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COVERING FOR TOILET FLUSH TANKS

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Fig. 1.

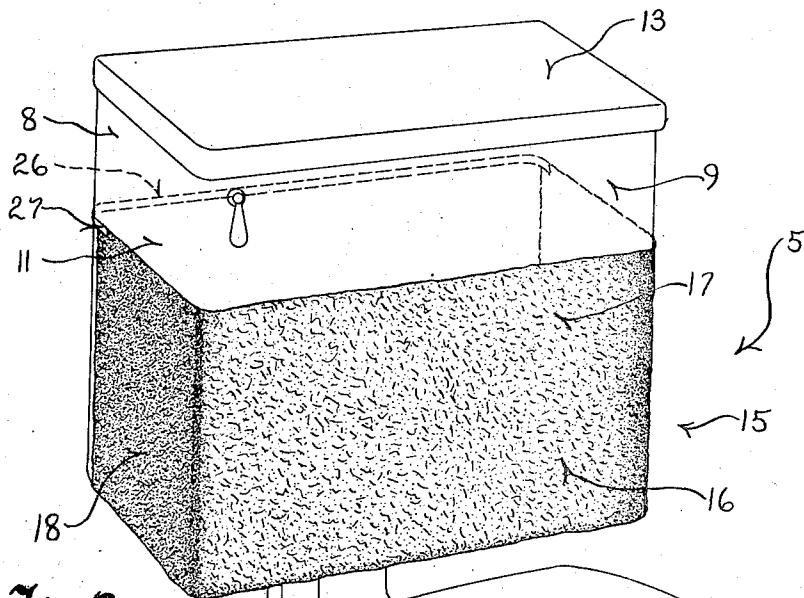


Fig. 2.

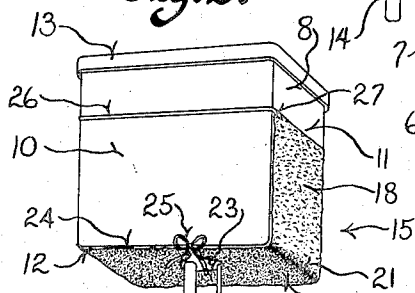
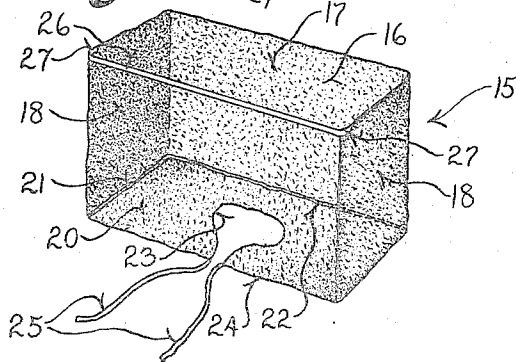


Fig. 3.



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COVERING FOR TOILET FLUSH TANKS

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mesne assignments, to Rhea Manufacturing
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Continuation of application Serial No. 51,271,
September 25, 1948. This application October
30, 1950, Serial No. 192,966

1 Claim. (Cl. 150—52)

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This invention concerns flush tanks of the type used with toilets and the like. As in my copending application Serial Number 51,271 filed September 25, 1948, now abandoned, of which this application is a continuation, it is the purpose of this invention to provide a condensate absorbing and inhibiting jacket for toilet flush tanks.

In accordance with modern plumbing methods, most toilets are provided with a flush tank adapted to contain a supply of water by which the toilet may be flushed. For this purpose the flush tank has a water supply pipe connected with its bottom and a discharge pipe leading from the bottom of the tank to the toilet adjacent thereto. However, the water supplied to the flush tank is usually quite cold with the result that the temperature of the exposed walls of the tank approaches that of the cold water contained in the tank.

Ordinarily there is no objection to supplying cold water to the toilet flush tank but a very annoying problem arises from this practice whenever the temperature of the tank walls drops to a value at or below the dew point of the air surrounding the tank, especially if the air is heavily laden with moisture. This condition generally obtains in the summertime on warm or hot days when the moisture or water vapor content of the air is apt to be much higher than during cooler weather. Also, it is well known that warm air may easily carry a relatively high percentage of water vapor but that when such "humid" air is cooled to or below its dew point, for one reason or another, condensation of the water vapor in the air takes place.

In the bathroom, therefore, the moisture or water vapor contained in warm air in the room condenses upon the cold exposed wall surfaces of the toilet flush tank, and it is a common occurrence to see condensation forming on and running down the exterior walls of a toilet flush tank to drip from the bottom of the tank onto the floor. On particularly humid days condensate collects in a pool about the base of the toilet beneath the flush tank to produce an unsightly and untidy appearance, and in many cases leads to early repair of flooring and the like by seepage of water into joints in the flooring at the base of the wall upon which the tank is mounted.

