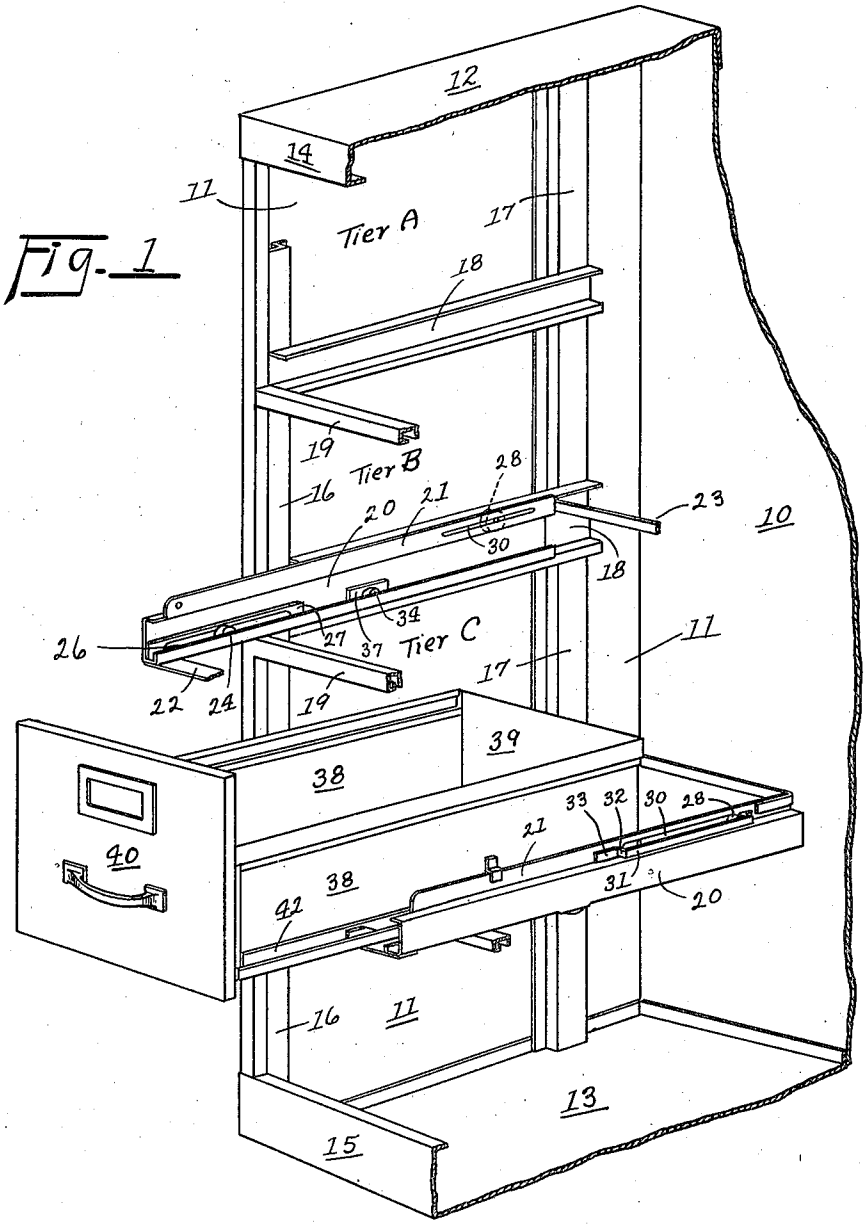
Nov. 16, 1937. F. W. TOBEY 2,099,148

FILING CABINET

Filed June 20, 1935 3 Sheets-Sheet 1

Fig. 1



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FILING CABINET

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Fig. 2

