H. A. STONESIFER.

EXTENSION TABLE.

APPLICATION FILED SEPT. 17, 1909.

1,099,776. Patented June 9, 1914.

4 SHEETS—SHEET 1.

Fig. 1.

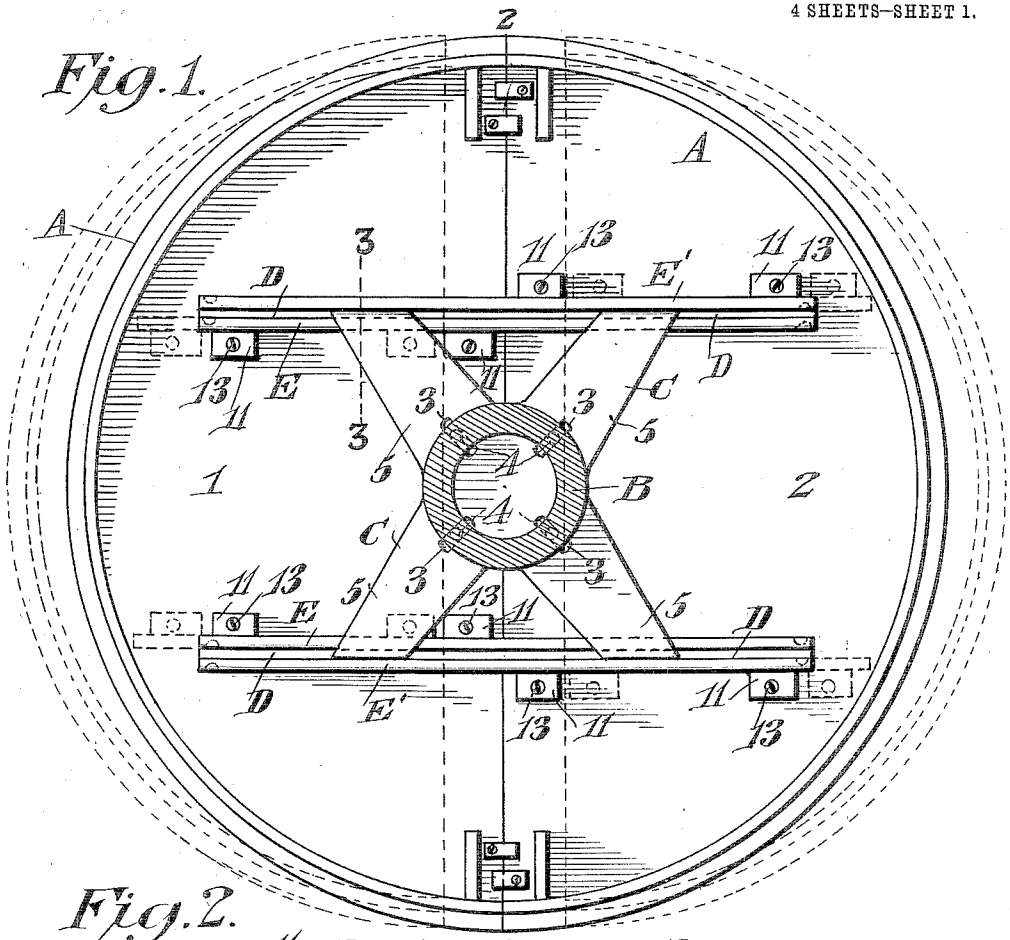


Fig. 2.

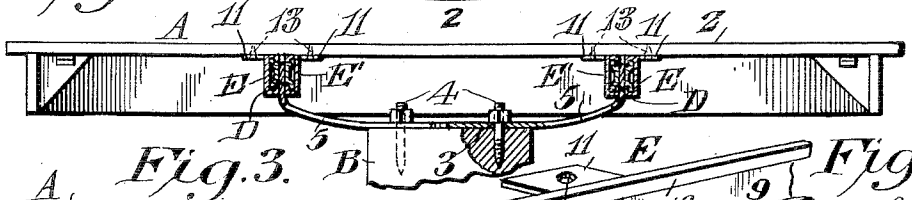


Fig. 3.

