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DRAFTSMAN.

No. 866,699. PATENTED SEPT. 24, 1907.

W. C. & F. J. VAN CISE.

FOLDING TABLE.

APPLICATION FILED MAR. 1, 1907.

3 SHEETS—SHEET 1.

Fig 1

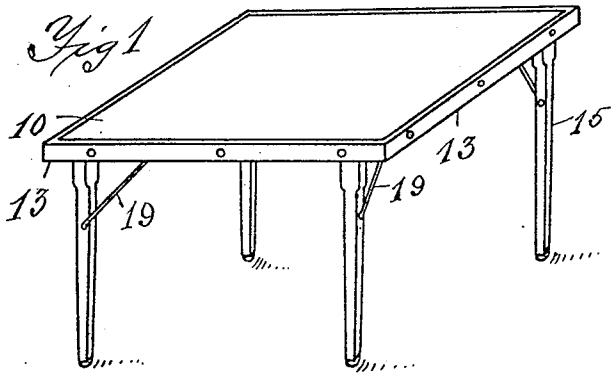


Fig. 2.

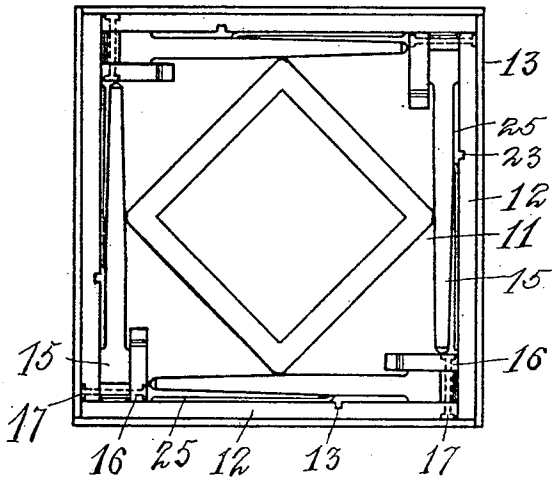
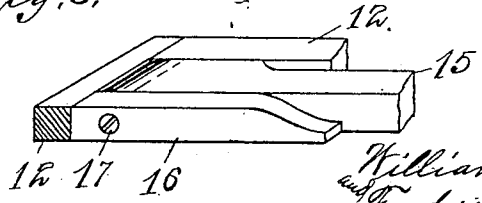


Fig. 3.



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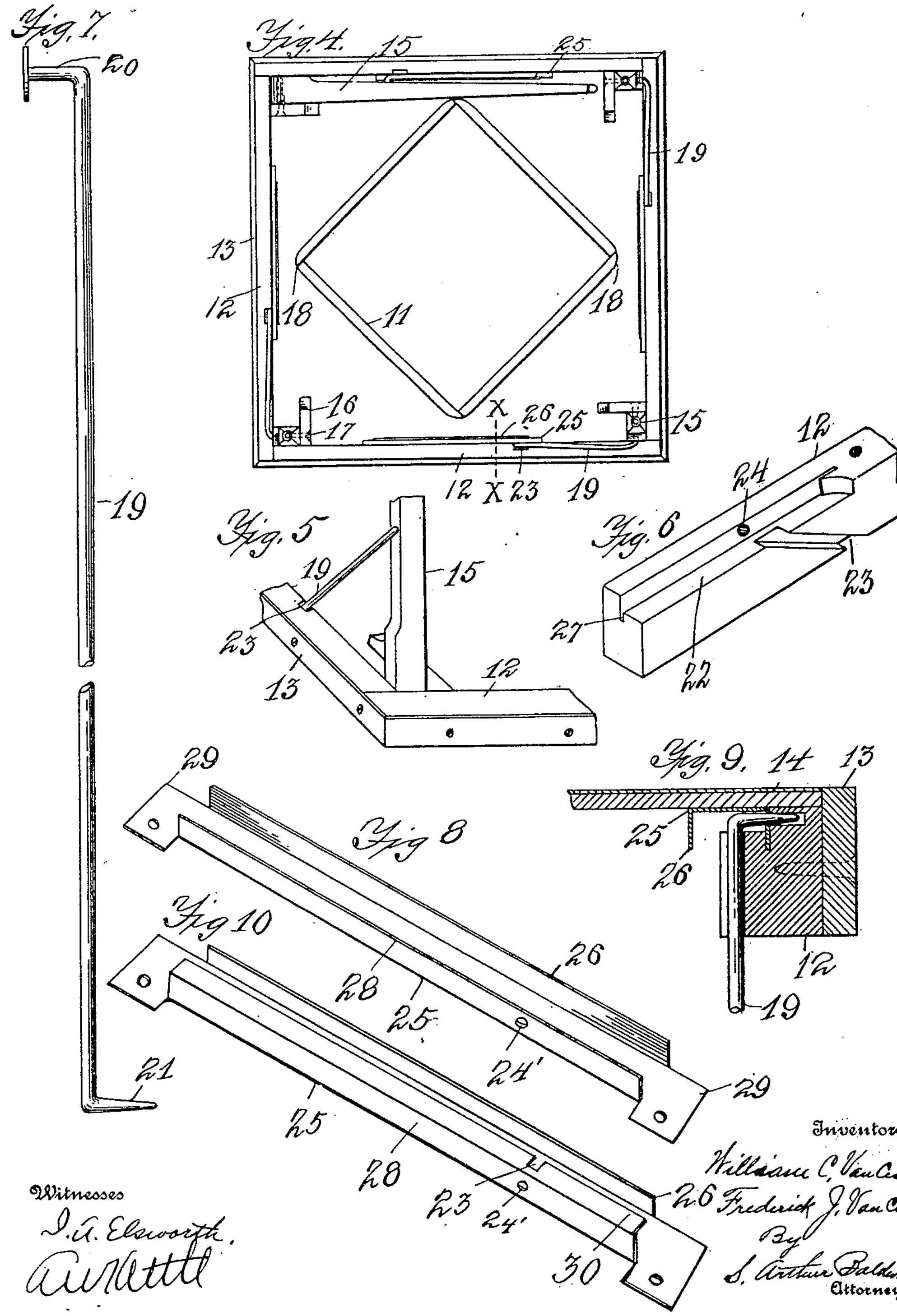

