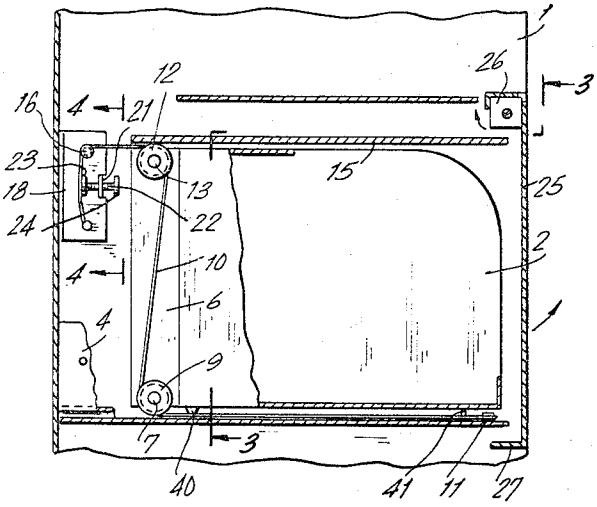
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FILING CABINETS

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FIG. 1



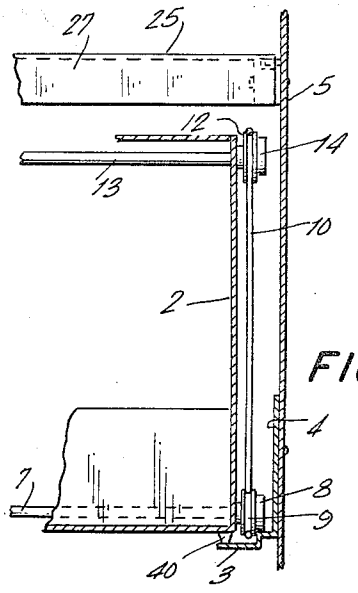


FIG. 3

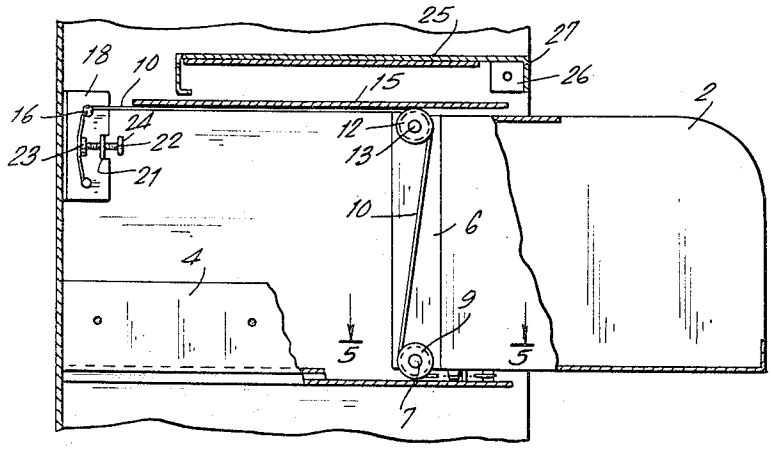


FIG. 2

FIG. 4

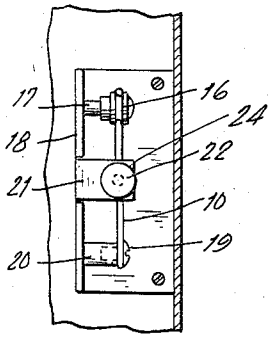
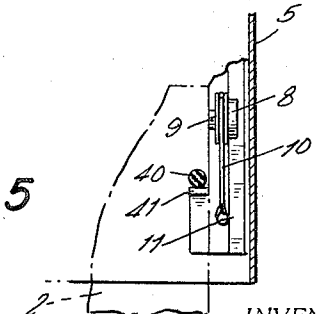


