

July 3, 1923.

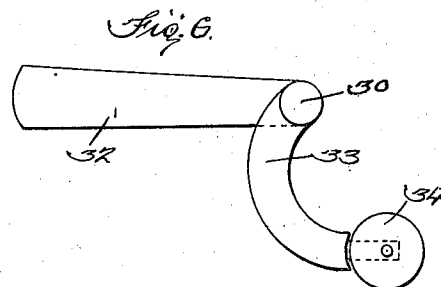
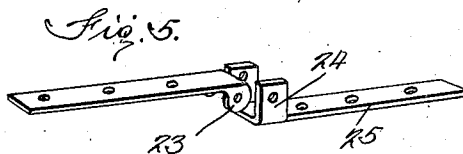
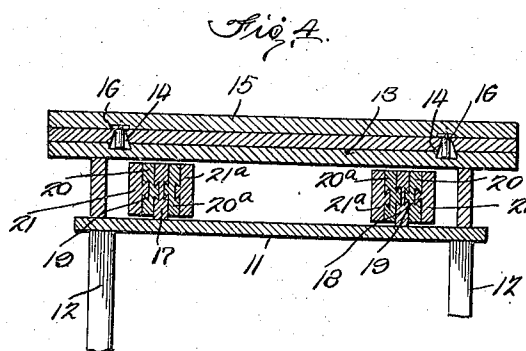
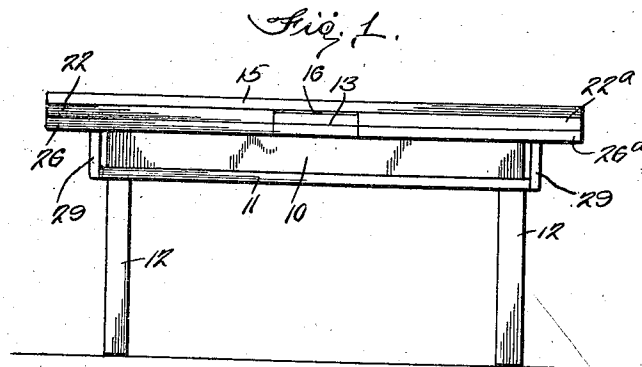
1,460,754

J. HLOZEK

EXTENSION TABLE

Filed June 15, 1921

2 Sheets-Sheet 1.



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July 3, 1923.

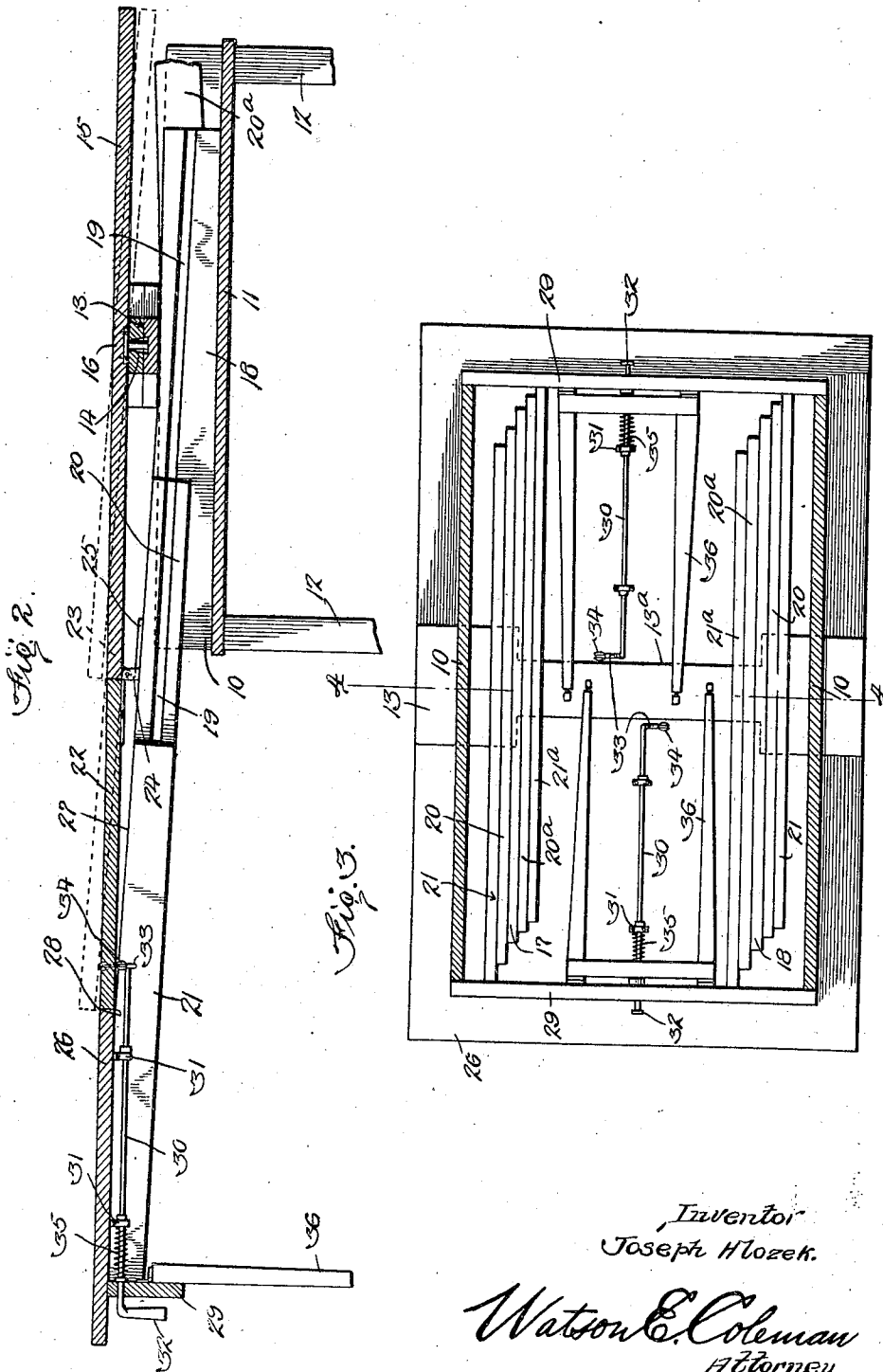
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EXTENSION TABLE

