May 21, 1968 C. J. DARGENE 3,384,431

ROLLER BRACKET ASSEMBLY FOR A DRAWER

Filed Nov. 14, 1966

Fig. 1

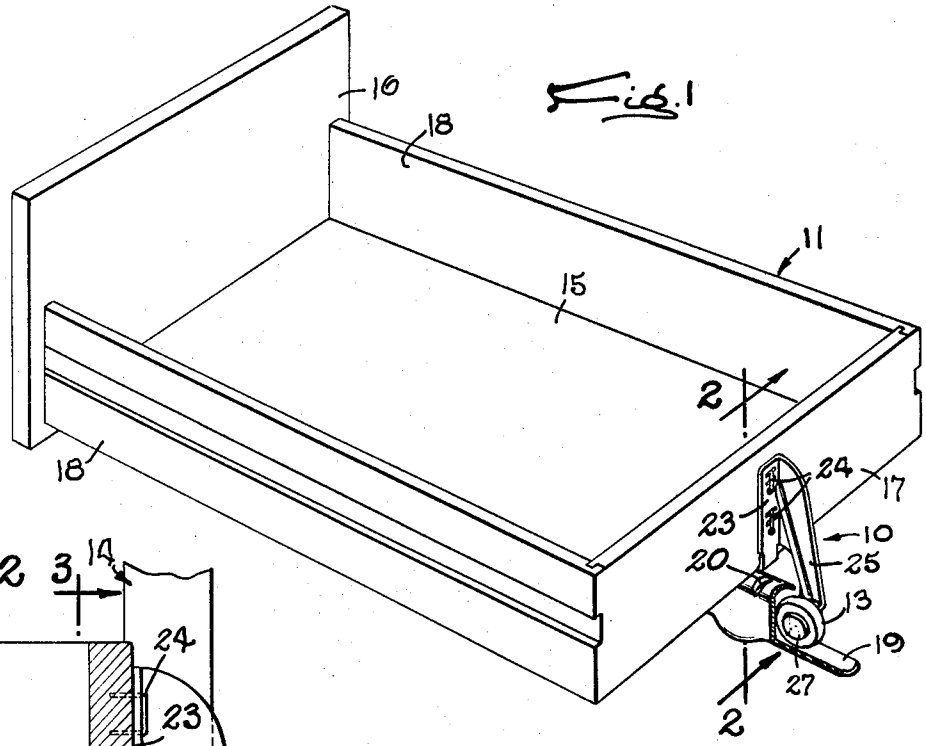


Fig. 2

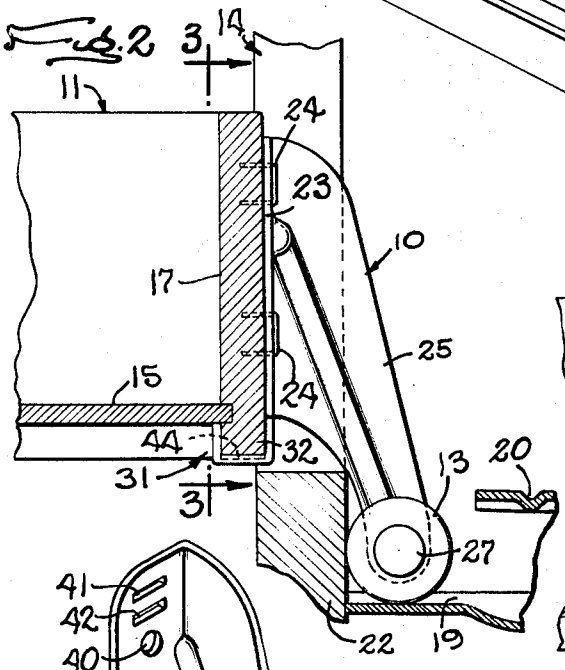


Fig. 3

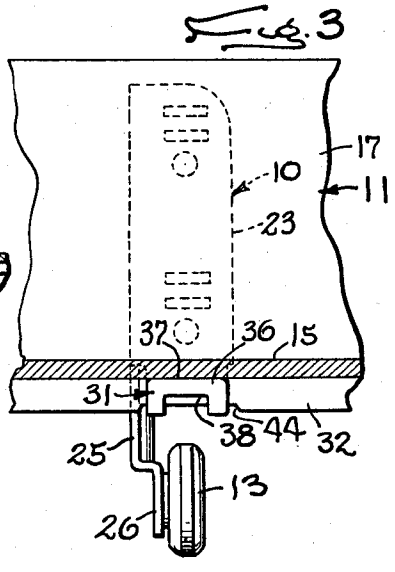
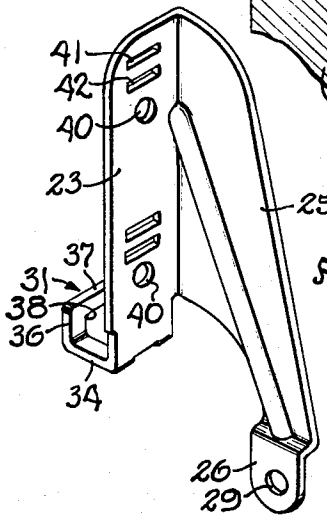


