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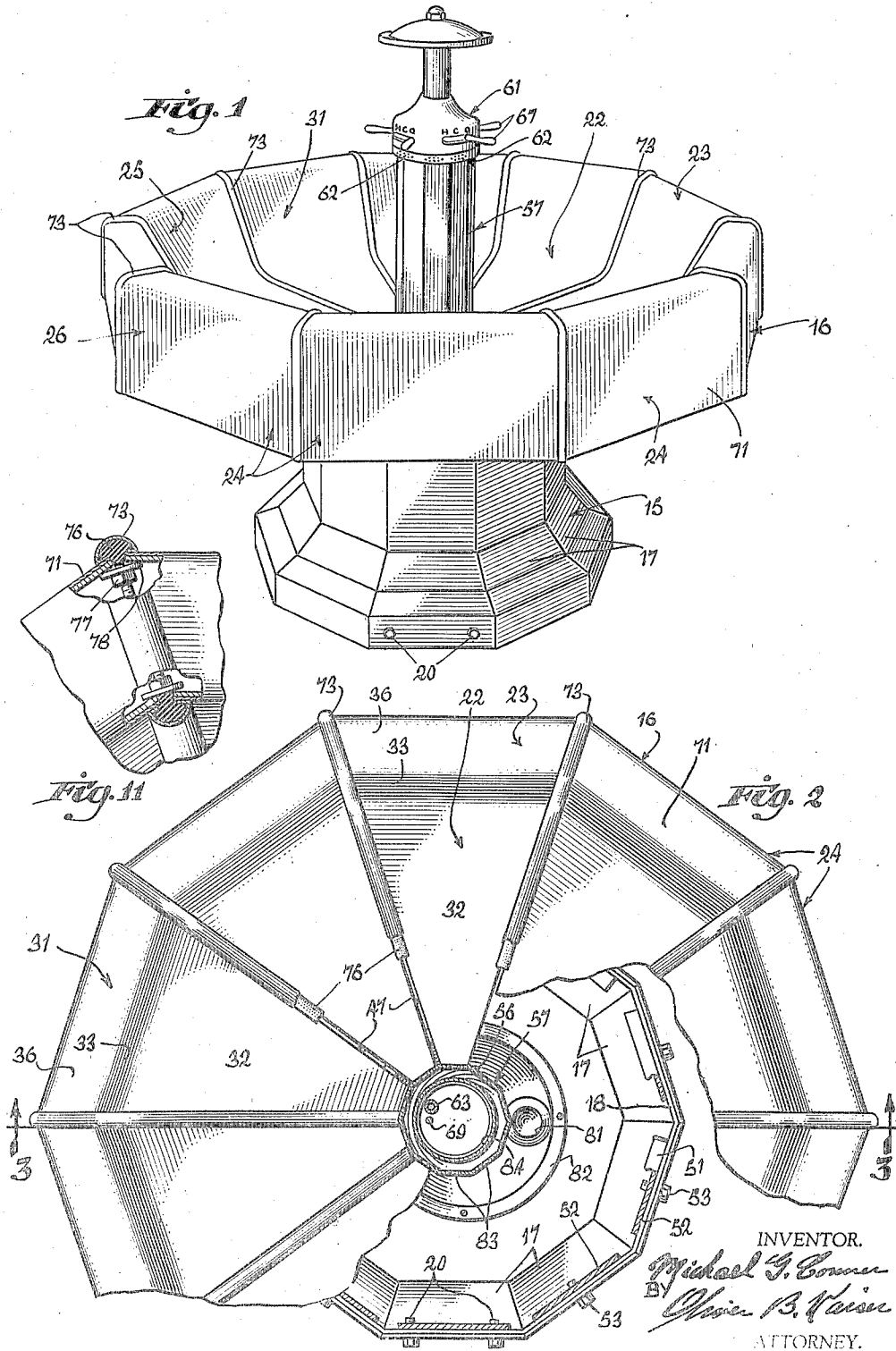
M. G. CONNER

2,227,388

WASHSTAND

Filed March 5, 1940

2 Sheets-Sheet 1



Dec. 31, 1940.

