

No. 860,372.

PATENTED JULY 16, 1907.

E. HAMMANN & C. H. MOORE.

WATER CLOSET.

APPLICATION FILED APR. 11, 1905.

2 SHEETS—SHEET 1.

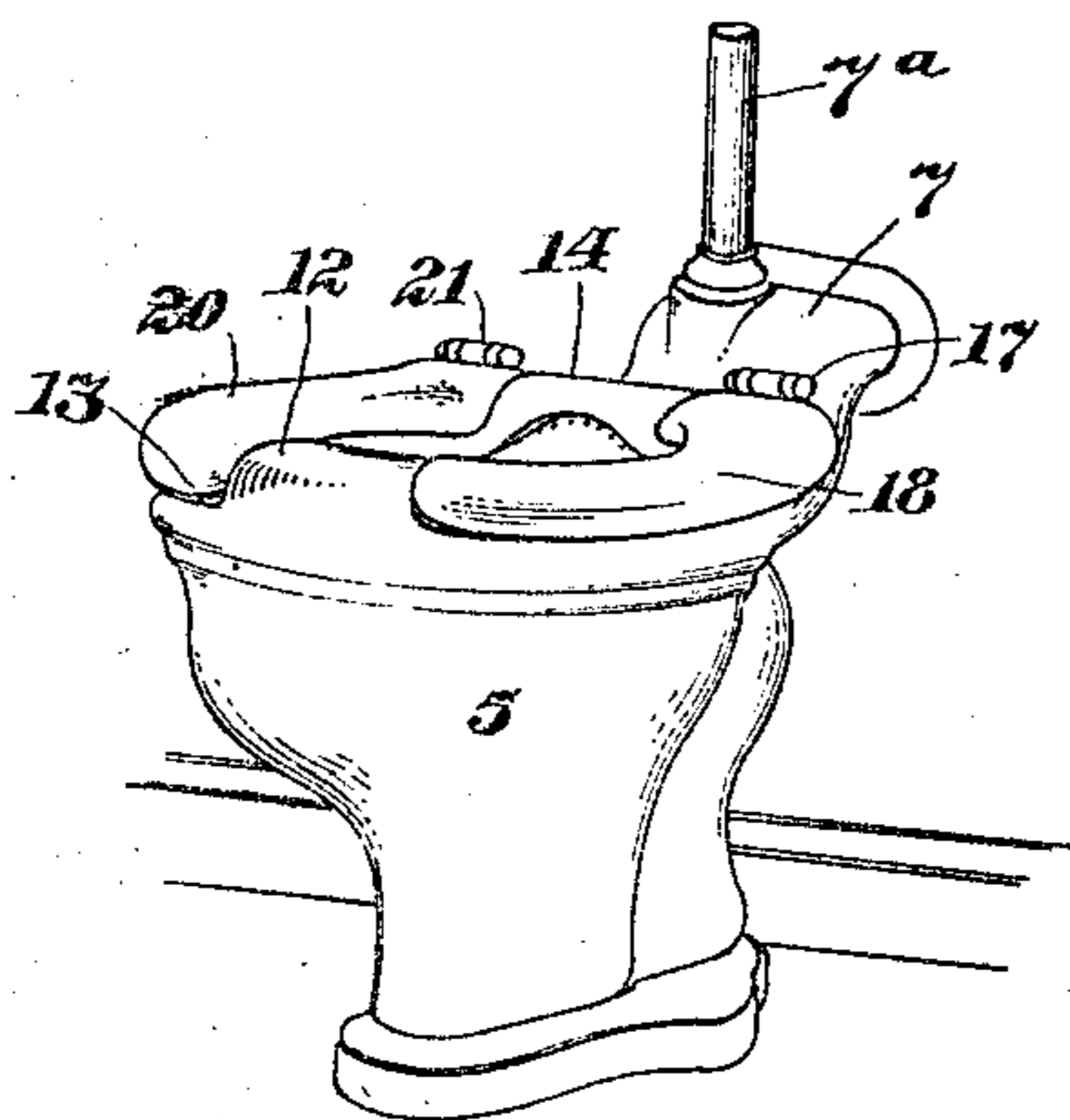


Fig. 1.

