

Filed July 13, 1948

2,588,163

2 SHEETS--SHEET 1

Fig. 2 is a perspective view of a desk assembly. It shows a desk top (5) supported by a leg (6). On the left side, there are two drawers (8) with circular handles. A tray assembly (4) is mounted on the desk top. The tray assembly includes a front panel (2) with a handle (10) and a latch (24). The tray is supported by a frame (21) and has a bottom panel (29). A spring (34) is shown connecting the front panel to the frame. Other components labeled include 22, 23, 30, 31, 32, 33, and 35.

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DRAWER FOR TYPEWRITERS, INCLUDING
ELEVATING TYPEWRITER SUPPORTS

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2 SHEETS—SHEET 2

Fig. 3

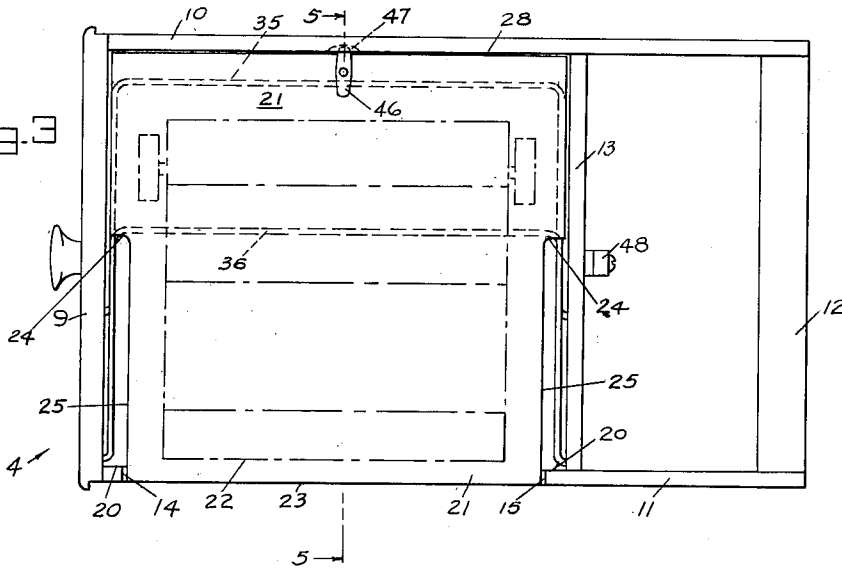


Fig. 4

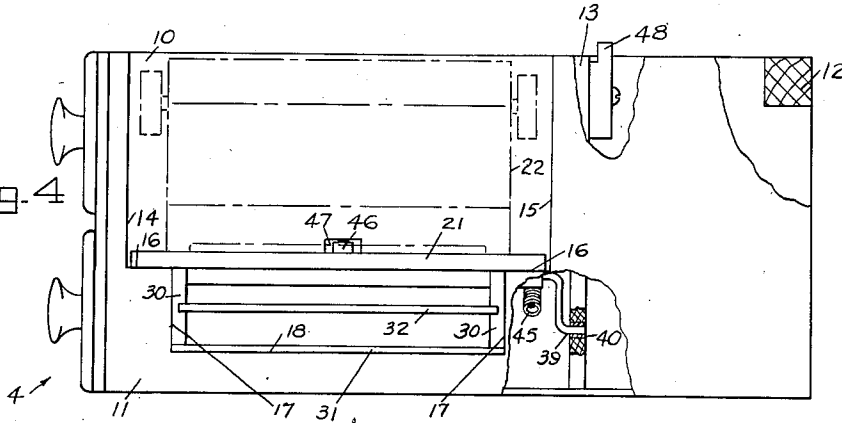
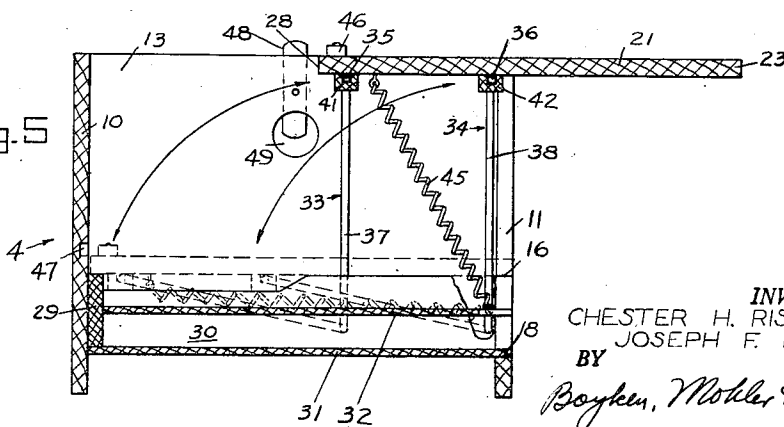


