Dec. 19, 1933. C. A. CUTLER 1,940,047

CABINET CONSTRUCTION

Filed June 7, 1932 2 Sheets-Sheet 1

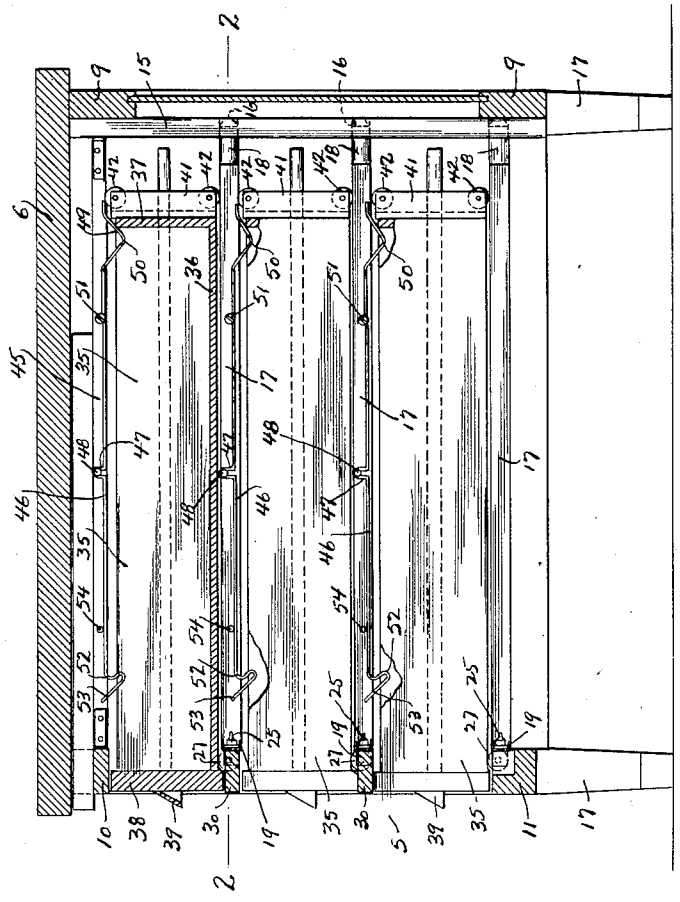


Fig. 1

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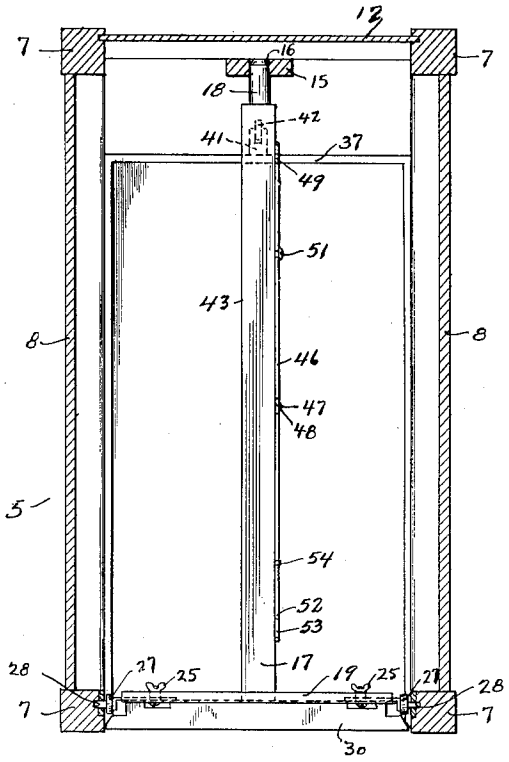


Fig. 2.

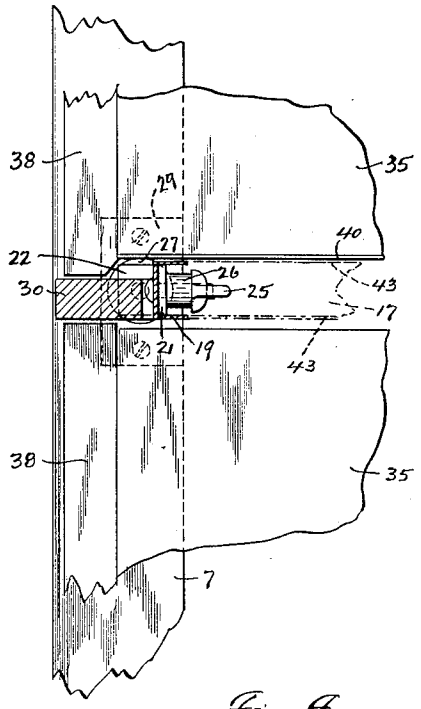


Fig. 4.

