Aug. 19, 1952 F. W. PREUSS 2,607,651

SEWING MACHINE DESK CABINET

Filed May 3, 1952 2 SHEETS—SHEET 1

Fig. 1.

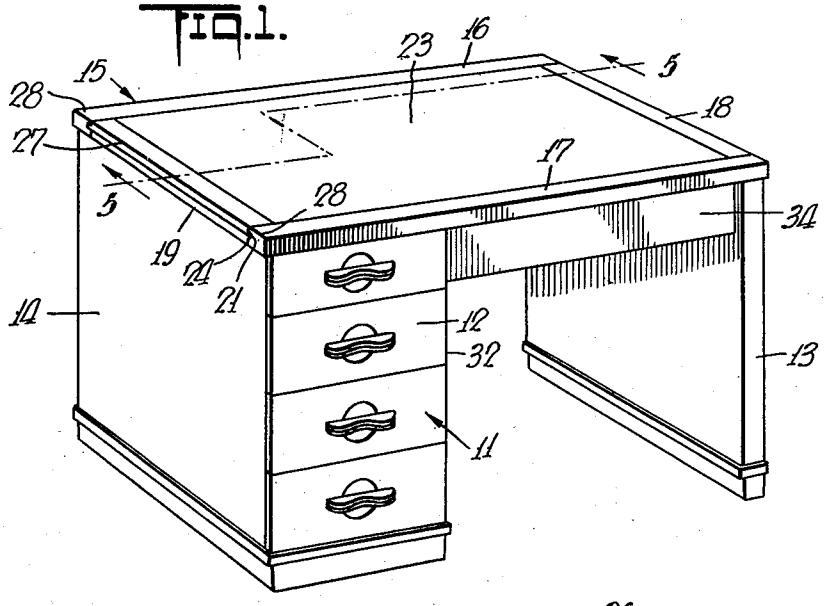


Fig. 2.

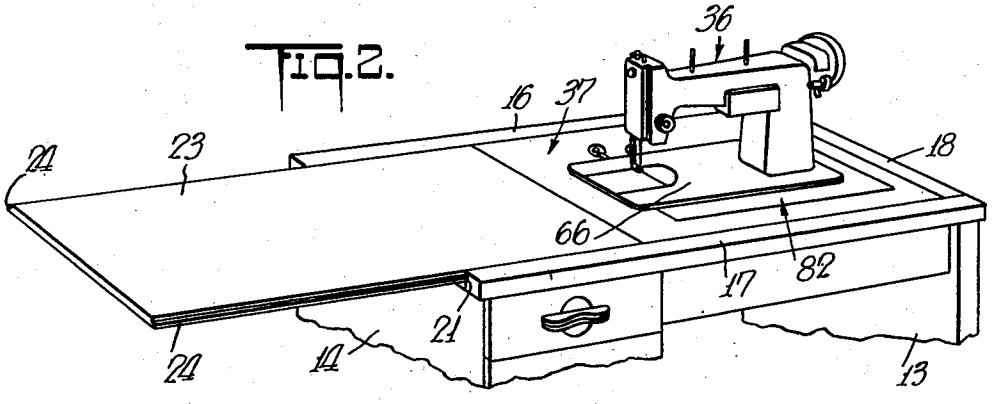
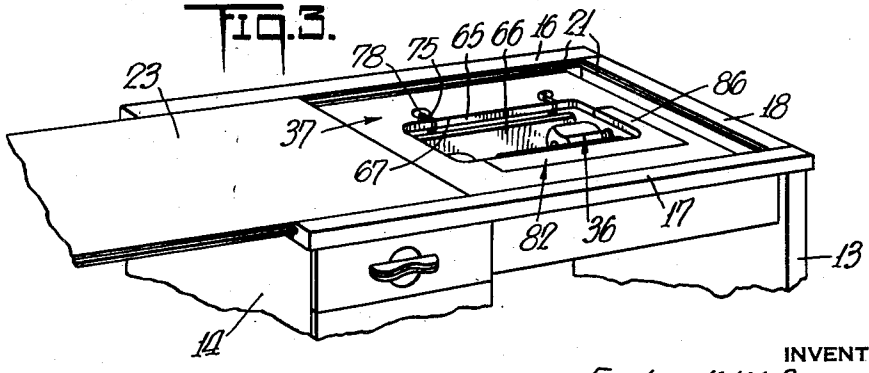


Fig. 3.



