

(No Model.)

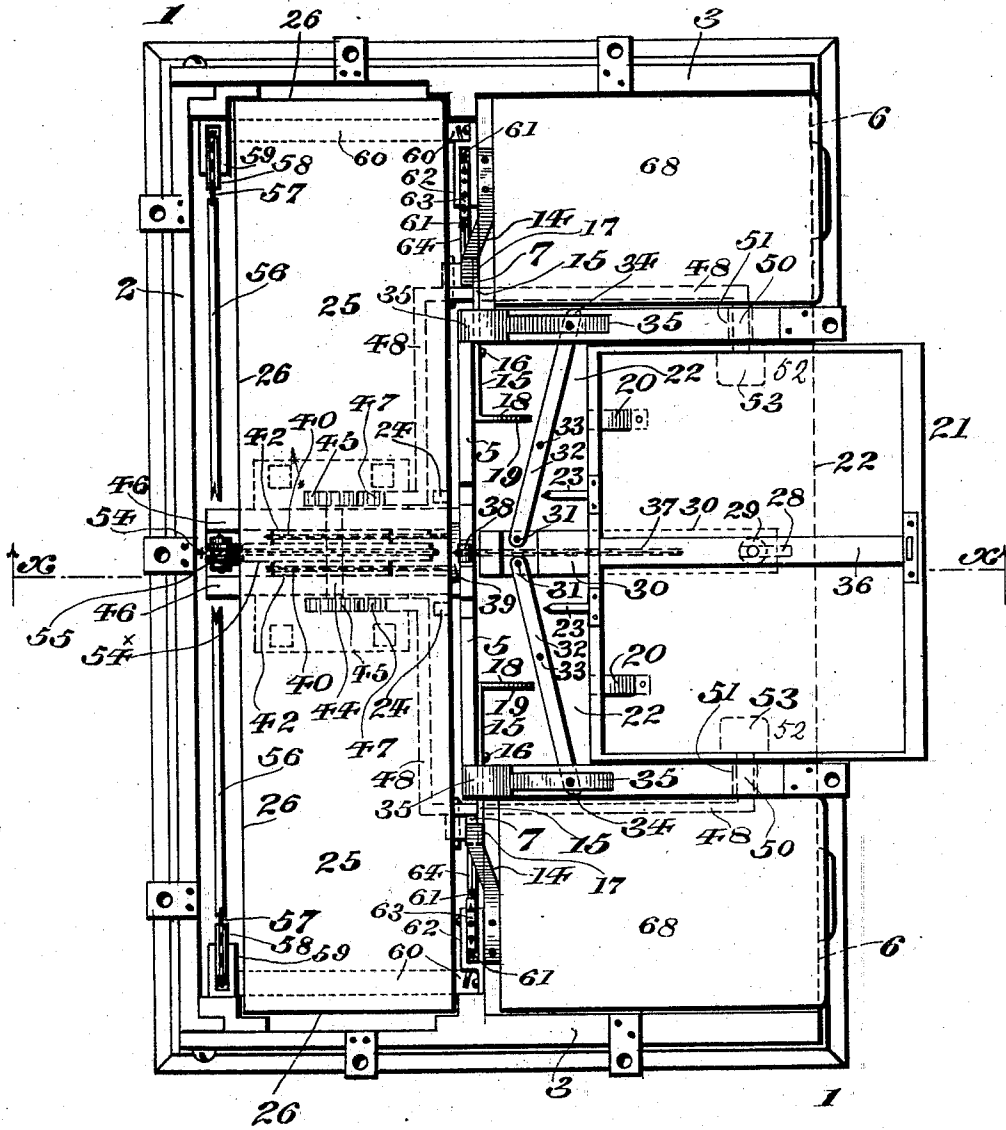
3 Sheets—Sheet 1.

H. D. HERMANY.
DESK.

No. 578,743.

Patented Mar. 16, 1897.

fig. 1.



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3 Sheets—Sheet 2.

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fig. 2.

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3 Sheets—Sheet 3.

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fig. 5.

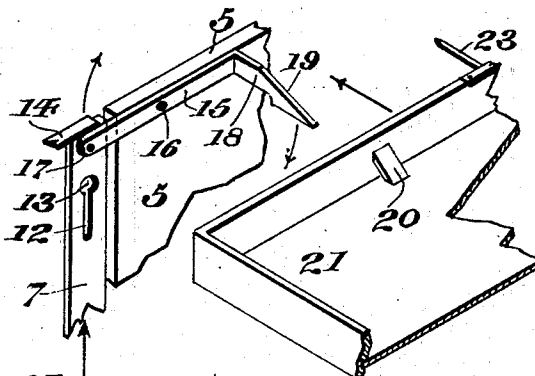


fig. 6.

