

April 20, 1943.

A. BALSTER

2,316,756

TYPEWRITER DESK

Filed Jan. 16, 1941

3 Sheets-Sheet 1

Fig. 1

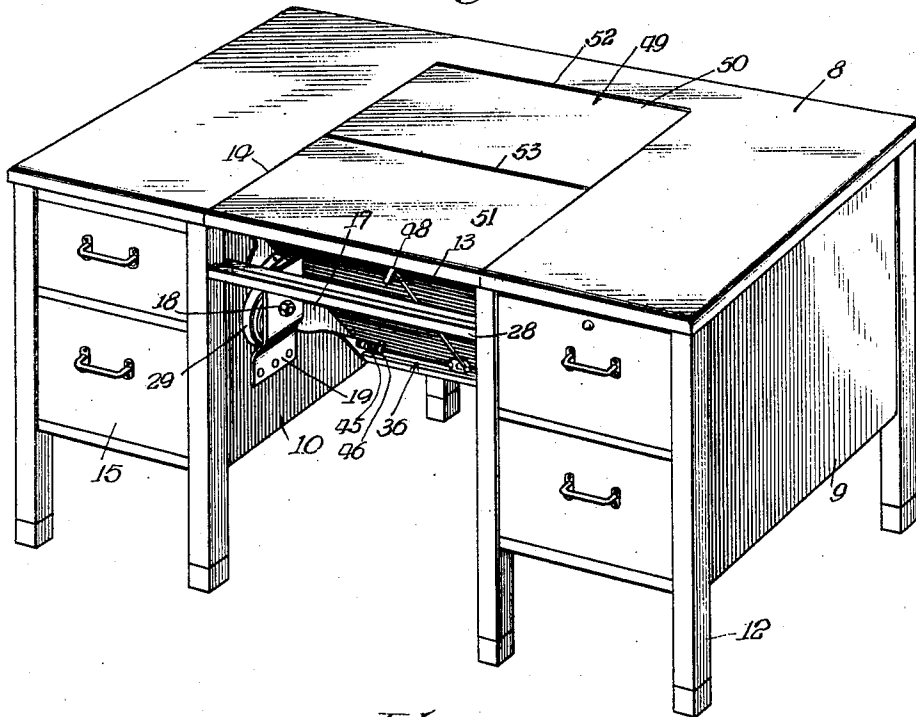
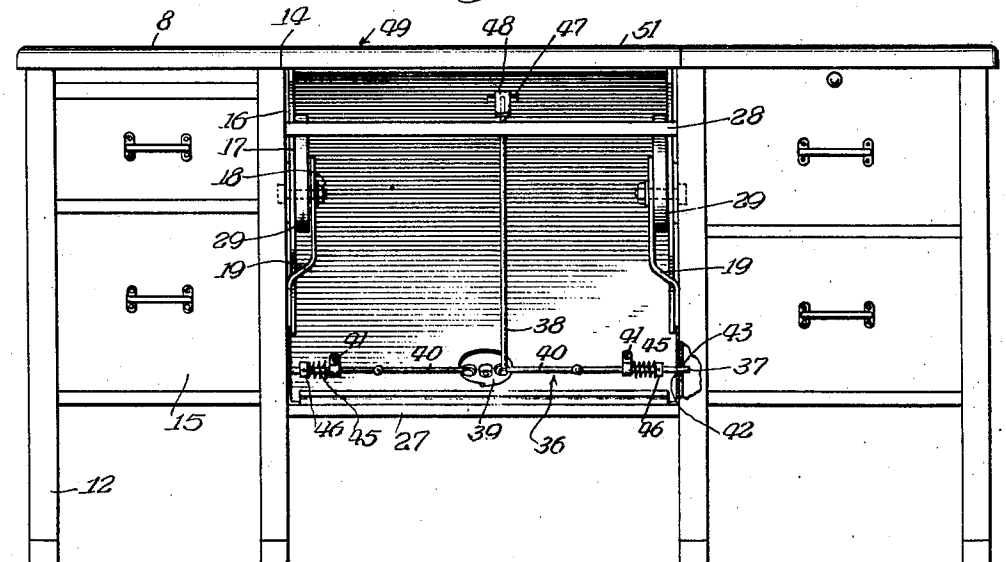


