

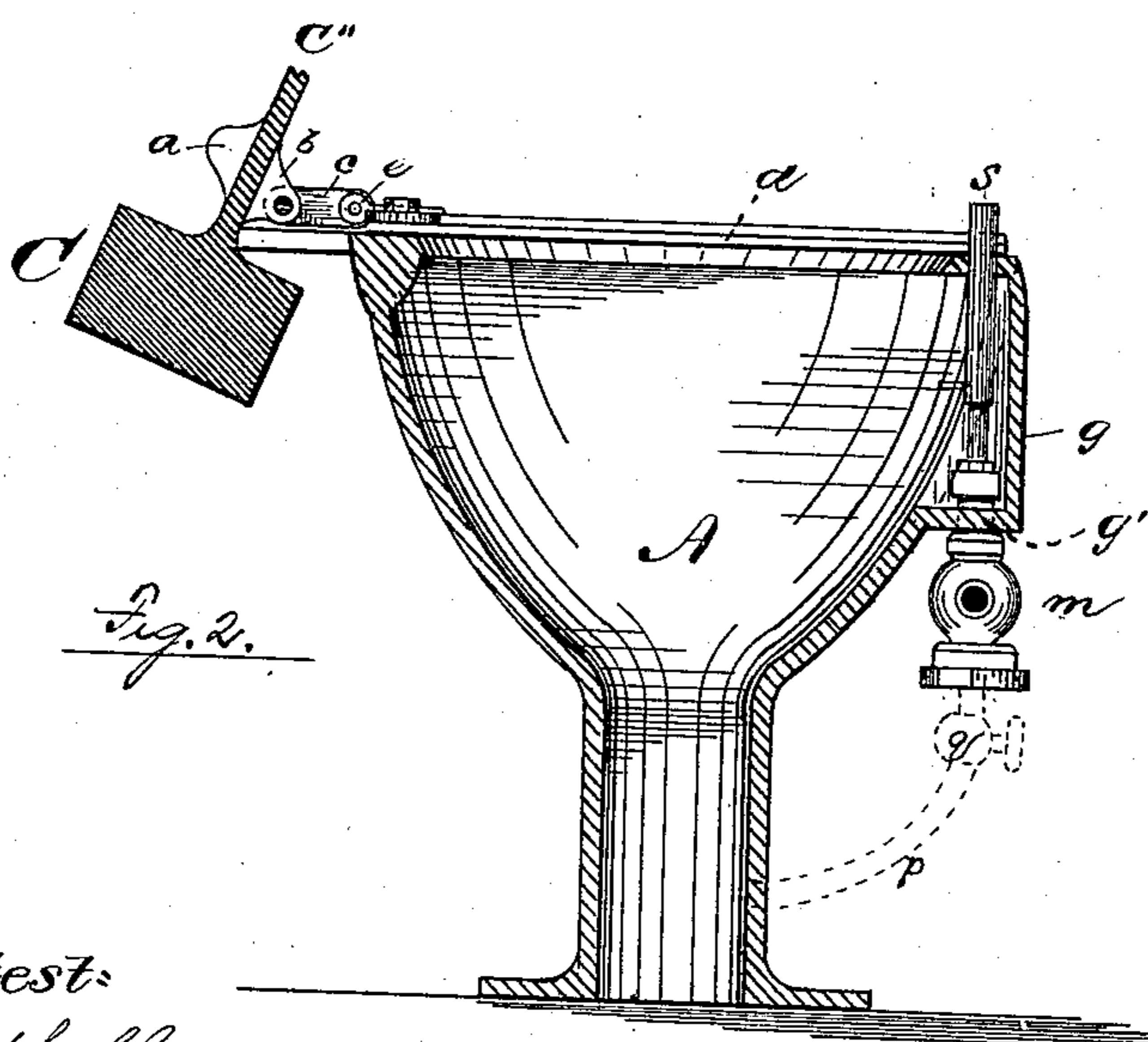
