

No. 875,457.

PATENTED DEC. 31, 1907.

W. L. REED.
FLUSH TANK.

APPLICATION FILED DEC. 22, 1906.

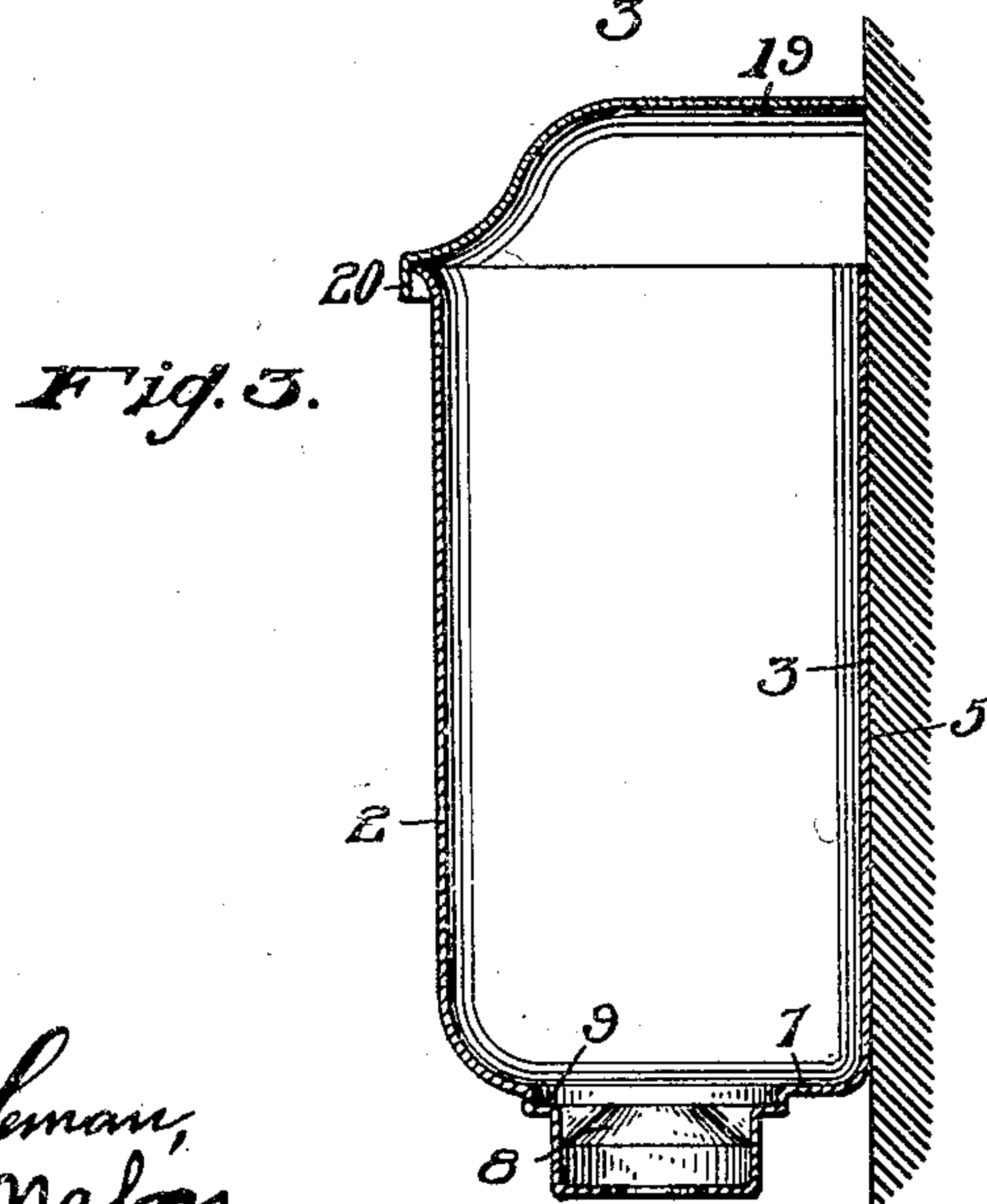