Fig. 5



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DRAWER FOR TYPEWRITERS, INCLUDING
ELEVATING TYPEWRITER SUPPORTSChester H. Ristenpart, Berkeley, and Joseph F.
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Application July 13, 1948, Serial No. 38,506

8 Claims. (Cl. 312-27)

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This invention relates generally to typewriter desks, and more specifically to a desk of the type having a drawer therein that is adapted to support a typewriter therein for movement from a position within the drawer to a position where the typewriter is elevated and ready for use.

Copending application for Patent by Balzi, et al., Serial No. 580,874, filed March 3, 1945, now Patent No. 2,455,156, shows the general type of desk and drawer.

Many attempts have been made in the past to utilize a portion of a desk for concealing a typewriter when the latter was not in use, and for easily withdrawing the typewriter for use when desired. In most instances the typewriter has been supported on a sliding or swinging shelf or combination of both and a separate door has been employed to close the portion of the desk in which the shelf and typewriter is concealed when not in use. United States Letters Patents to Heyward, Nos. 548,639; 558,388, dated October 29, 1895, and April 14, 1896, and to Walton et al., No. 569,259, dated October 13, 1896, are examples of these types.

None of these types have provided for knee room for an operator sitting at the desk, and in no instance of which we are aware except in said copending application has the desk been so constructed that conventional drawer structure may be employed so that the typewriter drawer could be removed, if desired, and a standard sized drawer substituted, each drawer having a front end for closing the opening through which the drawer is slidable.

The structure as disclosed in said copending application overcomes the objections in the earlier disclosures but it usually requires a wider desk than is sometimes desirable in order to counterbalance the weight of the typewriter when the drawer is out. Also, the swinging of the typewriter support longitudinally of the drawer is not as desirable in some instances as swinging the typewriter support laterally of the drawer length.

One of the principal objects of this invention is the provision of a drawer in a desk that is adapted to conceal the typewriter when the drawer is closed, and which drawer includes a typewriter support that is adapted to swing upwardly and laterally relative to the drawer to a position in which there is room for the knees of the user and in which the carriage of the typewriter will clear the top of the desk.

Another object of the invention is the provision of a drawer in a desk that is of conventional size so that a standard desk drawer may be substi-

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tuted therefor, and which first mentioned drawer includes a platform therein that is adapted to support a typewriter thereon for movement of the latter from a position entirely within the projected confines of the outline of the front end of the drawer to a position in which the platform is almost at the level of the desk top and is offset laterally relative to the length of the drawer to the side at which a person would normally sit at said desk so that the knees of such person will have room under the platform.

A still further object of the invention is the provision of a drawer for a typewriter that includes an elevating platform therein on which the typewriter is adapted to be carried from a lowered position of the typewriter within the drawer to an elevated position in which the platform is at substantially the level of the top of the drawer and is partially offset laterally relative to the length of said drawer.

Other objects and advantages will appear in the description and in the drawings.

In the drawings: Fig. 1 is a perspective view of a typewriter desk with the drawer for the typewriter in open position, the typewriter being indicated in dot-dash lines in lowered position within the drawer. A portion of the desk is broken away to accommodate the view to the sheet.

Fig. 2 is a view similar to that of Fig. 1 but showing the typewriter platform elevated, the said typewriter being indicated in dot-dash lines.

Fig. 3 is a plan view of the drawer.

Fig. 4 is a part sectional, part elevational view of the drawer of Fig. 3.

Fig. 5 is a cross sectional view taken along line 5-5 of Fig. 3.

In detail, the typewriter desk illustrated in the drawings comprises a flat top 1 having a hollow pedestal, generally designated 2, below at least one end thereof. This pedestal extends to the top 1 and is closed except for the front side that is provided with an uppermost opening 3 through which a drawer, generally designated 4, is adapted to slide into said pedestal.

