Aug. 12, 1930. J. GOLDBERG 1,772,629

EXTENSION TABLE

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Fig. 1.

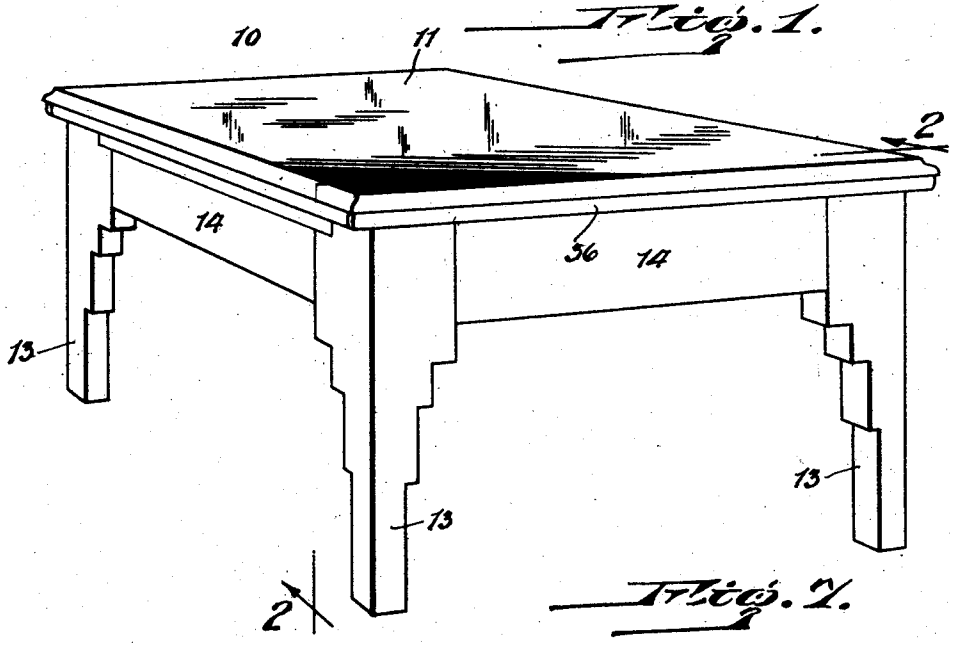


Fig. 2.

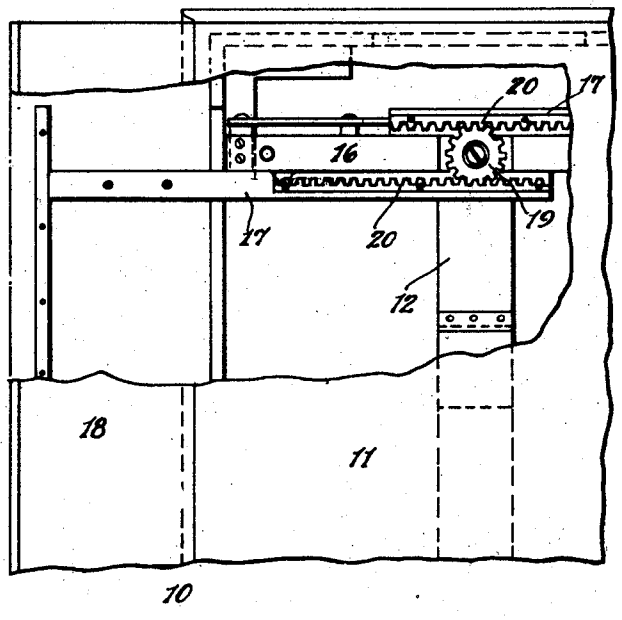
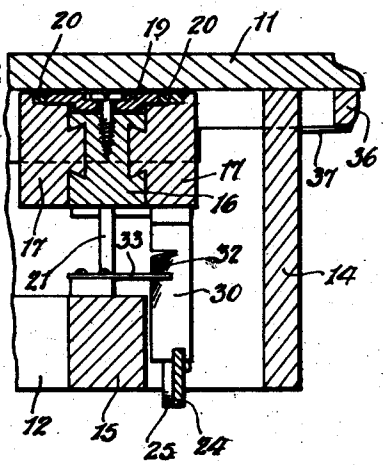


Fig. 3.



