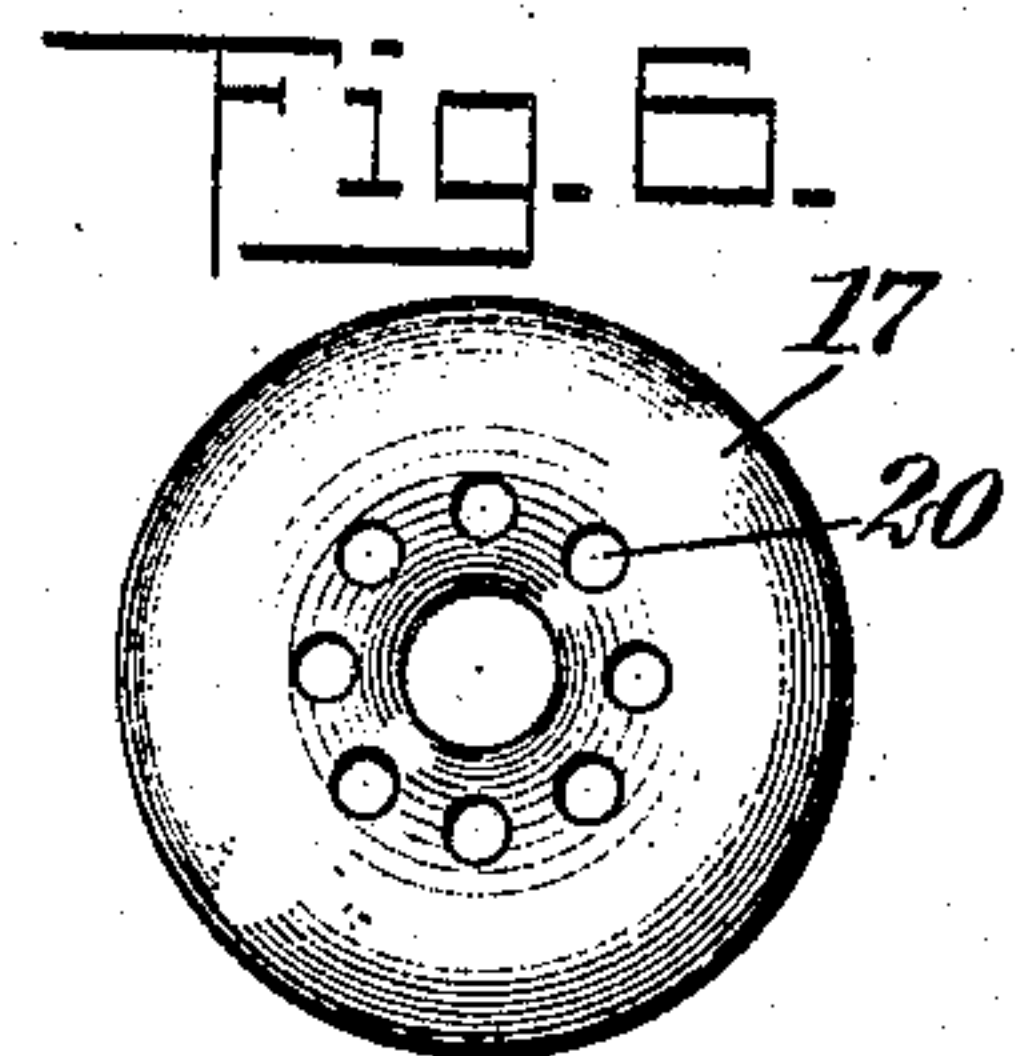
