

Nov. 15, 1932.

I. FRANKEL

1,888,034

TYPEWRITER DESK ATTACHMENT

Filed June 21, 1928

4 Sheets-Sheet 1

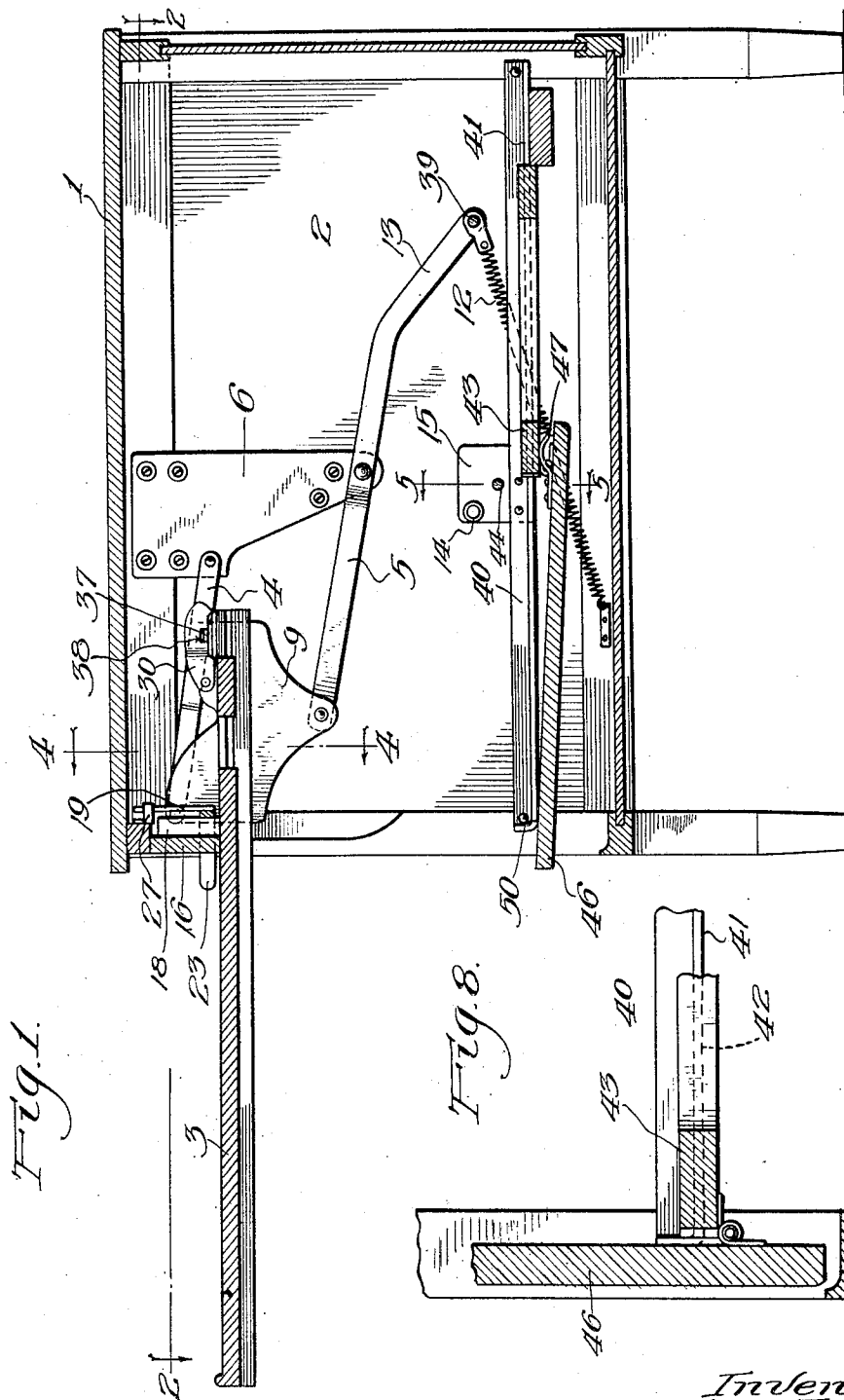


Fig. 1.

