No. 835,973. PATENTED NOV. 13, 1906.

J. MITCHELL.

EXTENSION TABLE.

APPLICATION FILED NOV. 5, 1904.

2 SHEETS—SHEET 1

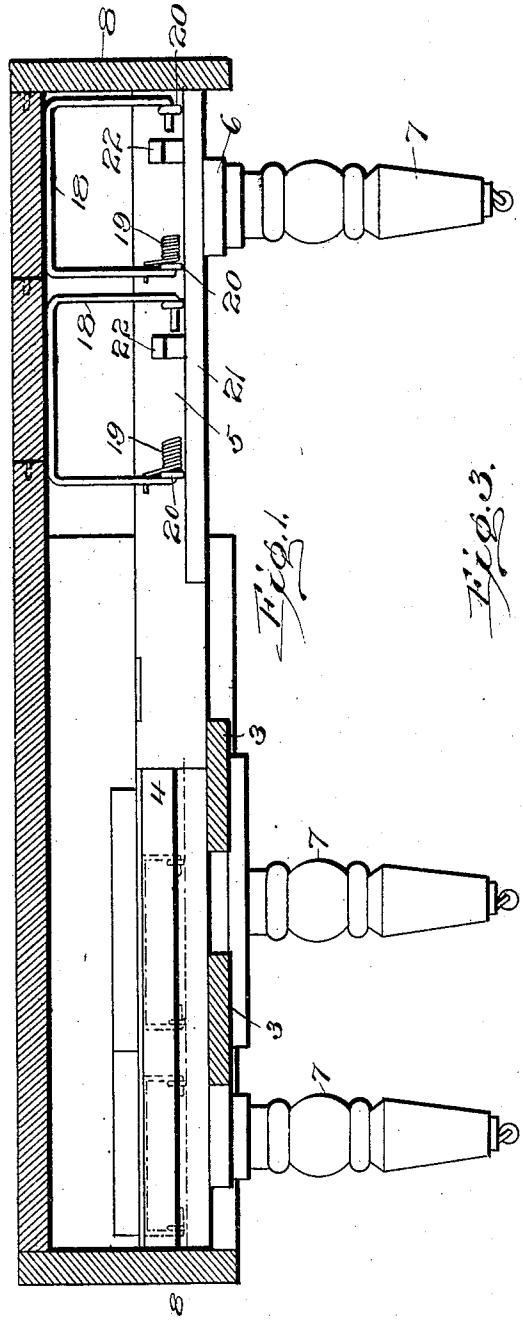


Fig. 1.

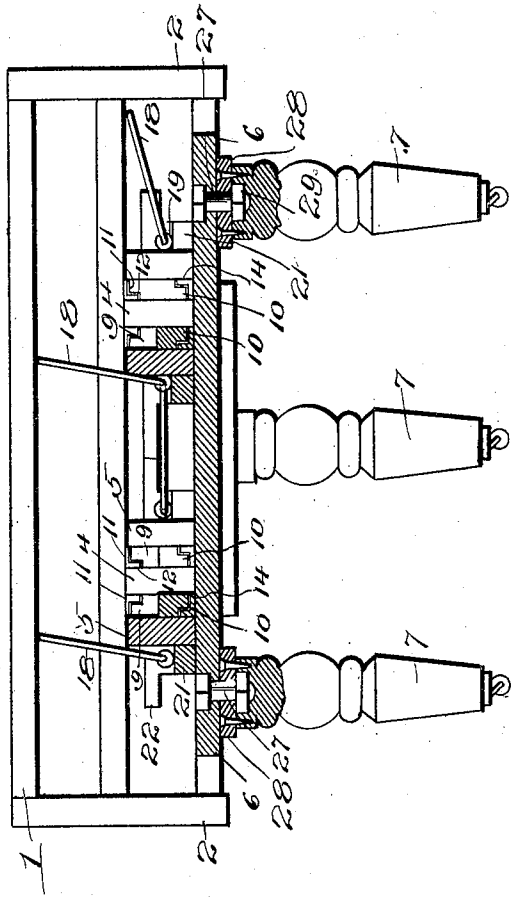


Fig. 3.

