

FLUSH TANK.

926,633.

2 SHEETS—SHEET 1.



Witnesses

Hank Laugh

C. Bradway.

Inventor

Theodore Zwernmann,

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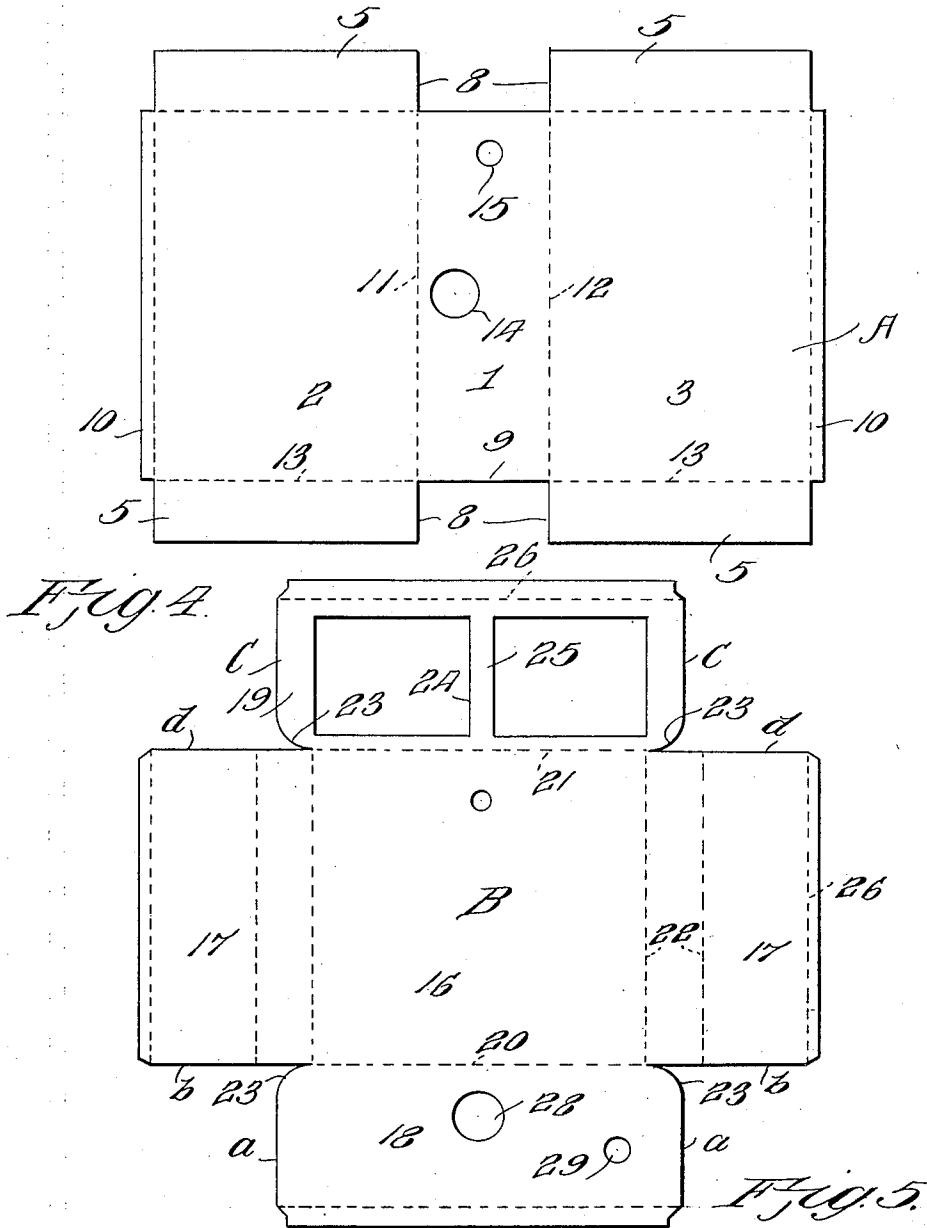
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 FLUSH TANK.
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926,633.

Patented June 29, 1909.

2 SHEETS—SHEET 2.



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THEODORE ZWERMANN, OF KALAMAZOO, MICHIGAN.

FLUSH-TANK.

No. 926,633.

Specification of Letters Patent.

Patented June 29, 1909.

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To all whom it may concern:

Be it known that I, THEODORE ZWERMANN, a subject of the Emperor of Germany, residing at Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented new and useful Improvements in Flush-Tanks, of which the following is a specification.

This invention relates to flush tanks of that type composed of an inner water-containing receptacle of metal surrounded by an outer casing separated from the receptacle by an air space so that vapor will not condense on the outer casing.

The invention has for one of its objects to improve and simplify the construction of tanks of this character so as to be comparatively simple and inexpensive to manufacture, and of durable and substantial design.