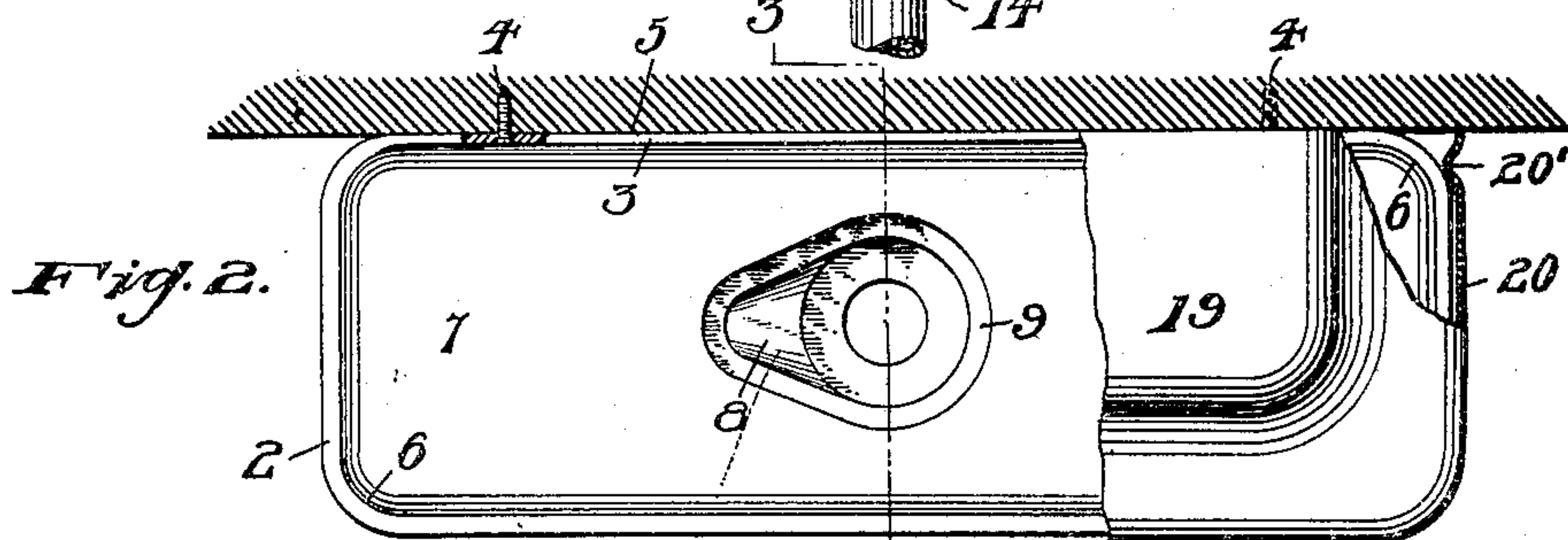