Fig. 2



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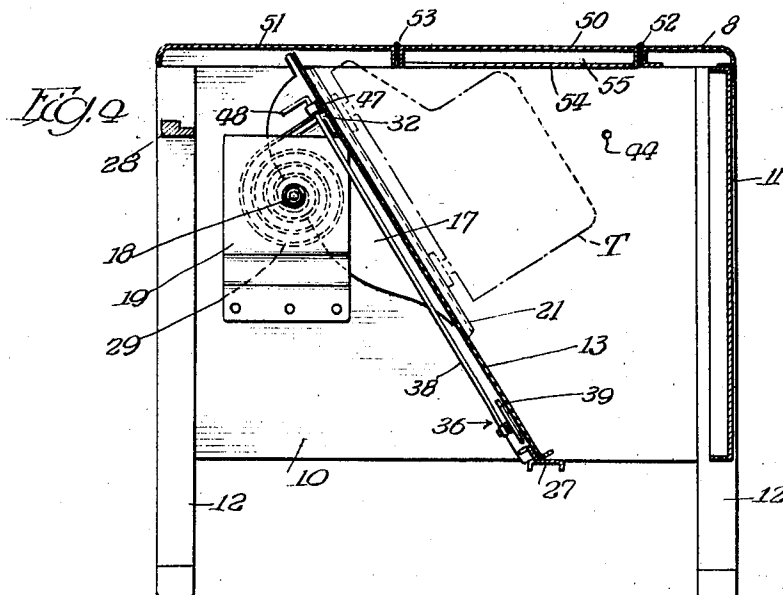
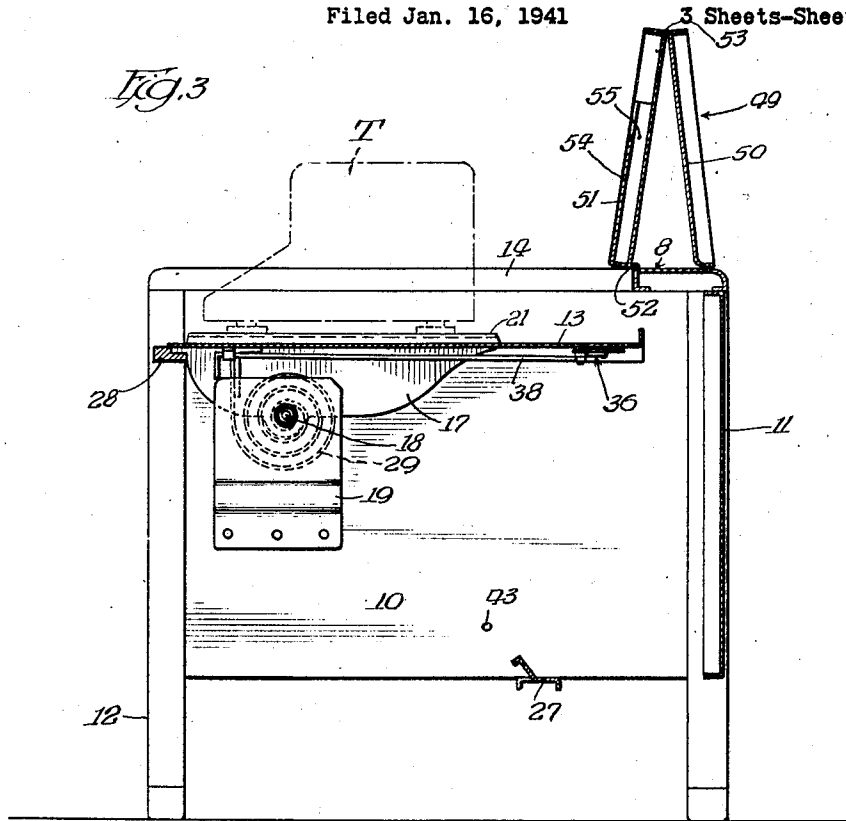
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TYPEWRITER DESK

