

Jan. 23, 1951

G. W. KEATING, JR

2,539,141

MOLDING FOR LAUNDRY TUBS

Filed April 16, 1948

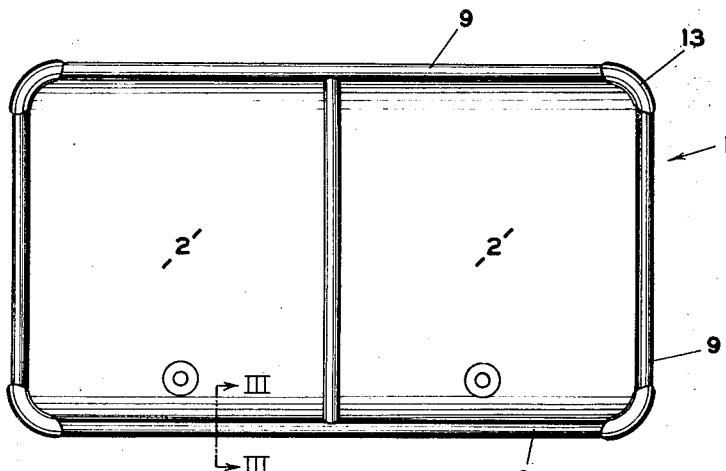


fig. 1

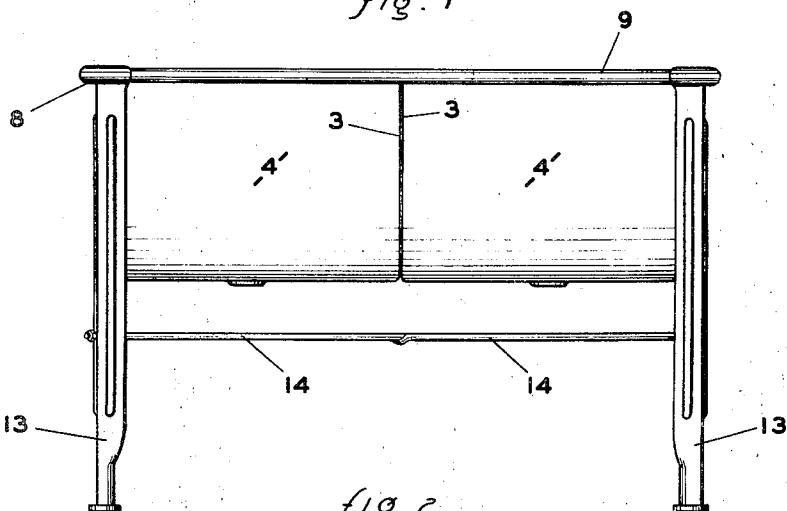


fig. 2

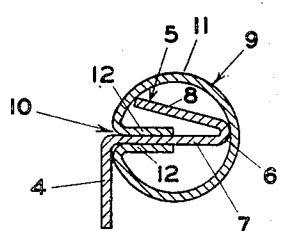


fig. 3

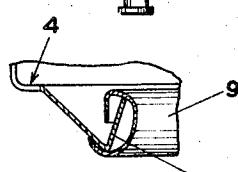


fig. 4

Inventor
GEORGE W. KEATING JR.

Robert E. MacLean
Attorney

UNITED STATES PATENT OFFICE

2,539,141

MOLDING FOR LAUNDRY TUBS

George W. Keating, Jr., Saginaw, Mich., assignor
to Durand Metal Products Corporation, Saginaw, Mich., a corporation of Michigan

Application April 16, 1948, Serial No. 21,489

2 Claims. (Cl. 220—73)

1

This invention relates to laundry tubs, and more particularly to laundry tubs constructed with a molding formed from sheet metal and intended for interlocked engagement with those parts of such tubs with which it is to be assembled.

In the construction of sheet metal objects, particularly laundry tubs, it is necessary that the top edges, where they are exposed to the user's hands be protected by providing them with a smooth rounded contour. Yet it is not practical in the normal manufacture of such sheet metal products to roll all four edges of an item such as a tub to accomplish this purpose. It is, therefore, necessary to provide an edging, or molding, which may be easily and quickly installed on the exposed edge of such an article.

In providing an edging meeting these requirements it is necessary that it be simple and economical to fabricate. It is further necessary that the design of such an edging permit easy and rapid installation and that the attachment of the molding be so arranged that it is thereafter positively held against inadvertent disengagement. In such a design it is also essential that the finished product have a smooth and attractive appearance and that the means of joining the parts be completely or almost completely hidden.

