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DRAWER GUIDE

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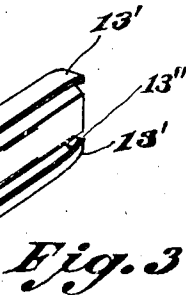
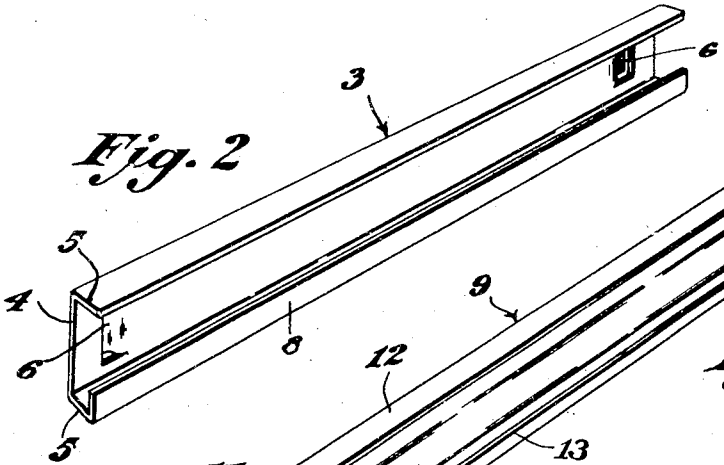
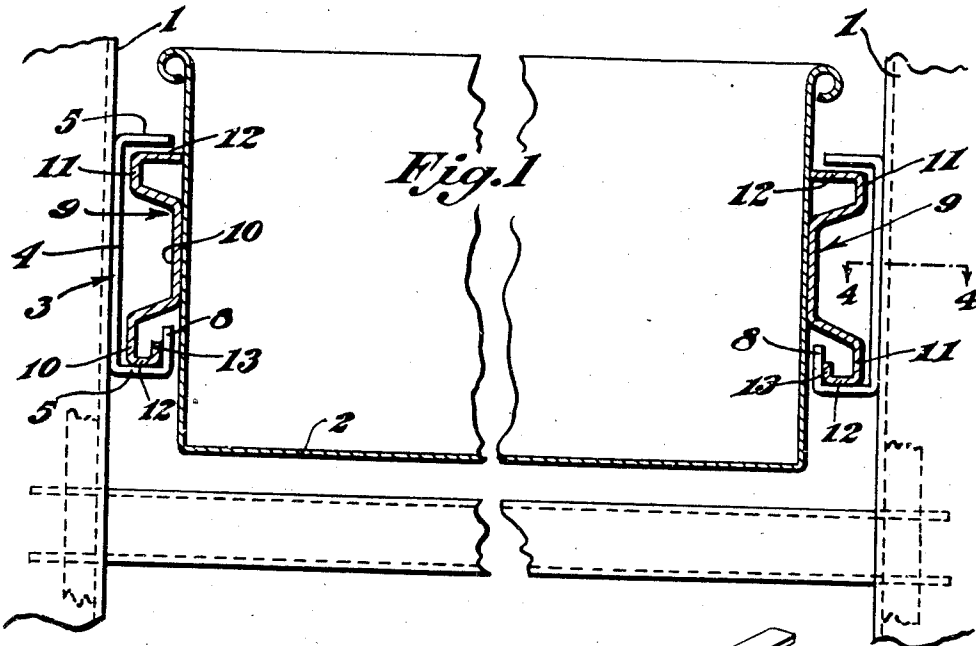


Fig. 4

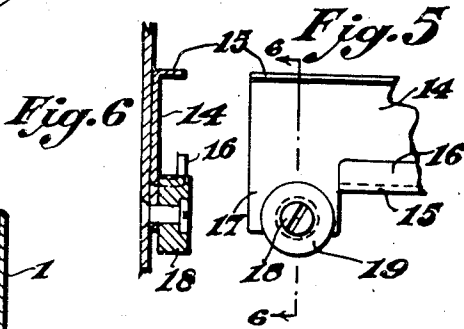
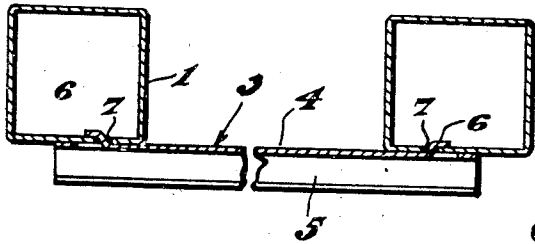


Fig. 6

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DRAWER GUIDE

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This invention relates to improvements in drawer guides and is designed to provide a construction which will center the drawer in a desk, cabinet or the like so as to permit only longitudinal sliding movement.

Another feature of the invention resides in providing a substantially simple construction for the slide members, so that they may be formed of sheet material in such a way that an interfitting cooperation can be obtained to prevent transverse movement of the drawer between the guides, and as a result obtain an even and smooth sliding movement of the drawer in its movement in or out of the cabinet or desk.