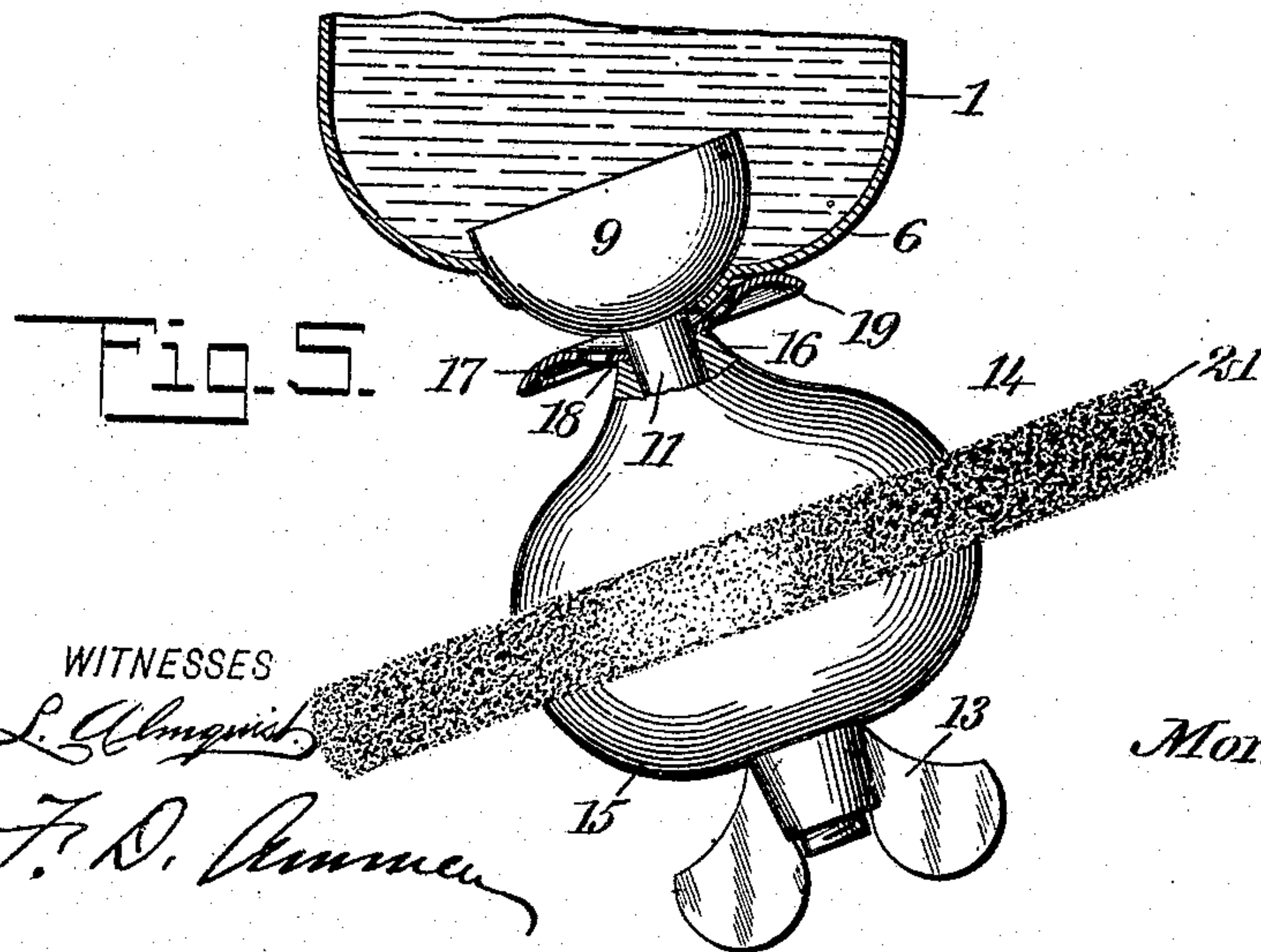
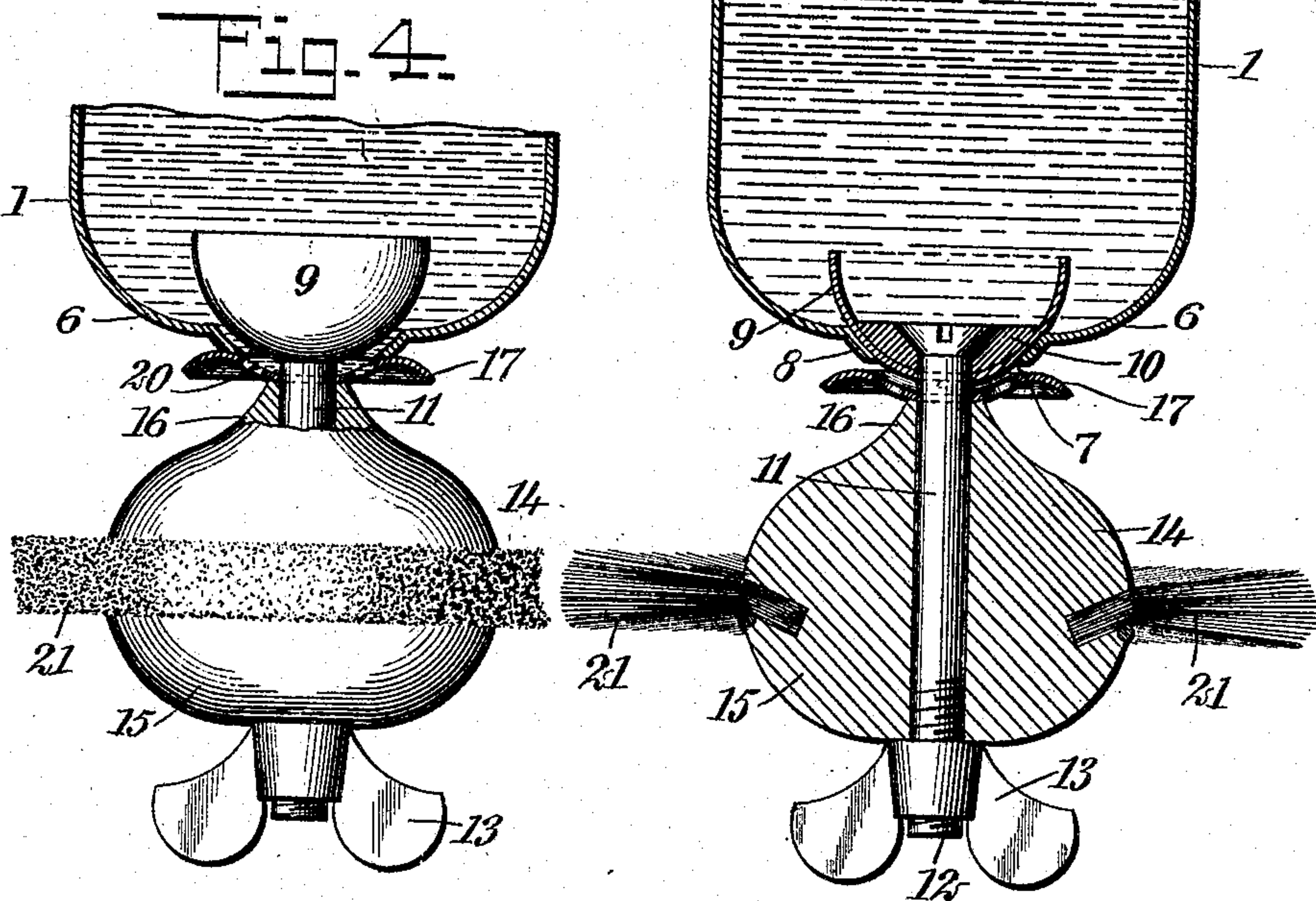
