July 23, 1940. H. G. COORDES 2,208,720

URINAL

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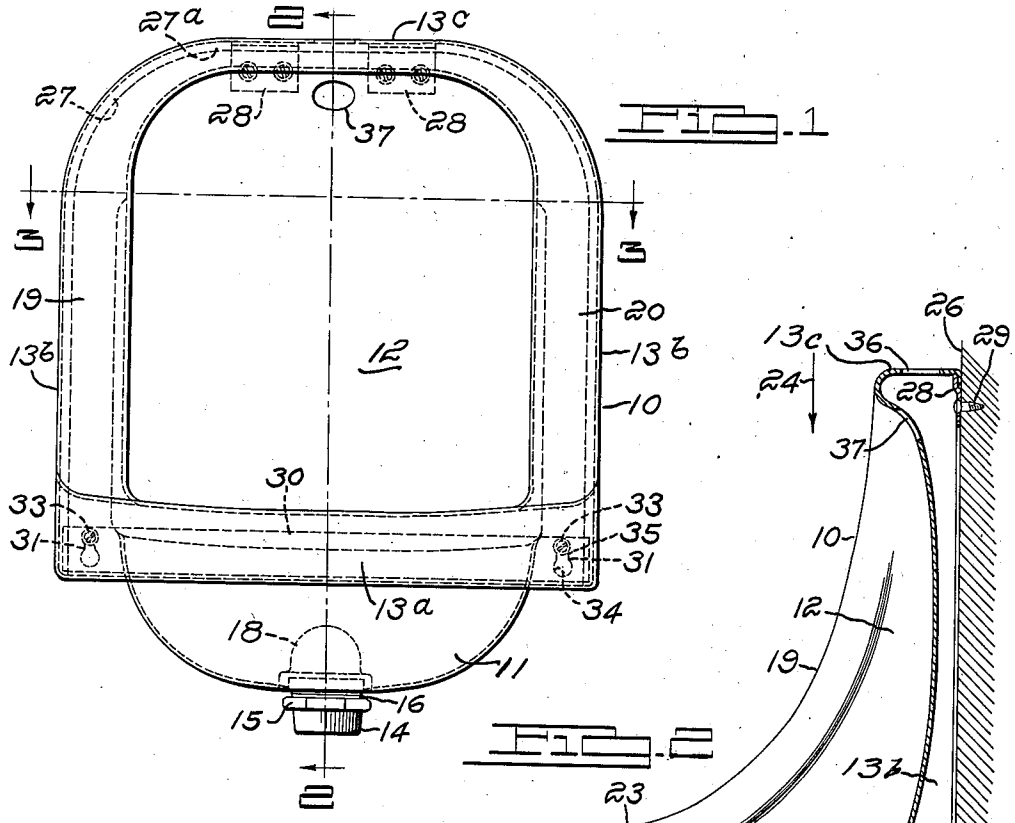


Fig. 1

Fig. 2

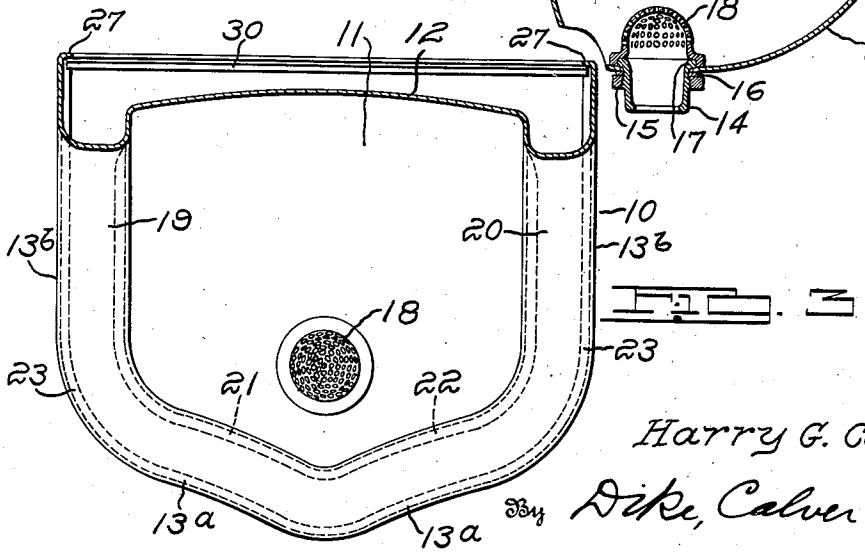


Fig. 3

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URINAL

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4 Claims. (Cl. 4—102)

This invention relates to urinals or similar articles which are made from a single blank of sheet metal by such metal-working operations as drawing, bending, etc., and preferably covered with a protective coating such as enamel.

