April 30, 1929. K. A. WERNLÉ 1,711,295

CLOSET

Filed Feb. 13, 1928 2 Sheets-Sheet 1

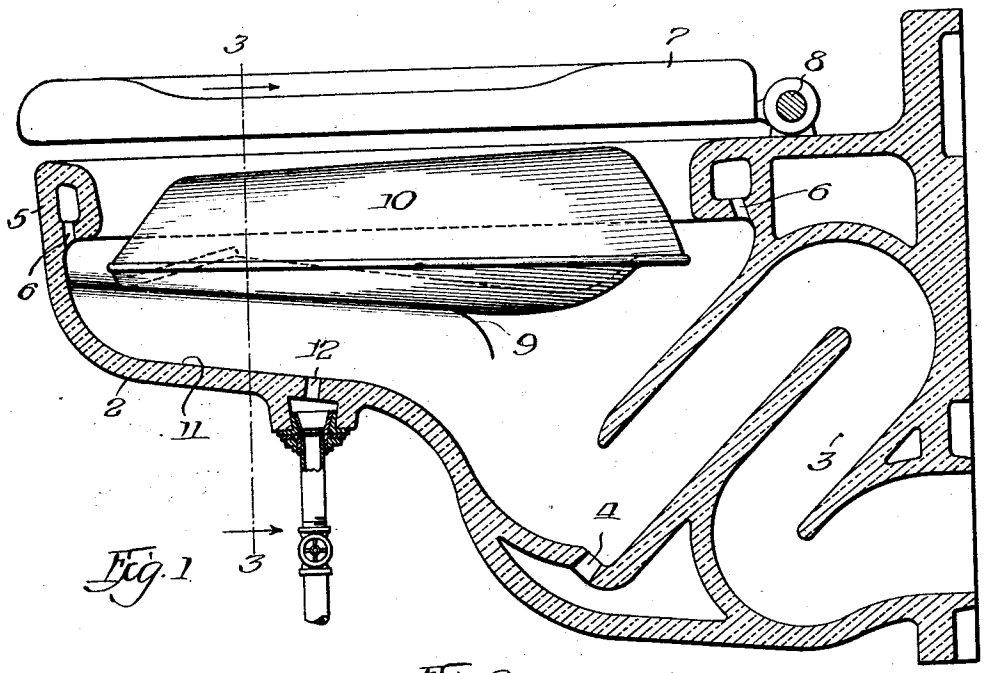
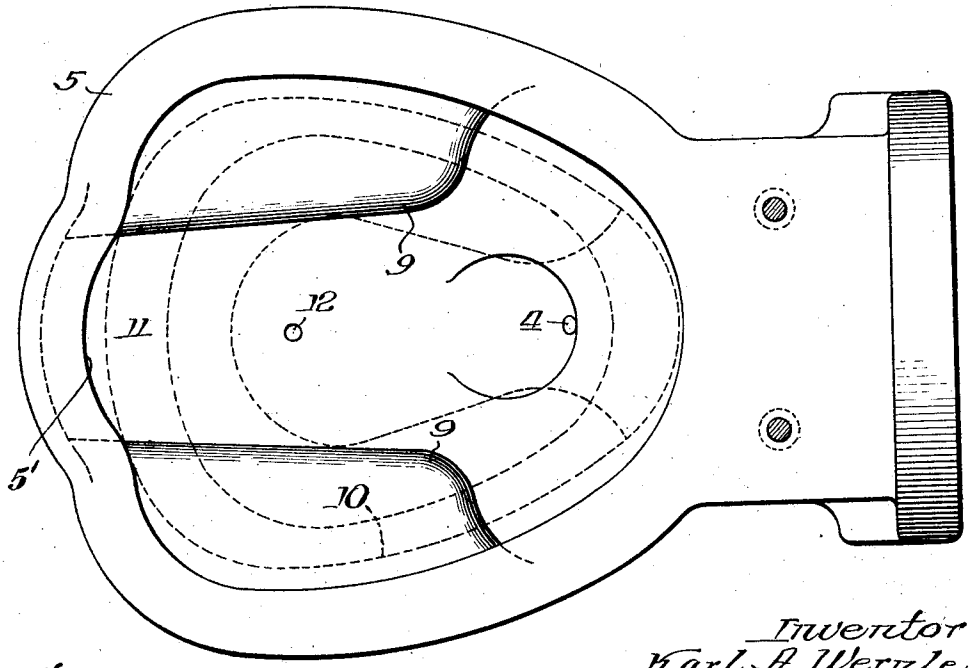


