April 12, 1932. M. WURM 1,853,527

EXTENSION TABLE

Filed July 22, 1931 2 Sheets-Sheet 1

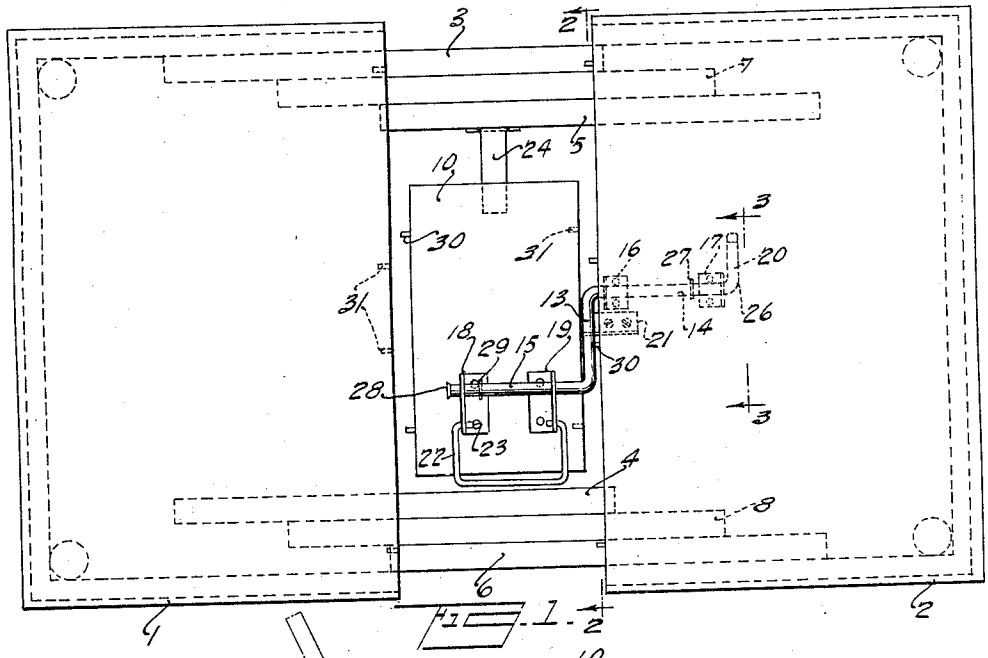

FIG. 1.

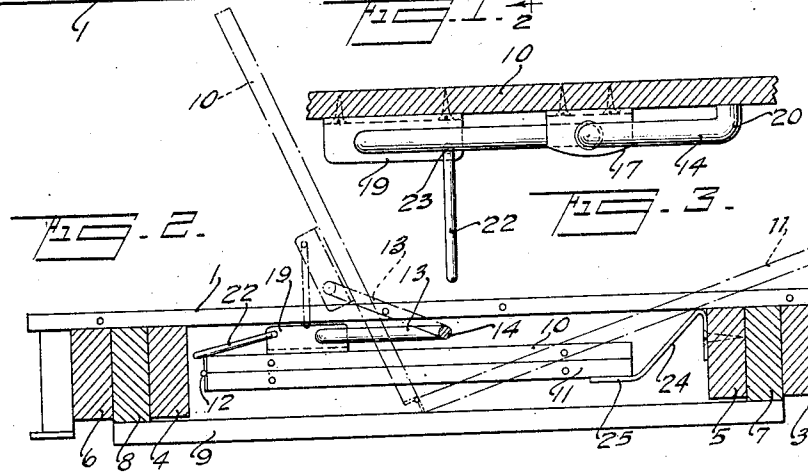

FIG. 2.

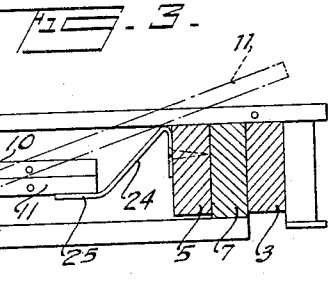

FIG. 3.