Fig. 8.

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Fig. 8.

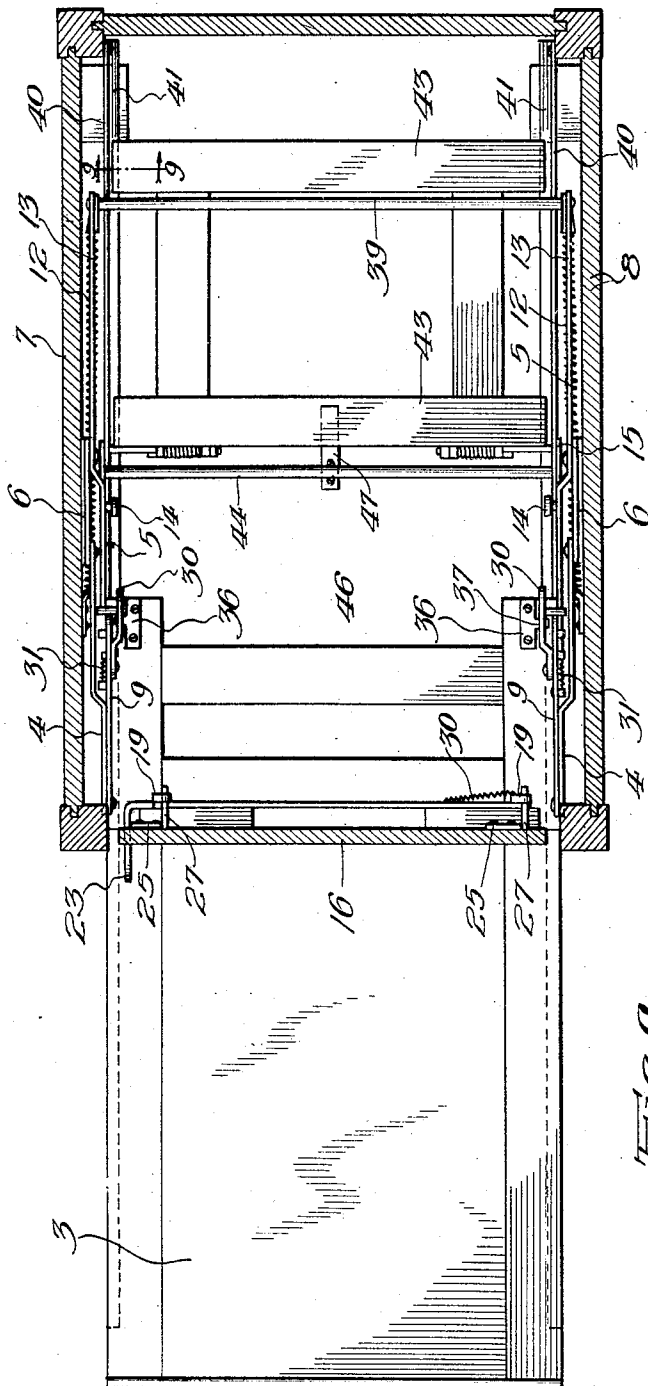


Fig. 9.



