

C. N. MARCELLUS.
FLUSHING TANK.
APPLICATION FILED JAN. 24, 1908.

918,456.

Patented Apr. 13, 1909.

Fig. 1.

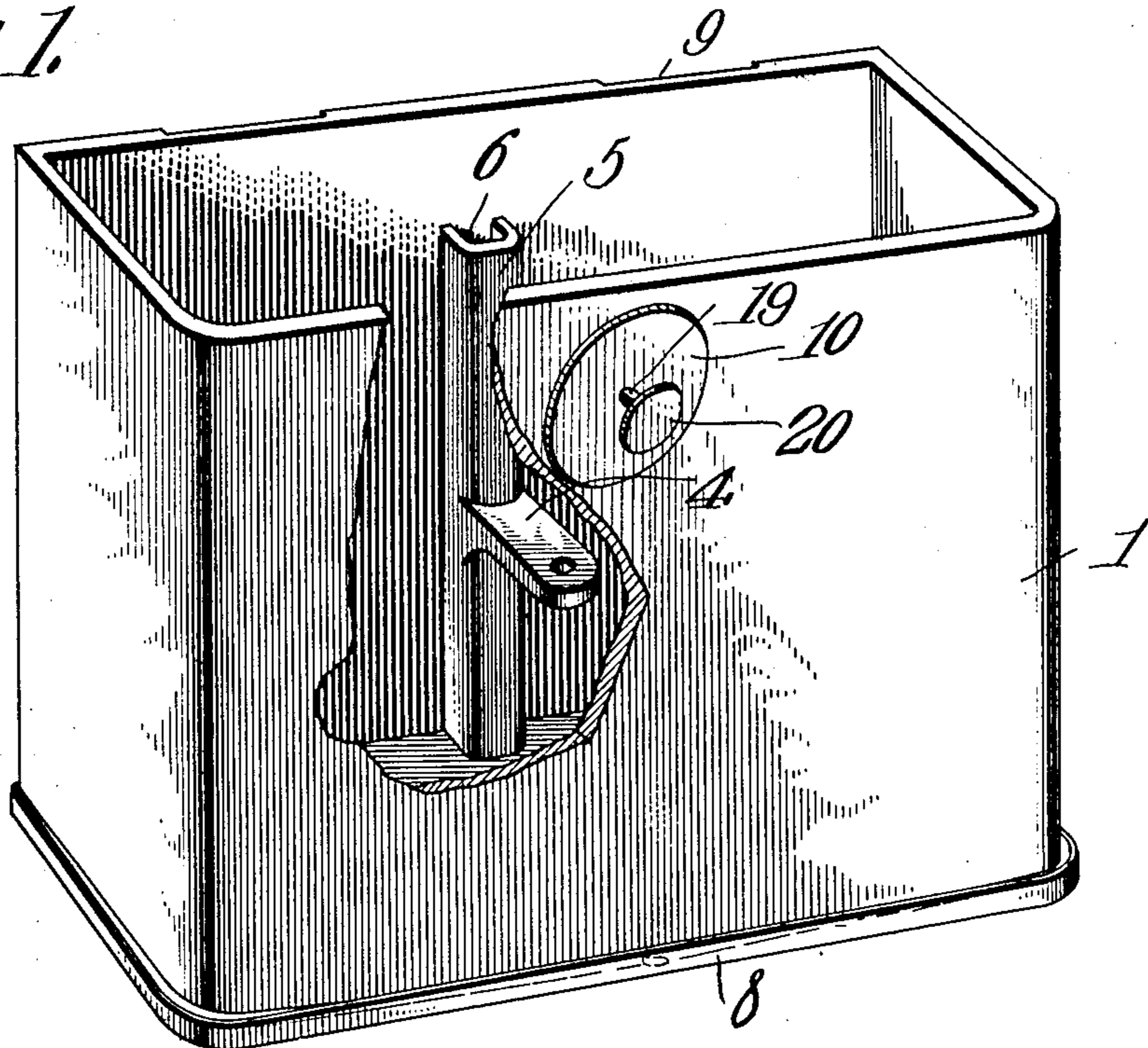


Fig. 3.