FIG. 5



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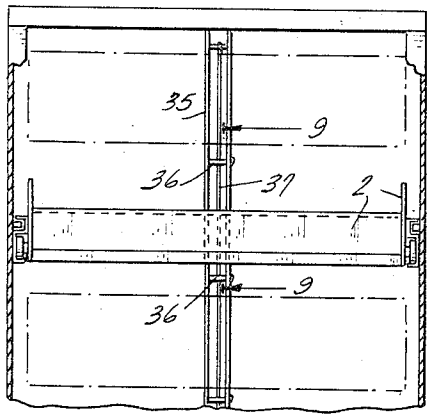
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FIG. 6



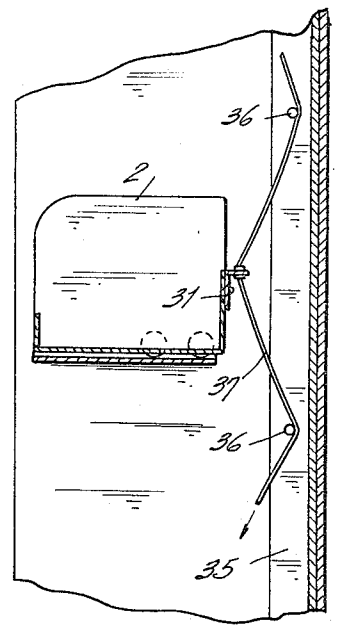


FIG. 7

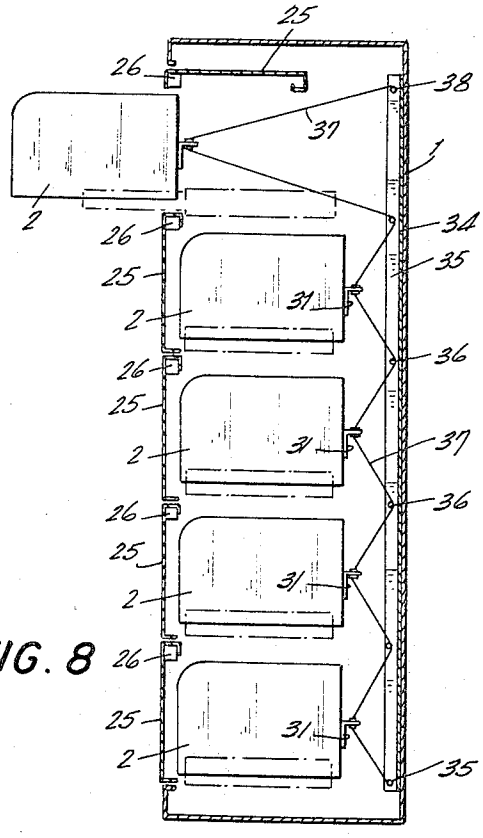


FIG. 8

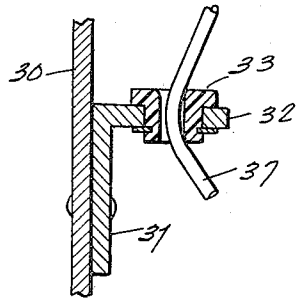


FIG. 9

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FILING CABINETS

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Filed Mar. 31, 1966, Ser. No. 539,103
4 Claims. (Cl. 312—215)

This invention relates to filing cabinets, and more particularly to a type in which a plurality of trays, shelves or drawers are arranged in superposed relationship and can be selectively drawn out of the cabinet to an extended position to thereby render their contents accessible.

In cabinets of this character, flexible cables are sometimes employed for facilitating the easy and balanced sliding movement of the trays. Often slack occurs in such cables and accordingly the required balanced ease of operation and free sliding movement is impeded. It is therefore one of the objects of the invention to provide means by which the required tension may be readily applied to the cables and maintained therein, thus assuring satisfactory balanced operation of the trays at all times. It is another object of the invention to provide additional structural features of advantage in a cabinet of this kind.

It is still another object of the invention to provide in a cabinet of this kind, means by which only one of the trays or drawers of the cabinet at a time can be maintained in an advanced or projected position and by which any attempt to advance or project a second tray will result in the retraction of the first tray.

