Dec. 9, 1941. S. F. PRATT 2,265,927

EXTENSION DRAWER SLIDE

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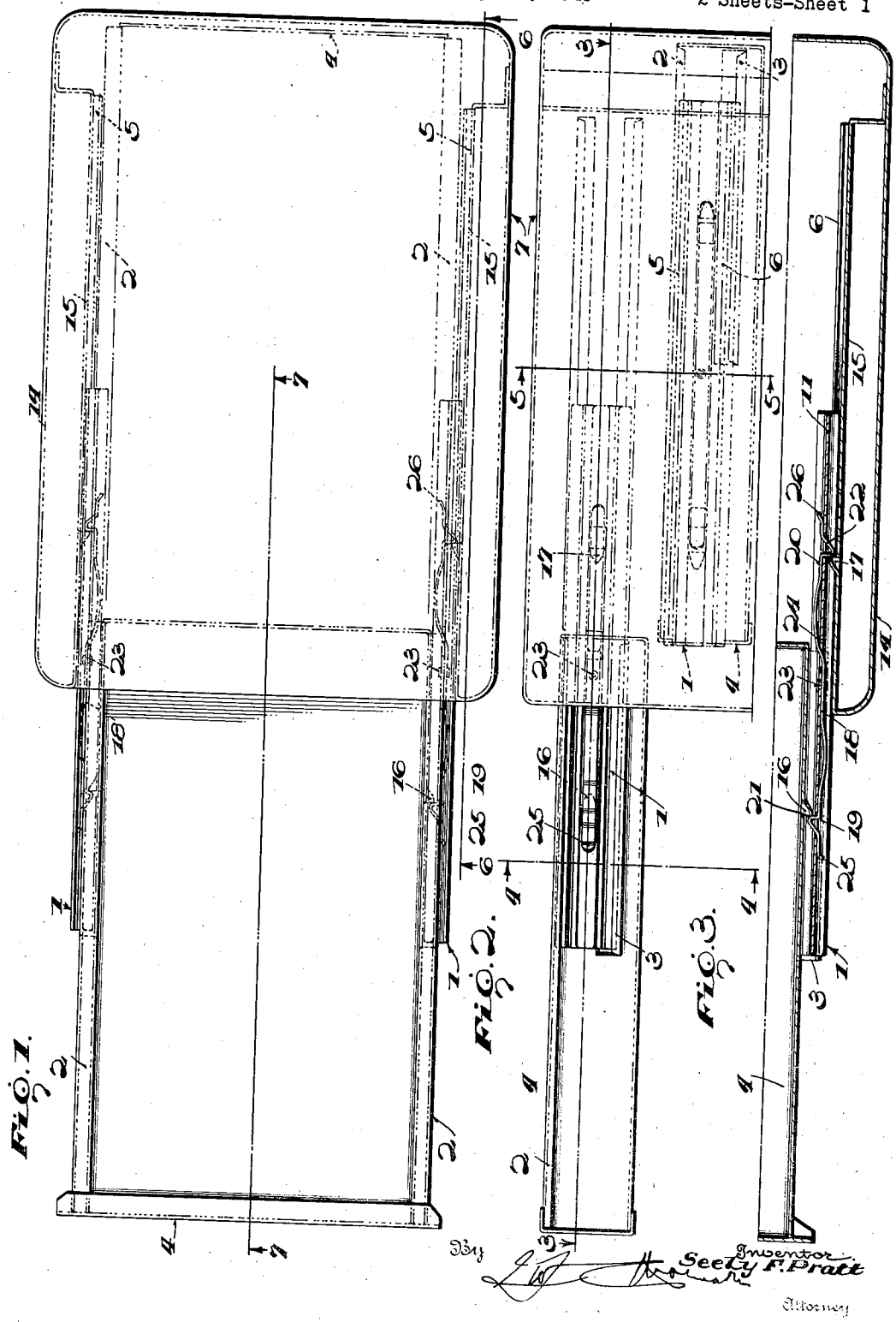


FIG. 1.