Another object of the invention is the provision of a tank composed of a receptacle and casing each constructed of a single piece of sheet metal stamped and bent into shape and provided with welded seams and enameled both inside and out, so as to withstand the action of chemicals that might be contained in the water.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawings, which illustrate one embodiment of the invention, Figure 1 is a perspective view of the outer casing viewed from the rear. Fig. 2 is a perspective view of the water-containing receptacle of the tank. Fig. 3 is a vertical transverse section of the tank showing the parts in relative position. Fig. 4 is a plan view of the blank from which the receptacle is constructed. Fig. 5 is a plan view of the blank from which the casing is constructed.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to Fig. 4 of the drawing, the construction of a blank for the inner section or receptacle of the tank will be described, and the same consists of a piece of sheet metal A of suitable gage and size and composed of rectangular sections 1, 2 and 3, that form

respectively, the bottom, front and rear walls of the receptacle, and on the ends of the parts 2 and 3 are extensions 5 each cooperating with the adjacent extension to form the end walls 6 of the receptacle, as shown in Fig. 2, the long edges of the adjacent extensions meeting to form a seam extending centrally down the end of the receptacle. The edges 8 between each pair of adjacent extensions 5 meet the end edges 9 of the bottom 1 when the blank is pressed into shape, and the meeting edges of these extensions being welded together by means of a hydrogen and acetylene gas blow pipe. This blank, which is preferably stamped out in a single operation, is pressed into shape by suitable dies and the front and rear walls are bent upwardly on the folds 11 and 12, while the extensions 5 are bent inwardly toward each other on the folds 13, the seams between adjacent extensions 5 and between the bottom and extension are welded together so as to form a perfectly water-tight container. The parts 10 are bent inwardly at the top of the receptacle and the ends of these flanges 10 are welded to the end walls 6 of the receptacle to thereby stiffen or reinforce the end walls and also the front and rear walls. After the receptacle is thus formed and the seams welded together, the entire structure is coated with enamel so as to resist the action of chemicals which may be contained in the water. In the bottom of the receptacle are openings 14 and 15 for receiving the flush and service pipes, respectively.

The blank B for the casing is also composed of sheet metal of suitable gage and size and consists of a front section 16, end sections 17, and top and bottom sections 18 and 19. The top and bottom sections are folded on the lines 20 and 21 and the end sections 17 are bent on a curve between the lines 22 so that the front of the casing will be rounded at the ends thereof, the front corners 23 of the top and bottom sections being cut on the arc of a circle so that the end sections 17 can be rounded, as described, and fitted to these rounded corners. The top section 19 is stamped out with two rectangular openings 24 between which is a cross bar 25 that stiffens the casing at the top and these openings, which are normally closed by a suitable cover, permit access to the valve mechanism within

the flush tank. After the blank is stamped out, it is shaped on a suitable form and the edges *a* of the bottom section are brought into contact with the edges *b* of the end sections, while the edges *c* of the top section are brought into engagement with the top edges *d* of the end sections 17, and these edges are welded together with a blow pipe flame. The back of the casing is open and the end sections and top and bottom sections of the casing have their rear marginal portions bent inwardly on folds 26 so as to form reinforcing flanges 27 extending entirely around the rear opening so as to thereby reinforce the walls of the casing at all points. The bottom of the casing has openings 28 and 29 that are adapted to register with the openings 14 and 15 of the receptacle to receive the flush and service pipes and the front wall of the casing is provided with an opening 30 through which one of the operating parts of the flush valve mechanism works. The opening in the rear of the casing is large enough to permit the water receptacle to be readily placed in the casing or removed and the dimensions of the casing are such that an air space will be provided around the receptacle so that the sweating of the latter will not affect the casing, which will remain perfectly dry on the outside. After the casing has been formed, it is coated with enamel so as not to rust and the enamel on the outside may be white or any other color to harmonize with the fixtures in the room.

Having thus described the invention, what I claim is:—

1. A flush tank comprising a casing, and a receptacle within the casing and surrounded by an air space, said casing consisting of a single piece of sheet metal comprising a front wall, end walls connected therewith, top and bottom sections, welded seams between the top and bottom of the casing and end walls thereof, said casing being open at the rear, inwardly-extending flanges on the end walls and top and bottom of the casing to reinforce the same, the top of the casing being provided with openings and a cross bar between the openings for stiffening the top.

2. A flush tank comprising a casing, and a water-containing receptacle therein, said receptacle consisting of enameled sheet metal comprising a bottom section, front and rear sections integrally connected therewith, end walls integrally connected with the front and rear walls and each consisting of two parts connected together by a central seam and connected with the bottom by a seam, and inwardly-bent flanges on the front and rear walls of the receptacle for reinforcing the same.

In testimony whereof I affix my signature in presence of two witnesses.

THEODORE ZWERMANN.

Witnesses:

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