C. H. ZWERMANN.

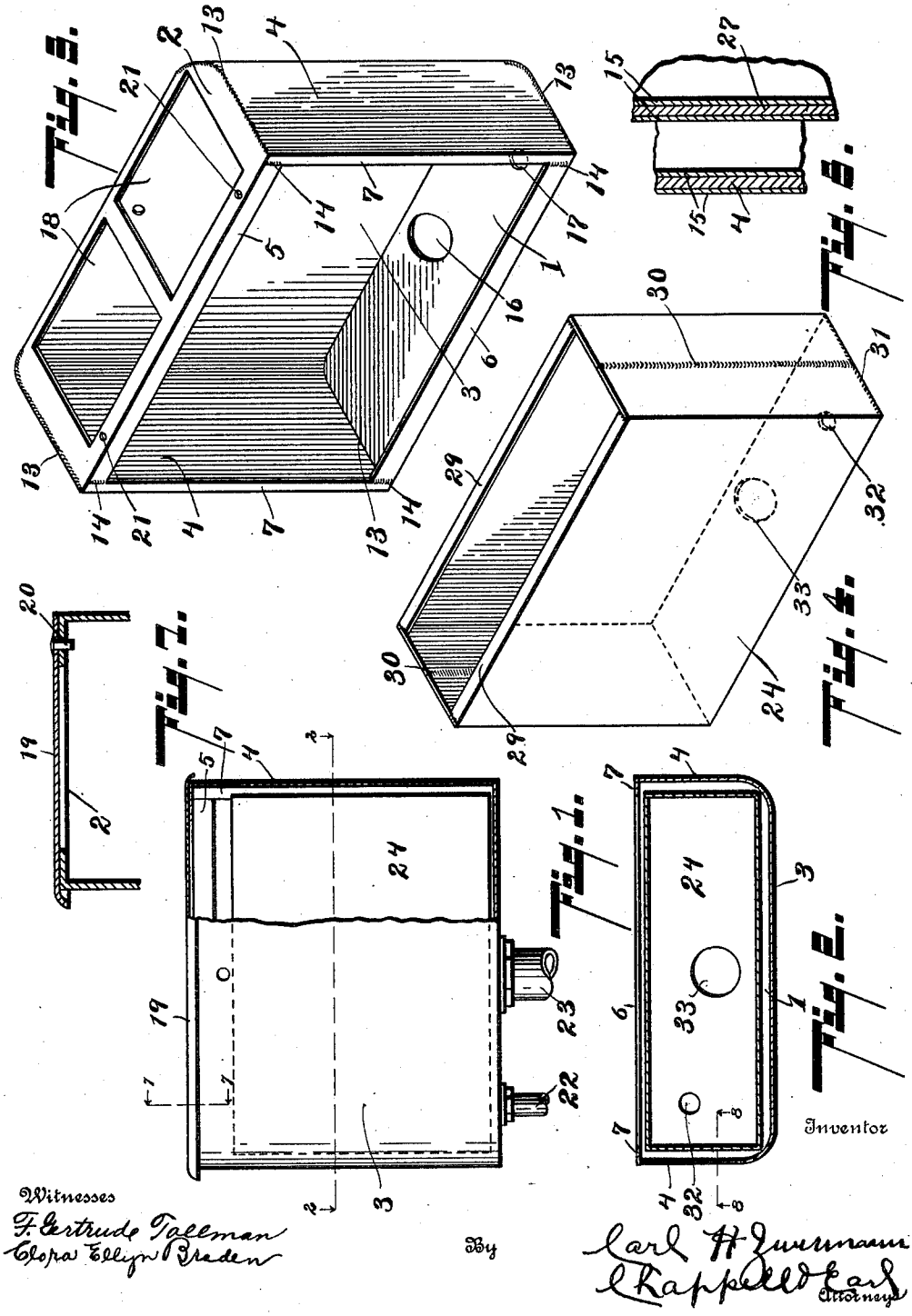
FLUSHING TANK.