FIG. 2.

FIG. 3.

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Fig. 4.

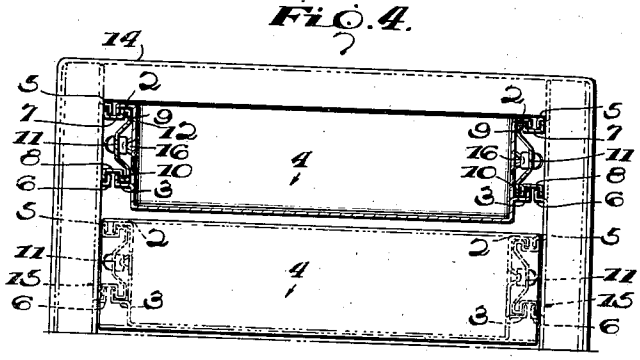


Fig. 8.

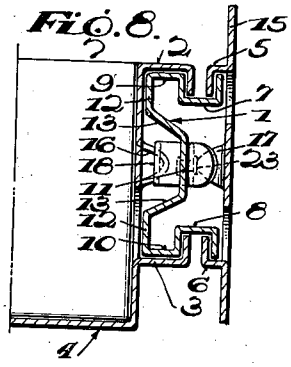


Fig. 5.

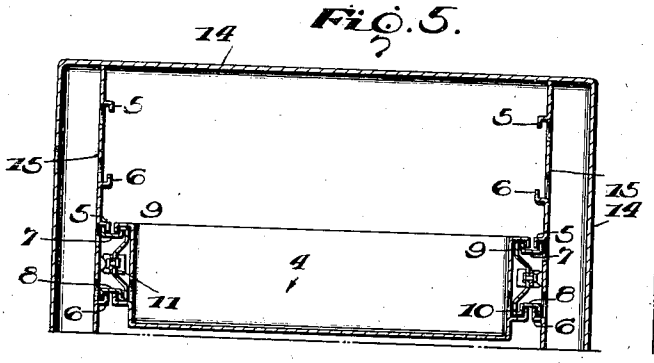


Fig. 9.

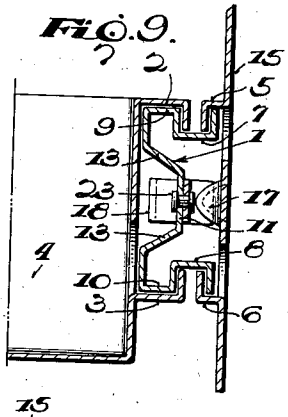


Fig. 6.

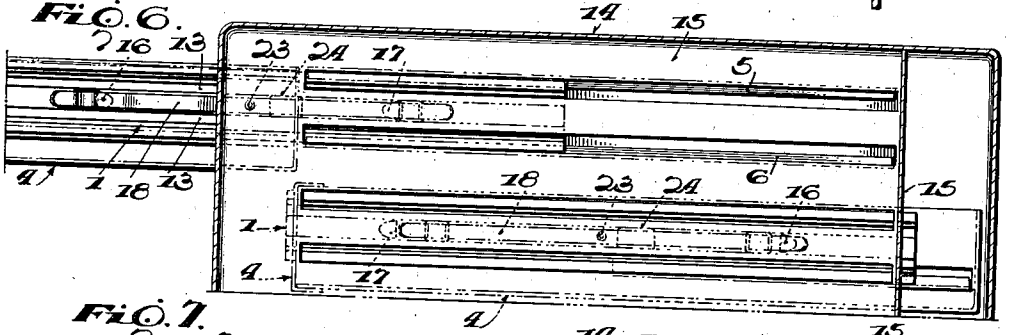


Fig. 7.

