Oct. 25, 1966 R. F. ANDERSON ET AL 3,281,198

DRAWER SLIDE ASSEMBLY

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Fig. 1.

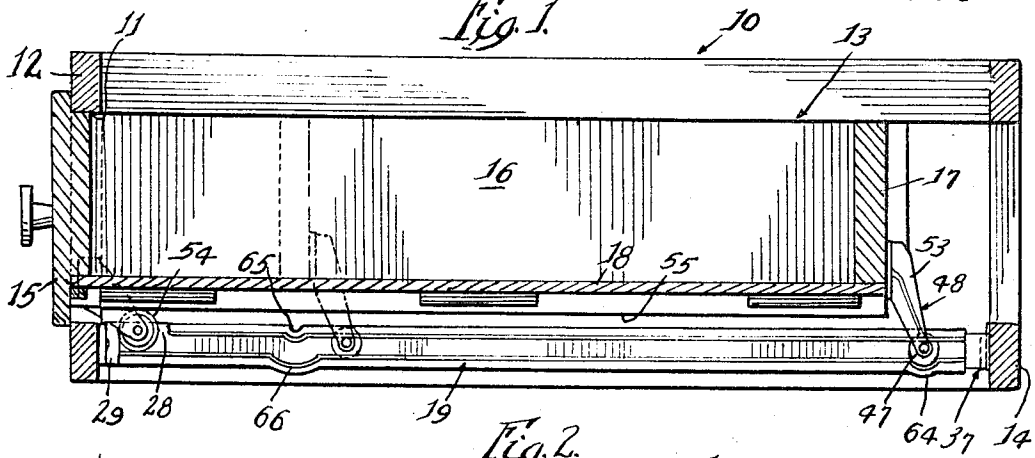


Fig. 2.

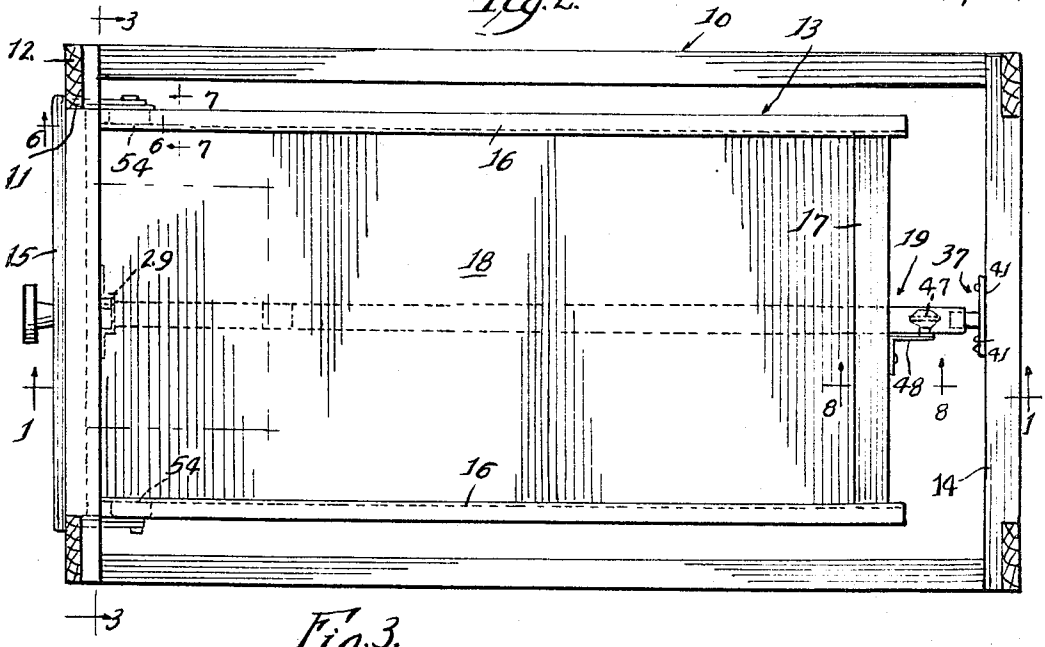
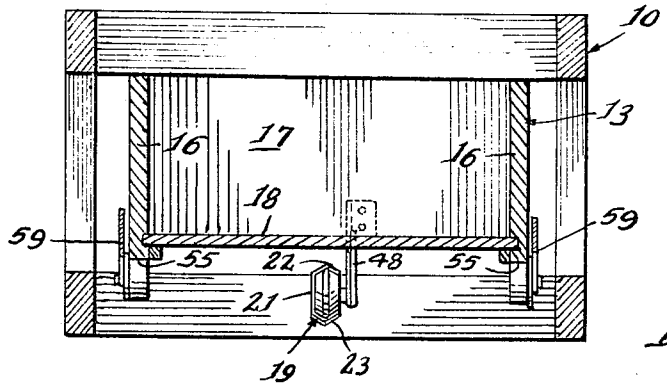