Filed Jan. 16, 1941

3 Sheets-Sheet 2



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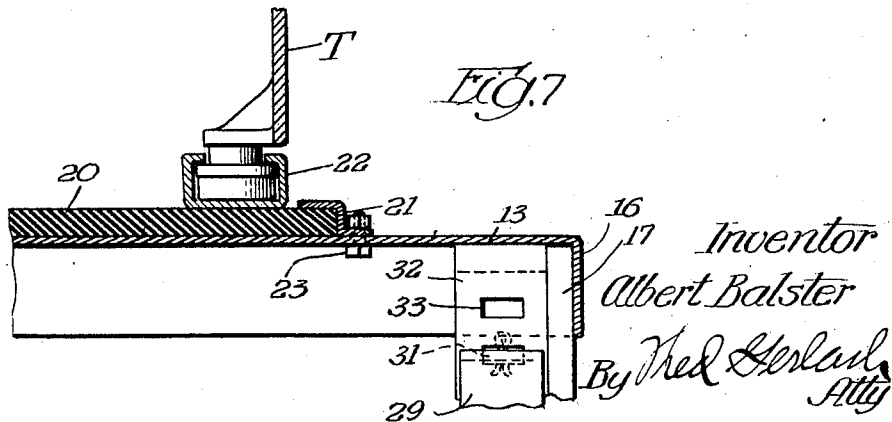
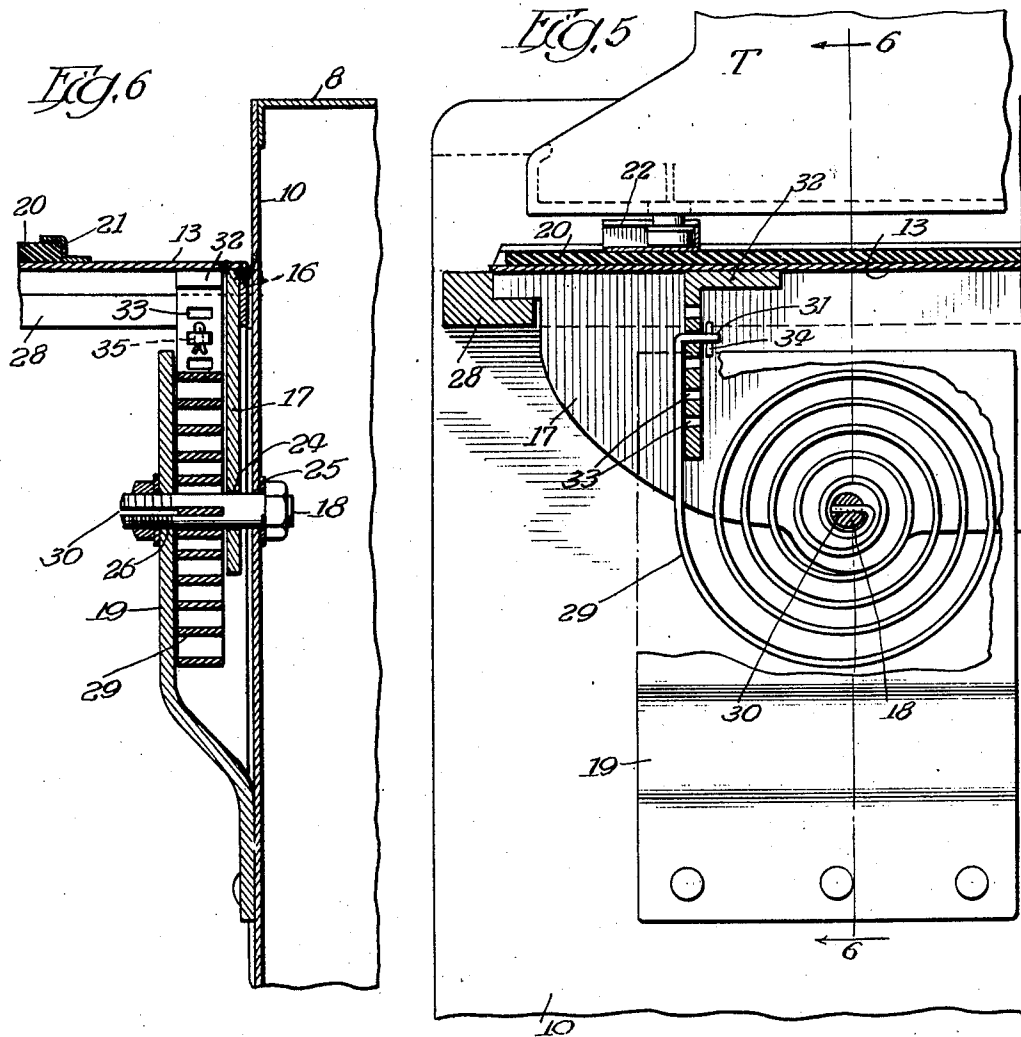
A. BALSTER

