

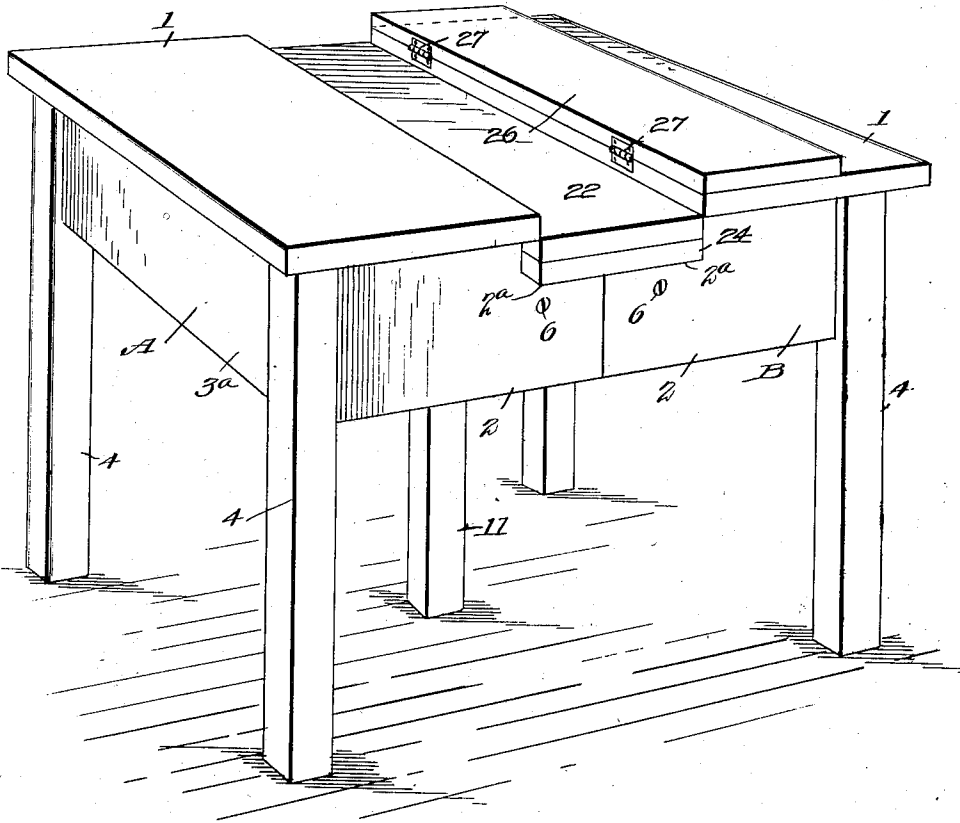
S. R. LIBBEY.  
EXTENSION TABLE.  
APPLICATION FILED MAY 3, 1911.

1,043,710.

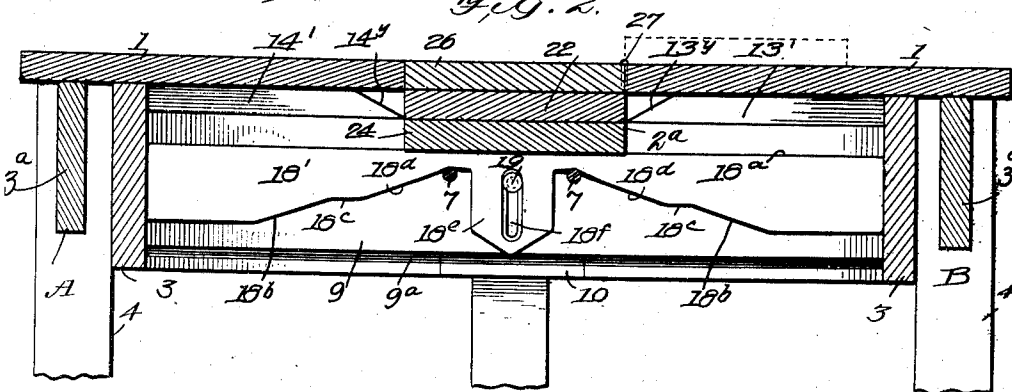
Patented Nov. 5, 1912.

