Jan. 2, 1962 J. W. KLAGES 3,015,412

BUCKET BAIL AND EXTRUSION

Filed Nov. 24, 1959 2 Sheets-Sheet 1

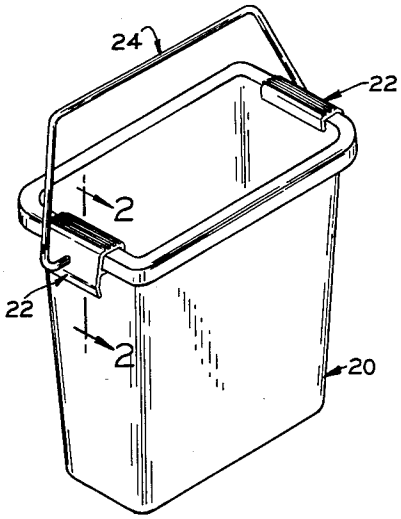


FIG. 1

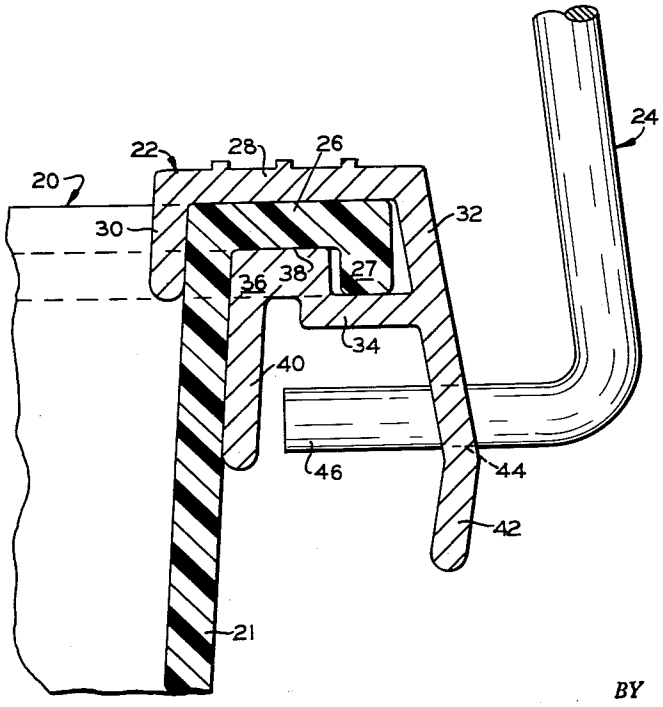


FIG. 2

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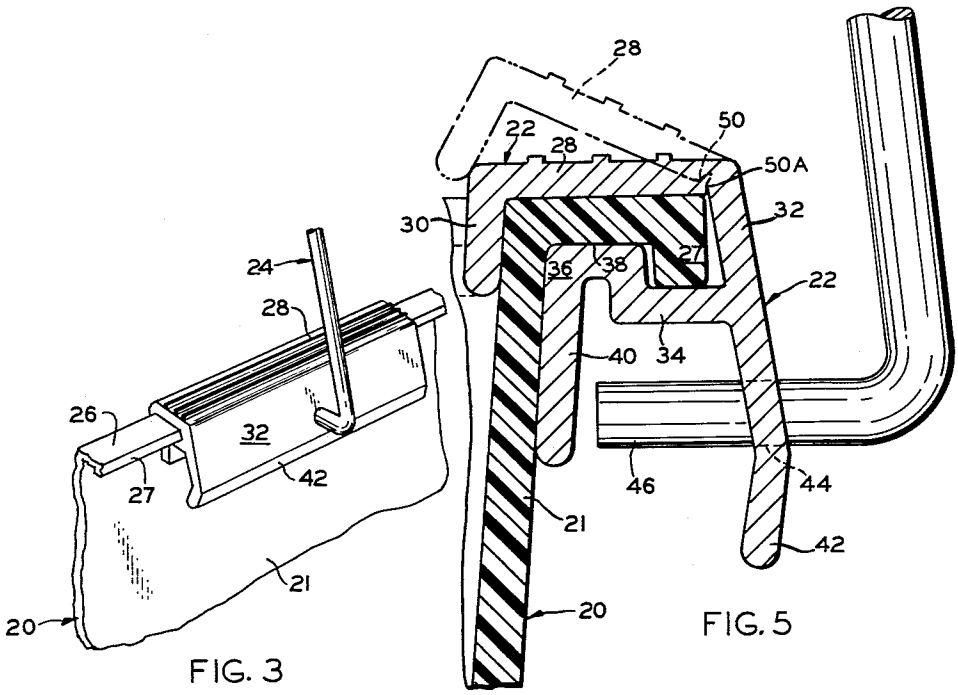


