

(No Model.)

J. IRLBACKER.

DROP VALVE FOR STEEP TUBS AND VATS.

No. 311,247.

Patented Jan. 27, 1885.

FIG. 1.

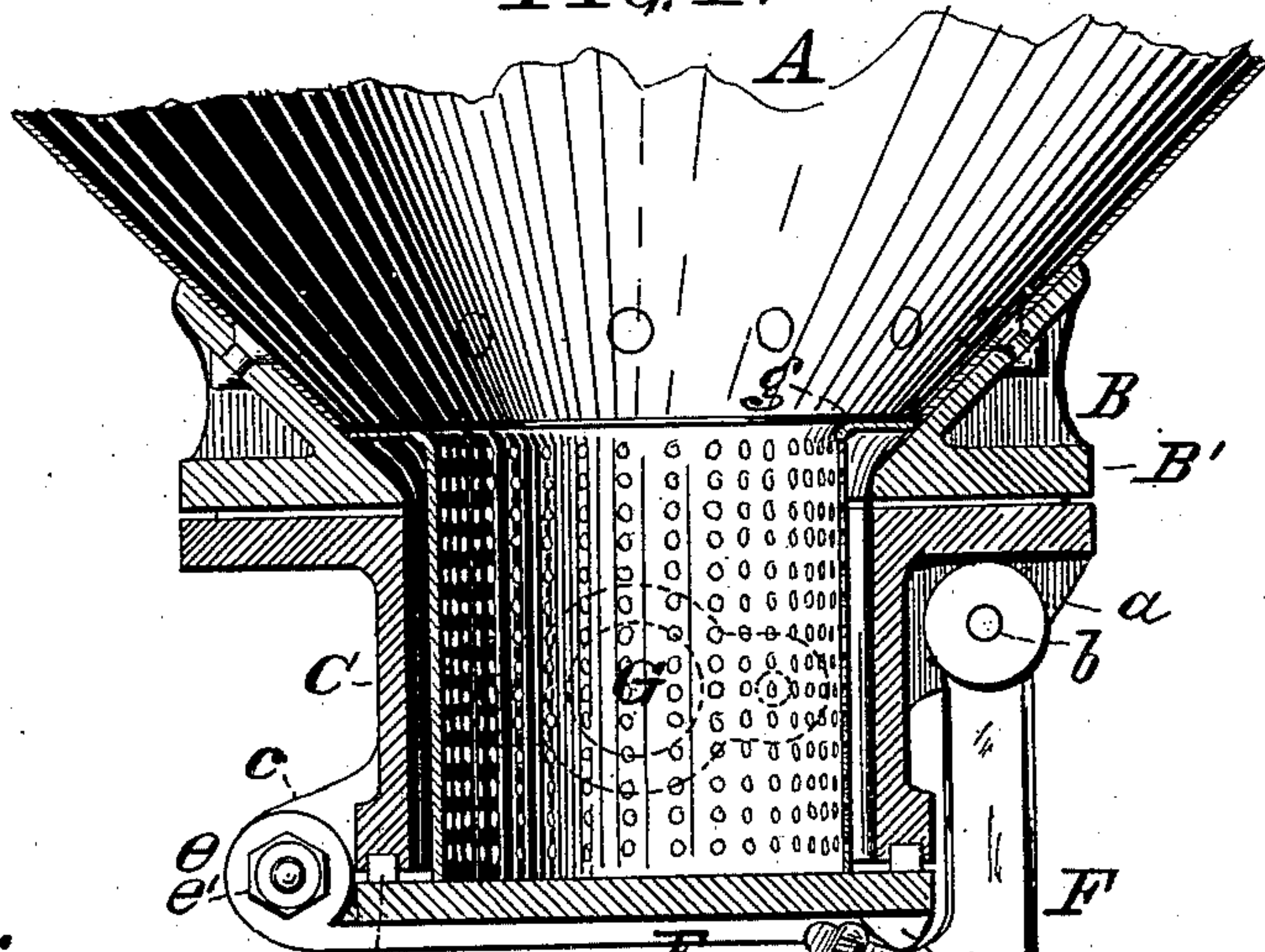


FIG. 2.