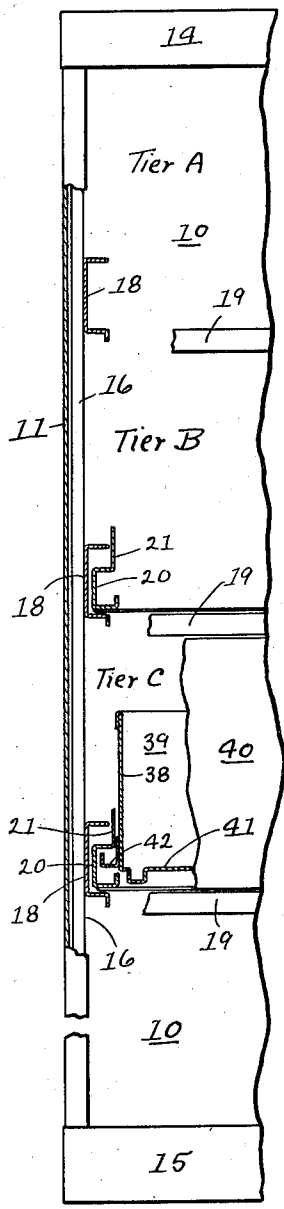


Fig. 5

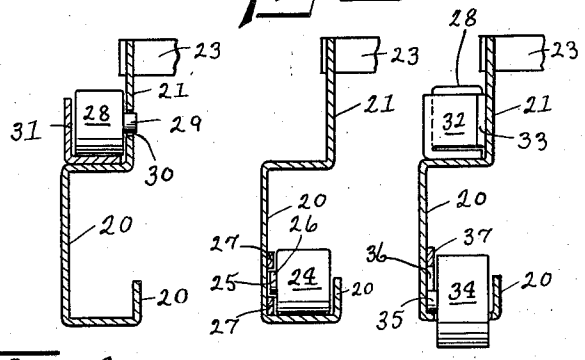


Fig. 4

Fig. 6

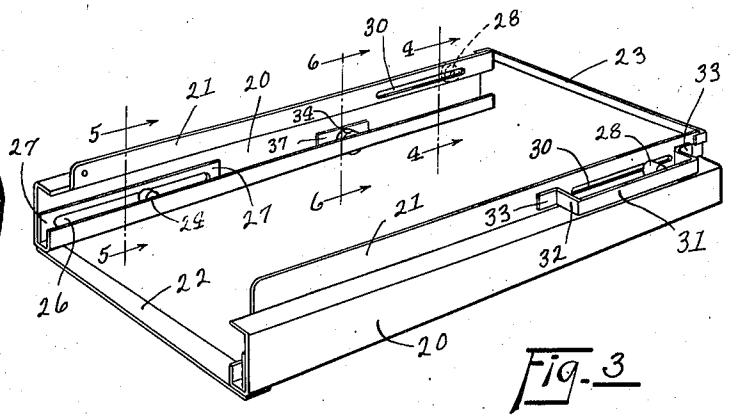


Fig. 3

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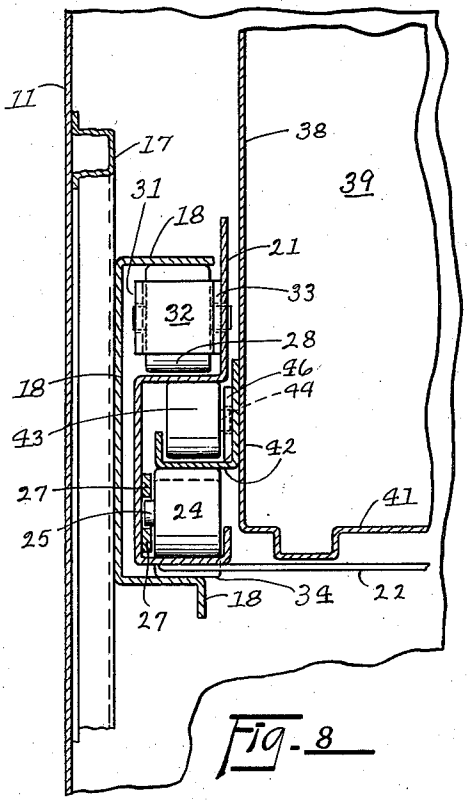


