Nov. 2, 1943. A. E. PLANTE 2,333,491

BATHTUB CONSTRUCTION

Filed June 25, 1942 2 Sheets-Sheet 1

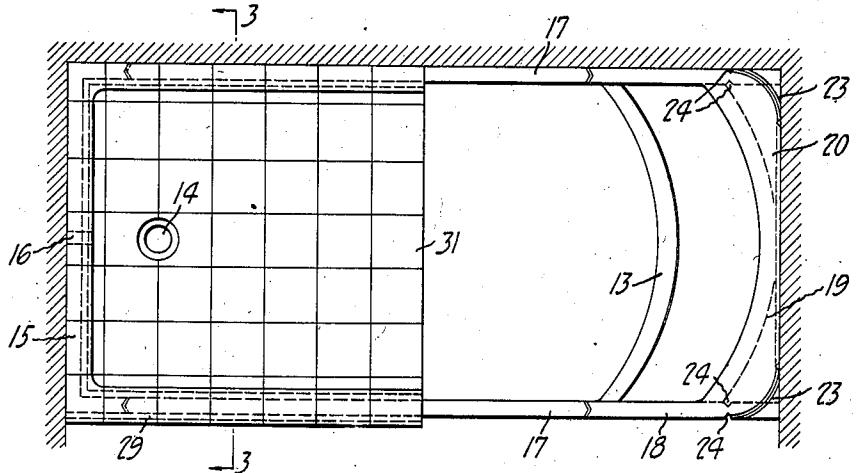


FIG_1_

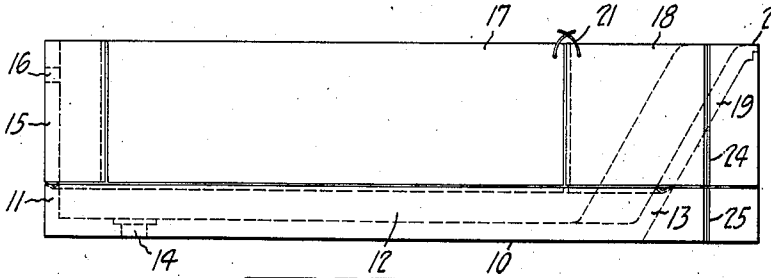


FIG_2_

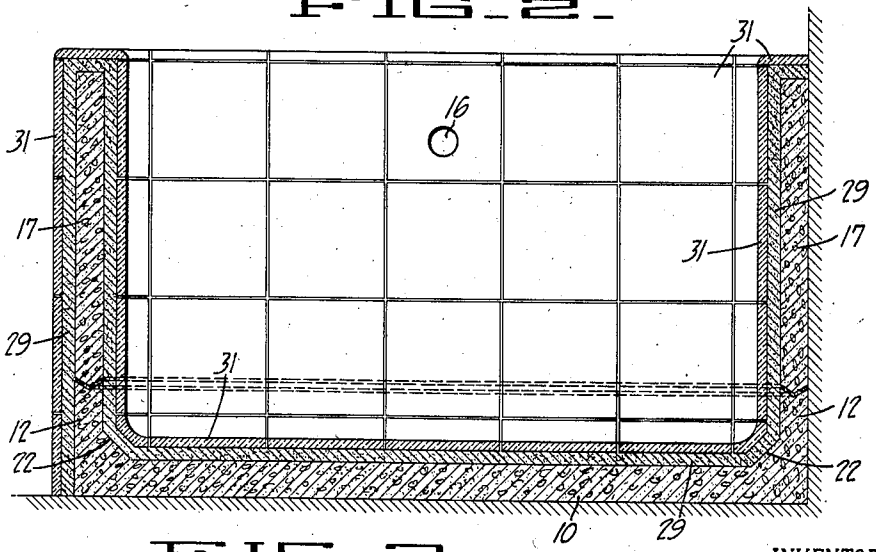


FIG_3_

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BATHTUB CONSTRUCTION

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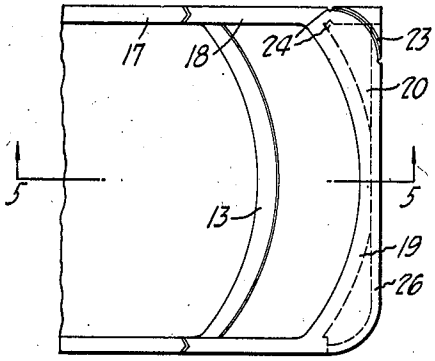


