July 24, 1956 M. T. KENNEDY, JR 2,755,838

PAIL

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Fig. 1

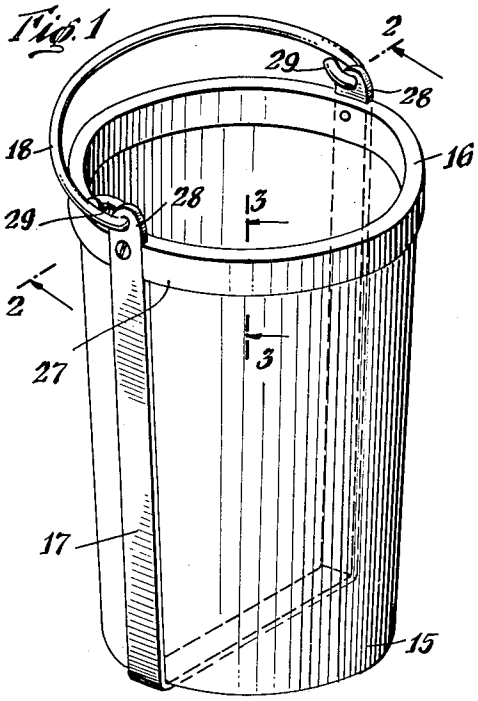


Fig. 3

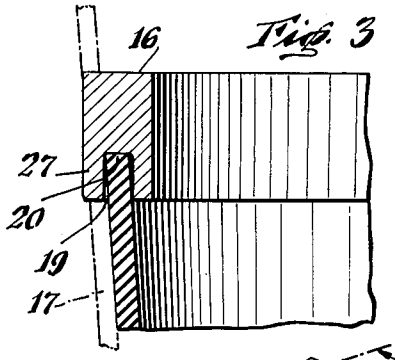


Fig. 4

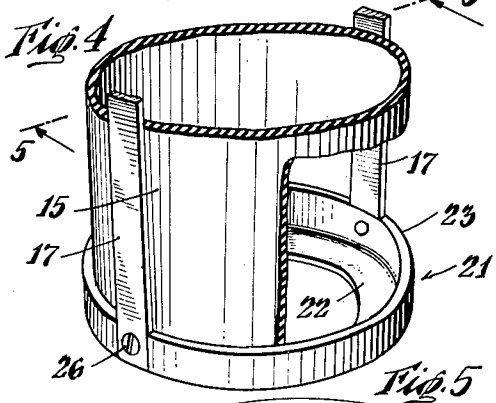


Fig. 2

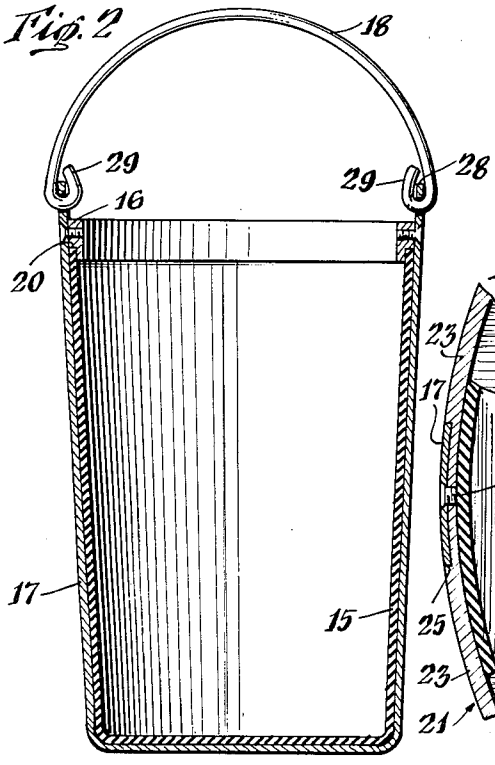


Fig. 6

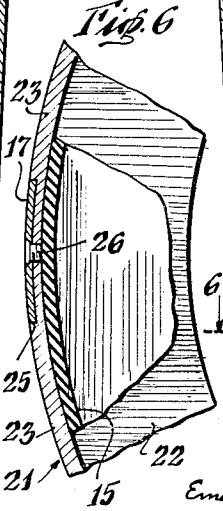
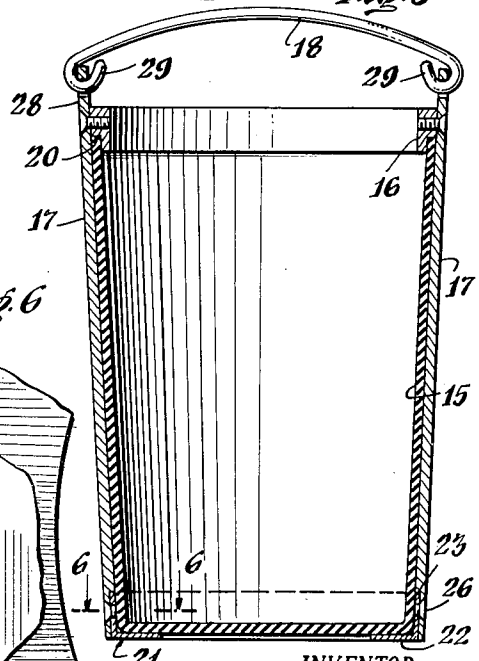


Fig. 5



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This invention relates to an improved structure of pail wherein there is a corrosion resistant pliable element and a framework which forms part of and strengthens the complete structure.

More in particular, the invention pertains to an improved pail having a strength frame for firmly receiving and holding a semi-flexible container which is easily mounted and is replaceable in the frame, and which container has the characteristics of not being subject to corrosion by different acids.

The invention herein pertains to an improved structure of pail which has a demountable frame part and a container part, all of which may be quickly and easily assembled. The corrosion resistant container portion may be replaced as desired.

The invention also has to do with an improved semi-flexible body portion or container for receiving and carrying substances that normally corrode other pail structures, and relates to a reinforcing and supporting demountable frame which is constructed to support the semi-flexible container in position, full or empty, and to absorb stresses and strains and to be used to "bump" the pail to empty it without damaging the semi-flexible container part thereof.

The invention herein further pertains to the production of an improved pail, which has its main containing body portion or part of a semi-flexible composition of material which is corrosion-resistant, and which has a frame for supporting and carrying said body portion or container, the frame being designed to support the semi-flexible container in a manner to allow heavy usage and provide mechanical protection at definite places of the container so that the pail as assembled will withstand great stresses and strains without splitting or leaking.

In various uses of pails that are made for general purposes, strength and non-leaking characteristice are of the first order. In other pails corrosion-resistant and non-breakable characteristics under general use become important. In other pails it becomes desirable to replace parts that have become worn or broken. The improved pail herein meets all of these required characteristics, and it makes little difference whether this improved pail is used for carrying water, ice, foods, acids, or muck or other undesirable material.