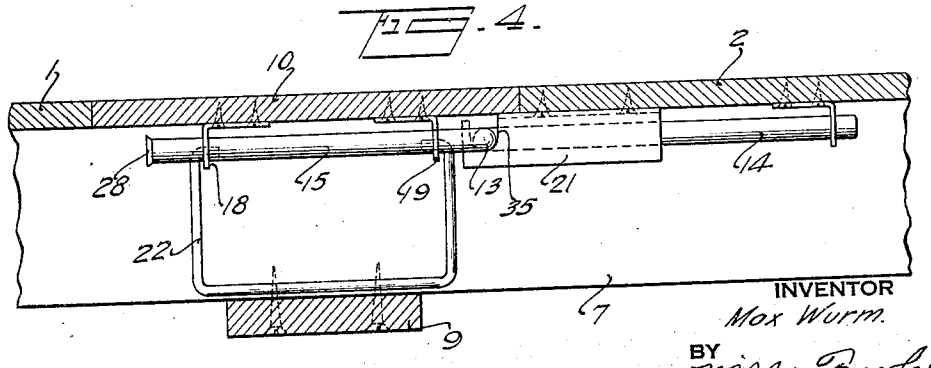

FIG. 4.

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EXTENSION TABLE

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FIG. 5.

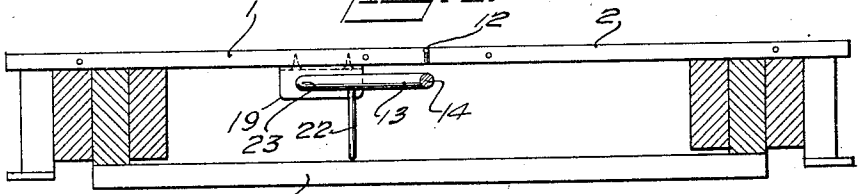


FIG. 7.

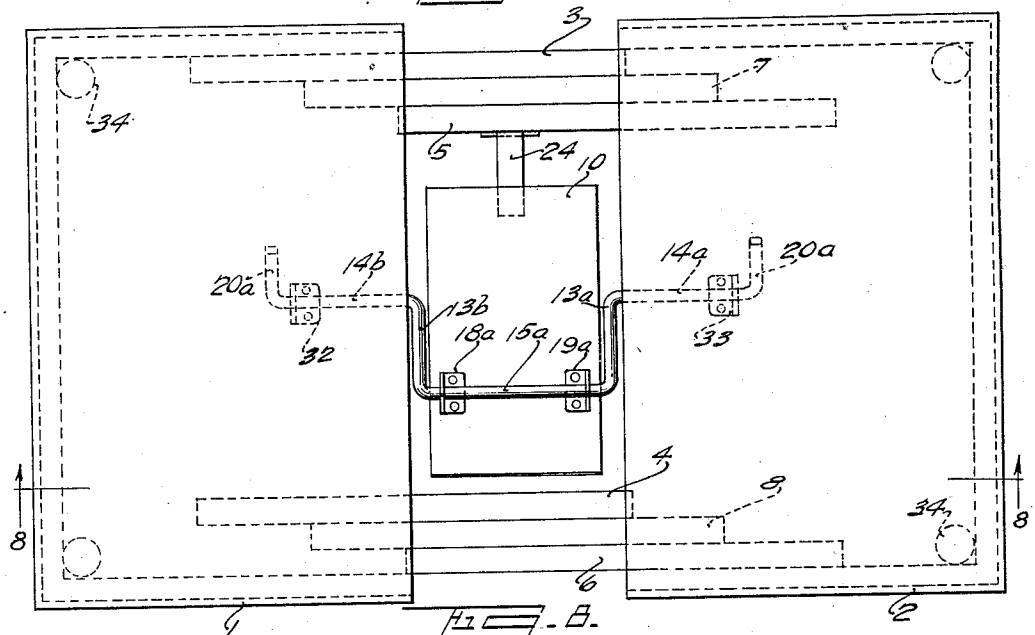


FIG. 8.

FIG. 9.

