

Sept. 19, 1939.

C. W. KOCH

2,173,302

TYPEWRITER DESK

Filed March 11, 1938

2 Sheets-Sheet 1

FIG. 2

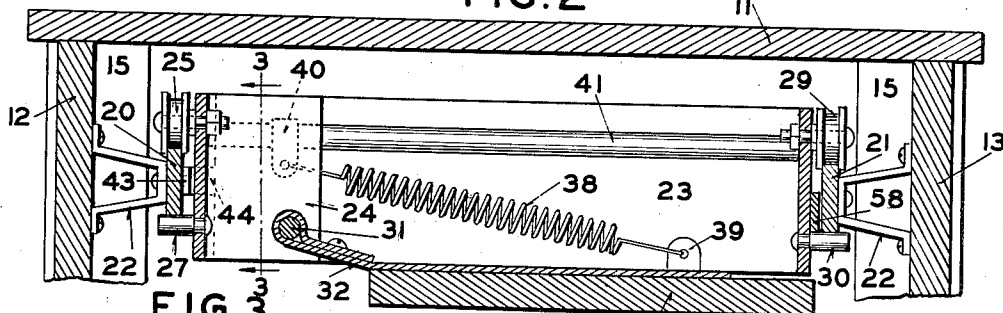


FIG. 3.

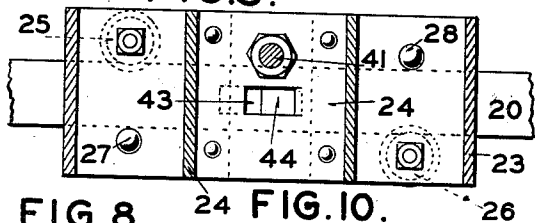


FIG. 8.

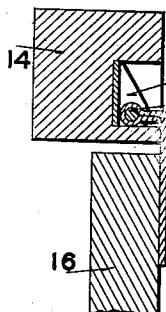


FIG. 10.

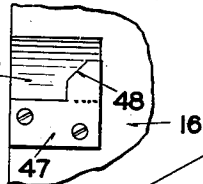


FIG. 1.

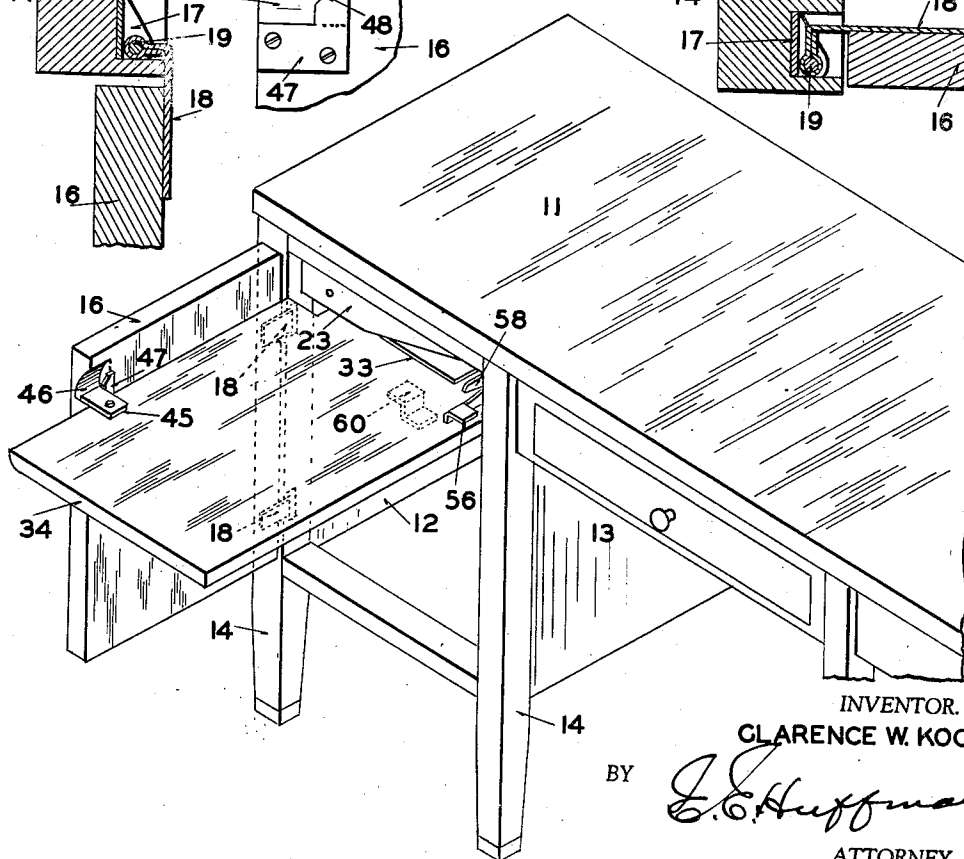


FIG. 4.