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FIG. 4.

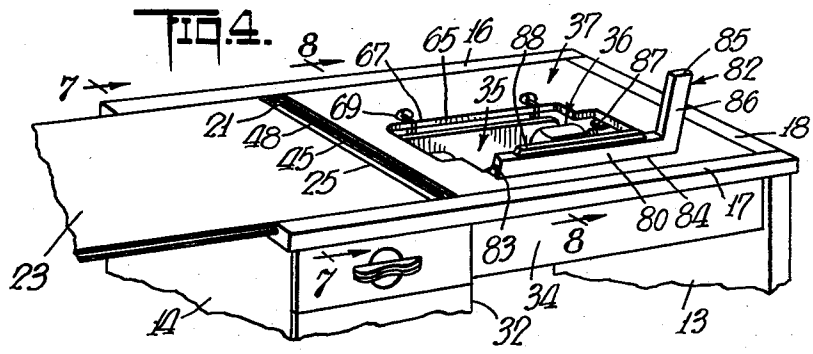


FIG. 5.

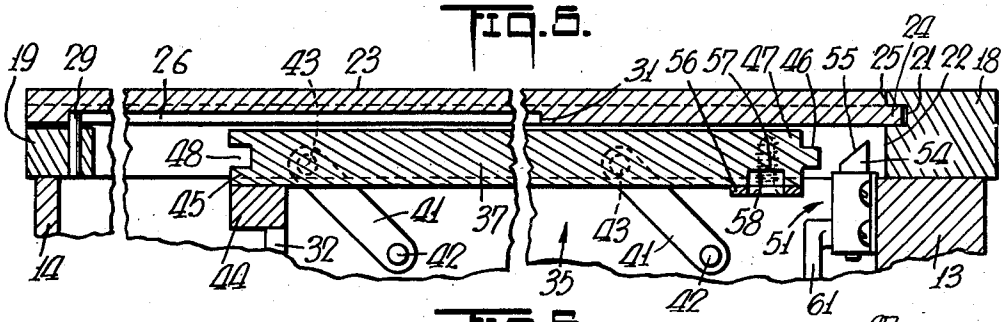


FIG. 6.

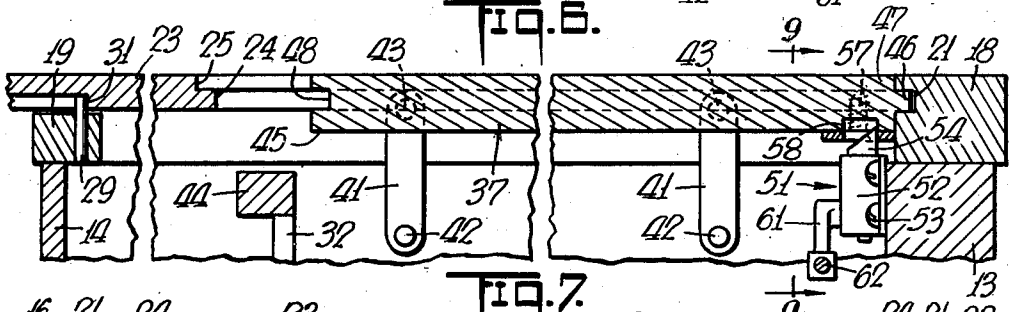


FIG. 7.

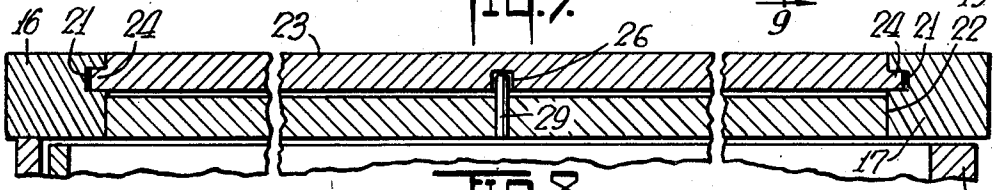


FIG. 8.