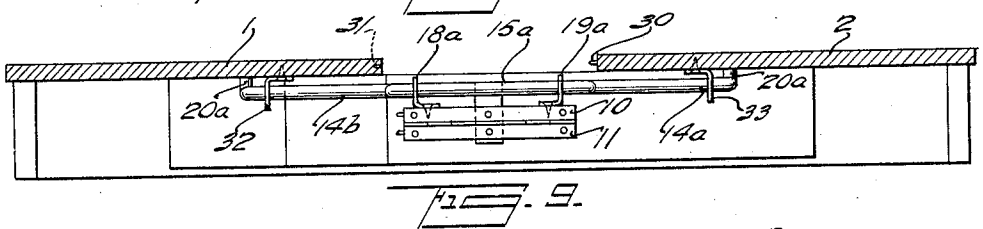
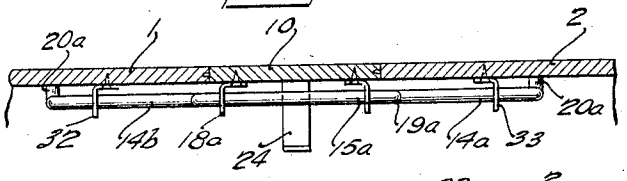
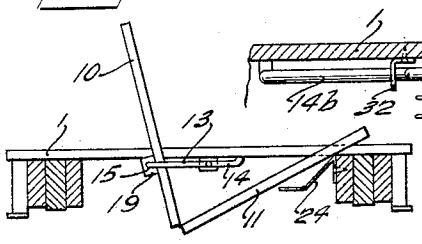


FIG. 6.





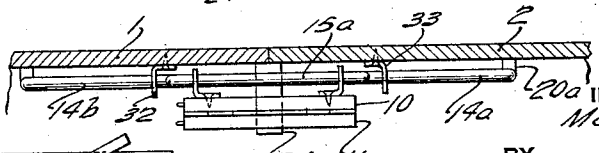


FIG. 10.

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EXTENSION TABLE

Application filed July 22, 1931. Serial No. 552,424.

My invention relates in general to extension tables and in particular to that type in which there is employed folding filler-leaves which may be adjusted in folded position for storage beneath the level of the table top-members, or swung upwardly and unfolded into the same plane with the top-members to extend the service area of the table.

An important advantage derived from the use of my improvements is that the same may be employed with any size of filler-leaf so that it is not necessary to keep different sizes of my device in stock. Another advantageous feature is that the device is directly attachable to the table top and independent of functioning with a bridge which may be dispensed with and it is double acting and can be employed with any type of base structure of the table. If the table base is made with central legs, a pedestal or any other arrangement of base structure, so that the hinged end of the folding filler-leaf collides therewith, such hinged end will engage the same and be caused to raise up and thereby swing upwardly the filler-leaf support, which latter is so mounted that it cannot swing down below its normal level or position. This latter feature may be carried out in either one of the two ways which I have herewith illustrated. Other advantages derived from the use of my improvements, will appear from the detailed description hereinafter given.

I have illustrated types of my improvements in the accompanying drawings, wherein:

Figure 1 shows a top plan view of an extension table embodying my improvements and with the table top-members slid apart for the reception of the folding filler-leaf which lies in stored position beneath the level of said top-members ready to be lifted up and unfolded into service position.

Figure 2 is a view of a cross-section of the parts shown in Fig. 1, the plane of the section being indicated by the line 2—2, Fig. 1, and with the filler-leaf being shown in dotted lines in the position assumed thereby when it is partly unfolded.

Figure 3 shows a sectional view on an enlarged scale of the supporting device of the filler-leaf and the swinging prop, in the positions assumed thereby when the filler-leaf is unfolded into the plane of the top-members.

Figure 4 is an enlarged sectional view of the different parts of the structure, with the filler-leaf unfolded into service position and with section being taken at right-angles to the section shown in Fig. 3.

Figure 5 shows a similar view to that in Fig. 2, but with the section taken on a different plane which cuts the supporting bar of the filler-leaf.

Figure 6 shows on a reduced scale a cross-sectional view of the structure, with the bridge omitted so as to show how the hinged-end of the filler-leaf is free to swing down, in its movements of folding and unfolding.

Figure 7 is a top plan view, similar to that shown in Fig. 1, of a modified form of the filler-leaf supporting means.