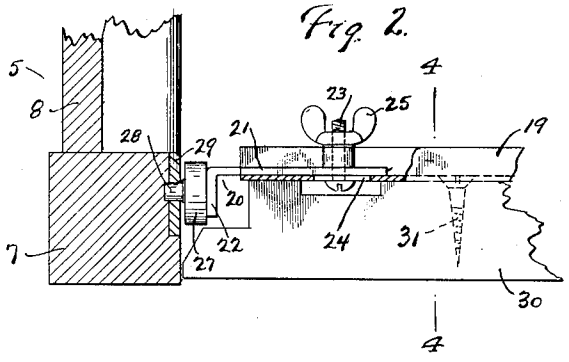


Fig. 3.

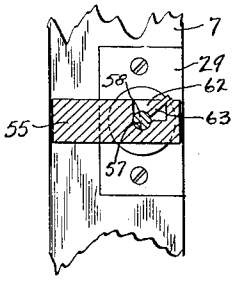


Fig. 6.

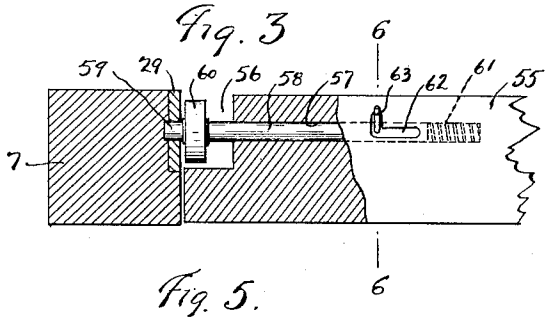


Fig. 5.

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Patented Dec. 19, 1933 1,940,047

UNITED STATES PATENT OFFICE

1,940,047

CABINET CONSTRUCTION

Clifford A. Cutler, Buffalo, N. Y.

Application June 7, 1932. Serial No. 615,823

14 Claims. (Cl. 45—77)

My invention relates generally to cabinet construction, and, in particular, to constructional details of desks.

One of the principal objects of my invention has been to provide a cabinet having drawers and removable partitions, whereby single or double drawers may be used at either side of the desk.

Another object has been to provide the drawers of such cabinet with roller bearings.

Moreover, it has been an object to provide a detent and catch spring for each drawer for controlling the movements thereof.

Furthermore, by reason of my improvements, my invention provides a cabinet construction which is economical to manufacture, durable in use, and easy to use.

The above objects and advantages have been accomplished by the device shown in the accompanying drawings, of which:

Fig. 1 is a side, sectional elevation of one pedestal of a desk embodying my invention.

Fig. 2 is a sectional, plan view thereof, taken on line 2—2 of Fig. 1.

Fig. 3 is an enlarged, fragmentary, sectional, plan view of a portion of one of the removable partitions, showing it in place within the desk.

Fig. 4 is an enlarged, fragmentary, side, sectional view, and is taken on line 4—4 of Fig. 3.

Fig. 5 is an enlarged, fragmentary, sectional plan view of a modified form of invention.

Fig. 6 is an enlarged, fragmentary, side, sectional view of a modified form of invention and is taken on line 6—6 of Fig. 5.

In the drawings, I have shown but one pedestal of the desk, but my invention is adapted particularly to an office desk having two pedestals, one arranged at each side of a central clear space. In desks of this type, one of the drawers is usually of double height. In the ordinary construction the position of such a double drawer is fixed and can not be changed by the user. In my desk, however, the partitions are removable and such a double drawer may be placed on either side desired and at the top or bottom of the pedestal.

In the drawings, 5 represents the pedestal and 6 the top of the desk. Legs 7 are, of course, provided and the pedestal is closed by side walls 8 and a rear wall 12. The legs at the rear are connected top and bottom by cross pieces 9, and those at the front by cross pieces 10 and 11. These cross pieces are more or less standard design and do not form a part of my invention.