FIG. 3

FIG. 5

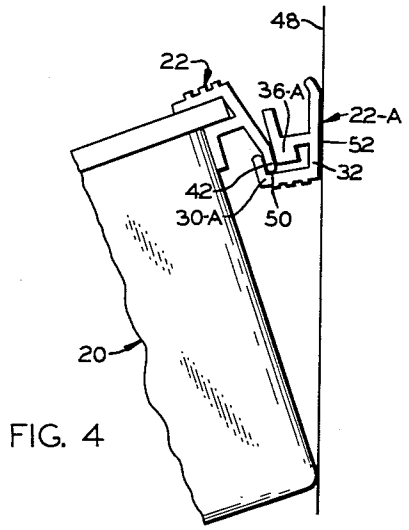


FIG. 4

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BUCKET BAIL AND EXTRUSION

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This invention relates to a clip construction for transmitting a load between a resilient article and a support.

As a typical application of the clip construction of the present invention it is utilized for attaching a bail to a resilient plastic bucket of the type that includes an upper side wall rim provided with a radially outwardly extending flange from the outer end of which extends a downwardly extending flange whereby said flanges and the side wall of the bucket form a downwardly facing slot.

Buckets of this general type are exemplified by ladies' vanity receptacles, for use on dressing tables or the like, said vanity receptacles being commonly molded from resilient plastic with upper side wall rim construction of the type described in the preceding paragraph.

The clip construction of the present invention can be used for transmitting loads between a support and various other articles formed of resilient sheet material such as plastic boxes, wide-mouthed plastic bottles, and plastic containers of all types.

As one aspect of the present invention the clip can be formed of a rigid material such as aluminum or other metal and provided with an open slot that can be pinched closed by mechanical means so as to conform with and grip the previously described bucket rim.

As another aspect of the present invention the novel mounting clip is formed of resilient material and provided with a U-shaped slot that conforms with the U-shaped configuration of the upper rim of the bucket. Due to the resiliency of the mounting clip, the flanges that form the previously mentioned slot can be spread apart whereby the clip can be snapped onto the rim of a bucket formed of either rigid material or yieldable plastic material. When the spread flanges are released, the clip closely conforms with and grips the bucket rim.

Two of the clips are used for attaching a bail to a bucket by mounting the clips on opposite sides of the rim and rotatably inserting the in-turned ends of a bail into holes formed in the clips.

The clip construction can also be used to suspend the bucket on a wall, on the inside curved surface of a boat hull or at other useful locations. The clip is so adapted by provision of a downwardly protruding flange on the outer edge of the clip, which flange is spaced outwardly from the side wall of the bucket to form a downwardly facing hook on the bucket rim. When the clip is mounted on the rim of the bucket the downwardly facing hook can be connected with a second upwardly facing hook formed by a second hook mounted on the wall or other surface on which the bucket is to be removably suspended.

It is therefore an object of the present invention to provide a novel mounting clip for attaching a bail to a bucket which clip can be readily mounted on the rim of the bucket without the use of cements or fasteners of any type.

It is another object of the present invention to provide a novel mounting clip of the type described which can be used to removably suspend a bucket on a vertical wall surface.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawings wherein preferred forms of embodiments of the invention are clearly shown.

