G. H. BAILEY.

TANK FOR WATER CLOSETS, &c.

APPLICATION FILED NOV. 16, 1908.

948,658. Patented Feb. 8, 1910.

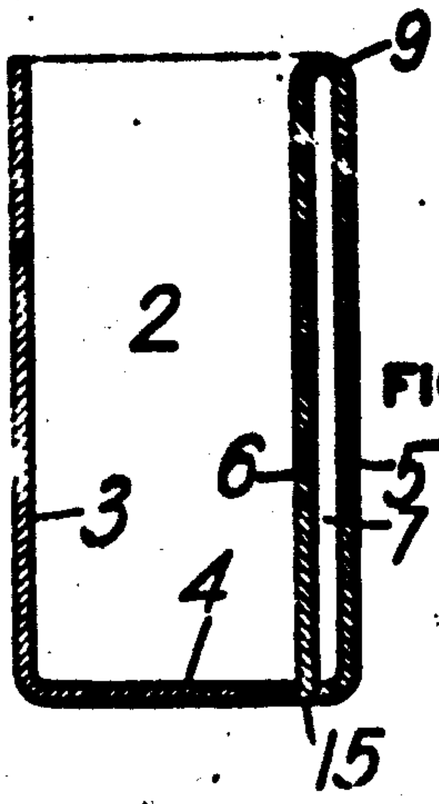


FIG. 2.

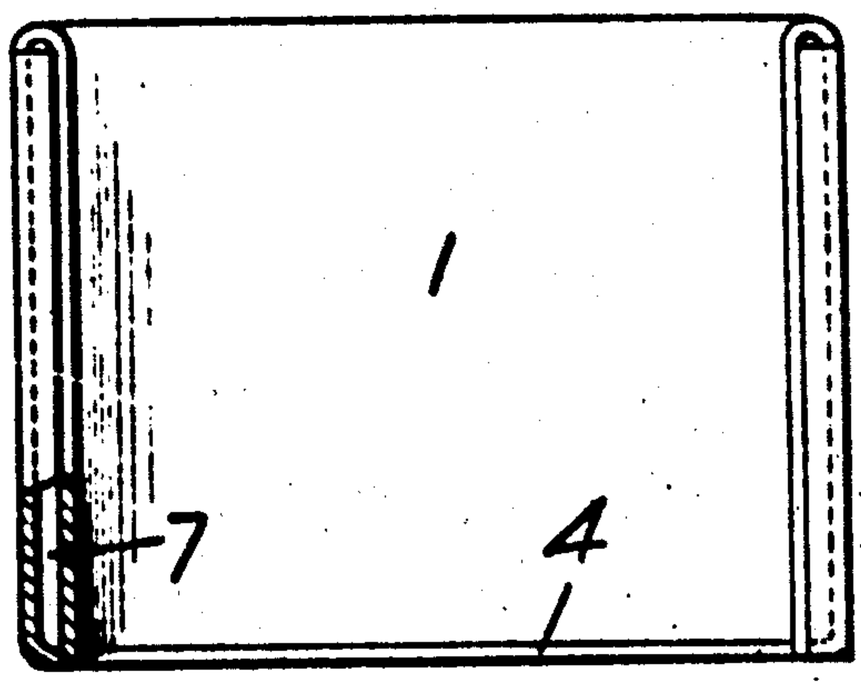


FIG. 1

FIG. 3.

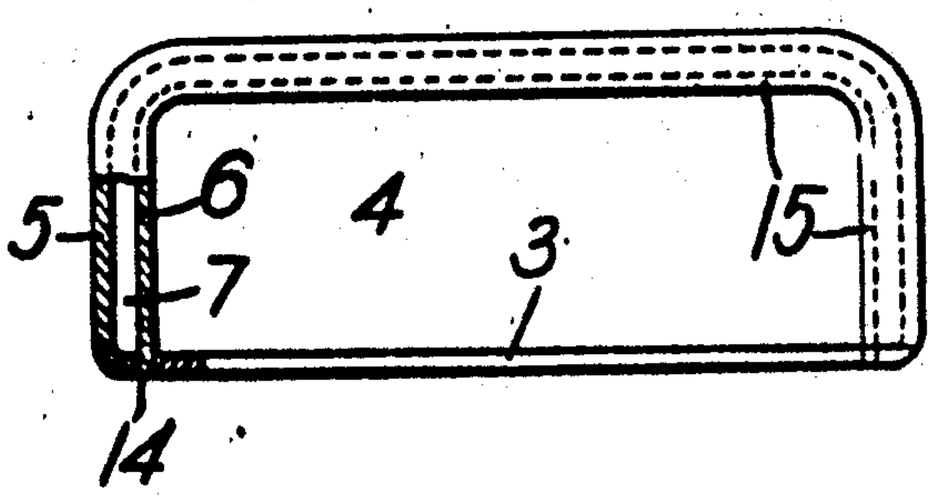


FIG. 5.