Fig. 1

Fig. 2.



Witness:
Ed. C. Lorenz

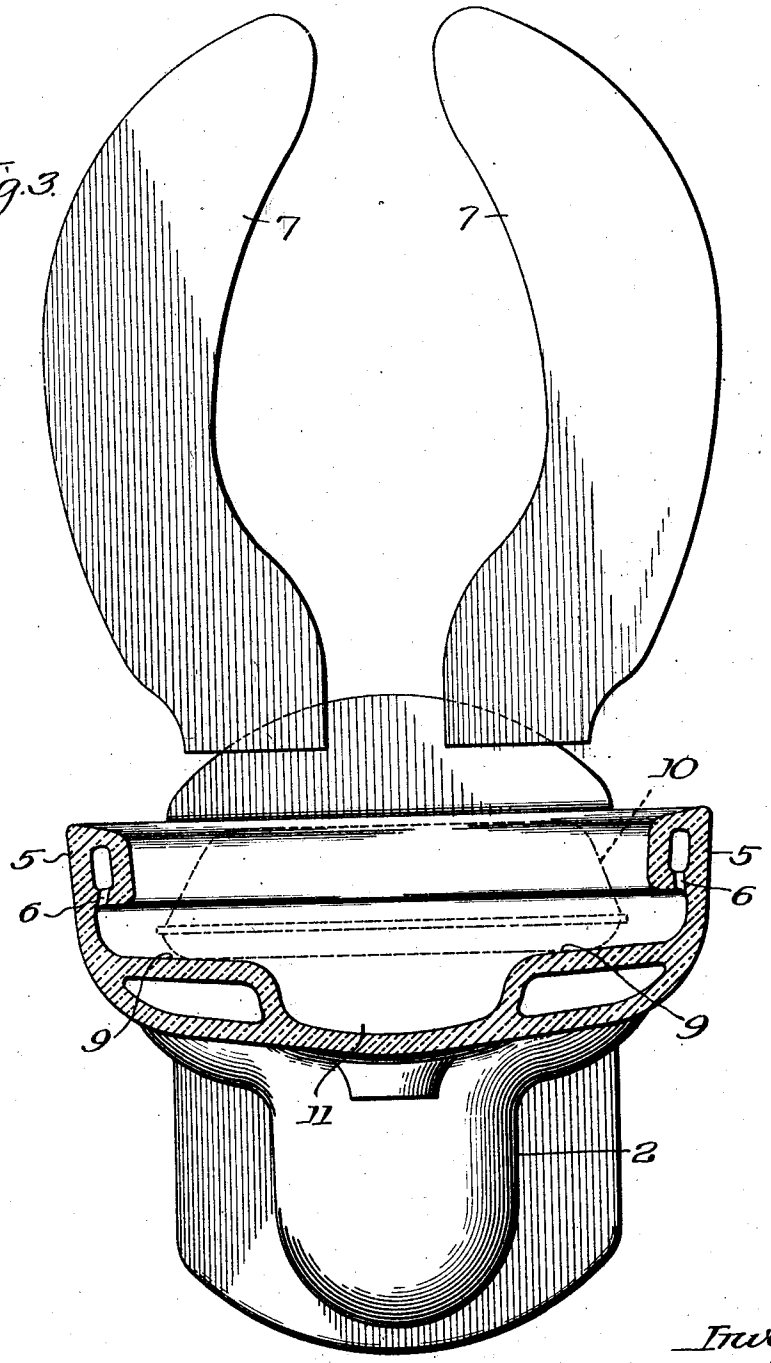
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Fig. 3.