3 SHEETS—SHEET 1.

*Fig. 1.*



*Fig. 2.*



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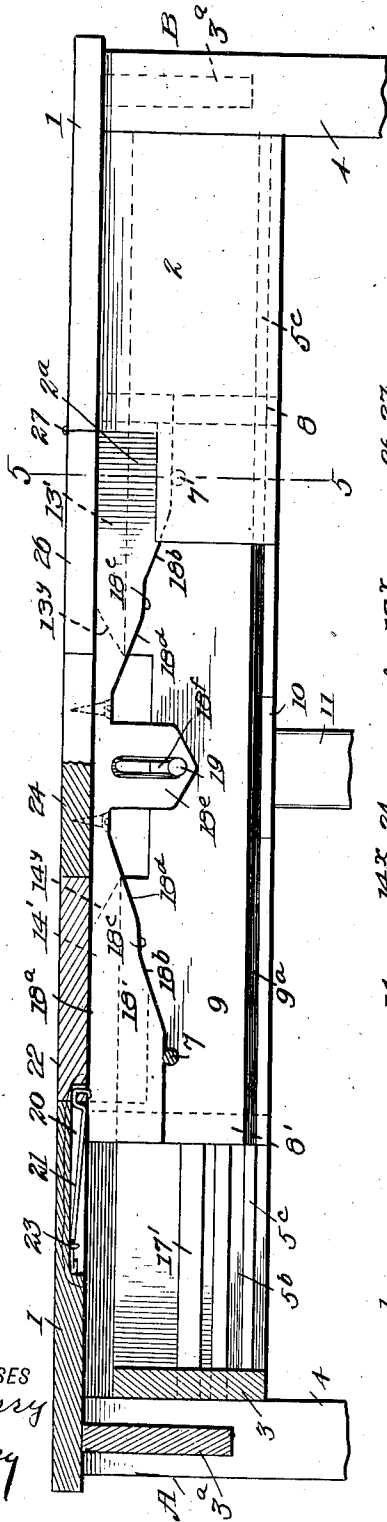
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3 SHEETS—SHEET 2.

Fig. 3.



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Fig. 4.

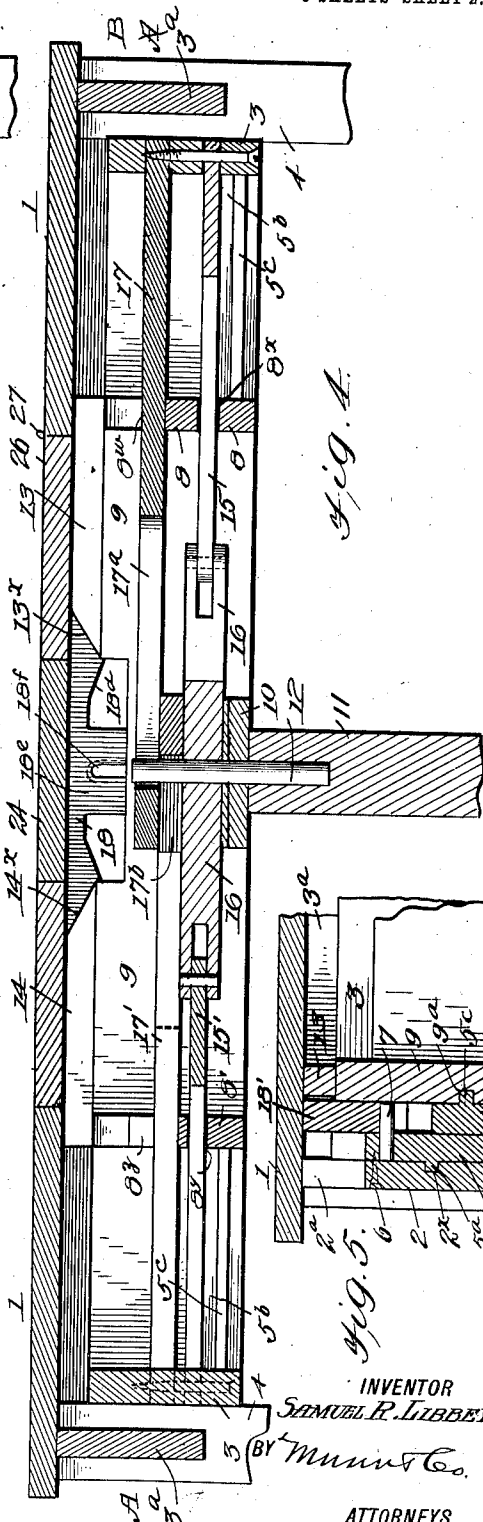
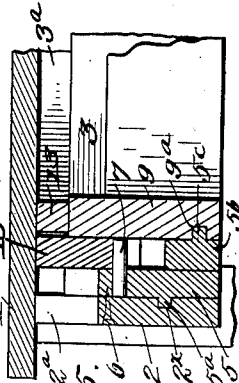


Fig. 5.