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TYPEWRITER DESK

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3 Sheets-Sheet 3



UNITED STATES PATENT OFFICE

2,316,756

TYPEWRITER DESK

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Application January 16, 1941, Serial No. 374,675

3 Claims. (Cl. 312—30)

The present invention relates generally to desks. More particularly the invention relates to that type of desk that is primarily designed or adapted for use in an office or like establishment and has a comparatively large rectangular opening in the front central portion of the top and in addition has a typewriter platform which is disposed beneath the opening and is pivoted at the sides thereof so that it may be swung bodily back and forth between an inoperative position wherein it is tilted rearwards and downwards and supports the typewriter wholly beneath the desk top, and an operative position wherein it extends substantially horizontally and supports the typewriter so that it projects through the opening and is accessible for use by an operator stationed or seated in front of the desk.

One object of the invention is to provide a typewriter desk of this type which is generally an improvement upon, and has certain advantages over, previously designed desks of the same general character.

Another object of the invention is to provide a desk of the type and character under consideration in which the mounting for the typewriter platform embodies an extremely small number of parts and is so designed and arranged that the user of the desk has a maximum amount of knee space or leg room under the platform regardless of whether the platform is in its inoperative or operative position.

A further object of the invention is to provide a typewriter desk of the aforementioned type in which the mounting for the platform includes a pair of coil springs which are associated with the pivot means at the sides of the platform respectively and are so tensioned or loaded that they substantially balance the platform and typewriter and hence make it possible for the latter to be readily shifted or tilted back and forth into their inoperative and operative positions.

A further object of the invention is to provide a typewriter desk which is generally of new and improved construction and not only may be manufactured at a low and reasonable cost but also is characterized by the fact that it is both durable and practical.

Other objects of the invention and the various advantages and characteristics of the present typewriter desk will be apparent from a consideration of the following detailed description.

The invention consists in the several novel features which are hereinafter set forth and are

more particularly defined by claims at the conclusion hereof.

In the drawings which accompany and form a part of this specification or disclosure and in which like numerals of reference denote corresponding parts throughout the several views:

Figure 1 is a front perspective view of a typewriter desk embodying the invention, the platform and top cover being shown in their closed positions;

Figure 2 is a front view of the desk;

Figure 3 is a vertical transverse section showing the platform in its operative position and the cover in its open position;

Figure 4 is a like section illustrating the platform and cover in their closed positions;

Figure 5 is an enlarged fragmentary section illustrating in detail the construction and arrangement of the coil springs which are associated with the platform pivot means and serve to balance the platform and typewriter so that they may be readily swung into their inoperative or operative positions;

Figure 6 is a section on the line 6—6 of Figure 5; and

Figure 7 is an enlarged fragmentary section illustrating the manner in which the typewriter is secured to the platform.

The desk which is shown in the drawings constitutes the preferred embodiment of the invention. It is designed for use by typists in an office or other establishment and comprises a top 8, a pair of outer side walls 9, a pair of inner side walls 10, a back wall 11, a plurality of legs 12, and a platform 13. Preferably such parts are formed of sheet metal. The top 8 is rectangular. It is supported by the legs 12 in elevated position with respect to the floor on which the desk rests, and has in the front central portion thereof an opening 14. The latter is rectangular and leads from the front margin of the top 8 to a point slightly inwards or forwards of the back margin. The outer side walls 9 are connected to and depend from the side margins of the top and together with the inner side walls 10 define open front compartments for slide type drawers 15. The inner side walls 10 are located at the sides of the opening 14 in the top 8 and are secured to and depend from the marginal portions of the top that define the sides of said opening. They are the same in size as, and are positioned in parallel relation with, the outer side walls 9 and carry the platform mounting means as hereinafter described. The back wall 11 is secured to and depends from the rear mar-

gins of the top 8 and extends between the rear margins of the outer side walls 9. The legs 12 extend vertically and are suitably secured to the front and rear margins of the outer and inner side walls 9 and 10.