Such articles as laundry tubs, from whatever material they are fabricated, must be capable of sustaining a relatively heavy load such as is imposed by the water and articles placed in them. Hence, where sheet metal is used to fabricate the tubs it becomes essential to provide a means of supporting the upper rims of these tubs to prevent deflection and ultimate collapse. For purposes of economical manufacture, it is desirable that the supporting member be made from the same type of material as the tubs.

My invention combines not only the function of an edging but also that of a supporting beam providing resistance against downward deflection of the tubs. I have accomplished this by use of a beam having a simple rolled shape of such a design that it will support one or more tubs. By combining both the support and the decorative trim in a single, simply fabricated part, my invention makes possible a laundry tub which is both lighter and more economical than any heretofore known.

Accordingly, it is a primary object of my invention to provide a molding rail along the upper edge of a side panel of a sheet metal tub which

2

will serve both to support the tub and provide it with a smooth and attractive finish.

A further object of my invention is to provide a decorative molding for a laundry tub having a smooth exterior surface and a design giving it the deflection resisting characteristics of a horizontal beam.

A still further object of my invention is to provide a molding which may be quickly and simply fabricated from sheet metal.

An additional object of my invention is to provide a molding which may be easily assembled to the upper rim of the tub without the use of any tools.

An additional object of my invention is to provide a combination molding and tub support capable of assembly and disassembly without injury to its surface or strength. A further additional object of my invention is to provide such an assembly in which all of the engaging members are hidden.

Other objects and purpose of my invention will be apparent to those acquainted with this art upon reading the following specification and examining the accompanying drawings.

In the drawings:

Figure 1 is a top view of a tub having my molding rail installed thereon.

Figure 2 is a side elevational view of a tub having my molding rail installed thereon.

Figure 3 is an enlarged fragmentary sectional view of my molding rail mounted to the rim of the tub taken along the plane III—III of Figure 1.

Figure 4 is an enlarged fragmentary detail of the end of one of my molding rails at the corner of the tub with the supporting leg removed.

In accomplishing the objects and purposes of my invention, I have provided a rim at the upper edge of the tub formed into a V having its apex spaced outwardly from the wall of the tub and a tubular rail open along one side receiving the V-shaped rim into its interior area such that the tub and the rail cannot be disengaged except by sliding the rail off the tub in a direction parallel to the longitudinal axis of the molding rail.

Referring now specifically to the drawings, the numeral 1 indicates a laundry tub including a pair of compartments 2 and abutting walls 3. The compartments 2 are formed from any suitable light gauge sheet metal such as aluminum or stainless steel. The non-abutting walls of the compartments 2 are provided with a substantially horizontally outwardly extending flange or clip 5 shaped in the form of a V having its apex 6 spaced outwardly from the wall of the tub and

consisting of a mounting portion or leg 7 and a folded portion or leg 8. The leg 7 extends from the wall 4 of the compartment to the apex 6 of the clip 5 and the leg 8 extends inwardly toward the compartment 2 from the apex 6. For illustrative purposes the leg 8 is shown as being positioned above the leg 7, however, a satisfactory structure is produced when the clip is reversed such that the leg 8 is below leg 7 and extends toward the wall 4 of the compartment.

The rail 9 is tubular in form and is provided with a slot shaped opening 10 extending its entire length parallel to its longitudinal axis. Adjacent the opening 10 the walls 11 of the rail 9 are turned inwardly to form a pair of substantially horizontally extending flanges 12 flanking and defining the width of the opening 10 throughout its length.

The width of the flanges 12 may vary from a small to a substantial portion of the diameter of the rail 9 without affecting the operation of my rail assembly. The length of the leg 7 of the clip 5 is equal to the exterior diameter of the rail 9 less the thickness of the wall 11 of the rail. The length of the leg 8 of the clip 5 is equal to the interior diameter of the rail 9. Before installation of the rail 9 to the compartment walls 4, the flanges 12 are preferably in contact with each other and are forced apart a sufficient distance to receive the leg 7 of the clip at the time of assembly.

The rail 9 extends unbroken along the entire side of the tub engaging the walls of both compartments, in the particular form therein illustrated, and terminates at the corner of the tub as is shown in Figure 4. The clip 5 extends up to but not around the corner of each compartment and the rail is substantially coextensive with the clip. This arrangement permits the rail 9 to be assembled with the clip 5 by sliding the rail longitudinally into engagement with the clip.