Fig. 8

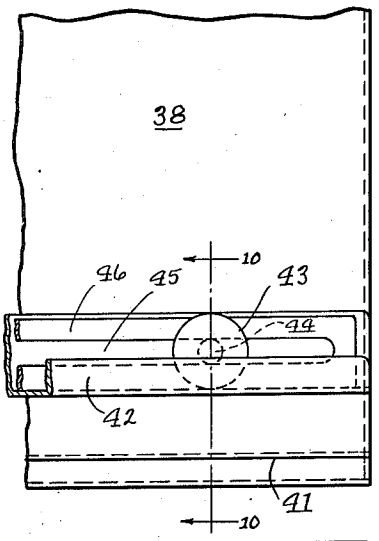


Fig. 9

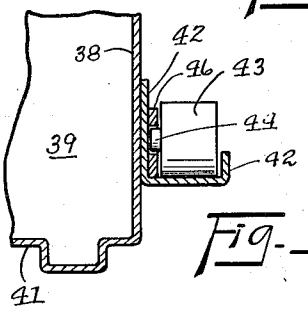


Fig. 10

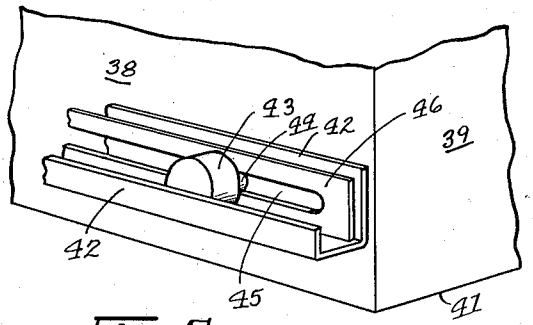


Fig. 7

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Patented Nov. 16, 1937 2,099,148

UNITED STATES PATENT OFFICE

2,099,148

FILING CABINET

Fred W. Tobey, Grand Rapids, Mich.

Application June 20, 1935, Serial No. 27,462

2 Claims. (Cl. 45—77)

The instant invention relates to filing cabinets and more particularly to cabinets having a vertical tier of drawers, each slidably supported upon an extension slide which is slidably supported by extension slide supporting guides secured to the opposite inside walls of the cabinet.

The primary objects of the present invention are to provide a filing cabinet of the character above indicated having channel bar extension slide supporting guides for slidably supporting a drawer extension slide therein; to provide a channel bar extension slide having pairs of rollers for respectively engaging within the channel bar extension slide supporting guides during the sliding movement of the extension slide relative to its supporting guides; to provide such an extension slide having pairs of rollers for respectively engaging runners of its supported drawer during the sliding movement of the drawer relative to its extension slide; to provide such an extension slide having a pair of rollers for respectively engaging its supporting guides and for respectively engaging runners of its supported drawer during the sliding movement of the extension slide relative to its supporting guides and during the sliding movement of the drawer relative to its extension slide; to provide a drawer having channel bar runners each provided with a roller for respectively engaging channel bar members of a drawer extension slide; to provide a filing cabinet having varying combinations of the supporting guide, extension slide and drawer construction above indicated; and, to provide such a cabinet construction whose parts are rigid and sturdy in construction, which is durable and serviceable in use and which is economical in construction.

An illustrative embodiment of the invention is shown in the accompanying drawings, wherein:—

Figure 1 is a fragmentary perspective sectional view of the filing cabinet and its drawer, cradle suspension and supporting guide construction;

Figure 2 is a fragmentary front elevational view thereof partly in section and partly broken away;

Figure 3 is a perspective view of the drawer cradle suspension;

Figure 4 is an enlarged sectional view on line 4—4 of Figure 3;

Figure 5 is an enlarged sectional view on line 5—5 of Figure 3;

Figure 6 is an enlarged sectional view on line 6—6 of Figure 3;

Figure 7 is a fragmentary perspective view of a drawer for the cabinet;

Figure 8 is an enlarged fragmentary sectional view of the assembly of the drawer, its cradle suspension and the cradle suspension supporting guides of the cabinet;

Figure 9 is a fragmentary side elevational view of a drawer of the cabinet; and

Figure 10 is a sectional view thereof on line 10—10 of Figure 9.