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3 SHEETS-SHEET 3.

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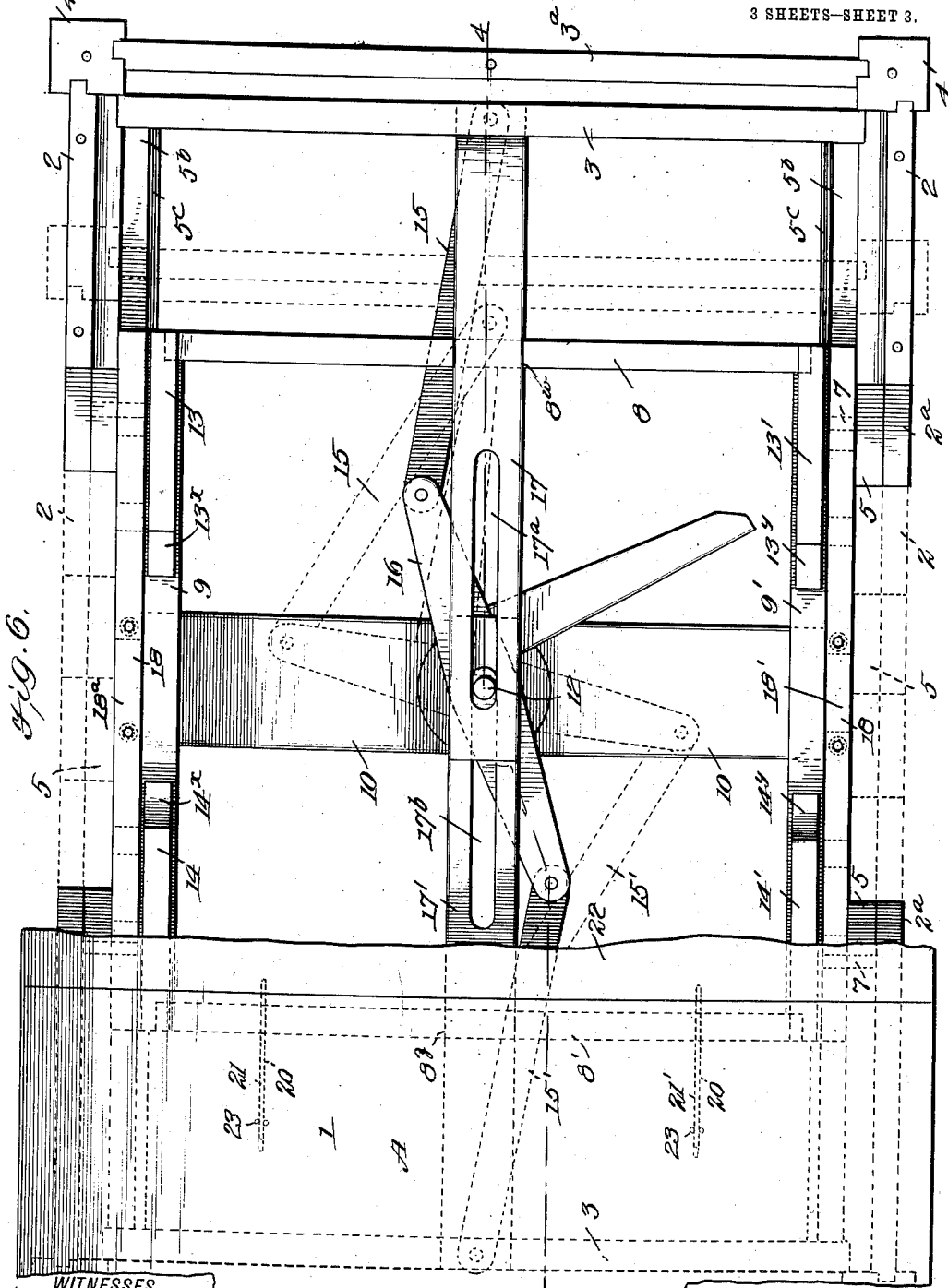


Fig. 6.

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# UNITED STATES PATENT OFFICE.

SAMUEL R. LIBBEY, OF COTTONWOOD, IDAHO.

## EXTENSION-TABLE.

1,043,710.

Specification of Letters Patent.

Patented Nov. 5, 1912.

Application filed May 3, 1911. Serial No. 624,771.

*To all whom it may concern:*

Be it known that I, SAMUEL R. LIBBEY, a citizen of the United States, and a resident of Cottonwood, in the county of Idaho and State of Idaho, have made certain new and useful Improvements in Extension-Tables, of which the following is a specification.

