(No Model.) 3 Sheets—Sheet 1.

W. H. PICKETT.

EXTENSION TABLE.

No. 457,443. Patented Aug. 11, 1891.

Fig. 1.

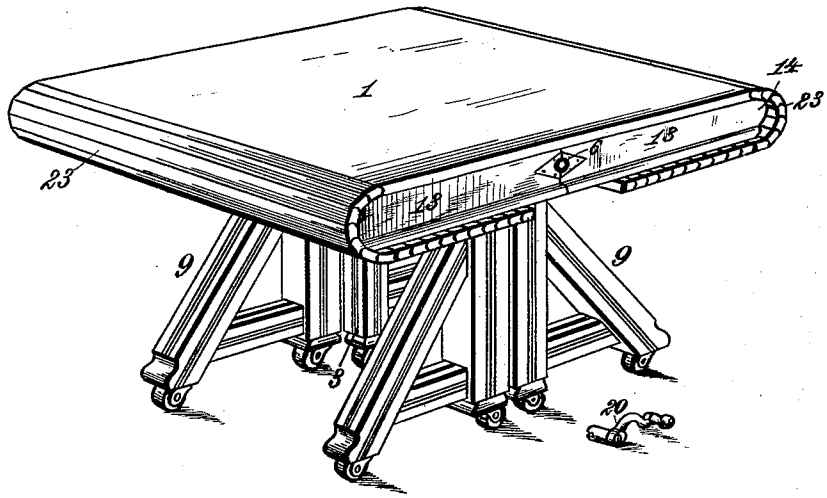
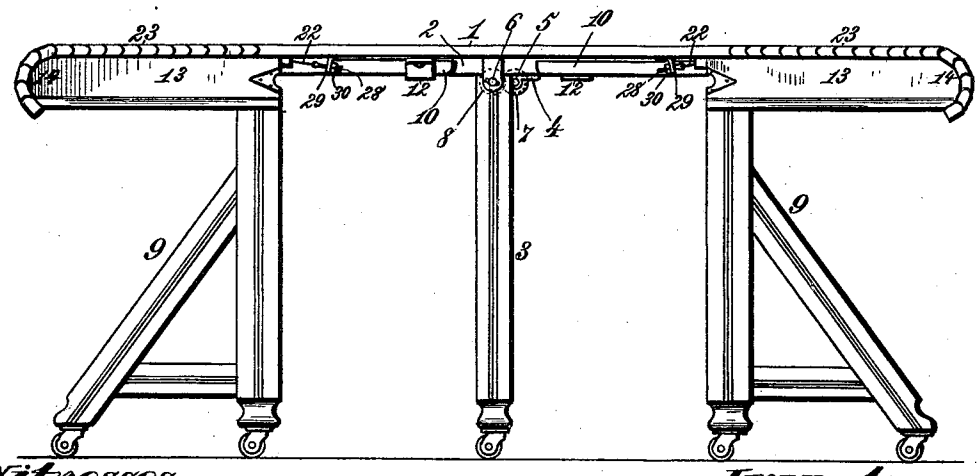


Fig. 2.



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(No Model.) 3 Sheets—Sheet 2.

W. H. PICKETT.

EXTENSION TABLE.

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Fig. 3.