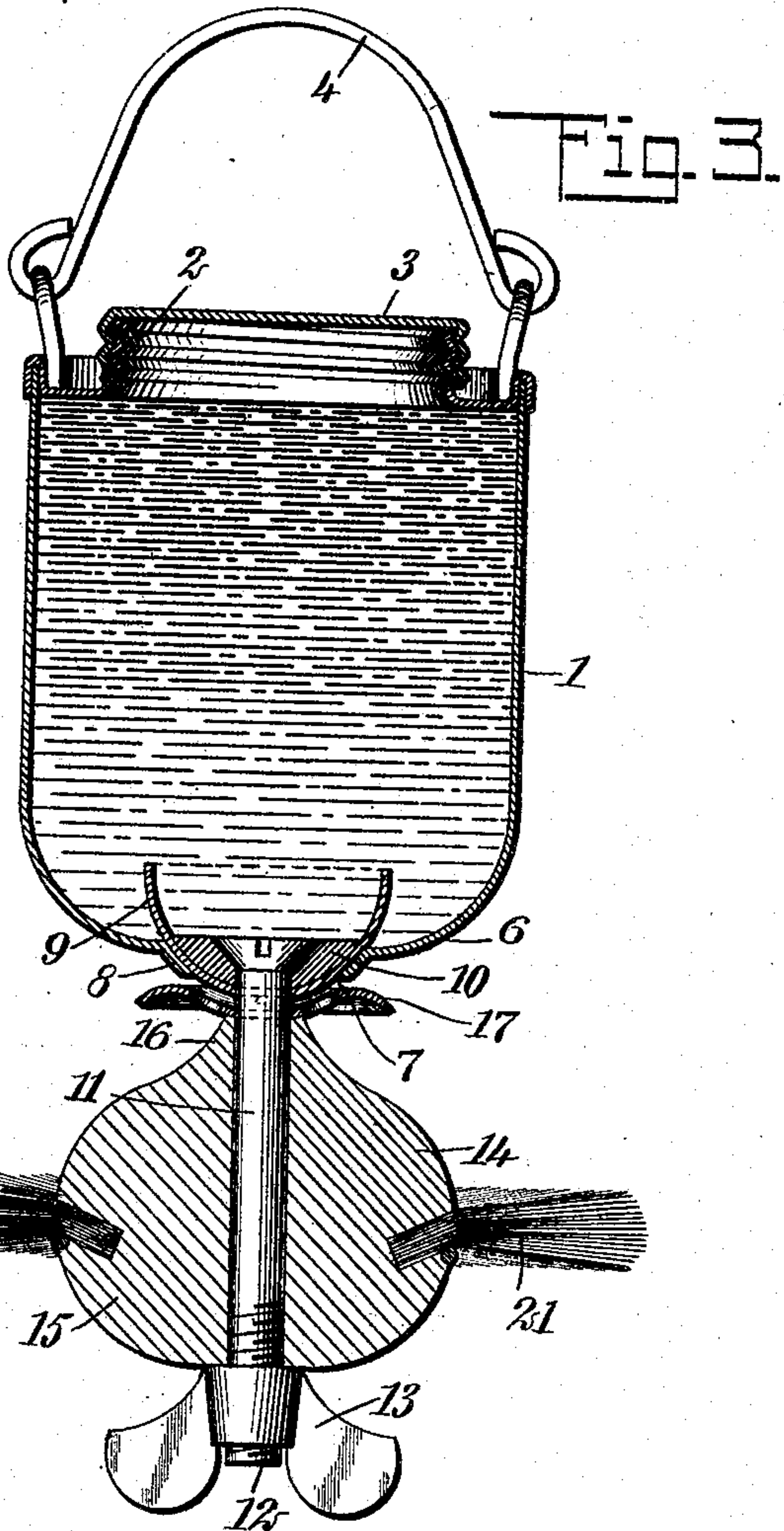