Filed June 15, 1921

2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

JOSEPH HLOZEK, OF CLEVELAND, OHIO.

EXTENSION TABLE.

Application filed June 15, 1921. Serial No. 477,790.

To all whom it may concern:

Be it known that I, JOSEPH HLOZEK, a citizen of the Republic of Czechoslovakia, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Extension Tables, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to tables, and particularly to extension tables.

The general object of the invention is to provide an extension table which is relatively simple in construction, which may be 15 cheaply made, and which may be relatively extended to its full length or collapsed with but a minimum of effort.

A further object is to provide a construction of this character embodying a main table top with a supporting frame and legs or other supports, and a plurality of sets of leaves, one for each side of the table, normally housed beneath the main table top but adapted to be shifted outward to extend 20 the table, said leaves when extended lying flush with the main table top, and provide means whereby these leaves may be supported when extended, said supporting means for the leaves being normally folded up 25 and housed beneath the main table top.

And a further object is to provide very simple and easily operated means whereby the main table top may be raised to permit the leaves to be drawn out and whereby the 30 second leaf of the series may be raised to permit the outermost leaf to be inserted beneath the second leaf and whereby the main table top may be raised in order to permit the superimposed leaves to be shifted 35 beneath the main table top.

Other objects have to do with the details of construction and arrangement of parts as will hereinafter more fully appear.

My invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a side elevation of the table folded;

Figure 2 is a fragmentary longitudinal sectional view of the table expanded and 40 showing in dotted lines the positions taken by the leaves 15 and 22 when the table is being expanded;

Figure 3 is an under side plan view of the table folded;

55 Figure 4 is a cross sectional view on the line 4—4 of Figure 3;

Figure 5 is a perspective view of one of the hinges between the slide 20 and the leaf 22;

Figure 6 is a side elevation of the operating shaft with its handle and roller.

Referring to these drawings, 10 designates two parallel side supporting sills or beams which are connected by a transverse horizontal frame member 11 and which may be supported in any suitable manner but is 60 illustrated as supported by the four legs 12, and disposed at the middle thereof is a transverse supporting member 13 which is preferably made in two sections and is of wood 65 and which is formed with downwardly flaring sockets 14 in its upper surface. Resting upon this member 13 is the main table top 15 which is provided at opposite ends with downwardly projecting pins 16 extending 70 into the sockets 14. These pins are preferably of iron. This connection of the table top to the supporting member 13 permits the table top 15 to be raised or lowered to a certain extent and to be rocked upon a 75 fulcrum, as will be later described. The pins 16 may be so formed as to prevent the entire detachment of the table top but permit its elevation and rocking movement. 80 The rocking movement is, of course, permitted by the downwardly flaring character of the sockets 14. 85