Recently attempts have been made to prevent the dripping of condensate upon the floor beneath the flush tank by the use of a drip pan attached to the tank at the bottom thereof and

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into which the condensate drips from the sides of the tank; the condensate collected in the drip pan discharging through a length of tubing into the toilet bowl. While this expedient is satisfactory in some cases, it is nevertheless only a partial solution to the problem chiefly because of the fact that flush tanks are provided in many different shapes while the drip pans presently available are of more or less standard shapes rendering some of them completely inoperative for the performance of their function. Moreover, the use of drip pans as the only approach to the problem is evidence that the formation of condensate on the walls of flush tanks hitherto has been accepted as inevitable, since the pans merely provide means for catching and disposing of the condensate after and entirely without interfering with its formation.

With these problems and the past attempts at their solution in mind, the present invention has as its object the provision of an attachment for toilet flush tanks which not only positively precludes condensate from dripping on the bathroom floor regardless of the shape of the tank but largely prevents the formation of condensate on the tank.

More specifically this invention has as its object the provision of a covering readily attachable over the exterior walls of a toilet flush tank, and which covering is made of fabric having moisture absorbing and heat insulating characteristics so as to prevent contact of warm moisture laden air with the colder wall surfaces of the tank and thus largely inhibit the formation of condensation on the walls of the tank, while readily absorbing any such condensation which might form on the tank.

Another object of this invention is to provide a jacket-like covering for toilet flush tanks which may be readily attached to the tank in position covering the major exterior wall surfaces of the tank at which condensation is likely to take place, with such attachment being effected entirely without the use of tools.

With the above and other objects in view, which will appear as the description proceeds, this invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the hereindisclosed invention may be made as come within the scope of the claim.

The accompanying drawing illustrates one complete example of the physical embodiment of

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the invention constructed according to the best mode so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a perspective view illustrating the jacket-like covering of this invention attached to the flush tank of a toilet;

Figure 2 is a perspective view looking at the back of the flush tank of Figure 1 and showing the manner of attachment of the covering to the tank; and

Figure 3 is a perspective view of the covering per se looking down into the open back and top of the covering.

Referring now more particularly to the accompanying drawing in which like numerals indicate like parts, the numeral 5 designates a toilet installation of the type wherein the toilet bowl 6 is connected by means of a pipe 7 with a flush tank 8 mounted on the bathroom wall behind and slightly above the toilet bowl so as to enable the bowl to be flushed when desired. The flush tank 8 herein shown has a substantially rectangular cross section, and its front and back walls 9 and 10 respectively and opposite side walls 11 extend vertically upwardly from a substantially horizontal bottom wall 12.

The discharge pipe 7 extends through the bottom wall 12 of the tank, and a water supply pipe 14 likewise extending through the bottom wall alongside the pipe 7 is usually connected with a source of clean cold water to enable the tank to be filled after the bowl has been flushed. The open top of the tank is provided with the customary removable lid 13.

In the conventional installation the flush tank 8 is mounted on one of the upright walls of the bathroom, as stated previously, with the back wall 10 of the tank disposed directly against said supporting wall. Hence, only the front and side walls 9 and 11 and the bottom wall 12 of the tank are exposed, and it is on the exterior surfaces of these walls that condensation of the water vapor in warm air contacting the cold walls of the tank takes place. Most of the condensate collects on those surfaces of the front and side walls of the tank which lie beneath the normal level of water maintained in the tank, and as the tank is usually maintained about two-thirds full of water, it may be assumed that condensation is liable to take place over the major surfaces of the tank. In any event, condensate formed on the walls of the tank in the manner stated invariably runs down the sides of the tank and drips onto the floor of a bathroom in a highly objectionable manner unless drip pans or their equivalent are placed beneath the tank to catch the condensate.

In accordance with the present invention condensate is not only prevented from dripping upon the floor of the bathroom but its formation on the walls of the flush tank is actually largely precluded. This desirable result is achieved by means of a flexible covering 15 in the nature of a jacket which is open at its top and back but which is adapted to cover the exterior surfaces of the front and side walls 9 and 11 from the bottom of the tank to a height at least equal to that of the level of water in the tank and to likewise cover the major portion of the bottom wall 12 of the tank.

The jacket-like covering 15 is preferably made of fabric such as turkish towelling or any other equivalent material having good moisture absorbing and heat insulating characteristics. The body portion 16 of the jacket includes a front

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panel 17 and opposite side panels 18, these panels preferably being formed of one piece of cloth. The dimensions of the body are such that the front panel 17 will cover approximately the lower two-thirds of the front wall 9 of the toilet tank, and the side panels 18 should be of a size to approximately cover the lower two-thirds of the side walls 11 of the tank.

