ABSTRACT: A cabinet drawer slide assembly comprising a drawer slide member, a central slide member and a cabinet supported slide member, a plate spring carried by said drawer slide member adjacent said central slide member, said plate spring having a longitudinal angled portion projecting in the direction of said central slide member forming a stop abutment, said central slide member carrying a stop member extending in the direction of said drawer slide and engageable by said stop abutment, said plate spring having an unobstructed portion extending forwardly and outwardly of said central slide member yielding to finger pressure for disengagement thereof from said stop member.
CABINET DRAWER SLIDE ASSEMBLY

BACKGROUND AND SUMMARY OF THE INVENTION

This invention relates to a drawer slide assembly. More particularly the invention herein relates to an easily operated quickly releasable locking or stop member for the complete removal of a drawer from the slide assembly and from the cabinet in connection therewith.

The invention herein represents a simplified disconnecting or releasable means. Representative of stop and release means known in the art are disclosed in the U.S. Pat. to Vogt, No. 3,278,250; Ward, No. 3,142,517; and Fall, No. 3,464,744.

Vogt shows a spring-biased stop member requiring a plurality of pieces for its assembly. Ward shows a projecting tongue portion forming a friction stop which is not a positive stop, and is not particularly suitable for heavy laden drawers. Fall shows a spring carrying a button to engage a slot. The button must be raised and moved out of the slot for release of the drawer.

Generally stated the invention herein comprises a drawer slide member, a central slide member and a cabinet-supported slide member with said drawer slide member carrying a plate spring having a medial portion angled in the direction of said central slide member forming a projecting stop abutment to engage a stop member carried by said central slide member for positive engagement therewith, said spring member extending forwardly to have an unobstructed portion thereof readily accessible and yieldable to finger pressure for release of said drawer slide member when said drawer is pulled outwardly of said cabinet.

It is an object of this invention to provide a simply constructed release means for a drawer slide assembly which requires no tools for its operation.

It is another object of this invention to provide a readily accessible release means in a drawer slide assembly operable by finger pressure of the operator.

These and other objects and advantages of the invention will be set forth in the following description made in connection with the accompanying drawings in which like reference characters refer to similar parts throughout the several views and in which

FIG. 1 is a view in perspective showing the structure embodying the invention herein in operating position and with some portions thereof being broken away;

FIG. 2 is a view on an enlarged scale in vertical cross section taken on line 2-2 of FIG. 1 as indicated;

FIG. 3 is a view in rear elevation showing a detail of the construction and portions thereof being shown in dotted line;

FIG. 4 is a view in horizontal section taken on line 4-4 of FIG. 3 as indicated and with portions thereof being broken away;

FIG. 5 is a view in front elevation with portions thereof being broken away and other portions being shown in dotted line; and

FIG. 6 is a broken view on an enlarged scale showing a detail of the invention herein in releasing position.

DESCRIPTION OF A PREFERRED EMBODIMENT

Referring to the drawings, a cabinet 10 is indicated generally by the broken view in FIG. 1 and in connection therewith there is indicated a drawer 15. Slide assemblies supporting said drawer at either side 20 are indicated by the reference numerals 18 and 20. Said slide assemblies are of identical structure in opposed operating relation. The slide assembly 20 will be described in detail.

Said slide assembly 20 comprises a fixed channel member 21 which will be secured to the cabinet wall 11 as by spot welding, which channel member is formed to have a central longitudinal web 22 having upper and lower inwardly curved flanges 23 and 24 which are U-shaped in cross section and which form supporting guides or rails. Said member is referred to as the cabinet slide member of the slide assembly.

Slidably disposed within said channel member 21 is a central channel or slide member 28 having a central longitudinal inwardly offset web portion 29 on the order of a wide rib and having upper and lower inwardly curved flange portions 30 and 31 forming U-shaped channels in cross section which serve as supporting guides or rails. Said member 28 slides very easily within said channel member 21 with the flange portions thereof respectively being received within said flange portions 23 and 24.

Projecting rearwardly from the inner side of said slide member 21 and substantially centrally longitudinally thereof is a stop member 33 formed as a tongue. A stop member 34 is formed as a tongue projects forwardly from adjacent the rear end of the outer side of said central channel member 28 for engagement with said projecting tongue 33 to limit the forward extent thereof, said channel member 28.

