

(No Model.)

J. MACDONALD.

SINK TRAP.

No. 279,655.

Patented June 19, 1883.

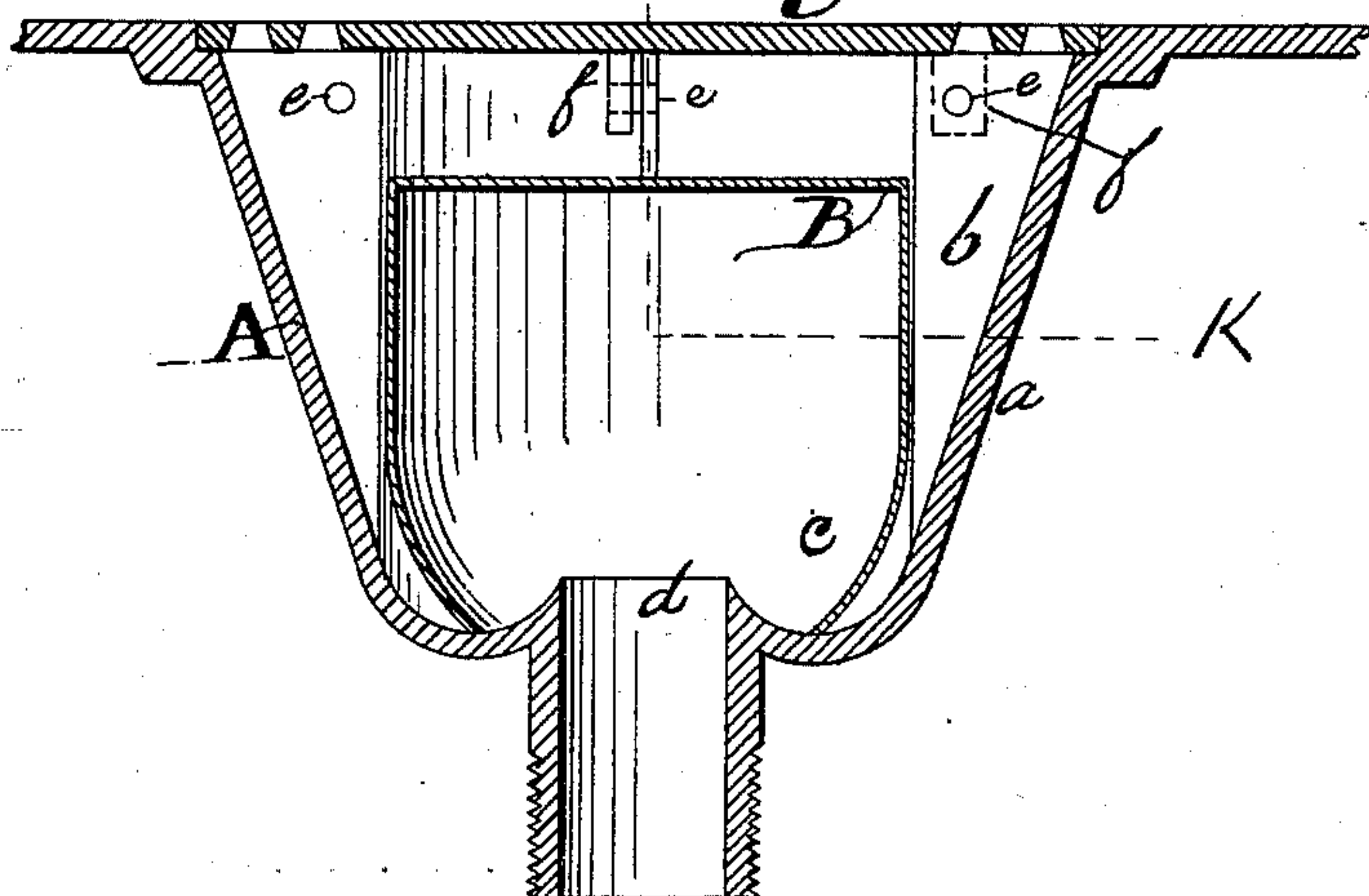


Fig. 1.

Fig. 3.