Disposed below the under face of the supporting member 13 and extending in parallel relation but transversely to the beam 13 are the two upwardly and outwardly inclined 90 sections 17 and 18, these guide sections being glued to the frame member 11 and extending upward therefrom. These slide sections 17 and 18 may be formed with dove-tailed 95 grooves on their opposite faces 19. These sections 17 and 18 upon their opposite faces may also be formed with dove-tailed tongues if desired. I have illustrated grooves for this purpose but I do not wish to be limited 100 to the particular shape of the grooves 19. Coacting with each of the guides 17 and 18 are the longitudinally shiftable slide members 20 which have sliding engagement 105 with the guides 17 and 18 and which are therefore formed with dove-tailed tongues slidably engaging the dove-tailed grooves 19. There are two of these members 20 each disposed on one side of the guide sections 17 and 18, and on the opposite side of 110 these guide sections 17 and 18 are disposed two other sections 20^a corresponding to the

sections 20. Coacting with the sections 20 and having sliding engagement therewith by means of tongues and grooves are the slide sections 21, and engaging with the slide sections 20^a are the slide sections 21^a. It will be understood, of course, that the slide sections 20 and 21 are extended in one direction when the table is pulled out, while the slide sections 20^a and 21^a are extended in the opposite direction.

Carried by the slide sections 20 on one side of the table is a leaf 22, which leaf has attached to its under side at its butt end the downwardly extending hinge member 23 which is disposed between ears 24 having horizontal upper edges, these ears 24 being mounted upon a plate 25 which is attached to the upper face of the corresponding slide section 20 somewhat inward from the extremity of this slide section 20. It will be seen that the leaf is thus elevated above the slide sections 20. A like leaf 22^a is mounted upon the slide sections 20^a by a like hinge connection.

From Figure 2 it will be seen that the slide sections 20 are upwardly inclined toward the outer ends and that the grooves 19 are downwardly inclined relative to a horizontal plane. The same is true, of course, of the slide sections 20^a. The purpose of this will hereafter appear.

Attached to the extremities of the slide sections 21 is the leaf 26, and it will be noted from Figure 2 that the slide section 21 has its upper edge inclined upward and forward from its butt end for a certain distance, as at 27, but that from the point 28 the upper edge of the slide section 21 is horizontal. The sections 21 are also upwardly and outwardly inclined. What is true of the slide section 21 is equally true of the slide sections 21^a and of the leaf 26^a.

Attached to each leaf 26 and extending downward therefrom adjacent the outer margin of the leaf is a depending member 29 adapted when the leaf 26 is closed to close in the ends of the table beneath the table top 15. Passing through this depending member 29 is a shaft 30 which is supported in bearings 31, this shaft being provided at its outer end with a handle 32 and at its inner end with a curved crank arm 33 carrying at its end the roller 34. A spring 35 is connected to the crank shaft 30 so as to cause the crank arm 33 to normally lie in a horizontal plane. When, however, the handle 32 is oscillated in one direction the end of the arm 33 will move upward.

When the leaves 22 and 26 and 22^a and 26^a are disposed beneath the table top 15 in the position shown in Figure 3, these crank arms 33 lie immediately beneath the cut-away portions 13^a of the transverse supporting member 13, and obviously any rotation of the crank shaft by means of the handle 32 will

cause the upward movement of the leaves 22 and 26 or 22^a and 26^a.

In the operation of this device, assuming that the leaves are disposed beneath the table top 15, then the parts have the position shown in Figure 3 and both leaves 22 and 26 on one side and both leaves 22^a and 26^a on the other side are disposed in the space between the table top 15 and the upper edge faces of the slides and guides 17, 20 and 21 and 18, 20^a and 21^a, the table top resting upon and being supported by the upper face of the member 13 and upon the several leaves. Now if it be desired to extend the table, it is only necessary to take hold of the handle 32 at one side and turn it to the left so that the wooden wheel 34 is lifted. This lifts up on the leaf 26 and the leaf 22 and upward on one margin of the table top so that the table top fulcrums on its other margin. At the same time force is applied, as for instance to the leaf 26 or to the depending member 29, to draw this end of the table outward. This extends the slides 20 and 21. When the leaf 22 has been drawn sufficiently far outward, the table top 15 will drop onto the projecting ears 24 of the hinge and when the leaf 26 has been drawn sufficiently outward and beyond the leaf 22, the leaf 22 will drop into position behind the edge of the leaf 26 and the parts will occupy the position shown in Figure 2 and the table will be fully extended on the side. The same operation is repeated for the other side of the table and when the leaves have been fully drawn out, the upper surface of the table top and the upper surface of the leaves will lie all in the same plane. When the slides 20 and 21 have been drawn fully outward and the slides 20^a and 21^a have been drawn fully outward, the "blind" legs 36 are lowered to support the ends of the slides. These "blind" legs are hingedly connected to the members 29 and swing up either to a horizontal position or swing downward to a vertical position in the usual manner of legs which are attached to sewing tables and the like, these legs being held either in a horizontal position or vertical position by the usual leaf springs for this purpose.