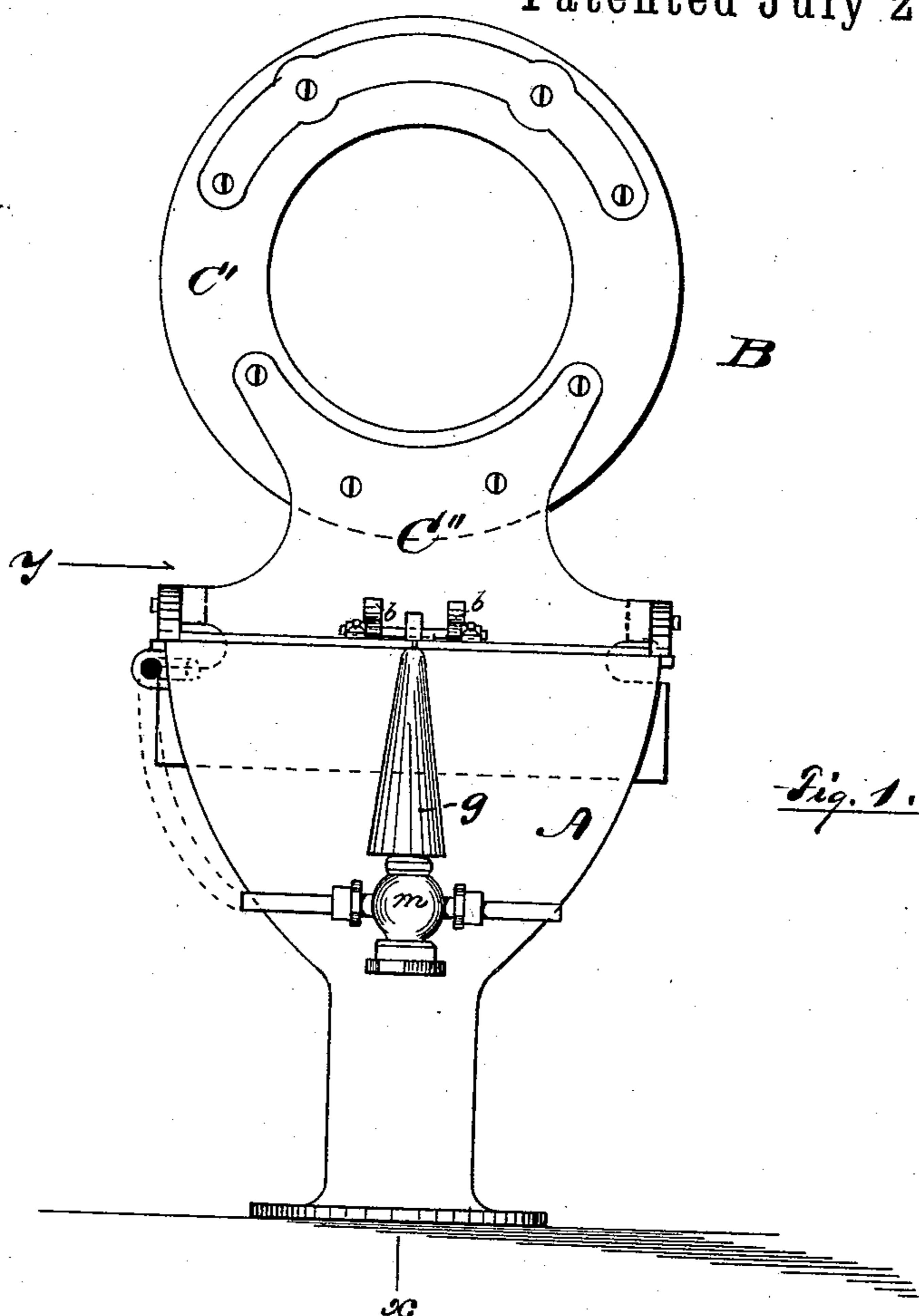
(No Model.)