The inner sides of the opposed side walls of said pedestal, of which the near side wall is indicated at 5, have conventional horizontal drawer slides (not shown) on which the drawer is supported for sliding into and out of the opening 3, and a cross piece 6 extends below the drawer defining the lower edge of opening 3, while a cross piece 7 defines the upper edge of said opening, the latter being relatively narrow and in engagement with the said top 1.

One or more standard sized drawers 8 may be

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slidable into the pedestal below drawer 4, but this is optional and is not material to the present invention, other than clearly showing that the present invention does not preclude the use of standard sized drawers immediately therebelow.

The dimensions of drawer 4 are that of a standard filing drawer, and while the drawer may be made longer, if desired, the drawer indicated in the drawing is only about twenty-three inches in length, hence is adapted to be used in a small desk. When the drawer is extended to the position shown in Figs. 1, 2, a third of the length of the drawer will remain in the pedestal, giving a strong support for the weight of the typewriter. The table will stay solid on the floor and will successfully resist any tendency to move or to tilt when the typewriter is being used.

The drawer shown in the drawings is only slightly less than fourteen inches wide, and its vertical depth is ten and one-half inches. The typewriter indicated is representative of any standard make portable typewriter.

While the present invention is not intended to be restricted as to proportions and size, it is pertinent to note that by the present structure and arrangement, the typewriter is adapted to be supported in elevated working position at working height and is adapted to be moved to said position without in any way interfering with the top of the pedestal.

The drawer 4 has a rectangular front end wall 9 that is rigid therewith, and that is adapted to close the opening 3 when the drawer is closed, or is fully within said pedestal 2, except for said front end wall.

Parallel side walls 10, 11 extend rearwardly from said wall 9, which walls 10, 11 may be connected at their rear ends by cross piece 12 that extends between said walls at their upper rear corners (Figs. 3, 4).

A rear end wall 13 is in spaced opposed relation to the said front wall 9, said wall 13 being positioned about two-thirds of the distance from the front end wall to the cross piece 12 in direction away from front end wall. This wall 13 is secured to side walls 10, 11.

Between the front and rear end walls 9, 13, the side wall 11 is cut away from its upper edge to provide a side opening into the drawer having vertical side edges 14, 15 respectively adjacent the front and end walls 9, 13 (Fig. 4). These edges 14, 15 terminate at the same distance at points spaced substantially above the lower edge of the wall 11, and from said points the wall 11 is cut inwardly a short distance to provide upwardly facing shoulder surfaces 16 and then downwardly to define opposed spaced edges 17 that terminate at their lower ends at the opposite ends of a horizontal edge 18 that defines the lowermost edge of the side opening in wall 11.

The side edges 14, 15 of the side opening into drawer 4 through side wall 11 are slightly spaced from the opposed surfaces of the front and rear end walls in direction toward each other thereby providing narrow surfaces 20 (Fig. 3) that are along said edges and that face the opposite side wall 10.

Between the front and rear end walls 9, 13 is a horizontal platform 21 on which a conventional portable typewriter 22 is adapted to stand. This platform is generally rectangular except that the edges respectively adjacent the front and rear end walls are cut away for a substantial distance from the edge 23 that is adjacent the side wall

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11 to points 24 that define shoulder surfaces facing toward the said wall 11. The edges 25 extending from edge 23 of platform 21 to said shoulders 24, are spaced apart just enough to allow the portion of the platform extending away from edge 23 to a line between shoulders 24 to closely pass between edges 14, 15 of side wall 11.

By the above structure the platform 21 is adapted to move laterally through the side opening in wall 11 at any point in said opening above the shoulders 16 until the shoulder surfaces 24 on the platform engage the surfaces 20 on wall 11 along the edges 14, 15. When the said shoulder surfaces 24 abut said surfaces 20, the limit of outward movement of the platform 21 is reached.

When the platform 21 is in its lowermost position within drawer 4, the portion thereof along edge 23 is supported at its ends on the upwardly directed shoulders 16 of wall 11, and the underside of the platform along edge 28 that is opposite edge 23 will rest on a horizontal strip 29 (Fig. 5) that is secured to the side wall 10. Parallel side strips 30 extend between walls 10, 11 from the ends of the strip 29.

