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3,219,182

STACKING CLIP

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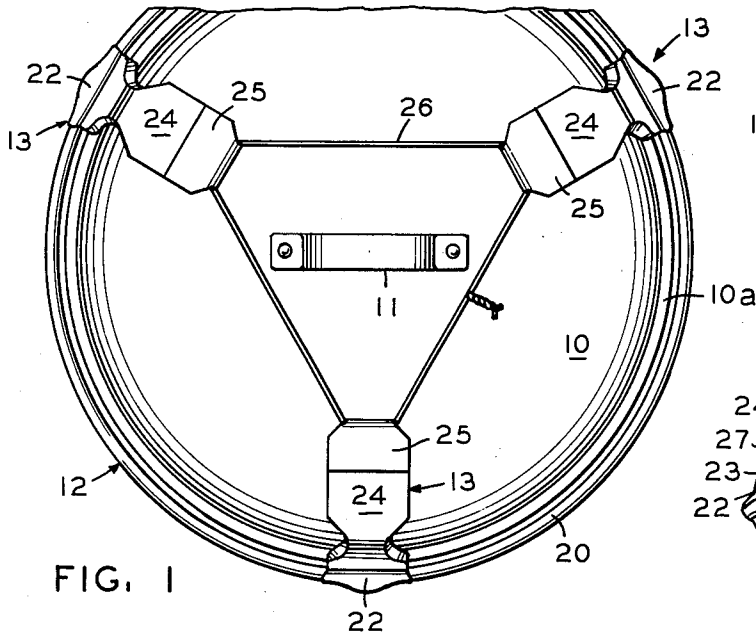


FIG. 1

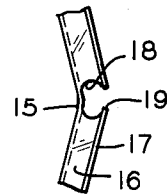


FIG. 4

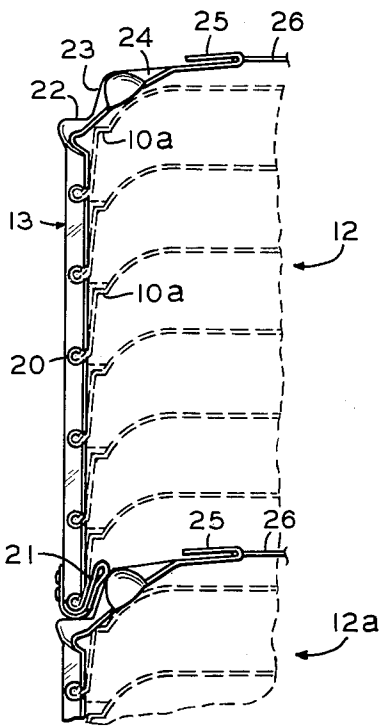


FIG. 2

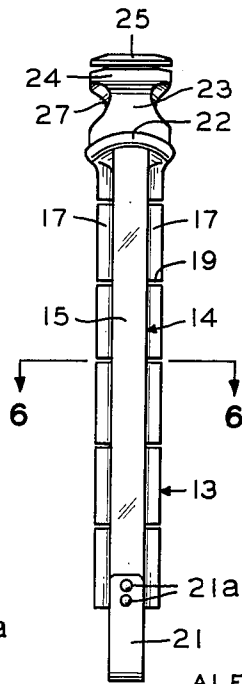


FIG. 3

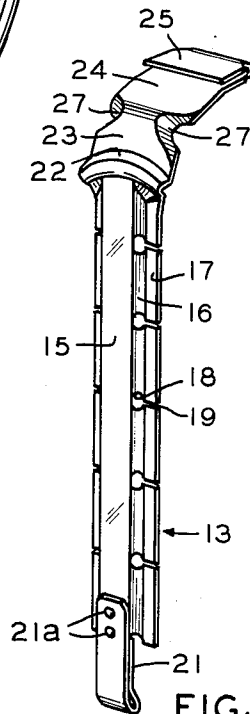


FIG. 5

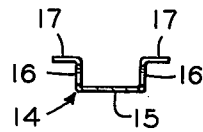


FIG. 6

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**STACKING CLIP**

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The present invention relates to a stacking clip and particularly relates to a stacking clip for fastening a plurality of dish shaped articles having peripheral rims in vertically stacked relationship.