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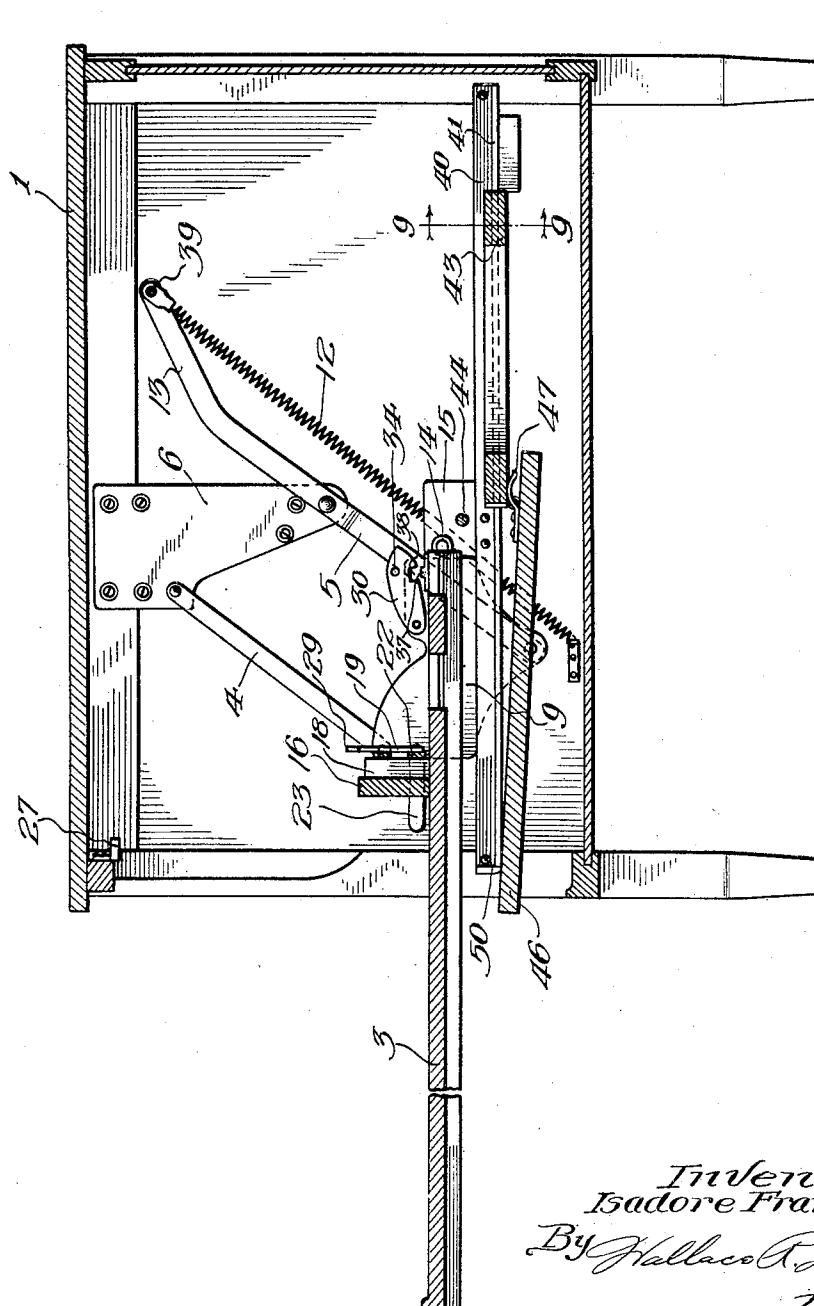
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Fig. 3.