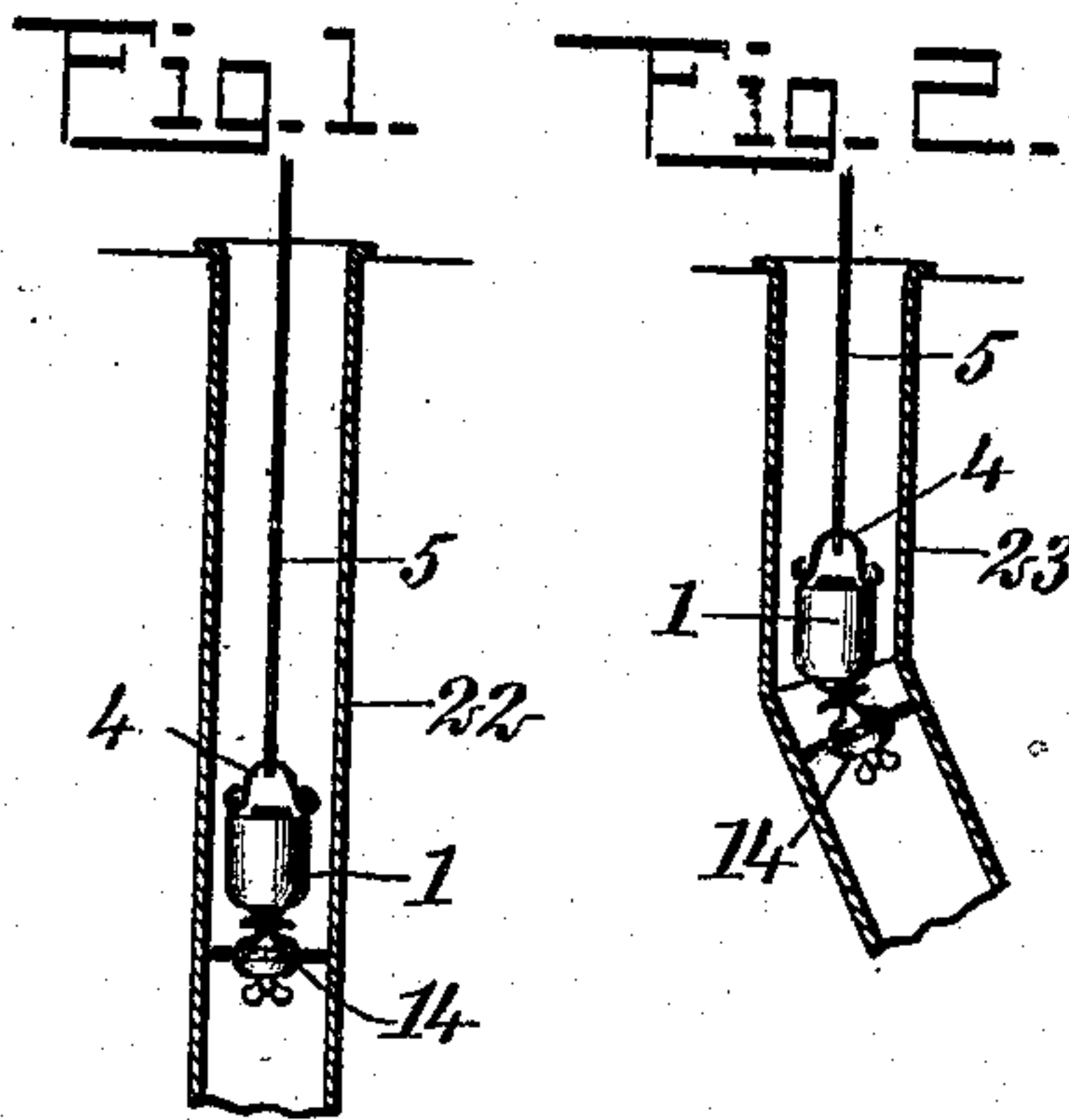