FIG_4_

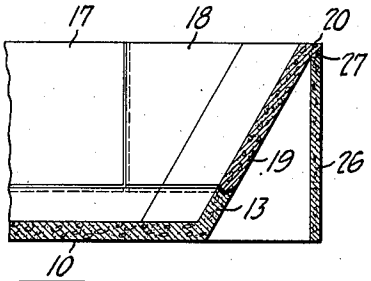


FIG_5_

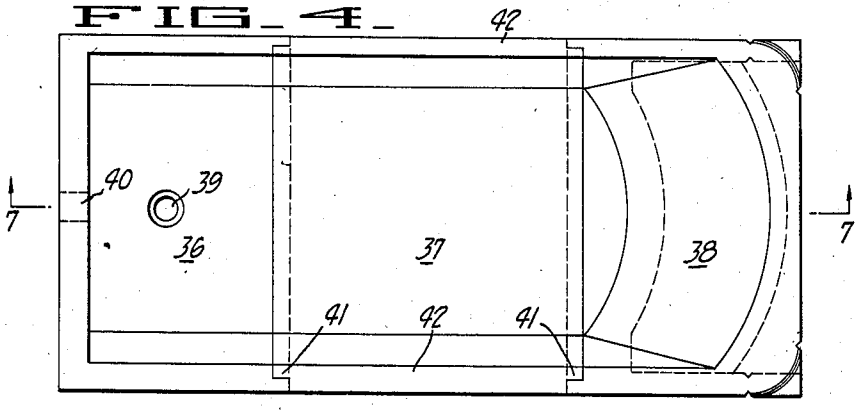


FIG_6_

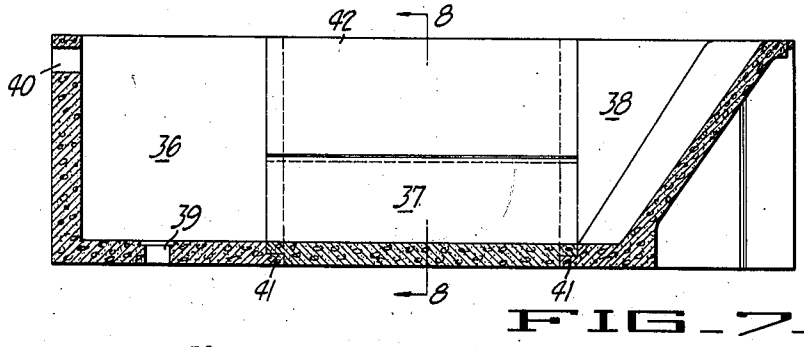


FIG_7_

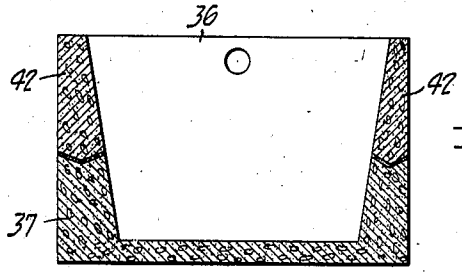


FIG_8_

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2,333,491

UNITED STATES PATENT OFFICE

2,333,491

BATHTUB CONSTRUCTION

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Application June 25, 1942, Serial No. 448,376.

6 Claims. (Cl. 4—173)

This invention relates to bathtub constructions and is concerned more particularly with the provision of an improved form of bathtub installation having a minimum of critical materials required in its construction and installation.

It is a general object of the invention to provide a bathtub construction which can be constructed of non-critical material such as concrete, tile, and the like, by use of a pre-cast or pre-fabricated sectional frame of some suitable material such as concrete, so that the tub frame can be assembled on the job and subsequently covered with a suitable finishing material such as tile, terrazo, plastics, or the like.

Another object of the invention is to provide a bathtub of the above character which can be installed in any desired location in a bathroom, either recessed, or exposed, and with either a right-hand or left-hand outlet.

Another object of the invention is to provide a bathtub construction of the above character which is of a sectional construction to allow portability of the different sections and assembling on the job.

Other objects and advantages of the invention will be apparent from the following description of certain preferred embodiments thereof, as illustrated in the accompanying drawings in which:

Figure 1 is a plan view of a bathtub constructed in accordance with the instant invention and installed in a recess. The left hand portion of the view is shown with the tile applied, while the right hand portion shows the cast frame of the tub before application of the tile.