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EXTENSION TABLE

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Fig. 2.

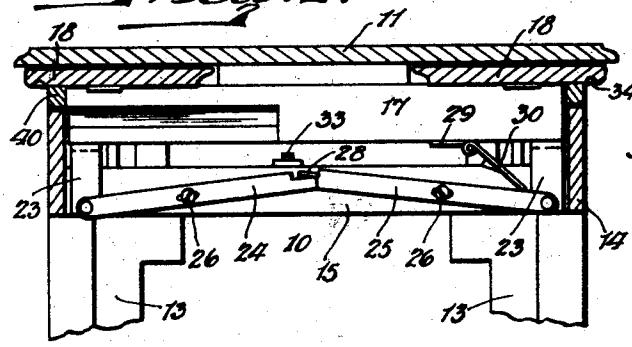


Fig. 4.

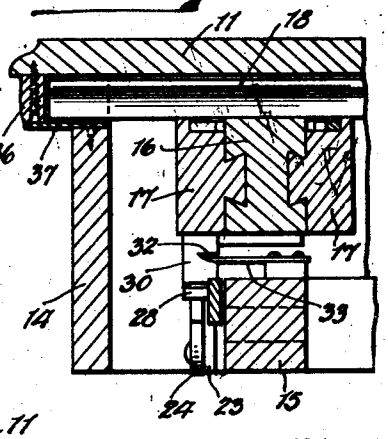


Fig. 3.

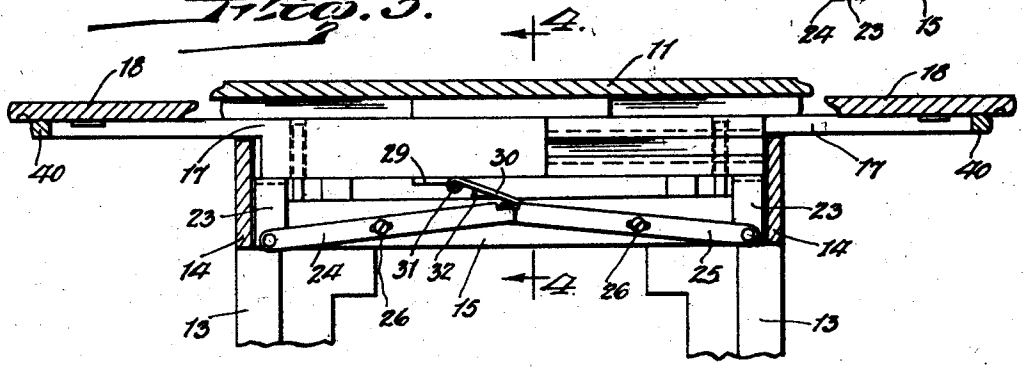


Fig. 5.

