Jan. 27, 1970 R. F. WILLIAMS 3,491,380

TOILET TANK

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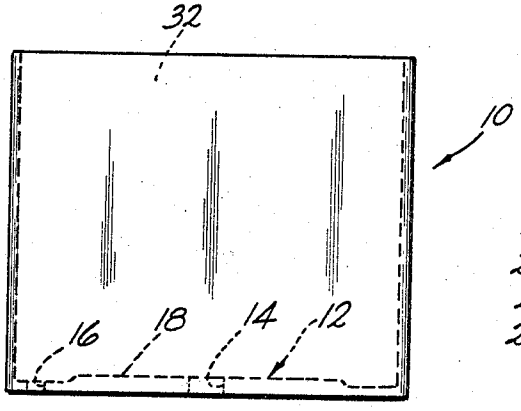


FIG. 1

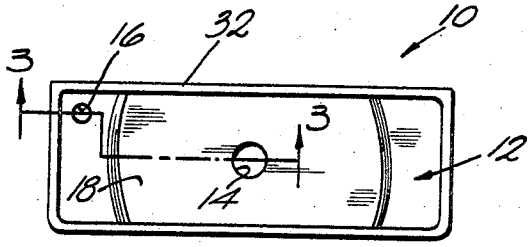


FIG. 2

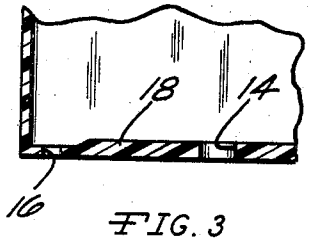


FIG. 3

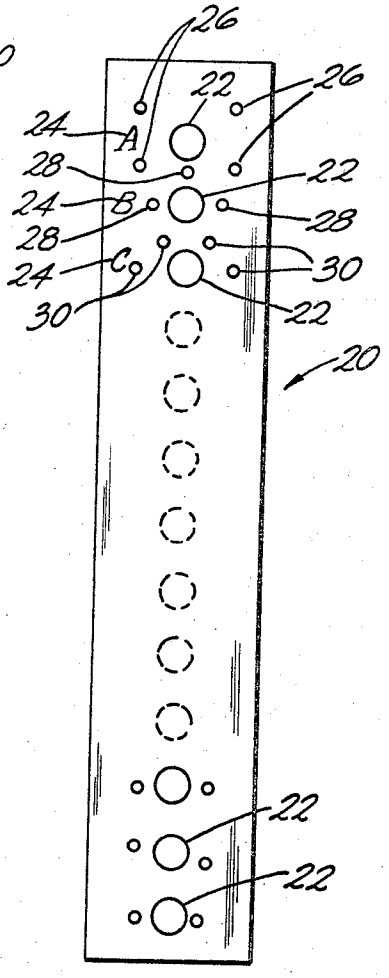


FIG. 4

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TOILET TANK

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U.S. Cl. 4—18 6 Claims

ABSTRACT OF THE DISCLOSURE

A universal replacement toilet tank which is preferably formed from a thermoplastic material which is corrosion and break resistant and which is suitable for the purpose of having attachment holes drilled therein. The tank contains the conventional holes in the bottom wall for mounting the ballcock and the flush valve, but is void of attachment holes. The bottom wall is thickened around the periphery of the flush valve hole in the area where the hold-down bolts are normally located for mounting the tank on a conventional toilet stool. A disposable template is provided with the tank containing a plurality of bolt hole patterns for all of the standard arrangements of hold-down bolts for the various brand name toilet units. The patterns on the template are oriented with corresponding flush valve holes on the template so that the installer can place the corresponding hole of the selected pattern in registry with the flush valve hole of the tank and then drill the proper hold-down holes required for the stool on which the replacement tank is being installed.

BACKGROUND OF THE INVENTION

It is conventional practice in the manufacture of toilets to mount the toilet tank on the toilet stool. The toilet tanks have standard locations for the discharge hole in which the flush valve is positioned, but substantially all of the manufacturers of the brand-named toilets use a different pattern of hold-down bolt holes for mounting the tank on the stool. Consequently, if a tank becomes damaged or is defective so as to require replacement, it is now necessary to obtain a replacement tank from the manufacturer of the original toilet in order to have the hold-down bolt holes of the tank fit the corresponding bolt holes of the stool. If such a replacement tank is not readily available, the customer must purchase a completely new toilet stool and tank unit.

Normally, stores which sell toilets do not stock replacement tanks because the demand for such tanks is not particularly great, and if the needs of the customers were to be fully met, the stores would be required to keep a large inventory of different tanks because of the practice of manufacturers to use different hold-down hole patterns.

Not only is there a problem of obtaining a replacement tank for currently manufactured toilets, but in many instances the replacement tank is needed for an earlier make of toilet which no longer is available on the market. When this situation exists, the customer has no choice but to purchase a completely new toilet unit even though only the tank of the toilet requires replacement.

Also, in some instances toilet tanks have been mounted directly on a wall, or the like, and mounting bolts remain in the wall. This situation also creates similar problems for the installer or customer desiring to replace the tank.