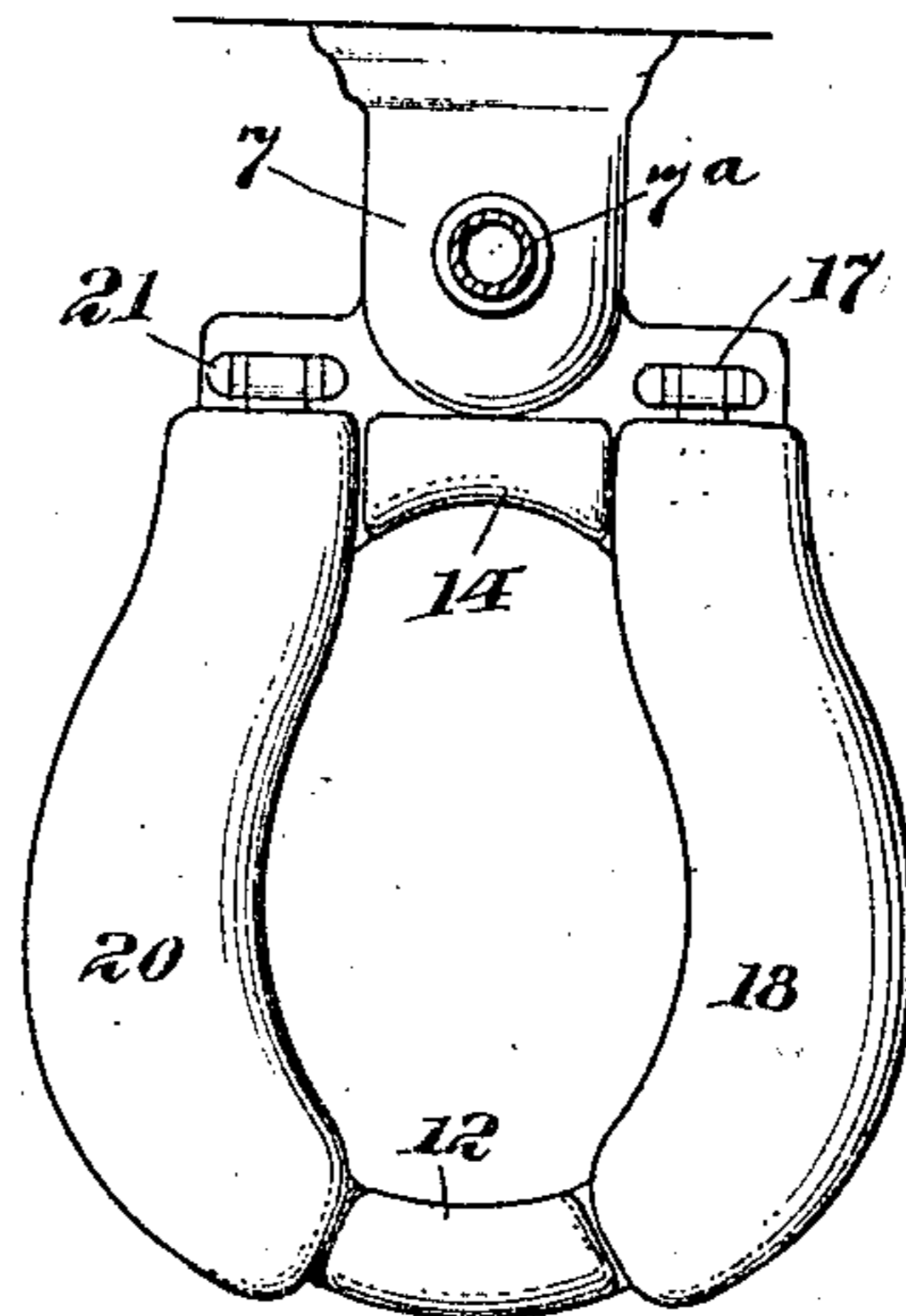


Fig. 2.

