

United States Patent

Walter

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[54] TABLE SLIDE

[72] Inventor: Thomas G. Walter, Wabash, Ind.
[73] Assignee: B. Walter & Company, Wabash, Ind.
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143

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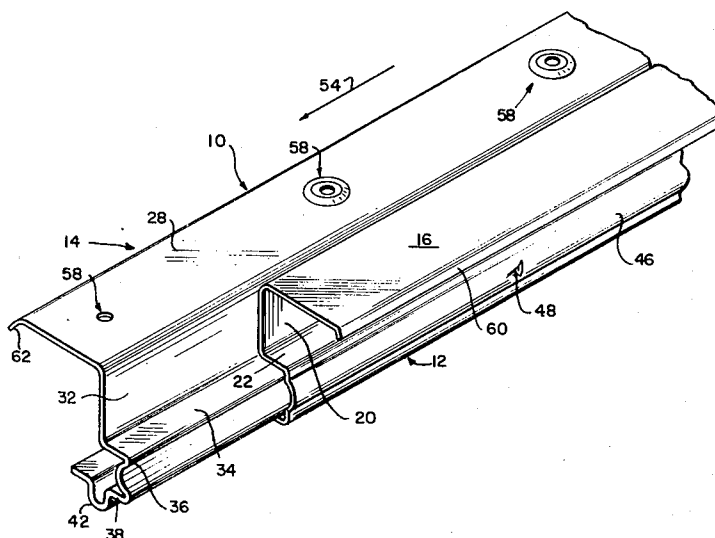
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Primary Examiner—Martin P. Schwadron
Assistant Examiner—R. H. Lazarus
Attorney—Hood, Gust, Irish, Lundy & Coffey

[57] ABSTRACT

A table slide comprising first and second extensibly related slide members, each of which is formed from sheet stock to provide longitudinally extending web sections and/or web portions which slidably contact similar web sections and/or web portions of the other member. The first member serves as an outer member and is provided with an outwardly extending channel section, the lower horizontally extending leg of which is provided with a longitudinally extending trough intermediate its lateral edges. The second member is provided with a portion which conformingly fits into the said channel section, including a longitudinally extending ridge portion which conformingly slidably engages the trough.