Arranged at the rear of the desk is a vertical partition strip 15 which is located centrally of the width of the pedestal and which is carried preferably by the top and bottom strips 9. This strip is provided with a series of apertures 16, each located at a point where it may be desired to locate a partition. Each of the removable partitions comprises a single drawer support 17 which is arranged to extend rearwardly through the center of the pedestal and which is provided at its rear end with a dowel portion 18 for engagement with one of the apertures 16 of the vertical partition strip. Each of the drawer supports has at its front end a cross member 19 which is preferably of channel iron section and secured midway its length to the forward end of the support. Each of these cross members is of a length considerably less than the distance between the two front legs 7 of the pedestal and a roller bracket 20 is carried at each end of the member. Each of these brackets has a clamp arm 21 and a roller arm 22. The clamp arm is arranged to lie in the channel of the cross member and is adjustably secured thereto by means of a bolt 23 which passes through a slot 24 formed in the cross member and through a suitable aperture formed in the clamp arm 21. A wing nut 25 is preferably secured on the bolt whereby the same may be tightened by hand. A thick washer 26 may be provided on the bolt to make it convenient to rotate the wing nut 25. Each of the roller arms of the bracket carries a roller 27 and a supporting pin 28. The supporting pin extends beyond the outer face of the roller and engages with the aperture formed in a supporting plate 29. Each of these supporting plates is set into the leg 7 and is flush with the inner face thereof. Carried on the face of the cross member 19 is a facing strip 30. This strip serves to fill in the space between the face of the cross member and the outer face of the desk and also to conceal the cross member, bolts and roller brackets. The facing strip may be secured to the cross member by any suitable means, but preferably by wood screws 31. The drawers of my desk are represented at 35, and in the drawings I have shown three of them, each of substantially the same size. Each of these drawers is provided with a bottom 36, a rear wall 37, and a front wall 38 where a customary handle 39 is provided. The front 38 extends down slightly below the bottom 36 since the rollers 27 are considerably larger in diameter than the thickness of the facing strip 30. Such extension serves to close the space between the strip and the bottom edge of the drawer front. The front of the drawer is supported at each side by one of the rollers 27. Since there will be considerable wear on these supporting surfaces, I

preferably face the bottom of each of the drawers where the rollers contact with a strip 40 of fiber or other suitable wear-resisting material. At the rear of each of the drawers there is provided a rear roller bracket 41. This bracket is attached to the rear wall 37 of the drawer and is arranged centrally of the width of the drawer so that the rollers 42 arranged at the top and bottom thereof will come opposite the drawer supports 17. Each of the drawer supports is preferably surfaced with a strip 43 of wear-resisting material on each of the faces whch engage with the rollers 42.

Arranged above the upper drawer 35 is a stationary partition 45 which is suitably secured at its front end to the cross strip 10 of the desk and at its rear end to the vertical partition strip 15. The bottom face of this partition is preferably surfaced with a strip of fiber.

Since the drawers of my desk are mounted on rollers, they operate very easily, and unless there is some means to stop their outward movement, they might very readily be pulled out of the pedestal. Furthermore, if the desk is not setting perfectly level, and particularly if it is tipped forwardly, the drawers will roll out. To prevent these two conditions, I provide a spring member 46 for each of the drawers. This spring member is made of spring wire and extends substantially the full length of the drawer. It is provided with a loop 47 midway its length by which it is secured to the drawer support 17, or in the case of the upper drawer, to the stationary partition 45 by means of a screw 48. The rear end of the wire is provided with a bent portion 49 which has a downwardly extending hump 50 and which frictionally engages the rear wall 37 when the drawer is in place. When so positioned, this hump will be on the inside of the drawer and will serve to retain the drawer in its closed position. A screw 51 is arranged above the wire at some point back of the rear end so as to stiffen the rearwardly extending end. The forwardly extending end of the wire is provided with a hook 52 at its extreme forward end. An upwardly inclined portion 53 is formed on the hook and extends some distance above the upper edge of the drawer. This hook is so positioned that when the rear wall 37 engages therewith, the drawer will be properly supported. Should it be desired to remove the drawer, the same is partly opened and the inclined portion 53 of the hook is pushed upwardly sufficient to disengage the hook from the rear wall 37 of the drawer. When a drawer has been removed and is reinserted, the inclined portion 53 will serve to cause the hook to ride up over the rear wall of the drawer until it has passed the wall, whereupon it will snap down to its normal position. A pin or screw 54 is preferably located near the forward end of the wire so as to add resiliency to that part bearing the hook.

As hereinbefore stated, in the drawings I have shown three drawers of the regular size. Should it be desired to place a double drawer in one or both of the pedestals of the desk, it is only necessary to remove the two lower drawers and then to remove the partition located between them. To remove either of the partitions, it is only necessary to loosen the wing nuts 25 at each side of the cross member 19 and to then move the roller brackets 20 inwardly toward the center of the cross member, whereupon the supporting pins 28 will become disengaged from the holes in the supporting plate 29 and thus free the forward part of the partition. The entire partition may now be pulled forwardly whereupon the dowel portion 18 will become disengaged from the aperture 16 in the vertical partition strip 15. The partition may then be removed from the pedestal and a drawer of double size be placed in position.

