

(No Model.)

F. G. JOHNSON.

SEWER GAS CUT-OFF FOR BASINS.

No. 321,974.

Patented July 14, 1885.

Fig. 1.

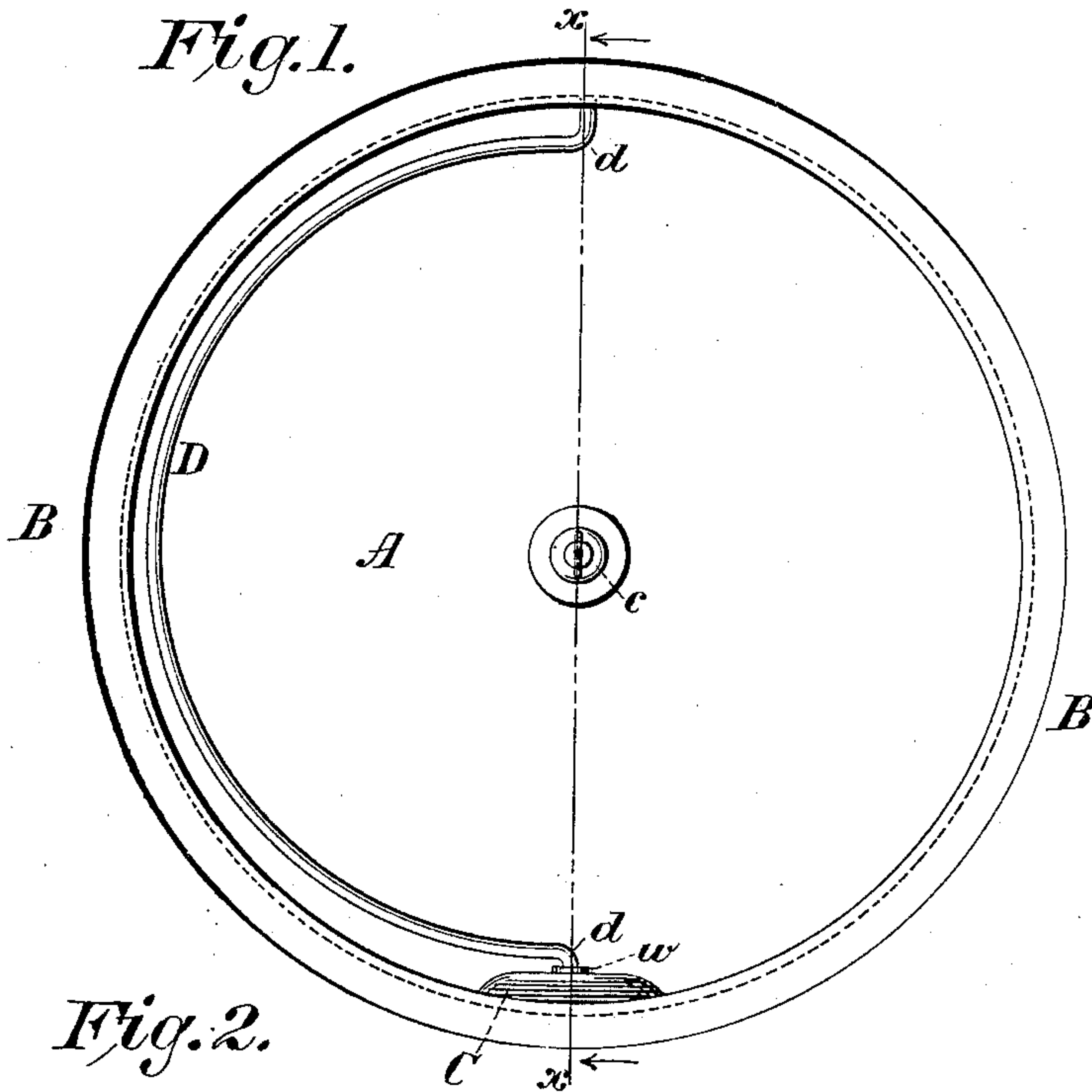


Fig. 2.