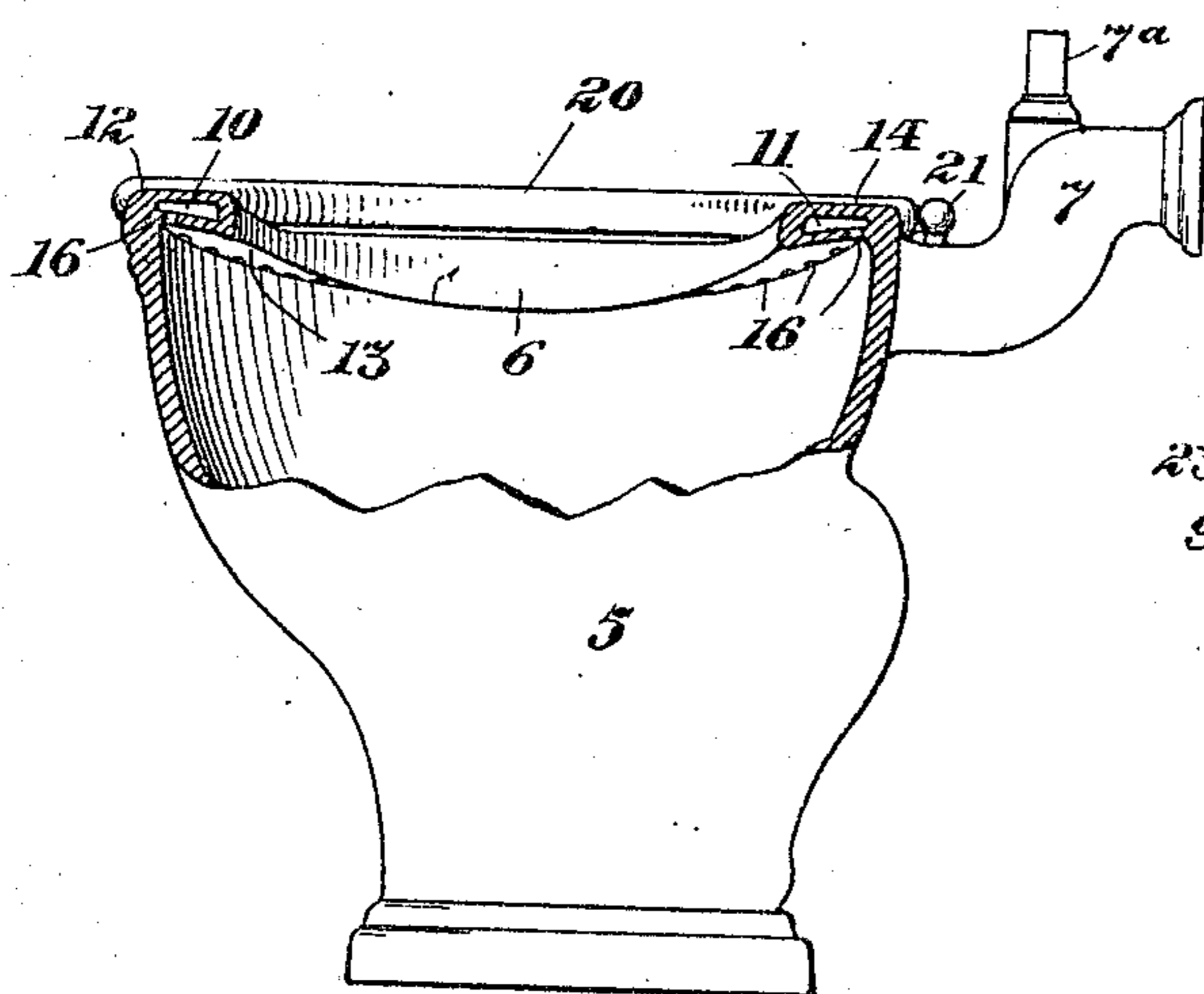


Fig. 3.