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4 Sheets-Sheet 4

*Fig. 4.*

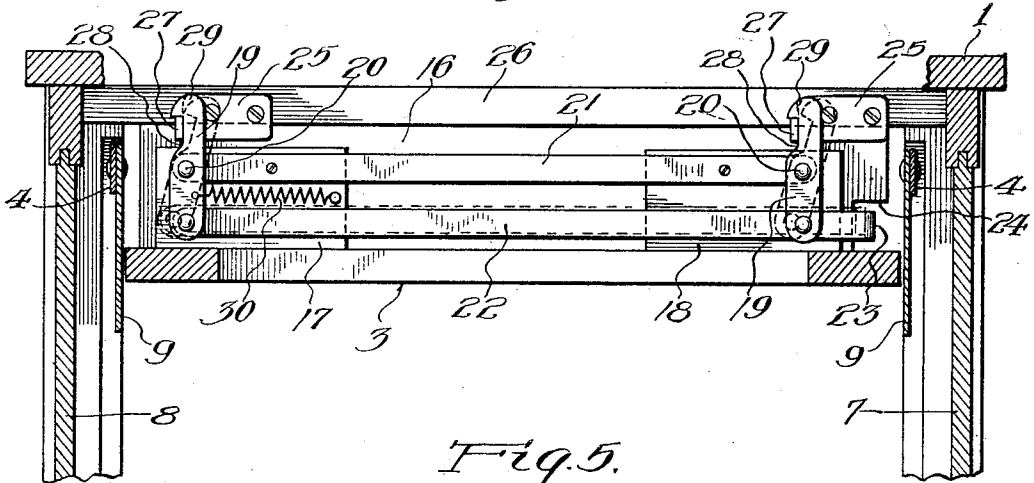


*Fig. 5.*

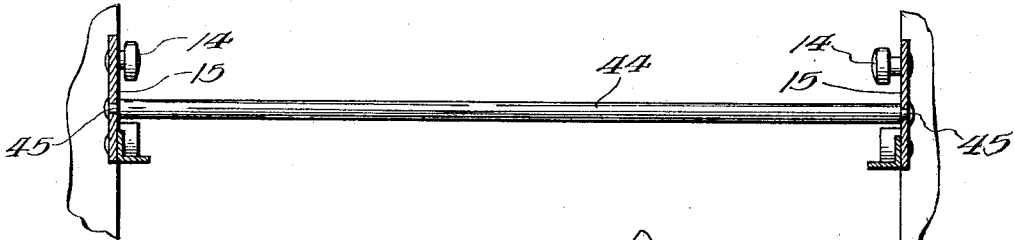


*Fig. 6.*

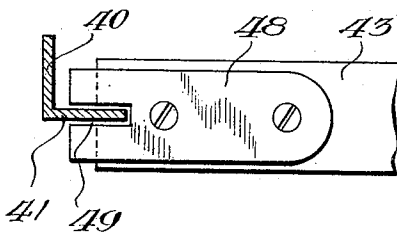
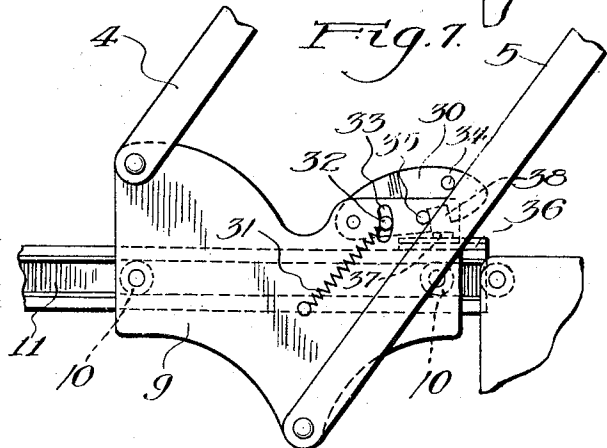


*Fig. 7.*



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## UNITED STATES PATENT OFFICE

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## TYPEWRITER DESK ATTACHMENT

Application filed June 21, 1928. Serial No. 287,068.

The present invention relates to typewriter desks and more in particular to a novel construction of attachment and support for a typewriter or other office device adapted to be incorporated in a desk.

Among the objects of my invention are to provide a typewriter desk attachment of novel construction; further to provide a novel construction of catch mechanism; further to provide a novel construction of carrier for the desk closure; further to provide a novel construction of locking mechanism for holding the tablet or support in open locked position; further to provide a desk attachment of maximum simplicity, efficiency, economy and ease of operation; and such further objects, advantages and capabilities as will later more fully appear.

My invention further resides in the combination, construction and arrangement of parts illustrated in the accompanying drawings, and while I have shown therein a preferred embodiment, I desire it to be understood that the same is susceptible of modification and change without departing from the spirit of my invention.

In the drawings:

Fig. 1 is a view in vertical cross section through the desk.

Fig. 2 is a view in horizontal cross section taken on the line 2—2 of Fig. 1.

Fig. 3 is a view in vertical cross section similar to Fig. 1, but showing the support or tablet in lowered position and about to be pushed into the well of the desk.

Fig. 4 is a fragmentary view in vertical cross section taken on the line 4—4 of Fig. 1.

Fig. 5 is a fragmentary view in vertical cross section taken on the line 5—5 of Fig. 1.