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3 SHEETS—SHEET 3.

Fig. 11.

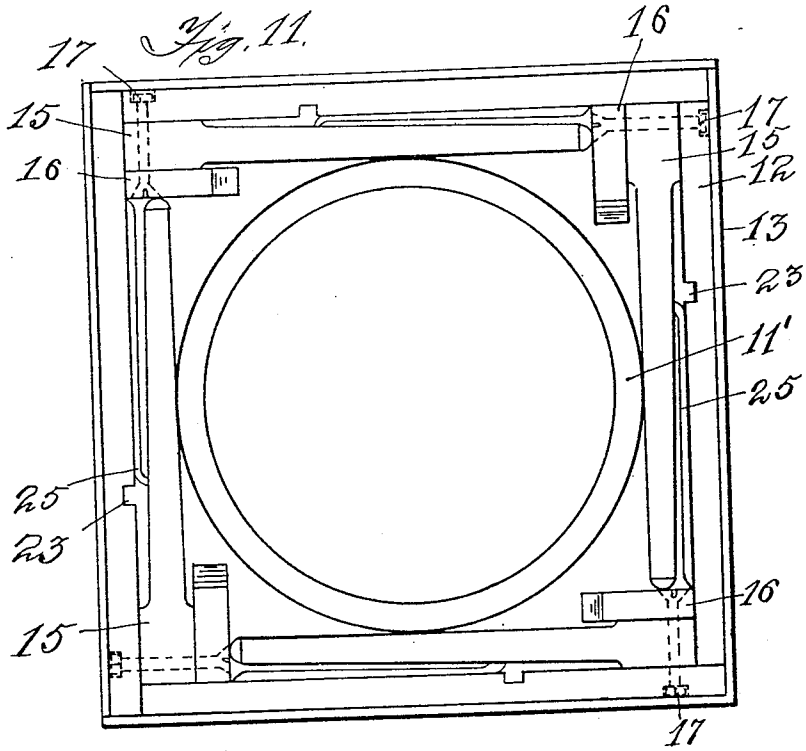
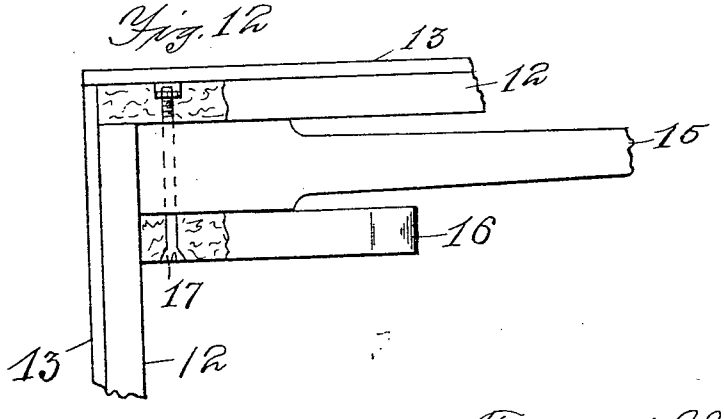


Fig. 12.



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UNITED STATES PATENT OFFICE.