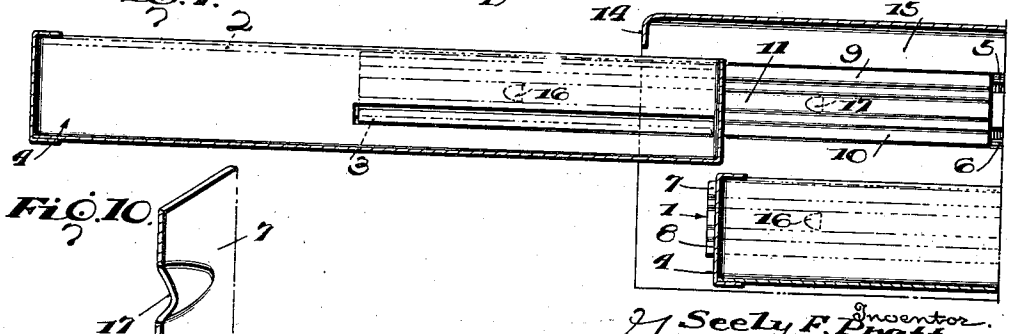


Fig. 10.

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2,265,927

EXTENSION DRAWER SLIDE

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Application August 16, 1940, Serial No. 352,966

7 Claims. (Cl. 45—77)

The invention relates to an extension drawer slide.

The object of the present invention is to improve the construction of extension drawer slides and to provide a simple, practical and efficient extension drawer slide of strong, durable and comparatively inexpensive construction adapted to enable the drawers of a cabinet to be firmly supported in a horizontal projecting position when the drawers are withdrawn far enough to permit inspection of their entire contents.

A further object of the invention is to eliminate the necessity of making separate parts and welding or otherwise securing the same to a drawer and a cabinet for providing guideways to slidably receive a slide for supporting the drawer in its extended position.

It is also an object of the invention to enable the slide receiving guideways of the drawer and the cabinet to be stamped or otherwise formed of the material of the drawer and the cabinet without affecting the appearance of the drawer and the cabinet when the drawer is in its closed or normal position.

Another object of the invention is to equip the slide which is mounted in guideways of the drawer and the cabinet with a single spring or resilient member having portions operating at opposite sides of the slide and arranged to cooperate with stops on the drawer and the cabinet for limiting the outward movement of the drawer and the slide, the spring or resilient member being also adapted to have its stop engaging portions readily displaced and sprung out of engagement with the stops of the drawer and the cabinet to enable the drawer and the slide to be easily and quickly removed from the cabinet when desired.

With these and other objects in view, the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended, it being understood that various changes in the form, proportions and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:

Figure 1 is a plan view of a cabinet and a drawer provided with an extension slide constructed in accordance with this invention, one of the drawers of the cabinet being in an extended position.

Figure 2 is a side elevation of the same.

Figure 3 is a horizontal sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a transverse sectional view taken on the line 4—4 of Figure 2.

Figure 5 is a similar view taken on the line 5—5 of Figure 2.

Figure 6 is a longitudinal sectional view taken on the line 6—6 of Figure 1.

Figure 7 is a similar view taken on the line 7—7 of Figure 1.

Figure 8 is an enlarged sectional view of the extension slide with the parts arranged as shown in Figure 4.

Figure 9 is a similar view with the parts arranged as illustrated in Figure 5.

Figure 10 is a perspective view of a fragmentary portion of the cabinet side including a limit stop employed in connection with the present invention.

In the accompanying drawings in which is illustrated a preferred embodiment of the invention, 1 designates a slide stamped or otherwise formed from a single piece of sheet metal or other suitable material and slidably mounted in upper and lower horizontally disposed facing channels or grooves 2 and 3 of a drawer 4 and upper and lower facing channels or grooves 5 and 6 of a cabinet 7. The slide consists of a body portion or strip and upper and lower reversely arranged channels 7 and 8 which are connected with the body portion of the slide by upper and lower horizontal longitudinal flanges 9 and 10.

The intermediate portion of the slide is bowed laterally to form a central vertical portion 11 which is connected with upper and lower vertical portions 12 of the slide by inclined portions 13. The upper and lower horizontal flanges 9 and 10 of the slide laterally offset the reversely arranged channels or grooves 7 and 8 from the body portion of the slide and the said channels 7 and 8 face upwardly and downwardly, respectively, to receive the approximate walls of the upper and lower grooves or channels of the drawer and the cabinet. The upper and lower grooves or channels of the drawer and the cabinet provide guideways to receive the slide which has its upper and lower horizontal flanges arranged in parallelism and slightly spaced relation with corresponding portions of the upper and lower grooves or channels 2 and 3 of the drawer.