Fig. 3.



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Fig. 4.

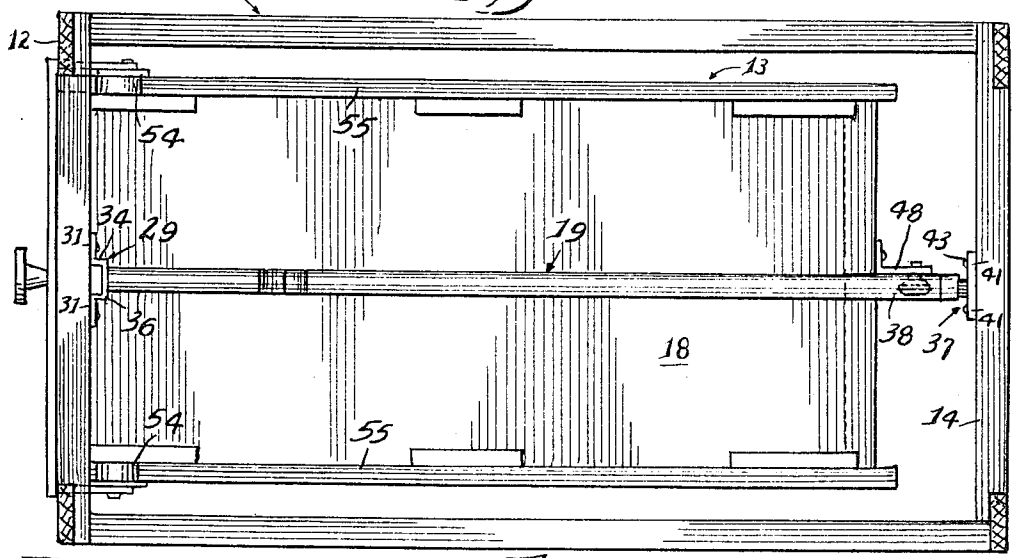


Fig. 5.

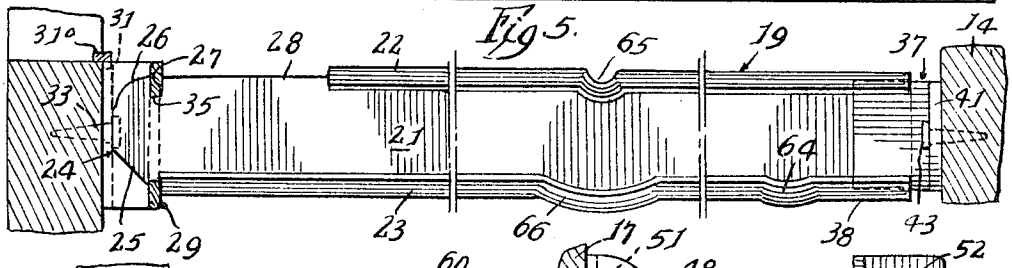


Fig. 6.