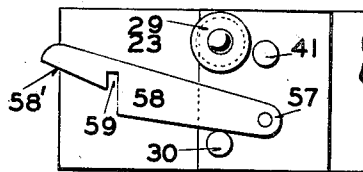
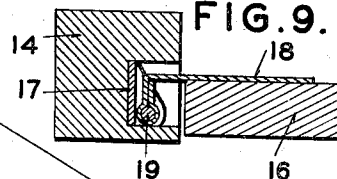


FIG. 9.



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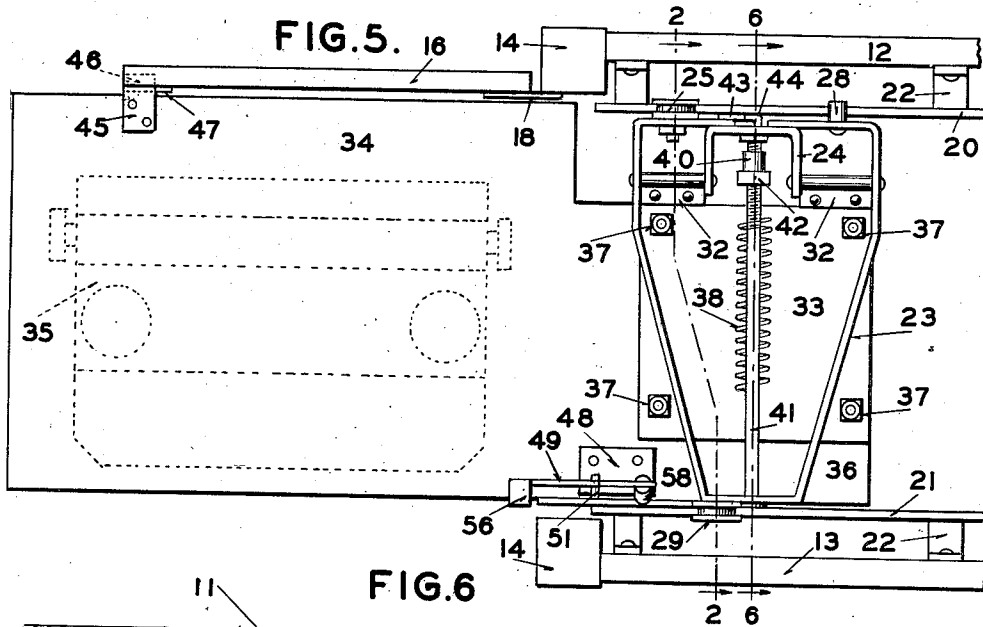
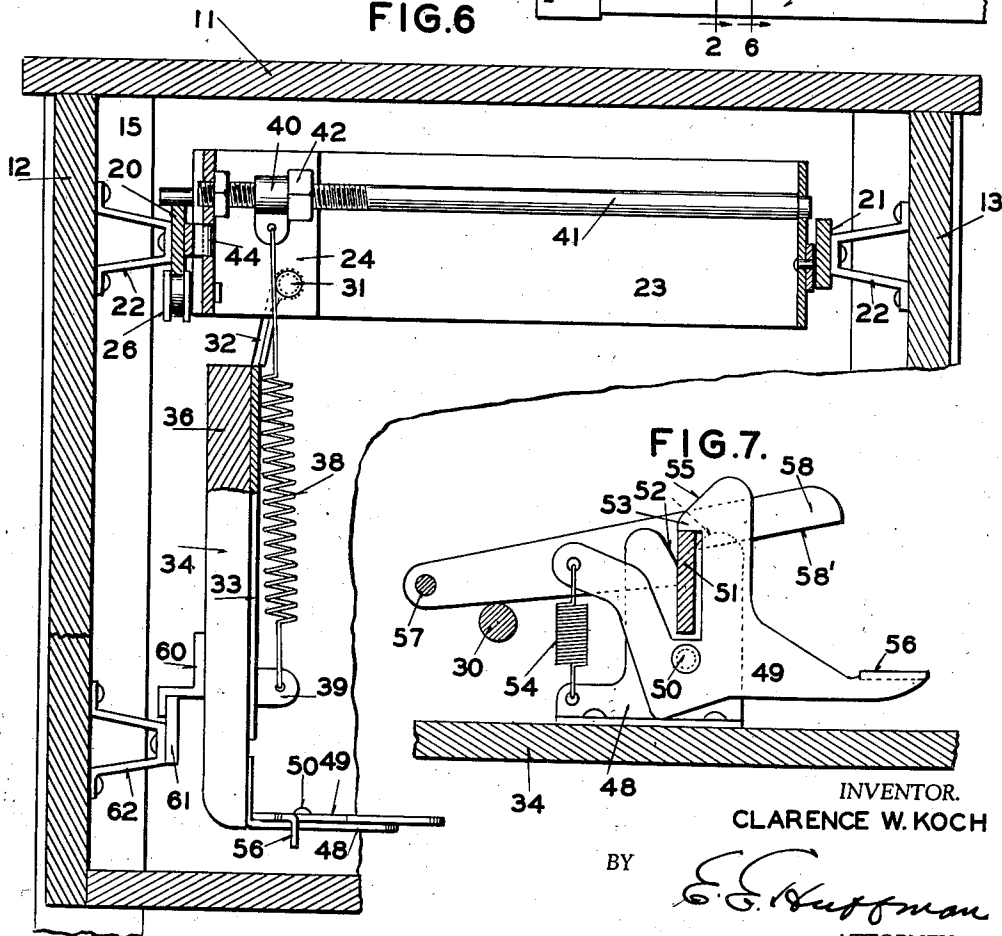
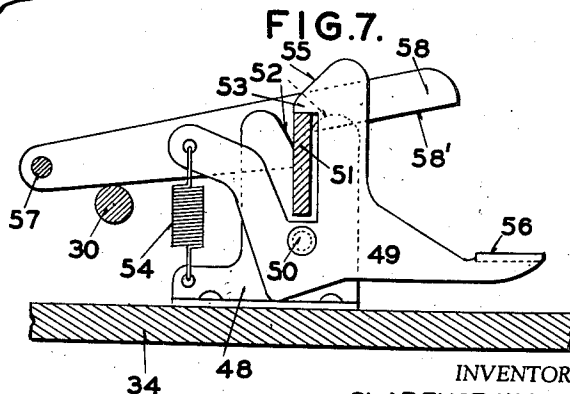
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UNITED STATES PATENT OFFICE

