Aug. 13, 1940. D. BAUTZ 2,211,226

CONDENSATION COLLECTOR FOR TOILET FLUSH TANKS

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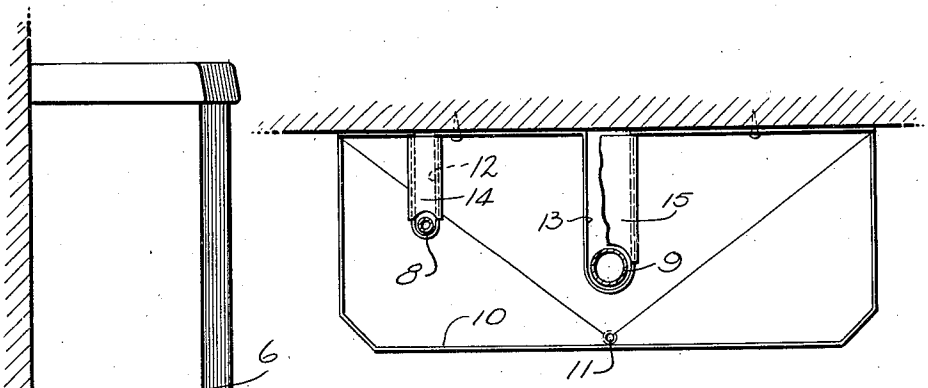

Fig. 2.

Fig. 1.

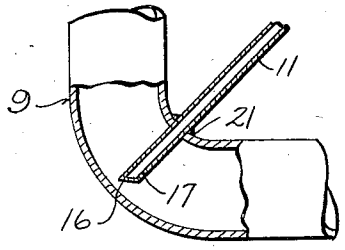

Fig. 3.

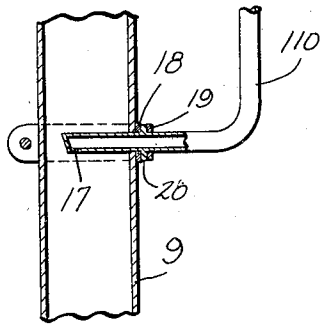

Fig. 4.

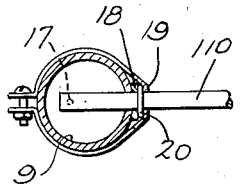

Fig. 5.

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CONDENSATION COLLECTOR FOR TOILET FLUSH TANKS

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Application August 2, 1939, Serial No. 287,920

1 Claim. (Cl. 4—252)

This invention relates to improvements in condensation collectors for toilet flush tanks.

It is the primary object of the invention to provide in simple and easily applicable form a condensation collector adapted to be applied with few tools to existing toilet fixtures by unskilled persons, and further adapted to receive the condensation drip from a flush tank and to deliver the drip to the flush pipe in such a manner that little or no back pressure will be created during the flushing operation.

In the drawing:

Figure 1 is a view partially in side elevation and partially in transverse section, showing a typical installation of a device embodying my invention.

Figure 2 is a view showing the device in plan as it appears when the flush tank is removed.

Figure 3 is an enlarged detail view, broken away to a longitudinal section to expose the fitting used to afford communication between the drip pan and the flush pipe.

Figure 4 is a view similar to Figure 3, showing a modified embodiment of my invention.

Figure 5 is a detail view in transverse section through the pipe, showing in plan the device illustrated in Figure 4.

Like parts are identified by the same reference characters throughout the several views.

The flush tank 6, toilet bowl 7, and communicating flush pipe 9 may be of any conventional or desired form. In accordance with the usual practice, the flush pipe 9 is normally empty except during the flushing operation, when it is delivering the contents of the tank 6 to the bowl 7.

The pan 10 has an area slightly greater than the horizontally projected area of tank 6. Thus it is adapted to catch the condensate accumulating on and tending to drip from the tank 6. The pan 10 has its bottom sloping in all directions toward the drain pipe 11. Notches 12 and 13 extend inwardly from its rear margins to receive the water supply pipe 8 and the flush pipe 9, as shown in Figure 2. The entire perimeter of pan 10, including the sides of the notches 12 and 13, is provided with a low flange to retain the condensate and direct it to the outlet through drain pipe 11. The pan may conveniently be mounted by the screws shown in Figure 2, which pass through the flange at the rear of the pan and enter the wall.

The drain pipe 11 preferably extends into the flush pipe 9 through a hole which may be bored either in a straight portion of the flush pipe as shown in Figure 4, or in the elbowed portion thereof as shown in Figure 3. The drain pipe 11 is preferably closed at its extreme end and communicates with the interior of the flush pipe solely by means of a small orifice at 17, which is sufficient to carry off the condensate but which prevents access of the flush water to the drain pipe, both because of the small size of the orifice and because of its position on the back side of drain pipe 11 remote from that portion of the pipe upon which the flush water impinges. In the construction shown in Figures 1 and 3, the drain pipe is held in the flush pipe by solder 21.

In the construction shown in Figures 4 and 5 the drain pipe 110 is equipped with a flange at 20 which is engaged by a clamp strap 15. Between the flange 20 and the pipe 9 may be interposed a piece of packing 18, made of rubber, or lead, or any other desired material. This arrangement makes soldering unnecessary. It is also possible to tap the opening in the flush pipe 9 and to screw the drain pipe into the opening in accordance with conventional plumbing practice. The constructions illustrated are preferred only because they are adapted to be applied with a minimum of tools and by persons inexperienced in plumbing.

The pan 10 for collecting the condensation has the same advantage, since the channels 12 and 13 fit readily about the pipes 8 and 9 and enable the devices to be mounted without any disconnection of pipes from existing fixtures. The portions of the notches 12 and 13 which are not occupied by the pipes 8 and 9, respectively, may be covered, if desired, by the closures 14 and 15, which are simply laid loosely over the flanges in the manner shown in Figure 1 and Figure 2.

I claim:

A condensation drip collector applicable to toilet flush tank and flush pipe installations, comprising a pan adapted to extend underneath the flush tank and notched to receive the flush pipe, said pan being inclined in the direction of the flush pipe and provided with a drain tube connecting the bottom of the pan at substantially its lowest point with said flush pipe, the drain tube having its lower end portion nearly closed and provided with a relatively small outlet permitting discharge of water in the direction of water travel through the flush pipe, whereby water passing through the flush pipe will have an aspirating effect tending to withdraw any accumulations in the drain tube, said outlet being sufficiently small to prevent a filling of the tube and pan during short periods of back pressure in the flush pipe.

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