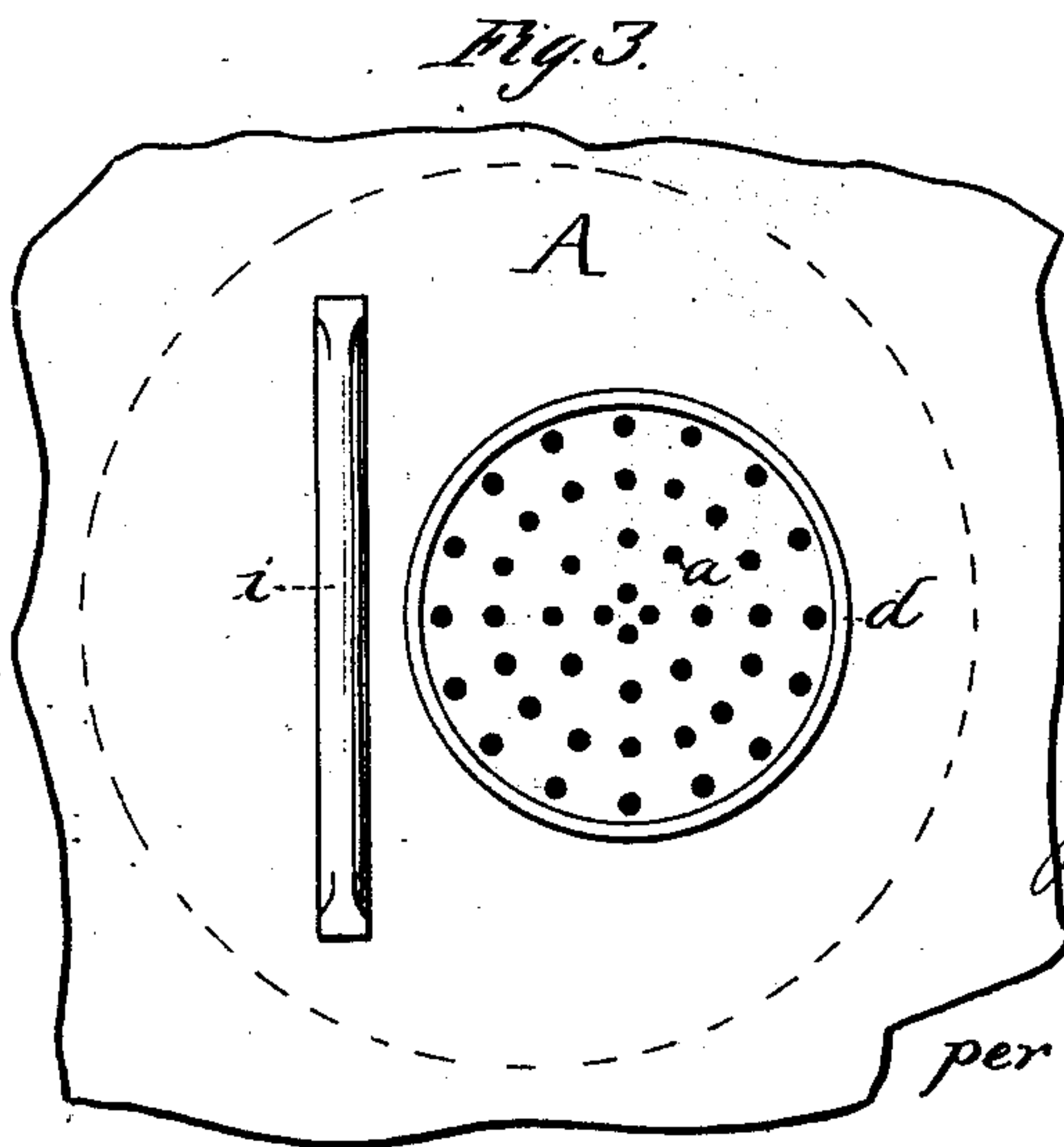