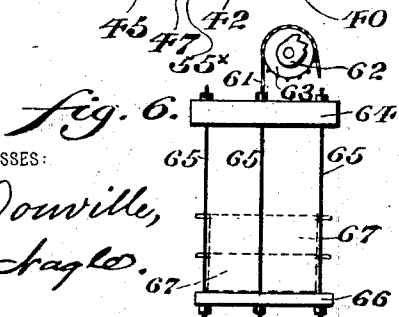
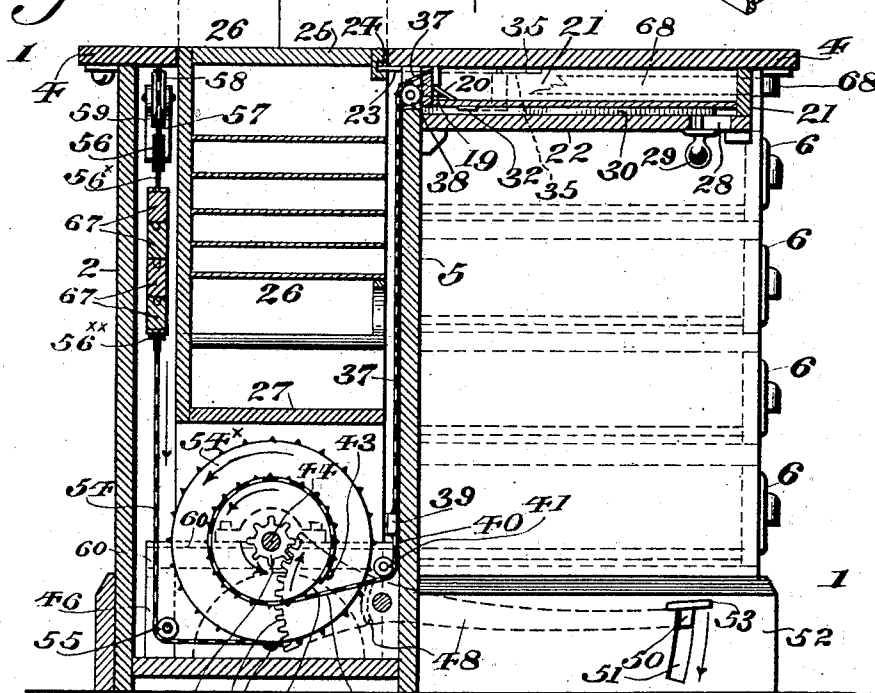


fig. 7.

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UNITED STATES PATENT OFFICE.

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DESK.

SPECIFICATION forming part of Letters Patent No. 578,743, dated March 16, 1897.

Application filed July 23, 1896. Serial No. 600,187. (No model.)

To all whom it may concern:

Be it known that I, HORACE D. HERMANY, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Desks, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to desks; and it consists of movable pigeonholes having mechanism for raising and lowering the same, means for holding the pigeonholes in elevated position, and a counterbalance therefor.

It further consists of providing the desk with mechanism for locking the drawers of the pigeonholes thereof when the latter are in lowered position.

It further consists of novel details of construction, all as will be hereinafter set forth, and specifically pointed out in the claims.

Figure 1 represents a plan view of a desk embodying my invention; the top thereof being removed and the central drawer being partially opened for clearness of illustration. Fig. 2 represents a rear elevation of the desk with the back thereof removed for the purpose of showing the interior. Fig. 3 represents a rear elevation of a portion of the back of the desk, showing the counterbalancing devices for the pigeonholes and their adjuncts. Fig. 4 represents a section on line *x x*, Fig. 1, showing specially the counterbalancing devices and the means for raising the pigeonholes into elevated position. Fig. 5 represents a perspective view of a portion of the centrally-located drawer employed and its adjuncts, showing the means for locking the desk. Fig. 6 represents a side elevation of a portion of the counterbalancing mechanism. Fig. 7 represents a perspective view of one of the detachable weights employed.

Similar numerals of reference indicate corresponding parts in the several figures.

Referring to the drawings, 1 designates a desk, the same consisting of the back 2, the sides 3, and the top 4, all of which may be removable according to requirements.