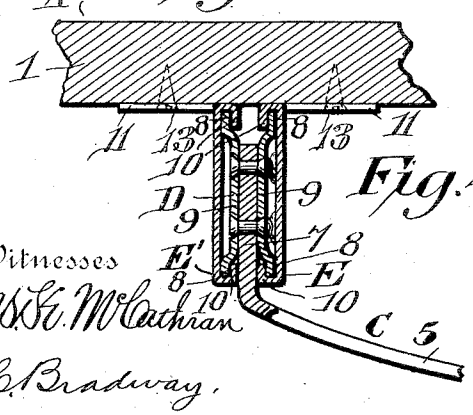


Fig. 4.

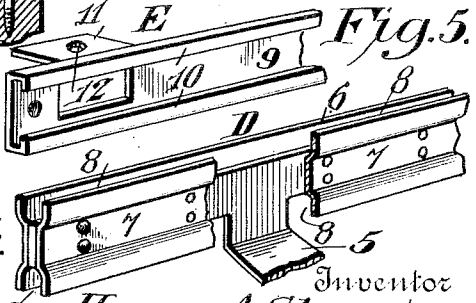


Fig. 5.

Witnesses

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4 SHEETS—SHEET 2.

Fig. 6.

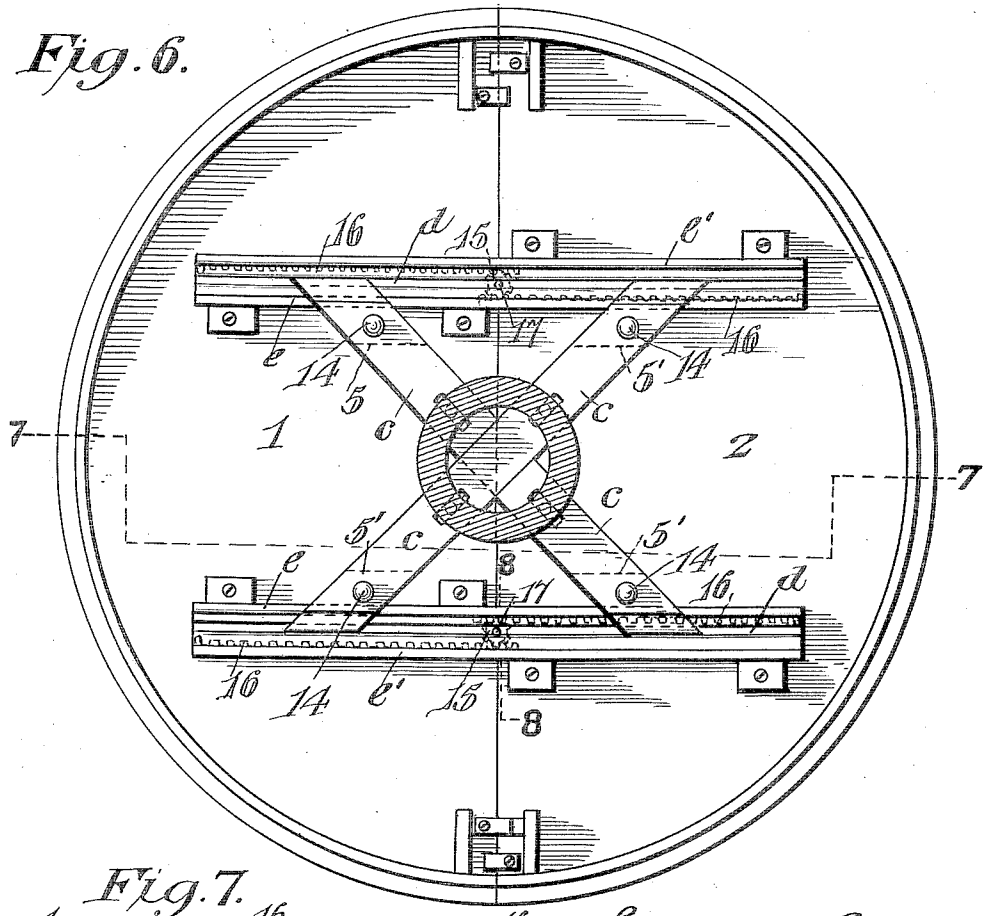


Fig. 7.