With these and other objects to be hereinafter set forth in view, I have devised the arrangement of parts to be described and more particularly pointed out in the claims appended hereto.

In the accompanying drawings, wherein illustrative embodiments of the invention are disclosed,

FIG. 1 is a vertical sectional view of a portion of a filing cabinet and one of the trays mounted therein with its associated parts;

FIG. 2 is a similar view, showing the tray in its extended or projected position and the door raised;

FIG. 3 is a sectional view, taken substantially on the line 3—3 of FIG. 1, looking in the direction of the arrows;

FIG. 4 is a sectional view, taken substantially on the line 4—4 of FIG. 1, looking in the direction of the arrows;

FIG. 5 is a sectional view, taken substantially on the line 5—5 of FIG. 2, looking in the direction of the arrows;

FIG. 6 is a vertical sectional view of a portion of a filing cabinet and tray in another embodiment of the invention;

FIG. 7 is a sectional view, taken at right angles to that of FIG. 6;

FIG. 8 is a vertical sectional view of a complete filing cabinet in which the structural features of FIGS. 6 and 7 are embodied, and

FIG. 9 is a sectional view, taken substantially on the line 9—9 of FIG. 6, looking in the direction of the arrows.

Referring to the drawings, and more particularly to FIGS. 1 to 5 thereof, there is shown therein a portion of a filing cabinet 1, the same in this embodiment, containing a plurality of slidable trays 2, shelves or drawers, arranged one above the other in the known manner in the cabinet.

Each of the slidable trays 2 is supported by ledges 3 located adjacent to the opposite sides of the tray, each of the ledges having an upstanding flange 4 atached to one of the vertical walls 5 of the cabinet. Extending across

the lower rear portion of the tray 2 and between vertical flanges 6 provided on the tray is a rotative shaft 7 carrying a roller 8 at each of its ends, said rollers riding upon the ledges 3 which form supporting rails to thereby permit the easy back and forth sliding movement of the tray 2 to bring it to either the advanced or projected position of FIG. 2, whereby the contents of the tray are rendered accessible, or to retract the tray to its housed position within the cabinet as clearly shown in FIG. 1.

The shaft 7 also carries at each of its ends, a pulley 9 around which a flexible cable 10, preferably of stranded metallic material, extends. Each of these cables 10 is anchored at its forward end to a bracket 11, said brackets being attached to the respective side walls of the cabinet. From the pulleys 9, each of the cables 10 extends upwardly to pass around an upper pulley 12, said pulleys 12 being carried on a cross shaft 13, rotatable in the flanges 6 at the back of the tray. Rollers 14 are also carried by the upper shaft 13, said rollers engaging under guide plates 15 mounted on the walls of the cabinet. This arrangement provides for easy sliding movement of the tray.

From the pulleys 12, the cables 10 extend rearwardly to pass around pulleys 16 carried on stud shafts 17 mounted in angle brackets 18 secured to the rear wall of the cabinet. The rear end of each of the cables 10 is attached by screw 19 to a stud 20 mounted in the bracket 18. The brackets 18 are each provided with a lug 21 through which an adjusting screw 22 threadably passes, said screw being provided at one end with a head 23 for engagement against the portion of the cable 10 that is located between the anchorage point 19 of the cable and the guide roller 16.

The above-described arrangement is such that by the turning of the screws 22 the two cables 10 can be constantly maintained under the required tension in order to secure the most efficient balanced operation of the tray. By the manual turning of the adjusting screws to the required extent, the desired tension can thus be applied to the cables or either of them. The adjusting screws 22 each have a knob 24 to facilitate their manual adjustment.

