June 23, 1959 J. H. HANSEN 2,891,350

EXTENSION SLIDE FOR TABLES AND DESKS

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Fig. 1.

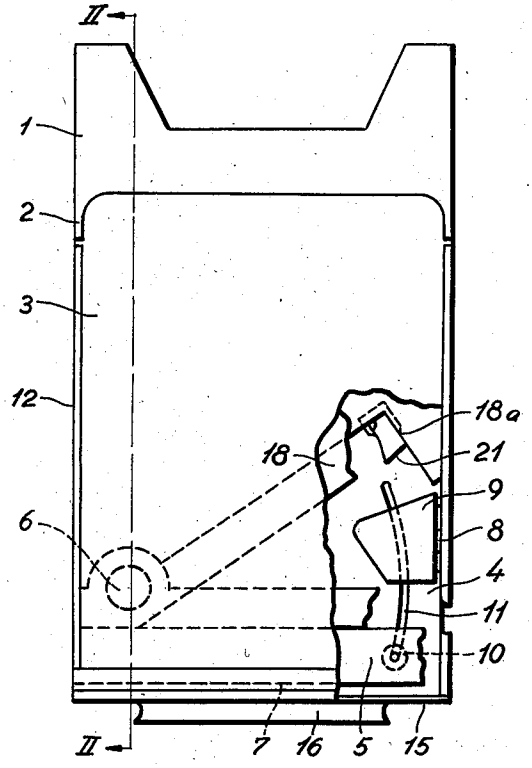


Fig. 2.

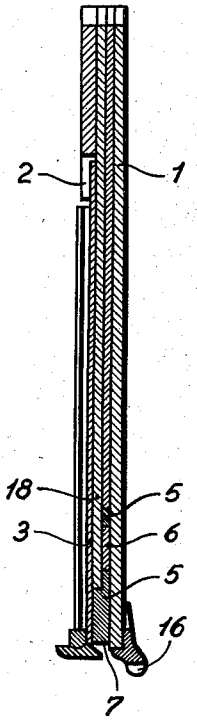
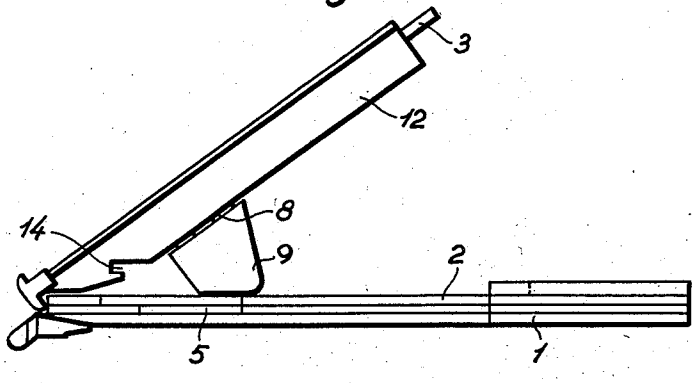


Fig. 3.



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Fig. 4.

