

Jan. 18, 1927.

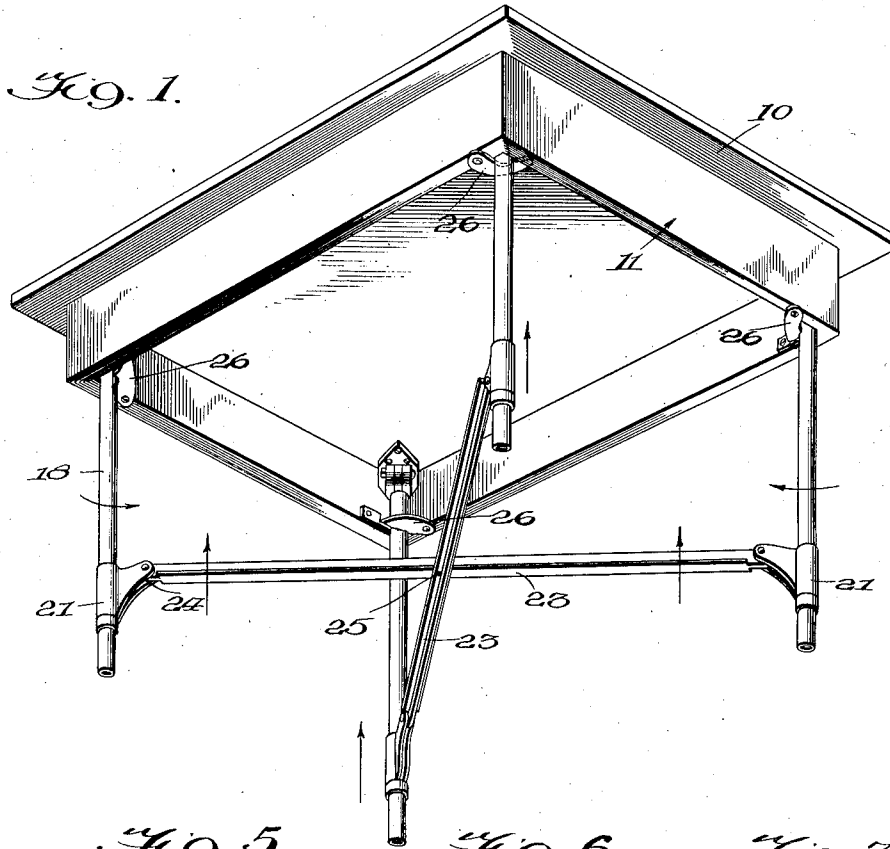
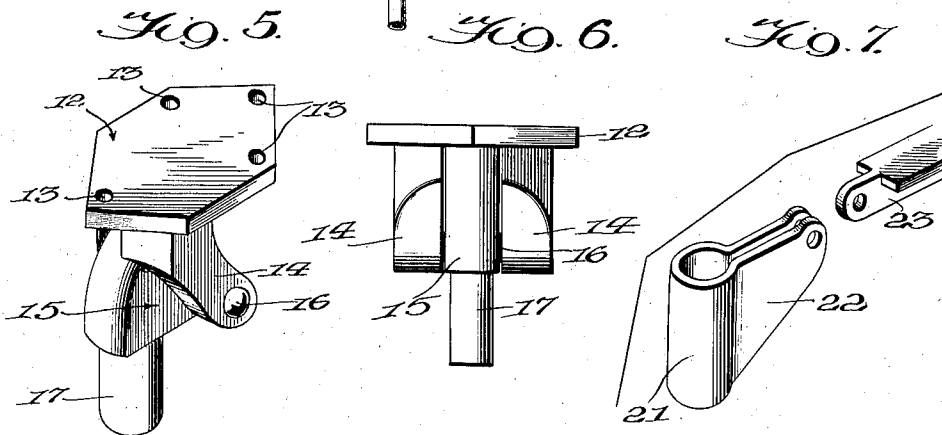
1,614,539

T. J. RYAN

FOLDING TABLE

Filed Oct. 28, 1925

2 Sheets-Sheet 1



WITNESSES
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Fig. 2.