5 Claims, 3 Drawing Figures



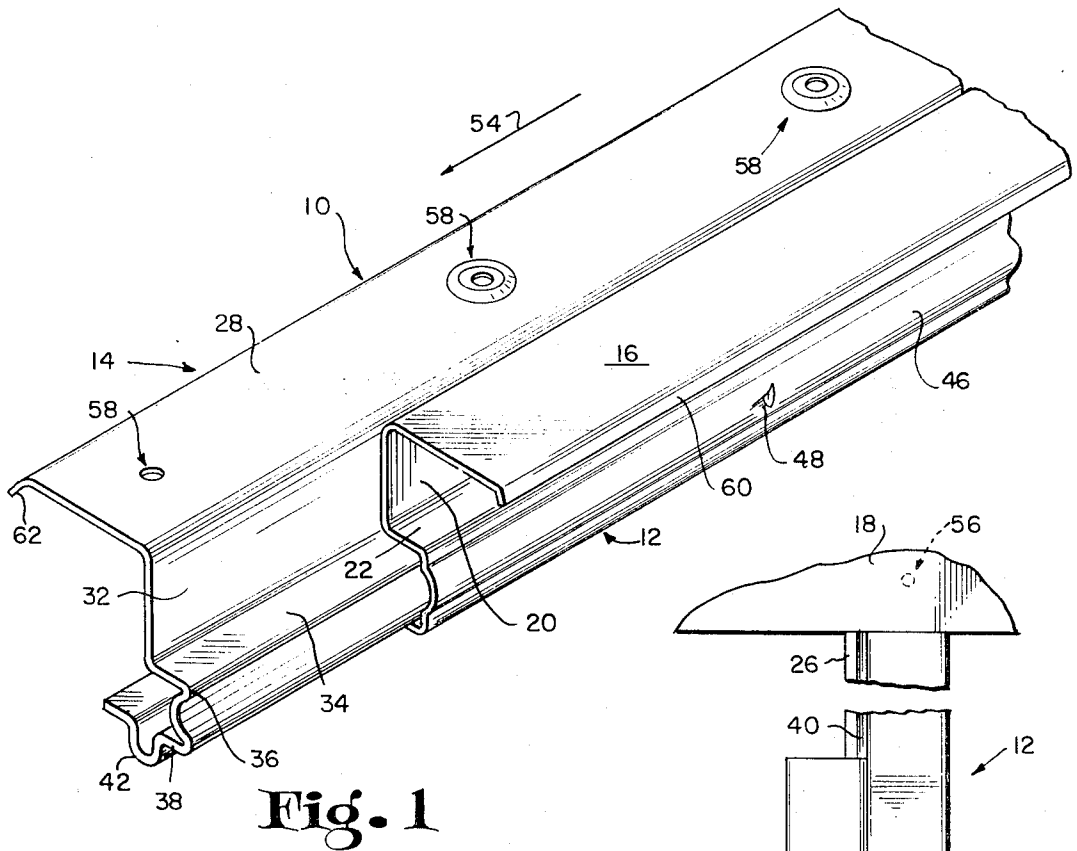
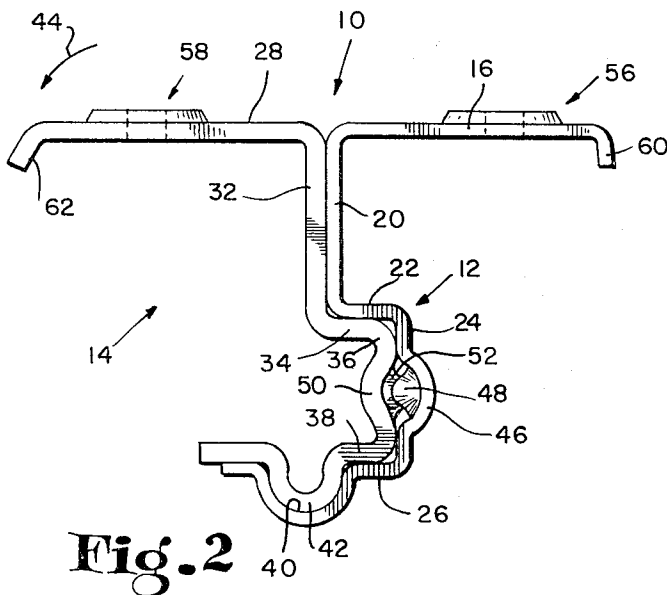
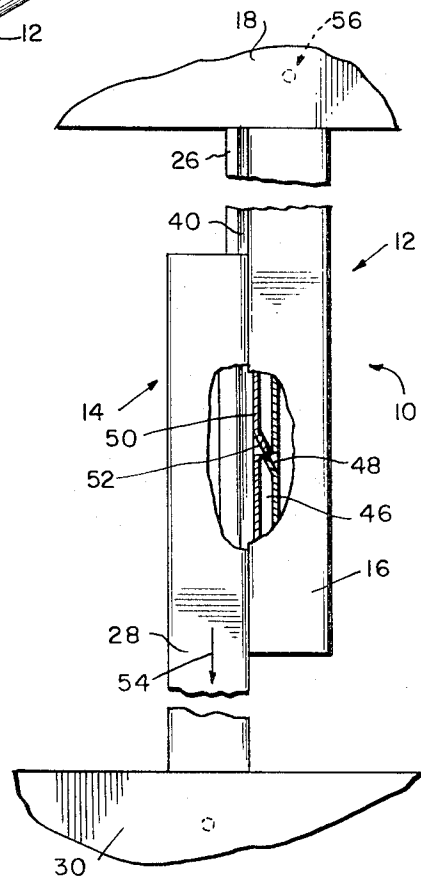


Fig. 3



INVENTOR
THOMAS G. WALTER

BY
Hood, Gust, Irish & Lundy
ATTORNEYS

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TABLE SLIDE

It is a primary object of my present invention to provide an inexpensive, yet extremely effective table slide of the type provided by bending or otherwise forming two elongated strips of sheet metal.

