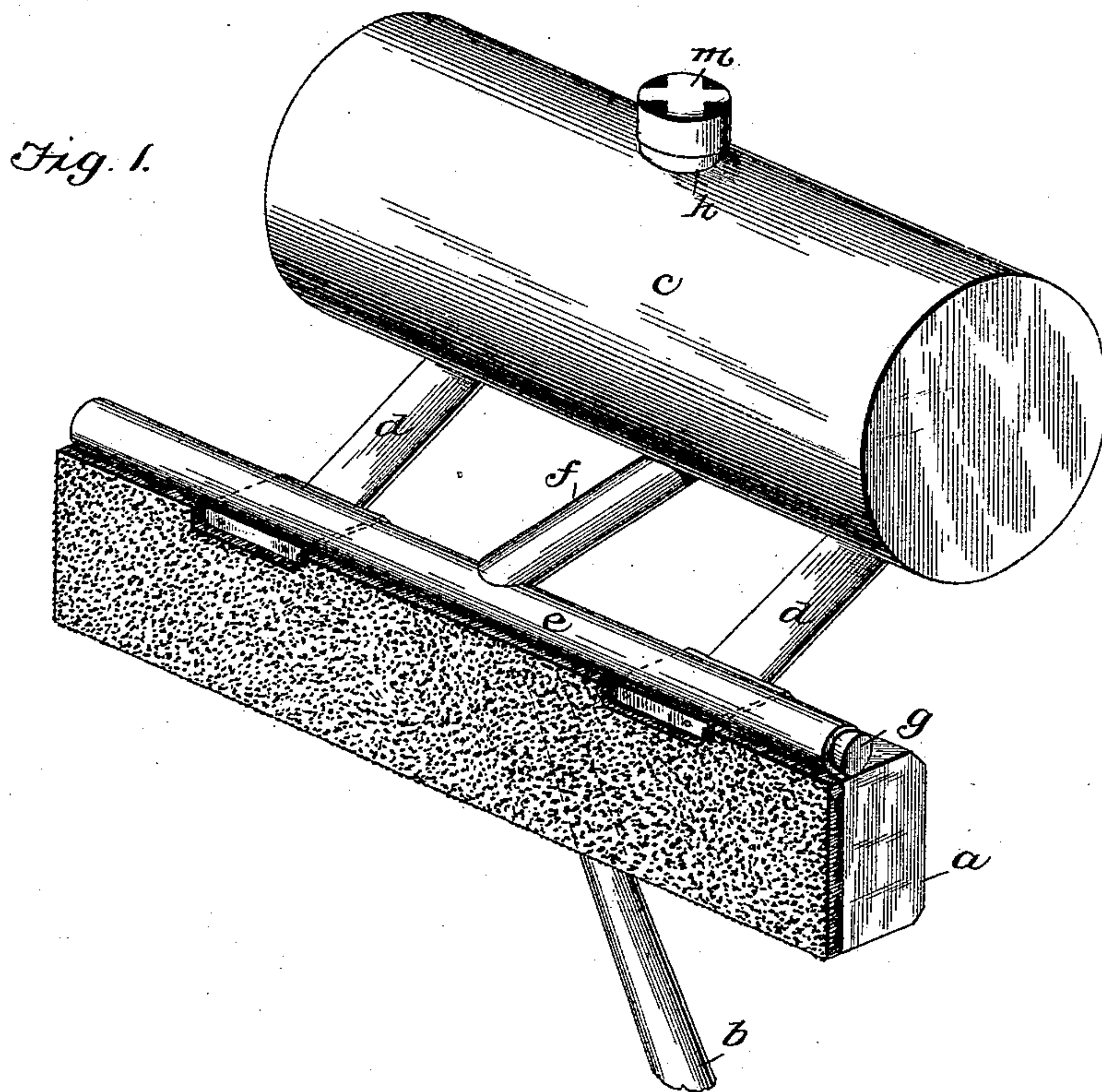


(No Model.)

R. G. MITCHELL.
WINDOW CLEANER.

No. 528,908.

Patented Nov. 6, 1894.



WITNESSES

Hubert O'Peak.
Joseph C. Stack.

INVENTOR

R. G. Mitchell
per O. E. Duff
Attorney

UNITED STATES PATENT OFFICE.

ROBERT G. MITCHELL, OF HUNTINGTON, INDIANA.

WINDOW-CLEANER.

SPECIFICATION forming part of Letters Patent No. 528,908, dated November 6, 1894.

Application filed February 23, 1894. Serial No. 501,219. (No model.)

To all whom it may concern:

Be it known that I, ROBERT G. MITCHELL, of Huntington, in the county of Huntington and State of Indiana, have invented certain
5 new and useful Improvements in Window-Cleaners; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to
10 make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in brushes.

The object of the invention is to provide an improved fountain or reservoir brush particularly adapted for washing windows, and which can be easily manipulated for this purpose so that the glass can be thoroughly
20 washed at all corners and edges without the reservoir or other parts carried by the brush interfering with the work.