This pail is constructed to have a replaceable chemical type of container and a demountable frame that absorbs the carrying strains; that protects the top edge or circumference of the container so that the pail may be bumped at its top edge without damage; and that has supporting and protecting side straps that are firmly fastened to the top of the frame that protects the top of the container while also acting to support the container in place and to protect at least some of the sides of the container.

Other features and objects of the invention will be particularly noted in the following detailed descriptions and drawings, wherein:

Fig. 1 is a perspective view of the improved pail;

Fig. 2 is a sectional view in part taken on the line 2—2 of Fig. 1 showing a modified form;

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1 showing a groove in the top rim of the frame for receiving the top edge of the container portion of the pail;

Fig. 4 is a modified form of the pail, partly in section, showing a bottom supporting rim for the container part of the pail;

Fig. 5 is a sectional view of the complete pail taken on the line 5—5 of Fig. 4 with the upper part of the pail as partly shown in Fig. 2; and

Fig. 6 is a sectional view in part taken on the line 6—6 of Fig. 5.

It has long been desirable to provide an improved pail which is corrosion resistant and part of which is flexible, or semi-flexible, and to provide a complete unit of good strength that withstands stresses, strains, and the like, and which pail is capable of being disassembled and new parts inserted. In addition, it has been desirable to provide a light weight corrosion resistant pail that may be used for many purposes and especially for purposes which involve receiving water, ice, foods, acids of all kinds, or other materials which are desired to be moved from one place to another. Also, it has been desirable to provide a container part of the pail of a material which is flexible or semi-flexible but which many of the acids or conveyed materials will not stick to any great extent, if at all. Also, it has been desired to provide a readily demountable pail.

In providing such an improved pail meeting the requirements herein noted, there is provided a container portion or part **15** as noted in Fig. 1 of the drawings for receiving and carrying materials, and a demountable frame preferably consisting of a rim **16** and one form of a supporting frame **17**, and a bail handle **18**. In further reference to Figs. 1 and 2, the rim **16** is provided with a suitable groove **19** into which the top edge **20** of the container **15** is inserted and protected so that the pail may be bumped considerably at its top to cause the material in the pail to be expelled.