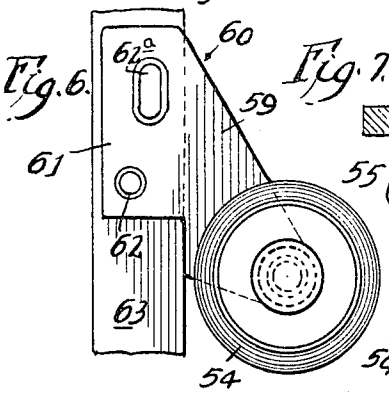


Fig. 7.

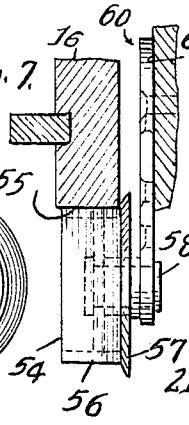


Fig. 8.

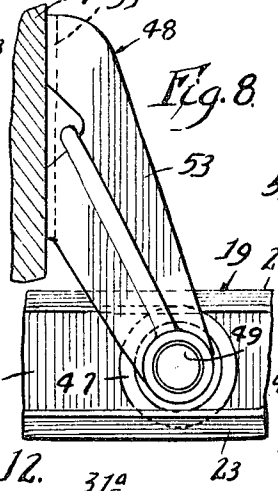


Fig. 9.

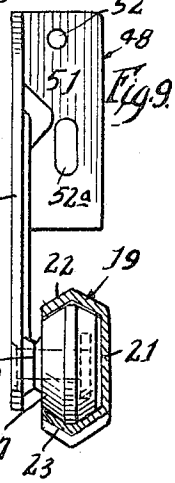


Fig. 10.

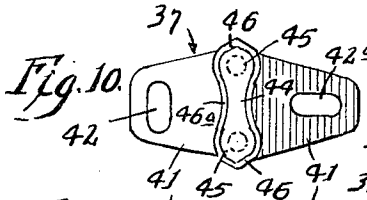


Fig. 11.

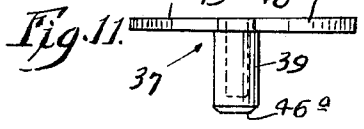
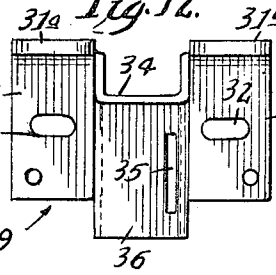


Fig. 12.



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3,281,198
DRAWER SLIDE ASSEMBLY

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Filed Aug. 14, 1964, Ser. No. 389,713
2 Claims. (Cl. 312—343)

The present invention relates to a novel drawer slide assembly and more particularly to a center track drawer slide assembly having novel means for mounting and retaining the center track within the enclosure for the drawer.

Among the objects of the present invention is the provision of a drawer slide assembly for a drawer in a cabinet or other enclosure having a single center track to guide reciprocable movement of the drawer. This single track can be utilized with any standard drawer construction without any alteration or modification of the drawer. drawer.

Another important object of the present invention is the provision of a novel drawer slide assembly havting a single center track which is supported at the rear or inner end by a novel mounting bracket secured to the interior surface of the rear of the cabinet. The bracket is adjustably mounted on the cabinet and has a central symmetrical projection adapted to fit within and have frictional contact with the interior of the track member. The forward end of the track is mounted in a bracket secured at the front interior surface of the cabinet.

A further important object of the present invention is the provision of a drawer slide assembly with a single track centrally mounted below the drawer and a drawer roller mounted on the rear of the drawer and reciprocating within the track upon movement of the drawer. Also, a pair of front rollers are mounted upon the cabinet housing at the front interior surface and support the lower edges of the sides of the drawer.

Further objects are to provide a construction of maximum simplicity, efficiency, economy and ease of assembly and operation, and such further objects, advantages and capabilities as will later more fully appear and are inherently possessed thereby.

In the drawings:

FIGURE 1 is a vertical cross sectional view through the cabinet and drawer taken on the line **1—1** of FIG. 2 and showing the center track and track roller in side elevation in the closed position of the drawer, and also shown in dotted outline when the drawer is opened.