The table slide market is such that the cost of the slides must be held to an absolute minimum, even though the buying public demands that the slides provide extension and retraction movement which is smooth and easy. The required low cost prohibits the use of ball bearings or rollers as antifriction means to obtain the required smooth action. Thus, competitive table slides must generally comprise a pair of extensibly related, sheet metal slide members, each of which is formed with longitudinally extending web sections and/or web portions which slidably contact similar web sections and/or web portions of the other member. One of the two members is usually formed with a channel section which telescopically receives a portion of the other member and which confines the other member for extension and retraction movement in the direction of elongation of the members. It is in this area of the channel section that I have made a contribution toward providing smooth slide action.

Particularly, I provide first and second slide members with the first member serving as an outer member. The outer member is provided with an outwardly extending channel section, the lower horizontally extending leg of which is provided with a longitudinally extending trough intermediate its lateral edges. The second member is provided with a portion which conformingly fits into the said channel section, including a longitudinally extending ridge portion which conformingly slidably engages the trough. In order to provide the required smooth action, I form the trough with a generally U-shaped cross section and the ridge portion which slidably engages the trough with a conforming generally U-shaped cross section.

Other objects and features of my present invention will become apparent as this description progresses.

To the accomplishment of the above and related objects, my invention may be embodied in the form illustrated in the accompanying drawings, attention being called to the fact, however, that the drawings are illustrative only, and that change may be made in the specific construction illustrated and described, so long as the scope of the appended claims is not violated.

In the drawings:

FIG. 1 is a fragmentary perspective view of my table slide;

FIG. 2 is an enlarged end view of my table slide; and

FIG. 3 is a fragmentary elevational view, partially cut away and partially sectioned, of my table slide showing the upper flanges thereof attached, respectively, to relatively movable portions of a table top.

Referring now to the drawings, it will be seen that my table slide 10 comprises first and second extensibly related slide members 12, 14, the first slide member, sometimes referred to as the outer slide member, providing a longitudinally and horizontally outwardly extending upper portion 16 constructed to be secured to the underneath side of one portion 18 (FIG. 3) of a table top, a first web portion 20 extending longitudinally and vertically downwardly from the inner edge (left-hand edge in FIG. 2) of the upper portion 16, a second web portion 22 extending longitudinally and horizontally outwardly from the lower edge of the first web portion 20, a third web portion 24 extending longitudinally and vertically downwardly from the outer edge of the second web portion 22, and a fourth web portion 26 extending longitudinally and horizontally inwardly from the lower edge of the third web portion 24. The second slide member 14 provides a longitudinally and horizontally inwardly extending upper portion 28 constructed to be secured to the underneath side of another and relatively movable portion 30 (FIG. 3) of such a table top, a first web section 32 extending longitudinally and vertically downwardly from the outer edge of the upper portion 28 to be parallel to and in sliding contact with the first web portion 20, a second web section 34 extending longitudinally and horizon-

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tally outwardly from the lower edge of said first web section 32 to be parallel to and in sliding contact with the underneath surface of the second web portion 22, a third web section 36 extending longitudinally and vertically downwardly from the outer edge of the second web section 34 to be parallel to and in sliding contact with the third web portion 24, and a fourth web section 38 extending longitudinally and horizontally inwardly from the lower edge of the third web section 36 to be parallel to and in sliding contact with the upper surface of the fourth web portion 26.

The fourth web portion 26 is provided with a longitudinally extending and upwardly opening generally U-shaped trough 40 intermediate its outer and inner edges and the fourth web section 38 is provided with a longitudinally and downwardly extending generally U-shaped ridge portion 42 intermediate its outer and inner edges, the ridge portion being slidably engaged in the trough. It will be appreciated that the ridge portion 42 is formed conformingly and slidably to engage the trough 40, i.e., so that the uniformly curved lower surface of the ridge portion 42 uniformly contacts and bears upon the uniformly curved upper surface of a major portion of the trough 40. The engagement of this ridge portion 42 in this trough 40 in the manner just described provides the desired smooth extension and retraction movement.

It will be appreciated that the longitudinally extending centerline about which the trough 40 is formed is disposed inwardly, i.e., to the left in FIG. 2, from the inner surface of the web portion 20 and the outer surface of the web section 32. Since the web section 34 is in sliding contact with the underneath surface of the web portion 22, and since the centerline of the trough 40 is disposed inwardly from the inner surface of the web portion 20, the slide member 14 is restrained from pivoting in the direction of the arrow 44 (FIG. 2) away from the slide member 12. This feature adds significantly to the strength of the table slide 10.