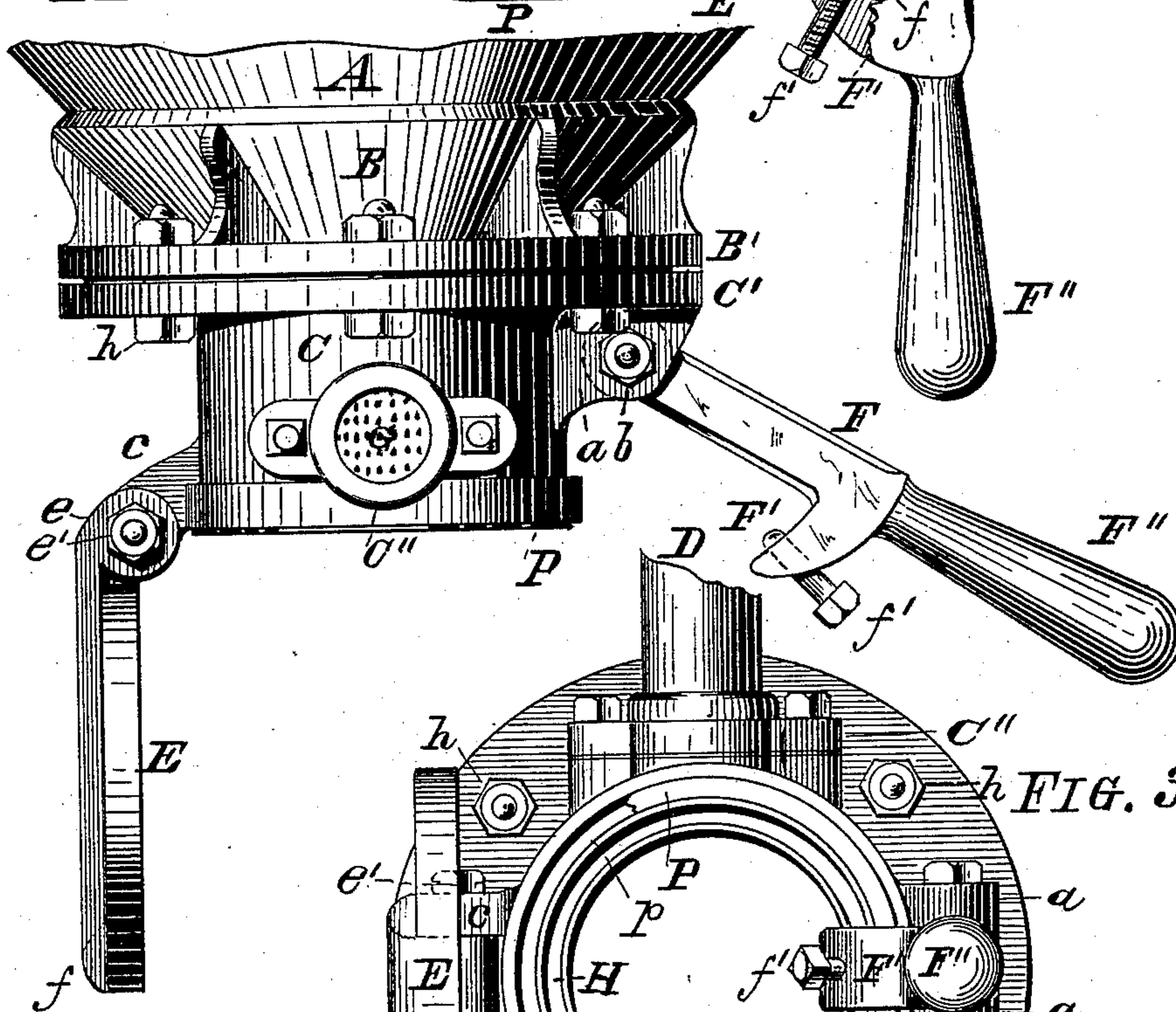