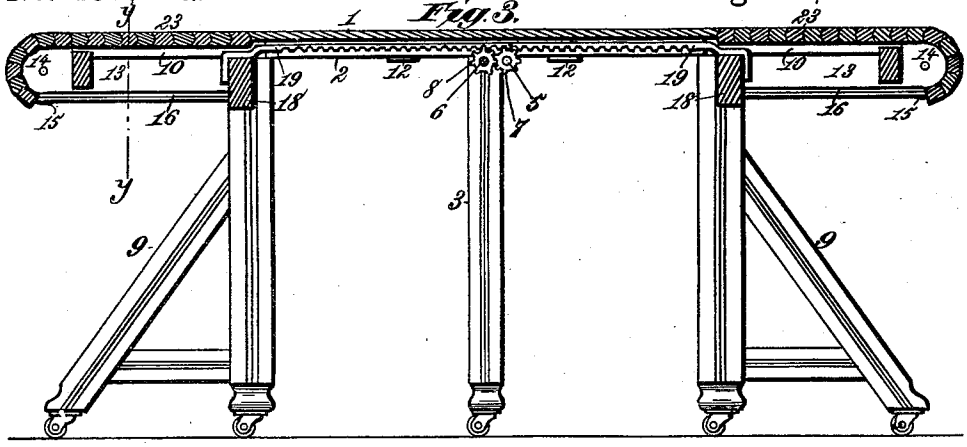


Fig. 4.

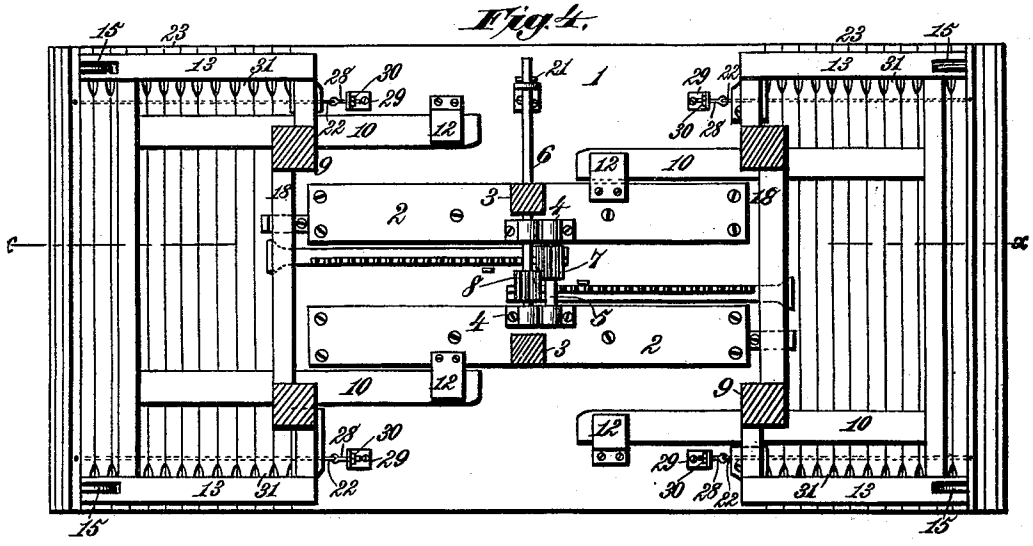
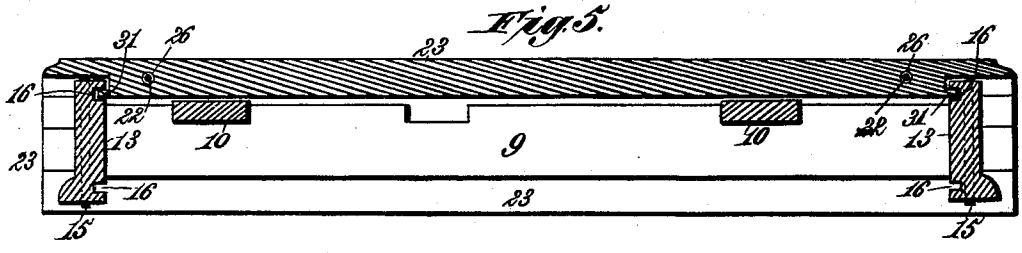


Fig. 5.



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(No Model.) 3 Sheets—Sheet 3.

W. H. PICKETT.

EXTENSION TABLE.

No. 457,443. Patented Aug. 11, 1891.

Fig. 6.