Fig. 4



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ROLLER BRACKET ASSEMBLY FOR A DRAWER

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ABSTRACT OF THE DISCLOSURE

For supporting a guide roller on a drawer, a bracket is fastened by staples to the rear frame member of the drawer and is formed with a J-shaped hook which is wrapped around the lower edge of the frame member to prevent loosening of the staples by absorbing shock loads imposed on the staples as a result of the roller engaging a fixed stop. A portion of the hook fits into a downwardly opening notch formed in the lower edge of the frame member and automatically locates the bracket at the center of the drawer to facilitate quick and easy installation of the bracket.

Background of the invention

This invention relates to a roller bracket assembly for a drawer and, more particularly, to an assembly having a mounting plate secured by fasteners to the rear frame member of the drawer and formed integrally with a rearwardly projecting leg journaling a roller which guides or supports the drawer and engages a stop to prevent the drawer from accidentally being pulled out too far from a cabinet.

Summary of the invention

The present invention primarily aims to provide a new and improved bracket assembly of the foregoing character which not only is quicker and easier to install but also is more rugged and trouble-free in service use than prior constructions of a similar nature. More specifically, this is achieved by hooking the mounting plate around the rear frame member to absorb shock loads imposed on the fasteners as a result of the roller striking the stop and thereby prevent loosening of the fasteners. With the shock loads on the fasteners reduced, the bracket assembly can be installed quickly and easily with fasteners such as staples without danger of the staples pulling loose during service use of the drawer.

The invention also resides in the use of the hook to locate the bracket assembly properly relative to the drawer and thereby facilitate faster installation.

Other objects and advantages of the invention will become apparent from the following detailed description taken in connection with the accompanying drawings.

Brief description of the drawings

FIGURE 1 is a perspective view of a drawer having a roller bracket assembly embodying the novel features of the present invention.

FIG. 2 is an enlarged fragmentary cross-section taken substantially along the line 2—2 of FIG. 1 and showing the drawer in a moved position.

FIG. 3 is a fragmentary cross-section taken substantially along the line 3—3 of FIG. 2 with parts broken away for purposes of clarity.

FIG. 4 is a perspective view of the bracket.

Detailed description

As shown in the drawings for purposes of illustration, the invention is embodied in a bracket assembly **10** mounted on a drawer **11** and journaling an anti-friction roller **13** which guides the drawer as the latter is pulled out of and pushed into an opening in a cabinet **14**. The

drawer includes a bottom panel **15** extending between front, rear and side frame members **16**, **17** and **18** and spaced approximately ¼ of an inch above the lower edges of the frame members. Herein, the roller **13** rides between the flanges of a horizontal guide channel **19** extending between the front and rear walls of the cabinet and, as the drawer is opened, the roller engages in interference bump **20** (FIG. 1) struck down from the upper flange near the forward end of the channel to prevent the drawer from accidentally being pulled too far out of the cabinet. If the roller bypasses the interference bump or if the channel is not formed with such a bump, the forward motion of the drawer will be limited by engagement of the roller with a front rail **22** (FIG. 2) extending along the forward side of the cabinet.

The bracket assembly **10** is a sheet metal stamping and comprises a flat upright mounting plate **23** secured in face-to-face relation with the rear side of the rear frame member **17** by fasteners **24**. Formed integrally with and projecting generally rearwardly from the right-hand side of the mounting plate is a leg **25** which terminates in a tapered lower end portion **26** for mounting the roller **13**. In this instance, the roller is a small wheel made of molded nylon and journaled for rotation about a horizontal axis extending parallel to the rear frame member on a rivet **27** which projects through a hole **29** (FIG. 4) formed in the lower end portion of the leg. The roller is disposed below the rear frame member of the drawer **11** and thus will strike the stops formed by the interference bump **20** and the front rail **22** of the cabinet **14** as the drawer is pulled outwardly.

In accordance with the present invention, the mounting plate **23** is hooked around the rear frame member **17** of the drawer **11** in a novel manner to absorb shock loads imposed on the fasteners **24** as a result of the roller **13** striking the stops **20** and **22** thus to insure that the fasteners will not work loose from the drawer in spite of repeated engagement of the roller with the stops. For this purpose, the lower end of the mounting plate is formed with a J-shaped hook **31** which embraces the lower lip **32** (FIG. 3) of the rear frame member and acts as a brace to prevent the mounting plate from turning counterclockwise as the roller strikes the stops so that the resulting shock loads are absorbed by the lip **32** instead of the fasteners. Accordingly, the bracket assembly **10** remains securely fastened to the drawer and thus is extremely rugged and trouble-free in service use.