In the construction of the instant invention, the drawer extension slide, shown as a cradle suspension, is provided with opposite pairs of forward and rearward rollers, slidably disposed between inwardly facing channel bar extension slide or cradle suspension guides which are secured to the opposite inside walls of the cabinet.

This cradle suspension is formed by providing a pair of inwardly facing channel bar extension slide members secured together in spaced relation, the forward pair of rollers and a third pair of rollers within the opposite channel bar extension slides supporting the slidable drawer thereon.

This drawer is slidably supported on a pair of channel bar runners which are secured to the opposite sides of the drawer and a pair of rear rollers within these channel bar runners are adapted to engage the flat under surface of the channel bar extension slide members.

Since all four pairs of rollers ride upon flat surfaces, the rollers are able to adjust themselves laterally and without friction should there be slight differences in widths of the cabinet, drawer extension slide and/or supported drawer. The several flat surfaces on which these rollers travel are preferably of channel bar construction which provides for strength and rigidity against distortion.

Referring then to the drawings in which like parts of the structure there shown are designated by the same numerals in the several views, the filing cabinet here shown as of the vertical drawer type is provided with a vertical rear wall 10, side walls 11, top 12, base 13, a front panel 14 depending from the top and a front base panel 15, all preferably of metal and as best shown in Figure 1.

Forward angle iron members 16 and rearward angle iron members 17 are vertically secured to the inside surfaces of the opposite vertical side walls 11 in any suitable manner as by spot welding and drawer extension slide supporting guides 18, here shown as inwardly extending channel bars are rigidly fixed to the angle iron members 16, 17 transversely thereof as by spot welding in vertically spaced relation. Forward horizontally disposed channel bar struts 19 are secured at their opposite ends interjacent

the forward marginal edges of the side walls of the cabinet for strengthening purposes.

An extension slide here shown as a drawer cradle suspension slidable within pairs of the channel bar supporting guides 18 comprises a pair of spaced parallel channel bars 20 extending inwardly toward each other, the upper longitudinal lengths of which are each provided with a parallel lateral vertical flange 21. Transverse members 22, 23 are respectively secured to the forward ends of the channel bars 20 and to the rear ends of the flanged portions 21 thereof as by spot welding for maintaining these channel bar members in rigid spaced parallel relation.

The forward ends of the cradle suspension channel bars 20 are each provided with a roller 24 having a laterally projecting pin 25 extending into a horizontal slot 26 of a plate 27 secured to the inner side thereof as best shown in Figures 3 and 5 and the rearward ends of the vertically flanged portions 21 of the cradle suspension channel bars 20 are each provided with a roller 28 having a laterally projecting pin 29 extending into a horizontal slot 30 therein and maintained adjacent the outer side thereof by an angle iron spacer plate 31 whose opposite ends are flanged inwardly at 32 and thence oppositely forwardly and rearwardly at 33 where they are secured to the outer side thereof as by spot welding as best shown in Figures 3 and 4.

The medial lengths of the cradle suspension channel bars 20 are each provided with a roller 34 having a laterally projecting pin 35 extending into a vertical slot 36 of a plate 37 secured to the inner side thereof as best shown in Figures 3 and 6.

A drawer slidably supported on the cradle suspension comprises a pair of spaced side walls 38, end wall 39, front wall 40 and bottom 41. The opposite side walls 38 of the drawer are each provided with a runner 42 here shown as a channel bar fixedly secured adjacent the lower marginal edge thereof and running the length of the side wall and each channel bar is provided with a roller 43 having a laterally projecting pin 44 extending into a slot 45 of a horizontal plate 46 secured to the outer side wall of the channel bar runner 42 as best shown in Figures 7–10.

In assembly, the supporting guides 18, shown in tier A of Figures 1 and 2, receive the slidable drawer cradle suspension in the manner shown in tier B of the same figures. The rear rollers 28 thus engage and ride upon the under surfaces of the upper lengths of the channel bar supporting guides 18 and the medial vertically sliding rollers 34 thus engage and ride upon the upper surfaces of the lower lengths of these channel bar supporting guides 18, all as best shown in Figures 1 and 8.

