C. W. PORTER.

SUPPORTING MEANS FOR TANKS.

APPLICATION FILED MAR. 17, 1911.

1,049,913. Patented Jan. 7, 1913.

Fig. 1.

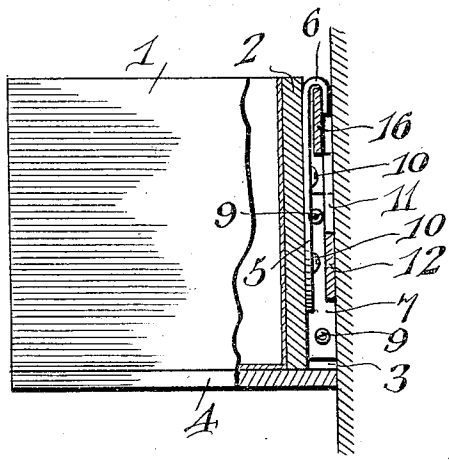


Fig. 2.

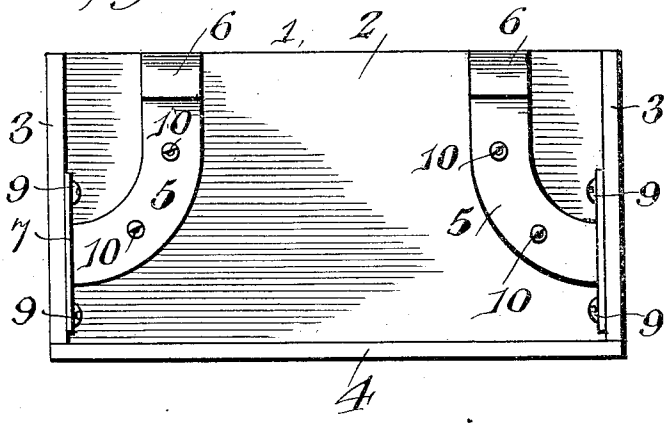


Fig. 3.

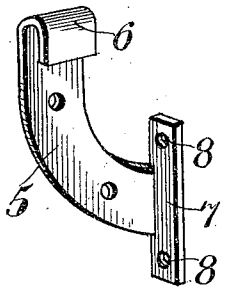
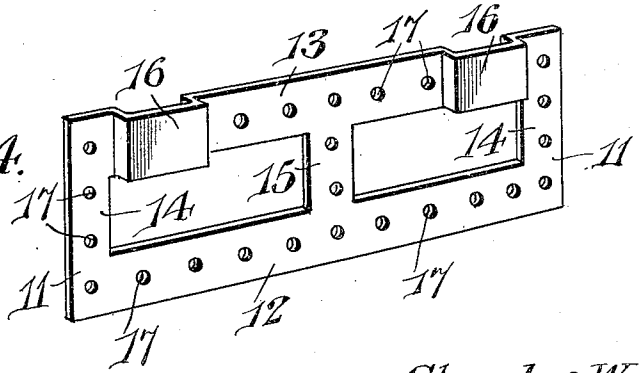


Fig. 4.



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SUPPORTING MEANS FOR TANKS.

1,049,913. Specification of Letters Patent. Patented Jan. 7, 1913.

Application filed March 17, 1911. Serial No. 615,170.

To all whom it may concern:

Be it known that I, CHARLES W. PORTER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Supporting Means for Tanks, of which the following is a specification.

This invention has reference to improvements in supporting means for tanks, particularly flush tanks, and its object is to provide a means whereby the tank may be securely attached to a wall of any character in a manner to hide the supporting means from view, but, at the same time, permit the ready removal of the tank should such be desirable.

In accordance with the present invention the tank is supplied with bracket members secured to the back of the tank, which latter is usually inset from the rear edges of the sides and bottom of the tank, and these bracket members are so arranged as to contribute to the strength of the tank, and there is provided a wall member designed to receive the bracket members and thereby support the tank, the wall member being so arranged as to be completely hidden by the tank when the latter is in place and is adapted to be secured to any type of wall, whether of brick or tile or lath and plaster.

The invention will be best understood from a consideration of the following detail description, taken in connection with the accompanying drawings forming a part of this specification, with the understanding, however, that while the drawing illustrates a practical form of the invention, the latter is by no means limited to the structure delineated, but is susceptible of change and modification in various ways so long as the salient features of the invention are retained.

In the drawings:—Figure 1 is an end elevation with parts in section of a tank with the invention applied and installed on a supporting wall or other surface. Fig. 2 is a rear view of the tank showing the tank carried brackets applied thereto. Fig. 3 is a perspective view of one of the brackets designed to be carried by the tank. Fig. 4 is a perspective view of the wall support or bracket.

Referring to the drawings, there is shown a tank 1 which may be taken as indicative of any type of flush tank, the present invention being designed for particular use in connection with flush tanks, although not necessarily confined to such use, but for convenience of description the tank 1 will be considered as a flush tank, such as is commonly employed in plumbing installations. The tank is provided with a back member 2, side members 3 and a bottom member 4, and, of course, is also provided with a front member, but this latter need not be referred to, nor is it necessary to refer to the top member often used in connection with flush tanks. The back member 2 is inset with relation to the rear edges of the side members 3 and bottom member 4.