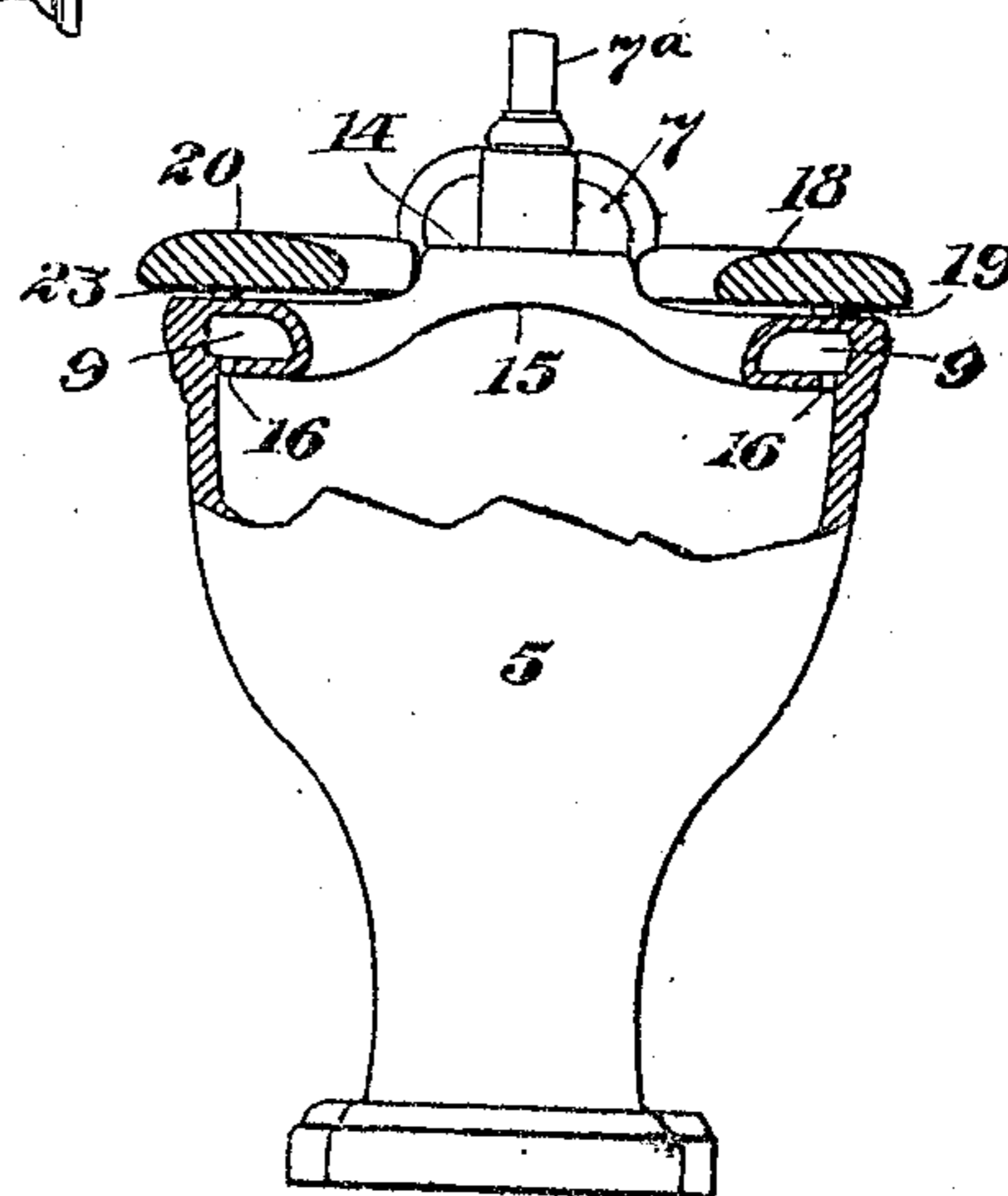


Fig. 4.

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2 SHEETS—SHEET 2.

