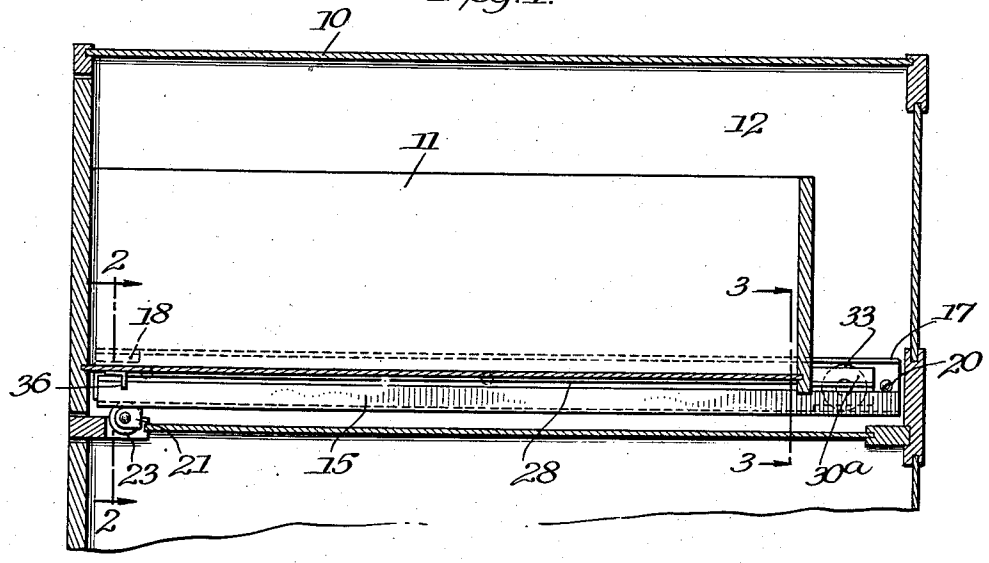
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DRAWER SLIDE OR GUIDE

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Fig. 1.



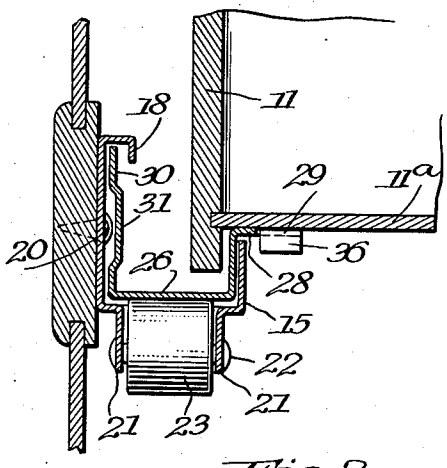


Fig. 2.

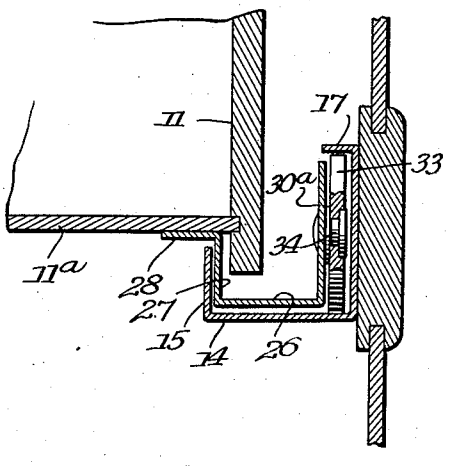


Fig. 3.

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DRAWER SLIDE OR GUIDE

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Fig. 4.