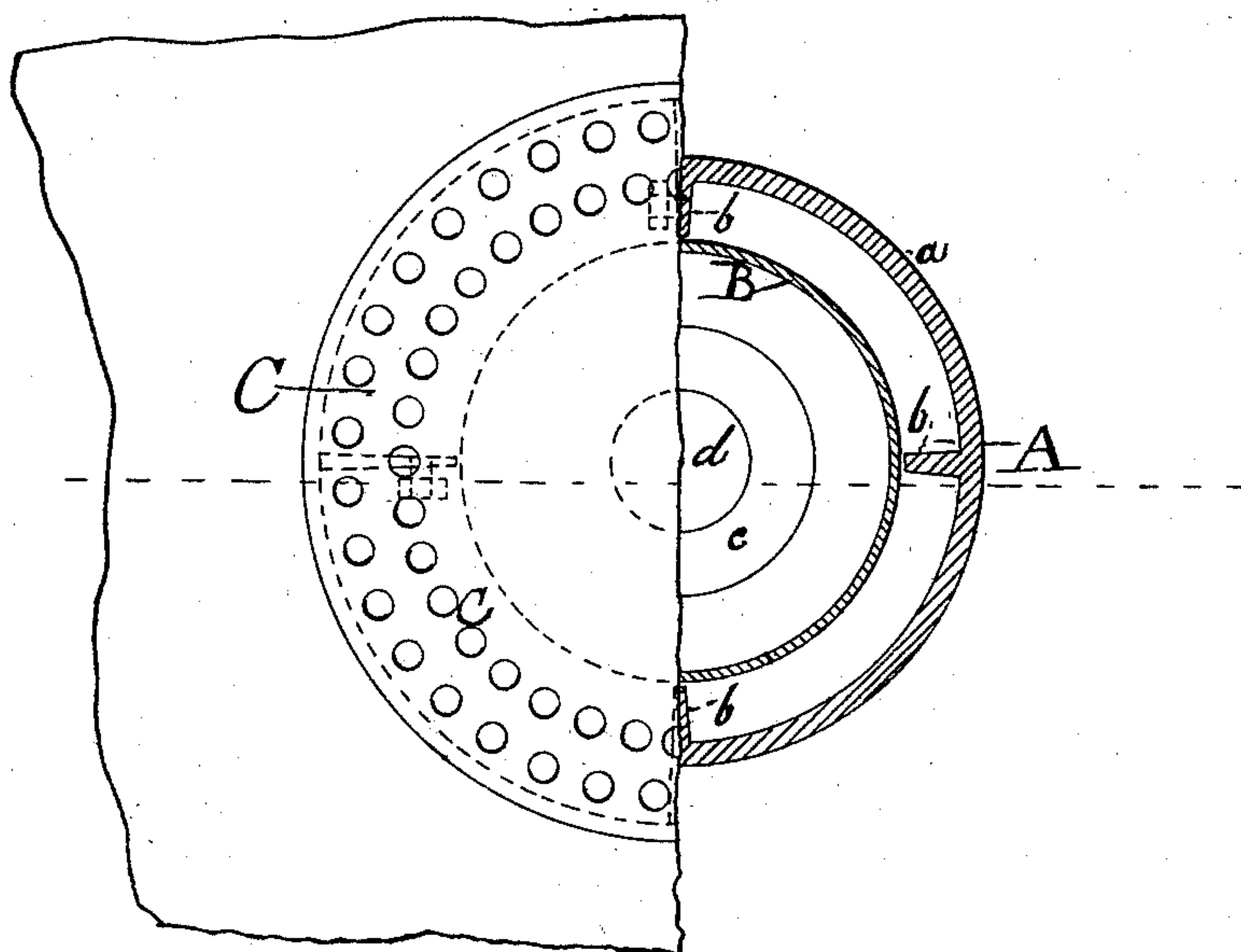
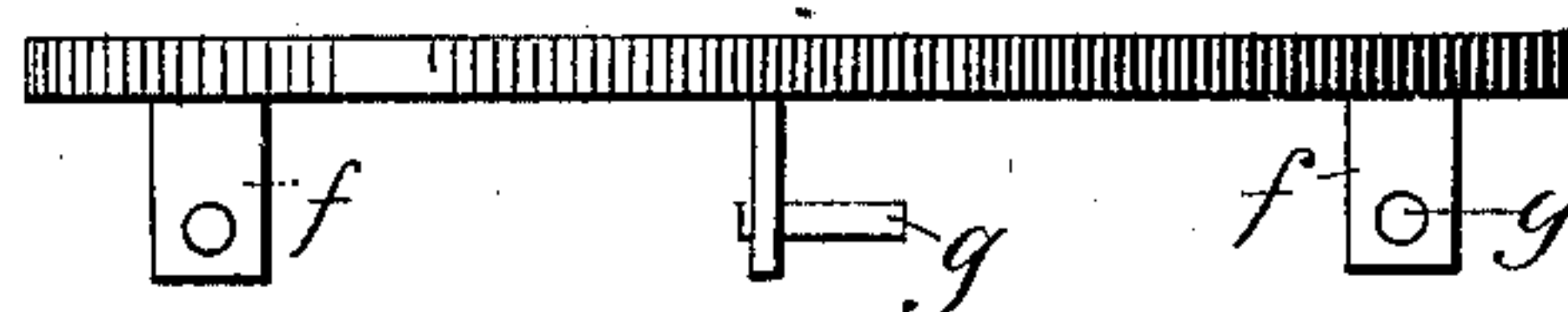


Fig. 2.