F. J. MERZ.
WATER CLOSET.

2 Sheets—Sheet 1.

No. 322,626.

Patented July 21, 1885.



Attest: _____
J. H. Campbell.
Edward G. Kempf.

Inventor
Franz J. Merz,
by Drake & Co. Attys.

(No Model.)

2 Sheets—Sheet 2.

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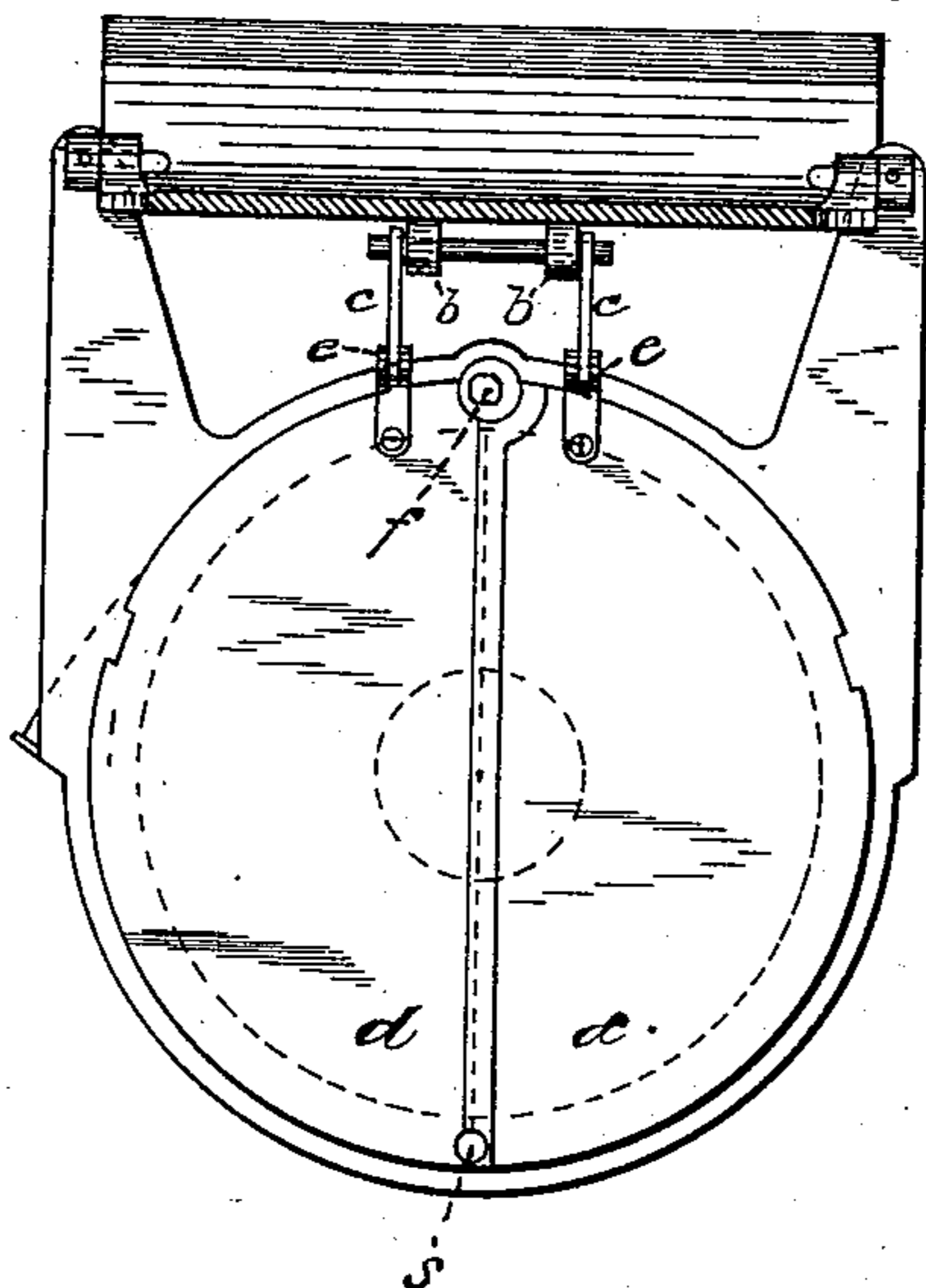


Fig. 3.