2,173,302

TYPEWRITER DESK

Clarence W. Koch, St. Louis, Mo.

Application March 11, 1938, Serial No. 195,211

6 Claims. (Cl. 312—29)

My invention relates to a desk for supporting a typewriting machine and particularly to the type of desk known as a pedestal desk in which the machine, when not in use, is concealed in a pedestal at one end of the desk. In desks of this type it is usual to provide the opposite end of the desk with a second pedestal to contain supplies, the space between the pedestals providing knee room for the typist when the machine is not in use.

One object of my invention is to provide effective means for pivotally mounting the table upon which the machine is carried to swing from horizontal to vertical position on an axis extending in the direction of the length of the machine. As the height of the usual type of machine is less than the distance from its front to rear, this enables me to employ a pedestal of less width than usual. I am thus enabled to substantially decrease the over-all length of the desk without restricting the space for the operator.

Another object of my invention is to provide an improved form of carriage for moving the table into and out of the pedestal, as well as improved means for locking said table against movement.

In the accompanying drawings which illustrate one form of desk made in accordance with my invention Figure 1 is a perspective view of one end of the desk; Figure 2 is a vertical section taken on the line 2—2 of Figure 5; Figure 3 is a section taken on the line 3—3 of Figure 2; Figure 4 is an end view of the carriage; Figure 5 is a top plan view, the desk top being removed; Figure 6 is a section taken on the line 6—6 of Figure 5; Figure 7 is an enlarged detail view of the table locking mechanism; Figures 8 and 9 are enlarged sectional views of the door hinge; and Figure 10 is a detail view of supporting means for the outer end of the table.

The desk, as shown in Figure 1, is arranged to receive the machine in the left-hand pedestal, which alone will be described. It comprises a top 11 and side walls 12 and 13, respectively, extending between front legs or posts 14 and rear legs or posts 15. A pedestal door 16 is pivoted to the left-hand post 15 by a pair of hinges, one of which is shown in detail in Figures 8 and 9. Each hinge consists of a bracket 17 set into the inner face of the post and an L-shaped strap 18 pivoted to a pintle 19 carried by the bracket. The end of the strap is secured to the inner face of the door and the parts are so proportioned that when the door is open, as shown in Figures 1 and 8, the inner face of the door is flush with the inside face

of the post and when the door is closed, as shown in Figure 9, the outer face of the door is either flush with the front face of the post or lies slightly behind it to produce a panel effect.