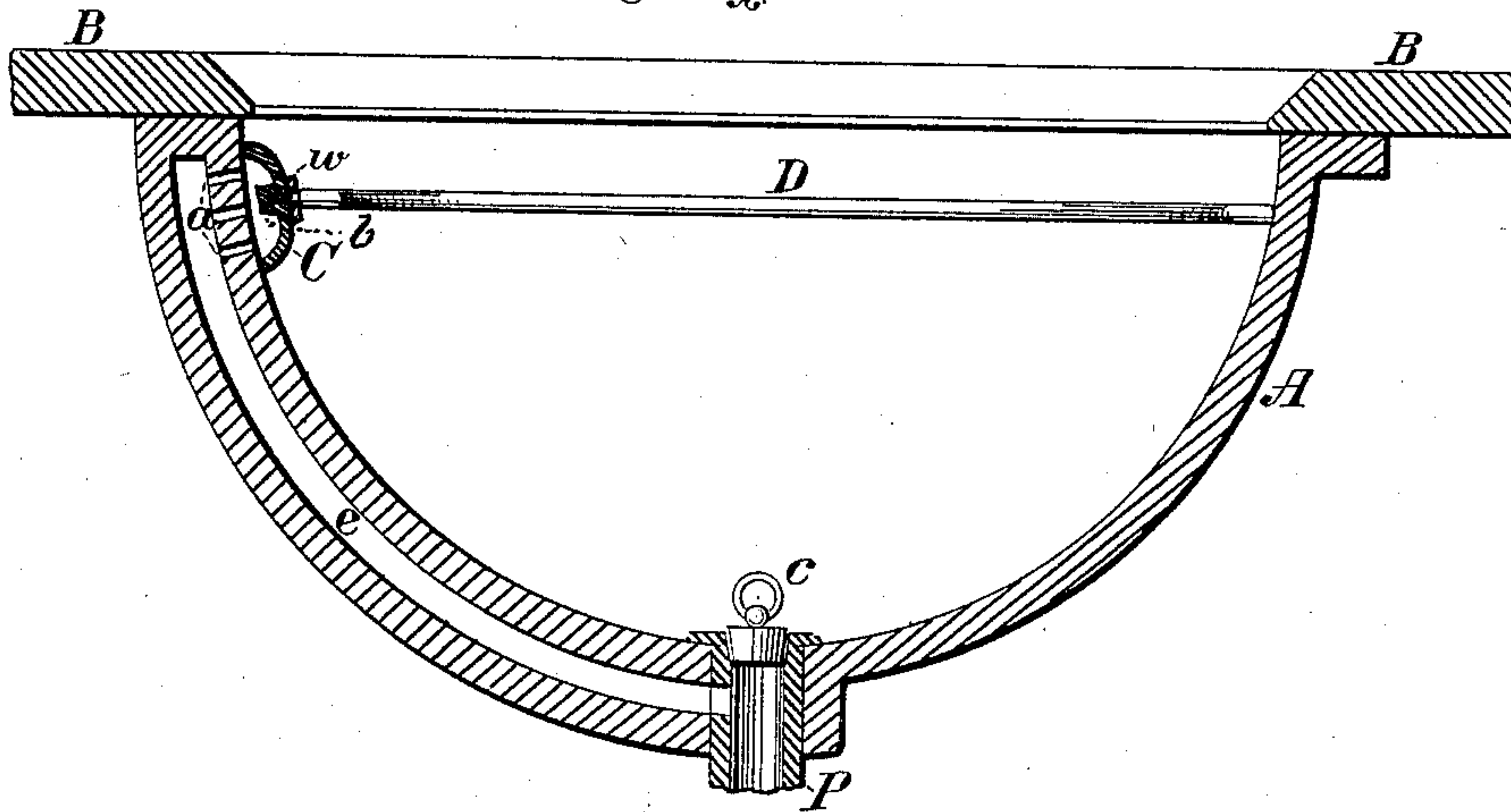