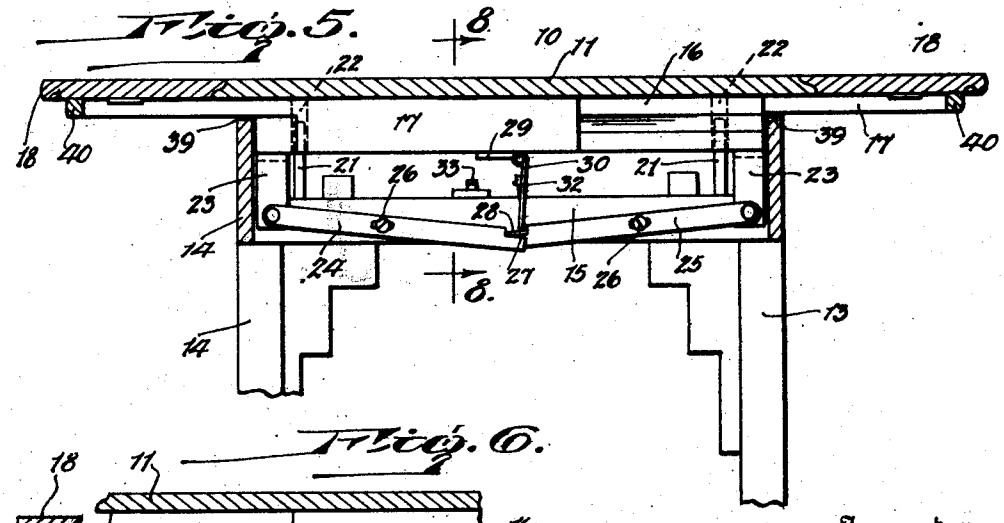
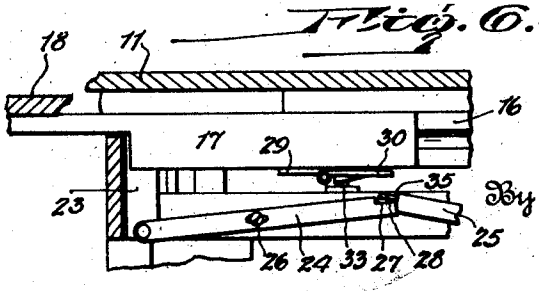


Fig. 6.



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UNITED STATES PATENT OFFICE

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EXTENSION TABLE

Application filed September 16, 1929. Serial No. 392,916.

This invention relates to improvements in extension tables.

The primary object of the invention resides in a table having extension leaves which slide beneath the table top proper when not in use, and which simultaneously move to an extended position on a plane with the table top when pulled out to enlarge the area of the table top.

Another object is to provide a novel mechanism for use in connection with table slides by which extension leaves connected to the slides are movable to two different planes, namely, to a plane below the table top for concealment therebeneath and to an elevated position flush therewith, and which may be applied to the present type of extension table without requiring radical changes of construction therein.

A further object is the provision of a leaf extension mechanism which includes a pair of coacting levers, the meeting ends of which act as a bearing or support for a pivoted lifting plate carried by one of the side rails for lifting the respective slide rails to bring the leaves carried thereby into a plane flush with the table top during a predetermined point in the outward sliding movement of the leaves, and means for supporting the lifting plate above the joint or meeting ends of the levers for an interval during the closing operation of the leaves to allow the plates to clear the bearing points to permit the leaves to drop to a lowered plane beneath the table top.

A still further object is to provide an extension table having a depending apron through which the extension leaves are slidable and wherein the outward edges of the leaves impart the appearance of a molding strip so that when the leaves are closed it cannot be detected that the table is of the extension type.

With these and other objects in view, the invention resides in certain novel construction, combination and arrangement of parts, the essential features of which are hereinafter fully described, are particularly pointed out in the appended claims, and are illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of my improved extension table showing the leaves in a closed position.

Figure 2 is a vertical sectional view through the table on the line 2—2 of Figure 1.

Figure 3 is a view similar to Figure 2 but showing the leaves in an extended position prior to inward movement of the same to a position flush with the top of the table top.

Figure 4 is a detail vertical sectional view on the line 4—4 of Figure 3.

Figure 5 is a view similar to Figure 3 but showing the table leaves in a flush position with the table top proper.

Figure 6 is a detail sectional view showing the position of the parts upon the initial closing operation of the leaves.

Figure 7 is a fragmentary top plan view showing one of the leaves in an extended position with parts broken away.

Figure 8 is a vertical transverse sectional view on the line 8—8 of Figure 5.