Fig. 6 is a fragmentary view in end elevation of the plate on the front of the carriage.

Fig. 7 is a fragmentary view in side elevation of the carrying plate and retaining catch.

Fig. 8 is a fragmentary view in vertical cross section of the door and carriage when the typewriter has been inserted into the well of the desk, and the door or closure is withdrawn to close the well.

Fig. 9 is a fragmentary view in vertical cross section taken on the line 9—9 of Fig. 3.

Referring to the drawings, the numeral 1 designates a desk of the pedestal type in which one of the pedestals 2 is adapted to serve as a housing or well for a typewriting machine or other office device, the typewriter being so mounted that it may be withdrawn from the housing or well at will and supported in position for use. The support or tablet 3 is adapted to be inserted into or withdrawn from the well and is so mounted that in the withdrawal or insertion operation, it will always remain in horizontal position so as to avoid disturbing the machine carried thereon.

In order to accomplish such positioning, the support or tablet 3 is mounted upon or hung in the well upon a system of parallel links 4 and 5, which links are pivotally connected by fulcrum plates 6, securely mounted upon the side walls 7 and 8 of the pedestal or well. The links 4 and 5 are also pivotally mounted on carrying plates 9. Mounted upon these carrying plates are supporting rollers 10 adapted to fit into runway 11 formed in the grooved edges of the support or tablet 3. By means of the construction of the carrying plates and their pivotal connection with the parallel links 4 and 5, the support or tablet may be swung downwardly and rearwardly upon the links and pushed back into the housing or well of the pedestal upon the supporting rollers.

Mounted near the base of the pedestal or well and upon the side walls 7 and 8, are springs 12. These springs are connected to the extending end 13 of the links 5. These springs counterbalance the machine mounted upon the support or tablet throughout the movement of such tablet from its open extended position to its position within the pedestal or well. By means of this arrangement of the springs, there is a variable leverage of action which approximately off-sets the variation of tension as the springs lengthen or shorten with the movement of the links, and thus tending to a uniformly of counterbalancing throughout the swinging movement of the link. These springs are

preferably strong enough to actually lift the weight of the machine and its support from its lower position in the well to its upper position for use, and thus minimizing the effort of the operator to withdraw the machine from the well. When the machine and support or tablet are lowered and pushed into the well, auxiliary rollers 14 mounted upon plates 15 at the side of the well or pedestal, engage the channels 11 at the opposite sides of the support or platform, and thus prevent the springs 12 from elevating the support and its load within the well or pedestal.

Means are provided for locking the support in its extended position, so as to steady the support and also to prevent its collapse or its being lowered into the well. Fig. 4 discloses the locking mechanism. Mounted upon the support or table 3 is a block 16 extending substantially the full width of platform or support. Mounted in the rear of the block 16 are smaller blocks 17 and 18. Mounted in turn upon the blocks 17 and 18 are latches or locking members 19 pivoted at 20 upon a securely mounted arm 21. A movable arm 22 is connected at the lower end of the latch members, which arm 22 is adapted to move the latch members about their pivots. The arm 22 is provided with a forward extension or member 23 passing through a cut-out portion 24 in the block 16. The operator can, by pressing upon the member 23, disengage the latch members 19 from their normal locked position. Catches 25 are secured on a cross arm 26 of the desk. These catches are provided with inwardly extending projections 27 adapted to be engaged by the cut-out portion 28 in the latches. When the platform or tablet is being raised into its normal extended position for use, the rounded head 29 of the latches engage with the projections, the rounded head portion gradually riding over the projections and as the block 16 strikes the under surface of the member 26, the projections snap into the grooves 28 and the support or tablet is then in locked position. A spring 30 attached to the lower portion of one of the latches will normally hold the same in locked position as shown clearly in Fig. 4 of the drawings.

The support or tablet 3, when drawn out in its extended position and during its swinging movement upon the links 4 and 5 is controlled by a pair of retaining catches 30<sup>a</sup> pivotally mounted near the upper edge of the carrying plate 9. A spring 31 is connected to the plate 9 and also to a lug 32 mounted on the latch, which lug is adapted to ride in a slot 33 in the plate 9. The spring tends to normally hold the retaining catch in its locked position and thus prevents the support or tablet from being pushed back upon its rollers into the pedestal housing or well.