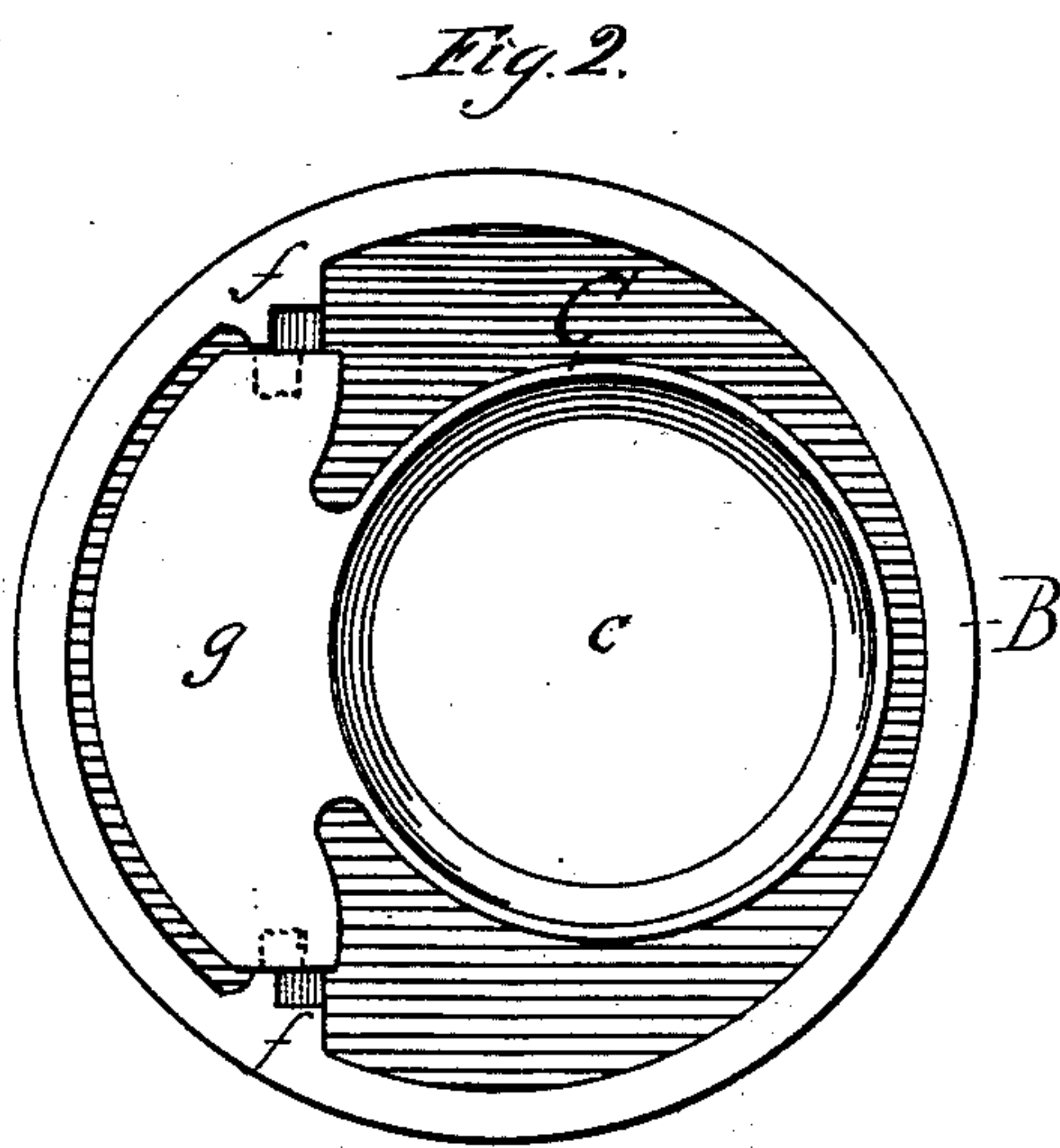