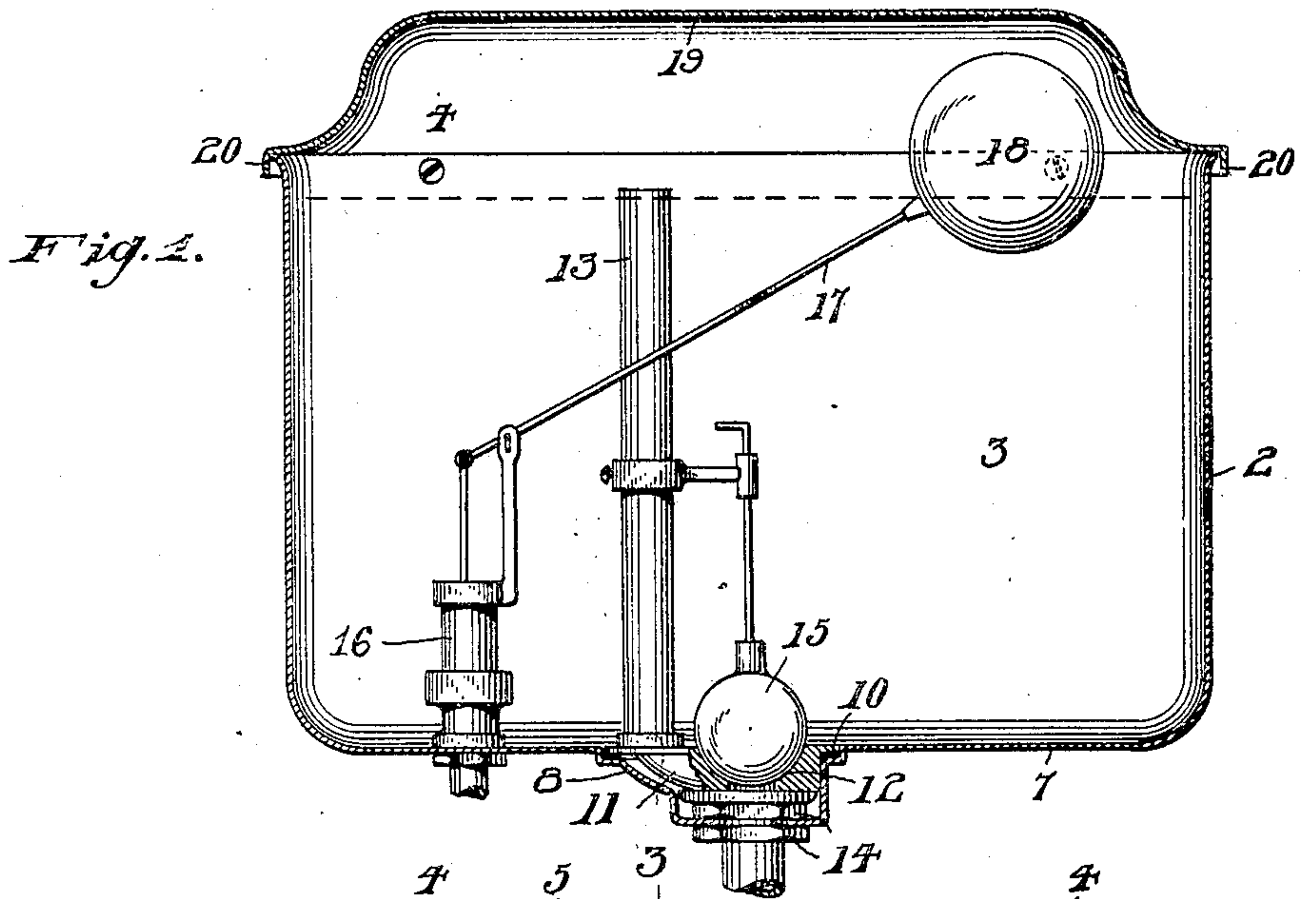
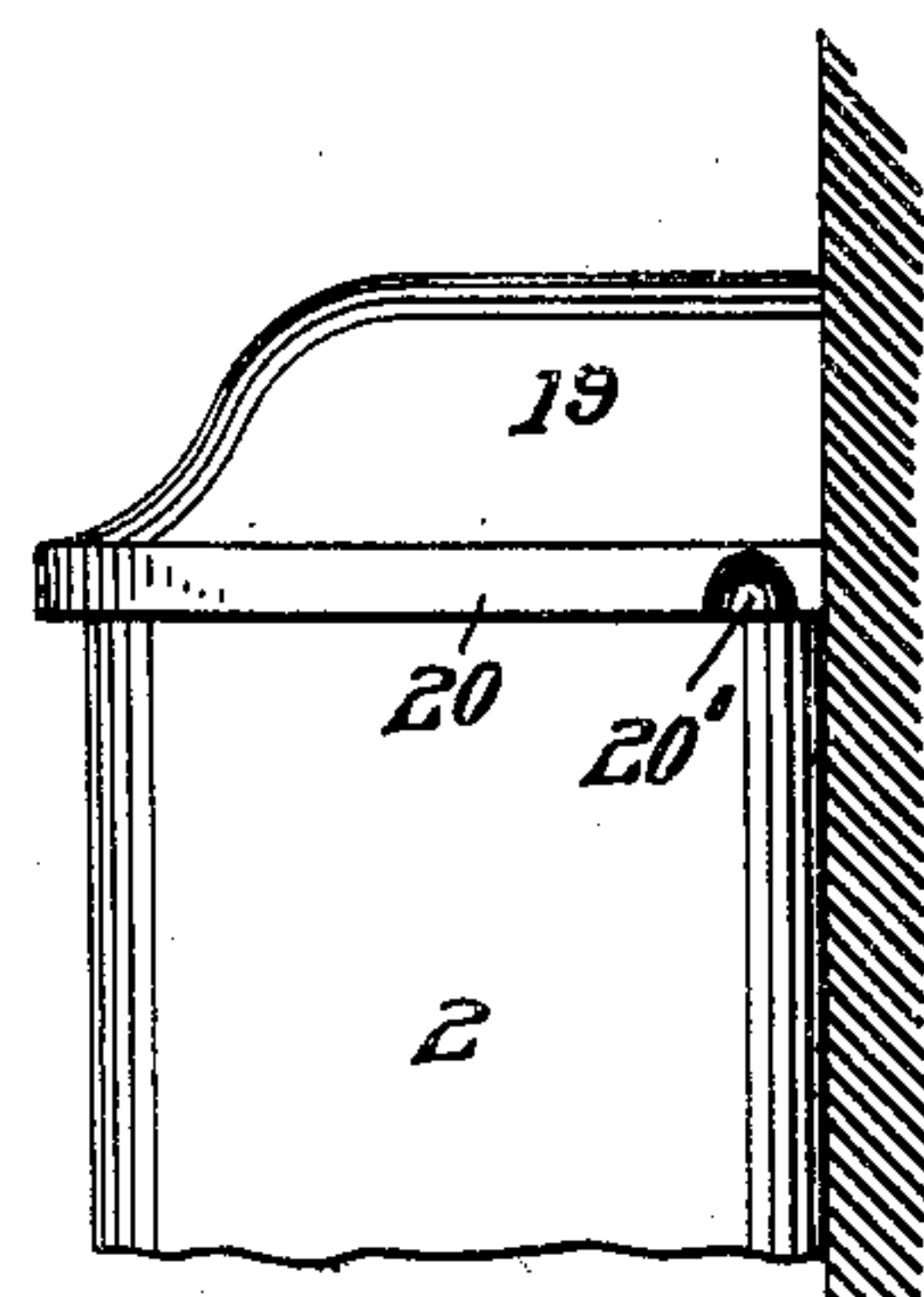