The jacket-like covering also includes a bottom panel 20 of substantially rectangular shape having its opposite short sides stitched or otherwise joined as at 21 to the lower ends of the side wall panels 18 and having one of its long sides stitched or otherwise secured as at 22 to the lower edge of the front panel 17 of the body.

The bottom panel 20 is preferably of a size to cover the entire bottom wall 12 of the flush tank, and in order to enable the application of the jacket to the lower portion of the tank the bottom panel 20 has an aperture 23 formed therein opening to the free edge 24 of the panel and which aperture is adapted to receive the piping 7 and 14 extending from the bottom wall of the flush tank. Tapes 25 attached to the bottom panel adjacent to the free edge 24 thereof but at opposite sides of the aperture 23 are adapted to be tied around the piping as illustrated best in Figure 2 so as to aid in holding the covering in place on the flush tank.

Another tape 26, preferably of the elastic type, has its opposite ends secured as at 27 to the upper rear corners of the side panels. The tape 26 may be looped over the top rear of the flush tank to rest upon the upper edges of the side walls 11 beneath the lid 13, or if the tank is not tightly against the bathroom wall, the tape may be passed down behind the tank, as illustrated in Figures 1 and 2, for the purpose of holding the covering in place on the tank.

When the covering is made of turkish towelling having good heat insulating characteristics little or no warm moisture laden air can come into contact with the coldest wall portions of the flush tank, and consequently there is little likelihood of condensate forming on the walls of the tank beneath the covering. However, any condensate that may form on the walls of the tank will be readily absorbed by the covering and thus prevented from dripping onto the floor of the bathroom beneath the tank.

Since the formation of condensate on the walls of the tank is most pronounced after refilling thereof with cold water following flushing of the toilet, and least pronounced during prolonged periods of non-use of the toilet during which the water in the tank tends to warm up, it will be obvious that any moisture absorbed by the jacket-like covering will be evaporated during such periods of non-use, thus effectively dissipating the condensate and effectively preventing saturation of the jacket.

Another highly important advantage achieved by the covering of this invention is that it may be used effectively with flush tanks having slightly different sizes and shapes. One size of jacket may easily conform to the different shapes and sizes of existing flush tanks and still efficiently perform its function by reason of the flexibility of the fabric from which the jacket is made. Still another feature is that the covering may be of a decorative nature and colored to either contrast or blend with the color scheme of the bathroom in which it is used.

From the foregoing description taken in connection with the accompanying drawing, it will

be readily apparent that this invention provides a simple yet highly efficient means for preventing condensate from dripping from the walls of toilet flush tanks through the use of a jacket-like covering having moisture absorbing and heat insulating characteristics, which covering may be made at relatively little cost.

What I claim as my invention is:

As an article of manufacture for use with a toilet flush tank having exposed bottom, front and side walls subject to condensation of moisture thereon, means for collecting and disposing of said moisture comprising a one piece jacket open at its top and back, said jacket comprising a rectangular front panel of a width to reach across the entire front of the flush tank and a height to extend from the bottom of the tank to above the normal level of water in the tank so that the exposed front wall of the tank can have its major portion covered by said panel, similar rectangular side panels joined to the opposite side edges of said front panel and having a height equal thereto but being substantially narrower in width to correspond substantially to the width of the side walls of the flush tank and to cover the major portion thereof from the bottom of the tank to a height corresponding to the height of the front panel, and a bottom panel joined to the lower edges of the front and side panels and of a size and shape to cover the major portion of the exposed bottom wall of the tank, said bottom panel having an aperture therein opening to its rear free edge to accommodate piping projecting from the bottom of the tank; and means for holding

the jacket in place upon a flush tank including attaching means connected with the upper rear corners of the side panels and engageable over the upper rear portions of the flush tank, and cooperating fastening means on the bottom panel at opposite sides of and near the edges of the aperture therein and adjacent to the rear free edge of the bottom panel, said cooperating fastening means being connectable substantially to close the mouth of the aperture around the piping projecting from the bottom of the tank to thus coact with said attaching means in holding the jacket in place upon the tank, said jacket being made substantially entirely of porous, water absorbent fabric comprising a single layer of turkish toweling or the like and being of sufficient thickness as to be capable of absorbing and retaining substantially the entire quantity of moisture condensed upon said tank walls during normal periods of use of said tank and said fabric being capable of permitting ready evaporation of substantially all of said absorbed moisture during periods of inactivity of said tank.

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