My invention relates to improvements in extension tables, and it consists in the combinations, constructions and arrangements herein described and claimed.

An object of my invention is to provide an extension table having disappearing leaves which may be brought into place, or out of place, by the mere act of pulling the ends of the table apart or pushing them together.

A further object of my invention is to provide novel means for raising the leaves into place or for causing their disappearance.

A further object of my invention is to provide a simple device having relatively few parts, but which is nevertheless positive in its action.

Other objects and advantages will appear in the following specification and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings forming part of this application in which similar reference characters indicate like parts in the several views and in which—

Figure 1 is a perspective view of the table showing one of the leaves turned back. Fig. 2 is a longitudinal sectional view showing the position of the extra leaves when the table is closed; Fig. 3 is a sectional view showing the table extended; Fig. 4 is a sectional view along the line 4—4 of Fig. 6; Fig. 5 is a sectional view along the line 5—5 of Fig. 3, and Fig. 6 is a plan view of the table, a portion of the upper parts being removed for the sake of clearness.

In carrying out my invention I provide the end frames A and B. A description of one of these will suffice since they are both the same. Referring then to the drawings, it will be seen that the end frame B consists of a top board 1, sides 2, end 3, and legs 4 with a strengthening strip 3<sup>a</sup> outside of the ends extending between the legs 4. It will be observed that the sides 2 have a cut-away portion 2<sup>a</sup> at their upper inner corners, these cut-away portions being for the reception of

the extra leaves. The construction of the side members 2 is best shown in Fig. 5. Each of the side members is provided with a groove 2<sup>x</sup> arranged to receive a bead 5<sup>a</sup> of a strip 5. The latter is normally secured to the side 2 by means of a screw such as that shown at 6 in Figs. 1 and 5. The member 5 carries a pin 7, and has an integral extension 5<sup>b</sup> which is provided with a tongue or bead 5<sup>c</sup>.

Referring now to Fig. 6, it will be seen that I have provided a frame consisting of the end members 8 and 8', the side members 9 and 9', and a cross bottom member 10. To the latter is secured a central-leg 11 by means of a pin 12, which projects upwardly and forms a pivot pin for the lever and link connections explained later. On top of the side members 9 and 9' are disposed strips 13 and 13' having beveled ends 13<sup>x</sup> and 13<sup>y</sup> respectively, and similar strips 14 and 14' having similar beveled ends 14<sup>x</sup> and 14<sup>y</sup> respectively.

Pivotaly secured to the end members 3 80 of the table ends A and B are the links 15 15' respectively. The link 15 passes through an opening 8<sup>x</sup> in the frame member 8 (see Fig. 4) while the link 15' passes through a similar opening or slot 8<sup>y</sup> in the frame member 8'. The link 15 is pivotaly connected with the lever 16 at one end, while the link 15' is pivotaly connected with the same lever at the other end, the lever 16 being pivotaly mounted on the pin 12. Rigidly secured to one of the end members 3, and passing through a guide slot 8<sup>w</sup> in the member 8 is a guide member 17 which is provided with a slot 17<sup>a</sup> arranged to receive the central pin 12. A similar guide member 17' is secured to the other member 3, passes through a slot 8<sup>z</sup> in the member 8', and is provided with a slot 17<sup>b</sup> also arranged to receive the pin 12. As will be seen from Fig. 5, the side members 9 are each provided with a groove like that shown at 9<sup>a</sup> in Fig. 5 to receive the tongue or bead 5<sup>c</sup> of the extension 5<sup>b</sup>. This is to permit the sliding of the sides 2 relatively to the frame members 9.

Between the members 9 and the members 5, which, as stated, and as shown in Fig. 5, are secured to the sides 2 are the cam members 18 and 18'. These cam members are of the shape shown in Fig. 2 and a description of one will suffice for both since they are precisely the same. The upper edge 18<sup>a</sup> is flat, as shown in Figs. 2 and 3. On each side

of the center the lower edge is beveled upwardly as shown at 18<sup>b</sup>. There is a short approximately horizontal portion 18<sup>c</sup> and then another upward bevel at 18<sup>d</sup>. The central portion of this member 18 consists of a downwardly extending member 18<sup>e</sup> provided with a slot 18<sup>f</sup> arranged to receive a guide pin 19 carried by the sides 9. As will be seen from Figs. 2 and 3 the under side of the member 18 bears on the pins 7 which, as will be seen from Fig. 5, is carried by the member 5, which is secured to the side 2. There are two of these cam members 18 and 18' as stated.