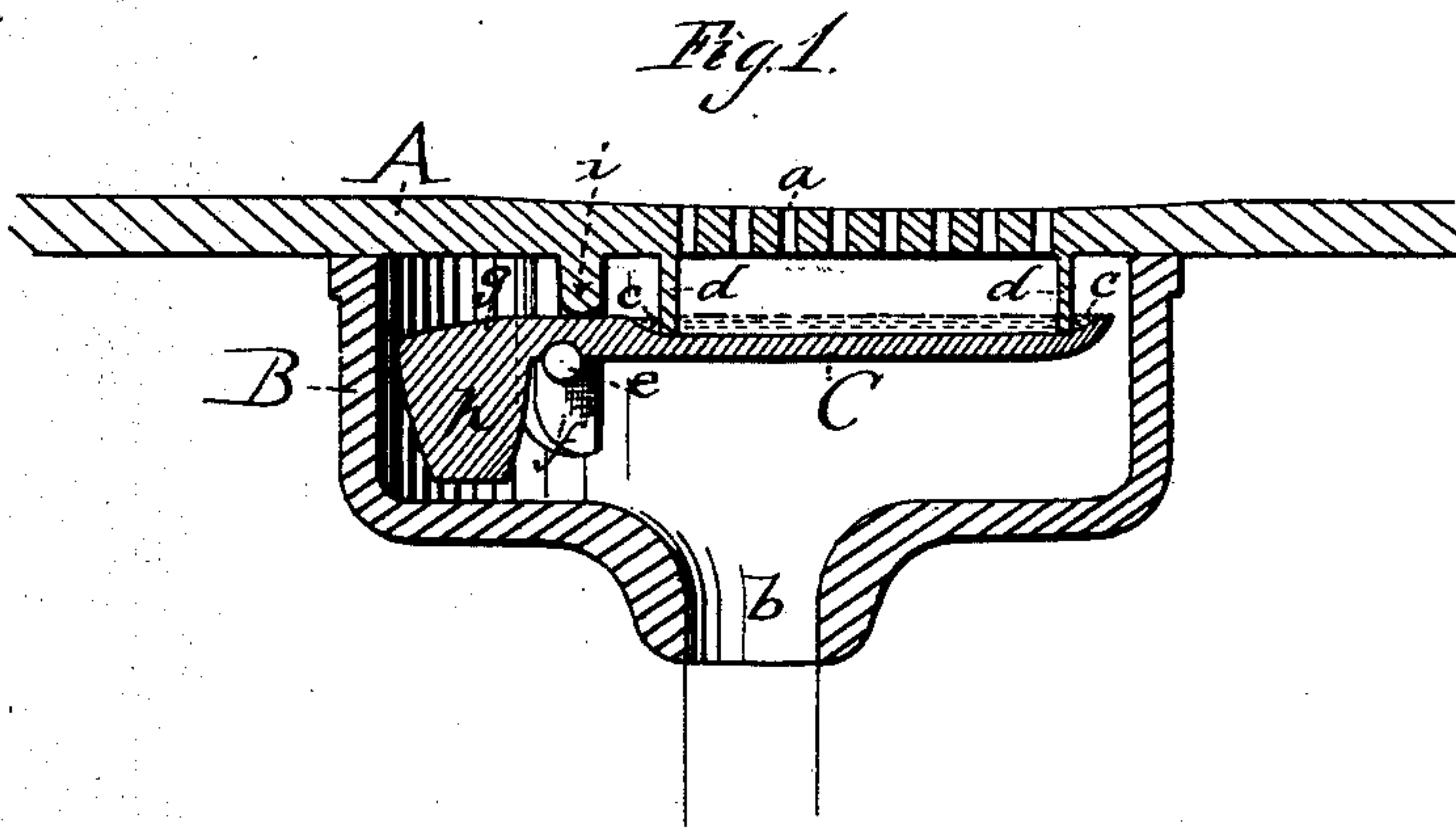