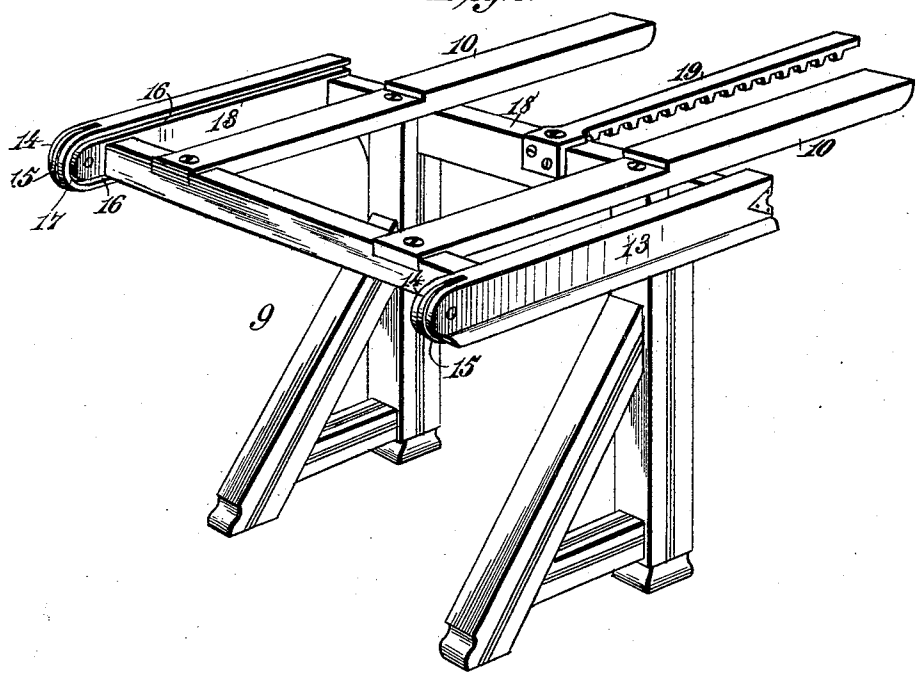


Fig. 7.

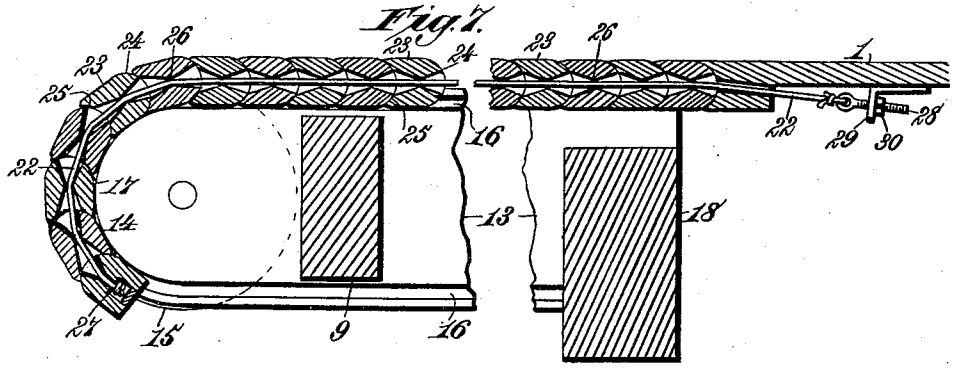
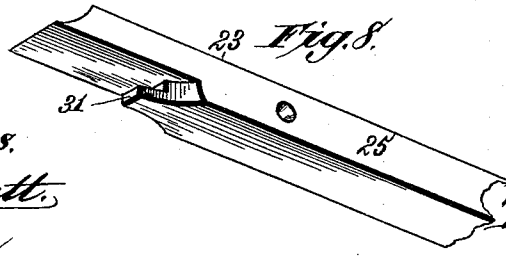


Fig. 8.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM H. PICKETT, OF WARREN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CHAUNCEY S. HOMER, OF SAME PLACE.

EXTENSION-TABLE.

SPECIFICATION forming part of Letters Patent No. 457,443, dated August 11, 1891.