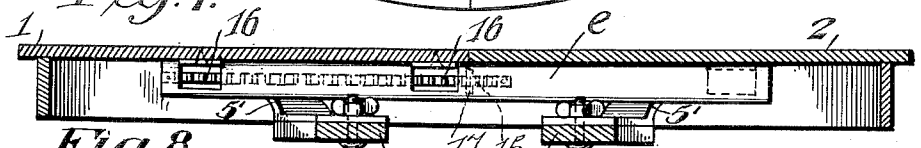


Fig. 8.

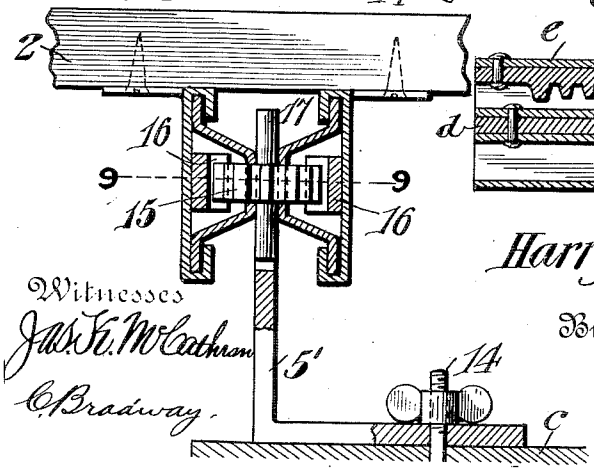
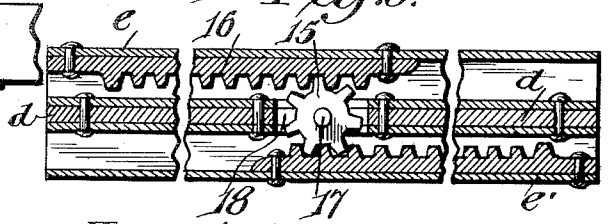


Fig. 9.



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4 SHEETS—SHEET 3.

Fig. 10.

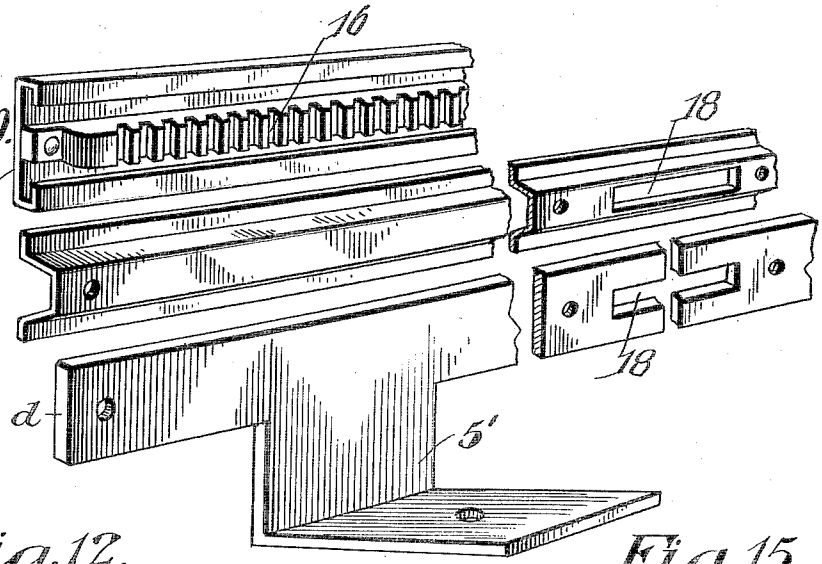


Fig. 12.

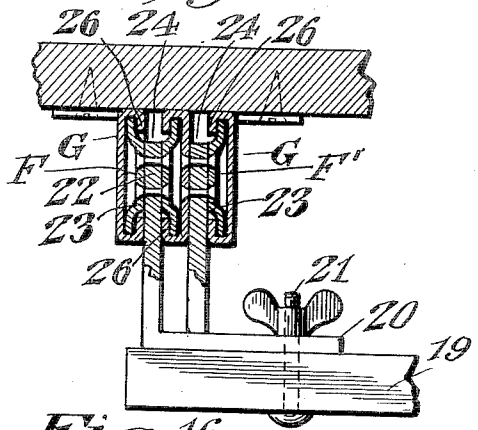


Fig. 15.