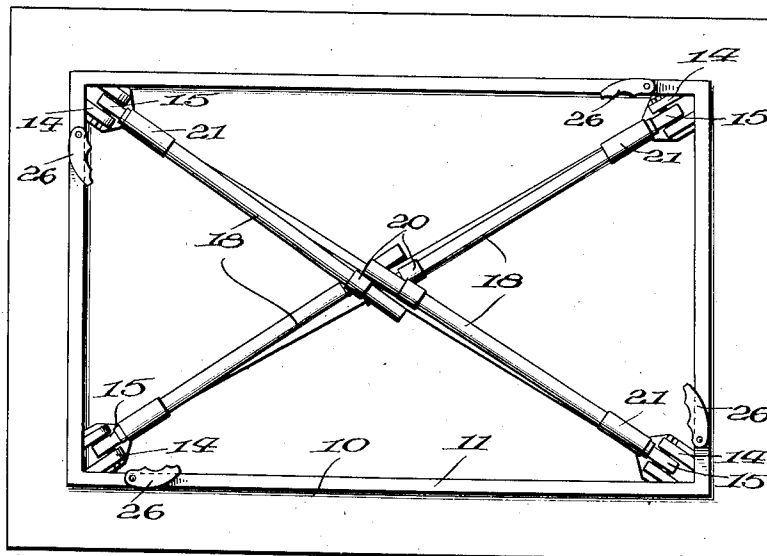
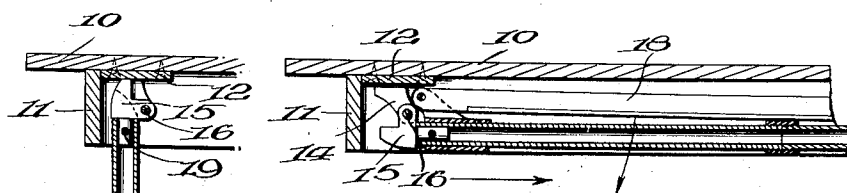


Fig. 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

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FOLDING TABLE.

Application filed October 28, 1925. Serial No. 65,396.

My present invention relates generally to folding tables, and more particularly to card and other small tables, the supports of which are foldable against the top thereof in order that the tables may be stored in disuse in minimum space. Various tables of this general character have been manufactured and are now in common use, but it is necessary in the ordinary construction to fold each leg separately and it is one of the objects of my invention to provide a construction by means of which the legs may be simultaneously shifted between folded and operative positions with readiness and ease, and in which the legs in their operative position may be double locked to prevent wobbling or other unsteadiness of the table in use.

In the accompanying drawings which illustrate my present invention, and form a part of this specification:—

Figure 1 is a perspective view of my improved folding table, with the legs extended in effective position;

Figure 2 is a bottom plan view showing the legs folded;

Figure 3 is a vertical section through a portion of the table top and through one of the legs with the latter in the extended or operative position;

Figure 4 is a similar view with the leg folded;

Figure 5 is a detailed perspective view of one of the leg brackets and its pivot member;

Figure 6 is a rear elevation thereof;

Figure 7 is a detailed perspective view of one of the leg slides with the adjacent end of one of the brace bars, and,

Figure 8 is a detailed perspective view of one of the pivoted latch members and its keeper.

Referring now to these figures my invention proposes a folding table including a top 10 around the lower surface of which adjacent to its edge a depending rail 11 is secured. Tables of this character are usually of rectangular shape, and as a consequence I mount a series of brackets 12 within the corners of the rail 11, each bracket having a flat body apertured as at 13, and as particularly seen in Fig. 5 for the reception of fastening members, the latter of which enter the material of the table top 10 and serve to securely anchor the body of the bracket firmly against the under surface of the top.

Each bracket is preferably shaped to fit the corner of the rail 11, and each bracket has depending ears 14, spaced apart for the reception of a pivot member 15 therebetween. This member, which is pivoted to the ears by a pivot pin 16, has a reduced extension 17, and is cut away so that when seated against the body of the bracket 12 with its reduced extension 17 at right angles to the said bracket body, a recess is formed between the ears 14 for a purpose which will be presently described.

The reduced extension 17 of each of the pivot members 15 is adapted to enter one end of a tubular leg 18, to which it may be rigidly connected as by means of a transverse rivet 19 best seen in Figs. 3 and 4, and each leg is preferably composed of two endwise abutting sections, its outer section being relatively short and connected to its inner portion by means of an external coupling ring 20, the latter adapted to form a stop member adjacent to the outer or lower end of the leg for a purpose, which will be presently described.

Upon each of the legs 18 a slide member 21 is sleeved for movement along the leg between its inner end and its coupling ring or stop member 20, and each slide 21 has laterally projecting spaced apart ears 22 to receive therebetween one end of its respective brace bar 23.

A pair of brace bars 23 are employed as best shown in Fig. 1, in crossed relation, with their ends pivotally connected by pivot pins 24, with the ears 22 of the slides 21 of diagonally opposite legs 18 and these brace bars are preferably connected to one another at their point of crossing as at 25, permitting them to move in unison. Moreover, as plainly seen, each of the brace bars is rigid from end to end and as a consequence when the slides 21 are down on the legs 18 and against the coupling rings or stops 20, upon which the slides rest with the legs in operative position, it is not possible for the legs to flex toward and away from one another. On the other hand, it is simply necessary to press the brace bars 23 inwardly toward the lower surface of the table top until the slides 21 are adjacent to the inner pivot members 15 of the legs, whereupon the legs can be folded inwardly upon the pivots 16 of the pivot members 15 to the folded position shown in Fig. 2. It is also preferable that the legs in their effective position be additionally

locked by means of latch pieces 26 pivoted at one end at 27 to the rail 11 of the table top so as to extend across the corners of this rail, these latch pieces 26 being formed of spring metal so that they may be laterally flexed in order to extend their free ends over notched keepers 28 secured to the inner surfaces of the table rail 11 and into the notches 29 of which the free ends of the latch pieces are engageable to thus partially embrace the legs and firmly hold the latter in the corners of the rail 11.