The invention includes numerous other features which are more particularly pointed out in the following detailed description and claims directed to the preferred forms of construction, it being understood however, that various changes in the size, shape and relation of the parts may be made which are within the scope of the invention as set forth herein.

In the drawings forming part of this application:

Fig. 1 is a transverse sectional view through a metallic desk or cabinet construction showing a drawer mounted for sliding movement therein by means of the drawer guide construction of this invention.

Fig. 2 is a perspective of the case slide.

Fig. 3 is a perspective of the drawer slide.

Fig. 4 is a horizontal section taken substantially on line 4—4 of Fig. 1 showing the manner in which the case slide is mounted in a cabinet, desk, or the like.

Fig. 5 is a detail elevation of one end of a case slide showing a roller for supporting the front end of the drawer slide.

Fig. 6 is a detail section taken on line 6—6 of Fig. 5.

A cabinet or desk construction includes suitable supports 1 which may be of any desired form of construction as used in the art, and a drawer 2 of any suitable form. The construction illustrated in the drawing is particularly adapted for use with metal furniture constructions.

A pair of case slides 3 are mounted on the

supports 1 in spaced, parallel and opposed relation as illustrated in Fig. 1, each case slide being of similar construction. Each case slide is formed preferably of sheet metal to provide a channel member formed by the central portion 4 of the strip and the laterally extending flanges 5. The central portion 4 adjacent the opposite ends, is formed with outwardly struck tongues 6 which extend in opposite directions, and are adapted to engage in openings 7 in the supports 1 so as to provide an interlocking connection with the supports, to rigidly mount the case slides in position. In this mounted position of the case slides in the supports, the central portion 4 of the channel member extends in vertical relation while the flanges 5 extend in horizontal relation toward the opposite case slide. The flange 5 at the lower edge of the portion 4 has a laterally extending flange 8 formed at the edge thereof which extends upwardly in the normal position of the slides as shown in Fig. 1 and partly encloses a portion of the channel provided by the formation of the slides.

Drawer slides 9 are provided on opposite sides of the drawer as shown in Fig. 1, which are preferably formed of metal strips having central portions 10 secured to the sides of the drawer. The opposite edge portions of the strip are formed to provide beads extending laterally on one side of the strip. These beads are provided by forming the edge portions of the strip with offset portions 11 having laterally extending flanges 12 at the edge portions of these offsets which extend toward the plane of the central portion 10. The laterally extending flange 12 of the lower bead is provided with a lip 13 extending laterally therefrom and which, in the normal position of the parts, extends upwardly in a plane between the plane of the central portion 10 and the offset 11 so that the lip 13 is in spaced parallel relation to the sides of the drawer. The drawer slide is constructed so that the distance between the flanges 12 forming the opposite edges thereof is slightly less than the inside dimension between flanges 5 of the channel member forming the case slide, which relation is clearly illustrated in Fig. 1.

The drawer slide has the end portion which is positioned at the rear end of the drawer, slightly rounded by forming the flanges 12 with curved portions as indicated at 13', the curved portions in each flange extending toward the central portion 10. This provides for ready insertion of a drawer with these drawer slides into a desk or a cabinet so that the drawer slides will be easily received in the case slides. The curved end 13'' of lip 13 provides for the insertion of the drawer slides in the case slides and cams the beads outwardly under tension relative to the central portion of the drawer slide so that during the engagement of the beads with the flanges 8 in the sliding movement of the drawer into or out of the desk, the beads will be retained in engagement with flanges 8 under a resilient tension.

The drawer slides when secured to the drawer as shown in Fig. 1, interfit with the case slides so that the drawer is supported by the flanges 12, at the bottom edge of the drawer slides, in the case slides on the bottom flanges 5 of the channel portions thereof. The drawer slides are substantially entirely received in the channel portions of the case slides as shown in Fig. 1, and the lips 13 are formed so as to have bearing engagement with the flanges 8. The flanges 12 provide for a relatively wide and long bearing contact between the slides in the support of a drawer which aids in making the drawer easy to operate. These parts are so constructed that when the drawer is applied in a cabinet or desk, the lower beads on the drawer guides will have a lateral tension applied thereto through the special relation of the parts and through the resiliency of the material of the drawer guides as well as the case slides. That is, the beads on the drawer guides will normally be spaced slightly closer together than the distance between the flanges 8 on the case slides so that when the drawer slides are engaged in the case slides the beads will be pulled apart and placed under tension to an extent which will be permitted by the flexibility of the material of the slides. This will insure a continuous bearing contact between the drawer slides and the case slides along the flanges 8 as well as the lower flanges 5 throughout the length of the slides so that the drawer will be effectively positioned and centered in a cabinet or desk for longitudinal sliding movement only. In the movement of the drawer in and out of a desk or cabinet, with this construction it will be held against lateral movement so that it can not become wedged in any intermediate position. In applying the drawer slides to a drawer, the slides are made of a length so that the rear ends will extend a substantial distance beyond the rear end of the drawer so that in the fully extended position of a drawer from a desk or cabinet, it will still be held against

lateral movement and will be effectively guided by the cooperation of this improved drawer guide construction.