Figure 8 is a cross-sectional view of the structure shown in Fig. 7, the plane of the section being indicated by the line 8—8, Fig. 7.

Figures 9 and 10 are cross-sectional views of the structure shown in Fig. 7, but with the filler-leaf raised into unfolded position of service in cooperation with the top-members, the two views being taken at right-angles to each other.

Referring to the drawings, in which like numerals of reference designate like parts throughout, 1 and 2, are sliding table top-members movable toward and away from each other by means of slides 3 and 4, of member 1, moving on the guides 7 and 8, and slides 5 and 6, of member 2, moving on said guides, which guides are supported at the respective ends of the bridge 9, in the usual way.

A folding filler-leaf comprising two sections 10 and 11, hinged together at 12, is mounted on supporting means consisting in a bar or lever having a central part 13, with its ends angled or elbowed so as to provide oppositely projecting end-portions 14 and 15, respectively, all of the said parts 13, 14 and 15, are shown as being disposed in a common

plane. Thus the device is crank shaped having two right-angled bends, one at each end to form an end portion for the direct attachment to the table top and an end portion for carrying the swinging filler-leaf.

The supporting device has its outer arm 14, loosely mounted and fulcrumed in brackets 16, 17, secured to the underside of top-member 2, with the center part 13 lying slightly beyond the inner edge of said top-member. The filler-leaf 10—11 is mounted to swing on the inner arm 15, of the support, by means of brackets 18, 19, which are fastened to the back of the filler section 10, and while the outer arm 14 is disposed substantially on the central longitudinal line of the top-member 2, the inner arm 15, is disposed to one side of such line. In order to prevent the filler carrying-arm 15, from dropping below its normal level, I may use either the projection or extension 20 on arm 14 at its end, which is arranged to strike against the underside of the top-member 2, and prevent the turning of the arm 14, in but one direction in order to keep arm 15 at its proper level, or a stop or rest 21, consisting in a bracket secured to the underside of the top-member and projecting beyond its edge so as to lie beneath the center part 13, and hold it in horizontal position and keep it from dropping down. The bracket 21 is notched at 35 for receiving the part 13. This arrangement serves to sustain the filler carrying arm 15, and likewise prevent it and the filler-leaf from dropping down. While either of these arrangements acts to prevent the dropping down of the filler-leaf carrying arm 15, they both permit a slight upward movement of such arm, which occurs when the bridge 9, is used, for in such case the hinged ends of the filler sections engage the bridge and slide over it in the unfolding and folding movements of the sections, as shown in dotted lines in Fig. 3. In cases where the table has no center leg or pedestal construction which would obstruct the free downward swinging movement of the filler-leaf, the latter in such movement does not raise the filler carrying arm 15, as shown in Fig. 6.

When the filler-leaf is of large size and heavy, it is advisable to use a subjacent prop 22, consisting in a U-shaped member having its upper end pivoted at 23, to the brackets 18, and 19, in which the arm 15, is mounted. The prop is free to swing and when the filler-leaf is unfolded, the prop will gravitate into vertical positon with its lower free end resting on the bridge 9, and support the filler-leaf as shown in Figs. 3 and 4.

An upwardly inclined guide 24, is mounted on the slide 5, which is secured to and travels with the top-member 2, on which the filler-leaf is mounted, and this guide is engaged by the free end of the filler-section 11, which rests on a flat part 25, of said guide when the filler sections are folded in stored position, as shown in Figs. 1, 2, 7 and 8.

When the filler-leaf is to be raised and unfolded into the plane of the top-members, the operator grasps with his hand the free end of the then upper section 10, and lifts it and this causes the then under section 11, to slide from the flat part 25, thence up the incline part 24, and over the slide 5, as indicated in Fig. 2, in dotted-lines, and this movement continues until the sections assume the horizontal and rest with their ends across the slides and guides of the table, as indicated in Fig. 5. In order to remove the filler-leaf from its horizontal position of service, the operator seizes with his hand the outer free end of the section 10, lifts it and this causes the several parts to move in the reverse way from that just described and until the filler-sections close on each other in folded stored position, as shown in Figs. 1, 2, 7 and 8.