Any suitable means may be employed for holding this semi-flexible corrosion resistant container **15** within the rim **16**. In Fig. 1 a preferred support or strap form of frame **17** is shown. In Figs. 4, 5 and 6 a modified form of support on the bottom of the container **15** is shown in the form of a lower rim **21** in engagement with the cutoff supports **17**. This lower rim **21** is preferably circular with right angles having an inner web or flange **22** and an upright web or flange **23**. This rim **21** also gives a firm support to the bottom of the container **15**.

In this modified form of supporting frame for the container **15** the supports **17** engage the upright flange **23** as shown in Figs. 4, 5 and 6, and in this instance the upright flange **23** has a channel **25** formed therein and the lower end of the straps **17** are cut down in thickness in order to enter the channel **25** and thus allow the screws **26** to fasten the supports **17** to the lower rim **21**. It will be understood that, if desired, the channel **25** may be formed in the upright flange **23** sufficiently deep to receive a full width of one of the supports **17**, the main objective being to provide a smooth exterior at the junction point of supports **17** and the lower rim **21**.

While the groove **19** shown in the rim **16** provides an outside edge **27**, it will be understood that this edge may be eliminated, if desired, and that the rim **16** shall cover the top edge **20** of the corrosion resistant container **15** in any suitable manner.

For the purpose of easily supporting the pail and providing a handle bail **18**, it is preferred to extend the supports **17** upwardly to provide extensions **28** and to have the bail **18** fastened therein in any suitable manner. In

this particular construction it is desired to have a smooth exterior so that as the pail is raised there will be a guide by the curvature of the bail 18 and there will be a smooth exterior of the pail so that the bail 18 and the supports 17 may act as the exterior guides and the ends 29 of the bail are curved inwardly and turned up so as to keep the bail from disassembling from the supports 17.

From the foregoing general and detailed description it will be noted that there is provided an improved pail in which a semi-flexible, corrosion-resistant containing portion or part 15 will receive the material to be carried and that the demountable frame receives the container part in a manner that prevents injury thereto, and is firmly held in position in the supporting frame. It will also be noted that the supporting frame may be demounted by removing some of the screws and springing the supports 17 thereby allowing the upper rim to be moved and the container to be removed and replaced. The top rim is then lowered over the top edge of the container and the supports sprung back into position and fastened.

It will be further noted that this container is of light weight and of non-corrosive material such as aluminum for the frame and polyethylene for the material of which the flexible or semi-flexible non-corrosive container is made.

It will be understood that various modifications and changes may be made in the preferred form of the invention herein, and such modifications and changes are to be understood as part of this invention, as outlined in the following claims.

The invention claimed is:

1. A pail comprising a semi-flexible corrosion-resistant container, and a demountable frame of mechanical strength for receiving said container therein, said frame comprising an upper rim having a groove therein for receiving and protecting the upper edge of said container, supports engaging said rim and extending downwardly, a lower rim engaging the bottom of said container and receiving said supports, said supports being substantially opposite each other, fastening means for holding said rim and said supports and said lower rim together and for maintaining the top edge of said container within said groove, said supports having portions extending above said upper rim, and a handle bail engaging said extensions of said supporting strap and having the free ends of said bail turned inwardly thereby to have a smooth exterior of said demountable frame.

2. An improved pail comprising an acid resistant semi-flexible container, a rim of corrosion-resistant material having a groove therein for receiving the top edge of said container, supports of acid resistant material engaging said rim and extending to the bottom of said container for supporting the same, a lower rim engaging the bottom of said container and for receiving said supports and an acid resistant bail for engaging the top of said supporting strap.

3. As an article of manufacture, a non-corrosive pail comprising several elements assembled to have a smooth exterior, the combination of a polyethylene plastic container, a rim having a channel in one edge for fitting over the top edge of said container, a lower rim for receiving the bottom of said container, supports extending from said lower rim to engage with said upper rim and to extend beyond said upper rim for receiving the pail bail, said lower rim being indented a depth equal to the thickness of said supports to receive said supports and to provide a smooth exterior of said lower rim, said upper rim being indented the thickness of said supports for receiving said supports and maintaining a smooth annular exterior of said upper rim, means for fastening said supports to said lower rim and to said upper rim, said bail having its ends inserted through said supports from the outside thereof to the interior thereof thereby providing an exterior to give smooth exterior surfaces.

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