Feb. 6, 1945. M. O. MOWAT 2,369,069

TYPEWRITER DESK

Filed May 31, 1943

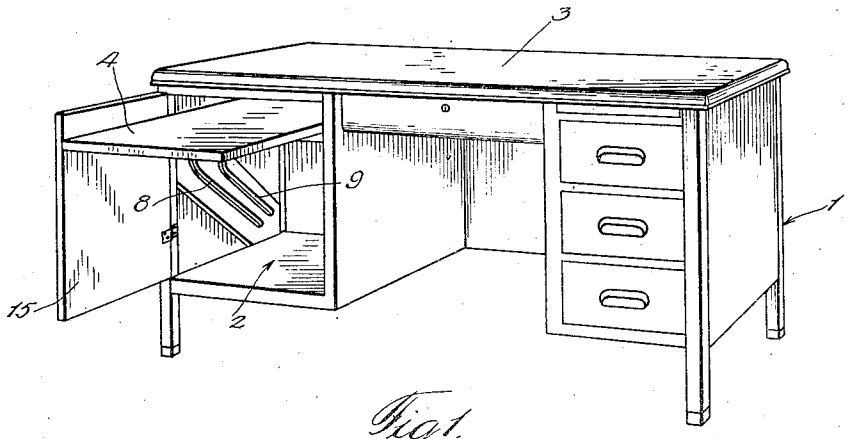


Fig. 1.

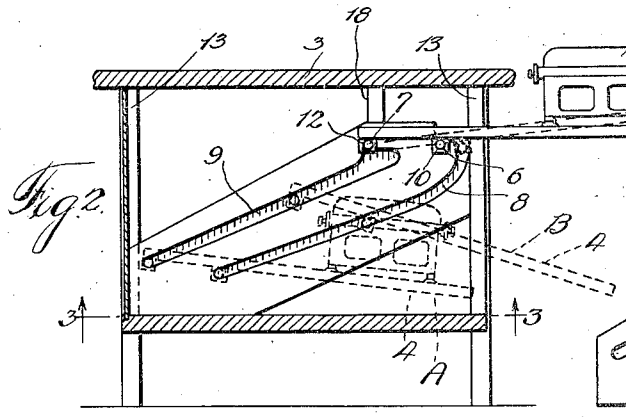


Fig. 2.

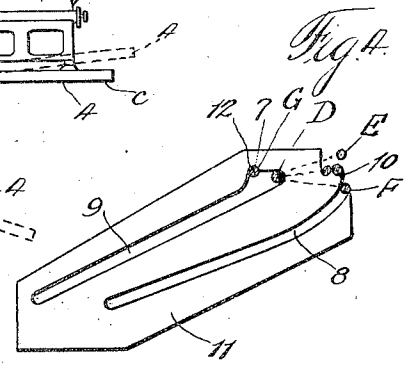


Fig. 4.

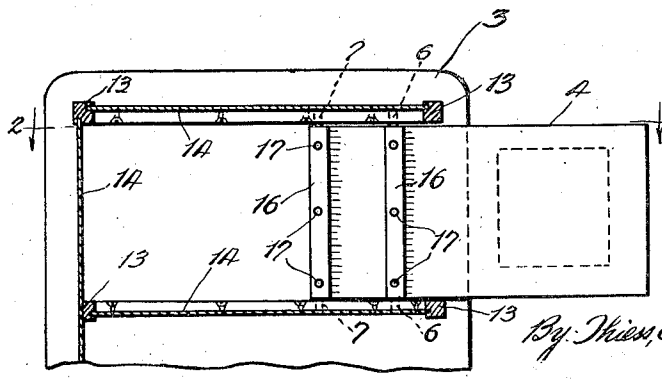


Fig. 3

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TYPEWRITER DESK

Mervyn O. Mowat, Chicago, Ill.

Application May 31, 1943, Serial No. 489,133

6 Claims. (Cl. 312—29)

My invention relates to typewriter desks.

One of the objects of my invention is to provide a typewriter desk of the type having a typewriter recess underneath the desk top into and out of which a typewriter shelf carrying the typewriter is mounted for movement, which will avoid the use of swinging metal links and which will hold the typewriter shelf firmly in position when withdrawn from the recess.

A further object of my invention is to provide such a construction which uses little or no metal.

Further objects and advantages of the invention will be apparent from the description and claims.

In the drawing, in which an embodiment of my invention is shown,

Figure 1 is a perspective view of a typewriter desk;

Fig. 2 is a section substantially on the line 2—2 of Fig. 3;

Fig. 3 is a section substantially on the line 3—3 of Fig. 2; and

Fig. 4 is a detail view of one of the guide cheek pieces.