The portion of the cabinet in which each of the trays is housed is normally closed by a door 25 supported by square supports 26. The closed position of the door, when the tray is in its retracted position, is shown in FIG. 1. When it is desired to have access to the tray, the cover is raised vertically until its flange 27 contacts with the square supports 26. The door is then swung to a horizontal position, the supports 26 turning with it and the door is then slid rearwardly into the cabinet to come to rest in the manner shown in FIG. 2, upon the ledges 28. The tray may thereupon be drawn out to the extended position shown in FIG. 2 for access to its contents. The sliding movement of the tray to its advanced or retracted position is facilitated by its manner of mounting as described. The tensioned cables serve to balance the tray and as stated they can be tensioned as required to meet the conditions of loading of the trays and to take up any stretch which might occur in the cables.

While the structural details of only one of the trays and its associated parts are described, it will be understood that a number of these trays may be arranged in the cabinet in the usual superposed relation or as seen for example in the structure of FIG. 8 to be now described.

In the structure of FIGS. 1 to 5 means is provided to limit the forward movement of the tray, such means consisting of the bumpers 40 provided on the bottom of the tray for contact with a stop lip 41 provided on each of the brackets 11.

In the embodiment of the invention shown in FIGS.

6 to 9 inclusive, each of the sliding trays **2** is provided on its rear wall **30** with an angle bracket **31** having a projecting horizontal flange **32** holding a bushing, eyelet or grommet **33**. Mounted on the rear wall **34** of the cabinet is a vertically disposed channel-shaped bar **35**, and located between the walls of the bar is a plurality of spaced cross pins **36**, said pins serving as guide elements for a flexible cable **37** which has one end anchored at **38** at the top of the bar **35** and has its opposite or lower end anchored at **39** at the lower end of the bar **35**. The cable **37** passes in a zigzag manner through the bushings **33** provided on the several trays and the pins **36**, as is clearly disclosed in FIG. 8.

The length of the cable **37** is such that only one of the trays at a time can be drawn out to its extended position as shown for example, at the top of FIG. 8, the remaining trays being at this time retained in retracted position. Should any one of the trays happen to be in an advanced or extended position as is the top tray in FIG. 8, and sufficient force be exerted on any other one of the trays to bring such tray forwardly, the advancement of the second tray will exert a pull on the cable that will be transmitted to the first tray and said first tray will be retracted as the second tray moves to the advanced position. This arrangement is thus one in which only one of the trays will remain in an advanced position so that the possibility of filing material in the wrong tray, and other difficulties arising when several trays are exposed, will be avoided.

Having thus described embodiments of the invention, it is obvious that the same is not to be restricted thereto, but is broad enough to cover all structures coming within the scope of the annexed claims.

What is claimed is:

1. A filing cabinet having therein a plurality of superposed slidably mounted trays, a guide member at the rear wall of each tray, a longitudinal bar on the inside of the rear wall of said cabinet, a plurality of spaced guide elements on said bar, said elements being at points intermediate said members, a cable having one end fixed on one end of said cabinet, said cable being threaded successively over said members and elements in zigzag arrangement, the other end of said cable being anchored on said cabinet, the length of said cable being sufficient to allow only one of said trays to be extended out of said cabinet at a time.

2. In a filing cabinet, a plurality of superposed slidable trays, a cable having its ends fixed in said cabinet, said cable being threaded successively from each tray and the cabinet in zigzag arrangement between the points of fixation, the length of said cable being sufficient to allow only one of said trays to be extended out of said cabinet at a time.

3. A filing cabinet according to claim **2**, wherein the guide means is a channel-shaped strip mounted vertically on the inner face of the rear wall of the cabinet, the guide means having spaced pins engaged by the cable, the guide elements on the trays being eyelets through which the cable passes, and the cable being fixed at its opposite ends to the vertical guide strip.

4. In a filing cabinet, a cabinet body containing a plurality of superposed slidable trays, a cable having its ends fixed within the cabinet, the trays each having a guide element through which the cable is slidable, the length of the cable being such that it permits only one of the trays at a time to be extended forwardly to project out of the cabinet.

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CASMIR A. NUNBERG, *Primary Examiner.*