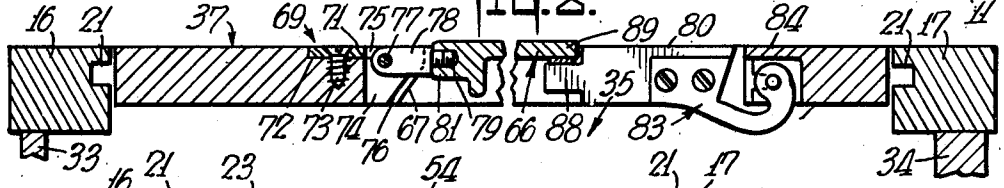
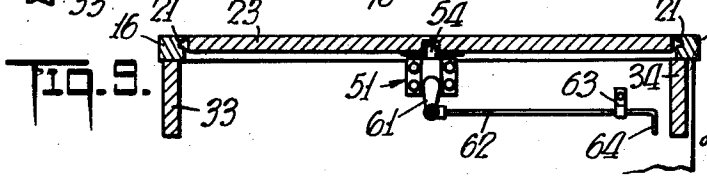


FIG. 9.



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SEWING MACHINE DESK CABINET

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Application May 3, 1952, Serial No. 285,892

9 Claims. (Cl. 312—30)

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This invention relates to desk cabinets, more particularly of the type to mount a sewing machine for concealment when not in use.

As conducive to an understanding of the invention, it is noted that where a sewing machine cabinet is in the form of a desk and the sewing machine is pivotally mounted thereon so that when not in use, it may be concealed in a well covered by a suitable cover panel which forms the desk top, as such desk cabinet is intended for use in a conspicuous place such as a living room, if any indication is offered that in fact the desk cabinet is not really a desk, the unit loses all attractiveness as a fine piece of furniture.

It is accordingly among the objects of the invention to provide a sewing machine desk cabinet of the above type which is devoid of the telltale extension panels superposed as an extra ply over the top of the cabinet and devoid of the hinges exposed to view at the end edge of the cabinet top, so that there is no suggestion even to a critical observer that the cabinet when closed serves any function other than that of an ordinary writing desk.

According to the invention, a slidable cover panel which extends flush with the outline of the top of the desk is superposed in closed position over the sewing machine support which is mounted to afford clearance for such slidable cover panel and in use of the sewing machine is displaced to extend into the plane of the slidable cover panel after the latter is moved to open position.

In the accompanying drawings in which are shown one or more of various possible embodiments of the several features of the invention,

Fig. 1 is a perspective view of the sewing machine cabinet in closed position,

Fig. 2 is a fragmentary perspective view of the sewing machine cabinet in operating position,

Fig. 3 is a view similar to Fig. 2 with the sewing machine in the well of the cabinet,

Fig. 4 is a view similar to Fig. 3 showing the sewing machine just prior to removal thereof from the well,

Fig. 5 is a longitudinal sectional view taken along line 5—5 of Fig. 1,

Fig. 6 is a view similar to Fig. 5 with the supporting panel for the sewing machine in raised position,

Fig. 7 is a transverse sectional view taken along line 7—7 of Fig. 4,

Fig. 8 is a view similar to Fig. 7 taken along line 8—8 of Fig. 4, and

Fig. 9 is a transverse sectional view taken along line 9—9 of Fig. 6.

Referring now to the drawings, the sewing machine cabinet which desirably is in the form of a kneehole desk, has a drawer section 11 at one end thereof, with a plurality of drawers 12

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slidably mounted in conventional manner. The other end of the desk desirably has an upright supporting member 13 which may be in the form of a plurality of legs, or as illustratively shown herein, a standard which extends transversely across the entire width of the desk parallel to the drawer section.

Supported by the upper edges of the end wall 14 of the drawer section and the standard 13 is a substantially rectangular top frame 15 which desirably comprises a pair of guide strips 16 and 17 extending longitudinally along the rear and front edges of the desk, respectively.

The frame 15 also desirably includes an abutment strip 18 affixed to the upper edge of the standard 13 and a brace strip 19 affixed to the upper edge of end wall 14, said abutment strip 18 and brace strip 19 extending transversely between the adjacent ends of guide strips 16 and 17.

The height of the standard 13 and the end wall 14 is such that the top surfaces of the guide strips 16 and 17 and the abutment strip 18 will be in the same horizontal plane at a convenient level above the floor, say 31 inches, for example.

The frame of the desk top has a rectangular slidable cover panel 23 rabbeted thereinto. To this end a tongue 24 along each of the longitudinal edges of the cover panel coacts with a corresponding longitudinal groove 21 in the inner surface 22 of guide strips 16 and 17 respectively so that the top surface of the panel desirably is flush with the top surface of said guide strips 16 and 17. The inner transverse edge 25 of the cover panel 23 also desirably has a rabbet tongue 24 extending transversely thereacross which coacts with a transverse groove 21 in abutment strip 18 when the panel is in closed position, as shown in Figs. 1 and 5.