A horizontal bottom wall 31 (Figs. 4, 5) extends between walls 10, 11 below strips 30 and below strip 29 over the edge 18 of wall 10 on which the marginal portion of said wall 31 along said edge 18 is supported. A shelf 32 may be spaced above the bottom wall 31 and below the level of the shoulders 16. Paper supplies for the typewriter may be carried on said bottom wall and on said shelf, and when the platform 21 is in its lowermost position it will form a top cover above shelf 32.

The said shelf 21 is supported within said drawer 4 for vertical and lateral movement through the side opening in wall 11 by means of a pair of substantially identical U-shaped elements 33, 34, that are preferably formed from round rods.

The closed ends 35, 36 of these elements are parallel and straight and extend across the lower side of the platform 21 in direction parallel with edges 23, 28 of the said platform. One of the legs 37 of element 33 and one of the legs 38 of element 34 are respectively pivoted in the end wall 13 at the same level slightly below the level of shelf 32 (Fig. 4), the terminating ends 39 of said legs extending horizontally and into bushings 40 secured in wall 13.

The opposite legs of the elements 33 formed with outwardly bent end portions that are identical with portions 39 and they pivotally extend with bushings secured in wall 9 that are identical with the bushings 40 in wall 13.

The straight closed ends 35, 36 are respectively pivotally held to platform 21 within upwardly opening channels formed in a pair of horizontal parallel cleats 41, 42 secured to the underside of platform 21. These cleats 41, 42 not only function as bearings for the straight ends 35, 36 of elements 33, 34, but they function to prevent warpage of the said platform.

The elements 33, 34 are arranged so that the shoulders 24 on platform 21 will be against the surfaces 20 along edges 14, 15 and the upper surface of said platform will be flush with the upper edges of the front and rear end walls 9, 13 when the legs 37, 38 of elements 33, 34 are swung upwardly to where they are almost, but not quite vertical. When the platform is supported in its lowermost position the legs are almost together as indicated in dash lines in Fig. 5.

A coil spring 45 (Fig. 5) is secured at one of its ends to the platform 21 adjacent cleat 41 and

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the opposite end of said spring may be secured to the side wall 11 adjacent one of the edges 17. This spring is adjacent the rear end wall 13 and when the typewriter is on the platform 21 and is in its lowermost position, the weight of the typewriter will hold the platform down, but when the platform is swung upwardly to its maximum elevated position, said spring will yieldably hold the platform in its fully elevated position and will hold shoulders 24 against the surfaces 20 of wall 11 against accidental lowering of the platform. However, as the platform moves rearwardly and downwardly the weight of the typewriter will result in a gentle downward movement thereof.

Should there be no typewriter on the platform, the latter may be held down by a rotary button 46 secured on platform 21 adjacent edge 28, which button may be rotated into a recess 47 in wall 10 (Figs. 3 to 5).

On end wall 13 and near the upper edge thereof is an elongated rotary stop member 48 that is pivotally secured centrally thereof to the said wall 13 on the side of the latter that faces away from the front end wall 9. When this stop member is rotated to a vertically extending position its upper end will project slightly above the upper edge of wall 13. An opening 49 in wall 13 enables an operator to rotate the member from the side of wall 13 adjacent the typewriter.

When member 48 is vertical, and the drawer is in the pedestal, the upwardly projecting end of said member is adapted to engage the upper cross piece 7 that is above the drawer so that the drawer cannot be pulled out. This stop member can be rotated by the fingers, however, to enable the operator to move the member to a position in which it will clear the cross piece 7, and then the drawer can be withdrawn.

In operation, when the platform 21 is at its lowermost position within the drawer it is rigidly supported by the drawer and the latter can be readily closed, whereby the front end wall 9 will close the opening through which the drawer is slidable.

Upon sliding the drawer to open position (Fig. 1) the said drawer will be stopped in its outward movement by the stop member 48 engaging strip 7. The operator may then exert a slight manual lifting force on the typewriter and the platform, with the typewriter on it, will move to its elevated position in which practically half of the platform will project through the side opening in side wall 11 to a position above the knees of the operator, when the operator turns to face the drawer. The platform will be at almost the level of the top 1 and cannot be pushed into the pedestal because the projecting platform will engage the pedestal. At the level shown in Fig. 2 the carriage on the typewriter will clear the top 1 of the table, and the typewriter may be moved to any desired position on the platform because the upper surface of the latter is substantially flush with the upper edges of the end wall 9 and side wall 10.

