Oct. 25, 1932. O. H. GILES 1,883,897

ENAMELED ARTICLE AND METHOD OF ASSEMBLING SAME

Filed Feb. 6, 1930

Fig. 1.

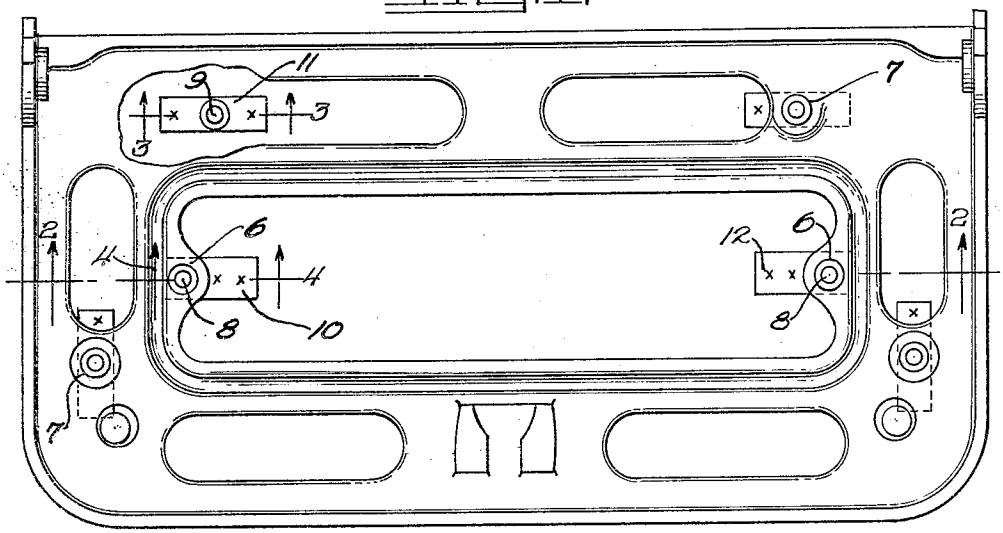


Fig. 2.

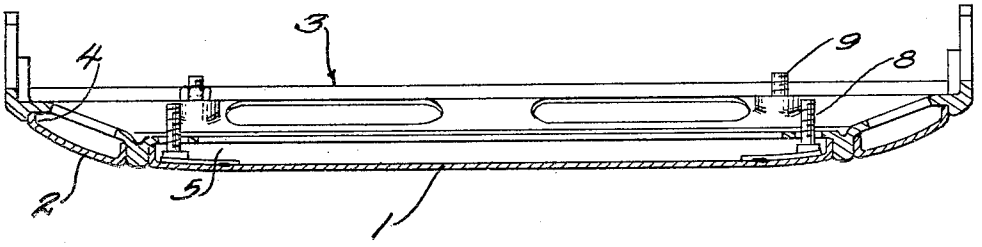


Fig. 3.

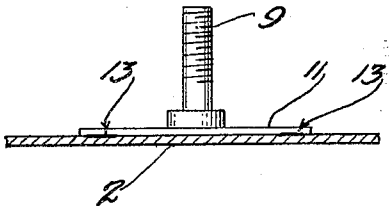
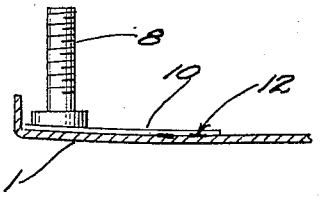


Fig. 4.



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UNITED STATES PATENT OFFICE

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ENAMELED ARTICLE AND METHOD OF ASSEMBLING SAME

Application filed February 6, 1930. Serial No. 426,431.

This invention relates to enameled articles and method of assembling same, and has to do particularly with a novel method of securing enamel surfaced articles to a supporting member or to each other.

In the fabricating and assembling of stove doors and like articles it has been the practice to form panel members or other articles by coating with enamel and firing to produce a glazed surface in the ordinary manner. To the back of such panels, either before or after enameling, it has been the practice to secure fastening means for fastening the panel or other article to a base member or other unit. When such fastening means have been tightened to securely position the panel or other article in place, strains have quite frequently developed which resulted in chipping or cracking of the enameled surfaces.

It is the object of the present invention to provide a novel fastening means and method of securing the same whereby a panel or other like article may be positively secured into the desired position without in any way tending to cause any material strain upon any part of the enameled surface.

