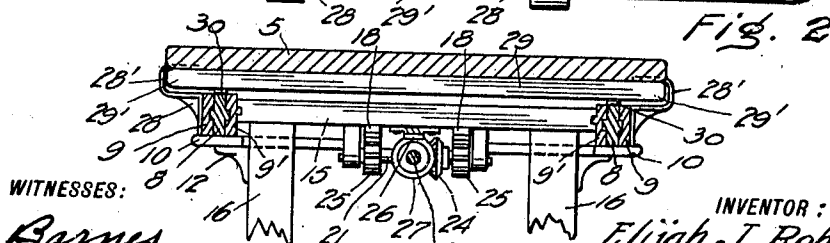
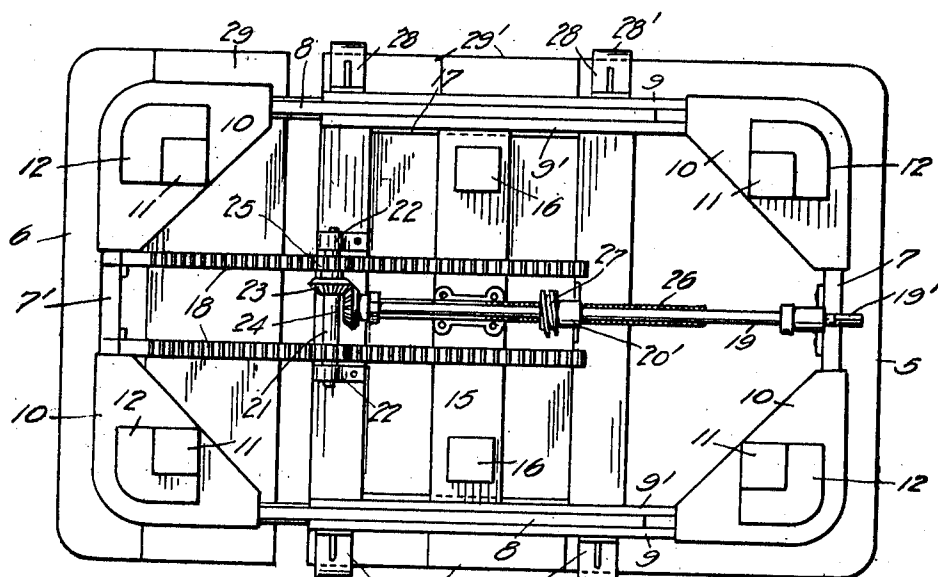
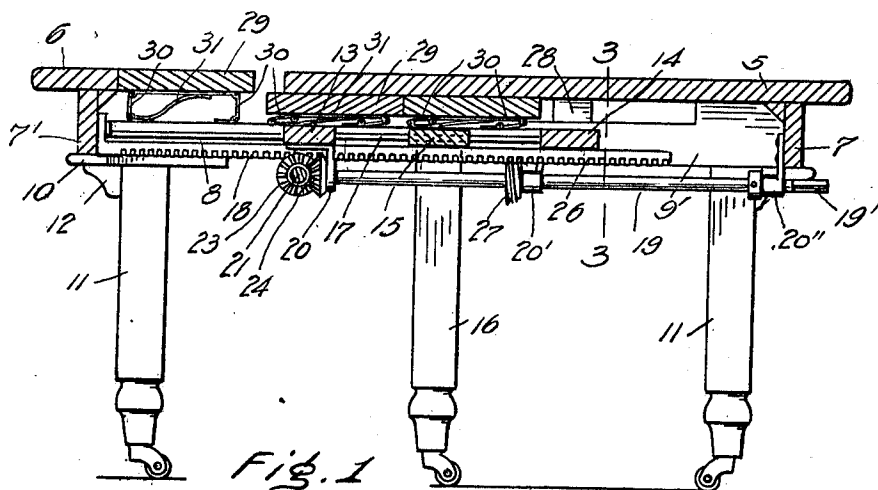


E. J. ROBERTS.
EXTENSION TABLE.
APPLICATION FILED APR. 28, 1910.

992,066.

Patented May 9, 1911.



WITNESSES:
H. Barnes

E. Peterson

Fig. 3

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ELIJAH J. ROBERTS, OF SEATTLE, WASHINGTON.

EXTENSION-TABLE.

992,066.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed April 26, 1910. Serial No. 557,665.

To all whom it may concern:

Be it known that I, ELIJAH J. ROBERTS, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Extension-Tables, of which the following is a specification.

This invention relates to extension tables, and especially to that class of such tables in which the extra leaves are automatically placed in operative position by the separation of the table top, as set forth in Letters-Patent of the United States, No. 569,059; granted to me October 6, 1896.

The present invention has for its primary object to provide devices which operate with the extending or contracting of a table to cause the intermediate legs to occupy a position midway between the end legs.

A further object of the invention is the improvement in the details of the table construction.

The invention consists in the novel construction, and combination of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a longitudinal vertical section of a table embodying my invention. Fig. 2 is an underside plan view of the same. Fig. 3 is a transverse vertical section taken through 3—3 of Fig. 1.

As illustrated in said drawings, the reference numerals 5 and 6 designate the separable top members of a table and 7, 7' the transverse end pieces of the frame upon which said top members are respectively supported. Side bars 8 provided with a tongue on each side are fixed to the end piece 7' and extend longitudinally beneath the table top and between the side bars 9, 9' secured to end piece 7 and are provided with grooves to register with the said tongues of the bars 8 and permit of a sliding fit therewith. Each of the four corners of said frame is provided on its underside with a brace 10 to which are secured the principal supporting legs 11 and are further secured by means of corner molding 12 abutted thereagainst.