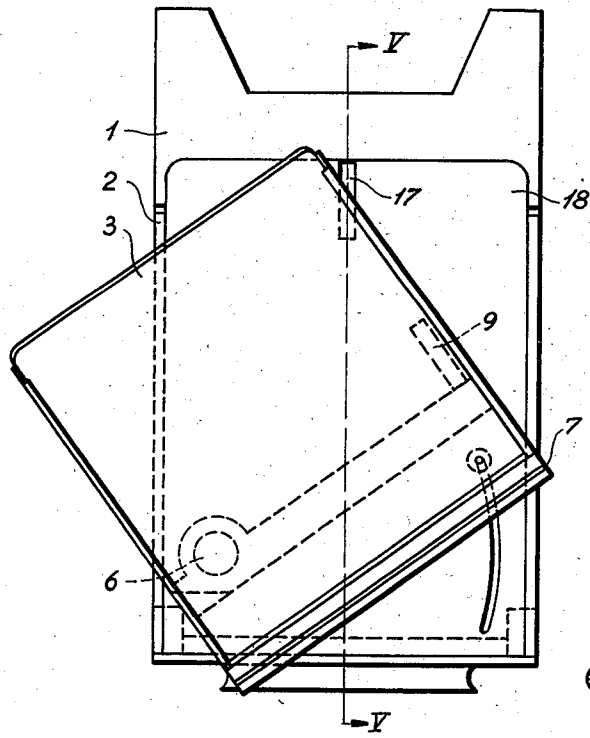


Fig. 5.

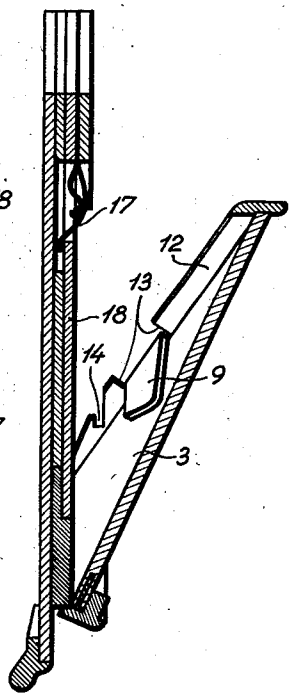


Fig. 6.

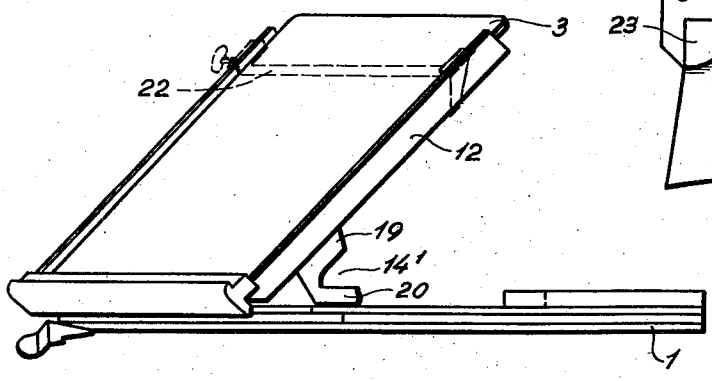
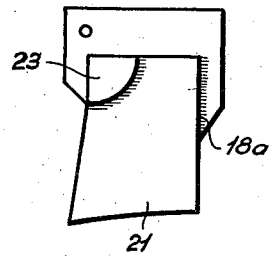


Fig. 7.



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EXTENSION SLIDE FOR TABLES AND DESKS

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5 Claims. (Cl. 45—81)

The present invention relates to improvements in and relating to extension slides, preferably for typewriter desks and similar furniture.

It has already been proposed to provide tables and desks with an extension slide to which is fitted a support for books, manuscripts and the like. It has likewise been proposed to arrange the said support for horizontal rotation upon the slide in order to adjust the support in a convenient position for reading. Further, it has been proposed to arrange the support in such a manner upon the slide that when not in use the support can be folded down upon the slide which is thereupon pushed back beneath the top of the table or desk.

Such known devices are, however, subjected to various drawbacks. Primarily their construction requires considerable depth of the space in the table or desk which necessitates special construction of the table or desk. Furthermore, the known horizontally rotatable supports are mounts upon a centrally disposed pivot pin so that the ends of the support, when angularly rotated on the slide, project a considerable distance outside the sides of the slide which is inconvenient, as likewise the pivot is subjected to undue bending actuations.

The main object of the present invention is to provide an extension slide of the kind set forth, in which these drawbacks are eliminated.

Another object of the invention is to provide an extension slide of the kind set forth which can be fitted into a table or desk in place of hitherto used flat extension slides, without requiring any essential reconstruction of the table or desk.