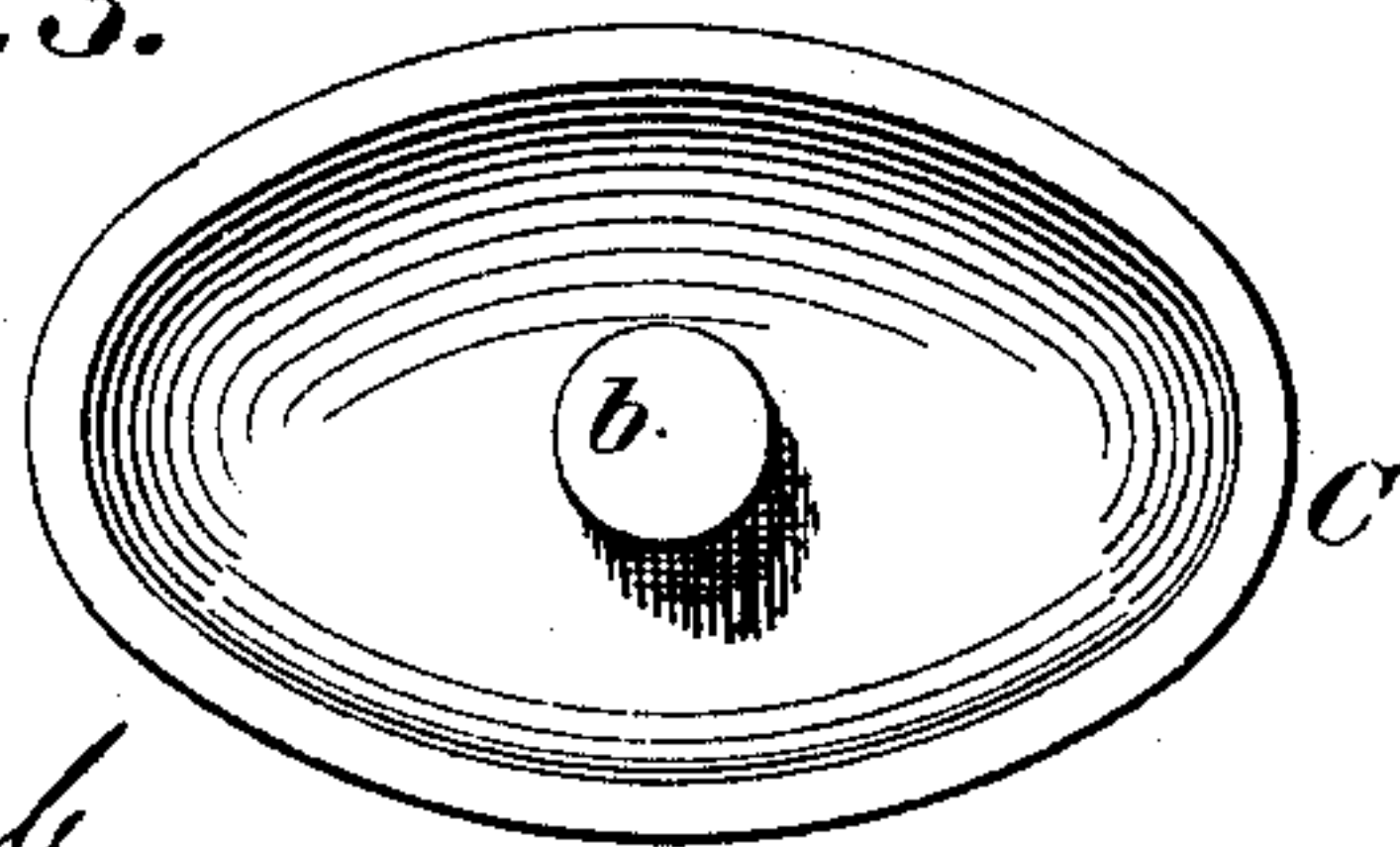


