Oct. 7, 1958 H. E. HUTZELMAN 2,855,263

SUPPORT FOR SLIDABLE DESK SHELVES

Filed Feb. 8, 1956 2 Sheets-Sheet 1

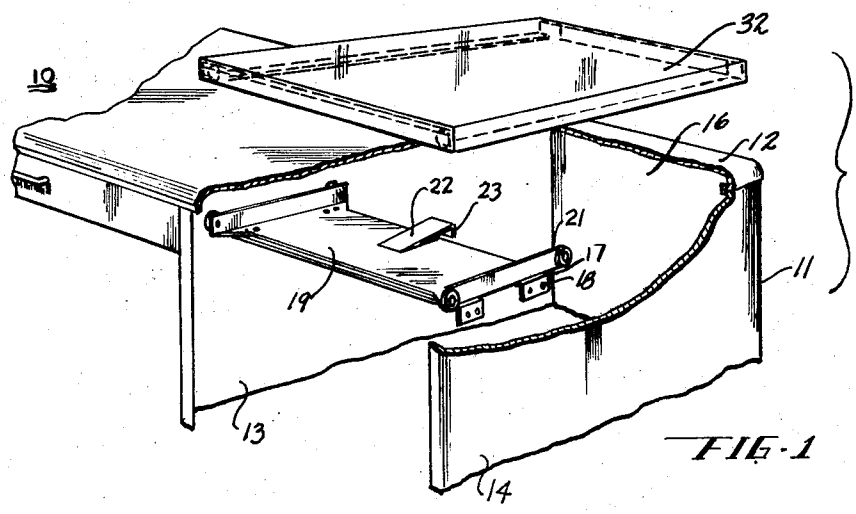



FIG. 1

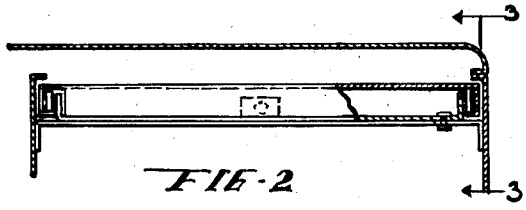



FIG. 2

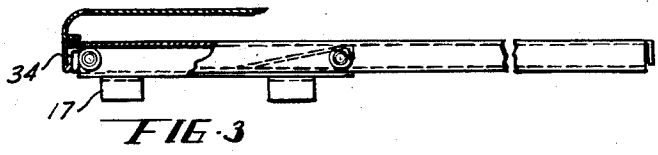



FIG. 3

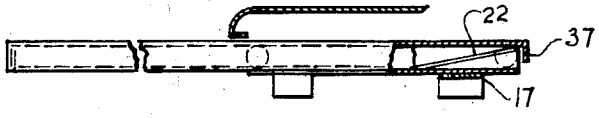



FIG. 4

INVENTOR.
HOWARD E. HUTZELMAN
BY
Richard S. Hayes
ATTORNEY

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SUPPORT FOR SLIDABLE DESK SHELVES

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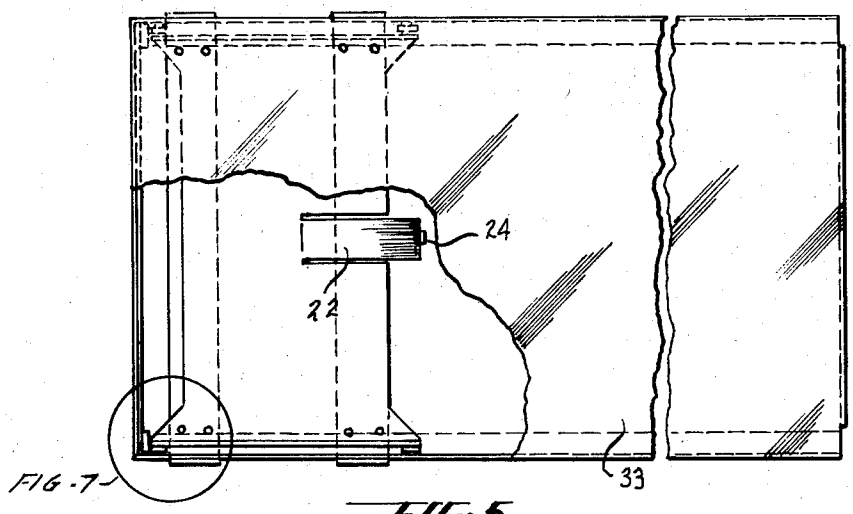