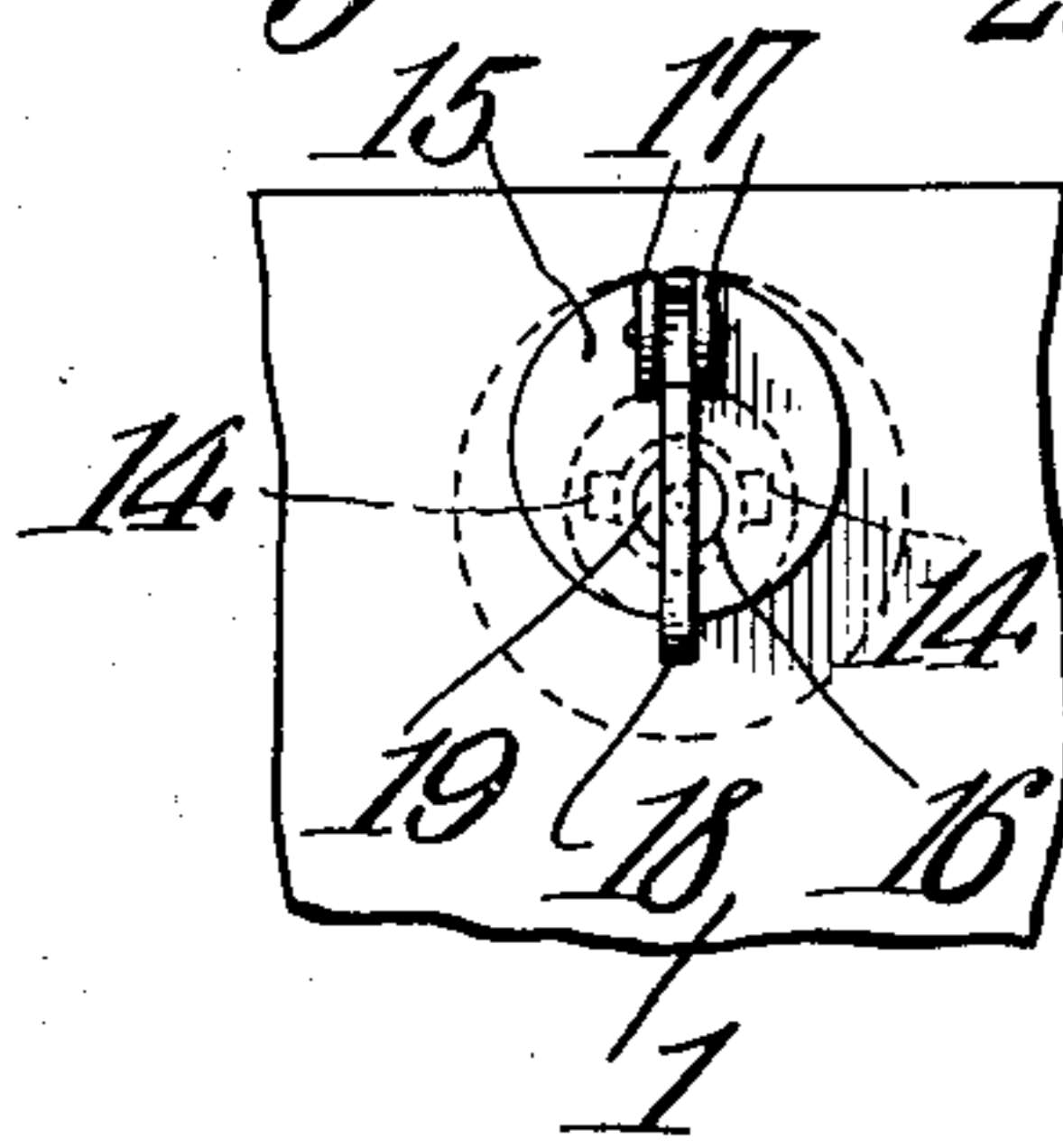