M. BLACKMAN.
LEADER BRUSH.
APPLICATION FILED APR. 11, 1908.

919,813.

Patented Apr. 27, 1909.



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UNITED STATES PATENT OFFICE.

MORRIS BLACKMAN, OF JERSEY CITY, NEW JERSEY.

LEADER-BRUSH.

No. 919,813.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed April 11, 1908. Serial No. 426,522.

To all whom it may concern:

Be it known that I, MORRIS BLACKMAN, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Leader-Brush, of which the following is a full, clear, and exact description.

This invention relates to brushes, and especially to reservoir brushes.

The object of the invention is to produce a brush of this class especially adapted for painting the inner side of leaders or rain spouts. In the operation of the device described, it will feed small quantities of paint from the reservoir to the brush, and the parts are so arranged as to enable the device to turn the corners or bends in a leader.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a vertical section showing the upper portion of the leader and illustrating the manner in which the device is used in practice; Fig. 2 is a view similar to Fig. 1, and illustrating the manner in which the device adapts itself to passing around the bends in a leader or pipe; Fig. 3 is a vertical section through the device; this view shows the feeding device of the reservoir in its closed position; Fig. 4 is a view similar to Fig. 3, but showing the brush proper in elevation and partly broken away; this view shows only the lower portion of the reservoir, and shows the feeding device open, that is in the act of feeding paint to the brush from the reservoir; Fig. 5 is a vertical section similar to Fig. 4, but showing the brush proper in a displaced position so as to illustrate the manner in which the brush may pass around bends or corners in the pipe; and Fig. 6 is a plan of a feed crown or washer which constitutes a part of the feeding device.

Referring more particularly to the parts, 1 represents a reservoir which is provided with a charging nipple 2, to which a threaded cap 3 is removably attached. The upper end of the reservoir is further provided with a bail 4 to which a string 5 is attached, as indicated in Figs. 1 and 2. The bottom 6 of the reser-