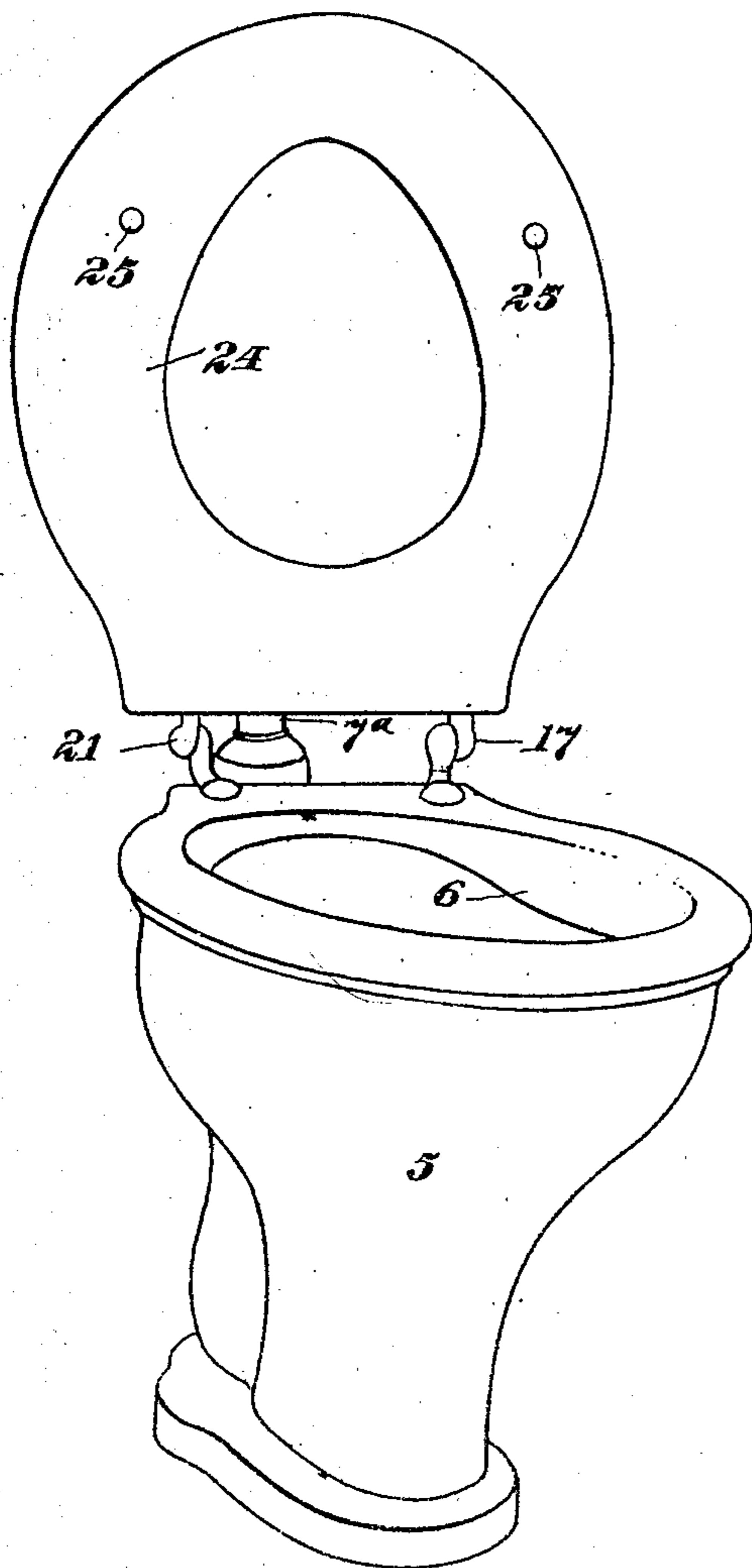


Fig. 5.