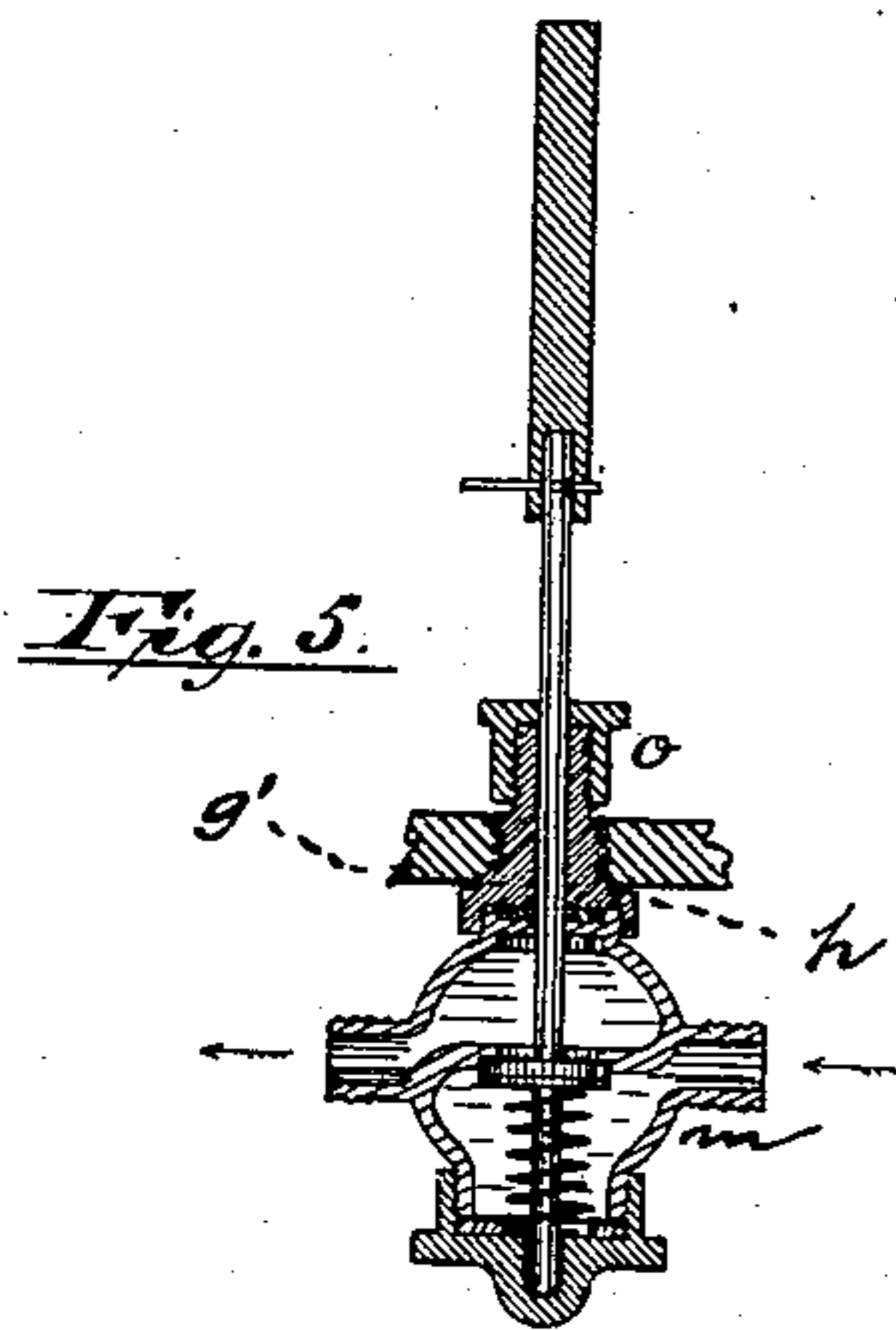


Fig. 5.