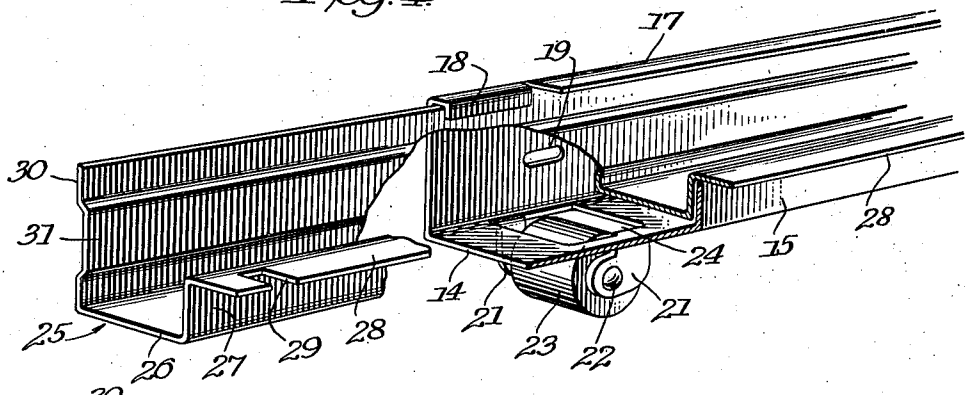


Fig. 5.

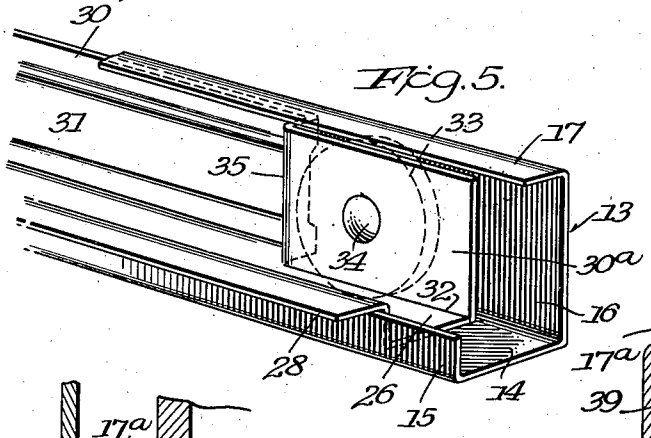


Fig. 7.

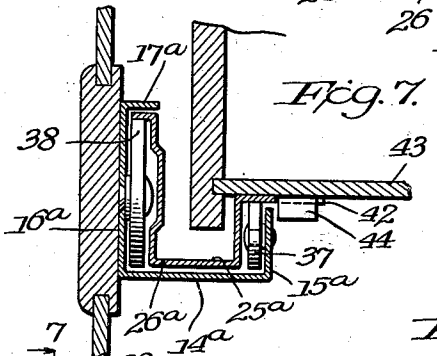


Fig. 8.

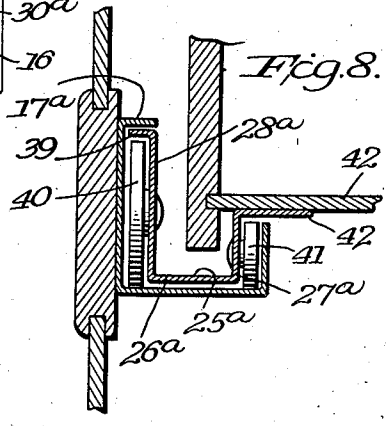
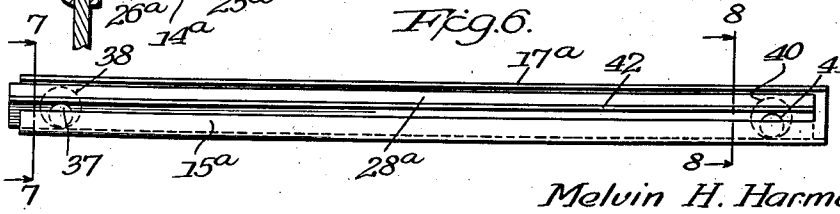


Fig. 6.



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DRAWER SLIDE OR GUIDE

Melvin H. Harmon, High Point, N. C.

Application August 3, 1937, Serial No. 157,205

8 Claims. (Cl. 45—77)

This invention relates to new and useful improvements in drawer slides or guides.

The primary object of the invention is to provide drawer guides or slides which are especially designed for use on wood furniture and which may be applied to new or used desks, cabinets, cases, or the like, having one or more drawers. The guides or slides are intended to replace the center drawer guides and the end drawer supports or slides now used on such pieces of furniture, with or without dust-proofing, and regardless of whether the furniture is of the post, panel, or solid end construction.