Referring now to Fig. 3 it will be seen that the top member 1 of the table end A is slotted at 20 to provide room for a hinge member 21. The latter is hooked about a portion of the leaf 22 and has also a slight bodily movement in the direction of its length, being held to the top 1 by means of an eye 23. A second hinge member 21' is also provided, as shown in Fig. 6. A central leaf 24 is secured by means of screws 25 to the upper side of the cam members 18 and 18'. A third leaf 26 is hinged at 27 to the upper portion 1 of the table end 2.

From the foregoing description of the various parts of the device the operation thereof may be readily understood.

Consider the table in the position shown in Fig. 2. In this position the lever 16 will take the position shown in dotted lines in Fig. 6, the links 15 and 15' taking their dotted line positions. It will be noted that the leaf 22 is below the leaf 26, and the leaf 24 is below the leaf 22. Now on pulling the ends apart the pin 7 (see Fig. 2) will strike the inclined portions 18<sup>d</sup>, and will therefore tend to push the cam member 18 upwardly, thereby lifting the leaves 22, 24 and causing the upper leaf 26 to swing slightly on its hinges. As the ends are further withdrawn the leaf 22 is finally brought level with the top members 1. At this point the hinged leaf 26 will drop down level with the leaf 22, and there will now be two leaves between the end members A and B. At this point the pins 7 are on the horizontal portions 18<sup>c</sup> between the inclined portions 18<sup>d</sup> and 18<sup>b</sup>. A further pull on the ends will serve to bring the pins 7 against the inclined portions 18<sup>b</sup>, which will cause the rising of the leaves 24 and 22. The latter will swing slightly upward on its hinges 21 and the hinged member 26 will be lifted slightly on its hinges. When, however, the leaf 26 has cleared the middle member 24 on one side, and the leaf 22 has cleared the leaf 24 on the other, the upper leaves 26 and 22 swing downwardly on their hinges into line with the leaf 24, which is now on and level with the top of a table, thus bringing these three leaves into the positions shown in Figs. 3 and 4.

In closing the table the operation is precisely the reverse. The hinged leaves 22 and 26 must be raised slightly to clear the leaf 24, and now when the table is pushed together the leaf 24 will descend a distance equal to the thickness of the leaf, when the leaf 26 will drop into alinement with the leaf 22, thus leaving two leaves between the ends of the table. Now when only one leaf is wanted, the member 26 is raised slightly to clear the member 22, and the table is again pushed together. The two leaves 24 and 22 will descend a distance equal to the thickness of the leaves and the table is then in the condition shown in Fig. 2. Obviously, more leaves might be put in by removing the screws 6, so as to provide an extension of the member 2, this being effected by a movement of the member 5, relative to the member 2, as shown in Fig. 5, and then screwing the member 2 to the member 5 in some other place.

I claim:—

1. An extension table comprising a central frame, ends movable toward and away from said central frame, one of said ends being slotted, a leaf hinged on one side to the other table end, the opposite edge of the leaf being free, a plurality of disappearing leaves, said disappearing leaves being normally carried by said table in a horizontal position underneath said hinged leaf, slidable arms carried in the slots in one of said table ends, one of said disappearing leaves being connected to said slidable arms, means actuated by the movement of the ends of the table for bringing one or all of the disappearing leaves into alinement with the top of the table and with said hinged leaf, said means comprising a cam member secured to the bottom of one of said disappearing leaves and provided with a plurality of cam surfaces corresponding to the remaining number of disappearing leaves, and pins carried by each end of the table for operating said cam member.

2. An extension table comprising a central frame, ends movable toward and away from said central frame, one of said ends being slotted, a leaf hinged on one side to the other table end, the opposite edge of the leaf being free, a plurality of disappearing leaves, said disappearing leaves being normally carried by said table in a horizontal position underneath said hinged leaf, slidable arms carried in the slots in one of said table ends, one of said disappearing leaves being connected to said slidable arms, means actuated by the movement of the ends of the table for bringing one or all of the disappearing leaves into alinement with the top of the table and with said hinged leaf, said means comprising a cam member secured to the bottom of said lowermost disappearing leaf at each end thereof, each of

said cam members being provided with a vertical slot, pins carried by said central frame and arranged to extend through said slots for guiding said cam member, said  
5 cam member being provided with a series of cam surfaces corresponding in number to the remaining number of disappearing leaves, and pins carried by the ends of the table and arranged to engage said series of cam surfaces for moving the cam members. 10

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