Secured to the rear face of the back 2 are brackets 5, each having at one end a return portion 6 constituting a hook, and at the other end a flange 7 extending laterally from the same face of the bracket as the hook end 6, and, also, extended laterally from the edges of the bracket, the flange 7 being designed to engage the portion of the corresponding end 3 projecting rearwardly from the back 2 and the flanges 7 of the brackets are provided with passages 8 for screws 9 or other suitable fastening means whereby the flange 7 of each bracket is made fast to the corresponding side 3, while the body of the bracket is secured to the back 2 by screws 10, or otherwise. The body of the bracket is curved, so that the flange 7 may rest against the corresponding side 3, which, when the tank is installed, is upright and the hook end of the bracket may be about coincident with the top of the back 2, but projecting rearwardly therefrom, although the parts are so proportioned that no part of either bracket 5 extends beyond the plane of the rear edge of the end members 3 and bottom member 4.

There is also provided a wall member 11 which may for lightness of construction be in the form of a frame having longitudinal members 12, 13, end members 14 and an intermediate member 15, although this particular arrangement is not mandatory. The longitudinal member 13 is formed at spaced points with offset portions 16 designed to receive the hooks 6, while the size of the frame 11 is such as to house within the space defined by the upper edge of the top member 2 and the inner faces of the side members 3 and bottom member 4 at the rear portions of these several members, the terms of position being with reference to the tank when installed. The longitudinal

members 12 and 13 of the frame 11 are provided with numerous spaced perforations 17 and the end members 14 and also the intermediate member 15 may have a number of like perforations 17, any of the perforations being adapted to be traversed by fastening means such as screws. The purpose of providing a comparatively large number of perforations 17 is to permit the positioning of fastening devices, such as screws, with reference to the frame 11, so as to accommodate the frame to different types of walls. In the case of a frame building or frame partitions, it is advisable that the fastening screws for the frame 11 enter the studding instead of only the laths, and since most flush tanks are long enough to span the space between two studs, it will always be possible to reach the studding through some of the perforations 17. In the case of tile walls some of the perforations 17 may be brought into coincidence with the joints between the tiles, or, in the case of bridge walls, with the joints between the bricks, even though the bricks be covered with plaster, and by plugging the walls the frame is readily secured in position, such plugs being either wooden plugs or the type of fastening devices known as expansion bolts or screws. In the case of the use of anchor bolts some of the perforations 17 may be readily positioned with relation to the spaces between laths where such anchor bolts are introduced. When the tank is installed the wall plate or supporting member 11 is secured to the wall in suitable position, and it is immaterial how the wall be marred, as sometimes occurs in the attempt to connect the support to studding or in drilling or otherwise preparing a tile or brick wall for the reception of screws or other fastening devices, and especially in the case of brick walls pieces of the covering plaster are sometimes broken away or the plaster may be cracked for a distance. However, any such marring which may occur is not visible since it is behind the tank when the latter is applied to the wall by hanging the hook ends 6 of the brackets 5 upon the offset members 16 of the frame 11, the engagement of the rear edges of the side members 3 and bottom member 4 preventing any tipping movement of the tank and holding it in proper relation to the wall, and if the brackets 5 be made of suitable material the hook ends 6 may be bent to a sufficient extent to cause a close set of the tank against the wall. At the same time the tank may be removed whenever desired by disconnecting it from the other fixtures and lifting the hook ends out of engaging relation with the offset members 16.

Because of the customary manner of supporting tanks they are either very insecurely mounted, or obtrusive cleats are employed, or sustaining brackets upon which the tank rests are used. In either case it frequently happens that the wall is marred, and since these supporting members are at all times visible, being not completely hidden by the tank as in the present case, any damage to the wall becomes visible where it extends beyond the immediate portion covered by such cleats or brackets. In the present case the entire sustaining structure is wholly hidden by the tank, while at the same time an extended support is provided, whereby a firm and reliable means is at the command of the person installing the plumbing for insuring the safe mounting of the tank against displacement even when subjected to considerable force tending to disturb either the tank or its support.

What is claimed is:—

A means for sustaining flush tanks having the rear wall inset with relation to the side and bottom walls, comprising brackets each having at one end a return portion constituting a hook and at the other end a flange extending laterally from the same face of the bracket as the hook end and also extending laterally from the edges of the bracket, the hooks when in place being located within the inset portion of the tank with the flanges secured to the side members of the tank and the main portion of the bracket to the back of the tank, said main portion of the bracket being bent to bring the hook ends adjacent the top edge of the back of the tank.

In testimony, that I claim the foregoing as my own, I have hereto affixed by signature in the presence of two witnesses.

CHARLES W. PORTER.

Witnesses:
EDWARD C. STEINHAUER,
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