FIG. 7

FIG. 5

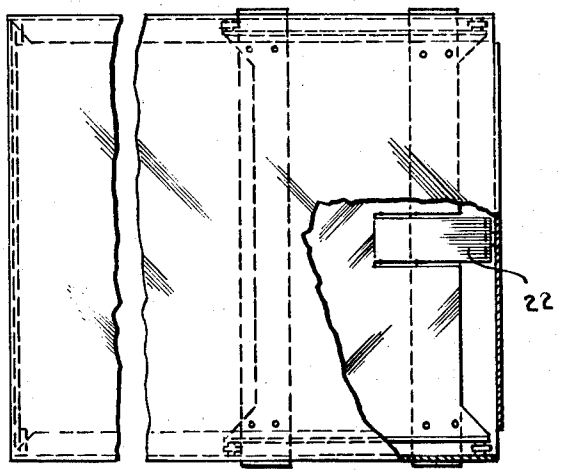



FIG. 6

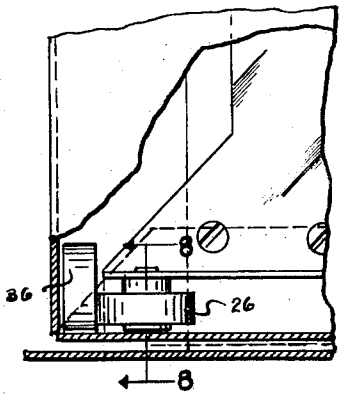



FIG. 7

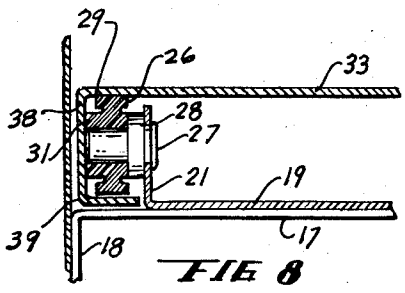



FIG 8

INVENTOR.
HOWARD E HUTZELMAN
BY
Richmond S. Hayes
ATTORNEY

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2,855,263

# SUPPORT FOR SLIDABLE DESK SHELVES

Howard E. Hutzelman, Corry, Pa., assignor to Corry-Jamestown Manufacturing Corporation, Corry, Pa., a corporation of New York

Application February 8, 1956, Serial No. 564,264

2 Claims. (Cl. 312—341)

This invention relates to improvements in metal office furniture and more particularly to that type of furniture normally provided with a work shelf that may be extended to a position for use or retracted into a place of concealment. Specifically, the invention relates to a slidable shelf and a mounting or support therefor that may constitute part of the structure of a conventional or standard desk pedestal or similar article.

It is well known that slidable shelves have heretofore been provided as a part of the standard structure of desks and the like. With the possible exception of the sliding shelves in desks that are made to order, these shelves consist simply of work surfaces of sheet metal, reinforced by marginal flanges. The side flanges of each shelf either rested on or interfitted supports that were mounted in the desk pedestal. At the time of manufacture, many of the parts forming a desk pedestal are provided with a coating of paint. The shelf itself is finish-painted, whereas the under or concealed supports therefor generally receive only a protective coating of paint. Due to the fact that the shelf, when installed, must be freely movable into and out of position of use, the contacting or interfitting parts of the shelf and shelf support must be designed to provide considerable clearance. This is particularly apparent since coatings of paint or the presence of dirt or metal particles ordinarily reduce close clearance to an extent to cause binding and difficulty in operating a movable member such as a sliding shelf.

It is not important that the protective paint on the concealed parts of a pedestal be applied with any special care or by skilled workmen. Thus it is that numerous small blobs of paint may be present on the surfaces that support or interfit the margins of a shelf. It might be that at the time of assembly the contacting painted surfaces of the shelf and support provide a sufficiently accurate fit and at the same time allow free movement of the slide without noise or vibration. It also might occur that sufficient care was exercised in the assembly of these parts as to preclude the presence of dirt or small metal particles. However, current production methods do not suggest this accuracy or care in manufacture and assembly and the result is that slides and the supports therefor, as presently constructed and assembled, are loose, noisy in manipulation, and fail to provide a substantially non-vibrating surface on which to perform work of various kinds.