As shown in Fig. 1, the length of the cover panel 23 is such that when in closed position, the outer transverse edge 27 thereof will be flush with the ends 28 of guide strips 16 and 17, and with the brace strip 19 which is of thickness such that the cover panel 23 may readily slide thereover, as shown in Figs. 5 and 6.

As shown in Figs. 5 and 7, the cover panel 23 desirably has a longitudinal groove 26 in the undersurface thereof, preferably centrally located therein, and a stop pin 29 affixed in brace strip 19 protrudes upwardly into said groove 26. The groove 26 desirably terminates as at 31 at such a distance from the transverse edge 25 of the cover panel 23 that when the cover panel 23 is moved to open position, as shown in Fig. 4, and the end 31 of the groove 26 abuts against the pin 29 to limit the movement of the cover panel, the transverse edge 25 will be sufficiently spaced from the ends 28 of the guide strips 16 and 17

for adequate support for such cover panel 23 by the connecting tongues and grooves 24, 21.

Extending longitudinally between the standard 13 and the inner wall 32 of the drawer section 12 at the rear and the front of the desk respectively, and depending from the guide strips 16 and 17 are a pair of substantially rectangular skirts 33 and 34 which, together with the adjacent portions of the inner wall 32 and standard 13 define a well 35 in which an operating suit such as a sewing machine 36 may be positioned.

The sewing machine 36 is desirably mounted on a horizontal, substantially rectangular supporting plate 37 of width slightly less than the distance between front and rear skirts 34 and 33. The plate 37 is mounted so that it may readily be moved from a position beneath the plane of the undersurface of cover planel 23 to a position in which its top surface is flush with the top surfaces of guide strips 16 and 17 and abutment strip 18.

To this end, a parallel motion linkage is provided which comprises two pairs of links 41 of equal length, each pair of links being pivoted at their lower ends as at 42, to the inner surface of the front and rear skirts 34 and 33 respectively, and at their upper ends as at 43 to the edges of the supporting plate 37 extending parallel to said front and rear skirts, respectively.

To limit the downward movement of the supporting plate, a stop strip 44 extending transversely across the desk is affixed to the upper edge of inner wall 32 beneath the undersurface of cover panel 23 so that when the parallel motion linkage is in the retracted position shown in Fig. 5, the end edge 45 of the supporting plate 37 will rest on said stop strip.

As shown in Fig. 6, the supporting plate 37 desirably has a transverse tongue 46 in the end edge 47 thereof which coacts with the transverse groove 21 in abutment strip 18, when the parallel motion linkage is in vertical position, as shown in Fig. 6, with the top surface of the supporting plate 37 flush with the top surfaces of strips 16, 17 and 18.

The end edge 45 of the supporting plate 37 desirably has a transverse groove 48 therein to receive the transverse tongue 24 in the end 25 of cover panel 23. Thus, when the supporting plate 37 is in its uppermost extended position, as shown in Fig. 6, the cover panel 23 can be slid manually from its outermost position shown in Figs. 4 and 6, to move tongue 24 thereof into notch 48. As a result, the entire top surface of the desk will be substantially uninterrupted.

Although the supporting plate 37 will remain in its uppermost extended position, as shown in Fig. 6 by reason of the vertical position of the parallel motion links 41, and the abutment of cover panel 23 thereagainst, a locking assembly 51 is desirably provided to releasably retain the supporting plate 37 in its uppermost position.

As shown in Figs. 5, 6 and 9, the locking assembly desirably comprises a latch member 52 affixed by screws 53 to the inner surface of standard 13 in well 35. The latch member has a plunger 54 with a cam surface 55, in the path of movement of a complementary latch plate 56 affixed by screws 57 to the undersurface of supporting plate 37 at the end 47 thereof. The latch member and latch plate are so arranged that when the supporting plate 37 is lifted and moved to the right due to the parallel motion linkage, from the position shown in Fig. 5, to the position shown in Fig. 6, the latch plate 56 will ride over the cam surface 55 of the plunger 54 forcing the latter downwardly against the tension of a conventional coil spring (not shown) and when the supporting plate 37 is in its uppermost position, the plunger 54 will snap into a recess 58 in the latch plate to lock the supporting plate in position.