It will be understood that while the table may be drawn out so as to expose the leaves 26 and 26^a, yet it is not necessary to do this unless it is desired to extend the table to its full capacity. It is equally possible to merely draw the leaves 22 outward from beneath the table top, leaving the leaf 26 beneath the leaf 22. While I have illustrated an extension table with four leaves, it will be understood that a greater number of leaves might be used if desired, the same principle of operation being preserved.

The spring 35, as soon as the handle 32 is released, acts to return the crank shaft to its initial position with the arm 33 in an

approximately horizontal position. When it is desired to contract the table, the handle 32 is operated to oscillate the shaft and raise the arm 33. This arm 33, when the table is fully extended, bears against the under side of the leaf 22 adjacent its free edge, and when this shaft 30 is lifted, the arm 33 will raise the free edge of the leaf 22 so as to permit the leaf 26 to slide in underneath the leaf 22. As it slides in beneath the leaf 22, it raises up on this leaf and on the table top 15, the roller 34 rolling along the under face of the leaf 22. If it then be desired to still further contract the table, the roller 34 is moved upward by rotating the shaft 30 until the table top 15 is lifted sufficiently to permit the butt end of the leaf 22 to be inserted beneath the table top. Then the slides and leaves are pushed home beneath the table top and the legs 36 turned upward. Thus the parts are brought back to a fully contracted position. Of course, what is true with regard to the contraction of the leaves 26 and 22 applies equally well to the leaves 26^a and 22^a on the opposite side of the table.

While I have illustrated the supporting frame of the table as being mounted on the legs 12, I do not wish to be limited to this, as the frame might be mounted upon any supporting structure, as for instance a pedestal or compartmented supports, as in a desk. Neither do I wish to be limited to the details of construction and arrangement of parts as illustrated, as these might be varied in many ways without departing from the spirit of the invention.

I claim:—

1. An extension table comprising a supporting frame, a table top carried thereby but having vertical and tilting movement, a transverse member mounted upon the supporting frame at the middle thereof and upon which the middle of the table top normally rests, fixed upwardly inclined guides carried by the frame below said member, movable upwardly inclined slides slidably engaging said guides and movable outward therefrom, a leaf hinged at its inner edge to said slides and hingedly supported with its inner edge in spaced relation to the upper edges of the slides, said leaf being normally disposed beneath the table top, a second set of upwardly inclined slides connected to the first named set of slides and having sliding engagement therewith, the outer end portions of said second set of slides being hori-

zontal, a second leaf carried upon the horizontal outer end portions of said last named slides and movable into position beyond the first named leaf, the table top and the first named leaf dropping down into position behind the second named leaf and flush therewith, and means operatively carried by the second named leaf and projecting beyond the inner edge thereof whereby the first named leaf may be raised to permit the second named leaf to be slid beneath the first named leaf, and means whereby the table top may be raised to permit the superimposed leaves to be shifted beneath the table top.

2. An extension table comprising a supporting frame having a transverse member, a table top resting upon the supporting frame, the table top having downwardly extending dowels and the supporting member having upwardly contracted sockets in which said dowels rest whereby the table top may be moved vertically or tilted with reference to the transverse member, fixed upwardly inclined guides carried by the frame below said member, movable upwardly inclined slides slidably engaging the guides and movable outward therefrom, a leaf hinged at its inner end to an intermediate portion of said movable slides and hingedly supported with its inner edge in spaced relation to the upper edges of the slides, said leaf being normally disposed beneath the table top, a second set of upwardly inclined slides having sliding engagement with the first named set, a second leaf carried upon the outer end portions of said last named slides and movable into position beyond the first named leaf, the table top and the first named leaf dropping down into position behind the second named leaf and flush therewith when the leaves are pulled out, and means operatively carried by the second named leaf and projecting beyond the inner edge of the second named leaf whereby the first named leaf may be raised to permit the second named leaf to be slid beneath the first named leaf and whereby the table top may be tilted to permit the superimposed leaves to be shifted beneath the table top, said transverse member having a thickness equal to the thickness of the two leaves.

In testimony whereof I hereunto affix my signature.

JOSEPH HLOZEK.