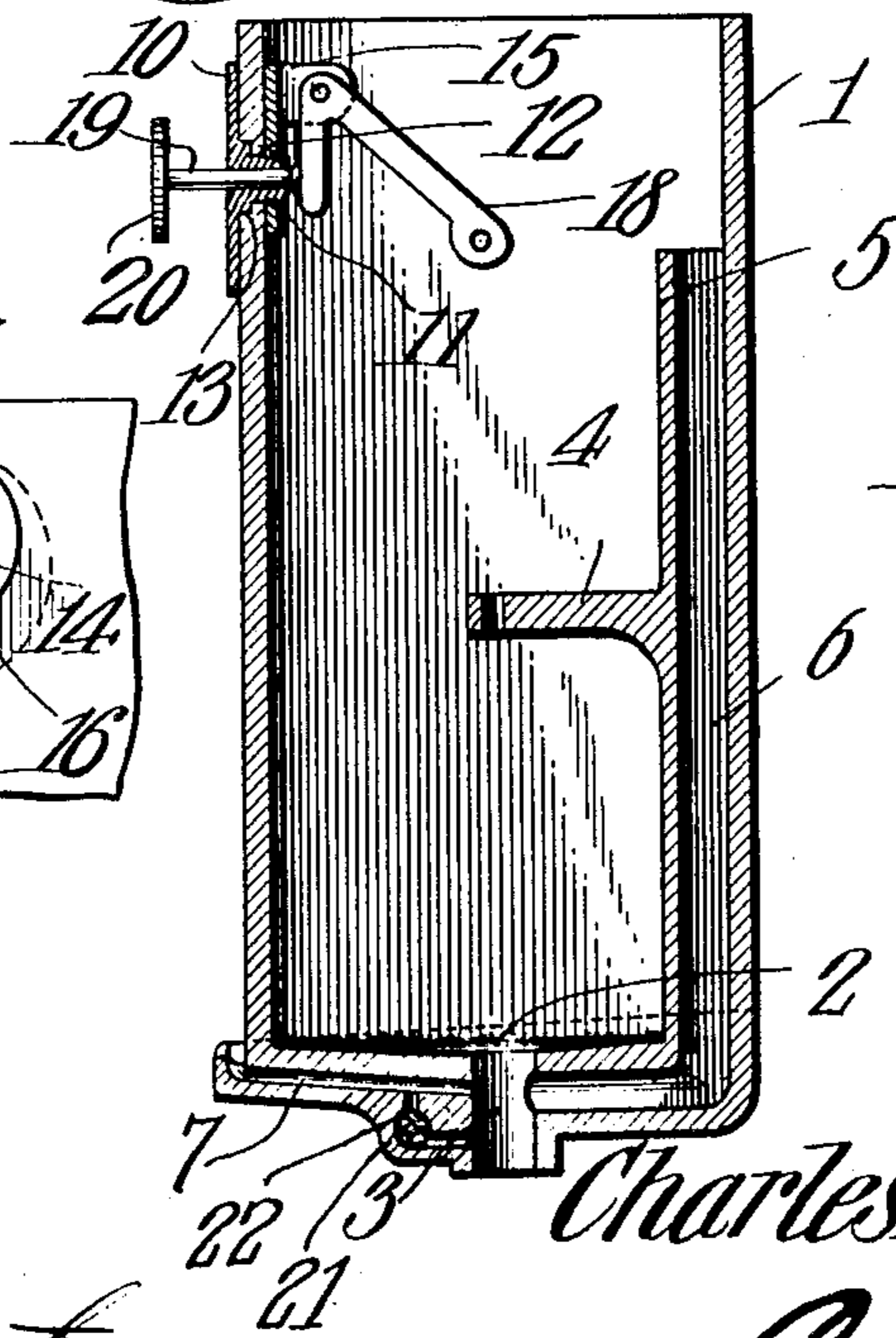