In assembling the rail to the wall of the compartments the flanges 12 of the rail are separated sufficiently to receive the leg 7 of the clip therebetween and the leg 8 of the clip is made to fit entirely within the interior of the rail. When so assembled the apex 6 of the clip 5 will contact the interior of the wall 11 of the rail 9 diametrically opposite the opening 10 and the free end of the leg 8 of the clip will contact the interior surface of the rail 9 at a point close to one of the flanges 12. The exterior surface of the rail 9 will contact the wall 4 of the compartments proximate to the point where the wall 4 and clip 5 join. The bearing of the apex 6 against the interior of the rail 9 together with the bearing of the end of the leg 8 against the interior of the rail 9 substantially oppose the point of contact of the apex and rail prevent movement of the rail relative to the clip 5 except along the rail's longitudinal axis. The bearing of the rail against the wall 4 of the compartments aids in preventing rotation of the rail about its longitudinal axis. After this assembly has been accomplished the legs 13 are installed providing both support for each of the rails terminating at that particular corner and a cover for the gap existing between ends of the two rails meeting at each corner.

A detailed description of the legs and lower tension members 14 is omitted inasmuch as they constitute no part of this invention and they are fully described in my copending application entitled, Corner and Leg Mounting Construction.

Longitudinal disengagement of the rail and rim are prevented by the legs 13.

The shape of the rail 9 is such as to give it a high resistance to bending loads in any direction thereby providing a supporting beam for one or more compartments which may comprise the tub. The diameter of the rail 9 may be increased or decreased without necessarily affecting the size of the clip 5 in accordance with the degree of resistance to bending desired in a particular installation.

Besides providing a simple method of both improving the appearance of the tub and also providing structural support, the design is such that the particular tub unit may be quickly disassembled and packed away for transportation or storage by merely removing the legs 13 and sliding off the rails 9. Where more than one compartment is used, as is shown in Figure 1, the removal of the rails 9 automatically operates to disassemble one compartment from the other since no other joining or supporting means contacting the individual compartments is necessary.

It will be seen that certain variations may be made in my particular structure as herein disclosed, however, such changes are merely matters of detail and will not affect the operation of my invention as herein disclosed, unless fundamentally changing the principle of my invention, such variations will all be within the scope of my hereinafter appended claims excepting as said claims may have by their own terms expressly provided otherwise.

I claim:

1. In a rim for an open rectangular container having a sidewall, the combination comprising: a substantially cylindrical, hollow rail having a lengthwise slot and a pair of substantially parallel and closely spaced lips integral with the opposing edges of said slot and extending inwardly of said rail; and a flange at the upper edge of said sidewall having a flat mounting portion integral with said sidewall and extending substantially perpendicularly therefrom, and a flat folded portion integral with the extended edge of, and of less width than, said mounting portion and disposed at an acute angle thereto, the mounting portion being snugly engaged between said lips and completely disposed within said rail, and said folded portion being remote from said sidewall and the free edge thereof and the apex of the fold engaging the interior of said rail along lines spaced substantially circumferentially of said rail, whereby said rail is secured to said sidewall and disposed entirely on one side thereof.

2. In a rim for a pair of rectangular twin tubs having a substantially vertical sidewall and for securing one tub with respect to the other, the combination comprising: a substantially cylindrical, hollow rail having a longitudinal slot therein and a pair of substantially parallel lips integral with the opposing edges of said slot and extending inwardly of said rail, said lips being normally spaced from each other a distance slightly less than the thickness of said sidewall; and an outwardly extending flange at the upper edge of said sidewall having a flat mounting portion integral with and extending substantially perpendicularly from said sidewall, and a folded portion integral with the extended edge of, and of less width than, said mounting portion and disposed at an acute angle thereto, said mounting portion being snugly engaged between said lips and completely disposed within said rail, and said

75 and completely disposed within said rail, and said

folded portion being remote from said sidewall and the free edge thereof and the apex of the fold engaging the interior of said rail along two lines spaced substantially circumferentially of said rail, whereby said rail is secured to said sidewall and disposed entirely on the outside thereof.

GEORGE W. KEATING, JR.

UNITED STATES PATENTS

Number	Name	Date
411,996	Morton	Oct. 1, 1889
933,066	Eaton	Sept. 7, 1909
2,262,204	Rideout	Nov. 11, 1941
2,268,851	Schultes	Jan. 6, 1942
2,342,715	Wilson	Feb. 29, 1944

FOREIGN PATENTS

Country	Date
Great Britain	1873

The following references are of record in the 10 Number
file of this patent: 2,802

REFERENCES CITED