Fig. 3.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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SEWER-GAS CUT-OFF FOR BASINS.

SPECIFICATION forming part of Letters Patent No. 321,974, dated July 14, 1885.

Application filed August 8, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANK G. JOHNSON, a citizen of the United States, residing in the city, county, and State of New York, have invented a new and useful Sewer-Gas Cut-Off for Stationary Wash-Basins, of which the following is a specification.

The use of public water necessitates openings in the upper part of the wall of such basins to allow the escape of the water in the event it is left running from the supply-faucet when the plug in the bottom of the basin is inserted. These escape-openings admit the flow of sewer-gas from the sewer system into the apartments of dwellings where basins are employed.

The object of my invention is to provide a sewer-gas cut-off for these escape-openings, which can be readily applied and removed.

A further object of my invention is to accomplish this result in such a manner as not to be obliged to remove the cut-off in order to be able to use the basin.

The following is a full, clear, and exact description of my invention, reference being had to the accompanying drawings, in which—

Figure 1 is a horizontal view; Fig. 2, a transverse vertical view, seen through the line *x x* of Fig. 1, and Fig. 3 an interior view of the rubber cap of the cut-off.

Similar letters refer to similar parts in all the illustrations.

The construction and operation of my invention are described as follows:

A is the basin proper. B B is the slab surmounting the basin. C is an oval rubber cap, concave on one side and convex on the other, for covering the waste-openings *a*. D is a peculiarly-bent spring-rod, which I term the "shank" of the cut-off, having the cap attached to one end. *d d* are short right-angle bends in the shank D. *b* is a projection on the inside of the cap to act against the wall of the basin to limit the action of the shank and so prevent the cap from being too much bent or sprung. *w* is a washer between the cap and a shoulder on the shank. *e* is the gutter of the basin, extending from the waste-openings *a* to the drain-pipe P. *c* is the plug in the bottom of the basin.

The shank D is bent in the form of a semi-circle, having a radius about the same as the radius of the basin. The object of this pecu-

liar shape of the shank D is threefold, namely: First, to provide a spring-action between its two extremes, resulting in extension and contraction of its two extremities, for the purpose of adapting it to basins of different diameter and to provide pressure against the cap C to hold it (the cap) in place and insure a gas-tight fit between it and the wall of the basin; second, to simplify the device and reduce its construction to the greatest possible simplicity and least expense; and, third, not to obstruct or interfere with the usual employment of the basin by the application of the cut-off, which obviates altogether the necessity of removing the device in order to use the basin, which greatly increases its value and convenience of use. The two ends *d d* of the shank D are bent at right angles with its semicircular portion, in such a manner that they stand in a right line with each other and the horizontal diameter of the basin, for the purpose of forming a stem at one end for attaching the rubber cap C and a stem at the other end to rest against the wall of the basin to obtain the counter action for pressing the cap C against the opposite side of the basin.

The cap C is oval, and concave on one side and convex on the other, and thick enough to sustain a pressure sufficient to insure a gas-tight fit on the wall of the basin when it is pressed by the action of the spring-shank D, and yet not so stiff as not to yield to the form of the basin or resist indentation of its form; and to prevent it from being too far deflected by the action of the spring-shank and crowded against the escape-opening *a* and the wall of the basin, I provide upon its inner or concave center a solid projection, *b*, about half the depth of the concavity of the cap itself, the object of this projection *b* being to take the pressure of the spring-shank D after the cap has yielded to and formed a gas-tight fit on the wall of the basin.

My invention is attached to and detached from the basin as follows: Grasp the spring-shank D at the end opposite to the cap C and place the cap over the waste-opening *a*, then crowd the grasped end of the shank toward the cap against the wall of the basin until the end in the hand will pass by the projection of the slab B B into the basin. On removing the hand the end of the shank opposite to the cap

will be pressed against the wall of the basin by the spring-action of the semicircular portion of the shank D, which will keep the cut-off in place until it is removed by the same
5 operation.

I am aware that the closing of the waste-openings in basins by means of a cap held in place by the action of springs is not altogether new, as I am aware of the patent, No. 216,006,
10 granted to Christopher Y. Wemple, and of an application of my own now pending, the serial number of which is 126,030. Therefore, I do not claim, broadly, the use of a cap held in place by a spring for shutting off sewer-gas

in basins irrespective of any peculiar construction of such device; but

What I do claim as new and useful, and desire to secure by Letters Patent, is—

A sewer-gas cut-off for wash-basins consisting of the combination of the cap C and the
20 shank D, having two right-angle and one semicircular bends, substantially in the manner and for the purposes set forth.

FRANK G. JOHNSON.

Witnesses:

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WM. D. JUDSON.