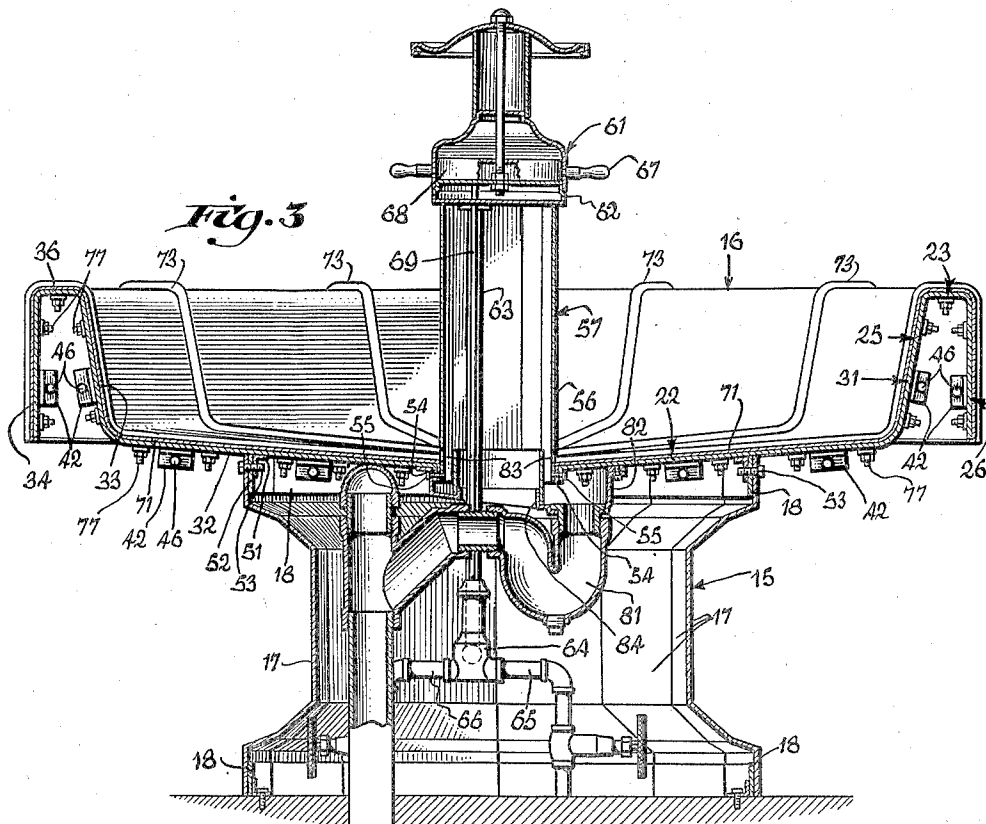
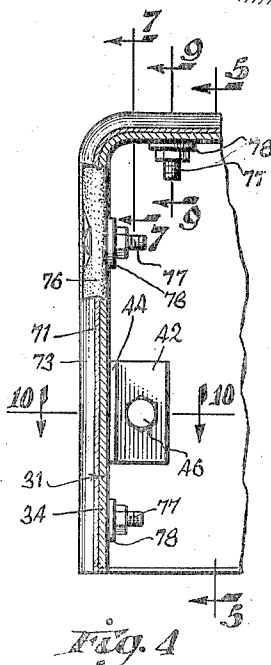
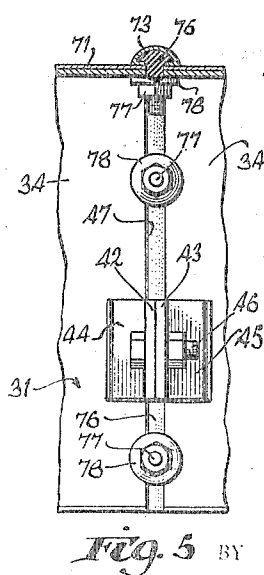
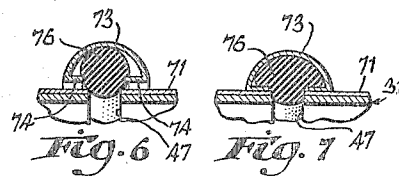
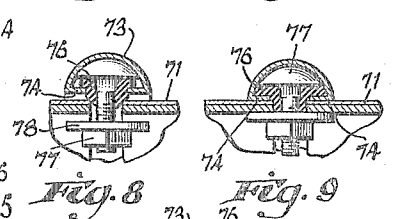
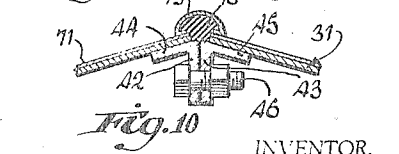
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WASHSTAND

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,227,388

WASHSTAND

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trustee

Application March 5, 1940, Serial No. 322,355

9 Claims. (Cl. 4—166)

This invention relates to improvements in washstands, and particularly to a wash fixture for group service.