The present invention is directed to and has for one of its objects the provision of a slide and support adapted for mounting in the pedestal of a desk or the like that not only enables free movement of the slide from one position to another, but provides for silent movement as well.

Another object of the invention lies in the provision of supporting structure for a slide that greatly facilitates smooth and easy movement of a slide from one position to another without vibration whatsoever.

Another and important object of the invention lies in the provision of a supporting structure for a slide that will give substantially non-wearing support to a slide, thus



eliminating the possibility of subsequent vibration and noisy operation after a period of use.

Additionally, it is an important object of the invention to provide a shelf support that, due to its non-wearing qualities, will eliminate the possibility of the shelf sagging when extended, even after a long period of use, thus indefinitely continuing the usefulness of the shelf as a work surface.

Other objects and advantages of the invention will be more fully understood from a consideration of the following specification, taken in conjunction with the accompanying drawings; in which:

Fig. 1 is a fragmentary, partially exploded perspective view showing the position of the slide support in a desk pedestal;

Fig. 2 is a fragmentary transverse sectional view of the support and slide when assembled in the pedestal;

Fig. 3 is a fragmentary side view, partly in section, of the slide in retracted position, being taken substantially as indicated by the line 3—3 of Fig. 2;

Fig. 4 is a view similar to Fig. 3 and shows the slide in fully extended position;

Fig. 5 is a top plan view of the slide in retracted position, a portion thereof being broken away to disclose certain details of the slide support;

Fig. 6 is a view similar to Fig. 5 and shows stop and release structure on the support for the slide when it is in extended position;

Fig. 7 is a greatly enlarged fragmentary top view, partly in section, and is taken as indicated by the circle in Fig. 5; and

Fig. 8 is a fragmentary vertical sectional view, taken substantially on the line 8—8 of Fig. 7, and shows in detail one of the slide supporting guides.

A particularly advantageous application of the invention is in connection with a pedestal desk. Although it may be found suitable to apply the present invention to a table or other similar article, it is contemplated as well suited for installation in a desk and, therefore, the present disclosure shows such an arrangement. A desk, a portion only of which is shown, is generally indicated by the reference numeral 10. The desk is of conventional design and, therefore, would include spaced-like pedestals 11 connected by a top 12. Each of the pedestals normally contains one or more drawers and, therefore, is essentially an open-front cabinet that is defined by inner and outer side walls 13 and 14, and rear wall 16. Since only the upper portion of the pedestal is concerned with the present invention, details of the leg or other support thereof, as well as details of the assembly of the walls, are not shown or described.

Adjacent the front or open end of the pedestal, the walls 13 and 14 are bridged by a pair of straps 17. These straps are secured to the pedestal walls, or brackets mounted thereon in permanent fashion, and by any conventional means along the depending flanges 18 thereof. The straps 17 are, as shown in the drawings, in spaced, parallel relationship and serve to mount a shelf support, generally designated by the numeral 19. This support is rigidly joined to the straps 17 and, at its ends, adjacent the pedestal walls 13 and 14, terminates in upstanding flanges 21. The width of the body of the support is somewhat less than the width at the flanged ends, and centrally of the rearmost side, an integral strip 22 is formed, the end of which extends beyond the edge of the support and terminates in a depending flange 23. A resilient plug or bumper 24 is secured to this flange and the entire strip, prior to assembly, is bent upwardly out of the plane of the support to a position substantially as shown in the drawings. This strip serves to determine the extent to which the slidable shelf may be withdrawn from the pedestal and may be conveniently reached

by hand and depressed to permit complete withdrawal of the shelf if desired.