Referring to the drawing in detail, the construction shown comprises a typewriter desk 1 having a typewriter recess or compartment 2 underneath the desk top 3, a typewriter shelf 4, insertable, with a typewriter 5 carried thereby, into the recess underneath the desk top and withdrawable, with the typewriter, from the recess to a position of use in front of the desk top (shown in full lines in Fig. 2), and means for guiding the shelf in insertion and withdrawal comprising a front pair of guides 6 projecting laterally on opposite sides of the shelf and secured thereto, a rear pair of guides 7 projecting laterally on opposite sides of the shelf and secured to the shelf, a pair of guideways 8 in the well controlling the movement of the front guides, and a pair of guideways 9 in the recess controlling the movement of the rear guides, the guideways being laid out so that in moving the typewriter into and out of the recess, downward movement of the rear guides 7 and upward movement of the front guides 6 are limited to prevent the typewriter from striking the under side of the desk top 3 and so that when the front of the typewriter shelf and typewriter thereon are drawn to the front they may be lifted to raise the upper part of the typewriter above the level of the desk top and to hold the shelf in raised position, as shown in Fig. 2.

The position which the shelf and typewriter must assume when fully inserted into the compartment 2 is shown in dotted lines in position A in Fig. 2. An intermediate position of the shelf in which the shelf is partly withdrawn from the recess is indicated in dotted lines at B in Fig. 2. The position of the shelf and typewriter when in position for use of the typewriter is shown at C in Fig. 2.

In withdrawing the shelf and typewriter, the natural tendency is to pull outwardly and upwardly on the shelf. This will in general cause the rear guides 7 to bear down on the lower edges of the guideways 9 and the front guides 6 to bear upwardly on the upper edges of the guideways 8, thus preventing the typewriter from striking the under side of the desk top as it is drawn outwardly. The guides 6 and 7 on each side of the shelf are spaced apart a distance less than that which would hold the shelf in horizontal position. The forward movement of the shelf will result in drawing the guides 7 up against the fronts of the guideways as shown at D in Fig. 4. This limits the outward movement of the shelf. The user then tilts the shelf upwardly about the point D as a center to bring the front guides 6 from the position at F to the position shown at E in Fig. 4 above the upward extension of the guide cheek, the rear guides still remaining at the front ends of the guideways. After the front guides have been raised to position E, the shelf may then be shoved rearwardly until the front guides 6 are in position to drop down into the notches 10 in the guide cheeks 11 and the rear guides 7 are in position to be lifted upwardly into the positioning notches 12 in the guideways, as indicated at G. These notches 10 and 12, by snugly engaging the guides 6 and 7, will cause the shelf to be held firmly in position of use by the action of the weight of the front end of the shelf and the typewriter supported thereon.

To move the shelf and typewriter from the position of use to the storage position, the operations are reversed. The user lifts up on the front end of the shelf 4, the shelf tilting about the front followers 6 resting in the notches 10 as a fulcrum point until the rear guides 7 are clear of the notches 12 in the guideways. The shelf carrying the typewriter is then drawn forwardly to bring the rear guides up against the front ends of the guideways to position D and to bring the front guides to a position in which they can swing downwardly from the position shown at E in Fig. 4 to the position shown at F. The shelf carrying the typewriter can then be pushed inwardly to the position shown at A in Fig. 2.

In a certain type of desk, the recess has four uprights 13 at the corners, to which the front and side panels 14 of the recess are secured. In this type of desk, the cheek pieces 11, in which the guideways are formed, may lie in the space between a pair of corner posts, thus enabling the shelf to be made substantially the width of the front opening in the recess. A suitable door 15 is hinged in front of the recess for closing the recess when the shelf and typewriter are in storage position. The guides may be formed as

rounded extensions of wooden cleats or strips 16 secured to the under side of the shelf. In the type of desk shown, it may be necessary to secure these cleats to the shelf 4 after the cleats have been placed in position, in which their rounded extensions are in engagement with the guideways 8 and 9. This may be done by the use of screws 17 extending through the cleats and threaded into the shelf. The construction is such that the cleats 4, with their guides 6 and 7 and the cheek pieces in which the guideways 8 and 9 are formed, may be made of wood of a suitable hardness and strength.

If desired, that portion of the cheek pieces 11 adjacent the notches 12 may be reinforced by means of blocks 18 secured to the side panels 14 and extending between the desk top 3 and the upper edges of the cheek pieces.