FIG. 2 is a top plan view of the drawer within the cabinet or enclosure.

FIG. 3 is a vertical cross sectional view of the drawer and center track taken on the irregular line **3—3** of FIG. 2 and viewed in the direction of the arrows.

FIG. 4 is a bottom plan view of the drawer slide assembly.

FIG. 5 is an enlarged partial side elevational view of the center track and showing the mounting brackets for the opposite ends of the track.

FIG. 6 is an enlarged vertical cross sectional view taken on the line **6—6** of FIG. 2 and showing a front drawer supporting roller.

FIG. 7 is an enlarged vertical cross sectional view taken on the line **7—7** of FIG. 2.

FIG. 8 is an enlarged vertical cross sectional view taken on the line **8—8** of FIG. 2 and showing the drawer roller in side elevation.

FIG. 9 is a rear elevational view of the drawer roller of FIG. 8.

FIG. 10 is an enlarged front elevational view of the mounting bracket for the inner end of the center track.

FIG. 11 is a top plan view of the bracket of FIG. 10.

FIG. 12 is an enlarged perspective view of the mounting bracket supporting the front end of the center track.

Referring more particularly to the drawings in which is disclosed an illustrative embodiment of the present invention, FIGS. 1 through 4 disclose a cabinet or enclosure **10** with an opening **11** in a front wall **12** to accommodate a drawer **13**; said drawer extending to adjacent the rear wall **14** of the cabinet. The drawer **13** includes a front wall **15**, side walls **16**, a rear wall **17** and a bottom **18**. The drawer may be of a standard configuration or design and does not have to be grooved or otherwise altered for the utilization of the slide assembly.

A single track **19** is mounted in the cabinet below the center of the drawer and receives a drawer support roller. The track is formed from a sheet metal channel having a flat side wall **21** and angular top and bottom walls **22** and **23**, respectively. The channel is open at the right side as seen in FIG. 3 to provide a generally C-shaped track in cross section. The front end of the track **19** has an extension **24** of the flat side wall **21** which has an angled lower camming surface **25** and a rounded upper surface **26** with a notch **27** formed therein. The top wall **22** is cut away as at **28** at the forward end of the track **19**.

A front mounting bracket **29** (FIG. 12) has a pair of offset mounting flanges **31** each having a locating projection **31a** extending normal to the flanges, the lattter provided with elongated openings **32** to adjustably receive suitable screws or fastening means **33** to secure the bracket onto the inner edge of the cabinet front wall **12**. The generally U-shaped body **34** carrying the flanges **31** has an elongated vertical slot **35** formed in the connecting wall **36** of the body **34**. This slot **35** is adapted to receive and retain the hooked front end **24** of the track **19** in operative position with the notch **27** receiving the edge of the wall **36** of the body **34**.

A rear mounting bracket **37** for the inner or rear end **38** of the track **19** includes a body part **39** with oppositely extending mounting or anchoring flanges **41** having elongated openings or slots **42** and **42a** to receive suitable fastener means **43** to adjustably mount the bracket onto the rear wall **14** of the cabinet. The body part **39** extends inwardly or forwardly to form a symmetrical projection as viewed in FIG. 10. This projection includes a narrow central portion **44** which flares outwardly at top and bottom into enlarged cored portions **45** having angular surfaces **46** generally conforming to the angular top and bottom walls **22** and **23**, respectively, of the track **19**, and tapered at the projecting end **46a** to facilitate entry. This bracket is formed of a plastic material, such as a high density polyethylene, so that the projection may be inserted into and frictionally held within the open rear end **38** of the track **19**.

Reciprocably moving within the track **19** is a drawer roller **47** which is rotatably mounted on the end of a bracket **48** by means of a rivet or pin **49**. The roller bracket **48** includes a flange **51** having an opening **52** and elongated slot **52a** to receive suitable securing means for attachment to the rear wall **17** of the drawer **13**. At right angles to the flange **51** is a rearwardly and downwardly extending arm **53** having an opening at its lower end to accommodate the rivet or pin **49** for the roller **47**. As seen in FIG. 9, the roller is of a complementary peripheral configuration so as to be received and easily move within the track **19**.