The supporting device for the filler-leaf is held against endwise movement by the bend 26, in arm 14, taking against one side of bracket 17, and the pin 27, taking against the other side, see Fig. 1. The filler-leaf has a slight sidewise movement on the supporting arm 15, which movement is limited by the head 28, taking against one side of the bracket 18, and the pin 29, on the arm taking against the other side. This lateral play of the filler-leaf is sufficient to permit the functioning of the dowel pins 30 and their corresponding sockets 31, formed in the abutting edges of the filler-leaf and the top-members when the same are pushed together to extend the service area of the top. See Fig. 1.

In Figures 7, 8, 9 and 10, I show a modified form of the folding filler-leaf supporting means which gives a very substantial balanced action in the operation of the various parts, especially where a large and heavy filler is employed.

In this form the supporting bar 13^a, 14^a and 15^a, are duplicates of the parts 13, 14 and 15, of the other form. The parts 13^b and 14^b are constructed the same as parts 13 and 14 and form an extension of the part 15. It is what I consider as a double-crank structure, with the several parts disposed in the same plane. The central part 15^a is loosely mounted in the brackets 18^a and 19^a, secured upon the underside of the filler-leaf section 10, so that the filler may be swung on said part. The oppositely extending end portions 14^a and 14^b, are mounted loosely in the respective brackets 32 and 33, which depend from the underside of the respective top-members 1 and 2, and thus the filler supporting means is provided with bearings at its respective ends, instead of one end only, and a well balanced action is thereby obtained. The central part 15^a which carries the swinging filler-leaf, is held up in normal horizontal position by means of the extension 20^a,

at the end of the end portion, pressing against the underside of the table top-member on which the support is mounted. The bearing brackets 32 and 33, in which the respective end portions 14^b and 14^a are loosely mounted, slide back and forth on said end portions, as the top-members are slid apart and then together, as will be understood from the several views shown in Figs. 7 to 10. In Fig. 7, the folded-filler leaf is shown as in its lowermost position for storage, likewise the view in Fig. 8, with the top-members slid apart. Fig. 9, shows the filler-leaf opened into horizontal position and interposed between the top-members which are closed against the filler. In Fig. 10, the filler-leaf is stored away beneath the top-members which are closed together over the same. The table shown in the modification is of the leg type as indicated at the corners at 34, and there is no bridge so there is nothing to obstruct the movement of the hinged ends of the filler-leaf sections in their downward sweep when being unfolded and also folded, as will be understood from Fig. 6. While the supporting bar is prevented from being rocked in such a manner that the center part 15^a cannot be lowered or dropped below normal position, it may be turned in the opposite direction so as to raise such part, and this will permit of the structure being used with a bridge. In both forms of the supporting device, there is a lever effect with each end portion fulcrumed on a top-member and the stretch or part between such end portion and the filler-leaf carrying part, which latter is disposed transversely of the top-member and lies normally beneath the other top-member on which it is not mounted. When the filler-leaf is unfolded into the horizontal, the said transverse stretch of the support then lies beneath said filler-leaf.

The freely swinging prop 22, is pivoted upon the back of the filler-leaf section 10, which lies uppermost when the sections are folded, so that the prop comes into action as the section 10 is lifted and swung into horizontal position. The vertical position of the prop will then give a substantial support to the arbor on which the filler-leaf is mounted.

I wish to be understood as not limiting my invention to the specific construction of the various parts as herein shown, as it is evident that modifications may be made in the same, without, however, departing from the spirit of the invention.

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

1. An extension table having relatively adjustable table top-members, a folding filler-leaf adjustably mounted so that it may be moved into the plane of the top-members and also folded in stored position beneath said plane, means for adjustably supporting said filler-leaf consisting in an attaching part mounted upon one of said top-members, an arbor upon which said filler-leaf is mounted to swing on a horizontal axis, a connecting member between said arbor and attaching-part normally disposed below the level of the said top-member transversely thereof, and means for preventing said arbor from dropping down below normal position.