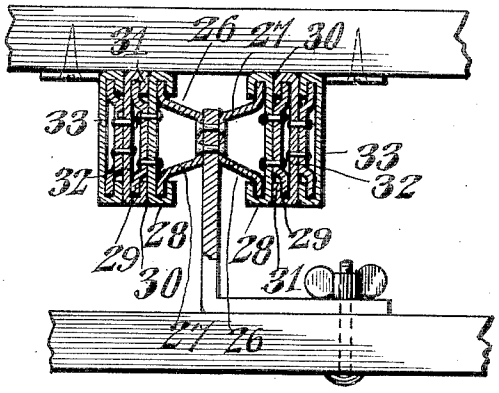
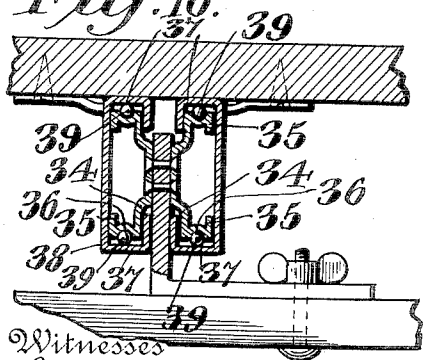


Fig. 16.



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4 SHEETS—SHEET 4.

Fig. 11.

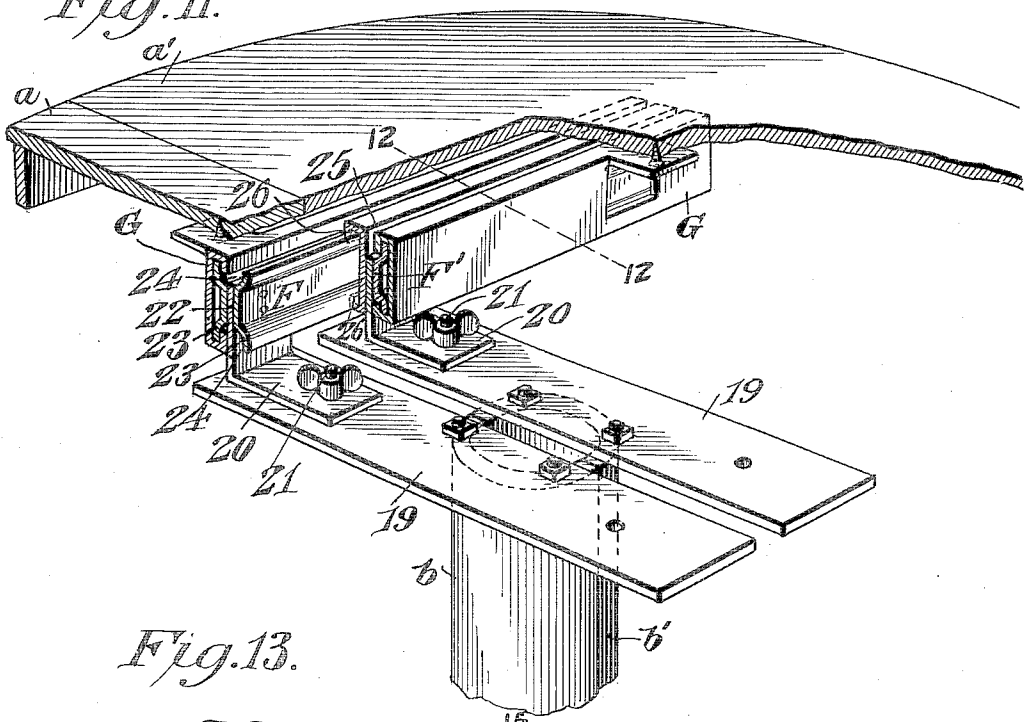


Fig. 13.