(No Model.)

J. H. LANGSCHMIDT.
Sink Trap

No. 233,104

Patented Oct. 12, 1880.



Witnesses:

J. B. Townsend,
F. W. Maschagen.

Inventor:

Johan H. Langschmidt,

per Lotz & Dyer,

Attorneys.

UNITED STATES PATENT OFFICE.

JOHAN H. LANGSCHMIDT, OF CHICAGO, ILLINOIS.

SINK-TRAP.

SPECIFICATION forming part of Letters Patent No. 233,104, dated October 12, 1880.

Application filed August 11, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHAN H. LANGSCHMIDT, of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Sink-Traps, of which the following is a specification.

The object I have in view is a simple and cheap trap for sinks which will prevent the upward escape of sewer-gas, will be automatic in its operation, and not likely to get out of order.

My invention consists in the peculiar devices employed by me for that purpose, as fully hereinafter explained, and pointed out by the claims.

In the accompanying drawings, forming a part hereof, Figure 1 is a vertical section through the bottom of the sink and the trap; Fig. 2, a top view of the trap removed from the sink, and Fig. 3 a plan view of the under side of the sink-bottom.

Like letters denote corresponding parts in all three figures.

A is the sink-bottom, having the usual perforations *a*. B is the trap-case, of cylindrical form, open at its top and closed at the bottom, except that it has a central bottom opening, *b*, for connecting with the pipe leading to the drain or sewer. This trap-case is held in position against the sink-bottom by the bolts that draw the collar upwardly for securing the upper end of the pipe. Within the trap-case is a pivoted circular valve, C, having a depressed or concaved upper surface, *c*, which is pressed upwardly against a solid ring, *d*, projecting downwardly from the sink-bottom and surrounding the perforations *a*. The valve C is hung upon studs *e* projecting from lugs *f* in the trap-case, the valve having notches or seats in its rearwardly-projecting wing *g*, which set upon such studs *e*, so that the valve can be readily lifted from position when the trap-case is detached from the sink-bottom. The wing *g* extends in rear of the studs *e*, and is enlarged to form a weight, *h*, which overbalances the valve and throws it up against the ring *d*. The sink-bottom has a cross-rib, *i*, which fits in notches in the lugs *f* and holds the pivoted cup-valve in position.

This rib also prevents any of the waste-water from flowing back over the rear wing, *g*, of the valve. When the ring *d* is filled with water the weight of such water is sufficient to depress the circular cup-valve and allow the water to flow downwardly over the edges of the valve; but when all the water has been drained from the sink the weight *h* will throw the cup-valve up against the ring *d*, while such valve will retain sufficient water to make an air-seal.

The sewer-gas cannot escape through this trap into the room, since any upward pressure of the gas will only close the valve tighter, while the valve will allow air to pass inwardly to relieve any partial vacuum in the sewer without destroying the effectiveness of the air-seal.

As a modification, it will be readily understood that the perforations *a*, ring *d*, and rib *i* can be carried by a plate secured in the sink-bottom instead of by the sink-bottom itself.

What I claim as my invention is—

1. The combination, with the sink-bottom A, having perforations *a* and downwardly-projecting ring *d*, surrounding such perforations, of the pivoted weighted cup-valve C, pressing upwardly against said ring, and the trap-case B, inclosing the parts and held directly against the sink-bottom, constructed and arranged substantially as described and shown.

2. In a sink-trap, the combination, with the sink-bottom A and trap-case B, having studs *e*, of the pivoted weighted valve C, resting removably upon such studs, and the cross-rib *i* on the sink-bottom, for holding the valve in position, substantially as described and shown.

3. The sink-trap described, consisting of the sink-bottom A, having perforations *a*, ring *d*, and rib *i*, the trap-case B, having lugs *f* and studs *e*, and the pivoted circular valve C, having depressed upper surface, *c*, rear wing, *g*, and weight *h*, and resting removably upon the studs *e*, all constructed, arranged, and combined substantially as set forth and shown.

JOHAN H. LANGSCHMIDT.

Witnesses:

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