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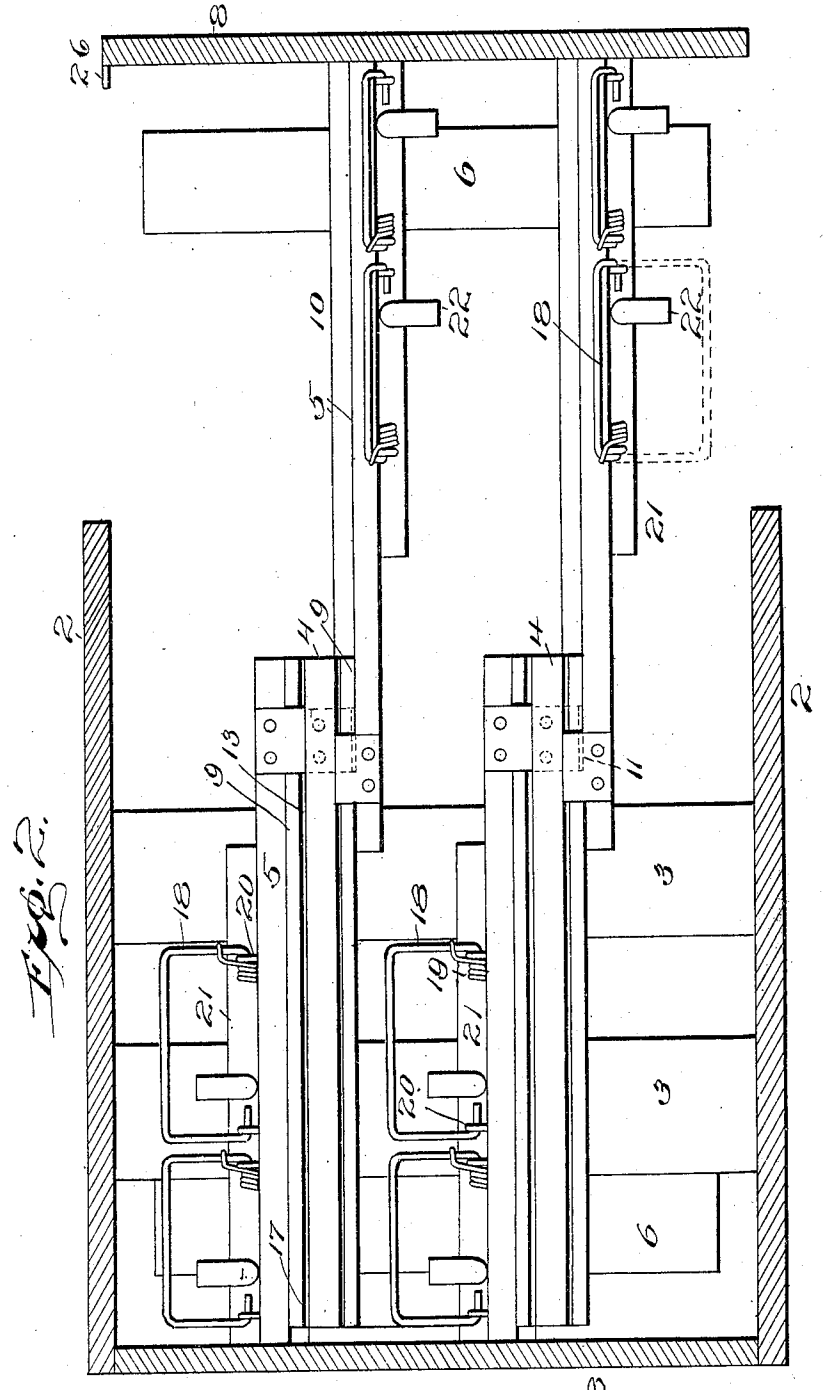


Fig. 2.

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EXTENSION-TABLE.

No. 835,973. Specification of Letters Patent. Patented Nov. 13, 1906.

Application filed November 5, 1904. Serial No. 231,553.