At the front wall **12** of the cabinet or enclosure **10** are mounted a pair of spaced front rollers **54** which support the lower edges **55** of the side walls **16** of the drawer **13**. These rollers have a cylindrical periphery **56** with a radial flange **57** to aid in guiding movement of the drawer. The roller **54** is rotatably mounted on a rivet or pin **58** which in turn is supported upon a rearwardly

and downwardly extending arm **59** of the bracket **60**. A forward mounting portion **61** of the arm has an opening **62** and slot **62a** for suitable securing means to mount the bracket **59** upon the side surface **63** defining the opening **11** in the front wall **12** of the cabinet or enclosure **10**.

With the bracket **48** carrying the roller **47** mounted on the rear wall **17** of the drawer **13**, the brackets **60** mounted on the side surfaces **63**, and the front track bracket **29** secured to the interior surface of the front wall **12** below the opening **11**, the body part **39** of the bracket **37** is inserted into the inner end **38** of the track **19** and the mounting extension **24** is inserted into the slot **35** at an angle to the horizontal and the track **19** is pivoted around the bracket **29** so that the notch **27** engages the wall **36** due to the camming action of the angled edge **25** engaging the lower end of the slot until the track is horizontal and then the securing means **43** mount the bracket **37** in its final position.

The roller **47** is then inserted into the track **19** through the cut-away portion **28** and the drawer inserted into the cabinet or enclosure **10**. A depression or drop-off **64** is formed in the lower track surface **23** adjacent the rear end **38** thereof into which the roller **47** drops when the drawer **13** is in closed position and is thereby retained in such closed position but permitting it to be readily withdrawn. So that the person pulling the drawer **13** out of the cabinet or enclosure **10** to open position will be aware of the approach of the rear wall **17** of the drawer and prevent the latter from being unintentionally withdrawn, a protrusion **65** is provided in the top wall **22** of the track **19** and a corresponding depression **66** is formed in the lower wall **23**. Thus, when the roller **47** engages the protrusion **65**, the drawer **13** is stopped but this roller may by-pass the protrusion by lifting the front wall **15** of the drawer so that the roller **47** moves in the depression **66** to avoid the protrusion.

Having thus disclosed our invention, we claim:

1. A drawer slide assembly for supporting and guiding a drawer in an opening in a cabinet or the like comprising in combination a generally C-shaped track extending horizontally from the opening in the front of the cabinet to adjacent the rear of the cabinet, said track including a flat side wall and angular top and bottom walls, a front mounting bracket secured to said cabinet below the opening to support one end of the track and including a generally U-shaped member having mounting flanges thereon, said U-shaped member having a vertical slot therein, a vertical extension of the flat side wall on the forward end of the track adapted to be received in said slot and having a lower camming edge and an upper notched edge for interlocking engagement with said U-shaped member, a rear mounting bracket secured to the rear of the cabinet, said rear mounting bracket comprising a plastic member having mounting flanges and a central projecting part extending forwardly of the rear of the cabinet and wholly received within the inner end of the track to support said end, said projecting part having a narrow central portion diverging into enlarged end portions which terminate in angular end surfaces complementary to the angular top and bottom walls of said track and adapted to frictionally engage and be held within the end of the track, a pair of spaced drawer guide rollers mounted within the front of the cabinet supporting thereabove the sides of the drawer, a bracket secured to one side of the opening in the front of the cabinet and rotatably supporting a roller, each roller having a cylindrical periphery with a radial flange at one side, a roller bracket centrally secured to the rear of the drawer, and a roller rotatably mounted on the last mentioned roller bracket and complementarily received within said track.

2. A drawer slide assembly as set forth in claim **1**, in which said track has a depression in the bottom wall adjacent its inner end, a stop in the top wall and a vertically aligned depression in the bottom wall spaced from the front mounting bracket, and an opening in the top wall of the track adjacent the front mounting bracket.

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