WILLIAM C. VAN CISE AND FREDERICK J. VAN CISE, OF MAYVILLE, NEW YORK.

FOLDING TABLE.

No. 866,699. Specification of Letters Patent. Patented Sept. 24, 1907.

Application filed March 1, 1907. Serial No. 360,067.

To all whom it may concern:

Be it known that we, WILLIAM C. VAN CISE and FREDERICK J. VAN CISE, citizens of the United States, residing at Mayville, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Folding Tables, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The invention relates to folding tables or stands; and the object of the invention is to provide a light portable folding table which shall be as rigid as possible when set up yet which may be quickly and easily knocked down or folded, and when so folded the legs are locked in the folded position, and the novelty consists in the combination and construction of the parts as shown in this description and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the table in the set up position. Fig. 2 is a plan view of the under side of the folded table. Fig. 3 is a detail of the upper end of the leg showing a pivotal or hinged attachment of the same to the frame. Fig. 4 is a plan view of the under side with only one of the legs folded. Fig. 5 is a detail of the corner of the frame with the leg in the set up position and the supporting brace therefor. Fig. 6 is a detail of a portion of the side piece of the frame for the table top showing a rectangular recess or rabbet in the corner and the lengthwise and diagonal slots in the same; also the hole for the end of the corner brace. Fig. 7 is a detail of the brace for the legs. Fig. 8 is a perspective view of the sheet metal channel strip for the upper end of the leg brace. Fig. 9 is a sectional view at line X X in Fig. 4. Fig. 10 is a perspective view of a modification of the sheet metal channel strip. Fig. 11 is a plan view of the under side of a modification of the folded table showing a hoop in place of the rectangular frame. Fig. 12 is an enlarged detail of the under side of the corner showing the manner of hinging the upper end of the table leg to the frame; a portion of the frame being broken away.

Similar numerals refer to corresponding parts in the several views.

The numeral 10 indicates the table top which may be made of any suitable material of sufficient strength and thickness for the purpose. It is preferably made of veneer board which is composed of a plurality of thicknesses of thin wood veneer glued together with the grain running crosswise so as to form strong light board.

The top 10 is held from warping by the rectangular frame 11 on its under side. The pieces of the rectangular frame 11 running at an angle across the grain prevent the warping or splitting of the top, holding it level with great rigidity. Frame 11 also performs an office hereinafter set forth. The top 10 is further held in shape by the frame pieces 12 which extend around the under side of the outer edge of the top, and the molding 13 which covers the outer edges of the top and the frame pieces 12 as well as the covering 14 for the upper side, which may be made of felt or any other suitable material. The molding 13 is attached to the frame pieces 12 by suitable screws.

The legs 15 are formed with an enlarged upper end which is pivotally attached or hinged to frame piece 12 and the short parallel frame piece 16 by means of a screw bolt 17 inserted through the frame piece 16, the upper end of the leg 15 and frame piece 12, the nut of the bolt being inset in frame piece 12 so that molding 13 covers the end of the bolt 17 and the opening. This arrangement, though simple, allows of the screw bolt 17 being tightened from time to time as the wood shrinks or wears away on each side of leg 15. This arrangement is strong and allows the leg 15 to be folded against the table top 10 or held rigidly in position in the opening formed by the joining of the two frame pieces 12 at the corner and the frame piece 16. The legs 15 fold one to each side so as to not interfere with one another. The corners 18 of the rectangular frame 11 are rounded slightly, as shown, and extend out into the normal path of the folded legs so that leg 15 has to be bent slightly to one side in order to fold onto the table top 10. The corners 18 therefore hold the legs firmly in the folded position, from which engagement they may be easily withdrawn in setting up the table. The rubber tipped lower end of legs 15 bear against the short frame pieces 16 with a frictional contact which greatly aids in holding the legs in the folded position, as shown in Figs. 2 and 11.

Legs 15 are held in the set up position by means of braces 19, which are preferably attached at the lower end through the leg by means of an angular end 20 with washer thereon, the opposite end 21 being turned at an angle and tapered. The sides of frame pieces 12 adjacent to top 10 have their central portion cut away in a rectangular recess or rabbet 22 within which the angular end 21 is slidably mounted to travel back and forth therein with the folding or unfolding of the table leg. An angular slot 23 is provided for the brace 19 at the exact point at which the leg 15 comes to the perpendicular, and a hole 24 is provided in the rear wall of recess 22 at said point into which the tapered end 21 passes in order to allow the brace 19 to pass into slot 23. The tapering of the end 21 makes a pointed end which quickly and easily seeks the hole 24 and fits tightly therein so that leg 15 cannot give in the slightest. It is apparent that an eighth or quarter inch movement

allowed to tapered end 21 would give an inch or two movement or wabble to the lower end of leg 15. Hence when drawn to the set up position the upper end of brace 15 must be held rigidly in position so that the leg 15 cannot move, other than the natural spring of the wood would allow.