In the form of invention shown in Figs. 5 and 6, a cross member 55 made preferably of wood is used instead of the cross member 19 and facing strip 30 of the form of invention shown in Figs. 1 to 4. This cross member is secured directly to the drawer support 17 shown in Figs. 1 and 2. At each end of this facing strip 55 and at the inner corner thereof is provided a recess 56 from which extends a longitudinally arranged bore 57. In the bore 57 there is slidably mounted a supporting pin 58, the extreme outer end 59 of which is engageable with the aperture formed in the supporting plate 29. A roller 60 is carried by the pin and the recess is deep enough to permit the roller with its supporting pin to move inwardly to release the end 59 from the aperture of the supporting plate. At the bottom of the aperture 57 I provide a helical spring 61 which bears against the inner end of the pin and serves to force it outwardly. Formed in the face of the facing strip and extending from the aperture 57 is an L-shaped slot 62 in which a lock pin 63 is movable. The pin 63 is carried by the pin 58 and by it the supporting pin 58 may be moved axially and locked in its outer position when the extreme outer end 59 thereof has been engaged with the supporting plate 29.

While I have shown the facing strip 30 secured to the forward face of the cross member 19, in the form of invention shown in Figs. 1 to 4, it is obvious that these strips may be omitted, and the front of the lower drawer be extended upwardly or the bottom of the upper drawer be extended downwardly so as to conceal the cross member and its associated parts.

While I have shown and described my invention as applied to the constructional details of wooden desks, it is obvious that my invention is applicable to metal desks as well as to any wooden or metal cabinet or other device having drawers.

These and other modifications of the details herein shown and described may be made without departing from the spirit of my invention or the scope of the appended claims, and I do not, therefore, wish to be limited to the exact embodiment herein shown and described, the form shown being merely a preferred embodiment thereof.

Having thus described my invention, what I claim is:

1. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a unitary drawer support and cross member, the drawer support being centrally arranged with respect to the cross member and relatively narrow, and means carried by the cross member for detachably securing each partition in place.

2. In a cabinet construction, the combination with drawers, of T-shaped removable partitions for the drawers, each partition comprising a unitary drawer support and cross member, the drawer support being centrally arranged with respect to the cross member and relatively narrow, and means carried by the cross member for detachably securing each partition in place.

3. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer

support, a cross member, a supporting pin carried at each end of the cross member and engageable with the cabinet, and a roller carried by each of the pins.

4. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer support, a cross member, and means carried by the cross member for detachably supporting the front end of the partition, and a vertical partition strip arranged at the rear of the cabinet for engaging the rear end of each drawer support.

5. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer support, a cross member, a supporting pin carried at each end of the cross member and engageable with the cabinet, a roller carried by each of the pins, and a vertical partition strip arranged at the rear of the cabinet for engaging the rear end of each drawer support.

6. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer support, a cross member, said drawer support and cross member being rigidly secured together in a unitary structure, a facing strip secured to the front of the cross member, and means carried by the cross member for detachably securing each partition in place.

7. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer support, a cross member, means for detachably securing the cross member to the cabinet, a roller bracket carried by the rear wall of each drawer, and a roller carried at the top and bottom of the bracket for engaging the partitions at the top and bottom of each drawer.

8. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer support, a cross member, a supporting pin movably carried by the cross member and engageable with the cabinet, a roller carried by each of the pins, a roller bracket carried by the rear wall of each drawer, and a roller carried at the top and bottom of the bracket for engaging the partitions at the top and bottom of each drawer.

9. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer support, a cross member, a supporting pin carried at each end of the cross member and longitudinally movable for engagement with the cabinet, a roller carried by each pin, and means carried by the pins and engageable with the cross member for holding the pins in their operative positions.

10. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer support, a cross member, a supporting pin carried at each end of the cross member and longitudinally movable for engagement with the cabinet, a roller carried by each pin, each end of the cross member being formed with a bore for the reception of the supporting pin and with an L-shaped slot opening into the bore, and a lock pin carried by each supporting pin and disposed in each L-shaped slot of the cross member.

11. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer support and a cross member, means for detachably securing each partition in place, roller means for supporting the drawers, and detent means carried by each of the partitions and engageable with a part of the drawer for frictionally holding it in its innermost position.

12. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer support and a cross member, means for detachably securing each partition in place, roller means for supporting the drawers, and a catch carried by each of the partitions and engageable with the rear wall of the drawer when it is in its open position.

13. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer support and a cross member, means for detachably securing each partition in place, roller means for supporting the drawers, and a catch carried by the partition and engageable with a part of the drawer to hold it in its inner position.

14. In a cabinet construction, the combination with drawers, of removable partitions for the drawers, each partition comprising a drawer support and a cross member, means carried by the cross member for detachably securing each partition in place, roller means for supporting the drawers, a catch carried by the partition and engageable with a part of the drawer to hold it in its inner position, and detent means arranged between the drawer and the drawer support for limiting the outward movement of the drawer.

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