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES N. MARCELLUS, OF GRAND RAPIDS, MICHIGAN.

FLUSHING-TANK.

No. 918,458.

Specification of Letters Patent.

Patented April 13, 1909.

Application filed January 24, 1908. Serial No. 412,453.

To all whom it may concern:

Be it known that I, CHARLES N. MARCELLUS, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Flushing-Tank, of which the following is a specification.

This invention relates to flushing tanks and more particularly to ceramic devices of this character.

The object of the invention is to provide means whereby moisture accumulating upon the outer faces of the tank as a result of "sweating" or the condensation of atmospheric moisture, may be drained from the tank and prevented from dripping therefrom.

A further object is to provide a construction whereby the water thus accumulated may be directed into the discharge opening of the tank.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a perspective view of the tank embodying the present improvements, a portion thereof being broken away. Fig. 2 is a central vertical section through the tank. Fig. 3 is an inner elevation of a portion of the front wall of the tank and showing the means for connecting a push button and operating lever thereto.

Referring to the figures by characters of reference, 1 designates a tank molded in a single piece of ceramic material such as porcelain and the bottom 2 thereof has an outlet opening 3 for a brass overflow fitting so that all of the contents of the tank will be free to pass outward through the opening. This opening is designed to be closed by a valve of the usual or any preferred construction, not shown, and the stem of the valve is designed to be guided within an arm 4 extending inwardly from the overflow tube 5 formed upon the inner surface of the rear wall of the tank. The overflow passage 6 within the tube 5 is directed within the bottom of the tank and opens into the outlet 3 and extending forward from this outlet and within the bottom of the tank is a passage 7 extending from the middle por-

tion of a gutter 8 formed upon the front and sides of the tank at the bottoms thereof, and inclined from its ends downwardly toward the center of the front of the gutter where the outlet passage 7 is located.

When the tank is in use any moisture which may condense upon the front and side walls thereof will trickle downward into the gutter 8 and be carried thereby to the outlet passage 7 which will in turn discharge it into the outlet 3. It has been found in practice that when communication is opened between outlet 3 and the interior of the tank the water will rush through the outlet with such a velocity that there is very little danger of its backing up into the passage 7 and gutter 8. This is also true of any overflow which may be carried off within passage 6 and outlet 3. It is not necessary to extend the gutter across the rear wall because air spaces or grooves 9 are formed within this wall and serve to prevent the undesirable accumulation of moisture thereon. It will be seen that the entire device can be readily molded in a single piece and will overcome the objectionable features heretofore experienced in connection with tanks of this character.

The tank herein described is particularly designed to contain a valve mechanism operated by means of a push button. In order that this push button may be securely fastened to the tank, means of a simple and inexpensive construction are provided. As shown in the drawings these means consist of a face plate 10 having a tubular extension 11 extending from the center thereof and designed to be inserted through an opening 12 in the wall of the tank, the outer face of said wall being preferably notched as at 13 to receive lugs 14 formed upon the tube 11 at the outer end thereof. These lugs prevent the tube from rotating within the opening 12. The inner end of the tube is screw threaded and engaged by a nut 15 which, as indicated in Fig. 3, has the tube receiving opening 16 eccentrically located so that ears 17 can be formed upon the nut above the opening. A bell crank lever 18 may be journaled between these ears and is designed to be actuated by a stem 19 slidably mounted in the tube 11 and having a button 20 at its outer end. The lever 18 is designed to be connected to the valve mechanism so that when the button 20 is pushed inwardly the outlet 3 will be opened. Inasmuch as this

valve mechanism constitutes no part of the present invention, however, it has not been shown. By providing the means above described, the operating button can be readily
 5 attached to the tank without the necessity of extending bolts or similar fastening means through it.