It is apparent that the upper end 21 of brace 19 must be held in rabbet 22 as it plays back and forth; and that the hole 24 would very quickly wear away unless protected. Accordingly a metal channel piece 25 is provided, the outer flange 26 being placed at such a distance from the inner edge of frame piece 12 as to hold the point 21 within the recess 22. A groove 27 is cut in the inner edge of recess 22 for the inner flange 28 of the channel piece 25 which holds the flange 28 firmly in position. A hole 24′ is provided in flange 28 for end 21 of brace 19, which corresponds to hole 24 in the frame piece 12. It is only necessary for recess 22 to extend a short distance beyond the line of movement of end 21 of brace 18 as it passes back and forth in folding leg 15. Hence the ends 29 of channel piece 25 may be extended out flat and attached to the inner side of piece 12 at each end of recess 22 by screws or nails. It is obvious that this arrangement of the channel piece 25 for the upper end of brace 19 to travel in forms a cheap and durable track for the same and the tapered end 21 of brace 19 seeks hole 24′ and fits tightly therein being pressed by the spring of brace 19, so that leg 15 is held rigidly in position and yet brace 19 can be easily pressed out of hole 24 and slot 23 to allow of the folding of the leg as above described.

Rectangular frame 11 might be made in the form of a hoop as shown in the modified form in Fig. 11 and not depart from our invention, also providing sides for holding the legs in the folded position. The rectangular form, however, is preferred since it cuts more directly across the grain in different directions and is cheaper to make. The folding of one leg along each side brings only one brace to each side piece 12, and allows plenty of room for a person sitting at the table to draw up to the same.

The modification of the sheet metal channel strip 26 shown in Fig. 10 adds the inturned edge 30 on flange 28 which edge takes the place of the grooved side piece 12 in its relation to the channel strip. Edge 30 has a notch cut therein opposite hole 24′ which corresponds to slot 23. It is apparent that this modification of channel strip 25 could be placed at any desired point on the under side of top 10 and the angular pointed end 21 of brace 19 would work perfectly therein, locking the brace firmly in place.

We claim as new:—

1. A folding table comprising a top having grooved portions on its under side, legs pivotally mounted on said top, braces pivoted at their lower ends to said legs and each having its upper end offset and slidably engaged in one of said grooves, said offset ends being tapered towards their extremities, said top having locking openings of uniform diameter in the bottoms of said grooves to receive said tapered ends, whereby any shrinkage or warping of the wooden parts will be taken up and the legs prevented from wabbling.

2. A folding table comprising a top, frame pieces on the under side of said top along the outer edges, grooved in said frame pieces, metal channel strips having one side inserted into said groove and the other side for a guard flange, said channel strips having locking holes therein, braces pivotally engaging said legs and slidably engaging said grooves and channel pieces, and angular tapered upper ends to said braces to fit said locking holes, substantially as and for the purpose specified.

3. A folding table comprising a top, frame pieces on the under side of said top along the outer edges, folding legs hinged to said frame by a suitable bolt, grooves between said top and frame pieces, sheet metal channel strips attached to said grooved frame pieces, said channel strips partly extending out beyond said grooved frame pieces and resting against said top and having locking openings therein, braces pivotally engaging said legs and slidably engaging said channel pieces and grooves, and tapered upper angular ends to said braces to fit said locking openings, substantially as and for the purpose specified.

4. A folding table comprising a top, an open frame on the under side of said top along the outer edges, folding legs hinged to said frame, means for locking said legs in the extended position, a rectangular central frame across the grain on the under side of said top, the corners of said central frame extending out slightly into the normal path of said folded legs to hold the same by the spring of the legs against said central frame.

5. A folding table comprising a top 10, an open frame composed of pieces 12 attached to the under side of said top, legs 15 independently hinged to said frame and hinge pieces by a screw bolt, grooves 22 in said frame pieces having locking holes 24 therein, channel strips 25 having one side extending into said groove the other side outside of said groove to form a guard flange, said channel strips 25 having holes 24′ corresponding to holes 24 in said grooves, braces 19 pivotally attached at their lower ends to legs 15, offset tapered upper ends for said braces to fit said locking holes and work in said groove, and a frame 11 on the under side of said top extending across the grain and into the normal path of said legs to hold the same when folded, substantially as and for the purpose specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WILLIAM C. VAN CISE.
FREDERICK J. VAN CISE.

Witnesses:
M. ETTA VAN CISE,
ROSAMOND PARKER.