In the drawing:

Fig. 1 is a back plan view of a broiler door of the type used in connection with the standard gas stove and embodying the present invention.

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a fragmentary sectional view taken on line 3—3 of Fig. 1 and illustrating the novel method of securing one of the fastening means to the enameled insert.

Fig. 4 is a fragmentary sectional view taken on line 4—4 of Fig. 1, illustrating another method of asembling the fastening means to an enameled insert.

It will be understood that the present invention may be embodied in a large number of different types of articles having a portion of the ornamental surface thereof coated with what is known as "porcelain" or "glazed" enamel. The broiler door, as illustrated in the drawing, is shown as being only one possible assembly in which the present invention may be embodied.

Any form of enameled article or surface which is to be attached or secured to another surface may embody the present invention and in Fig. 2, I have illustrated a broiler door construction having a center enameled panel 1 and an annular enameled frame 2. The base structure to which the panels are secured may be broadly designated 3, and it will be obvious that this base structure may be suitably cast or formed so as to provide depressions 4 and 5 for receiving the panels.

Suitable apertures 6 and 7 may be provided in the base structure for receiving bolt members 8 and 9. These bolt members 8 and 9 are secured to the back of the panel members by means of suitable straps 10 and 11.

Instead of spot welding the heads of the bolt members or the entire strap members to the panels, I preferably only weld or otherwise secure one or both ends of the strap members to the panels. In case the aperture for receiving the bolt member is very close to the edge of the panel, I prefer to spot weld only one end of the strap to the panel as at 12. However, where there is plenty of clearance around the bolt member, it will be seen that both ends of the strap member may be suitably welded or otherwise secured to the panel as at 13.

It will be obvious that the panels so fabricated may be assembled to the supporting frame as shown in Figs. 1 and 2 and suitable nuts secured to the ends thereof and drawn up as tight as desired. As the strap members are fairly thin and welded only at the ends, it will be obvious that each bolt member will have considerable flexibility without placing any positive strain upon any part of the enameled panels or other member. This method of assembly permits considerable play in fitting of the various parts and also makes it possible to more quickly assemble the unit as the workman need not be careful in fitting the panels or other article and drawing up the bolts.

In the normal method of assembly, I preferably weld the bolt heads to suitable strap members and then spot weld the strap members to the back of the articles or panels to be enameled, in the manner illustrated in the drawing. The entire article is then sprayed

or coated with enamel in the usual manner and fired so as to produce the desired ornamental surface. The supporting structure, for instance the base of the broiler door, is provided with suitable apertures for receiving the bolts and the surfaces of such apertures are so spaced from the strap members that when nuts are screwed upon the bolts the tendency of the strap members is to move away from the panels to which they are secured so as to set up a resilient action between the base member or supporting structure and the panel or other enameled articles. It will be understood that the panel members 1 and 2 are preferably formed of sheet metal or other similar material.

What I claim is:

1. The method of securing articles having enameled surfaces to a supporting unit, which consists in securing a flat fastening strap to the back of the enameled article in such a manner as to provide relatively great bodily movement of a portion of the fastening strap relative to the article, and then securing the fastening strap in place without placing strain directly upon the article.

2. The method of securing articles having enameled surfaces to a supporting unit, which comprises providing bolts secured to strap members, securing the strap members to the back of the articles to be coated with enamel at points spaced from the axis of the bolts, coating the article or articles with enamel and firing the same and then securing the bolts to the supporting unit in such a manner as to cause flexing of the strap members.

3. Fastening structure for securing enameled articles to supporting members comprising a strap member welded at a localized point or points to the back of the article, and a bolt welded to the strap member at a point spaced from the point or points at which the strap is secured to the back of the article.

4. Ornamental construction of the type including enameled panels and a supporting unit or units having depressions for receiving the same, comprising in combination fastening means consisting of a flat strap and a bolt secured thereto, said strap being welded to the back of the panel or panels at points spaced from the bolt so as to leave the part of the strap immediately adjacent the bolt free of the panel.

5. Ornamental construction of the type including enameled panels and a supporting unit or units having depressions for receiving the same, comprising in combination fastening means consisting of a flat strap and a bolt secured thereto, said strap being welded to the back of the panel or panels at points spaced from the bolt so as to leave the part of the strap immediately adjacent the bolt free of the panel, and means forming a part of the supporting unit and spaced from the panel or panels for receiving and securing the bolt in place.

In testimony whereof I affix my signature.

OSCAR H. GILES.