WITNESSES

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SINK-TRAP.

SPECIFICATION forming part of Letters Patent No. 279,655, dated June 19, 1883.

Application filed September 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN MACDONALD, of Norwood, county of Norfolk, and Commonwealth of Massachusetts, have invented a new and useful Improvement in Sink-Traps; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

10 This invention relates to certain improvements in stench-traps in sinks; and it consists in so constructing and arranging the parts of the trap that it will automatically free and cleanse itself from all solid or semi-solid matter which may be carried in by the flow of water or otherwise. The outlet is also opened automatically by the action of the water passing through, which raises the cup, and it is closed by the cup settling down into annular basin when the water has all passed through without for an instant breaking the water-seal.

It also consists in attaching the strainer to the trap-case by means of the pins fastened in lugs on lower side of strainer and adapted to enter holes in ribs of trap-case, whereby the strainer is attached to trap-case, and is held securely against a lifting strain, but may be readily removed by partially rotating the strainer to withdraw the pins from the ribs.

30 In the drawings, Figure 1 is a vertical section. Fig. 2 is a plan or top view of one half and a horizontal section on line K of one half. Fig. 3 is a section of the strainer.

A is the trap-case, and consists of bowl *a*, with outlet-tube *d*, threaded to receive a coupling, and is constructed deep enough to hold the cup or drum B and permit it to float clear of the outlet *d* when sufficient water is in the trap-case, and is further provided with vertical or spiral ribs *b b b*, which serve to guide the cup or drum B and fasten the strainer C to, either by screws or by pins *g g* in lugs *f f* on strainer C, which are arranged to enter holes *e e e* in ribs, as shown in Fig. 1. It has also a curve-bottomed annular basin, *c*, which forms, with the cup or drum B, a water-seal, the intention being that the lower edge of cup or drum B will be on the bottom of basin *c* when at rest, and will float up between the ribs *b b b* when the water is running through. The continuous rising and falling of the cup or drum B, rubbing it against the ribs *b b b* and annular basin *c*, frees it and them of grease and filth, but always forms a perfect trap,

whether floating or at rest. By using a curved bottom in annular basin *c*, the water running down the sides of the trap-case A will wash out any sediment or dirt which may get into said basin. An evident modification of this would be to attach the ribs *b b b* to the strainer C, instead of to bowl *a* of trap-case A.

B is a cup or drum of any substance capable of floating, and shaped so that its lower edge may dip into the curved bottom of the annular basin *c*, as shown in Fig. 1, and is of sufficient diameter to fit loosely between the ribs *b b b*.

C is the strainer, and is perforated outside of that portion of it which is directly above the cup or drum B, and has lugs *f f* on its lower side, into each of which a pin, *g g*, is secured and fitted to holes *e e* in ribs *b b*, so that by laying the strainer in place and partially rotating it the pins *g g* will enter the holes *e e* in ribs *b b*, and it is secured against a lifting strain.

The operation of my invention is thus described: Water enters the case A through the perforations in the strainer C, passes down the sides of case between the ribs *b b b*, filling the annular basin *c* to the top of the tube *d*. In doing this the water has passed under the lower edge of the cup or drum B, which lower edge is now submerged in the annular basin *c*, thereby cutting off all connection between the foul gases in the outlet-pipe *d* and the outer air. When the quantity of water coming into the basin is large, the drum or cup B will float in it above the outlet, thus allowing the water to pass freely underneath, but still forming a perfect water-seal, preventing the outflow of noxious gases.

I am aware that floats have been used as valves to prevent the backflow of water, and therefore do not claim such.

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

1. The case A, provided with ribs *b b*, in combination with the cup B and the strainer C, substantially as set forth.

2. The strainer C, having lugs *f f* on its lower side, provided with pins *g g*, in combination with trap-case A, provided with ribs *b b*, having holes *e e*, substantially as set forth and shown.

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Witnesses:

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