APPLICATION FILED MAY 19, 1909.

1,032,317.

Patented July 9, 1912.

2 SHEETS—SHEET 1.



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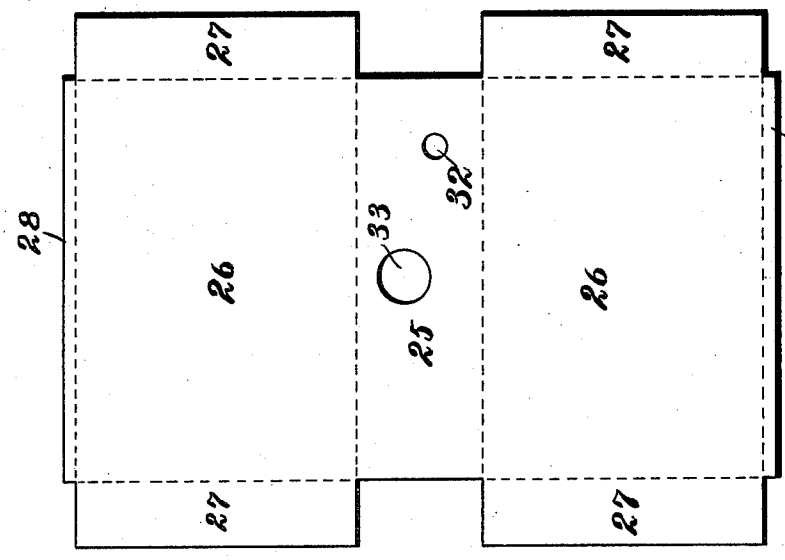

Fig. 4.

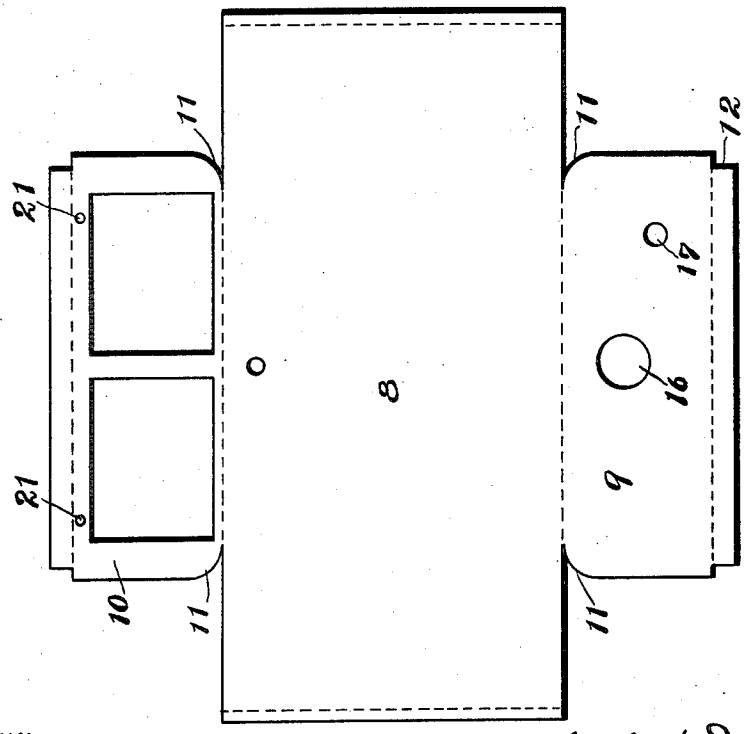

Fig. 5.

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UNITED STATES PATENT OFFICE.

CARL H. ZWERMANN, OF KALAMAZOO, MICHIGAN.

FLUSHING-TANK.

1,032,317. Specification of Letters Patent. Patented July 9, 1912.

Application filed May 19, 1909. Serial No. 497,059.

To all whom it may concern:

Be it known that I, CARL H. ZWERMANN, a citizen of the United States, residing at Kalamazoo, Michigan, have invented certain new and useful Improvements in Flushing-Tanks, of which the following is a specification.