Carried on wall 12 is a rail 20 and on wall 13 a rail 21. These rails are supported by any suitable means such as brackets 22 and form a track upon which the table supporting carriage travels. This carriage comprises an approximately rectangular frame 23 and a U-shaped member 24. Carried on the left-hand end of frame 23 is a roller 25 engaging with the upper edge of rail 20 and a roller 26 engaging with the lower edge thereof. To retain the rollers in contact with the rail, pins 27 and 28, respectively, engage the edge of the rail 15 opposite the roller. At the right-hand end the frame is provided with a roller 29 engaging the upper edge of rail 21 and opposed by pin 30. Extending between the sides of frame 23 and the arms of member 24 are a pair of trunnions 31 which are surrounded by the looped ends of straps 32 forming extensions of a plate 33.

The table 34 to which the typewriting machine 35, shown in dotted lines in Figure 5, is rigidly secured by bolts or other means (not shown) is provided with a narrow extension 36 secured to plate 33 by bolts 37. The table thus swings from horizontal to vertical position on the trunnions 31. It will be seen that the trunnions 31 are positioned a substantial distance from the end 30 of the carriage adjacent rail 20 and consequently an extended line passing through their axes will lie a considerable distance forward of the outer side of table 34. Due to this arrangement the portion of the table lying beyond this extended line will descend when the inner side of the table is raised to bring the typewriter into operative position. This downward movement of the outer side of the table is of importance in securing the proper movement of the stop plate engaging the door as hereinafter described. To permit the table to be more easily raised, I provide a counterbalance spring 38, one end of which is attached to a lug 39 on plate 33 and the other to a collar 40. The collar is slidably mounted on a rod 41 extending between member 24 and the opposite end of frame 23. The left-hand end of rod 41 is threaded and provided with a nut 42 by means of which collar 40 may be moved along the rod to vary the tension of the spring to accommodate machines of different weight.

To limit the outward movement of the table and its carriage, rail 20 is provided with a stop 43 and the carriage with a cooperating stop 44 formed by bending back a portion of the U-shaped

member 24. A support is provided for the forward end of the table by a stop plate 45 secured to the table and engaging with an arcuate recess 46 in the door when the table is in horizontal position. Secured to the door adjacent the recess 46 is an L-shaped wear plate 47 to protect the wood of the door from marring by contact with stop 45. This plate is provided with an inclined face 48 adapted to engage stop 45 as it is swung down into the recess and draw stop 44 firmly against stop 43. This will rigidly lock the table against longitudinal movement while it is in horizontal position.

To hold the table in horizontal position it is provided with the locking device shown in detail in Figure 7. This device comprises a bracket 48 and a lever 49 pivoted thereto at 50. The bracket is bifurcated to provide a slot for the reception of an abutment 51 formed by bending over the end of track 21. The upper ends of the bifurcation are rounded or beveled as shown at 52 to guide the abutment into the slot. Lever 49 has a lip 53 held in engagement with the upper edge of the abutment by a spring 54. The upper end of the lever is provided with an inclined face 55 to engage the abutment as the table is swung upwardly and move the lever on its pivot to allow the lip to pass back of the abutment. The lip may be released from the abutment by pressure on a finger piece 56. Pivoted to the end of frame 23 at 57 is an arm 58 having a slot 59 for engagement with the abutment 51 to prevent longitudinal movement of the table when it is lowered and hence lever 49 is disengaged from the abutment and stop 45 is moved out of recess 46. The forward end of arm 58 has an inclined face 58' adapted to engage the upper edge of the abutment when the carriage is moved to its forward position and so raise the arm to allow its slot to drop into engagement with the abutment. When the arm is out of engagement with the abutment, it is supported in position by pin 30. The forward end of the arm is so positioned as to be accessible from the front of the desk when the table is in its extended position, as shown in Figure 1. Secured to the under face of the table is a Z-shaped guide 60 (Figure 6) for engagement with a track 61 carried on the wall 12 by brackets 62 and situated directly under track 20. The relative position of the track and guide is such that the guide will engage the track as soon as the table begins its rearward movement into the pedestal. This engagement prevents accidental upward swing of the table during its movement into or out of the pedestal which might result in injury to the machine mounted thereon.