To all whom it may concern:

Be it known that I, JOSEPH MITCHELL, a citizen of the United States, residing at Bellevue, in the county of Huron and State of Ohio, have invented certain new and useful Improvements in Extension-Tables; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in extension-tables; and it is the object of the invention to provide a table in which leaves or removable sections of equal length may be employed and stored within the table structure when not in use.

The table is also further constructed so that leaves or extension-sections employed therein will be provided automatically with supporting means for holding them in their elevated positions in extending the length of the table-surface.

With these and other objects in view the invention consists in certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a vertical sectional view taken longitudinally of the table structure and to one side of the guiding-slides, the leaf-supporting mechanism being shown as elevated. Fig. 2 is a horizontal sectional view taken through the upper part of the table immediately below the top thereof, the extension-slides and rails being shown in plan view. Fig. 3 is a transverse vertical section through one end of the table and through one of the legs thereof.

The table forming the subject of the present invention is so constructed that the leaves or removable sections may be stored within the body portion of the table-framing beneath the top of the table, the mechanism being provided with automatically-operating supports beneath the top of the table, which tend to elevate the removable sections or leaves and are capable of supporting the same rigidly in their raised positions.

In the accompanying illustration a practical embodiment of the invention is shown, the table being provided with a principal top 1 and inclosing sides 2. The top 1 and the sides 2 are supported by cross-bars 3, which are secured to the lower portions of the sides. The cross-bars 3 in turn support the rails 4, which are rigidly secured to the upper sides thereof. The rails 4 have a sliding engagement with movable rails or slides 5, which are connected by bridging pieces or bars 6, supported at their ends by the legs 7 of the table. The central leg of the table supports the bars 3. The ends 8 of the table may both be made movable and secured to the ends of the slides 5, though, of course, it will be understood that only one end may be made movable, if preferred, without departing from the spirit of the invention. In the event of one end piece 8 being made rigid it will be rigidly secured to the end portions of the top and sides. It is preferable, however, to have both of the ends 8 secured to the movable slides 5, so that the extension of the table may be facilitated by the drawing out of said ends. As shown in the drawings, the slides 5 for one end of the table are applied, preferably, upon the same side of each rail 4, while the slides 5 at the other end of the table are applied upon the other sides of the said rails. It will be understood, however, that I do not confine myself to this exact arrangement of the parts, as modified forms thereof, as found desirable, for different sizes or styles of tables are within the scope of the invention. Interposed between the rails 4 and the slides 5 are guiding and supporting strips. The guides 9 are secured to the upper portions of the rails 4, while the guides 10 are fastened to the lower portions of the movable slides 5. The guides 9 of the rails 4 are thus in position to rest upon the upper edges of the adjacent lower guides 10.

The space between the rails and the top of the table is sufficient to accommodate the desired number of leaves which it is sought to provide for each table. I usually construct the table with the capacity for three removable leaves or sections at each end of the table, making six leaves in all. It will be evident that it is only a matter of degree or of the size of the boards as to whether the table be provided with a greater or less number of leaves.

The manner of supporting the leaves in their raised positions forms an important feature of the invention. The slides 5 carry pivoted supports 18, the said supports being normally held in an approximately vertical position by springs 19. The supports may be turned downwardly, as indicated in the drawings, for permitting the leaves to be depressed only when they are to be folded or stored beneath the top of the table. A sim-

ple manner of forming the supports 18 is shown in the drawings, each support being formed of a rod or a thick wire bent into an approximately rectangular form. The ends of the rod are turned inwardly sufficiently to engage eyes or bearings 20, secured to the sides of the slides 5. The springs 19 may be coiled about the ends of the said rod or wire, one end of the spring being secured to the slide, while the other end is secured to the side portion of the rod or wire, so as to force the same upwardly. The downward movement of the supports 18 is limited by means of a stop or strip 21, secured to the lower edge of each slide 5. The strips 21 may be employed to support means for holding the supports in their lowered positions.

As shown in the drawings, turn-buttons 22 are employed for this purpose, their ends being capable of overhanging the sides of the supports when lowered, and when desired to raise the supports the turn-button is turned to one side. As shown in Fig. 1, there are preferably provided a set of supports 18 for each leaf or removable section, so that one leaf with its supports may be used for securing one length for the table or two leaves or three with their supports, as desirable.