Washstands or fixtures of unit structure for group service, supplying accommodations for ten or more persons, under the prevailing methods of manufacture, either of cast metal or plastics, have been of a cumbrous character, unfavorable for transporting and installing. An integral metal type of bowl or basin, whether of cast metal or drawn from a single form, for appearance and sanitary purposes is enameled or otherwise surface finished which is easily chipped, defaced, or marred. Manufacture of a unit bowl from a stainless steel, due to the high cost involved, has been prohibitive competitively with ordinary washing equipment. In drawing a bowl of stainless steel or non-corrosive sheet metal from a single form, and particularly when of comparatively large dimension, the metal is disturbed and impaired by the drawing process, decreasing its durability.

Therefore, it is an object of the invention to provide a bowl for a washstand or wash fixture for group service of an assembly of sheet metal segments, the segments inexpensively and conveniently shaped to form, and to have the face surface of each segment laminated with a thin gauge of highly lustrous stainless steel sheet possessing the ductility to be snugly applied and flexed over the segment, and gripped or bound over the non-joining edges thereof. The segments adjointly assembled in fluid-tight bond produced by a compressive packing embraced in a stainless steel channel sheath or strip beading, which, aside from its utility in effecting a fluid-tight closure, enhances and adds embellishment to the structure, and provides for easy and quick removal of the segments individually should replacement become necessary.

Another object of the invention is to provide a bowl or basin for a washstand for a group service, of an assembly of segments of corresponding pattern adjointly arranged and connected in fluid-tight bond.

Another object of the invention is to provide a bowl or basin for a washstand for a group service, of an assembly of segments, the segments each constituting a section of a sloping base, side wall, and wide overhanging rim of the basin, and in the assembly forming a multi-sided contour or rim designative of uniform stations about the bowl.

Another object of the invention is to provide a basin or bowl of a plurality of segments as-

sembled in adjoining relation with an opening centrally of the basin for drainage, and the projection of a fount or hydrant having either an individual or spray water delivery, the crown of the fount furnishing a holder for soap cakes or soap dispenser.

A further object of the invention is to provide a washstand having a basin or bowl of large capacity to serve a group of persons of comparatively light weight and sturdy construction, simple in manufacture and of low cost, and with a surface covering of highly lustrous stainless steel.

Further objects and advantages of the invention will be more fully set forth in a description of the accompanying drawings, in which:

Figure 1 is a perspective elevational view of a device embodying my invention.

Figure 2 is a plan view of the same, partly broken away.

Figure 3 is a central vertical sectional view of the same, taken in the plane of the line 3—3 of Figure 2.

Figure 4 is an enlarged detail sectional view, showing the means connecting adjoining segments and the sealing means for the joint between the segments, taken on a line corresponding to the line 3—3 of Figure 2.

Figure 5 is an enlarged detail sectional view of the same taken in the plane of the line 5—5 of Figure 4.

Figures 6 and 7 are similar detail sectional views of the means for binding adjoining laminated segments and producing a fluid-tight joint; Figure 6 illustrating the parts in unclamped condition, and Figure 7 clamped, taken on the line 7—7 of Figure 4.

Figures 8 and 9 are similar detail sectional views, showing the fastening means for the molding strips; Figure 8 illustrating the parts in unclamped, and Figure 9 in clamped relation, taken on the line 9—9 of Figure 4.

Figure 10 is a detail sectional view of the means for securing adjoining segments of the bowl together, taken on the line 10—10 of Figure 4.

Figure 11 is an enlarged fragmentary top plan view, further illustrating the joint between the bowl sections.

The invention is shown embodied in a wash fixture for group service comprising a base or pedestal on which is supported a basin or bowl. The bowl may be of various sizes and configurations, being shown in the present instance as of polygonal form, provided with ten faces or

sides, but it may have more or less sides, and may be of circular or other configuration.