A further object of the invention is to provide an extension slide in which the carrier members of the support are braced throughout their entire length.

A still further object of the invention is to provide resilient means which serve to automatically lift the one end of the support to a convenient position for its subsequent manipulation.

Yet an object of the invention is to provide means for bracing the support in its angularly adjusted position on the slide in a more or less rearwardly displaced position in relation to the front edge of the table or desk top.

Further, an object of the invention is to provide means for automatically bracing the support when rotated horizontally to its final position on the slide.

These, and other objects of the invention will be evident from the following description taken in conjunction with the accompanying drawing.

Fig. 1 is a plan view of the extension slide in assembled position and with parts thereof broken off,

Fig. 2 is a section on line II—II in Fig. 1,

Fig. 3 is a side elevation of the slide with the support in elevated position,

Fig. 4 shows a plan view of the extension slide with the support in its inclined position for use,

Fig. 5 is a section on line V–V in Fig. 4,

Fig. 6 shows in side elevation the device illustrated in Fig. 4, and

Fig. 7 is a plan view of the slipway for the support lug.

The extension slide illustrated in the drawing is intended particularly for application to a typewriter desk beneath the desk top. The extension slide proper is indicated by 1, and in its upper surface it is provided with a stepped recess 2 which shall serve to accommodate when not in use a support 3 for a manuscript, a book or the like, said support having a thickness corresponding to the depth of the upper portion 2 of the recess, and a size approximately equal to the dimensions of the entire recess. The lower end in Fig. 1 of the recess constitutes a depression 4 within which a carrier member 5 for the support 3 is disposed. This carrier member is pivotally mounted on a vertical pivot 6 rigidly attached near the one side of the extension slide within the depression 4 and it extends across the slide to the other side thereof. The foremost end of the support 3, i.e. the lower end in Fig. 1, is attached to the carrier member by means of a hinge 7 so that the support can be tilted out of the recess 2 by turning on said hinge. The depression 4 is shaped in such a manner that after raising the support 3, the carrier member 5 together with the support can be rotated on pivot 6 to an angular position in relation to the longitudinal axis of the extension slide and at the same time retain the support 3 in its tilted position.

In the angularly rotated position of the carrier member 5 the raised support 3 is supported by means of a lug 9 which by means of a hinge 8 is attached to the rear side of the support 3 at the edge thereof farthest from the pivot 6. This lug 9 is so disposed that it can be turned inwardly against the rear surface of the support 3, and it lies within the depression 4 when the support is lowered into the recess 2. When tilting the support 3 the operator holds the lug 9 against the rear side of the support until this is turned horizontally to an angular position in relation to the longitudinal axis of the extension slide 1, whereupon the lug is released, and by its own weight it will turn to a position at a right angle to the support and rest upon the surface of the recess 2 as shown in Fig. 3.

As shown in Figs. 1 and 4 the carrier member 5 at its end farthest from the pivot 6 has a guide pin 10 projecting downwardly through a curved slot 11 in the base of the depression 4 with center in the pivot 6.

Along each of its sides the support 3 is provided with an edge strip 12. The edge strip farthest from the pivot 6 may be provided with a cut-away portion 13, see Fig. 5, within which the lug 9 is mounted in such a manner that when turned at a right angle to the support 3 its one edge abuts the surface of the support so that it is prevented from being turned beyond its perpendicular position thereon. Further, the same edge strip may be provided with a rearwardly open incision 14 nearer the hinge 7 than the lug 9 and so positioned and shaped that it may engage the front edge of the table top (not shown) and at the same time hold the support 3 in its tilted position. Owing to this incision 14 the extension slide 1 with the support 3 can be moved somewhat further back on the desk than the case is when the lug 9 is used. For the same purpose the lug 9 may be replaced by a lug 19 as shown in Fig. 6, which lug is provided with a rearwardly open incision 14'. In this instance incision 14 is dispensed with.