In the drawings:

FIG. 1 is a perspective view showing a bucket with two of the mounting clips of the present invention mounted on the bucket and serving to attach a bail thereto;

FIG. 2 is a partial sectional view of the bucket, mounting clip, and bail of the preceding figure, the section being taken along the line 2—2 of FIG. 1;

FIG. 3 is a partial perspective view showing the mounting clip of the preceding figures in an enlarged configuration as compared to FIG. 1;

FIG. 4 shows two of the mounting clips of the present invention as utilized for removably suspending a bucket from a wall surface; and

FIG. 5 is a partial sectional view of a modified mounting clip constructed according to the present invention and comprising a second aspect thereof.

Referring in detail to the drawings, FIG. 1 illustrates a bucket indicated generally at **20** that includes a side wall **21**.

A pair of mounting clips each of which is indicated generally at **22** are mounted on the rim of opposite sides of bucket **20** and provide means for pivotally attaching a bail to the bucket, said bail being indicated generally at **24**.

Referring next to FIG. 2, side wall **21** of bucket **20** includes an outwardly extending bucket flange **26** that is adjoined by a downwardly extending bucket flange **27**.

As best seen in FIG. 2, clip **22** includes a horizontally extending top flange **28**, the inner edge of which is adjoined by an inner downwardly extending flange **30** the outer edge of which is adjoined by an outer downwardly extending flange **32**.

Clip **22** further includes a lower inwardly extending flange **34** that includes an inner end portion **36** that extends upwardly into an inverted U-shaped slot **38**, said slot being formed by side wall **21**, horizontal bucket flange **26** and vertical bucket flange **27**.

Clip **22** further includes an intermediate vertically extending flange **40** that extends downwardly from the inner end portion **36** of lower flange **34** and engages the outer surface of bucket side wall **21**.

With continued reference to FIG. 2, clip **22** includes a downwardly protruding portion **42** provided with a hole **44** that removably receives an in-turned lower end **46** of bail **24**, the other lower end of bail **24**, not illustrated, being removably inserted in a similar hole in the clip mounted on the other side wall of the bucket.

Reference is next made to FIG. 4 which illustrates a bucket **20** removably supported on a wall surface **48** by clip **22** and a second clip **22A**, said clips being identical to the one previously described and illustrated in FIG. 2. Clip **22A**, however, is inverted to provide an upwardly facing slot **50** for removably receiving the downwardly protruding portion **42** on clip **22**.

In FIG. 4, the rear surface **52** on vertical flange **32** of clip **22A** is secured to wall surface **48** by a mastic or other suitable fastening means.

In operation, FIG. 5 illustrates, in dotted delineation, the normal configuration of top flange **28** prior to clamping clip **22** into conforming gripping relationship with the rim flanges on bucket **20**. It will be noted from FIG. 5 that when flange **28** is in the initial open position a longitudinally extending slot **50** is disposed, in open configuration, at the junction of top flange **28** and outer downwardly extending flange **32**. Slot **50** provides a longitudinally extending section of reduced thickness that defines the bend line when top flange **28** is bent downwardly into gripping relationship with the rim of the bucket. When flange **28** is bent downwardly slot **50** closes as is indicated at **50A** in FIG. 5. The purpose of

slot **50** and the resulting section of reduced thickness is to prevent fracturing of the metal along the fold line when flange **28** is bent downwardly.

As another aspect of the present invention, where relatively light loads are to be supported clip **22** can be formed of resilient material and normally shaped as shown in FIG. 2 with flange **28** substantially parallel to flange **34**. In this embodiment the flanges **28** and **34** can be sprung apart to permit flanges **26** and **27** to be inserted between the clip flanges with inner end portion **36** disposed in slot **38**. After inserting the bucket flange into the clip flange the resiliency of clip **22** maintains the clip and bucket rim in the conforming mounted relationship illustrated.

With reference to the operation of the embodiment of FIG. 4, the width of slot **50** defined by inner end portion **36A** and flange **30A**, is slightly less than the width of downwardly protruding portion **42** on clip **22** whereby clip **22** is retained in slot **50** by resilient clamping action.