voir is preferably formed integral with the side wall thereof, and is constructed with a central opening 7 having a downwardly projecting lip or flange 8. This lip is curved spherically so as to form a rudimentary socket for a ball valve 9. The body of this valve is formed of a hemispherical shell, which shell is reinforced by a small hub 10 formed in the bottom thereof, as indicated. From this hub there extends downwardly a stem or screw 11, the lower end of which is provided with threads 12 to receive a thumb nut 13. This thumb nut holds in place a brush 14, which has a body 15 of substantially round form, but slightly oblate, the major axis being disposed in a horizontal plane. The upper side of the body 15 is tapered upwardly to form a truncated peak 16 upon which there is seated a crown 17 of light sheet metal which is bent to the form shown so that its middle portion is formed into a shallow cup 18. The edges of this cup are curved downwardly so as to form a lip or flange 19 extending continuously around the crown, as shown. In the bottom of the cup 18, but near the sides of the peak, circumferentially disposed openings 20 are formed. The body 15 of the brush is provided with a row of bristles 21 disposed circumferentially about the same in a horizontal plane. In this way a circular brush proper is formed, and the diameter of this brush when measured over the tips of the bristles should be slightly in excess of the inner diameter of the leader pipes which the device is to paint.

It should be understood that the ball valve 9 and its contiguous parts constitute a feeding device, and in this connection it should be stated that in attaching the brush to the stem 11 the nut 13 should be screwed up tight, but a certain amount of vertical play is left between the crown 17 and the lip 8.

In the actual operation of the device, the reservoir is filled with paint, and the device is lowered into the leader 22, as illustrated in Fig. 1, by means of the string 5. The device should be let down to the bottom of the leader, and then should be drawn up and down by short movements, so that the brush advances gradually to the top of the leader. The bristles 21 of course brush against the inner face of the leader pipe, but the frictional resistance is not sufficient to overcome the weight of the paint in the reservoir, so that when the string is paid out the device

descends. In descending the frictional resistance of the bristles 21 is sufficient, however, to maintain the brush proper in its most elevated position with respect to the reservoir, in other words the stem 11 is shoved upwardly so as to raise the valve 9 off its seat, as illustrated in Fig. 4. The paint then feeds downwardly under the ball valve 9 on the crown 17 where it finds its way through the openings 20 of the peak 16, thence it descends on the upper side of the brush body to the bristles 21. On the upward movement of the device the resistance of movement operating on the brush proper holds the valve 9 on its seat, that is it holds the feeding device closed. The opening 7 is much larger than the diameter of the stem 11, from which arrangement the brush proper may be moved into an inclined position such as is indicated in Fig. 5; this enables the device to be passed downward in a leader 23 having a bend or turn in it, as indicated in Fig. 2.

In the operation of the device it will be evident that the paint will feed through the feeding device in sufficient quantities to supply the brush, and the amount of paint which will feed through as suggested, can be regulated as desired by means of the main nut 13.

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

1. A device of the class described, comprising a reservoir having a valve therein, and a substantially circular brush of greater diameter than said reservoir and adapted to be supplied through said valve, said brush being adapted to engage the side wall of a pipe when disposed within the interior thereof, said brush being connected with said valve whereby said brush affords means for opening and closing said valve when the said reservoir is raised and lowered into the pipe.

2. In a device for coating the interior of leader pipes, in combination, a reservoir having a valve seat in the lower part thereof, a

valve on said seat, and a brush provided with laterally extending bristles below said valve and adapted to engage the wall of a pipe, said brush being rigid with said valve whereby a relative movement between said brush and said reservoir may open said valve, and means connected with said reservoir for raising and lowering the same in a leader pipe.

3. In a device of the class described, in combination, a reservoir having a valve seat in the lower part thereof, a valve provided with a stem extending downwardly below said valve and freely movable at its lower end, whereby the axis of said stem may occupy an inclined position with respect to the axis of said reservoir, and a circular brush having horizontally extending bristles attached to said stem and of greater diameter than said reservoir.

4. In a device of the class described, a reservoir having a valve seat in the lower end thereof, a ball valve mounted on said seat, a brush attached to said ball valve and adapted to rotate with said valve, and means for limiting the upward movement of said valve, said brush having laterally extending bristles, the rubbing friction whereof may raise said valve from its seat.

5. In a device of the class described, in combination, a reservoir having a valve seat in the lower end thereof, a ball valve on said seat, a stem extending downwardly from said ball valve, and a brush carried by said stem and having laterally extending bristles surrounding the same, said valve having a limited upward movement to feed paint from said reservoir to said brush.

In testimony whereof I have signed my name to this specification in the presence of the subscribing witnesses.

MORRIS BLACKMAN.

Witnesses:

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