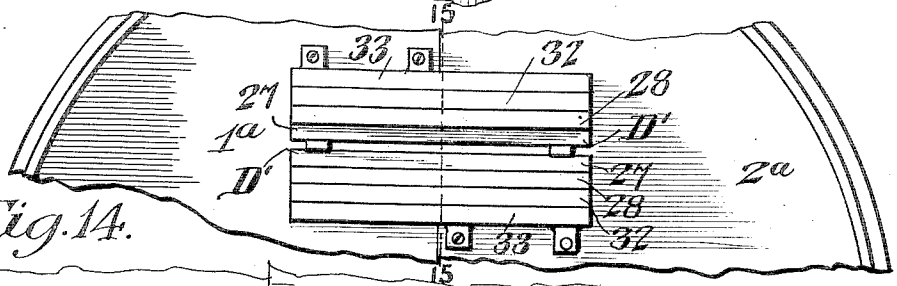
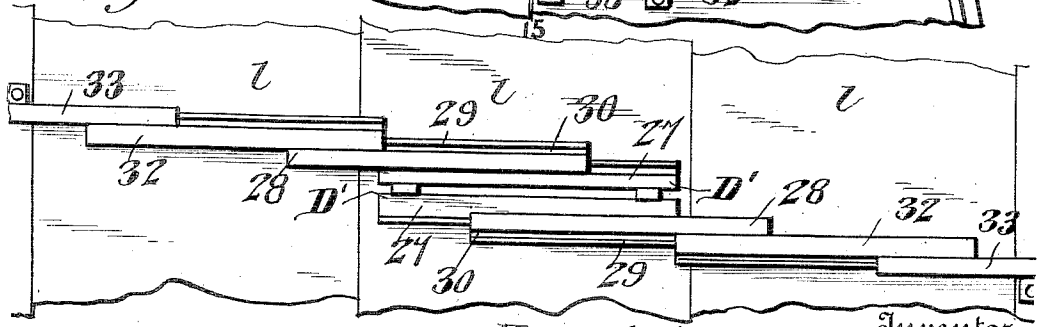


Fig. 14.



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UNITED STATES PATENT OFFICE.

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EXTENSION-TABLE.

1,099,776. Specification of Letters Patent. Patented June 9, 1914.

Application filed September 17, 1909. Serial No. 518,268.

To all whom it may concern:

Be it known that I, HARRY A. STONESIFER, a citizen of the United States, residing at Hanover, in the county of York and State of Pennsylvania, have invented a new and useful Extension-Table, of which the following is a specification.

This invention relates to extension tables, and the principal object of the invention is to provide an improved slide and rail construction between the two separable sections of the table top and the supporting pedestal, the slides and rails being made of metal strips so designed as to have slidable interlocking engagement with each other to form durable and substantial supports for the sections of the table top in their different positions of adjustment.

With such objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawings, which illustrate certain embodiments of the invention, Figure 1 is a bottom plan view of an extension table constructed in accordance with the invention, the pedestal of the table being shown in section and the end leaves or sections of the table being shown in partially open position by dotted lines. Fig. 2 is a vertical section on line 2—2, Fig. 1. Fig. 3 is an enlarged sectional view on line 3—3, Fig. 1. Fig. 4 is a fragmentary perspective view of one of the guide rails. Fig. 5 is a fragmentary perspective view of one of the slides. Fig. 6 is a bottom plan view of the table equipped with a modified form of the invention. Fig. 7 is a section on line 7—7, Fig. 6. Fig. 8 is an enlarged detail sectional view on line 8—8, Fig. 6. Fig. 9 is a horizontal section on line 9—9, Fig. 8. Fig. 10 is a fragmentary perspective view of portions of one of the guide rails and one of the slides shown in disassembled relation. Fig. 11 is a fragmentary perspective view of an extension table with another form of rail and slide construction. Fig. 12 is a detail sectional view on line 12—12, Fig. 11. Fig. 13 is a fragmentary bottom plan view of a table with a further modified construction, with the end sections of the table in closed position. Fig. 14 is a similar view showing the end sections open and intermediate leaves placed between them. Fig. 15 is a detail sectional view on line 15—15, Fig. 13. Fig. 16 is a sectional view of a modified form of the construction shown in Figs. 1 to 5, adapted for ball bearings.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to the drawings, and more particularly to Figs. 1 to 5, inclusive, A designates a table top which is composed of two end leaves or sections 1 and 2 that are carried by a pedestal or supporting base B which has at its upper end a connector or bridge piece C that supports the rails on which the sections 1 and 2 slide, the bridge piece having slots 3 for receiving the bolts 4 which fasten the bridge piece to the pedestal. The bridge piece is provided with horizontally-disposed divergent arms which form brackets 5 for supporting the rails D on which the end sections of the leaves are supported. The rails D are disposed horizontally under both end sections of the table top and are positioned at opposite sides of the pedestal. Each rail, as shown in Figs. 3 and 4, is composed of a central metal strip or bar-like section 6 which may be integrally or otherwise connected with one pair of the arms 5, and secured to this strip are metal side strips 7 which are of greater dimension than the central section so as to form grooves or guideways 8 at the top and bottom of the rails, the edges of the side strips being bent outwardly from the central strip to increase the width of the guideways for accommodating the slides E and E′ of the table top sections 1 and 2, respectively. Each slide shown in Fig. 5 is constructed of a metal strip 9 that has its top and bottom edges bent laterally and inwardly toward each other to form L-shaped flanges 10 which form tongues or ribs that slidably engage in the grooves or guideways 8 of the supporting rail D. The strips 9 have laterally-extending lugs 11 stamped out therefrom which are flush with the top L-shaped flanges 10 and have apertures 12 for receiving screws 13 or other fastenings for securing the slides to their respective table top sections. The slides E are secured to the section 1 and engage the inner strips 7 of the rails D, while the slides E′ are secured