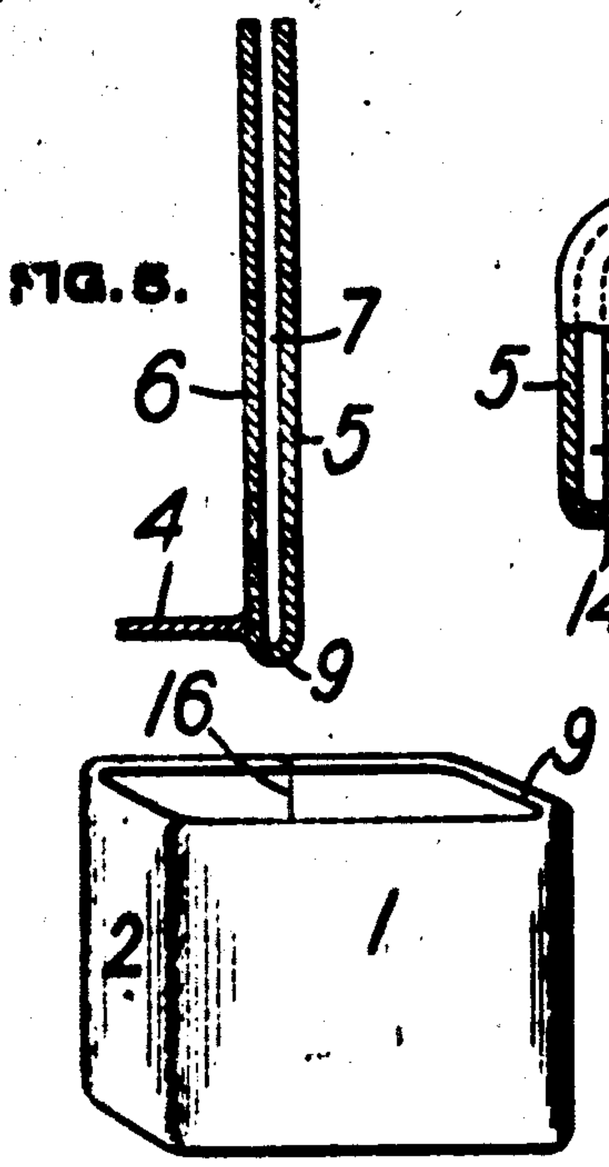


FIG. 6.