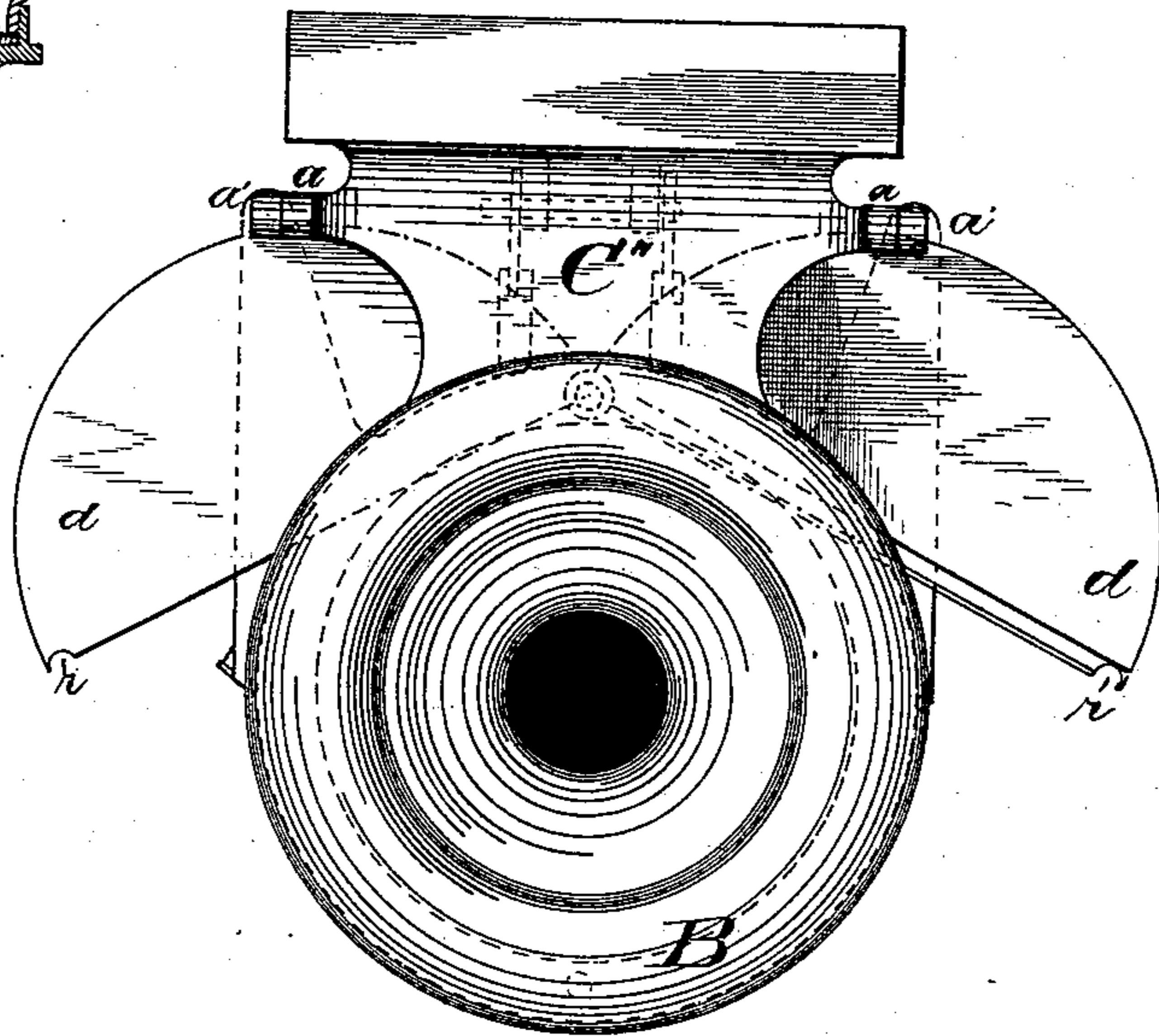


Fig. 4.

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UNITED STATES PATENT OFFICE.

FRANZ J. MERZ, OF NEWARK, NEW JERSEY.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 322,626, dated July 21, 1885.