Referring to the drawings by reference characters, the numeral 10 designates my improved extension table in its entirety which includes a table top proper 11 of any desired configuration which is supported by a frame structure 12 including four supporting legs 13 and a depending apron 14 around the sides of the table adjacent the top thereof. Included in the frame structure 12 is a stationary bar 15, directly above which is disposed the vertical sliding center rail 16 of the ordinary type of table slide which also includes sliding extension rails 17—17 to which the opposed leaves 18—18 are fixedly connected. The center rail 16 has a gear 19 mounted on the top thereof with which the rack 20 of the respective slide rails mesh whereby both rails move simultaneously in opposite directions upon actuation of either slide rails. Therefore, both leaves may be moved simultaneously upon the actuation of either leaf.

Rising from the supporting bar 16 are vertically disposed pins 21 which extend into openings 22 in the center rail for permitting the center rail to slide vertically relative to the bar 15 and the remaining supporting structure. Depending from the center rail

16 adjacent opposite ends thereof are brackets 23 to which the ends of a pair of levers 24 and 25 are pivotally connected. Both the levers 24 and 25 are in turn pivoted to the supporting bar 15 as at 26 intermediate their ends and the said levers may be termed rocker arms for a purpose to be presently explained.

The inner ends of the levers 24 and 25 loosely meet and the lever 24 is cut away as at 27 for engagement by the outturned lip 28 bent from the inner end of the lever 25. The meeting ends of the levers serve to support the same at an angle as shown in Figure 2 of the drawings and provides a loose operative connection therebetween.

Fixed to the underside of one of the slide rails 17 is an attaching plate 29 to which a swingable plate or arm 30 is hingedly connected as at 31, the said plate being on a plane to overlie the vertical plane of the levers 24 and 25 as best seen in Figure 8 of the drawings. The inner edge of the plate 30 is bent downward into a lip 32 for riding over a flexible flat spring tongue 33 mounted upon the stationary bar 15 and which extends outward beyond the side of the bar to be disposed in the path of the swingable plate 32. The purpose of the spring tongue 33 will be presently explained.

Assuming that the leaves of the table are in a closed position as shown in Figure 2 of the drawings, and it is desired to extend the same to an open position flush with the table top proper 11. The operator proceeds to grasp one of the leaves by the outer edge 34 and proceeds to pull outward thereon. In Figure 2 of the drawing the plate 30 is resting upon the outer end of the lever 25 but as the slide rails move outward, the said plates ride over the lever until it reaches the joints between the two levers 24 and 25 and drop behind the shoulder 35 provided on the inner end of the lever 25. At this point in the movement of the leaves, the same are disposed beyond the edges of the table top 11 as shown in Figure 3 of the drawing at which time the said leaves are still on a plane below the plane of the table top. Now, then by pushing inwardly upon either of the leaves, a reverse movement of the slide rails is produced which causes the stop shoulder 35 to prevent or interfere with the movement of the plate 30, therefore continued inward movement of the leaves will cause the plate 30 to act as a prop which simultaneously moves the table slide upward and depresses the coacting levers 24 and 25 so that the leaves 18 move to a position flush with the table top 11. This position of the parts is clearly shown in Figure 5 of the drawing at which time the plate 30 is slightly off center to eventually return to a perfectly vertical position and then to a substantially horizontal position during the closing operation. To close the leaves, the same are pulled outward which upsets the plate 30 and during the outward movement of the leaves preparatory to the final inward sliding of the same, the lip 32 encounters the flat spring tongue 33 which supports the plate in a substantially horizontal position during a period in the closing operation to cause the said plate to clear the joint between the levers in order that the slide and leaves may drop to a plane below the level of the table top. This position of the plate is clearly shown in Figure 6 of the drawing. When the leaves have been fully returned to a closed concealed position beneath the table top, the parts assume the position as shown in Figure 2 and previously described hereinbefore.