In order to release the supporting plate 37 so that it may be moved into well 35, the latch member 52 has a lever 61 controlling the plunger 54. The lever is in turn actuated by a controlling rod 62 connected at one end thereto and guided by a bracket 63, the handle 64 of the rod 62 being positioned adjacent the front skirt 34, slightly to the rear thereof.

In the illustrative embodiment herein shown, the supporting plate 37 desirably has a substantially rectangular opening 65 therethrough of dimensions but slightly greater than those of the substantially rectangular base 66 of the sewing machine 36, the edge 67 of said opening being inwardly inclined, as shown in Fig. 8. Affixed to supporting plate 37 adjacent the edge 67 thereof are a pair of brackets 69, each of which, as shown in Fig. 8, has a mounting portion 71 affixed in a recess 72, as by screws 73. The bracket 69 desirably has a pair of spaced parallel legs 74 formed integral with mounting portion 71 and depending into a notch 75 in edge 67, the front edges 76 of legs 74 also being inwardly inclined, as shown in Fig. 8.

Pivotally mounted as by a pin 77 between the legs of each bracket, is a link 78, the outer end 79 of which is affixed in any suitable manner to the adjacent edge 81 of the base 66. Thus the base of the sewing machine may be pivoted in a clockwise and counterclockwise direction about pins 77.

In order to retain the base of the sewing machine in horizontal position substantially flush with the surface of supporting plate 37 so that the machine will be set for use, the leg 80 of a substantially L-shaped retaining member 82 is pivotally mounted as by hinges 83 to the edge 84 of opening 65. The end 85 of leg 86 of the retaining member, when the latter is in horizontal position, seats on a stop plate 87 affixed to the undersurface of supporting plate 37 and extending laterally into opening 65. The free edge of leg 80 desirably has a flange 88 therealong which, when the locking member 82 is in horizontal position, as shown in Fig. 8, may be positioned beneath the adjacent edge 89 of base 66.

To use the sewing machine, the cover panel 23 is slid to the left from the position shown in Fig. 1, to the position shown in Fig. 3. The supporting member 82 is then pivoted upwardly to the position shown in Fig. 4. The user then may lift the supporting plate 37 from the position shown in Figs. 3 and 5 to the position shown in Figs. 4 and 6. By reason of the parallel motion linkage 41, such lifting of the supporting plate 37 will also cause it to move to the right until the tongue 46 enters groove 21. At this time the plunger 54 will snap into recess 58 to lock the supporting plate 37 in its uppermost position.

The sewing machine 36 is then pivoted upwardly on its pivots 77 until enough clearance is provided to permit the supporting member 82 to be pivoted downwardly to horizontal position with the end 85 of leg 86 resting on stop plate 87. The machine may then be released until the edge 89 thereof rests on flange 88 to securely hold the machine in operating position. The user then need merely slide the cover panel 23 to the right

until tongue 21 thereof enters groove 48 in supporting plate 37 and the machine is ready for use.

With the construction above described, when the cabinet is in closed position, shown in Fig. 1, no hinges are visible nor is the top of the cabinet of double thickness as in the case of the conventional kneehole desk sewing machine cabinet of the same general type, where one or more cover leaves are hingedly mounted at their ends to pivot over the well of the cabinet to conceal the latter. Consequently, the kneehole desk cabinet herein is undistinguishable from a standard kneehole desk so that it may be placed in a conspicuous place in a living room without detracting from the attractiveness thereof and without any indication that it is not a fine article of furniture in the form of a desk rather than a sewing machine cabinet.

Although the unit herein has been shown and described as a cabinet for a sewing machine, it is of course to be understood that other types of operating devices such as a typewriter could be mounted to the supporting plate 37 in the same manner as the sewing machine 36.

As many changes could be made in the above construction, and many apparently widely different embodiments of this invention could be made without departing from the scope of the claims, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A desk cabinet comprising a substantially rectangular frame, means to support said frame in horizontal position at substantially desk height from the floor, a horizontal machine supporting plate, parallel motion linkage displaceably connecting said plate to said support, means arresting said plate at one extremity of its displacement in position directly beneath the horizontal plane of said frame, means arresting said plate at the other extremity of its displacement in position substantially flush with the horizontal plane of said frame and a cover panel slidably mounted on said frame and extending over said supporting plate when the latter is in its lower limiting position.