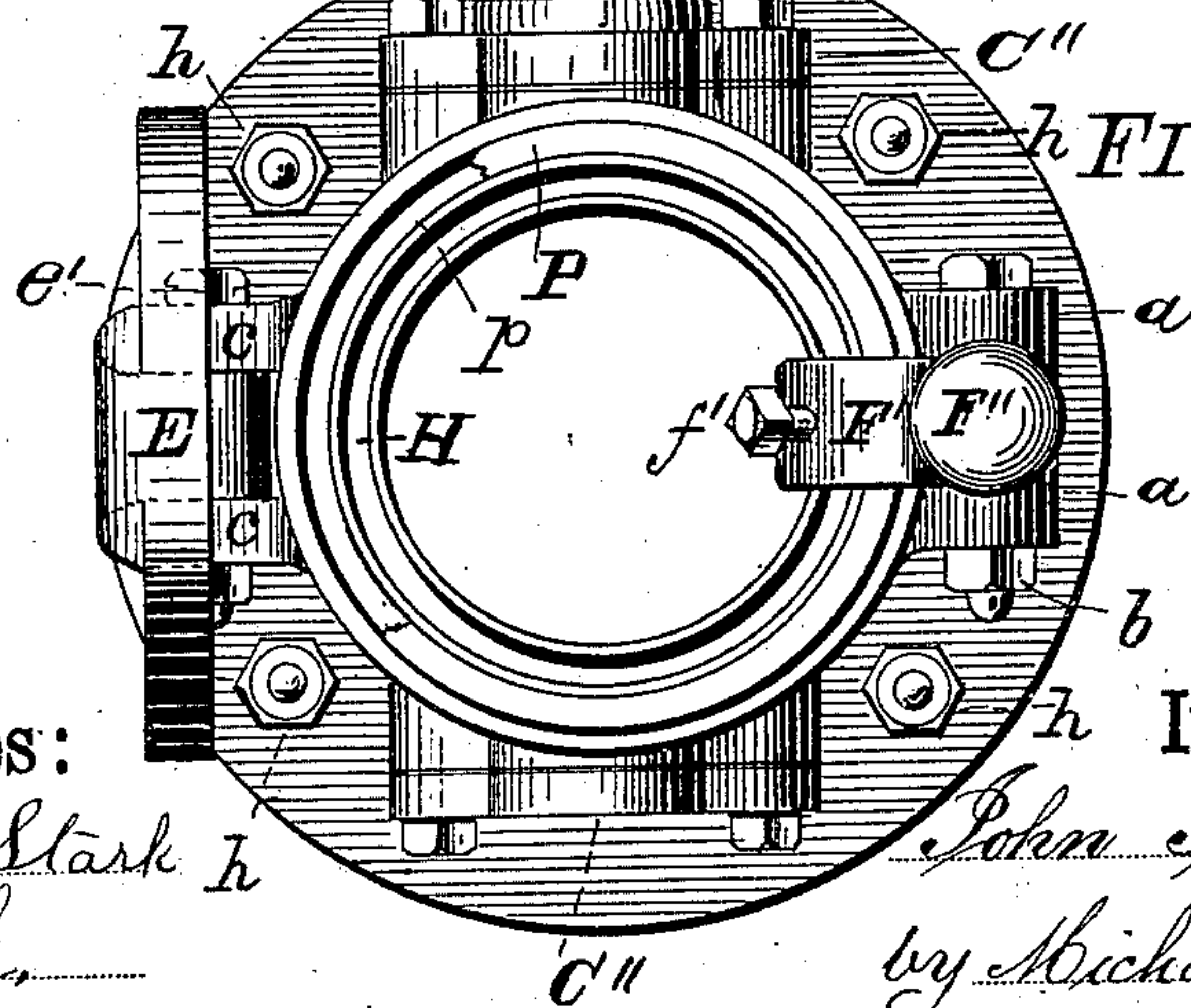