The platform 13 serves to support a typewriter T and is disposed between the inner side walls 10. It corresponds in shape to the opening 14 in the desk top 8 and embodies depending flanges 16 at the sides thereof. In addition to the flanges 16 the platform embodies a pair of parallel laterally spaced side plates 17. These plates together with a pair of bolts 18 and a pair of supporting brackets 19 constitute a pivotal mount whereby the platform with the typewriter T thereon may be swung back and forth between an inoperative position wherein it is tilted rearwards and downwards and supports the typewriter wholly beneath the desk top, and an operative position wherein it extends substantially horizontally and supports the typewriter so that it projects through and above the opening 14 and is accessible for use by the user of the desk. The platform 13 has on the top face thereof a baseboard 20. This baseboard is slidably mounted between a pair of flanged side strips 21 and constitutes a mound for the typewriter T. The latter is held in fixed relation with the baseboard 20 by way of a set of flanged retainers 22 which are fixed to the baseboard 20 and are shaped to receive and interlock with the feet of the typewriter. The strips 21 overlie the side margins of the baseboard 20 and are anchored to the platform 13 by bolts 23 which extend through the flanges of the strips. The side plates 17 depend from, and are welded or otherwise rigidly secured to the front portions of the flanges 16 at the side margins of the platform. They serve to reinforce the platform and have aligned holes 24 in their lower front portions. The brackets 19 are located adjacent the inner faces of the inner side walls 10 of the desk and are vertically elongated as shown in Figure 4. The lower ends of the brackets fit against the inner side walls 10 and are riveted or otherwise fixedly secured thereto. The central portions of the brackets are angularly positioned with respect to the lower and upper ends and are so arranged that the upper ends of the brackets are inwardly offset with respect to the lower ends and are in spaced or opposed relation with the side plates 17. The bolts 18 extend horizontally and fit within and project through the holes 24 in the side plates 17. The outer ends of the bolts fit within and extend through holes 25 in the inner side wall 10 of the desk and the inner ends extend through and fit within holes 26 in the upper portions of the brackets 19. The central portions of the bolts fit loosely within the holes 24 and hence the platform is free to tilt up and down. Rearward and downward tilting of the platform is limited or restricted by a horizontally extending bar 27. Forward and upward tilting of the platform is restricted by a bar 28. The bar 27 extends between, and is secured to, the rear portions of the lower margins of the inner side walls 10 and is so arranged or positioned that the rear marginal portion of the platform 13 strikes against it when the platform is in its inoperative position (see Figure 4). The bar 28 extends horizontally and is secured at the ends thereof to the upper ends of the two legs that are at the front margins of the inner side walls 10. It is arranged so that the front margin of the platform strikes against it when

the platform is swung into its operative position, as shown in Figure 3 of the drawings. By reason of the fact that the bolts 18 are disposed beneath the front portion of the platform 13 there is a tendency for the platform to tilt or swing rearwards and downwards into its inoperative position. In order to counteract such tendency and facilitate tilting or swinging of the platform back and forth between its inoperative and operative positions two coil springs 29 are provided. These springs are mounted on, and extend around, the central portions of the bolts 18 and are disposed between the side plates 17 and the upper portions of the brackets 19. The inner ends of the springs extend through longitudinal slots 30 in the bolts and hence are held or confined against rotation. The outer ends of the springs are bent at right angles to form anchor elements 31 and are adjustably connected to the front portion of the platform 13 by way of a pair of inverted L-shaped lugs 32. The upper legs of the lugs are welded or otherwise secured to the bottom face of the platform 13 and are disposed above and slightly forwards of the bolts 18. The other legs of the lugs extend downwards and are positioned vertically when the platform is in its operative position. They extend at right angles to the upper legs and have longitudinally extending series of slots 33. The anchor elements 31 at the outer ends of the coil springs 29 extend through certain of the slot 33 and are releasably secured in place by way of cotter pins 34. The latter extend through apertures 35 in the elements 31. The springs are loaded or tensioned so that they exert on the platform a force tending to urge the platform into its operative position. Preferably the springs are so loaded that the platform and typewriter are substantially balanced so far as the pivot bolts 18 are concerned and hence the platform and typewriter may readily be tilted downwards to its inoperative position or upwards into its operative position with a minimum amount of force or effort. Should it be desired to increase the load of the springs it is only necessary to move the anchor elements 31 into higher slots 33. In connection with such operation the cotter pins 34 are removed from the apertures 35 in the elements 31 and the elements are withdrawn from the slots and then shifted into higher slots. To lessen the tension of the springs the anchor elements are inserted into lower slots in the lugs 32. The coil springs 29 constitute simple means for counteracting the tendency of the platform and the typewriter to swing into their inoperative position, and the anchor elements 31 and the slot equipped lugs 32 constitute simple and novel means for varying or adjusting the loading of the springs.