Figure 2 is a side elevational view of the case frame of the tub as assembled ready for application of the tile.

Figure 3 is a transverse sectional view taken as indicated by the line 3—3 in Figure 1.

Figure 4 is a fragmentary plan view of the tub when installed with an exposed end or corner.

Figure 5 is a fragmentary longitudinal sectional view taken as indicated by the line 5—5 in Figure 4.

Figure 6 is a plan view of a modified construction of a pre-cast sectional frame for a bathtub.

Figure 7 is a longitudinal sectional view taken as indicated by the line 7—7 in Figure 6.

Figure 8 is a transverse sectional view taken as indicated by the line 8—8 in Figure 7.

As stated above, the instant invention is concerned with the provision of a bathtub construction using a minimum of critical material, such as metal, and which enables satisfactory, economical manufacture and installation of the bathtub construction. Generally the invention contemplates provision of a pre-cast or pre-fabricated, sectional frame which is assembled on the job by bonding the sections together. Subsequently the frame is covered with a suitable lining which is serviceable for bathtub uses, as well as providing an attractive and pleasing appearance. Generally the material used for pre-casting or pre-fabrication of the sectional frame may take the form of concrete, terra-cotta, brick, hollow tile, plastics, glass, and the like. While the covering can be of suitable lining material such as tile, glass tile or brick, terrazo, metal tile, plastic, or marble as well as certain composition materials, known as "wood stone" or "magnesite."

Referring to Figures 1 to 3, the pre-cast or pre-fabricated frame of the bathtub has been illustrated as it would be made of concrete. The frame includes a pan-shaped base 10, having one upright end wall 11, and opposite side walls 12 with V-shaped grooves in their upper faces. The other end wall 13 is inclined and is similarly provided with a V-shaped groove along its upper edge. A suitable drain outlet opening 14 is provided in the base 10. The pan-shaped base efficiently prevents any leak around the bottom of the tub which might take place from seepage.

The upper portion of the frame structure is made of a plurality of separate complementary sections. The sections include a V-shaped vertical section or end piece 15, having the overflow drain outlet 16 therein, respective interchangeable side wall sections 17, and an end section 18, having side walls extending to the end of base 10 and an inclined and curved end wall 19 terminating in a flat top wall 20. The mating edges of all of these sections are also V-shaped and V-grooved to provide an overlapping joint for resistance to side thrusts. However, such a joint could be provided by making adjacent edges concave and convex, or with an L-shape overlap. If desired, same reinforcing steel may be employed in the cast sections.

When the sections are placed together, a suitable form of bonding or cementing material is employed, between the mating faces of the section to bind the sections together and provide a water-tight joint. If desired, metal ties such as indicated at 24, may be employed to hold the sections in place while the joints are hardening.

Preferably the various sections are shaped to conform to the usual shape and appearance of a bathtub with wall 19 being concave inwardly to provide a back rest and with an inclined wall 22 around the inner corner of the base 10 to receive the rounded corner tile pieces as will be described.

As seen in Figure 1 the tub has been installed in a recess and it is seen that the structure is reversible to provide either a right hand or a left hand outlet in such installation.

To enable selective employment of the tub in either a recess or with an exposed corner for

either right-hand or left-hand corner installations, the end section **18** is provided with score lines to enable easy breaking off of the corner of the tub frame. The upper surface of each corner of top wall **20** has a score line in the form of an arcuate V-shaped groove **23** (Fig. 1). Each side wall of section **18** is provided with opposed vertical V-shaped grooves **24** which are in alignment with an end of the adjacent groove **23**. The end of wall **20** also has vertical V-grooves **24** aligned with adjacent ends of arcuate score lines **23**. The base or pan **10** is provided with vertical grooves **25** aligned with grooves **24**. Thus where a corner of the tub is to be exposed as seen in Figure 4 for example, the V-shaped scores or grooves **23**, **24**, and **25**, provided lines of fracture for breaking off of the top and the side walls of the end piece **18** so that a desired radius may be provided at a selected corner. To fit this radius and provide a vertical end wall of the tub, a specially formed or pre-cast end wall **26** is provided with one end arcuate to conform to either arcuate score line. The curved end of wall **26** is adapted to butt flush against the adjacent side wall of the end piece **18**, and the straight end is adapted to butt against the side of the opposite wall of end piece **18**. An L-shaped overlap **27** is provided between end wall **26** and top wall **20**. One end of the end wall **26** is curved to conform to the radius of the V-grooves **24** so that when installed and bonded in place, wall **26** provides a suitable base for the application of tile or other covering over the exposed end of the tub.