It is one of the objects of the present invention to provide a one-piece urinal or similar article having a sump and an upright splash back into which the sump merges smoothly and seamlessly, and which is of pleasing appearance and inexpensive to manufacture.

It is another object of the present invention to provide a urinal or similar article of the above character which has continuous, uninterrupted metal surfaces that merge smoothly and gradually into each other and are free from welded slits or patches, thereby eliminating such enameling flaws as usually result from the difficulty in providing a lasting and uniform, baked enamel coating over welds or other irregularities in the foundation metal.

It is another object of the present invention to provide a urinal or similar article with a marginal rim or border flange around the sump and splash back which not only reenforces or stiffens the urinal but also prevents splashing from the sump over the rim thereof when the urinal is used or flushed.

Other objects of this invention will appear in the following description and appended claims, reference being had to the accompanying drawing forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

Fig. 1 is a front elevation of a urinal or similar article embodying the present invention.

Fig. 2 is a section through the urinal taken on line 2—2 of Fig. 1.

Fig. 3 is another section through the urinal taken on the line 3—3 of Fig. 1.

Before explaining in detail the present invention it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawing, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation, and it is not intended to limit the invention claimed herein beyond the requirements of the prior art.

Referring to the drawing, the reference numeral 10 designates a urinal or similar article which is made from a single blank of sheet metal by such metal-working operations as drawing, bending, etc. The urinal comprises as its principal parts a sump 11, a splash back 12 which merges smoothly and seamlessly into said sump, and a depending apron 13. It appears from the drawing that the splash back 12 and the sump 11 are of a continuous concavity which not only facilitates the formation by a drawing operation or operations of a blank into the sump and splash back, but is also instrumental in reducing splashing from the sump and splash back over the rim thereof to a minimum. The sump 11 is provided at its lowermost position with a drainage fitting 14 which is secured as by a nut 15 to said sump and properly sealed by any suitable gasket 16. The fitting 14 is in any suitable manner connected with a drain pipe (not shown). Placed over an annular flange 17 of the fitting 14 is a protective screen 18 of any suitable construction to prevent carelessly dropped foreign matter in the sump, such as cigarette butts, etc., from escaping into the drain pipe and clogging the same.

It will also be seen from the drawing that the splash back 12 merges into the sump substantially along the horizontal plane A (Fig. 2), i. e. at the majority of the sides of said sump, while the side margins 19 and 20 of the splash back preferably slope backwardly and upwardly away from the sump in the fashion shown in Fig. 2. Hence, the splash back is so coordinated with the sump that the urinal is easily accessible from the front, while splashing over the rim or side margins 19, 20 of the splash back is effectively prevented.

To enhance the ready access to the urinal, the front edges 21 and 22 of the sump (Figs. 2 and 3) preferably form an outwardly pointing V whereof the legs 21, 22 may be slightly curved as shown in Fig. 3, if desired.

Extending around the sump and splash back 12 is a continuous marginal rolled or turned rim or border flange 23 which is turned outwardly and of curved cross-sectional contour throughout. However, the border flange 23 extends also somewhat inwardly of the sump 11 and splash back 12 throughout its extent if viewed in the direction of the arrow 24 in Fig. 2, providing an inwardly overhanging rounded bead or ledge, thereby not only reenforcing or stiffening the entire urinal but also preventing splashing over the rim of the same due to the inward extension of said rim or marginal flanging as above explained.

The continuous border flange 23 is bound by the continuous apron 13 which consists of the

