Feb. 27, 1951 C. W. LANTER 2,543,697

CASTER MOUNTING FOR CYLINDRICAL CONTAINERS

Filed Nov. 29, 1946

Fig. 1.

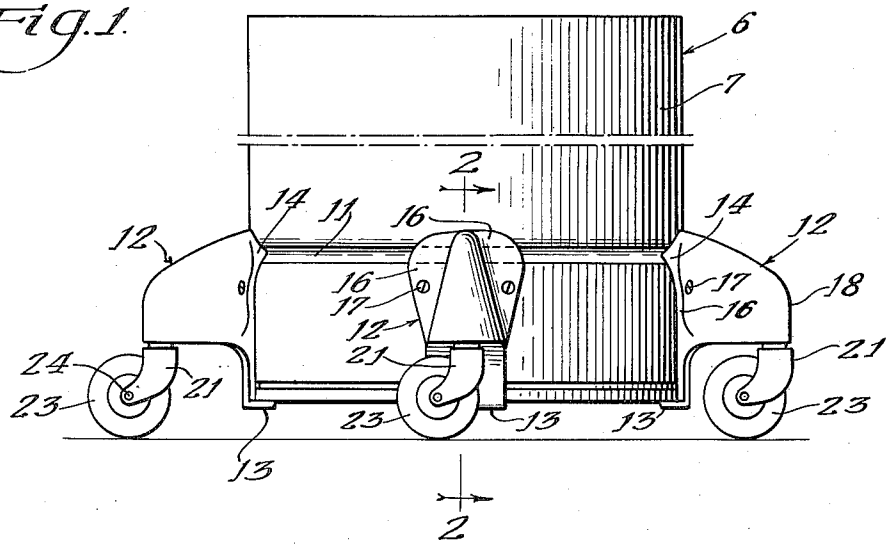


Fig. 2.

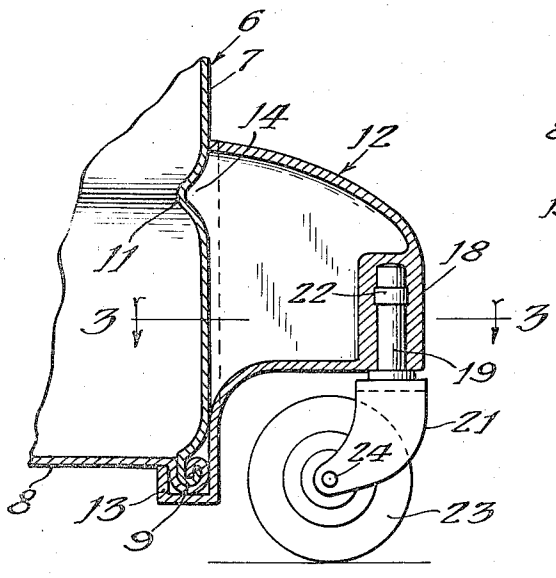
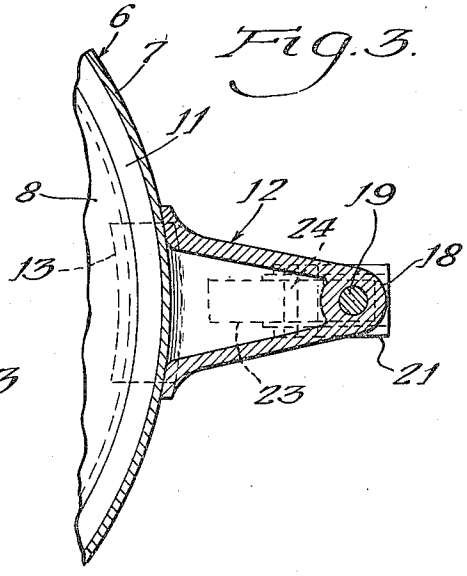


Fig. 3.



Inventor:
Clarence W. Lanter
By: Lee J. Darby
Attorney

Patented Feb. 27, 1951

2,543,697

UNITED STATES PATENT OFFICE

2,543,697

CASTER MOUNTING FOR CYLINDRICAL CONTAINERS

Clarence W. Lanter, Bartlett, Ill., assignor to Breuer Electric Mfg. Company, Chicago, Ill., a corporation of Illinois

Application November 29, 1946, Serial No. 712,850

2 Claims. (Cl. 280—61)

1

This invention relates to improvements in caster mountings for cylindrical containers and has for an object the provision of a structure which is relatively simple and inexpensive to manufacture and assemble for use.

Briefly, this invention comprises a sheet metal cylindrical container embodying a side wall section and a bottom section, the side wall section being formed with a circumferential bead disposed in spaced relation to the bottom of the container. The side wall section and bottom section are joined together, by crimping or other means, to provide an annular flange projecting downwardly below the bottom section. Three or more casters are arranged in equally spaced relation around the bottom of the container, each caster comprising a mounting bracket for engagement with the container, a swivel bracket journaled in the mounting bracket, and a roller journaled on the swivel bracket. Each mounting bracket is of cantilever construction in which, its outer end is formed with a bearing to receive the journal portion of a swivel bracket, and its inner end is formed to engage the beaded portion of the side wall section of the container. Each mounting bracket is also provided with a trough-shaped flange at its lower end to receive and engage the annular flange projecting downwardly from the bottom of the container. The mounting bracket is adapted to be secured in engagement with the container by means of screws or bolts.