A further object of the invention is to provide a drawer slide or guide which will include elements fastened to the furniture to act as guides with slides movable in said guides and a drawer supported by the slides but readily detachably connected thereto so that upon complete outward movement of the slides relative to the guides, the drawer may be detached from the slides.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same:

Figure 1 is a vertical sectional view through a piece of wooden furnitude and illustrates the mounting of a drawer on the slide or guide assembly embodying this invention;

Figure 2 is a fragmentary vertical sectional view taken on line 2—2 of Figure 1;

Figure 3 is a vertical sectional view taken on line 3—3 of Figure 1;

Figure 4 is a fragmentary perspective view of the outer end portion of the slide or guide assembly;

Figure 5 is a fragmentary perspective view of the inner portion of the slide or guide assembly;

Figure 6 is a side elevational view of a slightly modified form of drawer slide or guide assembly which embodies this invention;

Figure 7 is a fragmentary vertical sectional view taken on line 7—7 of Figure 6; and

Figure 8 is a fragmentary vertical sectional view taken on line 8—8 of Figure 6.

In the drawings, wherein for the purpose of illustration are shown the preferred embodiments of this invention, the reference character 10, in Figures 1, 2, and 3, designates a piece of wooden furniture which is provided with a drawer 11 slidably supported for movement into and out of the drawer compartment 12 by one form of drawer slide or guide assembly which embodies this invention.

Referring particularly to Figures 4 and 5, there are shown the opposite end portions of the drawer slide or guide assembly disclosed in Figure 1. This assembly includes a channel-shaped guide which is designated in its entirety by the reference character 13. This channel-shaped guide includes a bottom wall 14 having a right angularly arranged upstanding wall 15 at its inner side. A side wall 16 of considerably greater height than the side wall 15 is provided at the outer longitudinal edge of the bottom wall 14. Extending longitudinally of the upper edge of this outer side wall 16 is a laterally inwardly extending top flange 17. By referring particularly to Figure 4, it will be seen that a comparatively short section or portion of the top flange 17 at the outer end of the guide 13 is severed from the remainder of the flange so that it may be bent into a depending stop 18.

The outer side wall 16 of the channel-shaped guide 13 is provided with a suitable number of apertures 19 which may be of any desired form. These apertures preferably are located at the opposite end portions of the side walls 16 although additional apertures may be provided if desired. These apertures 19 function to receive securing or attaching members, such as screws 20, for mounting the channel-shaped guide within the compartment 12.

Struck downwardly from the bottom wall 14 of the channel-shaped guide 13 at the outer end portion of said guide is the pair of ears 21. These ears have secured thereto the shaft 22 which journals a roller 23. By inspecting Figures 1 and 2, it will be seen that the shaft 22 is positioned a suitable distance from the upper face of the bottom wall 14 so as to cause the periphery of the roller 23 to project slightly through opening 24 formed in the bottom wall 14 by the striking therefrom of the ears 21.

Figures 4 and 5 also disclose a channel-shaped slide which is designated in its entirety by the reference character 25. This slide is provided with a bottom wall 26. The inner longitudinal edge of the bottom wall 26 has projecting vertically therefrom an inner side wall 27. A laterally outwardly extending flange 28 is carried by the upper longitudinal edge of the inner side wall 27. Figure 4 discloses a notch or other form of opening 29 formed in this flange 28. The function of this aperture or opening 29 will be disclosed at a later point.

The remaining longitudinal edge of the bottom

wall 26 has projecting upwardly therefrom an outer side wall 30 which is of considerably greater height or width than the inner side wall 27. Figures 4 and 5 disclose the slide 25 as being longitudinally slidably received within the channel-shaped guide 13 with the outer, relatively high, side walls 16 and 30 of the slide and guide adjacent each other and with the side walls 15 and 27, of the guide and slide respectively, arranged adjacent each other. To allow for the heads of the securing screws 20, or the like, the outer side wall 30 of the slide 24 is provided with a longitudinally extending offset portion 31. This portion 31 is offset laterally inwardly and in effect forms a longitudinally extending groove on the outer face of the side wall 30.