The spring 45 tightly holds the platform against the surfaces 20 of wall 11 and it requires a lateral push on the platform or typewriter in the direction of wall 10 to cause the platform to swing to lowered position. The arms 37, 38 hold the platform rigidly in elevated position until such lateral force is applied to the platform or to the typewriter.

It is pertinent to note that the typewriter will be at the generally approved height for typing

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when in elevated position. This height may be varied to suit any particular requirement by changing the length of arms 37, 38.

While the present invention may be applied to any height desk or table, one of its advantages is that at one and the same time it is adapted to elevate the typewriter to the approved height for typing and to provide for adequate knee space below the same in a desk of standard height.

The fact that the drawer cannot possibly be accidentally pushed into the pedestal or beneath the top of the desk or table carrying the same, when the typewriter is in elevated position (Fig. 2) is very important, and of particular importance is the fact that no separate locking means is required in the present instance. In the present instance the platform is the means that prevents such accidental movement. In the past, separate locking means, such as extensions on typewriter elevating arms, latches etc. have been relied upon, but in most of these cases a strong push on the drawer or platform will be sufficient to break or to disengage the locking means to a sufficient degree to result in damage to the typewriter.

The platform in the present instance is arranged so that it is substantially in engagement with the desk when in elevated position, thus being locked as soon as it is elevated, which is highly desirable inasmuch as the typewriter is preferably not secured to the platform.

We claim:

1. In a desk having a top and a pedestal below one end thereof provided with a drawer opening adjacent said top, a horizontally elongated drawer slidable longitudinally thereof through said opening from an extended position projecting from said pedestal to a closed position within said pedestal, a horizontal support for a typewriter carried by said drawer and means mounting said support on said drawer for vertical movement of said support when said drawer is in said extended position from a lowered position of said support spaced below the level of said top a distance greater than that of the height of a typewriter adapted to be supported thereon to an elevated position partially offset laterally relative to the length of said drawer and relative to the support when in said lowered position and almost at the level of said top with the carriage of such typewriter above the upper surface of said top, said support being a platform and one edge of said platform being positioned to engage said drawer at a point above said opening when said platform is in said elevated position.

2. In a desk having a top and a pedestal below one end thereof provided with a drawer opening adjacent said top, a horizontally elongated drawer slidable longitudinally thereof through said opening from an extended position projecting from said pedestal to a closed position within said pedestal, a horizontal support for a typewriter carried by said drawer and means mounting said support on said drawer for vertical movement of said support when said drawer is in said extended position from a lowered position of said support spaced below the level of said top a distance greater than that of the height of a typewriter adapted to be supported thereon to an elevated position partially offset laterally relative to the length of said drawer and relative to the support when in said lowered position and almost at the level of said top with the carriage of such typewriter above the upper surface of said top, said support being a platform, one edge of said plat-

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form being positioned to engage said drawer at a point between the said opening and said top when said platform is in said elevated position, and stop means carried by said drawer directly engageable with said platform when the latter is moved to said elevated position to hold said platform against continued movement past said elevated position when said platform is moved from said lowered position to said elevated position.

3. A horizontally elongated drawer for a typewriter including a vertical front end wall and horizontally extending spaced parallel side members extending therefrom for slidably supporting said drawer in a desk for movement longitudinally of said drawer, a horizontal platform for supporting a typewriter thereon, a pair of generally U-shaped elements arranged with their closed ends and legs substantially parallel, means pivotally securing said closed ends to said platform and means pivotally securing the said free ends to said drawer for swingingly mounting said platform on said drawer for movement from a lowered position within said drawer with said legs extending generally horizontally to an elevated position with said legs extending generally vertically and said closed ends uppermost, the said closed end of each of said elements being straight and horizontal and extending substantially fully across the underside of said platform, the said elements being arranged with the axes of their pivotal connections with said platform and said drawer extending longitudinally of said drawer whereby said platform will move generally laterally of the length of said drawer during upward swinging of said platform.