Application filed July 2, 1890. Serial No. 357,577. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PICKETT, a citizen of the United States, residing at Warren, in the county of Warren and State of Pennsylvania, have invented new and useful Improvements in Extension-Tables, of which the following is a specification.

In extension-tables comprising a center panel, center leg, and leg-frames adjustable to and from the center panel by racks and pinions it has been proposed to employ flexible table-top sections which are extended or laid horizontal as the end leg-frames move apart for the purpose of enlarging the capacity of the table, and are stored in chambers at the ends of the table as the end leg-frames move toward each other for reducing the capacity of the table. It has been proposed to simultaneously extend and retract the end leg-frames of a table of this character; but where this is the case the mechanism has been complicated by reason of the fact that two pairs of rack-bars are required at each side of the table, and consequently two transverse pinion-shafts are used, each of which carries two pinions. It has also been proposed to extend and contract the sections of a table by means of two racks and a single shaft having two pinions; but where this is the case it is impossible to simultaneously adjust both sections of the table by reason of the fact that the two pinions are on a single shaft. The objections stated are so serious that extension-tables of this type or kind alluded to have never come into general use, and, so far as I have been able to ascertain, have never been practically used.

To produce a flexible extension-table which will meet all the conditions required by the public and render it an acceptable and merchantable article in the market requires that the table when extended and when contracted should present a neat, attractive, and symmetrical appearance in all particulars, and to accomplish this is the essential and main purpose of my improvements.

The objects of my invention are to provide a new and improved extension-table having at each end a flexible table-top section wherein the slats comprising each flexible section overlie and slide in positive engagement with the side bars of the adjustable leg-frame; to provide a novel extension-table comprising a stationary center panel, flexible end sections, and adjustable leg-frames, wherein the flexible sections overlie and are in sliding engagement with the side bars of the leg-frames, while the leg-frames can be simultaneously extended and retracted by the movement of a single crank-handle; to provide a novel extension-table composed of slats so constructed, organized, and held together that as the sections travel round the curved ends of the table the slats will turn on each other as pivots or centers, and the adjoining edges of such slats will never separate to afford receptacles for crumbs, dirt, dust, and other accumulations, as will occur in the ordinary flexible sections of extension-tables as heretofore constructed, and, finally, to provide a novel, economical, and efficient table-top section wherein the slats comprising the same will, in the movements of the flexible sections round curved bearing arms or supports, stand in close contact with each other and operate to clear the joints of any fine matter, such as crumbs, dirt, or dust.

To accomplish all these objects, my invention involves the features of construction, the combination or arrangement of devices, and the principles of operation hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of an extension-table contracted to its smallest dimensions. Fig. 2 is a side elevation of the same, showing the table extended to enlarge its capacity. Fig. 3 is a longitudinal sectional view taken on the line $x\,x$ of Fig. 4. Fig. 4 is a bottom plan view of the table in the position exhibited by Fig. 3. Fig. 5 is a transverse sectional view taken on the line $y\,y$ of Fig. 3. Fig. 6 is a detail perspective view of one of the adjustable leg-frames, omitting the flexible table-top section thereof. Fig. 7 is a detail longitudinal sectional view of one of the flexible table-top sections. Fig. 8 is a detail perspective view showing an end portion of one of the slats of the flexible section.

In order to enable those skilled in the art

to make and use my invention, I will now describe the same in detail, referring to the drawings, where—

The numeral 1 indicates a stationary center panel or leaf having on its under side two parallel rigidly-attached bars 2, to which are secured the center leg-frame 3. The parallel bars extend longitudinally of the table and constitute supports for the bearings 4 of the short shaft 5 and the long shaft 6. The short shaft is provided with a pinion 7, which meshes into a pinion 8 on the long shaft, as clearly shown in Fig. 4.