If it is not desired to use more than one set of supports, the other supports are secured in their lowered positions by the turn-buttons 22. Of course it will be apparent that more than one set of supports may be employed for each leaf or removable section or one set of supports may be employed for two leaves, if desired, without departing from the spirit of the invention.

The supports 18 are so pivoted with respect to the sides of the slides 5 that when they are in their raised positions they go beyond a vertical plane, so that weight placed upon the upper ends thereof will only tend to hold the supports more securely in their vertical positions. In depressing the leaves the supports are moved to one side of the vertical plane in the opposite direction from their normal position when raised, and the further depression of the leaf will cause the lowering or the folding of the supports to permit of the insertion of the leaves beneath the top of the table.

In operating the table the end of the table is pulled outwardly, the lower leaves resting upon the slides 5 and holding the spring-actuated supports in their lowered or folded positions. As soon as the end of the table has been pulled out a sufficient distance to accommodate the desired number of leaves the ends of the leaves are grasped and lifted, the springs immediately bringing the supports to their vertical positions a little beyond the vertical plane and resting against the edges of the slides 5. The leaves are then brought together at their edges, the end of the table being forced against them, thus completing the table-surface in its extended form. In closing the table the end of the table is pulled out slightly, so that the usual guiding-pins at the edge of the leaves may be separated from their recesses, and the leaves are then moved to one side longitudinally for tipping the supports and are then pressed downwardly to force the supports into their lowered positions. The leaves are then slid back again in the opposite direction until the end of the one adjacent to the table end engages a stop 26, secured to said end. The leaves are thus brought to a position such that they will slide between the sides 2 of the table when the end of the table is forced inwardly. The stop 26 acts as a gage and prevents the necessity of spending time in endeavoring to bring the leaves to the right position upon the slides 5 when collapsing the table.

From the above description it will be apparent that an extension-table can be formed in accordance with this invention in which ample room for the storage of the expanding-leaves may be afforded within the table structure itself, the structure permitting of an easy operation of the leaves in bringing them out of the table structure for increasing the size of the table-top, the said leaves being also easily returned to their folded or collapsed position. The supports for the leaves are quick in their operation and need no attention, since they are instantly brought to their upright leaf-sustaining positions by the springs 19, when they are released by lifting one or more of the leaves. The supports being secured to the sides of the slides 5 are easily accommodated in the space below the leaves when it is necessary to turn them down. In manufacturing tables and putting them upon the market they may be provided with one, two, or three leaves at each end of the table, as preferred, the number of leaves supplied with each table determining the length to which the table may be extended. When the ends of the table are forced inwardly, the end parts 8 fit snugly against the ends of the sides 2, so as to completely inclose the movable parts beneath the table-top. The engagement of the slides with the rails is such that the guides and the angle-pieces afford a strong support for the table in any of its extended positions.

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

1. An extension-table provided with framing, supporting a top, slides engaging the framing and carrying the ends of the table, removable leaves for enlarging the top, standards carried by the slides and adapted when in an upright position to support the said leaves at a level with the main top, cleats arranged beneath the standards for limiting their lowered positions, and turn-buttons se-

cured to the said cleats for fastening the standards in lowered position.

2. An extension-table provided with a frame supporting a top, slides engaging the frame and carrying the ends of the table, removable leaves for enlarging the top, standards pivoted to the slides and adapted when in an upright position to support the said leaves at a level with the main top, cleats arranged beneath the standards for limiting their downward movements, and turn-buttons pivoted to the cleats and arranged to engage and hold the standards in their lowered positions.

3. An extension-table provided with a frame supporting a top, slides engaging the frame and carrying the ends of the table, removable leaves for enlarging the top, standards pivoted to the slides and adapted when in an upright position to support the said leaves at a level with the main top, springs arranged to hold the standards normally upright, cleats arranged beneath the standards for limiting their downward movements, and turn-buttons pivoted to the cleats and arranged to engage and hold the standards in their lowered positions.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH MITCHELL.

Witnesses:
R. R. PARKHURST,
R. N. LEONARD.