In the present instance, the hook **31** includes a horizontally extending portion **34** bent at a right angle to and projecting forwardly from the lower end of the mounting plate **23**. The forwardly extending portion underlies the lower edge of the rear frame member **17** and is equal in length to the thickness of the frame member. Formed integrally with the forward end of the horizontal portion **34** is an upwardly projecting finger **36** which lies alongside and fits closely against the forward side of the lip **32** with its free edge **37** disposed adjacent the bottom panel **15**. A rectangular hole **38** (FIG. 4) may be punched out of the metal forming the hook to facilitate bending of the horizontal portion **34** and the finger **36** during manufacture of the bracket assembly. With this arrangement, the finger **36** reacts against the lip **32** when the roller **13** strikes the bump **20** or the rail **22** and thus the forces tending to loosen the fasteners **24** are reduced substantially.

Advantage is taken of the foregoing arrangement to facilitate easier and faster installation of the bracket assembly **10** thus resulting in a considerable saving of time and effort. Since the reaction forces applied to the fasteners **24** are essentially eliminated, the fasteners may be in the form of staples or other similar elements

which may be driven into and embedded in the rear frame member 17 in a rapid and simple manner. Herein, the fasteners are a pair of vertically spaced staples each of which extends through a hole 40 and a slot 41 formed in the mounting plate 23. An additional slot 42 is formed in the plate below the slot 41 to accommodate staples of different size. The staples 24 may be driven into the rear member 17 with a suitable stapling gun thus doing away with the more time-consuming operation of attaching the bracket assembly with threaded screws. In spite of such easy installation, the staples are sufficient to hold the bracket assembly securely on the drawer since the hook 31 absorbs forces that otherwise would tend to loosen the staples.

To achieve even more rapid installation, a small locating notch 44 (FIG. 3) just slightly wider than the forwardly projecting portion 34 of the hook 31 may be formed in the lower edge of the rear frame member 17 midway between the ends of the member. By placing the forwardly projecting hook portion 34 in the notch, the installer may center the bracket assembly 10 on the drawer 11 automatically before driving the staples 24.

From the foregoing, it will be apparent that the new and improved bracket assembly 10 of the present invention considerably facilitates installation but without any sacrifice in durability. Moreover, the integral hook 31 does not significantly increase the cost of manufacturing the assembly since it may be formed by the same stamping and bending operation employed in making the plate 23 and the leg 25.

I claim as my invention:

1. In a drawer having upright front, rear and side frame members and having a bottom panel extending between the members, a roller, a bracket having a leg projecting rearwardly of said rear member and mounting said roller for rotation about an axis extending parallel to said rear member, an upright mounting plate formed integrally with and disposed perpendicular to said leg, fasteners securing said plate in face-to-face relation with the rear side of said rear member, and a hook having a portion projecting forwardly from the lower end of said plate and underlying the bottom edge of said rear member and having a portion projecting upwardly from said forwardly projecting portion and extending alongside the forward side of said rear member thereby to embrace the latter and absorb shock loads imposed on said fasteners as a result of rearwardly directed forces applied to said roller.

2. The combination defined in claim 1 in which said fasteners are staples extending through said mounting plate and embedded in said rear frame member.

3. The combination defined in claim 1 in which the bottom edge of said rear frame member is formed with a downwardly opening notch receiving said forwardly projecting portion of said hook to locate said bracket relative to said frame member.

4. The combination as defined in claim 1 in which said bottom panel is spaced above the lower edge of said rear frame member, and said upwardly projecting portion of said hook extends upwardly from the lower edge of said rear member toward the lower face of said bottom panel.

5. A drawer roller bracket assembly comprising an upright mounting plate adapted for attachment to the rear frame member of a drawer, a hook having a portion projecting generally horizontally in one direction from the lower end of said plate and having a portion substantially shorter than said plate projecting upwardly from said horizontal portion, a leg formed integrally with and projecting in the opposite direction from said plate, and a roller mounted for rotation on said leg at a level below said hook.

6. A drawer bracket assembly comprising an upright mounting plate adapted for attachment to the rear frame member of a drawer, a hook having a portion projecting generally horizontally in one direction from one end of the plate and having a portion substantially shorter than said plate projecting vertically from said horizontal portion and toward the other end of the plate, a leg formed integrally with and projecting in the opposite direction from said plate, and an anti-friction guide supported near the free end of said leg.

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