At each end of the center panel is arranged an adjustable end leg-frame 9 of the construction exhibited in Fig. 6 and comprising parallel guide-bars 10, that move in and are guided by bracket-arms 12, secured to the under side of the center panel in such manner that the adjustable leg-frames can move rectilinearly toward and from each other. The adjustable leg-frames are each provided with oppositely-placed side bars 13 13, having semicircular outer ends 14, containing rotary bearing disks or wheels 15. The inner side of each side bar is provided with an upper and a lower longitudinal groove or guideway 16, located parallel to each other and placed in communication at the outer end of the side bar by a switch channel or groove 17. The top surfaces of the side bars are placed in the same horizontal plane and serve as supporting-rails for the movements of the flexible table-top sections hereinafter described.

The adjustable leg-frames are each made in such manner that it is practically a rigid structure, and to the center of the inner cross-bar 18 of each leg-frame is secured one end of the rack-bar 19, one of such rack-bars being in engagement with the pinion 8 on the long shaft and the other in engagement with the pinion 7 on the short shaft, so that by applying a crank 20, Fig. 1, to the square end 21 of the long shaft and rotating the latter the two leg-frames are simultaneoulsy moved toward and from each other, according to the direction in which the shaft is rotated.

An extension-table of the character described has never, so far as I am aware, been so constructed that the two adjustable leg-frames can be simultaneously moved toward and from each other by means of two centrally-arranged racks and two centrally-located pinions engaged with each other and respectively meshing in the two racks. This is an important feature of my table, in conjunction or combination with the flexible table-top sections, which I will now describe. These sections are each composed of a series of transverse slats 23, each of which has one longitudinal edge made convex, as at 24, and the opposite longitudinal edge made concave, as at 25, Fig. 7, whereby the sections, when placed together and connected by a flexible cable or cord 22, passed through all the series, will be joined together, after the manner of knuckle-joints, in such manner that one slat positively engages another and can turn thereupon as a center or pivot. By this construction the continuity of the surface provided by the series of connected slats remains unbroken without regard to the movement of the flexible sections as a whole round the curved outer ends of the side bars 13.

The orifice of each slat through which the cable passes is tapered in reverse directions, whereby the least diameter of the orifice is a single central bearing-point, as at 26, which constitutes, as it were, a knife-edge, so that the slat can oscillate on the cables as the flexible section travels round the curved ends of the side bars of the adjustable leg-frames. This construction is important and essential in that it enables the respective slats to rest squarely upon the semicircular ends of the side bars of the adjustable leg-frames as such slats travel round the same in the movements of the leg-frames to extend or contract the table. The cables are fastened to the outermost slat, as at 27, and the inner end of each cable is connected with a device by which the tension of the cable is increased or its length adjusted for the purpose of tightening the several slats one upon the other, and thereby cause the knuckle-jointed slats to more closely and accurately fit into each other while permitting the required oscillatory movements of each slat to turn upon the adjoining slats as centers or pivots.

The adjusting device which I have exhibited in the drawings consists of screw-rods 28, passing through brackets 29, secured to the under side of the center panel, such screw-rods 28 being provided with nuts 30, by turning which the screw-rods are moved lengthwise, and thereby caused to draw and tighten the cable. I do not, however, confine myself to the specific devices described and shown for tightening slats upon each other by adjusting the cable lengthwise, as other contrivances for the purpose can be employed. The slats are of such length that they extend beyond the outer edges of the side bars of the adjustable leg-frames, and consequently the slats overlie such side bars and in a measure cover and conceal the same, especially in looking down upon the surface of the table. The slats are each provided on its under side near each end with a pendent tongue-piece 31, and the tongue-pieces enter, engage, and slide in the grooves or guideways of the respective side pieces forming a part of each adjustable leg-frame. The positive sliding engagement of the slats with the side bars which is produced by the peculiar construction described prevents any and all of the slats from being moved or raised vertically in a direction away from the top supporting-edge of such side bars, whereby the flexible table-top sections remain at all times in a flat condition and at rest upon the side bars, thereby materially contributing to the compactness and generally

attractive appearance of the table, and render it a very desirable and merchantable article of dining-room furniture.