In order releasably to hold or lock the platform in its inoperative or operative position a latch mechanism 36 is provided. This mechanism is manually manipulable and comprises a pair of aligned but oppositely facing dogs 37, a shift rod 38, a disc 39 and a pair of links 40. The dogs 37 are located adjacent the rear corners of the platform 13 and are carried by bearing blocks 41 on the bottom face of the platform so that they are slidable to and from the inner side walls 10 of the desk. The outer ends of the dogs extend through and fit slidably in holes 42 in the rear portions of the flanges 16 along the side margins of the platform. The inner side walls 10 have lower holes 43 directly above the bar 27 and embody upper holes 44 in the upper rear corners

thereof. When the platform 13 is in its inoperative position the holes 43 are aligned or in registry with the holes 42 and are adapted to receive the dogs 37 when the latter are slid outwards. When the dogs are shifted into the holes 43 the platform is locked or retained in its inoperative position. The upper holes 44 are positioned so that they register with the holes 42 when the platform is in its operative position. They are adapted to receive the outer ends of the dogs 37 in connection with outward shift or sliding movement of the dogs and coact therewith to lock the platform in its operative position. The dogs are urged outwards by means of a pair of springs 45. The latter are mounted on the central portions of the dogs and are interposed between the bearing blocks 41 and collars 46 on the dogs. The disc 39 is disposed between the two dogs and is connected to the central rear portion of the platform by a pivot bolt so that it is rotatable. The links 40 extend between and are pivotally connected to the inner ends of the dogs 37 and diametrically opposite portions of the disc 39 and are adapted when the disc is rotated in one direction to retract the dogs against the force of the compression springs 45. The shift rod 38 fits against the under face of the platform 13 and is disposed in parallel relation with the inner side walls 10. It is connected to the platform for longitudinal sliding movement by way of a strip 47 and has its rear end pivotally connected to the marginal portion of the disc 39. The front end of the rod is flattened and bent downwards at right angles to form a grip 48. When the rod is shifted or slid longitudinally in one direction the disc 39 is so rotated as to retract the dogs 37 and thus free the platform for tilting movement. When the rod is released the springs 45 urge the dogs 37 outwards into their locking position and thus return the disc and slide rod to their normal positions. When it is desired to use the typewriter T the user of the desk grasps the grip 48 on the front end of the rod 38 and shifts the rod in the proper direction to effect release of the dogs 37. As soon as the dogs are released the platform is tilted forwards and upwards into its operative position. When the platform reaches such position the user of the desk releases the grip 48 with the result that the springs 45 slide the dogs outwards into interlocked relation with the holes 44. When the dogs are in such holes the platform is held or locked in place. The grip 48 is located adjacent the front under portion of the platform 13 and hence is readily accessible in connection with actuation or manipulation of the mechanism 36.