A stop member 36 is formed at the inward side adjacent the forward end of said member 28 and is shown here as a projecting tongue.

Slidably disposed within said central slide member 28 is a slide member 40 suitably secured as by welding to the adjacent wall 36 of said drawer 15 and is referred to as the drawer slide member. Said member 40 comprises a central longitudinal channel 41 having a web 42 forming its outer wall having upper and lower sidewalls 44 and 45 disposed at right angles thereto. Respectively extending upwardly and downwardly of said sidewalls 44 and 45 are vertically disposed flanges 47 and 48 here shown formed of double thickness by reverse folding. Said flanges are respectively disposed within and ride in said channels 30 and 31.

The members 21, 28 and 40 and the various portions thereof are formed to be used at either side of said cabinet and drawer.

The particular novelty of the invention herein is present in the structure of the release member 50. Said release member is carried by said web 42 and although shown substantially centrally longitudinally thereof, it may be otherwise positioned as may be desired.

In connection with said release member 50 are longitudinally spaced slots 51 and 52 formed in said web 42 to retain said release member and are spaced sufficiently apart for longitudinal growth of said release member as will be described. Extending oppositely from the remote sides of said slots 51 and 52 are shallow recesses 54 and 55 offset inwardly of said web.

Comprising said release member 50 as shown in the embodiment herein is an elongated plate steel spring member which is disposed at the inner side of said web 42 and is formed having its body portion displaced longitudinally vertically away from the plane of its base and is shown here having a shallow longitudinally V-angled profile formed of body portions 59 and 60, the same coming to an apex which defines a vertical projection which as shown here forms a vertical face portion 63 for positive engagement as a stop member with said stop member 36. Said plate member is of a greater width than the width of said slots 51 and 52.

At each end of said member 50 are small depending step portions 65 and 66 and angled outwardly therefrom at substantially right angles thereto are projecting end portions which are indicated by the reference numerals 67 and 68. Said projecting end portions are of a reduced width as to be respectively disposed through the slots 51 and 52 and the depending portions 65 and 66 will rest upon the inner surface of said web 42. Said projecting portions 67 and 68 will be disposed within the recesses 54 and 55. With said stop portion 63 in engagement with the stop member 36, the angled body portion 59 will extend unobstructed forwardly the slide member 28.

OPERATION

In operation, the slide member 28 is forwardly or outwardly extensible within said slide member 21 to the point of engagement of the stop member 34 with the stop member 33. The
slide member 40 is further extensible within the slide member 28 to the point of engagement of the release member 50 with the stop member 36.

At this point the stop portion 63 of the release member 50 extends outwardly of the web 42 sufficiently to fully engage said stop member 36. The angles at which the portions 59 and 60 are inclined are sufficient so that when the portion 59 is depressed by finger pressure against the web 42 that the stop 63 is moved away from the stop 36 to be clear thereof and to pass thereby.

Thus when the slide 40 is extended, the portion 59 will be readily accessible for finger operation.

By finger pressure alone upon the portion 59 and its corresponding opposite portions, the drawer 15 is easily removed from the cabinet 10. To be reinserted, the slide 40 is merely inserted into the slide 28 and the member 50 will yield to the stop member 36 in passing by.

It is seen that there has been provided a simply constructed and easily operated release member which forms a positive lock yet yields readily to finger pressure for release.

What I claim is:

1. A drawer slide assembly having in combination;
   a cabinet-supported slide member having a central slide member slidably therein and a drawer slide member slidable within said central slide member,
   stopping means carried by said central slide member adjacent its outward end portion and facing said drawer slide member,
   a releasable stop member carried by said drawer slide member at the side thereof facing said stopping means

2. The structure set forth in claim 1, wherein said displaced body portion comprises a longitudinally V-angled profile.

3. The structure set forth in claim 1, wherein said displaced body portion comprises a longitudinally V-angled profile and said vertical projection comprises a vertically disposed face portion.

4. The structure set forth in claim 1, wherein said last mentioned means comprises a pair of longitudinally spaced slots.

5. The structure set forth in claim 1, wherein said displaced body portion comprises an apex portion having a configuration to provide a vertical face.