5 designates a front wall of the desk, on each side of which are the series of drawers 6, between which the knees and feet of the user can rest, as is customary, the drawers 6

being locked and unlocked by a single movement, as will be now explained, the mechanism for locking and unlocking the drawers on each side being alike.

7 designates an upright bar which is provided in its lower portion with a slot 10, which is of uniform width and has passing through it the pin or stud 8, which latter is secured to the wall 9, which is stationary.

Each rear wall of each drawer 6 is provided with a pin 11, which passes through the contiguous slot 12, which is located in the bar 7 at the rear of the drawer 6, each of said slots having an enlarged portion 13, through which the head of the pin 11 can freely pass when said head and enlarged portion are in alignment, the drawers in Fig. 2 being seen in locked position.

14 designates a spring or similar device which has one end attached to a suitable portion of the desk, while its free end bears upon the top of the bar 7, thereby always exerting a tendency to move said bar downwardly, so that the openings 13 and heads of pins 11 will normally be in alinement and the drawers unlocked.

15 (see Fig. 5) designates a lever which is fulcrumed at 16 to the wall 5 and has one end 17 pivoted to the bar 7, the other extremity of said lever being bent at an angle thereto, thereby forming the member 18, which is provided with a beveled or chamfered portion 19, which is adapted to be engaged by the inclined portion 20 when the central drawer 21 is moved into closed position, as seen in Fig. 4, the relative position of the parts being understood from Fig. 5, and the said drawer being supported on the shelf 22.

23 designates pins, two in number in the present instance, which project rearwardly from said drawer and are adapted to engage the sockets 24, which are attached to the top 25 of the nest of pigeonholes 26, the latter being provided with front and rear walls and a base 27, which may be in substantial alinement with the top 4 when said nest of pigeonholes are in elevated position, as indicated in dotted lines in Fig. 4.

28 designates a slot in the shelf or support 22, through which passes a portion of the

button 29, the latter entering the bar 30, which is supported on said shelf and which moves in suitable bearings and has pivoted thereto at 31 one end of each of the levers 32, which are fulcrumed at 33 on a suitable support, while the other ends 34 are pivotally attached to the latches 35, which are adapted to be moved under the base 27 when the pigeonholes 26 are in their elevated position, as indicated in dotted lines in Fig. 4, the said latches 35 being thus moved in or out by moving the button 29 in its slot 28.

36 designates a bar or partition which may or may not be employed, and which in the present instance divides the drawer 21 into two compartments, said bar having attached thereto one end of the chain or connection 37, which passes over the roller 38 and thence downwardly to the block 39.

40 designates chains or connections which have each an end attached to said block 39, while their other ends pass under the roller 41, and thence around the drums 42, said chains being connected to the drums 42 at the points 43.

44 designates a shaft, upon which said drums are mounted, said shaft having also mounted in each extremity thereof the pinions 45 and being provided with suitable bearings in the standards 46.

47 designates a rack whose teeth are adapted to engage with the pinion 45, said rack being attached to a bar 48, which is bent, as indicated dotted in Fig. 1, said bar 48 having near its extremity a deflected portion 50, which passes through the slot 51 in the lower molding 52 and has a foot-piece or treadle 53 attached thereto, as will be understood from Figs. 1 and 4.

54 designates a chain or other connection attached to the enlarged drum 54^x at the point 55^x, said connection passing under the roller 55, which is journaled upon any suitable support, and thence upwardly, where it is connected with the bar 56, which is located in the rear of the desk.

57 designates chains which are attached to the ends of the bar 56 and pass over the rollers 58, which are mounted in suitable hangers 59, which are attached to any convenient portion of the sides 2 of the desk, said chains 57 passing thence downwardly and being attached in the present instance to the strips 60, (see Fig. 3,) which are attached by screws, nails, or pins or in any suitable manner to the nest of pigeonholes 26, the point of attachment of said chain 57 being evident from the left end portion of Fig. 3, it having been omitted from the other figures for the sake of clearness of illustration.

61 designates a chain (see Fig. 2) or other connection which has one end attached to the above-mentioned strip 60, while its other end passes upwardly between the arms of the bracket or hanger 62 and thence over the pulley or sprocket-wheel 63, which is journaled therein, the other end of said connection

being connected to the bar or weight 64, as is best seen in Figs. 2 and 6.

The preferred construction of said weight or counterbalancing device is indicated in said last-mentioned figure, in which the weight 64 is provided with the depending rods 65, which are attached to the bar 66, upon which the weights 67 are adapted to be supported in any convenient manner.