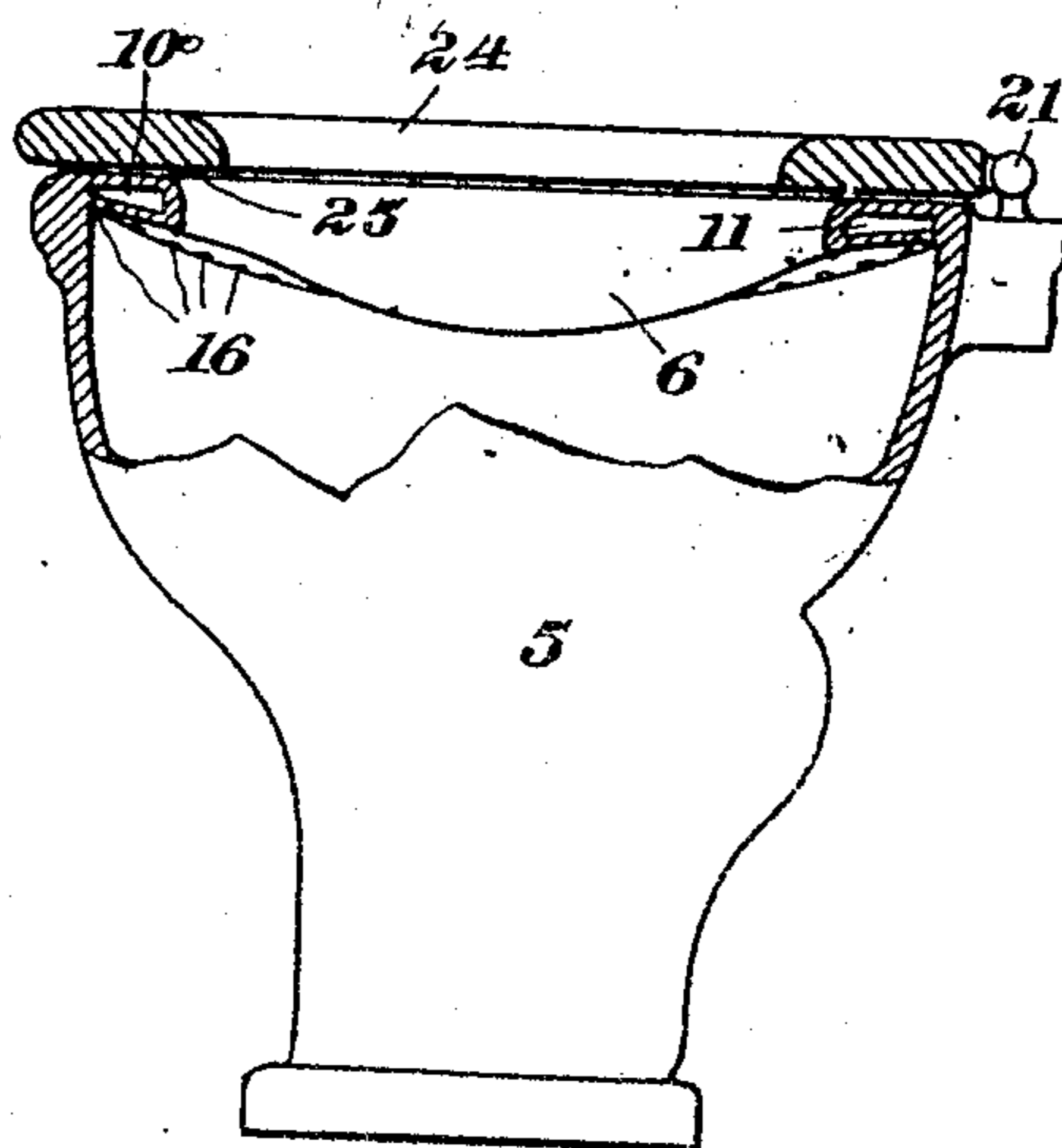


Fig. 6.

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# UNITED STATES PATENT OFFICE.

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## WATER-CLOSET.

No. 860,372.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed April 11, 1905. Serial No. 254,946.