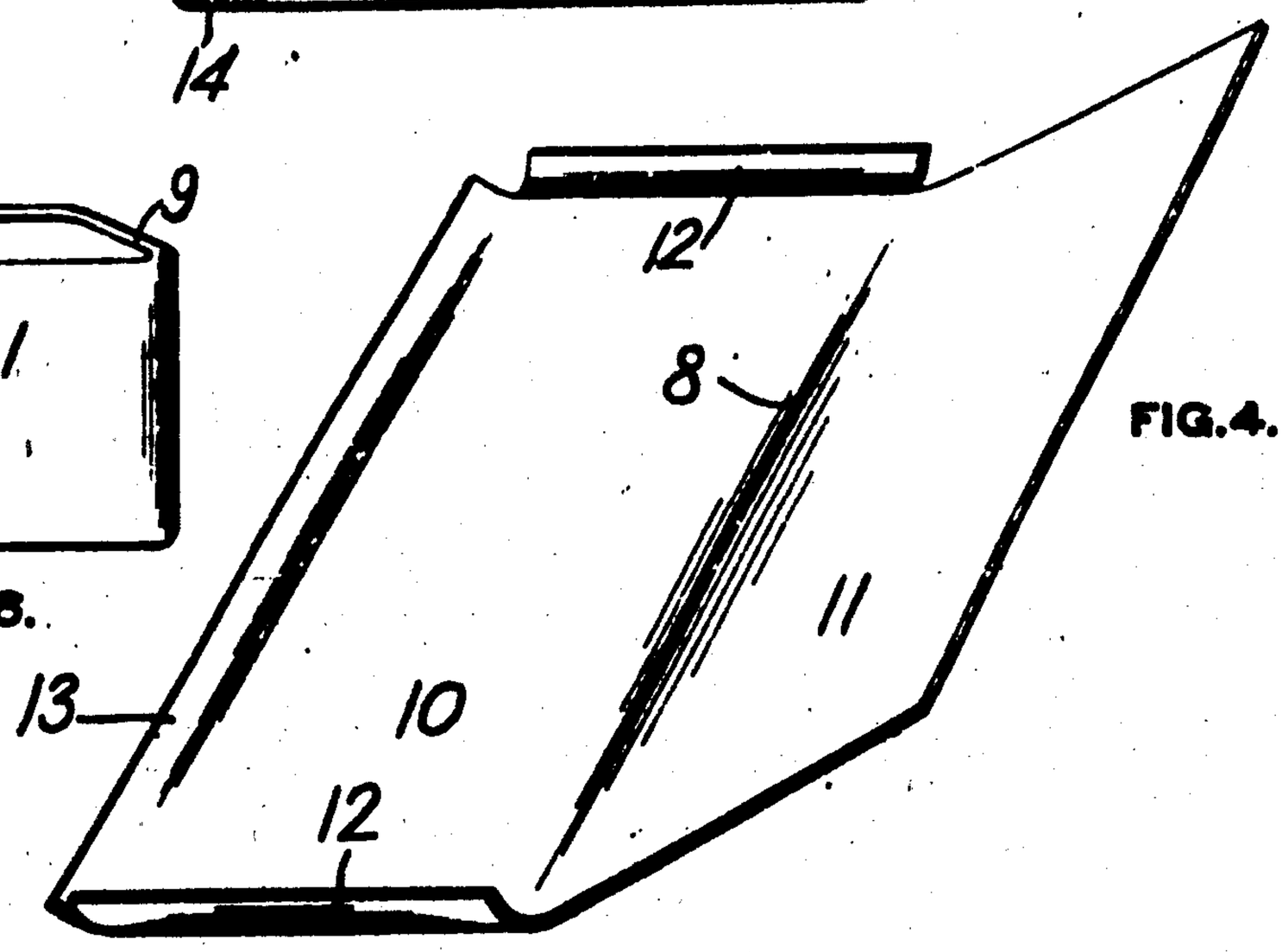


FIG. 4.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE H. BAILEY, OF PITTSBURG, PENNSYLVANIA.

## TANK FOR WATER-CLOSETS, &c.

948,658. Specification of Letters Patent. Patented Feb. 8, 1910.

Application filed November 16, 1908. Serial No. 462,857.

*To all whom it may concern:*

Be it known that I, GEORGE H. BAILEY, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Tanks for Water-Closets, &c., of which the following is a specification.

This invention relates to flushing and other water containing tanks and more particularly to flushing tanks for water closets and the like.

The object of the invention is to provide a tank of thin sheet metal and so constructed as to entirely eliminate, or at least greatly reduce, the sweating of the tank.

Flushing and similar tanks constructed of sheet metal and enameled are sightly and sanitary but are objectionable on account of the sweating or condensation of moisture on their outer surfaces. Various constructions and arrangements to avoid sweating or take care of the condensation have been devised.

The present invention has for its object a tank of the character named which is so constructed as to eliminate, or practically eliminate, the sweating or condensation referred to, and which is of simple and of comparatively cheap construction.

The invention comprises a tank constructed as hereinafter described and claimed.

In the accompanying drawing Figure 1 is a rear view of the tank, partly broken away; Fig. 2 is a vertical transverse section through the same; Fig. 3 is a plan view, partly broken away; Fig. 4 is a perspective view of the blank from which the body portion is formed showing the same partly bent up; Fig. 5 is a sectional view of a modification; and Fig. 6 is a perspective view of another modification.

The tank may be of any suitable shape and size, preferably of rectangular form with rounded corners as is the present practice in flushing tanks. The tank has a front wall 1, end walls 2, rear wall 3 and bottom 4. The front and end walls are double, that is formed with an outer sheet 5 and an inner sheet 6 separated by the intervening air space 7. This double wall at the front and the two ends is preferably formed from a single sheet which is cut of the shape shown in Fig. 4 and then folded along the line 8 to bring the two parts parallel and form the rounded connecting portion 9 which forms the top edge of the tank. The wider portion 10 of the blank forms the outer wall and the narrower portion 11 forms the inner walls. The wider part 10 has its edge portions 11 bent inwardly to close the ends of the space 7 at the rear of the tank and its bottom edge 13 folded inwardly to close the space 7 at the bottom of the wall. The double plate is bent to form the front and the end wall portions before the edges 12 and 13 are folded inwardly. The back wall 3 and bottom 4 are preferably formed from a single sheet of metal bent to angle shape and of a size to have its edges contact with the bottom and rear edges of the inner wall portion 6 and with the edges of the inturned portions 12 and 13 of the outer sheet. These parts are united in any suitable way, such as by soldering, brazing or welding, preferably by welding by the electric or blow pipe system. Since the edges of the parts abut, a single welded joint serves to unite the bottom or back to the end and front wall portions and also unite the edges of the inner and outer end wall portions. There is a vertical joint 14 of this character along the back near each end and also a joint 15 on the bottom extending across near each end and near the front.

