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A. H. GOEPEL

2,170,776

FLUSH TANK UTILITY SHELF

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Fig. 1.

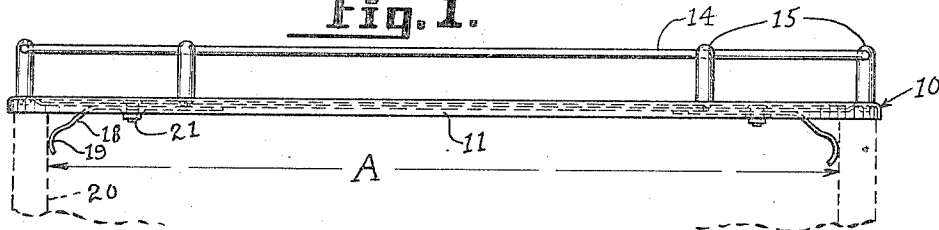


Fig. 2.

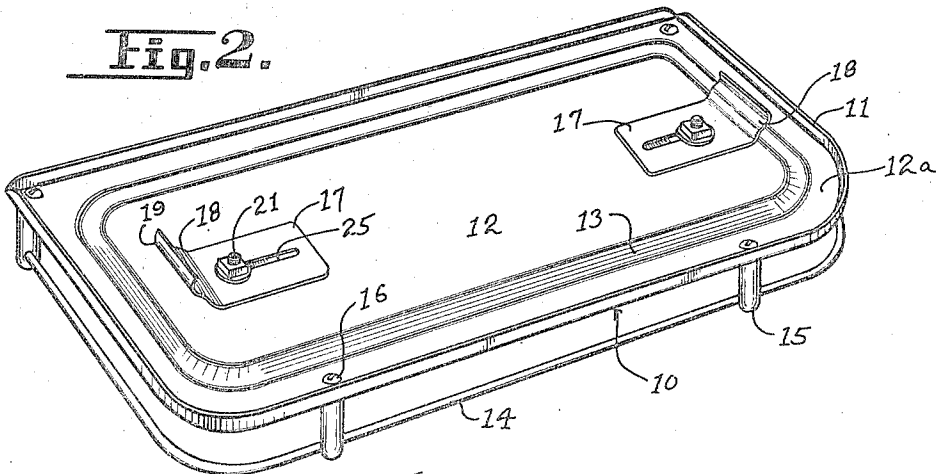


Fig. 3.

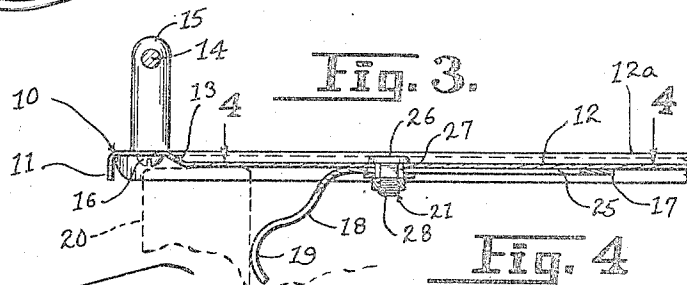


Fig. 5.

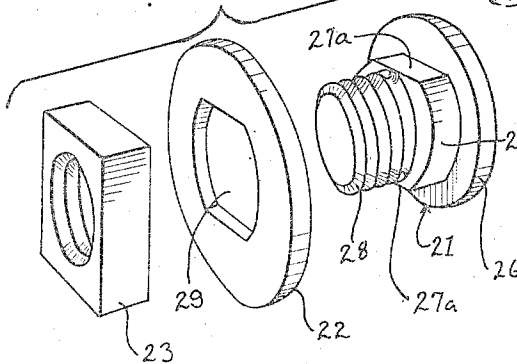
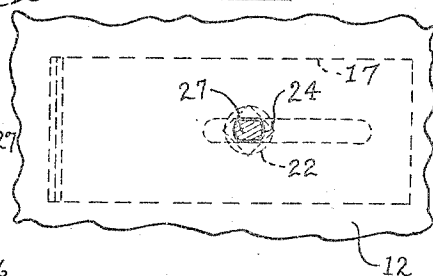


Fig. 4



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FLUSH TANK UTILITY SHELF

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5 Claims. (Cl. 4-68)

This invention relates to bathroom accessories and in particular to a utility shelf or tray adapted to be set upon and serve as the cover for a toilet flush tank.