The upstanding end flanges **21** of the support **19** are each intended to mount two glides **26**. These glides, although cylindrical, are not intended to rotate; the particular shape being found advantageous as a means of limiting the extent of their contact with certain surfaces of the slidable shelf. Referring particularly to Fig. 8, it will be noted that each of the glides is supported on a pin **27**, secured to the flange **21** and, between the glide and the flange, the pin **27** mounts a spacing washer **28**. Each glide includes a circular outer surface **29** and an end hub **31** that is also circular but of a lesser diameter. Since this hub serves as a means for guiding movement of the shelf, it extends beyond the end of the pin **27** substantially to the extent shown in the drawings. The pins **27** so locate the glides **26** that they extend slightly above the upper edges of the flanges **21**.

A slide **32**, intended to be mounted on the support above described, consists of a work surface **33** that is reinforced against bending or twisting by marginal flanges. The forward marginal flange **34** of the slide includes a return-bent portion which provides a finished edge for convenience in grasping the slide to move it into or out of the pedestal. At the ends of this return bent flange, suitable bumpers **36** are mounted, these bumpers serving as stops to limit movement of the shelf into a retracted or concealed position within the pedestal. The rear end of the shelf is defined by a depending flange **37**, the depth of which is sufficient to be in the plane of the flange **23** of the strip **22** on the support and, thus, when the shelf is extended, the flange **37** will contact bumper **24** and limit shelf movement in this direction. The sides of the shelf are formed with depending flanges **38** that continue in inwardly turned flanges **39**. Again referring to Fig. 8, it will be noted that the shelf top **33**, flange **38**, and flange **39** combine to provide shallow, lengthwise, inwardly opening channels.

It will be noted that the glides **26**, mounted on the flanges of the support **19**, are located in the side channels of the shelf. The diameter of each glide is only sufficiently less than the width of the shelf channels as to permit free movement of the shelf with respect thereto. Normally, the shelf, when in retracted position, rests uniformly on the top, rounded surfaces of the glides. As the shelf is withdrawn from the pedestal, the weight of the free or extended end thereof will tend to cause the rearmost glides to contact the flanges **39**, and with the slide in fully extended position, the foremost glides are in contact with the under surface of the shelf and the rearmost glides in contact with flanges **39**. Due to the fact that the surface contact of the glides with the shelf is along a curved surface, there is virtually nothing more than a line support. Also, due to the fact that the glides are formed from a composition and do not rotate, all noise, during movement of the shelf, is eliminated. It will be observed in Fig. 8 that the hubs **31** of the glides are substantially in contact with the depending flanges **38** of the shelf. As a consequence of this structure, lateral play of the shelf is substantially eliminated and, thus, the shelf cannot be so improperly manipulated as to become jammed.

From the foregoing descripton, it will be evident that the present invention, through the provision of properly designed and strategically located glides, presents a support for a slidable shelf that not only enables free and easy manipulation of the shelf, but supports the shelf in a substantial and practically rigid manner in position of use. Furthermore, it is pointed out that this shelf supporting structure, by the elimination of relatively rotatable parts, and extensive surfaces for sliding contact, is economical to manufacture and may be installed with ease without in any way detracting from the convenient, smooth and quiet manipulation of a work shelf carried thereby.

Although applicant has shown and described only one modification of the invention as a support for a slidable work shelf, it will be evident that variations in the details thereof may be made and are contemplated in adaptation to slidable shelves for other articles insofar as such variations are within the spirit and scope of the invention as set out in the annexed claims.

Having thus set forth my invention, what I claim as new and for which I desire protection by Letters Patent is:

1. Supporting structure for a slidable work shelf, the side margins of said shelf being flanged to form inwardly opening channels, said structure comprising a fixed plate disposed transversely of the direction of movement of said shelf, pairs of glides mounted on the ends of said plate, said glides being cylindrical and having only line contact with the side walls of said shelf channels, and laterally extending means forming a part of each of said glides engageable with the base walls of said channels and serving to prevent sidewise motion of said shelf during movement into and out of position of use, said glides being non-rotatable in use and manually rotatable to change the line contact thereof with said side walls.

2. Supporting structure for a slidable work shelf, the side margins of said shelf being flanged to form inwardly opening channels, said structure comprising a fixed plate disposed transversely of the direction of movement of said shelf, roller shaped non-rotating glides at the ends of said plate adapted to have line-like contact with the side walls of said shelf channels, hub portions on said glides extending into proximity with the base walls of said shelf channels and serving to limit sidewise motion of said shelf during movement into and out of position of use.

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