Witness:

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Patented Apr. 30, 1929. 1,711,295

UNITED STATES PATENT OFFICE.

KARL A. WERNLÉ, OF CHICAGO, ILLINOIS, ASSIGNOR TO JAMES B. CLOW & SONS, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

CLOSET.

Application filed February 13, 1928. Serial No. 253,823.

This invention pertains to water closet construction particularly adapted for the cleansing of receptacles such as bed pans although having its ordinary utility. I am aware that a number of water closets adapted for the special service of cleansing sanitary receptacles such as bed pans have been devised and used but all of them either involve difficulties in their manufacture or are expensive or do not perform or admit of performing the operation of cleansing the bed pan or the like properly or thoroughly or are so constructed that the pan, when placed in position in the closet for cleansing, may tilt under the action of the jet of cleansing water and cause the water and contents to be thrown out beyond the confines of the closet. In some of the types of closets heretofore constructed for this purpose, the arrangement has been such that the bed pan, when inverted within the bowl of the closet, had its spout directed toward the front of the closet, objectionable for obvious reasons.

It is therefore the primary object of my invention to provide a closet of the character described which will be comparatively simple and cheap to manufacture and so arranged and constructed that a bed pan with its spout directed toward the rear of the closet when in inverted position may be securely and firmly positioned within the closet bowl below its rim and cleansed by a single jet of water preferably supplied through a control valve independent of the bowl or hopper flushing valve.

Many other objects including the uses and advantages of my invention will be or should become apparent after reading the following description and claims and after viewing the drawing in which:

Fig. 1 is a sectional elevation taken from front to rear through a siphon jet closet embodying my invention showing a bed pan placed therein.

Fig. 2 is a top plan view of the same, and,

Fig. 3 is a section taken along the line 3—3 of Fig. 1 with the closet seat raised.

The closet bowl or hopper generally designated 2 is formed in one piece from pottery or vitreous material and is provided with a siphoning channel 3 and orifice 4 through which a jet of water from the ordinary flushing source is supplied to start and maintain the siphonic action and with a hollow rim 5 from which orifices 6 lead to the inner sides of the bowl or hopper to supply water from the flushing source in the usual manner and for the well known purposes. A closet seat 7 is pivotally secured to the bowl by means of hinges 8 in the usual manner.

The rim 5, as will be noted most clearly from Fig. 2 is wider across the front of the hopper or bowl than it is across the back so that a bed pan turned upside down with the spout toward the rear of the hopper may be received within the rim. The front portion of the rim 5 centrally of the bowl is depressed or projected forwardly as shown at 5′ in order to facilitate insertion of a hand to grasp the rear of the pan. The interior side walls of the bowl below the rim converge sharply inwardly to provide shoulders or shelves 9 which may at the front merge into one another while the exterior side walls are contoured to convex shape, as best illustrated in Fig. 3, leaving an air chamber therebetween on each side. The air chambers provide a lighter product and permit the exterior side to be given a pleasing curvature. The shoulders or shelves 9 are substantially horizontal transversely of the closet although they incline slightly toward the rear terminating over half way from the front to the rear so as to provide a proper supporting surface for a bed pan 10. The shoulders 9 are of such depth below the top of the rim 5 that the average bed pan will fall entirely below the top of the rim when seated thereon while between them a channel 11, toward which the upper surfaces of the shoulders 9 are slightly inclined, drains toward the back of the bowl or hopper. Substantially centrally between the shoulders or shelves 9 and substantially centrally of the length of the channel 11 is a flushing jet 12 to which water is supplied through a pipe and valve 13 and 14 connected to any convenient source of water supply.