5 This invention is an improvement over the construction of my earlier utility shelf covered by Patent No. 2,033,629 dated March 10, 1936. Since the earlier embodiment of this tray has now been on the market for several years, various minor faults have been discovered and the knowledge gained from public use has taught the need of a new tray necessitating various mechanical changes in construction which presents several desirable features over the earlier embodiment and a less costly tray for the benefit of the public.

15 One of the objects of this invention is to provide a utility tray which is adapted to be set directly on top of the flush tank and held in place by adjustable brackets that are only adjustable in a linear direction.

20 A further object is to provide a tray of the above nature in which the brackets are secured fast in an adjusted position to accommodate the various sizes of the flush tanks to which the tray may be attached; and, in addition, the brackets are constructed with depending spring lugs designed to cam into place at the top of the flush tank hold the tray secure and centralize it relative to said tank.

30 With these and other objects in view there is illustrated on the accompanying drawing one form in which the invention may be conveniently embodied in practice.

In the drawing,

35 Fig. 1 represents a front elevational view of the flush tank shelf.

Fig. 2 is a perspective view of the underside of the same.

40 Fig. 3 is a vertical sectional view through one end of the shelf showing the means for adjustably attaching the brackets.

Fig. 4 is a fragmentary plan view from the top of the tray taken on line 4-4 of Fig. 3.

45 Fig. 5 is an exploded view of the special bolt, washer and nut used for attaching the bracket to the tray.

Referring now to the drawing in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 indicates generally a substantially rectangular flat metal shelf or tray having a flange 11 depending from all edges of said tray. The major central portion or plane of the tray is depressed as at 12 and connected to the upper plane 12a of the tray by a continuous inclined connecting

section 13, integrally joining the depressed portion 12 to the upper plane 12a and serving to strengthen the tray.

In order to provide a means for holding toilet articles, etc. upon the tray 10 that might per-
5 chance be knocked over or brushed aside, an elevated rail 14 is provided that extends around the front and side edges of the tray 10. Aside from the practical aspect of the rail 14 it also serves to considerably enhance the attractive appearance
10 of the tray. The rail 14 is retained in an elevated position by means of a plurality of supporting posts 15, four in this instance, one located in each rear corner of the tray and two at an intermediate position on the front edge. The posts
15 are secured in a vertical position to the upper plane 12a of the tray by screws 16, passing through suitable holes in the tray from the under-
side.

The underside of the tray 10 is provided with a
20 pair of relatively wide opposed bracket members 17-17, the outer ends of which are bent downwardly into sinuously shaped lugs 18, 18 of a resilient nature. The particular shape and form-
25 ing of the lugs 18, 18 permits them to be flexed only in a plane transversely to the plane of the bracket base. The terminal end of each lug is shaped in an arcuate camming section 19, 19 that facilitates the assembly of a tray 10 upon the
30 top of the flush tank 20, a section of the latter is indicated by dotted outline in Figs. 1 and 3.

The brackets, 17, 17 are adjustably secured to the underside of the tray 10 by a pair of specially shaped bolts 21, 21, washers 22, 22 and nuts
35 23, 23, a set being clearly detailed in Fig. 5. The bolt 21 is adapted to fit in a specially shaped hole 24, pierced through the depressed plane 12 of the tray 10 and through a longitudinal slot 25
40 provided in the flat base of the bracket 17. Specifically the bolt 21 is formed with a flattened head 26 which engages against the top surface of the depressed plane 12 of the tray 10 and with an intermediate shank 27 having a pair of opposed flattened surfaces, 27a, 27a, the bolt ter-
45 minating in the usual threaded section 28. It will be noted from Fig. 4 that the special shaped holes 24 in the tray 10 correspond to the cross section shape of the shank 27 so as to prevent relative twisting of the bolt 21 to the tray. This construction is adopted so as to permit the use of
50 a relatively thin flat head 26 on the bolt 21 without the necessity of a screw driver kerf thus adding to the attractiveness of the article and eliminating any catch pocket for dirt. The width of the longitudinal slots 25 in the brackets 17, 55

17 correspond to the width between the flats 27a of the bolt shank 27, and the washers 22, 22 which engage against the under surface of the brackets have a special shaped hole 29 likewise corresponding to the cross section shape of the bolt shank 27. The nut 23 has the usual threaded engagement upon the threaded section 28 of the bolt 21 to hold the parts in assembled position.