In Fig. 3 the extremities of the bar 56 are shown also provided with depending rods 56^x, which are connected with the lower strip or bar 56^{xx}, upon which the weights 67 are adapted to be superimposed according to requirements.

The operation is as follows: When it is desired to use the desk as a flat-top desk, the parts are caused to assume the position seen in full lines in Fig. 4. When, however, it is desired to use the pigeonholes 26, it is only necessary for the user to depress the bar 48 by placing the foot upon the treadle 53, whereby the drum 42 will be caused to revolve, and by following out the direction of rotation and the trains of weights or counterbalances it will be seen that a downward pull will be exerted upon the connection 54, and the nest of pigeonholes 26 will be instantly raised. The same effect is produced by pulling the drawer 21 outwardly, as will be evident from Figs. 1 and 4, it being seen that a pull will be exerted upon the connection 37, which will cause the drums 42 and 54^x to rotate in the direction indicated, thereby raising the pigeonholes as described, a slight downward pressure on the latter causing them to move into concealed position.

When the drawer 21 is in closed position, the contact of the parts 20 and 19 will cause the end 17 of the lever 15 to be raised, thereby pulling the bars 7 upwardly into the position seen in Fig. 2, wherefrom it will be apparent that since the drawers are closed and the heads of the pins 11 are out of alinement with the enlarged openings 13 said drawers cannot be opened until the drawer 21 is opened, whereupon the parts 19 and 20 are disengaged, and the tendency of the springs 14 will be to press the bars 7 downwardly, and the heads of the pins 11 and the enlarged portions 13 of the slots 12 will then be in alinement, and the drawers can be readily opened. The nests of pigeonholes 26 can be readily supported in the position indicated in dotted lines by proper manipulation of the button 29, as has been explained, said movement causing the latches 35 to move under the base 27 and thus support the same until the button is moved in the opposite direction, the movement of said latches being evident by following out the connections seen in the plan view in Fig. 1.

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

1. A desk having movable pigeonholes, mechanism for raising and lowering said pig-

eonholes, means for operating said mechanism, a counterbalance for said pigeonholes, a drawer having connection with said raising and lowering mechanism, and movable supports for said pigeonholes when in elevated position.

2. A flat-top desk, having movable pigeonholes in the rear portion thereof, connections from said pigeonholes to a system of counterbalances, connections from the latter to a drum, a shaft upon which said drum is mounted, pinions carried by said shaft, a rack adapted to engage said pinions, connections from said rack to a treadle, a drawer supported within the desk and connections from said drawer to said drum.

3. A desk having movable pigeonholes, a drawer, a drum mounted in said desk and having chain connections with said pigeonholes and drawer, gearing connected with said drum and a lever and treadle for operating said gearing.

4. A desk having movable pigeonholes, a drawer with mechanism for raising or lowering said pigeonholes, means with operating mechanism for supporting said pigeonholes in raised position, and counterbalance-weights connected with said pigeonholes and with said raising and lowering mechanism.

5. A desk having movable pigeonholes, a drawer, drums mounted in said desk, the chain 37 passing over the roller 38, the block 39 connected with the lower end of said chain, a chain 40 connected with each of said drums, pinions secured on the shaft of said drums, and a bar with a rack at one end engaging said pinion and a treadle on the other end.

6. A desk, having pigeonholes, in its rear portion, a drawer having thereon means for

locking said pigeonholes when in depressed position, and connections from said drawer for raising and lowering said pigeonholes.

7. A desk having movable pigeonholes, a drawer, mechanism for raising and lowering said pigeonholes, the strip 60 connected with said pigeonholes, the bar 56 having the chains 57 connected with its ends and passing over the pulley 58, and connected with the strip 60, the depending rods 56^x with cross-bar 56^{xx} carrying weights, and the chain 54 connecting said bar 56, and a drum of said raising and lowering mechanism.

8. A desk having movable pigeonholes, mechanism connected with a treadle for raising and lowering said set, a counterbalance for said pigeonholes, a drawer having flexible connections with said raising and lowering mechanism, and movable supports for said pigeonholes when in elevated position.

9. A desk having a drawer and on each side thereof side drawers, bars guided on the wall of said desk, mechanism connected with said bars and engaged by said first-mentioned drawer for locking and unlocking simultaneously said side drawers, in combination with pigeonholes in said desk, mechanism for raising and lowering said pigeonholes, means for operating said mechanism, a counterbalance for said pigeonholes, movable supports for said pigeonholes, when in elevated position, and means on said first-mentioned drawer for locking said pigeonholes, when in depressed position.

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Witnesses:

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