This invention relates to improvements in flushing tanks.

My present invention relates particularly to improvements in that class of flushing tanks illustrated in my application for Letters Patent filed Dec. 11, 1907, Ser. No. 406,047.

The main object of this invention is to provide an improved flushing tank which is formed of sheet metal and which is comparatively easy and economical to manufacture.

Further objects, and objects relating to details of construction, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure 1 is a detail front elevation of a structure embodying the features of my invention. Fig. 2 is a horizontal section thereof taken on a line corresponding to line 2—2 of Fig. 1. Fig. 3 is a rear perspective view of the outer casing. Fig. 4 is a perspective view of the tank proper. Fig. 5 is a plan view of the blank from which the outer casing shown in Fig. 3 is made. Fig. 6 is a plan view of the blank from which the tank shown in Fig. 4 is made. Fig. 7 is an enlarged detail taken on a line corresponding to line 7—7 of Fig. 1, showing the arrangement of the cover. Fig. 8 is an enlarged detail section taken on a line corresponding to line 8—8 of Fig. 2, showing the enameled coating of the walls and casing.

In the drawings, similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, the outer casing is made up of a bottom 1, top 2, front wall 3, and side walls 4, the casing being open at the rear. The top, bottom and side walls are preferably provided with inturned flanges 5, 6 and 7, 7, respectively, forming a flange about the rear opening. These walls and the flanges described are preferably formed of an integral blank, comprising a rectangular central portion constituting the front wall 3 and the end walls 4, and also the flanges 7, the folding line of the flanges being indicated by dotted lines. At the sides of the central portion are portions 9 and 10, the portion 9 constituting the bottom 1 and the flange portion 6, and the portion 10 constituting the top 2 and the flange portion 5. The ends of the portions 9 and 10 are preferably curved inwardly at 11 to the folding line of the blank, so that round corners are provided for the front of the tank. The outer corners of the portions 9 and 10 are notched at 12 to receive the ends of the flanges 7 on the side walls. The blank is folded over a suitable form, or otherwise held, and the meeting edges of the top and the end walls are welded together, as at 13, and also the flange portions are welded together where they meet, as at 14. The tank is thus formed up with a minimum amount of welding, and the parts are so braced, when thus secured, that the tank is made very rigid, although of comparatively light material.

The tank is also adapted to be enameled, and I preferably enamel the same both on the inside and the outside, as is indicated in Fig. 8, the enamel coating being designated by the numeral 15.

The bottom is provided with suitable openings 16 and 17 for the inlet and discharge pipes, while the top is provided with openings 18, through which the valves, floats, and like parts may be introduced in setting up the tank, a suitable cover, as 19, being preferably provided. This cover is preferably formed of sheet metal and provided with a pair of downwardly-projecting pins 20 adapted to engage holes 21 in the top, whereby it is held in position.

The inlet and discharge pipes 22 and 23, respectively, are illustrated in Fig. 1.

The inner receptacle 24 is also preferably formed of sheet metal and preferably from an integral blank, as is illustrated in Fig. 6, which comprises a bottom portion 25, side wall portions 26 at each side of the bottom portion, the side wall portions being provided at their ends with extensions 27 adapt-

ed to form the end walls of the tank. The side wall portions 26 of the blank are also preferably provided with portions 28 at their outer edges adapted to form the inturned flanges 29 on the side walls, as clearly appears in Fig. 4. This blank is folded and the edges of the end portions 27 are welded together at 30, and to the ends of the bottom at 31. By thus forming the blank, the tank is made up with a minimum waste of material in the cutting of the blank, and without a great deal of welding being required. This inner tank is also preferably enameled, as is illustrated in Fig. 8. The bottom of the inner receptacle is provided with openings 32 and 33 to receive the inlet and discharge pipes 22 and 23, respectively. These openings can be easily formed in the blank from which the tank and its casing are formed.