Figures 4 and 5 disclose the flanges 17 and 28 of the guide and slide, respectively, as overlying the top edges of the associated walls 15 and 30. The flange 17 functions to prevent tilting of the slide 25 relative to the guide 13. The flange 28 functions as a support or seat for the drawer 11 which directly bears thereupon, as clearly illustrated in Figures 2 and 3.

Figure 5 discloses the bottom wall 26 of the slide as being cut away at 32. The adjacent portion 30*a* of the inner end of the side wall 30 is bent inwardly to allow for positioning a roller 33 between the said portion 30*a* and the outer side wall 16. This roller 33 is journaled on the pin 34 which is passed through the offset portion 30*a*.

The roller 33 travels over the bottom wall 14 of the guide until the slide and its drawer 11 have moved outwardly beyond the longitudinal center of the drawer; i. e., until the drawer is overbalanced outwardly of the outer end of the guide. The roller 33 then will bear against and travel along the top flange 17 of the guide. The slide 24 will be permitted to move longitudinally outwardly of the guide 13 until the angle 35 formed by the offset portion 30*a* engages the stop 18 bent from the top flange 17 of the guide. This engagement of the angle 35 with the stop 18 will prevent further outward movement of the slide relative to the guide.

Figures 2 and 3 clearly illustrate the flanges 28 of the oppositely disposed drawer slide and guide assemblies as directly engaging the bottom wall 11*a* of the drawer 11. The drawer rests directly upon these flanges 28. A depending projection, which may take the form of a pin or block 36, is secured to the bottom wall 11*a* of the drawer, at each side of the latter, and is received within the apertures or openings 29 formed in the flanges 28. This projection and opening type of connection between the drawer and the slides prevents relative longitudinal movement of the drawer and slides. The shape of the projection 36 on each side of the drawer is such that when the slides 25 have been completely withdrawn to their outer limits of movement relative to the guides, the drawer 11 may be lifted off of the flanges 28 for separating the drawer from the slides. This type of connection between the drawer and the slides, therefore, permits the drawer to be entirely removed from the piece of furniture 10.

A slightly modified form of drawer slide or guide assembly is disclosed in Figures 6 to 8, inclusive. This modification consists primarily of the provislon of a pair of rollers at the outer end of the guide and a pair of rollers at the inner end of the slide with each pair of rollers consisting of a comparatively large roller and a small roller. By inspecting Figures 7 and 8, it will be seen that the guide 14*a* is provided with an inner side wall 15*a*, an outer side wall 16*a*, and a top flange 17*a*. These walls and flanges are of substantially identical construction with the similar elements on the previously described modification of the invention. The outer end portion of the guide 14*a* is illustrated in Figure 7 as having journaled on the side wall 15*a* a comparatively small roller 37. A large roller 38 is journalled on the outer side wall 16*a*.

Referring particularly to Figure 8, it will be seen that the slide 25*a* is provided with a bottom wall 26*a*, an upstanding inner wall 27*a*, and an upstanding outer side wall 28*a*. This outer side wall 28*a* differs from the outer side wall 30 of the previously described form of the invention by having a flange 39 projecting outwardly of its upper edge. Journaled on the outer side wall 28*a* of the slide is a comparatively large roller 40. A small roller 41 is journaled on the inner side wall 27*a* of the slide.

Figures 7 and 8 disclose the inner side wall 27*a* of the slide as having an inwardly directed flange 42 which acts as a support for the drawer 43. The same form of projection and opening connection, designated in its entirety by the reference character 44, is employed in this modification of the invention to detachably connect the drawer 43 to the flanges 42 of the opposite slides 25*a*. This modified form of the invention functions in the same manner as that described in connection with the form shown in Figures 1 to 5, inclusive.