2. The combination recited in claim 1, wherein the links of the parallel motion linkage extend downward from the horizontal supporting plate, in which the means that limits displacement in the lower position of said plate is a stop strip transversely of the cabinet upon which one end of said plate rests in lower position and in which the means limiting displacement at the upper position of said plate is by tongue and groove coaction between the opposite end of said plate and the corresponding part of said frame.

3. A desk cabinet comprising a substantially rectangular frame having a pair of spaced parallel guide strips and an abutment strip extending transversely between said guide strips at one end thereof, means to support said frame in horizontal position at substantially desk height from the floor, a horizontal supporting plate normally positioned directly beneath the horizontal plane of the top surface of said frame, a cover panel slidably mounted on said frame and movable from closed position over said supporting plate longitudinally away therefrom to expose the latter, a parallel motion linkage carrying said supporting plate and arranged for movement of the latter upwardly and toward said abutment strip from said horizontal position beneath the plane of said frame to a horizontal position substantially flush with the horizontal plane of the top surface of said frame with the forward edge of said supporting plate against said abutment strip, said supporting plate having an opening therein, whereby an operating unit having a base may be pivotally mounted to said supporting plate so as to be movable into said opening and means on said supporting plate to retain the base of said operating unit in horizontal position.

4. The combination set forth in claim 3 in which said guide strips and the adjacent edges of said cover panel have complementary means slidably to mount said cover panel on said guide strips, and said abutment strip and the forward edge of said supporting plate have complementary tongue and groove conformations which coact when said supporting plate is substantially flush with the horizontal plane of said frame.

5. The combination set forth in claim 3 in which an end of the cover panel is against the abutment strip when the cover panel is in closed position and said end and said abutment strip have complementary tongue and groove conformations which coact when said cover panel is in closed position.

6. The combination set forth in claim 3 in which said guide strips and the adjacent edges of said cover panel have complementary means slidably to mount said cover panel on said guide strips, said abutment strip and the forward edge of said supporting plate have complementary tongue and groove conformations which coact when said supporting plate is substantially flush with the horizontal plane of said frame, an end of said cover panel is movable against the abutment strip when the cover panel is in closed position, said end and said abutment strip having complementary tongue and groove conformations which coact when said cover panel is in closed position and said rear edge of said supporting plate has a conformation complementary with the conformation on the end of said cover panel, whereby when the forward edge of said supporting plate is against said abutment strip and the cover panel is moved to bring said end thereof against the rear edge of said supporting plate, the complementary conformations on the rear edge of the supporting plate and on the end of said cover panel will coact.

7. A desk cabinet comprising a substantially rectangular frame having a pair of spaced parallel guide strips and an abutment strip extending transversely between said guide strips at one end thereof, means to support said frame in horizontal position at substantially desk height from the floor, a pair of skirts depending from said guide strips respectively and extending longitudinally thereof, a horizontal supporting plate normally positioned directly beneath the horizontal plane of the top surface of said frame, two pairs of links pivoted at their upper ends respectively to opposed said edges of said supporting plate and at their lower ends to said pair of skirts respectively to define a parallel motion linkage for movement of said supporting plate upwardly and toward said abutment strip from said horizontal position beneath the plane of said frame to a horizontal position substantially flush with the horizontal plane of said frame, with the forward edge of said supporting plate against said abutment strip, a cover panel slidably mounted on said frame and movable from closed position over

said supporting plate longitudinally away therefrom to expose the latter, said supporting plate having an opening therein whereby an operating unit having a base may be pivotally mounted to said supporting plate so as to be movable into said opening and means on said supporting plate to retain the base of said operating unit in horizontal position.

8. The combination set forth in claim 7 in which the supporting means for said frame near the abutment strip has a latch member mounted thereon, said latch member having a plunger in the path of movement of the forward edge of said supporting plate, and a recess in the underface of said plate to receive said plunger to retain the supporting plate in raised position.

9. The combination set forth in claim 7 in which a brace strip extends transversely across the guide strips at the ends thereof opposed to said abutment strip, said brace strip being of such thickness that the cover panel may slide thereover, and said brace strip has an upstanding pin mounted thereon which is positioned in a longitudinal groove in the undersurface of said cover panel to limit the sliding movement of the latter.

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