SUMMARY OF THE INVENTION

The present invention relates to an improved toilet tank which is particularly adapted for replacement purposes, and to the combination of such replacement tank

with a template for use in installing the tank so that said tank has generally universal replacement characteristics.

According to one form of the present invention, a combination is provided of a replacement toilet tank of thermoplastic material which is void of attachment holes but which has the conventional discharge hole for use with the flush valve, and a template having a purality of spaced corresponding discharge holes around each of which is a different pattern of hold-down bolt holes for use in cutting the desired arrangement of hold-down holes in the replacement tank.

It is one of the objects of the present invention to provide an improved replacement tank for toilets and a disposable template for use in installing the tank.

It is still another object of the present invention to provide an improved replacement tank for toilets which has general application.

Other objects of this invention will appear in the following description and appended claims, reference being had to the accompanying drawing forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

BRIEF DESCRIPTION OF THE DRAWING

FIGURE 1 is a front elevation view of a replacement toilet tank embodying the present invention;

FIGURE 2 is a top plan view of the replacement toilet tank;

FIGURE 3 is a fragmentary sectional view taken on the line 3—3 of FIGURE 2; and

FIGURE 4 is a plan view of a template for use with the tank when installing the same.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Before explaining the present invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawing, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also, it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

Referring now to the drawing, the preferred embodiment of the invention will be described in greater detail. The replacement toilet tank **10** is preferably made in an injection molding operation of a high impact thermoplastic material which is corrosion and break resistant and which can be drilled easily for the purpose of locating hold-down or mounting bolt holes therein. The tank **10** has a conventional external shape and has a bottom wall **12** which has centrally located therein a discharge hole **14** for use with a conventional flush valve, not shown. Also, in one corner of the bottom wall **12** is an inlet hole **16** for use with the standpipe of a conventional ballcock, not shown.

The tank **10** as manufactured is void of any mounting or hold-down bolt holes. The bottom wall **12** has a thickened portion **18** surrounding the hole **14** and of an area sufficiently large to encompass the variety of different hold-down bolt hole patterns currently or heretofore used in the plumbing industry for toilet units. The tank **10** is constructed and arranged so that it can be drilled at the site of installation so as to have the proper pattern of mounting or hold-down bolt holes.

For this purpose, a template **20** is provided which can be disposable in character and can be formed from suitable material, such as paper, sheet plastic, or the like. The template **20** has a plurality of spaced holes **22** which correspond in size to the discharge hole **14** of the tank

10. Each hole has indicia 24 adjacent thereto identifying a particular manufacturer of a current or earlier toilet unit, and arranged around each such hole is the pattern of hold-down or mounting holes associated with the product of that particular manufacturer. Thus, as seen in FIG. 4, the manufacturer A has a pattern of holes 26, the manufacturer B has a pattern of holes 28, the manufacturer C has a pattern of holes 30, and the like.

When it is desired to install the replacement tank 10, the customer or plumber need only select from the existing toilet stool the appropriate pattern of holes on template 20, drill the holes according to their location on the template 20, and then mount the tank 10 in place on the toilet stool.

It will also be recognized that the tank 10 can be used for replacement purposes with toilet stools which have no hold-down or mounting bolts, but with which the tank is mounted on an adjoining wall or supporting surface. In this situation, the position of the existing mounting bolts is located on the back wall 32 of the tank 10, and the holes are drilled therein.

Thus, a novel and unique tank 10 has been provided which has universal application as a replacement unit when used in combination with the template 20. By virtue of this invention dealers of bathroom accessories can maintain in their stock, tank replacement units which can be used with any of the existing brands now being produced or those which may have been long discontinued.

Having thus described my invention, I claim:

1. In combination, a replacement toilet tank of corrosion and break resistant material having mounting means in which attachment holes can be introduced for receiving attachment bolts from a toilet stool on which the replacement tank is to be installed, and a template having a plurality of different attachment-hole pattern means associated with said tank, each of said pattern means being dimensioned to fit said mounting means, said pattern means being selectively useable by the installer of the tank for making a preestablished bolt hole pattern to fit the attachment bolts of a toilet stool on which the replacement tank is being installed.

2. The combination of claim 1, wherein the material of said replacement tank is an organic plastic.

3. The combination of claim 2, wherein said mounting means include a bottom wall having a hole formed therein for a flush valve and an imperforate portion surrounding the edge of said hole, and said template pattern means each have a central hole corresponding to the hole in said bottom wall and attachment holes formed about their respective center holes.

4. The combination of claim 3, wherein said mounting means include wall portions connecting said imperforate portion to the side walls of said tank with said imperforate portion being substantially thicker than said wall portions.

5. The combination of claim 2, wherein said mounting means include wall portions connecting said imperforate portion to the side walls of said tank with said imperforate portion being substantially thicker than said wall portions.

6. The combination of claim 5, wherein each of said pattern means differs in dimensions from the other pattern means and each is adapted to match bolt hole patterns of a known brand of toilet stool, and said template has indicia thereon to identify each pattern means with known brands of toilet stools.

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U.S. Cl. X.R.

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