13 and 14 are cross pieces of the frame fixedly secured at their ends to the inner side bars 9' and spaced apart to permit of the movement therebetween of the middle leg rail 15. Said rail is provided with legs 16 and has its ends grooved to interfit with a longitudinal tongue 17 upon the inner sides

of the said bars 9' to afford a sliding movement thereupon.

18 designates a pair of racks attached to the lower edges of the end piece 7', and 19 is a shaft journaled in suitable bearings 20, 20' and 20'' fixed to the frame members of the main portion of the table longitudinally thereof.

21 is a transverse shaft mounted in bearings 22 upon the cross piece 13 and is provided with a bevel gear 23 in mesh with a bevel pinion 24 on the end of the shaft 19 and pinions 25 in mesh with the respective racks 18 providing means whereby the ends of the table may be moved relative to each other.

A rack 26 is secured to the underside of the rail 15 and extended parallel with shaft 19 whereon is keyed a worm-gear 27 intermeshing with the teeth of rack 26 and arranged to communicate movement thereto and to the connected rail 15 at about one-half the speed of the racks 18. A crank, not shown, may be detachably connected to the square end 19' of the main shaft to rotate the latter.

In addition to the support afforded by the end piece 7 the top member 5 is secured to and sustained by brackets 28 which, in turn, are secured to the outer side bars 9 upon each side of the frame. The upper portions of said brackets are bent, as at 28', to afford a channel for the reception of the ends 29' of the auxiliary leaves 29 and to permit of the leaves extending the entire width of the table top. Said leaves are connected with the parallel bars 8 of the frame by means of links 30 which connection is so arranged that when the leaves are impelled upwardly the top surface of the leaf will be flush with the table top and the links assume a vertical position to support the leaf against a vertically applied weight, and when the table top is drawn together the leaf will be firmly held in place. Springs, such as designated by 31, are utilized in connection with said links to force the respective leaves upwardly so that when the table-top is sufficiently separated to clear one of the leaves it will be thrown into operative position. Reference may be had to my above named patent for more detailed description of this feature of the invention.

The table is operated as follows: Assuming that the table is in closed condition by rotating the shaft 19 by the agency of a

crank on the shaft end 19' in the proper direction the transverse shaft is caused to rotate and communicates a longitudinal movement to the racks 18 thus separating the table top. The leaves are successively impelled upwardly by the yielding pressure of the springs 31 until flush with the top as the top portions are separated. As the aforesaid separation is progressively accomplished the rotation of the worm-gear 27 intermeshing with the teeth of rack 26 effects a longitudinal movement of the latter and a consequent movement of the rail 15 and the legs 16 in the same direction. The relative speeds of the racks 26 and 18 are such that the former will travel approximately one-half the distance of the latter and hence the legs 16 will remain constantly in the same relative position with respect to the ends of the table. In reducing the length of the table the auxiliary leaves are depressed and retained under the table top 5, in the manner illustrated and described in my former patent. In the reverse movement of the table parts the legs 16 are likewise caused to retain their central position, as is obvious.

In addition to the foregoing, among the advantages of my invention are the simplicity of construction and the elimination of unnecessary parts whereby both efficiency in use and economy in manufacture are attained.

What I claim as my invention, is—

1. An extension table comprising a pair of top members, one of which is adjustable toward and from the other, a pair of longitudinally-extending spaced side bars secured to the stationary section at each side thereof and provided with grooves, frame bars connected to the adjustable section and extending between the pairs of side bars and provided with tongues engaging in the grooves of said side bars, cross-pieces interposed between and connected to the inner side bars of said pairs of side bars, a shiftable middle leg rail interposed between the cross-pieces, tongue and groove connections between the ends of the middle leg rail and the inner side bars of said pairs of side bars, legs depending from said rail, legs depending from each of said sections, bearing brackets depending from one of said cross-

pieces, a transversely-extending shaft journaled in said brackets and provided with a beveled gear and a pair of pinions, a pair of racks fixed at one end to said adjustable section and extending between and projecting from said shaft and engaged by said pinions, a longitudinally-extending shaft supported from said stationary section and provided with a beveled gear meshing with the beveled gear upon said transverse shaft for actuating the latter when the longitudinal shaft is rotated, a rack interposed between said pair of racks and connected to said shiftable rail, and a worm carried by the longitudinal shaft and engaging with the rack connected to the rail for shifting the latter when the longitudinal shaft is operated thereby moving the rail simultaneously with the movement of the adjustable section.

2. An extension table comprising a pair of top sections, one adjustable toward and away from the other, sliding connections between said sections, an adjustable middle leg rail connected with said stationary section, cross-pieces connected with the stationary section, bearing brackets depending from one of said cross-pieces, a transversely-extending shaft journaled in said brackets and provided with a beveled gear and a pair of pinions, a pair of racks fixed at one end to the adjustable section and extending between and projecting from said transverse shaft and engaged by said pinions, a longitudinally-extending shaft rotatably supported from said stationary section and provided with a beveled gear engaging with the beveled gear upon the transverse shaft for actuating the latter when the longitudinal shaft is revolved, a rack disposed between said pair of racks and connected with said rail, and a worm carried by the longitudinal shaft and engaging with the rack connected with the rail for simultaneously shifting the rail with the adjustable section when the longitudinal shaft is operated.

Signed at Seattle, Wash., this 12th day of April 1910.

ELIJAH J. ROBERTS.

Witnesses:

PIERRE BARNES,
W. C. PUGH.