Application filed April 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANZ J. MERZ, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Water-Closets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to more effectually prevent the escape of foul air and dampness from the water-closet.

It consists in the arrangements and combinations of parts substantially as will be hereinafter set forth and finally embodied in the clauses of the claims.

Referring to the accompanying drawings, in which similar letters of reference indicate like parts in each of the several figures, Figure 1, Sheet 1, is a front elevation of a water-closet, showing the seat lifted and certain valves closed to prevent the exit of gas from the bowl. Fig. 2 is a section taken vertically through line *x*, Fig. 1. Fig. 3 is a horizontal section taken through line *y*, Fig. 1. Fig. 4 is a plan showing the seat depressed and the before-mentioned valves open; and Fig. 5 is a sectional detail of the water-supply-pipe valve.

In said drawings, A is a water-closet bowl having a weighted seat, B, pivoted thereon, the weight C thereof being adapted to automatically uplift the seat and hold it in an upright position, as shown. Of said seat C' is an annular portion formed to provide a comfortable support for the body. C'' is a metallic web secured upon said annular portion and giving strength to the same, and connecting it to the weight C, which latter is preferably formed integral with the web. Said web is pivoted, as at *a a*, upon brackets *a' a'*, and is furnished on the under side with bearings *b b* eccentric to the pivoted portions *a a* to receive arms *c c*, for a purpose hereinafter set forth. Upon the top of the bowl are pivoted, at *f*, valves *d d*, which cover said bowl and serve to prevent the escape of noxious gases therefrom. Said valves are provided with bearings *e e*, arranged eccentric to the centers upon

which the valves turn and connected to the bearings *a a* by the arms *c c*. When the weighted seat is depressed prior to its being used, it causes said valves to separate, as shown in Fig. 4, uncovering said bowl so that proper access to it is not prevented.

To prevent the water used in cleaning the bowl from escaping and thus wetting the floor, I form an offset, *g*, in said bowl, as shown in Figs. 1 and 2. Into this the part of the supply-pipe valve-operating mechanism having the loose joint through which water is liable to escape is arranged so that the escaping water flows into the bowl. To this end I screw into the partition *g'*, Fig. 5, a supporting piece or coupling, *h*, to the outer end of which the supply-pipe valve *m* is screwed, the joints being permanent and tight. The valve-rod *s* passes upward through said supporting piece from the valve and projects above the edge of the bowl, so that when the seat is depressed it engages with the projecting end of said rod and causes the same to open the valve, as will be understood upon reference to Fig. 2. The upper end of the supporting-piece may be provided with a cap, *o*, to make a more perfect joint; but should this joint by wear or accident become enlarged and the water escape therethrough, said water will flow into the bowl, as will be apparent. The joints on the outside of the bowl being permanent and fixed, no difficulty is experienced in causing them to remain tight. The valves *d d* are made to fit snugly together and to the top of the bowl, and suitable recesses, *r*, are formed in said valves to allow for the rod.

To prevent the water in the closet and pipes connected therewith from freezing in winter, I arrange a pipe, *p*, leading from the valve *m* into the lower part of the bowl, as dotted on Fig. 2, and provided with a valve, *q*, by which the flow of the water through the pipe can be regulated.

Having thus described my invention, what I claim as new is—

1. In combination with the bowl, the annular portion C', web C'', pivoted upon the bowl, weight C, eccentric bearings *b b*, and pivoted valve-sections *d d*, having arms *c c*, all said parts being arranged and operating substantially as and for the purposes set forth.

2. In a water-closet, the combination of a

bowl, A, half-sections *d d*, pivoted at the rear thereof and provided with bearings *e e*, and a weighted seat also pivoted on said bowl and furnished with bearings *b b*, connected to the
5 bearings *e e* by arms *c c*, the weight on said seat acting to raise said seat from the said bowl and close the half-sections together automatically, substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 4th day of 10 April, 1884.

FRANZ J. MERZ.

Witnesses:

CHARLES H. PELL,
F. F. CAMPBELL.