The pedestal 15 is preferably of the same general configuration as the bowl, and is formed of a series of connected sheet metal wall panels 17, suitably secured, as by welding, and connecting at their upper and lower ends respectively to bands 18. One or more of the panels may be releasably held in place by bolts 20, threaded into the bands 18, to permit removal of such panel or panels, to allow access to the interior of the pedestal for installation and servicing of the plumbing connections, or to render the same knock-down.

The bowl 16, as a unit structure of sheet material, is provided with an inwardly sloping bottom or base 22, and a surrounding wall 23. In the present instance the wall 23 is of polygonal form, and is provided with ten equal sides or faces 24, forming stations about the bowl at which persons may stand while using the fixture, each face being proportioned to accommodate preferably one person. The polygonal wall 23 includes an inner side 25 integrally joining and angularly related to the bottom to form the concavity of the bowl, and an outer side 26 integrally connected to the upper end of the inner side by a substantially flat portion and forming an enclosing apron or rim for the bowl.

To provide the basin of large contour dimension and depth from a single sheet or single form would involve high manufacturing costs, which would make it prohibitive to compete with ordinary washing equipment. Any impairment to the surface of the basin during the process of manufacture or in handling would be difficult to repair and destroy its utility. In accordance with the present invention, the basin constitutes an assembly of sections or segments of a number to produce a selected size of basin, and which will effect simplicity in the make-up of the segments, and offer convenience in their assembly into a unit.

For the contour of bowl illustrated, the segments are preferably the duplicate of one another, so that they may all be formed by the same tools, although, other configurations of basin would require a variation in pattern, one for another, to make up an assembly. Each segment is preferably formed to provide integrally a substantially flat elongated portion 32, which forms a section of the bottom of the bowl, a portion 33 joining the portion 32 and extending at an angle thereto, to form a section of the inner side 25 of the wall 23, and a portion 34 connected to the portion 33 by means of a flat portion 36, to form a section of the enclosing apron or rim for the bowl, when the segments are assembled.

Each of the segments is approximately of wedge-shape pattern, the edges thereof tapering inwardly in the direction of the center of the bowl. This particular form of the segments enables them to be cut from relatively small sheets of material with minimum waste, further adding to economy in manufacture.

The bowl segments are secured together by mating lugs 42, 43, on adjacent margins of adjoining segments, the lugs being formed by outwardly extending flanges of angle pieces 44, 45, suitably fixed, as by welding, to the under face of the bowl segments along opposite side margins thereof. The meeting face of each of the lugs 42, 43, is spaced outwardly from the adjacent side edge of the segment so that when the segments are assembled and the lugs are bolted together by

bolts 46, the adjacent side edges of adjoining segments are separated slightly by a space 47.

The bowl 16 is secured to the pedestal 15 by angle pieces 51 fastened as by welding to the under side of the bowl, preferably one on each segment. Flanges 52 of the angle pieces extend downwardly from the bottom of the bowl, parallel with and adjacent to the inner face of the upper band 18 of the base, and are bolted to the pedestal by bolts 53 passing through the wall of the pedestal and the band 18 and threaded into said flanges.

The inner ends of the segments 31 are bent downwardly to form vertically extending flanges 54, which are fastened by bolts 55 to the wall 56 of a hollow central column 57 extending upwardly from the center of the bowl. In the form shown the column 57 is of cross-sectionally polygonal form, equaling the peripheral wall of the bowl in number of sides to enhance the appearance of the fixture and simplify assembly with the bowl segments.

At any time that a segment becomes marred or otherwise damaged and it is desired to remove that segment, it is only necessary to remove the bolts 46 fastening that segment to its adjoining segments, the bolt 53 fastening that segment to the pedestal, and the bolt 55 fastening that segment to the column. The segment may then be replaced by another bolted in its place.

The column 57 may be termed as a fount, extending upwardly from the center of the basin, and in the form disclosed carries at its upper end a spray head 61 having openings 62 in the side wall thereof for spraying water into the bowl. Water reaches the interior of the spray head through a pipe 63 connected to the spray head and extending downwardly through the column 57 to a usual mixing valve 64 connected to hot and cold water supply lines 65, 66. The mixing valve is controlled by means of usual handles 67 operatively connected by suitable valve operating means 68 to the valve stem 69, which extends upwardly from the valve through the column 57. The structure of the fount is auxiliary to the present invention, and may be modified to meet various plumbing requirements, making overhead or underhead water service connections, or to carry other accessories or water control mechanism.