to the section 2 of the table top and engage the inner strips 7 of the rails. In this manner, the slides of both sections engage a common rail and slide back and forth thereon as the table is opened and closed. The metal strips from which the rails and slides are constructed, are of suitable thickness to form a rigid construction.

In the form of the invention shown in Figs. 6 to 10, inclusive, the general structural features are the same as those in the form hereinbefore described, the difference being the provision of means for causing the end sections or leaves of the table to open or close simultaneously. The two end sections 1 and 2 of the table top are provided with slides *e* and *e'*, respectively, which slidably engage the rails *d* which are fastened by brackets 5' with the connector or bridge piece *c*, the brackets being secured to the bridge piece by bolts 14. Mounted on each rail at the middle thereof is a pinion 15 which meshes with rack bars 16 extending longitudinally of and secured to the slides *e* and *e'* that are slidably engaged with the rail. The pinion is mounted on a vertical pivot 17 and is disposed in a slot 18 formed in the central portion of the rail, as shown in Fig. 9, so that the pinion projects from opposite sides of the latter to simultaneously engage both rack bars. The rack bars are so disposed that when the table sections 1 and 2 are closed, the pinion will engage the teeth at the inner end of the rack bars, as clearly shown in Figs. 6 and 9. As either table section is pulled open, the pinions 15 are turned, with the result that the other end section of the table will be moved open. It will thus be seen that the pinion and rack bars cause simultaneous movement of the table sections or end leaves in both opening and closing the table top. When the end leaves are in open positions, the slides and supporting rails form supports for the extension leaves which are fitted between the end leaves.

In Figs. 11 and 12, a rail and slide construction is shown especially adapted for that form of table having a divisible pedestal. The pedestal is composed of two parts *b* and *b'*, which are each provided with a bridge piece 19 on the ends of which are brackets 20 fastened by bolts 21. The bracket of one of the bridge pieces carries a horizontal rail F, while the other bracket carries a rail F'. The rail F is composed of intermediate and side metal strips 22 and 23, the latter of which have their edges curved outwardly to form top and bottom grooves 24 extending longitudinally of the rail. The other rail F' is composed of intermediate and side metal strips fastened together like the rail F, except that the side strip 25 is formed with L-shaped flanges 26 that constitute ribs or tongues which engage in the top and bottom grooves or guideways 24 of the rail F, so that the two rails are slidably connected. On the end leaf sections *a* and *a'* of the table top are slides G constructed like the slides E, Fig. 1, and the slides of the table top section *a* engage in the guideways of the rail F, while those on the table top sections *a'* engage in the guideways of the rail F'. With this construction, it will be evident that the interlocked rails F and F' form supports for the end leaves and intermediate extension leaves and also effectively tie the end leaves to their respective portions of the pedestal.