In the downward swing of the links, the catches 30<sup>a</sup> are released from their locking position by means of a lug 34 mounted upon each catch, which lug projects a sufficient distance to contact with the link 5 and is raised out of engagement with the end of the platform or tablet to permit the latter to be pushed into the pedestal housing or well. A lug 35 is also mounted on the plate 9 to prevent the plate from being lowered to any greater depth than shown clearly in Fig. 7 of the drawings. The lugs 34 and 35, both contacting against the link 5, hold the plate in substantially rigid position as the tablet or support is pushed into the well of the desk. The lug 34, striking against the link 5, raises the catch out of its locked position with a plate 36, one of these plates being mounted on each side and to the rear of the support or tablet. The plates 36, are provided with a projection 37 adapted to be engaged by a cut-out portion 38 in the catch 30<sup>a</sup>.

A tie rod 39 is connected to an end 13 of the link 5. This construction greatly facilitates the assembling of the attachment within the pedestal housing or well, holding the parts in spaced relation, and preventing displacement of the various elements of the construction.

Guide plates or runners 40 are mounted on each side of the housing or well, in the pedestal. These guide plates or runners extend the full length of the well and are attached to the legs so as to be securely positioned. As shown clearly in Fig. 6 of the drawings, the guide plates are substantially L-shaped, the horizontal portion 41 of the plate being adapted to fit into grooves 42 in a carriage 43. The guide plate or runners are substantially centrally mounted upon the plates 15 and in order to maintain the plates at a specified distance apart and to also hold them in substantially rigid position, a tie rod 44 is adapted to bridge the distance between the plates. This tie rod is provided with reduced ends 45 adapted to be passed through openings in the plate 15, the protruding ends being swedged or hammered so as to prevent displacement of the tie rod.

A door 46 for closing the front of the pedestal housing or well, is hingedly connected to the lower front edge of the carrier 43. As the door and carrier are pushed into the well when the typewriter is in use, the upper surface of the door or closure 46 engages against the lower surface of the guide plates or runners and prevents the door from being raised into its normal upright position. A spring 47 mounted on the door is adapted to contact with the lower surface of the carriage, the purpose of the springs being to normally urge the door into its upright and closed position.

In order to prevent the door 46 and car-

riage 43 from being pulled out of the well or disengaged from the guide plates or runners, base plates 48 are mounted on the front of the carriage, the base plates being provided  
5 with a cutout 49 through which the horizontal portion 41 of the guide plate or runners pass. When the carriage is extended to the front of the housing or well, the base plate 48 will strike against the rounded edge 50  
10 of the guide plates or runners. This construction prevents any further withdrawal of the carrier.

It will be readily seen from the above description that I have provided a novel construction of typewriter desk attachment that  
15 is simple in construction and relatively easy to operate. There is very little danger of any of the parts becoming disengaged. The novel construction of the locking mechanism and retaining catches positively hold  
20 the support and tablet in position of use and prevent displacement of the machine. The novel construction of attachment allows the machine supported upon the tablet, to be  
25 maintained at all times in a horizontal plane and thus prevent any damage to the machine.

Having thus disclosed the invention, I claim:

In a typewriter desk provided with a well  
30 adapted to house a typewriter, a movable member for supporting a typewriter, carrying plates including rollers operatively engaging said movable member, arms pivoted to  
35 said plates for supporting and for movement of said member from within said well to its operative position, a plate rigidly mounted on opposite sides of said well, auxiliary rollers on said last mentioned plates for engagement  
40 with said member when within said well, a latch pivoted to said carrying plates and adapted to positively engage a catch on said movable member for preventing horizontal  
45 movement of said member in either direction, and lugs carried by said latch for disengaging the same from said catch when the typewriter and supporting member are forced into the well.

In witness whereof, I hereunto subscribe my name to this specification.

50 ISADORE FRANKEL.

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