The foremost or lower end 15 of the extension slide 1 is provided with a grip 16, as likewise stops (not shown) may be provided to limit the extraction of the extension slide in relation to the desk.

Centrally disposed in the rear or upper end of the recess 2 there is a cavity for a leaf spring 17 so shaped that it is depressed into the cavity by the support 3 when turned down into recess 2, the support being held resilient-

ly in the recess when the extension slide is pushed beneath the desk top. Upon drawing the extension slide 3 outwardly from the desk top the leaf spring 17 will lift the rear end of the support 3 sufficiently out of the recess 2 to permit it being gripped for further manipulation.

The upper part 2 of the recess is provided with a cover sheet 18, the foremost end of which projects somewhat over the depression 4. Upon rotating the carrier member 5 horizontally upon its pivot 6 the rearmost edge portion of the carrier member will enter the cavity between the base of depression 4 and the projecting part of the cover sheet 18. In this manner there is provided a rigid support along the entire length of the carrier member 5 and consequently relieving pressure on the pivot 6.

As shown in Fig. 1 there is arranged a slipway 21 within the depression 4 in the path of the lug 9 when in its vertical position. The cover sheet 18 has an edge 18*a* which serves as lateral support for the lug 9. In Fig. 6 is shown a lug 19, the lower rear edge of which is rounded at 20. The slipway 21, see Fig. 7, has an inclined surface extending from the base of the depression 4 up to the upper surface of the cover sheet 18, so that the lug 19 will slide up the incline and automatically take up its position to hold the support 3 in rearwardly inclined position upon the extension slide. The external edges of the slipway project beneath the cover plate and the inclined surface is preferably concave along its entire length so that the lug 19 is imparted a drag towards the aforesaid edge 18*a* of the cover sheet 18 in order to take up a position at a right angle to the support 3. Furthermore, the upper end of the inclined surface farthest from the edge 18*a* is provided with a projection 23 so shaped that it slightly locks the lug in position to prevent its unintended displacement from its active position.

The extension slide is described in the above in connection with a desk, but it is possible to build it with an individual holder without alteration of its construction, and the combined holder and extension slide may then be placed upon any table or desk, and if desired be detachably fixed thereto while in use.

As shown in Fig. 5 the support 3 may be provided with a reading ruler 22 or the like.

I declare that what I claim is:

1. An extension slide of the kind set forth, comprising

in combination, an elongated base plate having a stepped recess in its upper surface, a cover sheet extending over the upper portion of the stepped recess and projecting somewhat over the lower portion of the said recess to form a cavity, a pivot vertically attached to the base plate adjacent one side of the said recess in proximity of the one end of the base plate, a carrier member mounted for horizontal rotation on said pivot within the lower portion of said stepped recess and extending across the width of the slide, a portion of said carrier member dimensioned to enter the said cavity between the said cover sheet projection and the base of the lower portion of the stepped recess, a manuscript support dimensioned to fit into the stepped recess, hinge members attaching one end of said support for vertical rotation on said carrier member, and a lug hingedly attached to said support at the side thereof farthest from the said pivot to hold the support in a rearwardly inclined position in relation to the slide.

2. An extension slide as claimed in claim 1, in which the lug has a rearwardly rounded lower edge, and in which there is provided a slipway for said lug between the base of the lower portion of the stepped recess and the upper surface of the cover sheet.

3. An extension slide as claimed in claim 1, in which there is provided a slipway for the lug between the base of the lower portion of the stepped recess and the surface of the cover sheet, said slipway having concave surface throughout its entire length.

4. An extension slide as claimed in claim 1, in which there is provided a slipway for the lug between the base of the lower portion of the stepped recess and the surface of the cover sheet, said slipway being provided with means at the upper end of the slipway for locking the lug in a position perpendicular to the support.

5. An extension slide as claimed in claim 1, in which the lug is hingedly connected to the support for rotation towards the rear side of the support only.

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