In addition to the top 8, the outer and inner side walls 9 and 10, the back wall 11 and the various other parts heretofore described the desk comprises a cover 49 for closing the opening 14 and completing the top 8 when the platform with the typewriter is in its inoperative position. This cover 49 is formed of sheet metal and consists of a rear section 50 and a front section 51. The rear section is adapted to cover or close the rear portion of the opening 14 and is connected to the portion of the top 8 that defines the rear end of the opening 14 by way of a hinge 52 in order that it may be swung upwards into an open position, as shown in Figure 3. The front section 51 of the cover is adapted to close the front portion of the opening 14 and has its rear margin connected to the front margin of the section 50 by way of a hinge 53 in order that it may be swung relatively to the rear section. When it is

desired to expose the opening 14 in order to permit the platform 13 to be swung into its operative position the front section 51 of the cover is swung or folded over the rear section 50 and the two sections are then swung upwards into the position shown in Figure 3. In such position the front section 51 rests on the top and forms a back brace for supporting the rear section 50 in a substantially vertical position. To close the opening 14 after swinging of the platform into its inoperative position it is only necessary to swing the two sections downwards and then swing the front section 51 into place.

A panel 54 is secured to the rear cover section 50 so that it is spaced a slight distance from the inner face of the section 50. This panel together with the rear cover section 50 defines a compartment 55 in which papers or other items may be stored or retained. When the cover 49 is in its open position access may be readily had to this compartment.

The herein described desk consists of a small number of parts and hence may be manufactured at a low and reasonable cost. Due to the manner in which the typewriter supporting platform is supported there is a maximum amount of knee space or leg room under the platform regardless of whether the platform is in its inoperative or operative position. Because the mounting means for the platform includes coil springs 29 the platform together with the typewriter thereon may be readily tilted or swung back and forth between its inoperative and operative positions.

The invention is not to be understood as restricted to the details set forth since these may be modified within the scope of the appended claims without departing from the spirit and scope of the invention.

Having thus described the invention what I claim as new and desire to secure by Letters Patent is:

1. A desk comprising a pair of laterally spaced side walls with inwardly and upwardly extending brackets on the inner faces of the front upper portions thereof, a top disposed over and across the side walls and having an opening therein over and communicating with the space between said side walls, a machine-supporting platform located in said space and having depending side pieces interposed between the upper portions of the brackets and said front upper portions of the side walls, pivot elements extending between and through the side pieces and said upper portions of the brackets for supporting the platform so that it is tiltable back and forth between an inoperative position wherein it is rearwardly and downwardly inclined and supports the machine beneath the top and an operative position wherein it is substantially horizontally positioned and supports the machine so that it projects through the opening and is accessible for use, and spiral springs under tension positioned around the elements and between the brackets and the side pieces and arranged so that they urge the platform into its operative position.

2. A desk comprising a pair of laterally spaced side walls with inwardly and upwardly extending brackets on the inner faces of the front upper portions thereof, a top disposed over and across the side walls and having an opening therein over and communicating with the space between said side walls, a machine supporting platform located in said space and having depending side pieces interposed between the upper portions of the brackets and said front up-

per portions of the side walls, fixed or stationary pivot elements extending between and through the side pieces and said upper portions of the brackets for supporting the platform so that it is tiltable back and forth between an inoperative position wherein it is rearwardly and downwardly inclined and supports the machine beneath the top and an operative position wherein it is substantially horizontally positioned and supports the machine so that it projects through the opening and is accessible for use, and spiral springs under tension for urging the platform into its operative position positioned around the elements and between the brackets and the side pieces and having the inner ends thereof anchored to said elements and their outer ends connected to the platform in such manner that the tension of the springs may be adjusted.

3. A desk comprising a pair of laterally spaced side walls, a top disposed over and across the side walls and having an opening therein over and communicating with the space between said walls,

a machine supporting platform located in said space and having stationary pivot elements between its sides and the side walls whereby it is supported so that it is tiltable back and forth between an inoperative position wherein it is rearwardly and downwardly inclined and supports the machine beneath the top and an operative position wherein it is substantially horizontally positioned and supports the machine so that it projects through the opening and is accessible for use, and a spiral spring under tension for urging the platform into one of its positions disposed around one of the pivot elements and having its inner end anchored to said one pivot element and its outer end adjustably connected to the platform for tension adjusting purposes by way of a connection in the form of an attaching member on said outer end of the spring and a fixed lug on the under face of the platform with a series of slots therein for selectively receiving said member.

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