The operation of my desk is, briefly, as follows: When the machine, together with its supporting table, is enclosed in the pedestal and it is desired to use the machine, the door is opened to the position shown in Figure 1. The forward end of the table is now grasped and drawn outwardly until stop 44 engages stop 43. The lower edge of the table is now grasped and swung upwardly until the table is in horizontal position. During the latter part of this upward movement, the abutment 51 will enter the slot in bracket 48, lever 49 being swung on its pivot by the action of the abutment on face 55, and at the end of the movement lip 53 will be drawn over the abutment by tension of spring 54. This will lock the table in horizontal position. At the same time, stop 45 will enter recess 46 to provide an auxiliary support for the front of the table and

by its action on face 48 draw stop 44 more firmly against stop 43 to form a rigid lock against longitudinal movement of the table. To return the table and machine to concealed position, finger piece 56 is depressed to withdraw lip 53 from abutment 51 which will release the table so it may be lowered to the position shown in Figure 6. As, however, slot 59 in lever 58 is in engagement with the abutment, the table cannot be accidentally forced into the pedestal during this lowering operation. At the completion of the lowering operation, lever 58 is raised to disengage it from the abutment. The table may then be returned to its initial position.

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

1. In a device of the class described, a desk provided with a pedestal, a carriage slidable in said pedestal, a table pivotally mounted on said carriage to swing from a horizontal to an approximately perpendicular position on an axis parallel with the direction of travel of the carriage, a door for said pedestal, said door being unconnected with the table when the latter is in perpendicular position, and means carried by the table forward of the carriage engaging with an abutment on the door to support the table when the latter is in horizontal position.

2. In a device of the class described, a desk provided with a pedestal, a carriage slidable in said pedestal, a table pivotally mounted on said carriage to swing from horizontal to an approximately perpendicular position on an axis parallel with the direction of travel of the carriage, a door for said pedestal, said door being unconnected with the table when the latter is in perpendicular position, a stop for limiting the outward movement of the carriage, and means carried by the table forward of the carriage engaging with an abutment on the door to support the table when the latter is in horizontal position, said means and abutment cooperating to exert a camming effect on the table to clamp the carriage against said stop.

3. In a device of the class described, a desk provided with a pedestal, a track in said pedestal comprising a pair of rails positioned at opposite sides thereof, a carriage mounted on said track to travel from the front to the rear of the pedestal, a table pivotally mounted on said carriage adjacent one end thereof to swing from horizontal to approximately vertical position, an abutment on the desk adjacent the other end of the carriage when the latter is in its forward position, locking means carried by the table engaging said abutment to hold the same in raised position, and locking means mounted on the carriage and engaging said abutment to prevent movement of the carriage.

4. In a device of the class described, a desk provided with a pedestal, a track in said pedestal, a carriage mounted on said track to travel from the front to the rear of the pedestal, a trunnion carried by said carriage, said trunnion extending in the direction of travel of the carriage and positioned a substantial distance from the outer end of the carriage, a table pivoted on said trunnion whereby the outer side of the table descends when the inner side is raised, a pedestal door, and means carried on the outer side of the table for engaging with an abutment on the door to form a support for the table.

5. In a device of the class described, a desk provided with a pedestal, a track in said pedestal, 75

5 a carriage mounted on said track to travel from
the front to the rear of the pedestal, a trun-
nion carried by said carriage, said trunnion ex-
tending in the direction of travel of the carriage
and positioned a substantial distance from the
10 outer end of the carriage, a table pivoted on said
trunnion whereby the outer side of the table
descends when the inner side is raised, a pedes-
tal door, a shoulder on the outer side of said
table, and a wear plate on the door cooperating
with the shoulder to form a support for the outer
end of the table.

15 6. In a device of the class described, a desk
provided with a pedestal, a track in said pedestal,
a carriage mounted on said track to travel from
the front to the rear of the pedestal, a trunnion

carried by said carriage, said trunnion extending
in the direction of travel of the carriage and
positioned a substantial distance from the outer
end of the carriage, a table pivoted on said
trunnion whereby the outer side of the table
5 descends when the inner side is raised, a stop
for limiting the outward movement of the car-
riage, a pedestal door, a shoulder on the outer
side of the table, and a wear plate on the door
cooperating with the shoulder to form a table
10 support, said plate being provided with an in-
clined face acting on the shoulder to exert a
camming effect upon the table to draw the car-
riage against its stop.

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