It is a further object of this invention to provide a caster mounting for cylindrical containers in which the mounting bracket is of cantilever construction with its lower end under tension and its upper end under compression. By forming one or more circumferential beads in the side wall section of the container, the container is sufficiently reinforced to resist the inward compressive forces exerted by the upper end of the mounting bracket.

This invention embodies other novel features, details of construction and arrangement of parts which are hereinafter set forth in the specification and claims, and illustrated in the accompanying drawing wherein:

Fig. 1 is a side elevational view showing a caster mounting for cylindrical containers embodying features of this invention.

Fig. 2 is an enlarged sectional view taken along the line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken along the line 3—3 of Fig. 2.

Referring now to the drawing for a better understanding of this invention, the caster mounting for cylindrical containers is shown as comprising a sheet metal container 6 embodying a side wall section 7 and bottom section 8 which are preferably crimped together to form a downwardly projecting annular flange 9 disposed below the bottom section 8. The side wall section 7 is formed with a circumferential bead 11 disposed in spaced parallel relation to the annular flange 9. The caster mounting comprises a cantilever-type mounting bracket 12 formed with a trough-shaped recess 13 to receive and engage the annular flange 9. The upper end of the mounting bracket 12 is provided with one or more bosses 14 which are formed to snugly engage within the annular groove formed by the bead 11. The mounting bracket 12 is also provided with a pair of side flanges 16—16 formed with apertures to receive bolts or screws 17 which serve to secure the mounting bracket to the side wall section 7 of the container.

2

A bearing portion 18 is provided on the outer end of the mounting bracket 12 to receive a journal portion 19 of the swivel bracket 21. A split spring collar 22 is provided on the journal 19 to yieldably resist displacement of the swivel bracket 21 from the mounting bracket 12. The lower end of the swivel bracket 21 is bifurcated to receive a roller 23 which is journaled for rotational movement on a pin 24.

In the use of a caster supported container of the type shown and described, it will be noted that the lower portion of the cantilever-type mounting bracket 12 is placed under tension and that the upper portion is under compression. In order to prevent deformation of the container due to these forces exerted by the mounting bracket, the lower ends of two pairs of mounting brackets are secured to the sides of the bottom section 8 to place the latter under tension, and the upper ends of the mounting brackets are engaged against the beaded portion of the side wall section 7. One or more beads 11 may be formed in the side wall section 7, if desired, to provide the physical properties required to resist the compressive forces exerted by the upper ends of the mounting brackets. The beads 11 may also be formed to project inwardly from the side wall section, as shown, or may project outwardly from the side wall section, if desired.

While this invention has been shown in but one form, it is obvious to those skilled in the art that it is not so limited but is susceptible of various changes and modifications without departing from the spirit and scope of the claimed invention.

I claim as my invention:

1. In a caster mounting adapted to support relatively thin wall metal containers of the type in which a disc-shaped bottom section is crimped to the lower edge of a tubular side wall section to form an annular depending flange, the tubular side wall section being offset intermediate its ends to form an annular bead portion of trough-shape section, a cantilever-type caster mounting bracket for engagement against said side wall section, the lower end of said mounting bracket being formed to provide a U-shaped recess to receive and engage said annular depending flange, a pair of side flanges formed on opposite sides of said mounting bracket for bolted engagement to said tubular side wall section, ridge portions formed on said flanges for seated engagement in said bead portion, a swivel bracket mounted in a bore formed in the outer end of said mounting bracket, and a roller journaled on said swivel bracket.

2. The combination with a relatively thin wall metal container including a disc-shaped bottom section, a tubular side wall section crimped to the periphery of said bottom section to form an annular depending flange, the tubular side wall section being offset intermediate its ends to form an annular bead portion of trough-shape section, of a cantilever caster-type mounting bracket engaged against said side wall section, the lower end of said mounting bracket being formed with a U-shape recess to receive and engage said annular depending flange, a pair of side flanges formed on opposite sides of said mounting bracket for bolted engagement to said tubular side wall section, ridge portions formed on said side flanges for seated engagement in said bead portion, a swivel bracket mounted in a bore formed in the outer end of said mounting bracket, and a roller journaled on said swivel bracket.

CLARENCE W. LANTER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
D. 119,327	Groves	Mar. 5, 1940
217,563	West	July 15, 1879
227,545	Kizer	May 11, 1880
289,716	Romodka	Dec. 4, 1883
1,200,954	Lawlor	Oct. 10, 1916
2,137,560	Anderson	Nov. 22, 1938

FOREIGN PATENTS

Number	Country	Date
339,189	Great Britain	Dec. 4, 1930
518,919	Germany	Feb. 21, 1931