The bowl segments 31 are formed from sheet metal such as mild steel which is relatively inexpensive and is easily and economically formed in thicknesses that provide a rigid and sturdy structure. Although this type of metal has desirable working characteristics, it is subject to corrosion and wear. A layer or lamination, in the form of a thin sheet of corrosion-resistant material, such as a highly lustrous stainless steel, is disposed or applied over the exposed surface of the segment, and conforms to the shape thereof. The use of a segment of very tough, thin sheet metal for surfacing an easily shaped base layer provides an easily fabricated, economical structure, whereas a single sheet of metal such as stainless steel, sufficiently thick to provide the rigidity required would be difficult to form into the shape required for the segment. In addition, the forming or drawing of a sheet of stainless steel of the thickness required to provide rigidity for the bowl would disturb the physical structure of the steel and impair its durability.

Each lamination segment 71 preferably covers the whole of the exposed surface of its respective

foundation segment 31, and at the outer end thereof is bent inwardly over the downwardly presented edge of the foundation segment. At the inner end, the lamination segment is bent downwardly over the flange 54 of the foundation segment to be received between said flange and the wall 56 of the column 57, and be clamped between said parts when they are assembled.

Molding strips 73 fastened over the joints between segments hold the lamination segments 71 to the foundation segments 31, and are also preferably made of stainless steel, or may be made of other material, for instance, plastic. The molding strips are arranged to conform to the cross-sectional contour of the bowl, and preferably extend throughout the length of the joint between the respective segments.

Each molding strip is preferably semicircular in cross-section with its side edges terminating in inwardly extending flanges 74, which bear against the faces of adjacent segments 71 along their marginal edges, holding the lamination firmly in place on the foundation segments. The inner edges of the flanges 74 are separated by a space which is aligned with the space 47 when the molding strip is in place.

For sealing the joints between the molding strip and the margins of adjacent segments and between adjoining segments, a sealing or packing strip 76 of resilient material such as rubber is provided in the hollow of each molding strip in such manner that it extends out beyond the flanges 74 to contact the adjacent margins and edges of the segments when the strip is fastened in place (Figures 6 and 7). The packing strip normally is centrally confined within the molding strip, avoiding its displacement before application. Bolts 77 are provided to clamp the molding strips to the bowl, and in the form exemplified have their heads received within the molding strip with their shanks passing centrally through the sealing strip 76. When the molding strip is in place on the bowl, the shanks of the bolts 77 are received through the space 47 between adjacent bowl segments and on their inner ends are provided with washers 78 spanning the space 47, and nuts 79 for clamping the molding strip in place, to clamp the lamination segments to the foundation segments, and compress the sealing strip 76, to seal the joint between segments.

The molding strips extending along the joints between adjoining segments accentuate the intersections of the faces 24 of the polygonal wall 23 and mark the bowl along radial lines into a plurality of divisions representing stations, each accommodating one person.

A drain pipe 81 is provided to carry off the water from the bowl, and connects with a catch basin 82 suitably secured to the under side of the bowl about the lower open end of the column 57. Water drains from the bowl through openings 83 in the side walls of the column substantially at the level of the bowl bottom and flows through the column into the catch basin. The catch basin is provided with an opening 84 through which extend the supply pipe 63 and the valve stem 69.

The structure provides a wash fixture which may be efficiently and economically manufactured of sheet material, which is lighter in weight and of better appearance than fixtures heretofore in use. It also permits the use of non-corrosive wear resistant sheet material to provide a more lasting and sanitary surface for the bowl.

It will be observed that the segments, except for the folds, present plane straight surfaces which permit the laminations to be smoothly applied over to cover the upper or face surface of the segment without buckling, or require a shaping of the lamination which would cause any strain thereon. Therefore, the bond which hermetically joins the segments sufficiently binds the corresponding edges of the lamination to the body or base layer, so that no other means need be employed for adhering the lamination.

For the outer and inner edges, along which no bonding is required, the lamination is crimped or peened over the edge of the base layer, where it is unexposed so that any slight impairment during service is immaterial. The roll and apron over-hang for the rim of the basin, being of rather extended proportion, materially adds to the appearance and esthetic value, giving massiveness to the structure which aids in giving rigidity to the segment and permits the employment of a comparatively thin light gauge stock, easily and conveniently bent or formed to shape.