It is thus obvious that when the brace bars are shifted inwardly after release of the latch pieces 26, until the slides 21 are adjacent to the pivot members 15, the pivots 24 between the ends of the brace bars and the slides are so near the pivots 16 between the pivot members 15 and the bracket arms 14 that the former can readily move partially around the latter and in permitting folding of the legs inwardly and in spite of the rigidity of the brace bars 23 and it is furthermore obvious that the conformable shape of the ears 22 and structure of the pivot supporting brackets 12 are such that this movement of the pivots, when partially around the other, is allowed.

It is furthermore obvious that in view of the structure of the legs 18 and the manner in which these legs are adapted to be joined to the pivot members and to the slides, the matter of assembly of the parts in the first instance becomes simple and easy. The structure as a whole is strong, and durable, without unnecessary complication, is susceptible of ready manipulation to and from operative position, and is furthermore comparatively inexpensive.

I claim:—

1. A folding table including a top, a rectangular rail on the lower surface of the top inwardly beyond its outer edge, a series of brackets secured to the lower surface of the top adjacent to the corners of the rail, and having depending arms, pivot members pivotally connected to the said arms to swing toward and away from the center of the table top, legs rigidly connected at their inner ends with said pivot members and having stops adjacent to their outer ends, slides movable on said legs between the pivot members and the said stops, and brace bars in centrally crossing relation, each of said brace bars being of rigid construction and pivotally connected at its opposite ends to diagonally opposite slides, the pivots between the brace bars and slides being shiftable into close proximity with the pivots between the pivot members and the bracket arms when the slides are moved to their extreme inner positions along the legs.

2. A folding table including a top, a rectangular rail on the lower surface of the top inwardly beyond its outer edge, a series of

brackets secured to the lower surface of the top adjacent to the corners of the rail and having depending arms, pivot members pivotally connected to the said arms to swing toward and away from the center of the table top, and each having two sections including a relatively short outer section and external coupling rings uniting the sections and forming stop members, slides shiftable along the several legs between their inner ends and the said stop rings, and centrally crossing and connected brace bars, each bar being of rigid construction and pivotally connected at its ends to the slides of diagonally opposite legs.

3. A folding table including a top, a rectangular rail on the lower surface of the top, legs pivotally mounted at their inner ends adjacent to the corners of said rail and extending into the said corners when the legs are in operative right angular position with respect to the table top, and a bracing structure for the legs including rigid cross bars extending horizontally in centrally crossing relation between diagonally opposite legs having pivotally sliding connections at their ends with the legs, the pivots of said connections being flexible to permit folding of the legs, when the braces are shifted toward the table top and adjacent to the pivots of the legs.

4. A folding table including a top, a series of legs, pivot brackets secured to the table top and to which said legs are pivoted adjacent to their inner ends, members having limited sliding movement on the legs toward and away from the upper pivots of the latter, and rigid horizontal brace bars in crossed relation extending diagonally between the legs and pivotally connected at their ends to said slide members, said braces being connected to one another at their centers and shiftable with the latter as a unit lengthwise of the legs toward and away from their said inner pivoted ends.

5. A table including a top, a rail around the lower surface of the top, legs arranged at the corners of the rail and pivotally connected to the table top to fold inwardly toward the axis of said top, said legs having stop members thereon adjacent to their outer ends, slides shiftable on the legs between the upper pivots thereof and the said stops, and rigid braces pivotally connected at their ends to said slides, the said braces being in centrally crossing and connected relation and extending horizontally between diagonally opposite legs, as described.

6. A folding table including a top, legs pivotally connected at one end to the top to fold inwardly toward the axis of the top, rigid brace members extending in centrally crossing and connected relation below and parallel to the table top between diagonally opposite legs and movable as a unit toward

and away from the table top, and sliding members shiftable on the legs lengthwise thereof and to which the ends of said brace members are pivotally connected.

- 5 7. A folding table including a top, legs pivotally connected at their inner ends to the top to fold inwardly toward the axis of the top, bracing means for the legs including rigid cross members having pivotal sliding
10 connections at their ends with the legs, and

latch members engageable with the legs in the operative position of the latter, said latch members including latch pieces pivotally mounted at one end and flexible laterally with respect to their pivotal movement, and notched keepers arranged to receive the free ends of the latch members within the notches thereof upon lateral flexure of the latch members.

TIMOTHY JOSEPH RYAN.