In forming the upper downwardly facing channel or groove of the drawer, the material at the upper edge of the drawer is extended laterally

to form the upper wall of the groove or channel and at the edge portion is bent downwardly into parallelism with the side of the drawer to form the outer wall of the groove or channel which receives the inner portion of the top of the slide and which conforms to the configuration of the same. By thus forming the upper slide receiving channel the upper side edges of the drawer are relieved of sharp edges and obviates the lining up and the making of and the securing of separate guide strips to the sides of the drawer.

The lower groove or channel **3** is formed from metal partially severed from the side of the drawer, the partially severed metal being bent laterally in a horizontal direction and then upwardly to form the upwardly facing groove or channel **3**, which receives the inner portion of the bottom of the slide and which conforms to the configuration of the same. By striking the lower slide receiving channel from metal of the sides of the drawer the need for lining up and securing separate guide strips is obviated.

The side **14** of the cabinet **7** is of hollow formation and the inner vertical portion **15** of the cabinet side has the metal thereof partially severed at spaced points and bent horizontally and then vertically to form the facing channels or grooves **5** and **6** which receive the outer portions of the top and bottom of the slide.

The single piece slide is material from the standpoint of production and the formation of the slide receiving guideways integrally with the drawer and the cabinet obviates the necessity of providing separate parts and welding or otherwise securing the same to the drawer and the cabinet for providing the upper and lower grooves or channels of the slide receiving guideways.

In order to limit the outward sliding movement of the drawer and the slide, the drawer and the cabinet are provided with stops **16** and **17**, and the slide is equipped with a single spring or resilient member **18** having portions **19** and **20** located at opposite sides of the slide and secured at an intermediate point to the latter and provided at its terminals with catches **21** and **22** for engaging the stops of the drawer and the cabinet. The central portion of the spring may be secured to the slide by a rivet **23** or other suitable fastening means to the vertical portion **11** of the slide, and the said vertical portion is provided with an opening **24** through which the spring extends, in order to arrange its portions **19** and **20** at opposite sides of the slide.

The catches **21** and **22** are approximately V-shaped and provide shoulders for engaging the stops **16** and **17** of the drawer and the cabinet. The terminal portions **25** and **26** of the resilient member or spring are extended beyond the catches **21** and **22** and are deflected slightly in a lateral direction to enable them to be readily engaged by the blade of a screwdriver or other instrument for disengaging the spring member from the stops **16** and **17** to permit removal of the drawer and the slide, should the same become necessary or desirable.

In the operation of pulling the drawer out of the cabinet from the position shown in the lower portion of Figure 2 of the drawings to the position illustrated in the upper portion of the said figure, the stop **16** of the drawer is carried into engagement with the catch **21** and the drawer and the slide are withdrawn to the limit of their outward movement, which is finally limited by the catch **22** of the spring member engaging the stop **17** of the cabinet. When the drawer is in this position it is firmly supported and is withdrawn sufficiently to enable its entire contents to be inspected.

What is claimed is:

1. In a device of the character described, the combination with a cabinet and a drawer provided with guideways, of a slide consisting of a body portion, upper and lower reversely arranged channels located at one side of the body portion of the slide and upper and lower horizontally disposed laterally projecting flanges connecting the channels with the body portion of the slide and offsetting the channels from said body portion, said channels and horizontal flanges being mounted in the guideways of the drawer and the cabinet for sliding movement to permit an extended sliding movement of the drawer.