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM L. REED, OF PITTSBURG, PENNSYLVANIA.

FLUSH-TANK.

No. 875,457.

Specification of Letters Patent.

Patented Dec. 31, 1907.

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To all whom it may concern:

Be it known that I, WILLIAM L. REED, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Flush-Tanks, of which the following is a specification.

This invention relates to flush tanks for closets; and one object is to arrange the flush discharge or out-let in the plane of, or at least no higher than, the bottom of the tank, so that each time the closet is flushed the tank will be fully emptied and drained, thus keeping it clear of sediment which accumulates in tanks of present design wherein the flushing outlet is above the plane of the tank bottom.

A further purpose is to provide a flush tank with a raised cover which forms a float space at the top of the tank so that practically the entire depth of the latter may be utilized for water.

A further improvement consists in forming the cover without a back so that it may be fitted to the tank with the back of the latter bearing against a wall or other support to which is secured. The open back also affords the necessary air inlet for the tank. Also in connection with the cover, I provide improved means for holding the backless cover against forward movement so that it can be removed only by being lifted from the tank.

Still a further object is to form a flush tank of sheet metal pressed into the requisite shape, and further, to form the bottom of the tank with a pressed depression to receive the flush valve mechanism so that the flush outlet may be no higher than the plane of the tank bottom.

In the accompanying drawings Figure 1 is a vertical longitudinal sectional view of a pressed metal tank constructed in accordance with the invention. Fig. 2 is a top plan view, partly in section. Fig. 3 is a vertical cross-sectional view on line 3—3 of Fig. 2. Fig. 4 is an end view of a portion of the tank and cover.

Referring to the drawings, the tank 2 is shown of oblong shape, with its rear side 3 bearing against and secured by screw 4 to a wall or other upright support 5. The tank is preferably pressed from suitable sheet metal, being thus of one piece and seamless. The upright corners are rounded, as indicated at 6. Flush tanks now in

general use are arranged with the seat or outlet of the flush valve above the plane of the tank bottom, the result being that the tank is never fully drained and much sediment accumulates therein. To obviate this, I form tank bottom 7 with a depression 8, which, in the preferred or pressed tank here shown, is formed by pressing, as will be understood. The upper portion of this depression has a surrounding offset or shoulder 9 which forms a seat for flange 10 of fitting 11, which latter carries the flush valve-seat or outlet 12 and overflow pipe 13. Flange 10 fitting the depression offset in connection with an interposed gasket or washer forms a seal, preventing any water or sediment from passing into depression 8. Fitting 11 may be secured by clamping nuts 14 of usual form. It will be noted that the flush outlet 12 is in the plane of tank bottom 7, and hence each time the flush is operated the tank is fully drained and all sediment carried therefrom. It is only essential that the flush outlet should not be above the plane of the tank bottom; it might be somewhat lower than the same without departing from the invention. The mechanism for operating flush-valve 15 is not shown as it forms no part of the invention.

Inlet valve 16 may be of the usual or any preferred construction, being operated by an arm 17 and float 18 in the customary way. Heretofore, it has been usual to construct the tank body of such height as to afford room at the top for the float when in elevated position. In my improved tank, I utilize practically its entire depth for water, the normal level thereof reaching nearly to the top as shown, and provide the tank with a raised top to afford the necessary inclosed space for the float. This arrangement effects a saving in cost, and enables me to secure without difficulty a pressed metal tank of sufficient depth.

The raised cover 19 is provided at the front and opposite ends with the depending flange or skirt 20, which extends down over the exterior of the tank in lid fashion. The cover is however formed without a back, one purpose of such formation being to fit the cover accurately against the tank supporting surface 5, and another purpose is to provide the necessary air inlet. To hold the cover in place—that is, to prevent it from moving frontward or laterally on the tank, skirt 20 is formed with inward

bulges 20', which when the cover is in place, project into the plane of rounded corners 6, thus holding the cover quite as securely as though the skirt were extended around the rear side of the tank.

While I have shown and described the preferred construction and arrangement of the several features of the invention as applied to flush tanks, some or all of said features may be applied to tanks or vessels of other kinds without departing from the spirit and scope of the appended claims.

I claim.

1. The combination of a rectangular tank having its end faces formed to receive projections on a cover, a cover having a flange depending from its front and ends, and inward projections on the end portions of the flange adapted to engage the tank ends and prevent the cover from moving frontward.

2. The combination of a rectangular tank having rounded rear corners, a cover having

a flange depending from its front and ends, and inward projections on the end portions of the flange adapted to engage said rounded corners and prevent the cover from moving frontward.

3. The combination with a flush tank adapted to be secured to a wall or other support, the tank having rounded rear corners, of a raised cover fitting the tank and wholly open at its rear side, the cover having a flange depending from its front and ends, the end portions of the flange being bent inward to engage the rounded corners of the tank and prevent the cover from moving forward.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM L. REED.

Witnesses:

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