The assembly of the bolts 21, 21 and the complementary parts for holding the brackets 17, 17 in place is well illustrated in Fig. 3. In adjusting and setting the brackets 17, 17 to accommodate the flush tank 20, the dimension A in Fig. 1 between the inner walls of the flush tank will first be determined, then by loosening up the nuts 23, 23 each bracket 17 may be slid in a linear direction outwardly to a position where preferably the arcuate camming section 19 of the lugs 18, 18 will be spaced a distance somewhat greater than the distance A between the inner walls of the flush tank 20, and the nuts 21, 21 tightened up.

When the tray is assembled upon the flush tank 20 the lugs 18, 18 will be automatically sprung inwardly by reason of the camming section 19 camming against the inner walls of the tank 20 and consequently the brackets 17, 17 will at all times be tensioned against said inner walls. The resilient feature of the lugs not only serves to centralize the tray 10 relatively to the flush tank 20 but will hold it in a more secure position to prevent its rattling or easy displacement off from the flush tank 20.

While the form of the invention herewith shown and described embraces a preferred embodiment of the same, it is to be understood that the construction may be varied as to mechanical details without departing from the spirit of the invention and the scope of what is claimed.

What is claimed as new, and for which it is desired to secure Letters Patent, is:

1. In a cover for attachment to a flush tank, a relatively flat tray, a pair of brackets, means for securing said brackets to the underside of said tray, said means comprising a bolt, washer and nut for each bracket, said bolt formed with an intermediate shank with opposed flattened sections, said tray having a pair of holes corresponding in shape to the transverse section of said shank, said brackets each having a longitudinal slot of a width equal to the distance across the flats of said shank, the shank of said bolts being engaged in said tray holes and bracket slots and serving to permit longitudinal adjustment of said

brackets without relative twisting of said brackets to said tray.

2. In a cover for attachment to a flush tank, a relatively flat tray, a pair of brackets comprising a flat base portion with a longitudinal slot and integral resilient depending lugs, means for adjustably securing said brackets to the underside of said tray comprising a bolt, nut and washer for each bracket, said bolt having an intermediate asymmetrical shaped shank, and said tray having a pair of holes corresponding to the shape of said shank and each washer having a similar shaped hole, whereby when the bolt, washer and bracket are assembled in place and secured by said nut no relative twisting will be effected between said bolt, washer and tray.

3. In a cover for attachment to a flush tank, a tray having its major central portion depressed below a surrounding raised border surface, a rail, a plurality of posts secured to the top of said border surface and supporting said rail above said tray in parallel relation to the front and sides of said tray, a pair of adjustable brackets having depending arcuate shaped spring lugs secured to the underside of said tray, and means for securing said brackets rigidly in set position so as to permit said lugs to cam into the top of said flush tank upon the assembly of said tray, said means comprising a bolt having a relatively thin flat unmutilated head adapted to set against the top surface of said tray and having cooperative non-rotatable engagement with said tray.

4. In a cover for attachment to the top of a flush tank, a tray, a pair of adjustable brackets attached to the underside of said tray having depending resilient lugs for engagement with the inner walls of said tank, and means permitting said brackets to be adjusted in straight linear direction substantially along the longitudinal center of said tray and to be secured in a set position to the tray.

5. In a cover for attachment to the top of a flush tank of various sizes comprising a tray, a pair of brackets mounted on the underside of said tray, means permitting linear adjustment of said bracket to accommodate various size flush tanks, means for rigidly securing said bracket in locked position in accordance with the size of the tank, and depending spring lug means forming a part of said brackets adapted to cam into the top of said tank and frictionally hold said tray in place.

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