The drawer cradle suspension, thus shown slidably supported between these channel bar supporting guides 18 in tier B of Figures 1 and 2, slidably receives the drawer in the manner shown in tier C of the same figures. The forward rollers 24 thus engage and ride upon the under surfaces of the lower lengths of the channel bar runners 42 as do the medial rollers 34 thus likewise engage and ride upon the under surfaces of the lower lengths of the channel bar runner 42, all as best shown in Figures 1 and 8. Adjustable stops, not shown, may of course be provided for preventing withdrawal of both the drawer extension slide from the cabinet and for preventing withdrawal of the drawer from its extension slide.

It will thus be seen that the filing cabinet herein shown and described is rigid and sturdy in construction, durable and serviceable in use and economical in construction.

While but one specific embodiment of the invention has been herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:

1. In a structure of the class described: a cabinet provided with a pair of forwardly-rearwardly extending guides at its opposite sides respectively, each guide having vertically spaced flat track portions extending inwardly; a pair of connected slides extending parallel with and supported on the guides respectively, each slide having a vertical side wall middle portion with a vertical medial slot bearing and a horizontal slot bearing adjacent its forward end, each slide having also a pair of vertically spaced flat track portions extending inwardly from said middle portion, the lower one of the slide's pair of track portions having a medial opening therethrough and an upwardly extending side wall spaced inwardly from said side wall middle portion, and the upper track portion of said pair having an upwardly extending inner side wall and an outer side wall attached to said inner side wall, one of said side walls having a horizontal slot bearing; a drawer having on its opposite sides respectively forwardly-rearwardly extending flat runners with laterally spaced upwardly extending side walls one of which has a horizontal slot bearing; anti-friction rollers comprising a roller between said runner and the lower track portion of the guide extending through said medial opening in the lower track portion of the slide and having an axial spindle rotatable in said vertical slot bearing, a roller between said runner and the lower track portion of the slide having an axial spindle rotatable in the horizontal slot bearing in the slide's middle side wall portion, a roller between the guide's upper track portion and the slide's upper track portion having an axial spindle rotatable in the horizontal slot bearing in one of the side walls which extend upwardly from the upper track portion of the slide, and a roller between the slide's upper track portion and said runner having an axial spindle rotatable in the horizontal slot bearing of one of the side walls of the runner, each of said rollers being laterally spaced from the side walls adjacent its opposite sides and axially movable relatively thereto to permit free forward-rearward movement of the drawer and the slide.

2. In a structure of the class described: a cabinet provided with a pair of forwardly-rearwardly extending guides at its opposite sides respectively, each guide having vertically spaced flat track portions extending inwardly, a pair of connected slides extending parallel with and supported on the guides respectively, each slide having a vertical side wall middle portion with a medial bearing and a bearing adjacent its forward end, each slide having also a pair of vertically spaced flat track portions extending inwardly from said middle portion, the lower one of the slides' pair of track portions having a medial opening therethrough and the upper track portion of said pair having an upwardly extending inner side wall having a bearing; a drawer having on its opposite sides respectively forwardly-rearwardly extending flat runners, each having an

upwardly extending side wall having a bearing; antifriction rollers comprising a roller between said runner and the lower track portion of the guide extending through said medial opening in the lower track portion of the slide and having an axial spindle rotatable in the medial bearing in the middle side wall portion of said slide, a roller between said runner and the lower track portion of the slide having an axial spindle rotatable in the forward bearing in the slide's middle side wall portion, a roller between the guide's upper track portion and the slide's upper track portion having an axial spindle rotatable in the bearing in the upwardly extending side wall of the slide, and a roller between the slide's upper track portion and said runner having an axial spindle rotatable in the bearing of the side wall of the runner, each of said rollers being laterally spaced from the side walls adjacent its opposite sides and axially movable relatively thereto to permit free forward-rearward movement of the drawer and the slide.

FRED W. TOBEY.