*To all whom it may concern:*

Be it known that we, EDWARD HAMMANN and CHARLES H. MOORE, citizens of the United States, and residents of New York city, in the county of New York and State of New York, have invented a new and useful Improvement in Water-Closets, of which the following is a specification.

This invention appertains to certain novel and useful improvements in water closets and consists of certain novel parts and combinations of parts particularly pointed out in the claims concluding this specification.

While we have in the present instance illustrated and described one form of our invention which we at present prefer, we wish it to be understood that we do not limit ourselves to all the precise details of construction thereof as modifications and changes may be made in details without departing from the spirit of our invention and without exceeding the scope of the concluding claims.

In the accompanying drawings like characters of reference indicate like parts in all the views, and

Figure 1 is a perspective view of a bowl involving our invention; Fig. 2 is a top plan view of the same; Figs. 3 and 4 are views partly in elevation and partly in section showing the interior of the bowl, and especially illustrating the construction of the rim. Fig. 5 shows a modified form of bowl in which we dispense with the elevations or ledges at the front and rear. Fig. 6 is a view partly in elevation and partly in vertical longitudinal section of a closet such as shown in Fig. 5.

Referring now to the accompanying drawings in detail, the numeral 5 indicates the water closet bowl constructed of a suitable material such as porcelain, and having a flushing rim 6 extending entirely around the same, such rim being connected with a suitable source of water supply by means of the elbow 7 and pipe 7<sup>a</sup> at the rear of the bowl. The rim 6 is constructed in hollow or tubular form, so that a channel extends entirely and completely around through the rim, the portions of the channel 9 at the sides of the bowl being relatively larger or deeper than those parts 10, and 11, of the channel which pass respectively at the front and rear of the bowl. This construction is clearly shown in Figs. 3 and 4. At the front of the bowl the sides of the rim merge in an elevated ledge 12, which is extended and recessed at 13, in such manner as to form a shield at the front of the bowl. Similarly at the rear of the bowl the sides of the rim merge in the ledge 14, which is rearwardly concaved to form a recess 15.

The effect of forming a bowl in this manner is to give a larger surface within the interior of the bowl, for it will be noted that in ordinary bowls the rim extends entirely around the bowl, and is of substantially the same depth at the front and rear ends. In such a case

the rear of the rim is liable to become soiled and inas- 55  
much as it lies above the point of discharge of the flushing medium into the bowl, such portion of the rim must be cleaned manually. But with our cut-away or recessed rim there is little liability of the rim being soiled, inasmuch as the recess extends upwardly ap- 60  
proximately to or even slightly above the level of the seat and any substance instead of collecting on the rim will lodge in the recess, from whence it is readily removable by means of the flush. In order to accom- 65  
plish the thorough flushing of the main portion of the bowl as well as the recessed parts just described, we provide the rim with a row of perforations 16, formed in the under side of the rim and communicating with the channel 8 at a point close to the vertical wall of the hopper bowl, so that as the water passes into the 70  
channel and out through the perforations 16, it will flow directly down over the interior surface of the entire bowl and not spray or shoot outward toward the center of the bowl, as is usually the case. It will further be noted that the row of perforations follow the 75  
direction of the under side of the rim, that is to say, extend up into the recessed portions of the front and rear ledges or shields heretofore described, so that any substance lodged in such recessed portions will be washed therefrom and the recess thoroughly cleaned. 80

The upper, outer surface of the sides of the rim or edge of the bowl are approximately in the same horizontal plane, and in Figs. 1, 2, 3 and 4 of the drawings the bowl is provided with the elevated shield or ledge at the front and rear, as has been described. In this 85  
construction at one side of the rear ledge is hinged at 17 a sectional seat member 18 of wood, or other suitable material, and adapted to conform in contour to the side of the bowl, such member having a small rubber projection 19 adapted to rest on the upper edge of the 90  
rim, the free end of such seat member terminating at a point adjacent to the side of the front shield 12. Similarly, a sectional seat member 20 is hinged at 21 at the rear of the bowl and has its free end terminating at the opposite side edge of the front shield. This 95  
member is also provided with a buffer or projection 23 secured to the under side thereof and adapted to bear against the top of the rim when the seat is in the position shown in Figs. 1, 2 and 3, the seat sections, when closed, being approximately in the same horizontal plane. 100  
By employing such sectional seat certain sanitary advantages are obtained inasmuch as it is our desire to dispense with as much woodwork in the construction of the invention as is possible.