From the foregoing description it will be appreciated that I have provided an extension table in which the extension leaves are normally concealed beneath the table top proper and which may be extended when desired to enlarge the area of the table top in order to rise to a plane flush with the top. With reference to Figure 1 of the drawings it will be seen that one end of the leaf extends to a position beneath the edge of the table top 11 imparting the appearance of a molding strip and to carry out the design I provide molding strips 36 on the opposite sides of the table which are supported by outwardly extending plates or brackets 37 carried by the apron 14. The general appearance applied when the leaves are in a folded position is similar to that of an ordinary table so as not to detract from the artistic appearance of the article.

The end aprons 14 are provided with slots through which the leaves 18 and their respective slide rails are movable and for sealing these slots I provide strips 40 on the underside of the leaves adjacent the outer ends thereof which are disposed in vertical alinement with the walls of the apron when the leaves are in a closed position as shown in Figure 2 of the drawing. These strips serve to seal the space required for the passage of the extension slide rails during movement to extended and retracted position.

While I have shown and described what I deem to be the most desirable embodiment of my invention, I do not wish to limit myself thereto as such changes as may be desired may be resorted to without in any way departing from the spirit of the same, and I therefore wish to make such alterations as may come within the scope of the appended claims.

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

1. An extension table including a fixed table top, a table slide mounted beneath said table top embodying a vertically movable center rail, and a pair of opposed slidable side rails mounted thereon, table leaves

mounted on said side rails, a pivoted lifting member carried by one of said slide rails, a bearing support, and means for bringing said bearing support into engagement with said lifting member upon full extension of said leaves beyond the edges of said table top to cause said table slide to move upwardly upon inward movement of said slide rails to cause said leaves to flushly engage the edges of said table top.

2. An extension table including a fixed table top, a table slide mounted beneath said table top embodying a vertically movable center rail, and a pair of opposed slidable side rails mounted thereon, table leaves mounted on said side rails, a pivoted lifting member carried by one of said slide rails, a bearing support, and means for bringing said bearing support into engagement with said lifting member upon full extension of said leaves beyond the edges of said table top to cause said table slide to move upwardly upon inward movement of said slide rails to cause said leaves to flushly engage the edges of said table top, and means in the path of movement of said lifting member to support the lifting member for a predetermined interval during movement of the slide rails to move the leaves to a closed position.

3. In an extension table, a support, a table slide embodying a pair of oppositely slidable rails having extension leaves mounted thereon, a pair of levers pivotally connected at their outer ends to said slide rails and also pivoted intermediate their ends to said support, the inner ends of said meeting to form a loose operative connection therebetween, a shoulder adjacent the inner end of one lever, a lifting member pivoted to the under side of one of said slide rails for engagement with said shoulder upon the outward movement of said slide rails, for depressing said levers and lifting said table slide upon successive inward movement of said slide rails to cause said extension leaves to be raised to a position flush with said table top.

4. In an extension table, a fixed table top, a pair of extension leaves slidable beneath said table top and movable to an extended position therebeyond, and means for lifting said leaves to a position flush with said table top upon inward movement of the same from a fully extended position, said means including a pair of pivoted levers having their inner meeting ends operatively associated, and a pivoted lifting member carried by said slidable leaves engageable with one of the levers for depressing the said levers and raising said leaves to the plane of said table top.

5. In an extension table, a fixed table top, a pair of extension leaves slidable beneath said table top and movable to an extended position therebeyond, and means for lifting said leaves to a position flush with said table top upon inward movement of the same from a fully extended position, said means including a pair of pivoted levers having their inner meeting ends operatively associated, and a pivoted lifting member carried by said slidable leaves engageable with one of the levers for depressing the said levers and raising said leaves to the plane of said table top, and a spring tongue engageable with said lifting member upon actuation of said extension leaves to a closed position to support the same in spaced relation to the meeting ends of said levers during a predetermined interval of closing movement.

In testimony whereof I affix my signature.

JOSEPH GOLDBERG.