4. A horizontally elongated drawer for a typewriter including a vertical front end wall and horizontally extending spaced parallel side members extending therefrom for slidably supporting said drawer in a desk for movement longitudinally of said drawer, a horizontal platform for supporting a typewriter thereon, a pair of generally U-shaped elements arranged with their closed ends and legs substantially parallel, means pivotally securing said closed ends to said platform and means pivotally securing the said free ends to said drawer for swingingly mounting said platform on said drawer for movement from a lowered position within said drawer with said legs extending generally horizontally to an elevated position with said legs extending generally vertically and said closed ends uppermost, the said closed end of each of said elements being straight and horizontal and extending substantially fully across the underside of said platform, the said elements being arranged with the axes of their pivotal connections with said platform and said drawer extending longitudinally of said drawer whereby said platform will move generally laterally of the length of said drawer during upward swinging of said platform, means slidably engaging two opposite edges of said platform during its movement between said elevated and said lowered positions for holding said platform from rotation about its vertical axis, said last mentioned means including said front wall.

5. A horizontally elongated drawer for a typewriter including a vertical front end wall and horizontally extending spaced parallel side members extending therefrom for slidably supporting said drawer in a desk for movement longitudinally of said drawer, a horizontal platform for supporting a typewriter thereon, a pair of generally U-shaped elements arranged with their closed ends and legs substantially parallel, means

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pivotally securing said closed ends to said platform and means pivotally securing the said free ends to said drawer for swingingly mounting said platform on said drawer for movement from a lowered position within said drawer with said legs extending generally horizontally to an elevated position with said legs extending generally vertically and said closed ends uppermost, the said closed end of each of said elements being straight and horizontal and extending substantially fully across the underside of said platform, the means pivotally securing said closed ends to said platform comprising parallel anti-warp cleats extending across the underside of said platform over each of said ends, said cleats being formed with a channel for each of said closed ends.

6. A horizontally elongated drawer for a typewriter including a vertical front end wall and horizontally extending spaced parallel side members extending therefrom for slidably supporting said drawer in a desk for movement longitudinally of said drawer, a horizontal platform for supporting a typewriter thereon, a pair of generally U-shaped elements arranged with their closed ends and legs substantially parallel, means pivotally securing said closed ends to said platform and means pivotally securing the said free ends to said drawer for swingingly mounting said platform on said drawer for movement from a lowered position within said drawer with said legs extending generally horizontally to an elevated position with said legs extending generally vertically and said closed ends uppermost, the said closed end of each of said elements being straight and horizontal and extending substantially fully across the underside of said platform, the said elements being arranged with the axes of their pivotal connections with said platform and said drawer extending longitudinally of said drawer whereby said platform will move generally laterally of the length of said drawer during upward swinging of said platform, a cross piece parallel with said front end wall and extending between said side members, said platform being disposed between said cross piece and said front end wall with two opposite edges of said platform in close relationship to front end wall and said cross piece, the free ends of said elements being respectively connected with said front wall end and with said cross piece.

7. A horizontally elongated drawer for a typewriter including a vertical front end wall and horizontally extending spaced parallel side members extending therefrom for slidably supporting said drawer in a desk for movement longitudinally of said drawer, a horizontal platform for supporting a typewriter thereon, a pair of generally U-shaped elements arranged with their closed ends and legs substantially parallel, means pivotally securing said closed ends to said platform and means pivotally securing the said free ends to said drawer for swingingly mounting said platform on said drawer for movement from a lowered position within said drawer with said legs extending generally horizontally to an elevated position with said legs extending generally vertically and said closed ends uppermost, the said closed end of each of said elements being straight and horizontal and extending substantially fully across the underside of said platform, one of said side members being positioned to support said platform along one of the edges of the latter when said platform is in its lowered position.

8. A horizontally elongated drawer for a typewriter including a vertical front end wall and

horizontally extending spaced parallel side members extending therefrom for slidably supporting said drawer in a desk for movement longitudinally of said drawer, a horizontal platform for supporting a typewriter thereon, a pair of generally U-shaped elements arranged with their closed ends and legs substantially parallel, means pivotally securing said closed ends to said platform and means pivotally securing the said free ends to said drawer for swingingly mounting said platform on said drawer for movement from a lowered position within said drawer with said legs extending generally horizontally to an elevated position with said legs extending generally vertically and said closed ends uppermost, the said closed end of each of said elements being straight and horizontal and extending substantially fully across the underside of said platform, the said elements being arranged with the axes of their pivotal connections with said platform and said drawer extending longitudinally of said drawer whereby said platform will move generally later-

ally of the length of said drawer during upward swinging of said platform, a pair of spaced stop members carried by one of said side members at points thereabove and at the level of said platform when the latter is in its elevated position for engagement by said platform, said platform being formed with shoulders adapted to so engage said stop members.

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