The cables connecting the slats are flexible and are preferably composed of small-caliber wires, but obviously other materials can be employed; but a form is desirable which will permit rocking or oscillating motions of the slats through their internal knife-edge bearings as the flexible table-top sections traverse the rounded or curved ends of the adjustable leg-frames.

I do not herein broadly claim an extension-table having a flexible table-top section composed of cables and slats strung on the cables and a leg-frame for laying the table-top section horizontal; nor do I herein broadly claim an extension-table consisting of a center panel, simultaneously moving end leg-frames having curved outer ends, flexible table-top sections composed of flexibly-connected slats having convex and concave edges extending concentric the entire thickness of the slats and turning on each other in close superficial contact while the slats traverse the curved outer ends of the leg-frames, and means for moving the leg-frames in unison, and thereby simultaneously extending and contracting the flexible table-top sections; nor do I herein broadly claim an extension-table consisting of simultaneously moving leg-frames having curved portions, flexible table-top sections composed of cables, and slats strung upon the cables and having convex and concave edges extending concentric the entire thickness of the slats and turning on each other in close superficial contact while the slats traverse the curved portions of the leg-frames and means for moving the leg-frames in unison; nor do I herein claim an extension-table having a flexible table-top section and an adjustable leg-frame comprising inner and outer cross-rails, side rails engaged with the flexible table-top sections, and supporting-bars arranged between the side rails connected with the outermost cross-rail and extending past the innermost cross-rail for the purpose of sustaining the flexible table-top section at points between the side rails of the leg-frame, and, finally, I do not herein broadly claim a flexible table-top section composed of flexibly-connected slats having convex and concave edges extending concentric to each other the full thickness of the slats and preserved in superficial contact to turn on each other like knuckles, as such features and combinations are claimed in my application for Letters Patent filed March 3, 1891, Serial No. 383,546.

Having thus described my invention, what I claim is—

1. The combination, in an extension-table, of a center panel having on its under side a pair of attached parallel bars to which is fixed a center leg-frame, a pair of journal-bearings secured to each bar, a short and a long shaft journaled in the bearings and provided with two pinions meshing into each other, the two adjustable leg-frames located at opposite ends of the center panel and each comprising two opposite longitudinal grooved side bars or plates having semicircular outer ends, and a centrally-arranged rack-bar engaging one of the pinions, whereby the two leg-frames are simultaneously adjusted, and the oppositely-arranged flexible table-top sections, each composed of a series of transverse flexibly-connected slats having their longitudinal edges engaging each other as knuckle-joints and turning on each other as centers or pivots in traversing the semicircular outer ends of the side bars or plates of the leg-frames, substantially as described.

2. The combination, in an extension-table, of a center panel having a rigidly-attached center leg, the two adjustable end leg-frames at opposite ends of the center panel and each provided at opposite sides with rigidly-attached side bars, each having a semicircular outer end and an upper and lower longitudinal groove connected by a curved switch-channel, a rack secured to the center of each end leg-frame, gearing which simultaneously reciprocates the two racks in reverse directions, and flexible end sections secured to the ends of the center panel and each composed of transverse connected slats overlying the upper sides of the grooved side bars and having tongues on their under sides in sliding engagement with the grooves and switch-channel, substantially as described.

3. The combination, in an extension-table, of a panel or leaf, an adjustable leg, and a flexible table-top section composed of slats connected by lengthwise-adjustable flexible cables for tightening the slats against each other, substantially as described.

4. The combination, with a panel or leaf, of a flexible table-top section consisting of parallel cables, and a series of oscillatory slats having orifices containing knife-edge bearings resting on the cables, whereby the slats can turn thereupon as pivots or centers in their oscillatory movements, substantially as described.

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

WILLIAM H. PICKETT.

Witnesses:

ALBERT H. NORRIS,

J. A. RUTHERFORD.