A further object of the invention is to provide an improved brush for washing windows so constructed and arranged that the reservoir can be easily and quickly filled by merely dipping the brush into the vessel containing the water and so that the water will not splash
30 from the reservoir as the brush is being reciprocated when in use.

This invention consists in certain novel features of construction and in combinations of parts more fully and particularly pointed out
35 hereinafter.

Referring to the accompanying drawings, Figure 1, shows the improved brush in perspective, the handle thereof being broken away. Fig. 2, is a longitudinal vertical sectional view through the reservoir of the brush.
40 Fig. 3, is a vertical cross section through the reservoir and brush.

In the drawings the reference letter *a*, indicates any suitable brush adapted for washing windows or like purposes. This brush is provided with any suitable handle, such as *b*.

c, indicates any suitable closed water supply reservoir. This reservoir is here shown cylindrical in form, although I do not wish to
50 limit myself to any peculiar shape or form as the form may be made according to the shape of the brush employed. This reservoir is

suitably supported at a point above and in a vertical plane behind or to one side of the vertical plane of the brush so that the brush
55 can be moved directly up to the corner or top edge of the window without danger of the reservoir striking the window frame or other parts. The reservoir is here shown secured rigidly to the brush body by means of arms *d*,
60 extending upwardly and rearward from the brush body and rigidly secured thereto and to the reservoir so as to support the reservoir in a plane above and behind the brush.

The water supply pipe *f*, extends downwardly and forwardly from the bottom of the water reservoir to the perforated distributing pipe *e*, rigidly secured on the top of the brush near the front edge thereof. This distributing pipe is rigidly secured longitudinally of the brush and is provided with perforations on its front side located over the
70 brushing or rubbing surface of the brush and the said pipe is preferably of such length as to distribute water from said perforations throughout the entire length of the rubbing or brushing surface, such as bristles. One end of the distributing tube *e*, can if desired be formed open to receive a closing plug or
80 cork *g*, so that the tube can be cleaned out whenever desired to keep the perforations always open.

A vertical tube or valve chamber *h*, is arranged within the water reservoir and projects a suitable distance above the same.
85 This tube is provided with a cap *m*, having openings to permit inflow of water into the tube and reservoir. Within the reservoir near the top thereof said valve chamber or tube is provided with the lateral openings *i*,
90 into the water reservoir for the escaping of liquid from said tube to fill the reservoir. A vertically movable float valve *j*, is fitted snugly in said tube to reciprocate vertically therein and to float and to be supported by
95 the water in the reservoir. This valve is provided with the downwardly extending guide *k*, from its under side arranged to support the valve when the water is exhausted from the reservoir and to guide the valve in its vertical movement. This guide can be composed
100 of a bent or looped wire if so desired and its lower end rests on the bottom of the tube when it supports the valve. The bottom of

the tube is provided with small openings *l*, to prevent the formation of a vacuum beneath the valve so that the valve will be free, to operate vertically. The distance between the openings *i*, and the upper end of said tubular chamber is such that when the valve is at its limit of upward movement it will rest against a suitable stop or shoulder *n*, and will be located above the openings *i*, and will thereby prevent the water in the reservoir splashing out through the top of the tube. The valve being held in this position when the reservoir is full by the water and as the water gradually flows from the reservoir and its level falls it cannot easily splash out by reason of the protecting tubes *i*.

When it is desired to fill the reservoir the brush is thrust into a vessel of water and as the reservoir enters the water in an inverted position the water carries the valve up to its limit of movement by the guide *k*, striking the closed end of the tube and the water flows in and fills the reservoir through the top of the tube and the openings *i*. When the brush is withdrawn from the water and held upright in its normal position of course the valve at once rises and closes the upper end of the tube. The water flows down through the tube *f*, to the distributing pipe and passes in fine streams through the perforations thereof to all portions of the brushing surface keeping the same constantly wet with clean water.

The brush can be quickly rubbed over the glass surface and the same can be easily and quickly washed throughout its entire area, a plentiful supply of water being furnished for all portions of the glass surface.

It is evident that various changes might be made in the forms, arrangements and constructions of parts described without departing from the spirit and scope of my invention.

Hence, I do not wish to limit myself to the exact construction here shown.

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

1. The brush having the water reservoir attached thereto and arranged to supply water to the brushing surface, said water reservoir having the supply openings, and a float valve having guiding means and controlling said opening, substantially as described.

2. A reservoir brush having the vertical valve chamber arranged therein and opening to the exterior thereof, said chamber opening into the interior of the reservoir, and the float valve vertically movable in said chamber, as and for the purpose set forth.

3. The reservoir brush having the water reservoir provided with the vertical tube located therein and projecting to the exterior thereof and having the lateral opening into the interior of the reservoir, and the vertically movable float valve in said tube arranged to move above said side opening when the reservoir is full and thereby prevent water from splashing the reservoir through the open end of the tube.

4. The water reservoir having the vertical tube therein communicating with the outer air and opening into the reservoir, the vertically movable float valve therein arranged to operate as set forth and having the downwardly extending guide or support from its lower side, the parts being arranged to operate as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ROBERT G. MITCHELL.

Witnesses:

H. C. BLACK,

CHAS. K. LUCAS.