As shown in Fig. 2 a pocket 21 may be formed in the bottom of the tank, the same
 10 opening into the passage 7 and into the lower portion of the outlet opening 3. This pocket is designed to be filled with a sponge or other absorbent and can be used either in connection with the passage 7 or said pas-
 15 sage can be arranged so as to open only into the pocket and not into the opening 3. By providing an absorbent the water drained from the gutter 8 will be taken up thereby. If the absorbent is used in connection with
 20 the passage 7 as shown in Fig. 2 any excess of water accumulating within the gutter will be free to pass directly into the outlet opening 3 if the absorbent should become sat-
 25 urated.

Instead of placing an absorbent in the pocket 21 it is desirable under some condi-
 25 tions to leave this pocket empty so that any surplus of water which might back within the outlet 3 will flow into and be received
 30 by this pocket. This is particularly desirable in cases where the bowl inlet is unusually small and the water can not pass therethrough as rapidly as it enters the tank outlet.

35 What is claimed is:

1. A flushing tank molded in a single piece of ceramic material and having an out-
 40 let, and an overflow upon one wall of the tank, said overflow extending within the bottom of the tank to the outlet, and a gutter adjacent the bottom of the tank for re-
 45 ceiving moisture accumulating upon the outer surfaces of the walls of the tank, said gutter having an outlet passage opening into the outlet of the tank, the gutter being
 50 inclined downwardly from its ends toward said passage, and a guide arm formed within the tank and overhanging the outlet.

2. A flushing tank molded in a single
 50 piece of ceramic material and having an outlet, and an overflow upon one wall thereof, said overflow extending within the bottom of the tank to the outlet, and a gutter adja-
 55 cent the bottom of the tank for receiving moisture accumulating upon the outer sur-

faces of the walls of the tank, said gutter having an outlet passage opening into the outlet of the tank, the gutter being inclined
 60 downwardly from its ends toward said passage, and a guide arm formed within the tank and overhanging the outlet, one wall of the tank being grooved to form air spaces.

3. The combination with a tank; of a gut-
 65 ter for receiving moisture accumulating upon the outer surfaces of the walls of the tank, and means for containing an absorbent for draining the moisture from the gutter.

4. A tank formed in a single piece and having a gutter adjacent the bottom thereof
 70 for collecting moisture accumulating upon the outer surface of the walls of the tank, said gutter having an outlet, there being a pocket communicating with the outlet for containing an absorbent.
 75

5. A tank formed in a single piece em-
 80 bodying a gutter adjacent the bottom thereof for collecting moisture accumulating upon the outer surface of the walls of the tank, said gutter having an outlet, there being a pocket for receiving back-flow communicat-
 85 ing with the outlet.

6. A flushing tank molded in a single
 85 piece and having an outlet, and a gutter adjacent the bottom of the tank and projecting beyond the outermost portions of the walls of the tank, said gutter constituting means for receiving moisture accumulating upon the outer surface of the walls of the tank and having an outlet passage opening into
 90 the outlet of the tank.

7. A flushing tank molded in a single
 95 piece and having an outlet in the bottom thereof, an overflow integral with and disposed within the tank, said overflow extending within the bottom of the tank to the out-
 100 let, a guide arm extending from the overflow and overhanging the outlet, a gutter upon the outer faces of the tank and adjacent the bottom thereof for the reception of moisture accumulating upon the outer sur-
 105 faces of the tank, said gutter having an outlet opening into the tank outlet.

In testimony that I claim the foregoing
 105 as my own, I have hereunto affixed my signature in the presence of two witnesses.

CHARLES N. MARCELLUS.

Witnesses:

A. C. HINDMAN,
 HARRY R. WELLS.