It is to be understood that the forms of this invention herewith shown and described are to be taken as preferred examples of the same and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described the invention, I claim:

1. In a drawer slide or guide assembly, a channel-shaped guide having side walls of unequal height and an inwardly projecting flange formed on the upper edge of the side wall of greater height, and a channel-shaped slide movably mounted in the guide and having side walls of unequal height with a flange formed on the upper edge of the side wall of lesser height which projects in the same direction as the guide flange, the flange on the guide overlying a side wall edge of the slide and the slide flange functioning as a support for a drawer, said drawer supporting flange having an opening formed therein to receive a projection on a drawer.

2. In a drawer slide or guide assembly, a channel-shaped guide having side walls of unequal height and an inwardly projecting flange formed on the upper edge of the side wall of greater height, a channel-shaped slide movably mounted in the guide and having side walls of unequal height with a flange formed on the upper edge of the side wall of lesser height which projects in the same direction as the guide flange, the flange on the guide overlying a side wall edge of the slide and the slide flange functioning as a support for a drawer, and slide supporting rollers journaled at opposite ends of said slide and guide respectively.

3. In a drawer slide or guide assembly, a channel-shaped guide having side walls of unequal height and an inwardly projecting flange formed on the upper edge of the side wall of greater height, the bottom wall of said guide at the front end thereof having a pair of ears

struck downwardly therefrom, a roller journaled on said ears and projecting slightly above the bottom wall of the guide, and a channel-shaped slide movably mounted in the guide to rest on said roller and having side walls of unequal height with a flange formed on the upper edge of the side wall of lesser height which projects in the same direction as the guide flange, the flange on the guide overlapping a side wall edge of the slide and the slide flange functioning as a support for a drawer.

4. In a drawer slide or guide assembly, a channel-shaped guide having side walls of unequal height and an inwardly projecting flange formed on the upper edge of the side wall of greater height, and a channel-shaped slide movably mounted in the guide and having side walls of unequal height with a flange formed on the upper edge of the side wall of lesser height which projects in the same direction as the guide flange, the flange on the guide overlapping a side wall edge of the slide, the inner end portion of said side wall of the slide being offset inwardly, and a roller journaled on said offset portion and engaging the guide to support the inner end of the slide.

5. In a drawer slide or guide assembly, a channel-shaped guide having side walls of unequal height and an inwardly projecting flange formed on the upper edge of the side wall of greater height, a channel-shaped slide movably mounted in the guide, the slide having a flange formed on the upper edge of the side wall of lesser height which projects in the same direction as the guide flange, said slide flange functioning as a support for a drawer, the inner end portion of the side wall of the slide being offset inwardly, and a roller journaled on said offset portion and engaging the guide to support the inner end of said slide, the outer end portion of the guide flange being shaped to form a stop engageable with said offset to limit outward movement of the slide relative to the guide.

6. In a drawer slide or guide assembly, a channel shaped guide having an inwardly projecting flange formed on the upper edge of the outer side wall, the bottom wall of said guide having a pair of ears struck downwardly therefrom, a roller journaled on said ears and projecting slightly above the bottom wall of the guide, and a channel shaped slide movably mounted in the guide to rest on said roller and having an inwardly projecting flange formed on the upper edge of its inner side wall, the flange on the guide overlapping a side wall edge of the slide and the slide flange functioning as a support for a drawer.

7. In a drawer slide or guide assembly, a channel shaped guide, a channel shaped slide movably mounted in the guide and having its inner side wall projecting above the inner side wall of the guide and formed with a drawer supporting flange, the inner end portion of the outer side wall of the slide being offset inwardly, and a roller journaled on said offset portion and engaging the guide to support the inner end of the slide.

8. In a drawer slide or guide assembly, a channel shaped guide, a channel shaped slide movably mounted in the guide and having its inner side wall projecting above the inner side wall of the guide and formed with a drawer supporting flange, the inner end portion of the outer side wall of the slide being offset inwardly, and a roller journaled on said offset portion and engaging the guide to support the inner end of the slide, the outer end of the guide having a stop formed thereon which is engageable with the said offset portion to limit outward movement of the slide relative to the guide.

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