2. In a device of the character described, the combination with a cabinet and a drawer provided with guideways, of a slide comprising a body and upper and lower reversely arranged channels located at one side of the body portion and slidably mounted in the guideways of the drawer and the cabinet, said body being bowed laterally at an intermediate point, a resilient member mounted on the bowed portion of the body of the slide and having portions operating at opposite sides of the slide and stops projecting from the drawer and the cabinet and arranged to be engaged by said portions of the resilient member for limiting the movement of the slide and the drawer.

3. In a device of the character described, the combination with a cabinet and a drawer provided with guideways, of a slide comprising a body provided intermediate of its ends with an opening and having upper and lower reversely disposed channels located at one side of the body and slidably mounted in the guideways of the drawer and the cabinet, a resilient member secured at an intermediate point to the slide and extending through the opening thereof and having portions operating at opposite sides of the slide and stops projecting from the drawer and the cabinet and arranged to be engaged by the portions of the resilient member at opposite sides of the slide for limiting the sliding movement of the drawer and the slide.

4. In a device of the character described including a cabinet having at the side upper and lower opposed guide channels providing a guideway and formed by metal partially severed from the side of the cabinet at spaced points and bent substantially horizontally and vertically to form the upper and lower channels, a drawer similarly provided at its side with upper and lower opposed guide channels providing a guideway and formed by metal of the drawer side bent horizontally and vertically to form the upper and lower channels and a slide mounted in the guideways of the drawer and the cabinet, said slide including upper and lower oppositely and outwardly directed guide channels, each of said latter channels straddling a vertical portion of one of the channels formed on the cabinet side and one of the channels formed on the drawer side.

5. A device of the character described including a drawer having upper and lower integral facing channels providing a guideway, the metal at the upper edge of the drawer being extended laterally and downwardly to form said upper channel and the metal being partially severed from the drawer and bent laterally and upwardly to form the lower channel, a cabinet having at the side upper and lower facing channels pro-

viding a guideway and formed by metal partially severed from the side of the cabinet at spaced points and bent substantially horizontally and vertically to form the upper and lower channels, a slide consisting of a single piece of metal and composed of a body bowed laterally intermediate of its top and bottom portions, upper and lower reversely disposed channels and laterally disposed horizontal flanges connecting the channels with the body of the slide, the channels and the horizontal connecting flanges being slidably mounted in the upper and lower channels of the drawer and the cabinet, and means for limiting the sliding movement of the drawer and the slide.

6. A device of the character described comprising a drawer having upper and lower integral facing channels providing a guideway, the metal at the upper edge of the drawer being extended laterally and downwardly to form said upper channel and the metal being partially severed from the drawer and bent laterally and upwardly to form the lower channel, a cabinet having at the side upper and lower facing channels providing a guideway and formed by metal partially severed from the side of the cabinet at spaced points and bent substantially horizontally and vertically to form the upper and lower channels, a slide consisting of a single piece of metal and composed of a body bowed laterally intermediate of its top and bottom portions, upper and lower reversely disposed channels and laterally extending longitudinally disposed horizontal flanges connecting the channels with the body of the slide, the channels and the horizontal connecting flanges being slidably mounted in the upper and lower channels of the drawer and the cabinet, a single continuous resilient member secured between its ends to the slide and having portions located at opposite sides of the slide, and stops projecting from the drawer and the cabinet and arranged to engage the portions of the resilient member at opposite sides of the slide for limiting the outward movement of the slide and the drawer.

7. In a device of the character described, a cabinet having a side formed with a guideway, a drawer slidably disposed in the cabinet and having a side formed with a guideway, a single unitary channel-shaped slide member disposed between the drawer side and the cabinet side and having side portions a part of which projects into the cabinet slideway and a part of which projects into the drawer slideway, said slide member also including a vertical web disposed intermediate the drawer side and the cabinet side and spaced from each of said sides, a limit stop on the drawer side, a limit stop on the cabinet side, there being an opening in said web medially thereof and a unitary integral leaf spring extending through said opening in the vertical web and having operating portions on each side thereof, means anchoring the spring to the web at a medial point on the former, and a stop engaging lug formed on the spring adjacent each end thereof, said lugs projecting through said web in opposite directions to engage their respective stops.

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