Container lids, such as refuse can lids, conventionally are packaged in paperboard containers, since the lids do not nestle satisfactorily, as do the bottom portions of these containers. This type packing is expensive, space consuming, does not allow visual inspection of the merchandise in a store, and requires different sized containers for lids of different circumferences.

One of the principle objects of the present invention is to provide a stacking clip for holding a plurality of dish shaped articles in vertical stacked relation.

Another object of the present invention is to provide a stacking clip which will accommodate container lids of various circumferences, which will allow visual inspection of the lids, and which can be resecured when one of the lids is removed.

A further object of the present invention is to provide a throwaway, flexible, metal stacking clip which accommodates a plurality of container lids and independently supports each of the lids.

Another object of the present invention is to provide a clip for fastening a plurality of articles into a vertically arranged stack, said clip having a stacking shoulder on one end thereof to receive and support a second stack of tied-together articles.

Another object of the present invention is to provide a metal stacking clip for securing in vertically stacked relationship a plurality of refuse container lids having beads around the peripheral edges of the flanged sides of the lids, said clip being flexible and having openings for receiving and retaining the beads to support the lids independently of each other.

A further object of the present invention is to provide a container lid stacking clip having a hook on one end so that a plurality of the clips may be secured together at the top end, and having a bendable retaining strip on the bottom end for holding the lowermost container lid.

These and other objects and advantages will become apparent hereinafter.

The present invention comprises a throwaway stacking clip comprising a flexible member having openings for receiving the edges of a plurality of stacked articles and supporting the articles independently of each other, thus allowing visual inspection of the articles. The present invention further comprises the stacking clip hereinafter described and claimed and the stacks of articles held together therewith.

In the drawings, wherein like numbers refer to like parts wherever they occur:

FIG. 1 is a fragmentary plan view of a stack of refuse can lids held together by a plurality of stacking clips,

FIG. 2 is a fragmentary vertical sectional view of a stack of refuse can lids showing the clip in elevation and showing the stacking of one set of lids on a second set,

FIG. 3 is an elevational view of the stacking clip,

FIG. 4 is a fragmentary side elevational view showing the clip in open or flexed position,

FIG. 5 is a perspective view of the clip, and

FIG. 6 is a sectional view taken along line 6-6 of FIG. 3.

FIG. 1 shows a plurality of dish-shaped articles 10 (such as refuse can lids) having flanged sides 10a and having handles 11 on their upper surfaces held together in a stack 12 by a plurality of flexible stacking clips 13.

Each of the clips 13 comprises an elongated channel-shaped main support member 14 of substantially U-shaped cross section (FIG. 6), which comprises a base member or back 15 and right angular legs 16, and depending flanges 17 projecting outwardly from the free ends of the legs 16. The legs 16 are provided with a plurality of vertically spaced annular openings 18 having non-continuous sides communicating with cooperating slots 19 in the flange members 17.

The member 15 is flexible and adapted to be bent backwardly, thereby opening the slots 19 and allowing a bead 20 on the free end of the flanged side 10a to be received in the side wall openings 18 (FIGS. 2 and 4). When the back member 15 is restored to its normal position, the bead 20 is trapped in the side wall openings 18 (FIG. 2). In this manner, each of the articles 10 is supported independently by the clip 13.

A bendable depending flange 21 is fastened to the lower edge of the body member 15 and is adapted to be bent around the lowermost stacked article 10 to independently retain this article 10 in the stack 12 (FIG. 2). The flange 21 is formed by a continuation of the base member 15 which is bent back on itself and secured to the base member 15 as indicated by the spot welds 21a.

The clip 13 is provided with a right angular intumed stacking shoulder 22 on its other end, and an upwardly depending flange 23 joined thereto. The shoulder 22 and flange 23 constitute a stack support arrangement whereby a second stack 12a of articles 10 is positioned and retained on a first stack 12 of such articles 10 (FIG. 2). The shoulder 22 is strengthened by the upper ends of the flanges 17 being formed upwardly and joined thereto.