The bowl rim is made narrower than in prior constructions which makes the article more sanitary and easier to manufacture. Furthermore, in order not to permit the unnecessary expenditure of water at the front and forward portions of the bowl when it is flushed, the water channel or water passage in the rim is gradually choked or narrowed down in cross-sectional area from the rear to the front of the bowl as will be apparent from the drawings. This permits the rim itself to be gradually narrowed or reduced in thickness from the rear to the front of the bowl as will also be apparent from the draw-

ings, particularly Fig. 2. The arrangement of the water channel not only saves water but serves to reduce the tendency of the water to surge upwardly in the bowl at the front thereof during flushing and the reduced thickness of the rim or what may be termed the reduced "over-hang" of the rim over the bowl, makes the fixture more sanitary than it would otherwise be. Water for flushing the bowl is, of course, supplied to the rear thereof in the usual manner.

In operation when the bed pan has been disposed in inverted position as shown in the drawing with its spout toward the rear, the operator turns on the water leading to the jet 12 which thoroughly flushes the pan whereupon the pan may be removed, or, if desired, the closet itself may be flushed in the usual manner before the pan is removed. By reason of the long and broad bearing surface of the shoulders or shelves 9, there is no danger that the pan will tip and permit the spray from the jet 12 to discharge the contents outside of the closet but instead, the pan will remain steady in its position while being flushed. By arranging the bowl of such shape that the bed pan can only be received therein when its spout is in a rearwardly directed position, the contents can only be discharged to their proper place within the hopper. The single jet is efficient and effective and certainly of far more simple and cheap construction than could be obtained with two or more jets.

While I have described and illustrated what is at present a preferred form of my invention, it will be obvious that variations and changes may be made therein without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. A water closet hopper comprising a bowl having a flush rim extending perimetrically thereabout and wider across the front of the hopper than across the back whereby a bed pan turned upside down with the spout toward the rear of the hopper may be received within the rim, a shelf on the interior of the bowl provided with a substantially flat horizontal shelf surface substantially below said rim extending from the front along each side over half of the distance toward the rear thereof whereby a bed pan may be supported in inverted position within the hopper and below the rim thereof, said shelf being imperforate and together with the bottom of the bowl providing a downwardly and backwardly inclined channel between the portions of the shelf along the sides of the bowl, and a single jet orifice through the bottom of said channel substantially central of the length and width thereof.

2. A water closet hopper comprising a bowl having a flush rim extending perimetrically thereabout and wider across the front of the hopper than across the back whereby a bed pan turned upside down with the spout toward the rear of the hopper may be received within the rim, a central front portion of the rim having a forwardly depressed portion whereby access to said bed pan for grasping it may be had, a shelf on the interior of the bowl provided with a substantially flat horizontal shelf surface substantially below said rim extending from the front along each side over half of the distance toward the rear thereof whereby a bed pan may be supported in inverted position within the hopper and below the rim thereof, said shelf being imperforate and together with the bottom of the bowl providing a downwardly and backwardly inclined channel between the portions of the shelf along the sides of the bowl, and a jet orifice through the bottom of said channel substantially central of the length and width thereof.

3. A water closet hopper comprising a bowl of vitreous material having a flush rim extending perimetrically thereabout, said rim having an internal water channel extending therethrough and about the bowl, said channel being substantially closed except for a plurality of downwardly directed jet orifices and gradually narrowing in cross sectional area from the rear of the bowl around both sides to the front thereof, there being a water inlet to the channel at the rear of the bowl.

4. A water closet hopper comprising a bowl of vitreous material having a flush rim extending perimetrically thereabout, said rim being narrowed down from the rear of the bowl toward the front thereof and having an internal water channel extending therethrough and about said bowl, said channel being closed except for a plurality of downwardly directed jet orifices and said channel gradually narrowing in cross sectional area from the rear of the bowl around both sides to the front thereof, there being a water inlet to the channel to the rear of the bowl.

In witness of the foregoing I affix my signature.

KARL A. WERNLÉ.