Where this construction is applied to support substantially large drawers carrying heavy files, it may be desirable to construct the case slides as shown in Figs. 5 and 6. The forward end portion of a case slide is indicated at 14 in these two figures, having the upper and lower flanges 15 forming the channel member, while the lower flange is formed at its edge with the lateral and upwardly extending flange 16 similar to flange 8. The lower flange and flange 16 terminate short of and above the end portion of the case slide, and the forward end portion is provided with the extension 17 projecting downwardly, on which is mounted a rivet member 18 rotatably carrying the roller 19. The periphery of this roller 19 projects slightly above the upper face of the lower flange 15 as shown in Figs. 5 and 6 and in alignment therewith in order to provide a bearing on which a drawer slide will engage so as to reduce the friction between the slides in the movement of the drawer in and out of the cabinet or desk equipped with this construction. In this way, large drawers may be operated more easily than with the construction shown in Fig. 1 without interfering with the effective guiding of the drawer between the slides in centered relation. It is found, however, for the average size drawer used in filing equipment that the roller may be eliminated because the efficient guiding cooperation obtained by this drawer guide construction permits of the easy operation of the drawer as shown in the construction in Fig. 1 so that the roller will only be used in exceptional cases. The construction of the case slide shown in Fig. 5 is otherwise identical with the case slide shown in Fig. 1 and the same drawer slide constructions as shown in Fig. 1 are used with this case slide when provided with the roller.

What is claimed is:

1. A slide for drawer guides, comprising a strip member formed to provide a central portion, the edge portions of said strip being offset and formed with laterally extending flanges at the edges of the offset portions, said flanges being formed with curved portions at one end of the strip extending toward the central portion.

2. A drawer guide, comprising a support, a pair of case slides mounted on said support in opposed relation, a drawer, and drawer slides on said drawer slidably engaging in said case slides, said drawer slides having portions resiliently flexible laterally relative to the drawer, said portions slidably engaging in said case slides, said portions being laterally flexed and held under resilient tension by said case slides to provide a lateral

tension on said slides and drawer in all interengaged positions thereof.

3. A drawer guide comprising a support, a pair of case slides mounted on said support in opposed relation, a drawer, a pair of slides on said drawer slidably engaging in said case slides, one pair of slides having parts with surfaces facing outwardly from the drawer and the companion pair of slides having cooperating parts with surfaces facing inwardly toward the drawer and arranged in sliding contact with the first surfaces, the spacing between the inwardly facing surfaces being normally less than the spacing of said outwardly facing surfaces, and the parts of one pair of slides being resiliently yieldable to bring the cooperating surfaces into sliding contact.

4. A drawer guide comprising; a support, a pair of case slides mounted on said support in opposed relation, a drawer, a pair of drawer slides having portions attached to said drawer and other portions slidably engaged in said case slides for supporting and guiding said drawer therein, said other portions being flexed relative to the first portions by said case slides and held under lateral resilient tension by said case slides during engagement therein in all positions.

5. A drawer guide, comprising a support, a pair of opposed case slides mounted on the support in spaced parallel relation, each case slide being formed of a channel member having a flange extending laterally from one edge over the channel and enclosing a portion thereof, a drawer, drawer slides mounted on the drawer having a portion secured to the drawer and a bead portion resiliently flexible relative to the first portion, said bead portions slidably engaging in said case slides and having bearing contact with the bottom of said channel members for supporting the drawer, said flanges engaging said beads and holding them in outwardly resiliently flexed relation during engagement of said drawer slides in said case slides.

6. A drawer guide, comprising a support, a pair of opposed case slides mounted on the support in spaced parallel relation, each case slide being formed of a channel member having a flange extending laterally from one edge over the channel and enclosing a portion thereof, a drawer, drawer slides mounted on the drawer having a portion secured to the drawer and a bead portion resiliently flexible relative to the first portion, said bead portions slidably engaging in said case slides and having bearing contact with the bottom of said channel members for supporting the drawer, said flanges engaging said beads and holding them in outwardly resiliently flexed relation during engagement of said drawer slides in said case slides, and one of said slides being formed to provide means for flexing said beads outwardly upon introduc-

tion of the drawer slides into the case slides.

7. A slide for a drawer guide comprising an elongated strip member formed to provide a channel having a planar central portion and opposed flange portions, and an outwardly extending portion on one of the flange portions terminating in an inturned lip extending towards its flange portion and arranged in spaced relation between the plane of the planar central portion and said outwardly extending portion.

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