Having described my invention, I claim:

1. A wash basin of the character disclosed, comprising: a plurality of segments formed of sheet metal assembled in adjoining relation to form a multi-sided contour, and the inner ends of the segments forming a drain opening centrally of the basin, each segment integrally constituting a base, side wall, and wall overhanging rim section of the basin, and means for sealing the segments along their adjoining edges.

2. A wash basin of the character disclosed, comprising: a plurality of segments formed of sheet metal assembled in adjoining relation, each segment integrally constituting a base, side wall, and wall overhanging rim section of the basin, a lamination of non-corrosive thin sheet material covering the upper side of each segment, and means including a packing for a fluid tight sealing of the segments and their lamination intervening along their adjoining edges and overlapping upon the under side thereof.

3. A wash basin of the character disclosed, comprising: a plurality of segments formed of sheet metal assembled in adjoining relation to form a basin of multi-sided contour, each segment integrally constituting a base, side wall, and wall overhanging rim section of the basin, a lamination of non-corrosive thin sheet material covering the upper side of each segment, and means including a packing for a fluid tight sealing of the segments and lamination thereof along their adjoining edges and binding the edges of the lamination to the segment.

4. A sheet metal bowl for a fixture of the character described having a polygonal peripheral wall, the faces of which represent stations about said bowl, and formed of a plurality of segments of sheet material whose sides converge in the direction of the center of the bowl, the inner ends thereof forming a central drain opening, and whose outer ends form the faces of said peripheral wall, and molding strips on said bowl along the joints between said segments for covering said joints and bounding said segments to define the stations about said bowl.

5. A bowl structure for a fixture of the character described made up of a plurality of composite segments, each comprising a relatively thick rigid sheet metal foundation segment and a separate relatively thin sheet metal lamination segment supported by said foundation segment, means for securing adjoining composite segments

- together in slightly spaced relation, molding strips covering the space between adjacent segments and overlying opposite margins of adjacent segments, and clamping means for said
- 5 molding strips extending through the space between adjacent segments into engagement with said foundation segments to clamp said molding strips and said lamination segments to said foundation segments.
- 10 6. A bowl structure including a plurality of adjoining segments, means for sealing the joint between said segments, comprising: a cross-sectionally hollow molding inverted over said joints and overlying the opposite margins of adjacent
- 15 segments, a strip of resilient material partially within the hollow of said molding and extending outwardly therefrom to engage said margins, and clamping said molding to said bowl structure and compressing said resilient strip against said margins.
- 20 7. A wash basin of the character disclosed, comprising: a plurality of segments of rigid metal structure, each integrally constituting a base, side wall and wall overhanging rim section, the
- 25 segments adjointly assembled to form a basin of multi-sided contour with the inner ends of the segments forming a central drain opening, means for securing the segments together as a unit, a lamination of non-corrosive thin sheet material
- 30 covering the upper side of each segment, and a channel molding strip marginally overlapping the face side of adjoining segments and laminations thereon and housing a packing strip to bear
- 35 pinging into the joint space, thereby forming a

fluid-tight joint seal, and securing the laminations to the segments.

8. A wash basin of the character disclosed, comprising: a plurality of segments of rigid metal structure, each integrally constituting a base and rim section of the basin, the segments adjointly assembled to form a basin of multi-sided contour with the inner ends of the segments forming a central drain opening, means for securing the segments together as a unit, a lamination of non-corrosive thin sheet material removably covering the upper side of each segment, a molding strip marginally overlapping the face side of adjoining segments and laminations thereon and a packing intervening the molding strip and margins of the segments to form a fluid-tight joint seal and secure the laminations to the segments.

9. A wash basin of the character disclosed, comprising: a plurality of segments of rigid metal structure, each integrally constituting a base and rim section of the basin, the segments adjointly assembled with the inner ends of the segments forming a central drain opening, means for securing the segments together as a unit, a lamination of non-corrosive thin sheet material removably covering the upper side of each segment, a molding strip marginally overlapping the face side of adjoining segments and laminations thereon, and a packing intervening the molding strip and margins of the segments to form a fluid-tight joint seal and secure the laminations to the segments.

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