In Fig. 6, we have shown a slightly modified form of 105  
construction, in this case, dispensing with the raised front and rear shields or ledges, but we still retain the concaved or recessed portion at the rear of the bowl, so

that an enlarged interior surface for the bowl is obtained which may be thoroughly flushed by the water flowing through the apertures arranged around the under side of the rim, as has been heretofore described.

5 In this case the entire upper edge surface of the bowl rim lies in approximately a horizontal plane, and instead of employing a sectional seat, we make use of one-piece seat portion 24 having buffer projections or knobs 25, 25, adapted to bear upon the rim in a manner readily understood. The many advantages incident to our improved apparatus will be appreciated.

It will be apparent that the bowl embodies many advantages from a sanitary standpoint inasmuch as the entire inner surface thereof may be flushed and the  
15 flushing water issuing from the channel of the rim will, owing to the location of the apertures, flow down close along the sides of the bowl portion instead of shooting outward toward the center of the bowl. The advantages incident to the recessed portion of the bowl other than  
20 those referred to, will also be apparent and it is unnecessary to describe the same in detail. It is further to be noted that the rear portion of the rim is of relatively less depth than the sides, and the channel portion at such rear and front is correspondingly reduced  
25 relative to the size of the side channels, so that an increased space at the front and rear of the bowl is attained.

In our co-pending application for water closet apparatus filed December 7, 1903, Serial No. 184,210, we  
30 have shown a construction of apparatus embracing amongst other features, a closet bowl having a recessed elevated portion at the front thereof, a recessed elevated portion at the rear thereof, and means for flushing the bowl and the recessed portions. Furthermore, in  
35 in such application, Serial No. 184,210, we have embodied claims generic to the subjects-matter of said application, and the present application Serial No. 254,946. Therefore, in the present application we do not intend to claim any subjects-matter generic to both  
40 applications, but make such claims in our earlier application Serial No. 184,210, and wish to be so under-

stood. But the present invention is in the nature of an improvement over the invention set forth in an earlier application Serial No. 184,210, and the claims herein are intended to be so directed.

Having thus described our invention, what we claim and desire to secure by Letters Patent is:

1. A water closet having a channeled rim of varying depth formed with an elevated recess at the front of the bowl, a second elevated recess at the rear of such bowl, and means for introducing a flushing agent into said rim and from thence into the recesses and the main portion of the bowl to cleanse the same.

2. A water closet bowl having a rim of relatively less depth at its rear than at the sides, and having perforations in such rear portion whereby the rear interior of the closet may be flushed.

3. A water closet having a bowl provided with a rim of relatively less depth at the rear than at its sides and having an elevated recessed shield or ledge at the front of the bowl, and an elevated recessed shield or ledge at the rear thereof, and means for flushing the recesses.

4. A water closet bowl having a channeled rim extending entirely around the same, such rim being of relatively less depth at the rear than at the front thereof, and having perforations formed therein close to the wall of the bowl for permitting the bowl to be flushed.

5. A water closet bowl provided with a continuous flushing rim having an elevated recessed portion at the rear of the bowl and an elevated recessed portion at the front of the bowl, both such elevated portions being flushed from the flushing rim, and a seat member formed of two sections spaced apart at the front and rear to accommodate the recessed elevated portions of the bowl at the front and rear.

6. The combination with a water closet bowl having a flush rim extending entirely around the same, the front and rear portions of said rim being elevated above the rest of the bowl, of a seat cut away at the front and rear to accommodate the elevated portions of the bowl at the front and rear, such seat lying substantially flush with the elevated portions of the bowl.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

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Witnesses:

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