By forming the parts as I have illustrated and described, I am enabled to provide an enameled, sheet metal tank which is not only attractive in appearance, and durable in use, but one which is simple and economical to manufacture. Further, the parts can be readily assembled for use.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A tank casing, comprising front, side, bottom and top walls, said side, bottom and top walls having inturned flange-like portions at their rear edges to form a flange about the open rear side of the tank, the said parts being formed of an integral blank of sheet metal, said blank comprising a rectangular central portion constituting said front, side walls and the said flange portions on said side walls, and oppositely-arranged portions as each side of the said central portion constituting the said bottom, top walls and the said flange portions thereon, the ends of said top and bottom wall portions being curved inwardly to the folding line, their outer corners being notched to receive the said flange portions of the end walls, the meeting edges of said wall and flange portions being welded together.

2. A tank casing comprising front, side, bottom and top walls, said side, bottom and top walls having inturned flange-like portions at their rear edges to form a flange about the open rear side of the tank, the said parts being formed of an integral blank of sheet metal, said blank comprising a rectangular central portion constituting said front, side walls and the said flange portions on said side walls, and oppositely-arranged portions at each side of the said central portion constituting the said bottom, top walls and the said flange portions thereon, the meeting edges of said wall and flange portions being welded together.

3. A tank casing comprising front, side, bottom and top walls, the said parts being formed of an integral blank of sheet metal, said blank comprising a rectangular central portion constituting said front and side walls, and oppositely-arranged portions at each side of the said central portion constituting the said bottom and top walls, the ends of said top and bottom wall portions being curved inwardly to the folding line, the meeting edges of said wall being welded together.

4. A tank casing comprising front, side, bottom and top walls, the said parts being formed of an integral blank of sheet metal, said blank comprising a rectangular central portion constituting said front and side walls, and oppositely-arranged portions at each side of the said central portion constituting the said bottom and top walls, the meeting edges of said wall being welded together.

5. A jacket for water tanks comprising sheet metal bent to form the front and end walls and the bottom welded to the lower edges of the end walls.

6. A jacket for water tanks composed of sheet metal bent to form the front and end walls and bottom welded to the lower edges of the end walls, the rear edge of the bottom being turned up and welded to the rear vertical edges of the end walls.

7. A flushing or like tank composed of sheet metal, and comprising a sheet bent to form the front and end walls and a bottom welded to the lower edges of the end walls, and a rear wall welded to the rear vertical edges of the end walls.

8. A flushing or like tank comprising a metal sheet bent to form the front and end walls and the bottom welded to the lower edges of the end walls.

9. A flushing or like tank comprising a metal sheet bent to form the front, end and rear walls and a bottom welded to the lower edges of the end walls.

10. A flushing or like tank composed of sheet metal having its front and end walls and bottom formed from one sheet, said bottom being integral with one of said walls and having its free edges welded to the others of said walls.

11. A flushing or like tank composed of sheet metal having its front and end walls and bottom formed from a single sheet, said bottom being integral with the front wall and having its ends welded to the lower edges of the end walls.

12. A flushing or like tank composed of sheet metal having its front and end walls and bottom formed from one sheet with the ends of the bottom welded to the lower edges of the end walls.

13. A flushing or like tank composed of sheet metal having its bottom integral with its front wall with the ends of the bottom welded to the lower edges of the end walls and the rear edge of the bottom turned up-

wardly and welded to the rear vertical edges of the end walls.

14. A flushing or like tank composed of sheet metal having its front and end walls and bottom formed from a single sheet, the bottom being integral with the front wall and welded to the lower edges of the end walls, and a rear wall welded to the rear vertical edges of the end walls.

15. A flushing or like tank composed of sheet metal having its bottom integral with its front wall and welded to the lower edges of the end walls and having its rear edge turned upwardly to form a rear wall and welded to the rear vertical corners of the end walls.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

CARL H. ZWERMANN. [L. S.]

Witnesses:
CLORA E. BRADEN,
F. GERTRUDE TALLMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."