Fig. 5 shows a modification in which the doubled walls have their open edges upwardly, the rounded connecting portion 9 being at the bottom. In this case the air space 7 is not hermetically sealed, as in Figs. 1 to 3. Fig. 6 shows another modification in which the double wall extends around and forms the back as well as the ends and front of the tank, the double walls having their ends meeting on the back at 16. The rounded connecting portion 9 in this modification may be at either top or bottom. The meeting edges are joined at 16 by a butt weld, and the joint is then ground to smoothen it and reduce the thickness at the weld to substantially the thickness of the sheets so as to secure a uniform coating of enamel.

The front wall may project out slightly at the top and also near the bottom for a more ornamental effect and to more effectually retain the enamel. The entire body after completion is covered with enamel and the surfaces of the air space 7 will be either galvanized, painted or enameled in order to prevent corrosion. For this purpose one of the sheets will be provided with a hole through which the coating liquid can be in-

serted and which hole is afterward hermetically sealed. A cover of any suitable shape will be provided. The tank will be provided with the usual openings in its bottom or elsewhere for the supply pipe or valve and for the flushing valve or outlet pipe, and will also be provided with any suitable valve mechanism and operating means.

The tank described has a body formed of two sheets united by a single joint thereby reducing to a minimum the labor cost in manufacture. The front and end walls are hollow and in the preferred form provide a hermetically sealed dead air space which practically overcomes all sweating or condensation. The back is usually in contact with the wall so that sweating at this point is reduced to a minimum and the bottom is of restricted area so that the amount of condensation thereon is not sufficient to be objectionable. It may be covered by a water-proof felt mat which acts as a non-conductor and prevents sweating.

What I claim is:—

1. A sheet metal flushing or like tank having its front and end walls formed double and spaced apart and providing a hermetically sealed air space, and a bottom and back secured to said double walls.

2. A sheet metal flushing or like tank having double walls spaced apart and formed from a single sheet of metal doubled on itself to form the inner and outer walls, and a bottom secured to said double walls.

3. A sheet metal flushing or like tank having double walls spaced apart, said walls being composed of a single sheet of metal doubled on itself to form the inner and outer walls, the bent or curved portion forming the top of the tank, and a bottom secured to the free lower edges of said double wall.

4. A sheet metal flushing tank having front and end walls spaced apart and formed from a single sheet of metal doubled on itself to form the inner and outer walls, the bent or curved part forming the top of the tank, and a bottom and back secured to the lower edges of said walls.

5. A sheet metal flushing or like tank having double walls spaced apart and formed from a single sheet of metal doubled on itself to form the inner and outer walls, a rear wall secured to the free vertical edges of the double end walls and a bottom secured to the lower edges of the double end and front walls.

6. A sheet metal flushing or like tank having double walls spaced apart and formed from a single sheet of metal doubled on itself to form the inner and outer walls, the edges of the outer portion being bent inwardly and meeting the edges of the inner portion, and a bottom secured to the free edges of said outer and inner walls.

7. A sheet metal flushing and like tank having double front and rear walls spaced apart and formed from a single sheet of metal doubled on itself to form the inner and outer walls, the outer wall portion having its rear vertical edges and its bottom edges bent inwardly and meeting the edges of the inner wall, and the back and bottom having their edges contacting with the free edges of the wall portion and joined thereto.

8. A sheet metal flushing or like tank having double walls with a hermetically sealed air space there-between, and a back and bottom, the meeting edges of said parts being united by a welded joint.

9. A sheet metal flushing or like tank having double walls separated by a hermetically sealed air space, and a bottom and back, the edges of the bottom and back end of the inner and outer wall portions being united by a single joint.

10. A sheet metal flushing or like tank having the meeting edges of the sheets welded and reduced to substantially the thickness of the sheets, the whole being covered with a coating of enamel.

11. A sheet metal flushing or like tank having the meeting edges of the sheets joined by a butt weld joint which is smoothed and the whole covered with a coating of enamel.

In testimony whereof, I have hereunto set my hand.

GEORGE H. BAILEY.

Witnesses:
WILLIAM I. KING,
F. W. WINTER.