After the sections of the frame have been bonded together, the tile is applied in the usual manner as illustrated in Figures 1 and 3. As shown particularly in Figure 3, a suitable coating of cement or bonding material of any desired character is placed over the frame of the tub as indicated at **29** and the tile coating as indicated at **31** is applied in the usual manner. The construction is preferably dimensioned so that conventional forms of tile can be employed. Also the dimensions of the tub and the tile are preferably such that either ordinary cement can be employed as shown in Fig. 3, or a very thin layer of mastic cement can be used. In the latter case, the only changes in tiling required are a narrow top or cap tile, and the use of wider joints between the tile in the bottom of the tub.

The resulting bathtub is attractive in appearance, and is serviceable for bath uses. The sectional construction provides for ready transportation and enables easy assembly on the job. The sectional construction of the frame also adapts itself to transportation of castings such as concrete castings without liability of breakage and with minimum storage and handling charges.

Figures 6 and 8 illustrate a modified construction in which the bathtub frame is made up of three sections, **36**, **37** and **38** providing the two ends and middle sections. End section **36** is provided with a bottom drain outlet **39** and the overflow drain outlet **40**. At their mating edges the sections are provided with suitable overlapping joints, as indicated at **41**. The middle section **37** may be provided if desired with removable top wall sections **42** which as seen in Figures 7 and 8, each having a V-shaped bottom complementary to the shape of the adjacent wall of the middle section **37**. The frame shown in Figures 6 to 8 is assembled with the various sections bound together as described in connection with the first modification, and after assembly is covered with a suitable material such as tile or the like as also explained in the preceding description.

I claim:

1. A bathtub construction comprising a frame made up of cast sections capable of assembly to provide a tub, the mating edges of said sections being formed in complementary overlapping fashion and being joined by a bonding material, said frame having square corners, the corners at one end of the frame having score lines to provide for optional breaking off of said corners at said one end when one of said end corners is to be exposed upon installation.

2. A bathtub frame construction including a pan-like base having a bottom wall and respective end and side walls formed integrally therewith, a plurality of wall sections mounted on said base to continue the wall portions of said base, the mating faces of said wall sections with each other and with said base providing overlapping joints, and bonding material joining said respective mating faces.

3. A bathtub frame construction including a pan-like base having a bottom wall and respective end and side walls formed integrally therewith, a plurality of wall sections mounted on said base to continue the wall portions of said base, the mating faces of said wall sections with each other and with said base providing overlapping joints, and bonding material joining said respective mating faces, one end wall section having score lines at each outer corner to indicate lines of fracture, whereby either of the outer corners may be formed to provide an exposed tub corner.

4. A bathtub frame construction including a pan-like base having a bottom wall and respective end and side walls formed integrally therewith, a plurality of wall sections mounted on said base to continue the wall portions of said base, the mating faces of said wall sections with each other and with said base providing overlapping joints, and bonding material joining said respective mating faces, one end wall section being formed with an inclined end wall portion joining with a flat top wall portion at its upper end, and vertical side wall portions connecting to said inclined and top wall portions to provide a recess at the end of said end wall section, similar score lines formed across the corners of said top wall portion to indicate a cutaway corner, vertical score lines formed in said side wall portions and in said base side walls in alignment with the ends of said corner score lines, and a reversible end wall for said frame construction having one end for mating with an unbroken side wall portion and its other end formed to correspond to said corner score lines.

5. A cast bathtub frame having square corners for fitting into a recessed bathtub installation, one end of said frame having its top and side walls scored at each corner to indicate a cutaway corner outline for either right-hand or left-hand corner exposed installations.

6. A cast bathtub frame having square corners for fitting into a recessed bathtub installation, one end of said frame being recessed to provide an inclined end wall and having its top and side walls scored at each corner to indicate a cutaway corner outline for either right-hand or left-hand corner exposed installations, and a reversible end wall for use with said frame in exposed installations, said end wall having one end conforming to said corner outline.

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