Further modifications will be apparent to those skilled in the art and it is desired, therefore, that the invention be limited only by the scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In a typewriter desk having a typewriter recess underneath the desk top, a typewriter shelf insertable with the typewriter carried thereby into said recess underneath the desk top and withdrawable with the typewriter from said recess to a position of use in front of the desk top, and means for guiding said shelf in insertion and withdrawal comprising a front pair of guides projecting laterally on opposite sides of the shelf, a rear pair of guides projecting laterally on opposite sides of the shelf, a first pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the front guides and a second pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the rear guides, the guideways on each side of the shelf being spaced apart a distance less than that which will hold the shelf in horizontal position so that in moving the typewriter into and out of the recess downward movement of the rear guides and upward movement of the front guides are limited to hold said shelf in a downwardly and forwardly inclined position to prevent the typewriter from striking the under side of the desk top, the upper front ends of the guideways for the front guides being substantially arcs of a circle about the front ends of the guideways for the rear guides so that when the front of the typewriter shelf and the typewriter thereon are drawn to the front, the front end of the shelf may be swung upwardly about the rear guides as pivots to a substantially horizontal position to bring the upper part of the typewriter above the level of the desk top, the upper ends of the guideways for the front guides communicating with seat portions rearwardly thereof for said front guides, the rear guideways terminating at their upper ends in widened portions presenting downwardly facing seat portions so that thereafter the shelf may be moved rearwardly so that it is held in horizontal position for use by the engagement of the guides with the seat portions.

2. In a typewriter desk having a typewriter recess underneath the desk top, a typewriter shelf insertable with the typewriter carried thereby into said recess underneath the desk top and withdrawable with the typewriter from said recess to a position of use in front of the desk top, and means for guiding said shelf in insertion and withdrawal comprising a front pair of guides projecting laterally on opposite sides of the shelf, a rear pair of guides projecting laterally on opposite sides of the shelf, a first pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the front guides and a second pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the rear guides, the guideways on each side of the shelf being spaced apart a distance less than that which will hold the shelf in horizontal position so that in moving the typewriter into and out of the recess downward movement of the rear guides and upward movement of the front guides are limited to hold said shelf in a downwardly and forwardly inclined position to prevent the typewriter from striking the under side of the desk top, the upper front ends of the guideways for the front guides being substantially arcs of a circle about the front ends of the guideways for the rear guides so that when the front of the typewriter shelf and the typewriter thereon are drawn to the front, the front end of the shelf may be swung upwardly about the rear guides as pivots to a substantially horizontal position to bring the upper part of the typewriter above the level of the desk top, the upper ends of the guideways for the front guides communicating with seat portions rearwardly thereof for said front guides, the rear guideways terminating at their upper ends in widened portions presenting downwardly facing seat portions so that thereafter the shelf may be moved rearwardly so that it is held in horizontal position for use by the engagement of the guides with the seat portions, each of said first pair of guideways having an upwardly opening notch into which a front guide enters when the shelf is in position for use.

3. In a typewriter desk having a typewriter recess underneath the desk top, a typewriter shelf insertable with the typewriter carried thereby into said recess underneath the desk top and withdrawable with the typewriter from said recess to a position of use in front of the desk top, and means for guiding said shelf in insertion and withdrawal comprising a front pair of guides projecting laterally on opposite sides of the shelf, a rear pair of guides projecting laterally on opposite sides of the shelf, a first pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the front guides and a second pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the rear guides, the guideways on each side of the shelf being spaced apart a distance less than that which will hold the shelf in horizontal position so that in moving the typewriter into and out of the recess downward movement of the rear guides and upward movement of the front guides are limited to hold said shelf in a downwardly and forwardly inclined position to prevent the typewriter from striking the under side of the desk top, the upper front ends of the guideways for the front guides being substantially arcs of a circle about the front ends of the guideways for the rear guides so that when the front of the typewriter shelf and the typewriter thereon are drawn to the front, the front end of the shelf may be swung upwardly about the rear guides as pivots to a substantially horizontal position to bring the upper part of the typewriter above the level of the desk top, the upper ends of the guideways for the front guides communicating with seat portions rearwardly thereof for said front guides, the rear guideways terminating at their upper ends in widened portions

presenting downwardly facing seat portions so that thereafter the shelf may be moved rearwardly so that it is held in horizontal position for use by the engagement of the guides with the seat portions, each of said second pair of guideways having a downwardly opening notch into which a rear guide enters when the shelf is in position for use.