As a matter of convenience, in order to provide a stop system for the slide 10, the web portion 24 is provided with a longitudinally extending inwardly opening trough 46 while the web section 36 is provided with a longitudinally extending and outwardly opening trough 50 disposed at the same height as the trough 46. A stop portion 48 is pierced and pushed inwardly from the trough 46 while a stop portion 52 is pierced and pushed inwardly from the trough 50. These two portions 48, 52 meet as indicated in FIG. 3 to stop extension movement of the slide member 14 in the direction of the arrow 54 relative to the slide member 12.

The upper portion 16 of the slide member 12 is perforated at a plurality of longitudinally spaced-apart points, such as indicated at 56, to provide means for attaching the slide member 12 to the underneath side of a tabletop. Similarly, the upper portion 28 of the slide member 14 is perforated at a plurality of longitudinally spaced-apart points, such as indicated at 58, so that the slide member 14 can be secured to the underneath side of a tabletop. Conventionally, wood screws or the like extend through the perforations 56, 58 to secure, respectively, the slide members 12 and 14 to the tabletop. The outer edge of the upper portion 16 is provided with a downwardly turned lip 60 and the inner edge of the upper portion 28 is, likewise, provided with a downwardly turned lip 62. These lips 60, 62, respectively, strengthen the upper portions 16, 28.

In FIG. 2, it will be seen that the slide member 12 is formed from sheet metal which is somewhat thinner than the sheet metal from which slide member 14 is formed. For instance, the slide member 12 may be formed from 19 gauge sheet steel while the slide member 14 is formed from 18 gauge sheet steel. I believe that this arrangement permits me to make the strongest possible table slide 10 using the thinnest possible steel. The strength, of course, is necessary when the slide 10 is extended.

With the cross-sectional shape of my present invention, I can provide table slides of varying strength simply by varying the vertical height of the web portion 20 and web section 32.

That is, by maintaining the configuration of the lower portions of the slide members 12, 14, I can provide slide members having different strength characteristics simply by varying the height of the vertically extending web portion 20 and web section 32.

What is claimed is:

1. A table slide comprising first and second extensibly related slide members, said first slide member providing a longitudinally and horizontally outwardly extending upper portion constructed to be secured to the underneath side of one portion of a tabletop, a first web portion extending longitudinally and vertically downwardly from the inner edge of said upper portion, a second web portion extending longitudinally and horizontally outwardly from the lower edge of said first web portion, a third web portion extending longitudinally and vertically downwardly from the outer edge of said second web portion, and a fourth web portion extending longitudinally and horizontally inwardly from the lower edge of said third web portion, said second slide member providing a longitudinally and horizontally inwardly extending upper portion constructed to be secured to the underneath side of another and relatively movable portion of such a tabletop, a first web section extending longitudinally and vertically downwardly from the outer edge of the last said upper portion to be parallel to and in sliding contact with said first web portion, a second web section extending longitudinally and horizontally outwardly from the lower edge of said first web section to be parallel to and in sliding contact with the underneath surface of said second web portion, a third web section extending longitudinally and vertically downwardly from the outer edge of said

second web section to be parallel to and in sliding contact with said third web portion, and a fourth web section extending longitudinally and horizontally inwardly from the lower edge of said third web section to be parallel to and in sliding contact with the upper surface of said fourth web portion, said fourth web portion being provided with a longitudinally extending and upwardly opening trough intermediate its outer and inner edges and said fourth web section being provided with a longitudinally and downwardly extending ridge portion intermediate its outer and inner edges, said ridge portion being slidably engaged in said trough.

2. The slide of claim 1 in which said trough is generally U-shaped in cross section and said ridge portion is conformingly U-shaped in cross section.

3. The slide of claim 1 in which said first and second slide members are formed from sheet stock to provide their respective upper portions, web portions and web sections and in which said trough is formed to have a generally U-shaped cross section and said ridge is formed to have a conforming U-shaped cross section.

4. The slide of claim 1 in which the longitudinally extending centerline of said trough is spaced inwardly from the inwardly facing surface of said first web portion and the outwardly facing surface of said first web section.

5. The slide of claim 3 in which the longitudinally extending centerline of said trough is spaced inwardly from the inwardly facing surface of said first web portion and the outwardly facing surface of said first web section.

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