FIG. 3.



Witnesses:

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Inventor:

John Irlbacher,
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UNITED STATES PATENT OFFICE.

JOHN IRLBACKER, OF BUFFALO, NEW YORK.

DROP-VALVE FOR STEEP TUBS AND VATS.

SPECIFICATION forming part of Letters Patent No. 311,247, dated January 27, 1885.

Application filed October 31, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN IRLBACKER, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Drop-Valves for Steep
5 Tubs and Vats; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear,
10 and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

My present invention has general reference to drop-valves for steep-tubs; and it consists,
15 essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claims.

In the drawings already mentioned, which
20 serve to illustrate my said invention more fully, Figure 1 is a longitudinal sectional elevation of my drop-valve, showing the latter in a closed position. Fig. 2 is an elevation,
25 and Fig. 3 a plan, of the valve in an open position.

Like parts are designated by corresponding letters of reference in all the figures.

The object of my present invention is the production of a drop-valve for steep-tubs that
30 can be readily opened and closed, and allows the drawing off of the steep-water in the quickest possible time without interfering with the said valve. To attain this result I secure
35 to the bottom of the steep tub or vat A, which bottom may be either flat or conical, as shown in the drawings, a flanging-piece, B, having a flange, B', to which I secure, by means of bolts
40 h, a T-shaped casting, C, with its flange C'. This T-shaped piece forms the body proper
45 of my drop-valve, and it has near its lower edge two lugs, c, to which is pivoted the flap E by means of lugs or ears e and a screw-bolt, e'. On the opposite side of the lugs c,
50 near the flange C', I provide two more lugs, a, to which, or between which, I pivot a locking-lever, F, by means of a screw-bolt, b. This lever F has at a suitable position a projection, F', engaging a rib, f, on the flap E, in such manner as to securely hold the same against
50 a packing-ring, P, set into the edge of the

valve-body C, so as to make a tight joint with the said body.

On the body C there are two branches, (or one only, if desired,) C'', from which the waste-pipe D leads the steep-water from the steep-
55 tub.

In the interior of the valve-body C, I locate a perforated strainer, G, resting with its flange g upon the flanging-piece B, as clearly shown
60 in Fig. 1. This strainer is so much smaller in diameter than the internal diameter of the valve-body C as to produce an annular chamber, H, Fig. 3, which allows the steep-water to gather in the valve-chamber and to discharge readily from the waste-pipe D.
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On the lever F there is a set-screw, f', which engages the rib f, Figs. 1 and 2, in such a manner that when said screw is tightened it locks the lever F in position, so as to prevent
70 the latter being opened, accidentally or otherwise, when it is not desired that it should be so opened.

It will be readily observed that, owing to the depth of the annular chamber H, I am enabled to produce in the strainer G such a
75 large number of perforations as to aggregate in area that of the discharge pipe or pipes D, so that the waste water, when drawn from the steep-tub, will pass through the strainer as fast as it can pass through the waste-pipe—a result
80 that has not heretofore been successfully attained in any apparatus of the class described with which I am acquainted. It will be further observed that this result is a very essential one in steep-tubs where the steep-water has
85 to be renewed frequently, and where saving of time is quite an essential factor in the cost of production of malt.

The entire apparatus can be readily produced at but a trifling expense as compared
90 with other apparatus for a like purpose as now in use.

Having thus fully described my invention, I claim as new and desire to secure to me by Letters Patent of the United States—
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1. As an improved article of manufacture, a drop-valve for steep-tubs, consisting, essentially, of the valve-casing C', having one or more branches, C'', a hinged cover locked to said casing by means of the lever F, having
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projection F', engaging the rib *f* on said drop-bottom, and a locking-screw, *f'*, to lock said lever in position, and the cylindrical strainer G, the whole being constructed and combined
5 substantially in the manner as and for the object stated.

2. In steep-tub valves, the combination, with the casing C, having the drop-bottom E, provided with the rib *f*, of the pivoted lever
3 F, having the projection F', engaging said rib *f*, as and for the object stated.

3. In steep-tubs, the combination, with the casing C, having the drop-bottom E, provid-

ed with a rib, *f*, of the pivoted locking-lever F, having the projection F', engaging said rib 15 *f*, and the locking-bolt *f'*, to lock the said lever when the drop-bottom is shut, substantially as and for the object stated.

In testimony that I claim the foregoing as my invention I have hereto set my hand in the 20 presence of two subscribing witnesses.

JOHN IRLBACKER.

Attest:

MICHAEL J. STARK,
MINNIE HEIM.