substantially vertical forwardly tapered or converging front portions 13a, the vertical substantially parallel side portions 13b and the horizontal top portion 13c, all of which merge smoothly and gradually into each other as shown in the drawing. This continuous, seamless apron 13, besides further reenforcing or stiffening the urinal, also lends to the latter a neat appearance by hiding not only all corners or trimmed edges of the entire urinal but also the curved rear surface of the splash back which, therefore, need not be provided with a finish coating and moreover which is not easily accessible for cleaning purposes once the urinal is installed. Further than that, the apron is singularly suited for mounting the urinal to a wall 26 inasmuch as the rear edges of the apron portions 13b and 13c lie in one plane, i. e., the plane of the wall 26. The rear edges of the apron portions 13b and 13c are preferably turned inwardly at right angles to form a continuous U-shaped flange 27, the yoke portion 27a of which is suspended in spaced brackets 28 (Figs. 1 and 2) which are mounted in any suitable manner, as at 29, on the wall 26 and concealed by the apron. Suitably secured to the lower ends of the U-shaped flange 27, as by spot welding, is a cross tie 30 which is preferably in the form of an angle iron and provided with bayonet slots 31 which receive screws 32 that are mounted in the wall 26. Hence, the urinal may be readily mounted merely by passing the heads 33 of the screws 32 through the wide entrances 34 to the bayonet slots 31, and thereafter lowering the urinal so that the yoke portion 27a of the U-shaped flange 27 will be suspended in the brackets 28 in the manner shown in Fig. 2, while the screw heads 33 will come to register with the narrower portions 35 of the bayonet slots 31 and thus become interlocked with the cross tie 30 of the urinal.

As best shown in Figs. 2 and 3, the lower edges of the front portions 13a and side portions 13b of the apron 13 are also turned inwardly to form a flange which forms a continuation of the previously described U-shaped flange 27, so that not a single trimmed edge shows on the installed urinal. Hence, the continuous inward flange 27 not only makes for a very simple and effective mounting of the urinal and adds to the neat appearance of the same, but also safeguards an attendant against scratches from trimmed edges when cleaning the urinal.

Suitable openings 36 and 37 are also provided in the top portion 13c of the apron 13 and the splash back 12 respectively, for receiving a flush pipe (not shown) which may be secured to the urinal in any conventional manner.

It is apparent from the preceding description that the urinal constitutes a rigid one-piece unit which is of a practical design and makes a neat appearance. Furthermore, the surfaces of the urinal merge smoothly and gradually into each other, thereby greatly facilitating the application to the urinal of a lasting protective coating, such as enamel, which moreover enhances the appearance of the urinal. The present urinal is also noteworthy for its simple yet very satisfactory mounting provision which merely requires the continuous inward flange 27 on the apron 13 and the slotted cross tie 30. The mounting of the urinal itself is extremely simple inasmuch as it merely requires hanging of the urinal in place, this being a task which requires no skill whatever. Of course, removal of the urinal from its mounting on the wall 26 is effectively prevented once the plumbing connections for the urinal are completed.

I claim:

1. A pressed sheet metal urinal or similar article having a sump, a splashback merging into said sump, and an apron extending around three sides of the sump and spaced outwardly thereof and having part of its rear edge turned to provide substantially a vertical flange, and a cross-tie secured to opposite lower portions of said flange and being provided with bayonet slots.

2. A urinal comprising a fluid receiving bowl merging rearwardly into an upstanding splash panel, the merged side walls of the bowl and splash panel sloping rearwardly and upwardly and terminating in an out-turned rim extending around three sides of the bowl, the rim terminating in depending flanging spaced outwardly from the bowl, the flanging at the opposite lateral sides of the bowl extending substantially the height of the splash panel and being materially of greater height than the flanging at the front of the bowl and extending forwardly and rearwardly of the back wall of the splash panel, said rim being pressed inwardly to provide a bead overhanging the bowl around three sides thereof.

3. A urinal pressed from sheet metal to provide a sump having its back forming an upright splashback having a continuous concave surface, the splashback having forwardly extending side walls merging into the side walls of the sump, the upper marginal edges of said side walls and the front wall of the sump being formed into a continuous rolled or out-turned rim terminating in depending flanges extending continuously around the front and opposite sides of the sump, said flanges at opposite sides of the sump increasing in height from the front to the back of the sump and extending at the back of the sump to at least the upper edge of the splashback.

4. A urinal pressed from sheet metal to provide a sump having its back forming an upright splashback having a continuous concave surface, the splashback having forwardly extending side walls merging into the side walls of the sump, the upper marginal edges of said side walls and the front wall of the sump being formed into a continuous rolled or out-turned rim terminating in depending flanges extending continuously around the front and opposite sides of the sump, said flanges at opposite sides of the sump increasing in height from the front to the back of the sump and extending at the back of the sump to at least the upper edge of the splashback, said side flanges terminating in rear of the splashback in inturned substantially vertical wall flanges, and a cross-tie secured to said wall flanges and providing means for attaching the urinal to a wall.

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