2. An extension table having relatively adjustable table top-members, a folding filler-leaf adjustably mounted so that it may be moved into the plane of the top-members and also folded in stored position beneath said plane, a supporting device for said filler-leaf consisting in a central part having at each end an elbowed arm extending at right-angles therefrom and in opposite directions, one of said arms being mounted upon one of said top-members and the other arm having said filler-leaf mounted to swing thereon, the arm which is mounted on said top-member being provided with means for preventing the arm from turning but in one direction to prevent the filler-leaf carrying-arm from dropping down below its normal level.

3. An extension table having relatively movable table top-members, a folding filler-leaf adjustably mounted so that it may be moved into the plane of the top-members and also folded in stored position beneath said plane, a filler-leaf supporting bar having angled end portions projecting in opposite directions, one of said end portions being loosely mounted on one of said top-members substantially on the central longitudinal line thereof while the said filler-leaf is mounted to swing on the other said end portion on an axis of motion disposed to one side of said central longitudinal line.

4. An extension table having relatively movable table top-members, a folding filler-leaf adjustably mounted so that it may be moved into the plane of said top-members and also folded in stored position beneath said plane, a supporting device for said filler-leaf consisting in a central part having at each end a right-angled arm extending in opposite directions, one of said arms being mounted on one of said top-members and the other arm having the filler-leaf mounted to swing thereon, and a rest or stop engaging said central-part to hold it against downward movement.

5. An extension table having relatively movable table top-members, a folding filler-leaf adjustably mounted so that it may be moved into the plane of the top-members and also folded in stored position beneath said plane, a filler-leaf supporting bar having elbowed end portions extending in opposite directions, one of said end portions being mounted on one of said top-members so as to rock thereon and permit the other said end portion to vertically reciprocate, means for preventing said latter end portion from drop-

ping below its normal level, the said filler-leaf being mounted to swing on said latter end portion.

6. An extension table having relatively movable table top-members, a folding filler-leaf adjustably mounted so that it may be moved into the plane of the top members and also folded in stored position beneath said plane, a filler-leaf supporting bar having angled end portions projecting in opposite directions, one of said end portions being mounted on the underside of one of said top-members so as to rock thereon and being provided with a projection engaging said top-member to limit the rocking movement, the said filler-leaf being mounted to swing on the other said end portion of the supporting bar.

7. An extension table having relatively movable table top-members, a folding filler-leaf adjustably mounted so that it may be moved into the plane of the top-members and also folded in stored position beneath said plane, a filler-leaf supporting device of substantial U-shape having its side members provided with outwardly and oppositely extending end portions, said end portions being mounted on the respective top-members and the said filler-leaf being mounted to swing upon the middle-part of said supporting device, and means for preventing said middle-part of the support from dropping down below its normal position.

8. An extension table having relatively movable table top-members, a folding filler-leaf adjustably mounted so that it may be moved into the plane of the top members and also folded in stored position beneath said plane, a filler-leaf supporting device of substantial U-shape having its side parts provided with outwardly and oppositely extending end-portions, said end portions being loosely mounted on said respective top-members so as to rock thereon and the said filler-leaf being mounted to swing on the middle-part of said device, and each end portion having means for preventing it from turning in but one direction.

9. An extension table having relatively movable table top-members, a folding filler-leaf composed of two sections hinged together and adjustably mounted so that they may be moved into the plane of the top-members and also folded in stored position beneath said plane, a filler-leaf supporting-bar secured to the underside of one of said top-members and projecting beyond the inner edge thereof, said filler-leaf being mounted to swing on said projecting part of the bar, and a freely swinging prop pivoted to the filler section which lies uppermost when folded and adapted to gravitate into vertical position when said sections are unfolded into horizontal position, and a fixed part for the bottom of said prop to rest on when in vertical position.

10. An extension table having relatively movable table top-members, a folding filler-leaf adjustably mounted so that it may be moved into the plane of said top-members and also folded in stored position beneath said plane, a filler-leaf supporting-bar secured to the underside of one of said top-members and projecting beyond the inner edge thereof, brackets mounted upon the back of said filler-leaf, the projecting part of said bar being pivotally mounted in said brackets, and a freely swung prop pivoted on said brackets and gravitating into vertical position when the filler is adjusted in horizontal position.

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