The free end 24 of the clip 13 extends inwardly from the upwardly depending flange 23 and is turned back on itself to form a hook 25 which is adapted to grip a securing wire 26. The wire 26 is passed through a plurality of such hooks 25 fastened to several clips 13 to secure a stack of articles 10 in stacked relationship (FIG. 1).

Inwardly directed crimps 27 adjacent to the juncture of the flange 23 and the free end 24 strengthen the clip 13 in this area.

The shoulder 22 and flange 23 define a substantially "L" shaped connection between the end of the main section 14 of the clip 13 and the hook 25.

The articles 10 retained in a stack 12 by the clips 13 are visible to the purchaser. Each of the articles 10 is independently supported in the clips 13 by the bead 20 resting on the bottom of the side wall openings 18 (and the bent around bottom flange 21), and when the storekeeper has sold one or more of the articles 10, the clips 13 can be bent inwardly toward the center of the stack 12, the wire 26 retied, and the stack 12 is retained in its secured together position. Another advantage of the present clip 13 is that lids or articles 10 of different diameters can be stacked with the same size clip 13 (since the depth of the container sides 10a normally is the same for different diameter containers). Furthermore, the clip 13 can be made in any length to accommodate any number of articles 10 or articles of any depth of side 10a, whereas heretofore different sized cartons had to be used for this purpose.

The stacking clip 13 preferably is made of one piece of thin flexible metal or plastic and is intended to be a throwaway article. However, it is apparent that it can be reused, if desired, until it fails at the member 15.

This invention is intended to cover all changes and modifications of the examples of the invention herein

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chosen for purposes of the disclosure, which do not constitute departures from the spirit and scope of the invention.

What is claimed is:

1. A stacking clip comprising a channel shaped support member of substantially U shaped cross section having a bendable base and depending legs, outwardly extending flanges connected to the free ends of the U shaped member, the legs of the U shaped member being provided with spaced C shaped openings having a narrow mouth, the flanges being provided with slots communicating with the mouths of the C shaped openings in the channel member, the mouths of the openings being opened for receiving articles to be stacked when the base of the member is bent, said mouths being closed to retain the articles in stacked relation when the base of the member is returned to its normal unbent position.
2. The clip of claim 1 including a bendable depending flange on one end of the channel member.
3. The clip of claim 1 including an inturned stacking shoulder on one end of the channel joined to an upwardly depending flange.
4. The clip of claim 3 including a retaining hook fastened to the upwardly depending flange.
5. A stacking clip comprising a main support member provided with a plurality of spaced openings having narrow mouths adapted to open to receive articles to be stacked and to close and retain the articles in stacked condition, a bendable extension on one end adapted to retain the lowermost stacked articles, a transverse shoulder on the other end receiving a second stack of articles, and a clip on the free end adjacent to the transverse shoulder for retaining a fastening member.
6. A stacking clip for holding a plurality of container lids having depending flanges adapted to grip the container and having beads on the peripheral edges of the flanges, the clip comprising a main channel-shaped support mem-

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ber of substantially U shaped cross section having a bendable base member and spaced aligned C shaped openings provided in the legs of the U, said openings having narrow mouths, outwardly directed flanges joined to the legs of the U and provided with slots communicating with the mouths of the C shaped openings in the legs of the U, the base member being bent backwardly to open the flange slots and the mouths of the C openings to admit the beads on the lids into the openings in the U legs and being returned to its unbent position to close the flange slots and the mouths of the C shaped openings to trap the beads in the U openings thereby independently supporting a lid in each U opening, a hook on one end of the clip adapted to overlie the topmost lid, and a substantially L shaped shoulder joining the end of the main support member to the hook.

7. The structure of claim 6 including a bendable member on the second end of the clip adapted to be bent around the bead on the lowermost container lid to independently support said lid.

8. The structure of claim 7 wherein the clip is of one piece sheet metal construction.

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