4. In a typewriter desk having a typewriter recess underneath the desk top, a typewriter shelf insertable with the typewriter carried thereby into said recess underneath the desk top and withdrawable with the typewriter from said recess to a position of use in front of the desk top, and means for guiding said shelf in insertion and withdrawal comprising a front pair of guides projecting laterally on opposite sides of the shelf, a rear pair of guides projecting laterally on opposite sides of the shelf, a first pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the front guides and a second pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the rear guides, the guideways on each side of the shelf being spaced apart a distance less than that which will hold the shelf in horizontal position so that in moving the typewriter into and out of the recess downward movement of the rear guides and upward movement of the front guides are limited to hold said shelf in a downwardly and forwardly inclined position to prevent the typewriter from striking the under side of the desk top, the upper front ends of the guideways for the front guides being substantially arcs of a circle about the front ends of the guideways for the rear guides so that when the front of the typewriter shelf and the typewriter thereon are drawn to the front, the front end of the shelf may be swung upwardly about the rear guides as pivots to a substantially horizontal position to bring the upper part of the typewriter above the level of the desk top, the upper ends of the guideways for the front guides communicating with seat portions rearwardly thereof for said front guides, the rear guideways terminating at their upper ends in widened portions presenting downwardly facing seat portions so that thereafter the shelf may be moved rearwardly so that it is held in horizontal position for use by the engagement of the guides with the seat portions, each of said first pair of guideways having an upwardly opening notch into which a front guide enters when the shelf is in position for use, each of said second pair of guideways having a downwardly opening notch into which a rear guide enters when the shelf is in position for use.

5. In a typewriter desk having a typewriter recess underneath the desk top, a typewriter shelf insertable with the typewriter carried thereby into said recess underneath the desk top and withdrawable with the typewriter from said recess to a position of use in front of the desk top, and means for guiding said shelf in insertion and withdrawal comprising a front pair of guides projecting laterally on opposite sides of the shelf, a rear pair of guides projecting laterally on opposite sides of the shelf, a first pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the front guides and a second pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the rear guides, the guideways on each side of the shelf being spaced apart a distance less than that which will hold the shelf in horizontal position so that in moving the typewriter into and out of the recess downward movement of the rear guides and upward movement of the front guides are limited to hold said shelf in a downwardly and forwardly inclined position to prevent the typewriter from striking the underside of the desk top, the upper front ends of the guideways for the front guides being substantially arcs of a circle about the front ends of the guideways for the rear guides so that when the front of the typewriter shelf and the typewriter thereon are drawn to the front, the front end of the shelf may be swung upwardly about the rear guides as pivots to a substantially horizontal position to bring the upper part of the typewriter above the level of the desk top, the upper ends of the guideways for the front guides communicating with seat portions rearwardly thereof for said front guides, the rear guideways terminating at their upper ends in widened portions presenting downwardly facing seat portions so that thereafter the shelf may be moved rearwardly so that it is held in horizontal position for use by the engagement of the guides with the seat portions, said guideways being formed in wooden cheek pieces mounted in said recess on opposite sides of the said shelf.

6. In a typewriter desk having a typewriter recess underneath the desk top, a typewriter shelf insertable with the typewriter carried thereby into said recess underneath the desk top and withdrawable with the typewriter from said recess to a position of use in front of the desk top, and means for guiding said shelf in insertion and withdrawal comprising a front pair of guides projecting laterally on opposite sides of the shelf, a rear pair of guides projecting laterally on opposite sides of the shelf, a first pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the front guides and a second pair of forwardly and upwardly inclined guideways in the recess controlling the movement of the rear guides, the guideways on each side of the shelf being spaced apart a distance less than that which will hold the shelf in horizontal position so that in moving the typewriter into and out of the recess downward movement of the rear guides and upward movement of the front guides are limited to hold said shelf in a downwardly and forwardly inclined position to prevent the typewriter from striking the underside of the desk top, the upper front ends of the guideways for the front guides being substantially arcs of a circle about the front ends of the guideways for the rear guides so that when the front of the typewriter shelf and the typewriter thereon are drawn to the front, the front end of the shelf may be swung upwardly about the rear guides as pivots to a substantially horizontal position to bring the upper part of the typewriter above the level of the desk top, the upper ends of the guideways for the front guides communicating with seat portions rearwardly thereof for said front guides, the rear guideways terminating at their upper ends in widened portions presenting downwardly facing seat portions so that thereafter the shelf may be moved rearwardly so that it is held in horizontal position for use by the engagement of the guides with the seat portions, the center of gravity of the combined typewriter and shelf being in front of both pairs of guides.

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