Where extremely long tables are desired, a plurality of slide sections are employed, as shown in Figs. 13 to 15, inclusive. The supporting rails D' are attached to the pedestal of the table by the usual connector or bridge piece. Each rail, as shown in Fig. 15, has top and bottom guideways 26 formed by the outwardly-bent side straps 27 with which engage slides 28. These slides 28 carry strips 29 that have their edges bent laterally from the slides to form guideways 30 for the tongues 31 of intermediate slides 32 which are constructed in the same manner as the guides 28. Any number of intermediate slides may be employed, according to the maximum length of the table desired. On the end sections or leaves 1^a and 2^a of the table top are slides 33 similar to the slides E of Fig. 1 for interlocking with the slides 32. By means of this arrangement of slides, the end leaves of the table top can be extended to considerable distance for accommodating between them any desired number of removable leaves *l*, as shown in Fig. 14. If desired, rack and pinion devices may be employed between the supporting rails D' and the adjacent slides 28 after the fashion disclosed in the form of the invention shown in Fig. 6. To reduce the friction between the relatively movable rails and slides, ball bearings may be employed, as shown in Fig. 16. In this constuction, the side strips 34 of the rails are formed with laterally-extending flanges 35 that are longitudinally grooved to form ball races 36. Between these flanges 35 and the L-shaped flanges 37 of the slides 38 secured to the table top sections, are anti-friction balls 39, whereby the table top sections can be opened and closed with ease.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the apparatus which I now consider to be the best embodiment thereof, I desire to have it understood that the apparatus shown is merely illus-

trative, and that such changes may be made when desired as are within the scope of the claims appended hereto.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. In an extension table, a supporting pedestal, a plurality of slidable table top sections, fixed guide rails mounted on the pedestal and each comprising a transverse supporting member connected to the pedestal, a horizontal bar set on edge and made rigid with the supporting member, and duplicate guide strips rigidly secured on opposite sides of the bar and coextensive in length therewith, each guide strip being wider than the bar and having its top and bottom edges projecting beyond the bar and offset from the vertical plane of the bar, and duplicate slide rails secured to the table top sections and each formed of a plane strip with the opposite edges returned on themselves to embrace the offset edges of the guide strips on opposite sides of the bar of the respective guide rail.

2. In an extension table, a supporting pedestal, guide rails thereon each comprising a horizontal bar with like guide strips coextensive in length with and secured on opposite sides of the bar and provided with edge portions offstanding from the respective sides of the bar and extending both above and below the corresponding edges of the bar, table top sections, duplicate slides connected to the respective table top sections and each comprising a plane strip with the edges returned on themselves to embrace the corresponding edges of respective guide strips, each guide bar and guide strips carried thereby being provided with a traversing slot intermediate of their length and height, a pivot pin in the slot, an idler pinion mounted on the pivot pin and extending on each side of the guide bar into the space defined by the respective guide strip, and a rack bar secured on the inner face of each slide and adapted to mesh with the pinion, said rack bar being located intermediate of the top and bottom edges of the respective slide and housed in the space defined by the slide carrying it and the guide strip engaged by the slide.

3. In an extension table, a supporting pedestal, slidable table top sections, slides connected to the table top sections and each comprising a plane strip with top and bottom edges returned on themselves, guide rails each comprising a supporting bar carried by the pedestal and like guide strips secured to opposite sides of the bar with the edge portions offset from said bar, the upper and lower edges of each guide strip being formed with laterally extended longitudinally grooved flanges with the return portions of the edges of the slides shaped to embrace said laterally extended flanges, and anti-friction balls lodged in the grooves and confined therein by the return portions of the slides.

4. Slides for extension tables consisting of a central metallic strip, duplicate side metallic strips of greater vertical dimension than the central strip but coextensive in length therewith and secured rigidly thereto, the top and bottom edges of the side strips being bent outwardly or offset from the central strip to provide grooves or guideways which are located respectively above the top and below the bottom of the central strip, and other duplicate metallic strips having their top and bottom edges bent laterally and inwardly toward each other to form L-shaped flanges and providing tongues or ribs to slidably engage in the said grooves or guideways formed by the side metallic strips.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HARRY A. STONESIFER.

Witnesses:
PAUL E. LAU,
J. P. STENGUR.