While the forms of embodiments of the present invention as herein disclosed constitute preferred forms, it is to be understood that other forms might be adopted, all coming within the scope of the claims which follow.

I claim:

1. In combination, a flanged article of the type that includes an upwardly extending flange, an outwardly extending flange, and a downwardly extending flange, said flanges being formed of resiliently deformable sheet material and including surfaces defining a slot; and a clip for transmitting a load to or from said flanged article comprising a strip of rigid material that includes an upper clip flange portion overlying and conforming with the outer surfaces of said article flanges, an intermediate clip flange portion that extends inwardly and upwardly and into engagement with certain of said surfaces defining said slot, and a lower clip flange portion extending downwardly from said intermediate clip flange portion.

2. In combination, a flanged article of the type that includes an upwardly extending article flange, an outwardly extending article flange, and a downwardly extending article flange, said flanges defining a slot; and a clip for transmitting a load to or from said flanged article comprising a strip of rigid material that includes a vertically extending clip flange, an upper horizontally extending clip flange and a lower horizontally extending clip flange, said horizontally extending clip flanges being normally extended from said vertically extending clip flange in spread configuration for the free insertion of said article flanges between said horizontally extending clip flanges, said horizontally extending clip flanges being bent together into conforming gripping relationship with said article flanges.

3. The clip defined in claim 2 wherein said vertically extending clip flange includes means for pivotally mounting the end of a bail.

4. In combination, a bucket of the type that includes a side wall, an upper edge provided with an outwardly extending bucket flange and a downwardly extending bucket flange defining a downwardly facing slot; and a bail attaching clip therefor comprising a strip including a horizontally extending top flange disposed over said horizontally extending bucket flange and provided with an inner edge and an outer edge, an outer flange extending vertically downwardly from said outer edge of said top flange and disposed outwardly of said downwardly extending bucket flange, said outer flange including bail mounting means for pivotally mounting the end of a bail, a lower flange extending horizontally inwardly from said outer flange from a location thereon above said bail mounting means and including an upturned inner end portion disposed in said slot, and an inner flange extending vertically downwardly from said inner edge of said top flange and disposed along an inner surface of said side wall, certain of said flanges being resiliently deformable to permit insertion of said inner end portion into said slot.

5. The clip defined in claim 4 wherein said bail mounting means is formed by a hole in a portion of said outer flange.

6. In combination, a bucket of the type that includes a top rim of inverted U-shaped cross section; and a bail attaching clip therefor comprising a vertically disposed flange including means for pivotally receiving the end of a bail, and upper and lower flanges extending first inwardly from said vertically disposed flange, at the top and bottom of said rim, and then downwardly to form an inverted U-shaped slot, said clip being resilient whereby said upper and lower flanges can be snapped over said U-shaped top rim of the bucket in closely conforming mounted relationship thereon.

7. The clip defined in claim 6 wherein said means for pivotally receiving the end of a bail is formed by a hole in said vertically disposed flange.

8. In combination, a bucket of the type that includes a side wall, an upper edge provided with an outwardly extending bucket flange and a downwardly extending bucket flange defining a downwardly facing slot; a clip for hanging said bucket from a support comprising a strip including a horizontally extending top flange disposed over said horizontally extending bucket flange and provided with an inner edge and an outer edge, an outer flange extending vertically downwardly from said outer edge of said top flange and disposed outwardly of said downwardly extending bucket flange, a second outer flange extending downwardly from said inner end of said lower flange and disposed along an outer surface of said side wall, an inner flange extending vertically downwardly from said inner edge of said top flange and disposed along an inner surface of said side wall; and a second clip conforming in cross-sectional shape with said first mentioned clip but inverted relative thereto, said second clip including flanges that correspond to said inner flange and second outer flange of said first clip that form an upwardly facing open ended slot for removably receiving said downwardly projecting lower edge of said first mentioned outer flange of said first clip, said second clip including an outer flange that corresponds with said outer flange of said first clip and provides means for attaching said second clip to said wall.

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