Dec. 19, 1939.

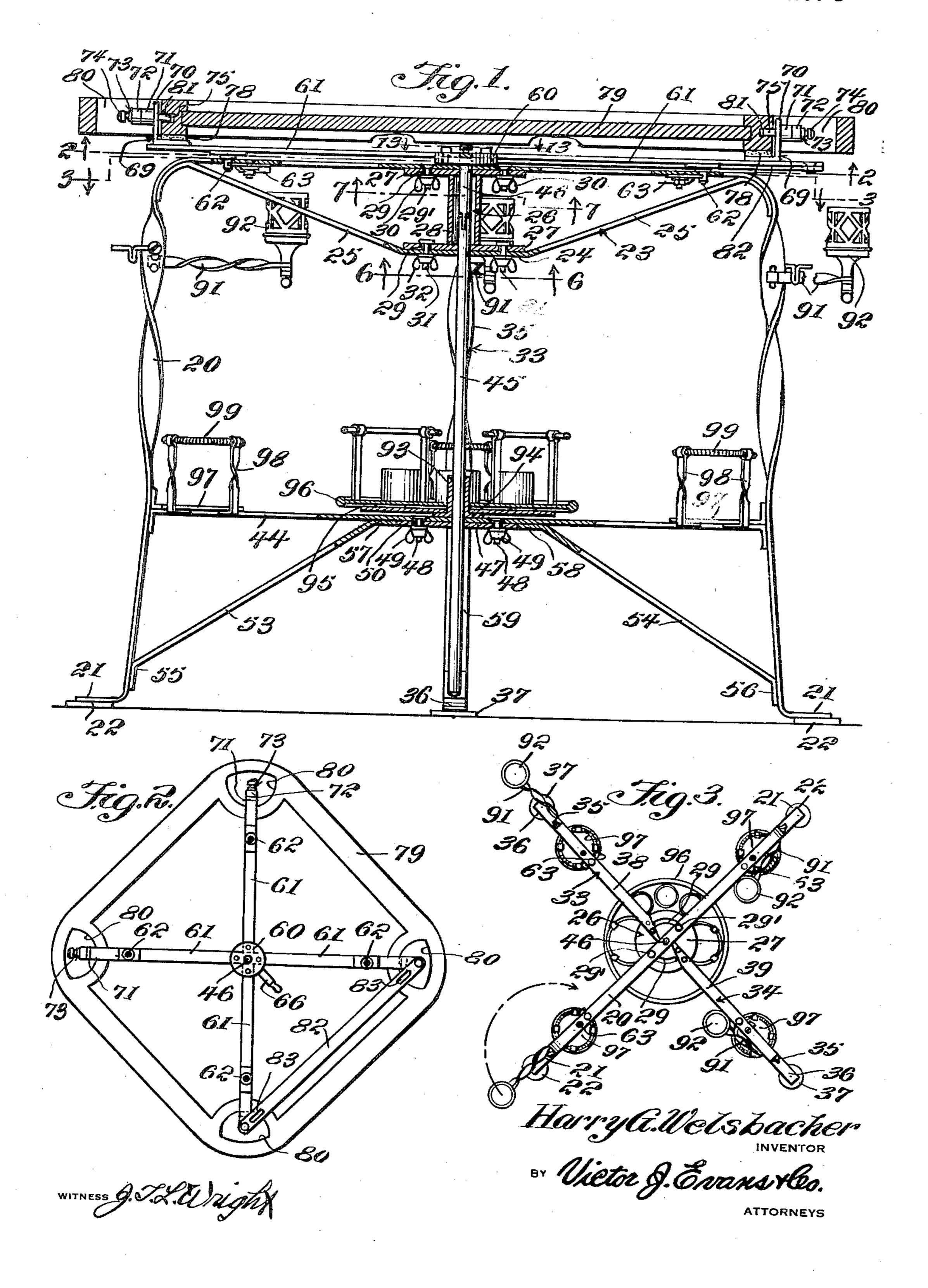
H. G. WELSBACHER

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COMBINATION TABLE

Filed Jan. 11, 1939

3 Sheets-Sheet 1



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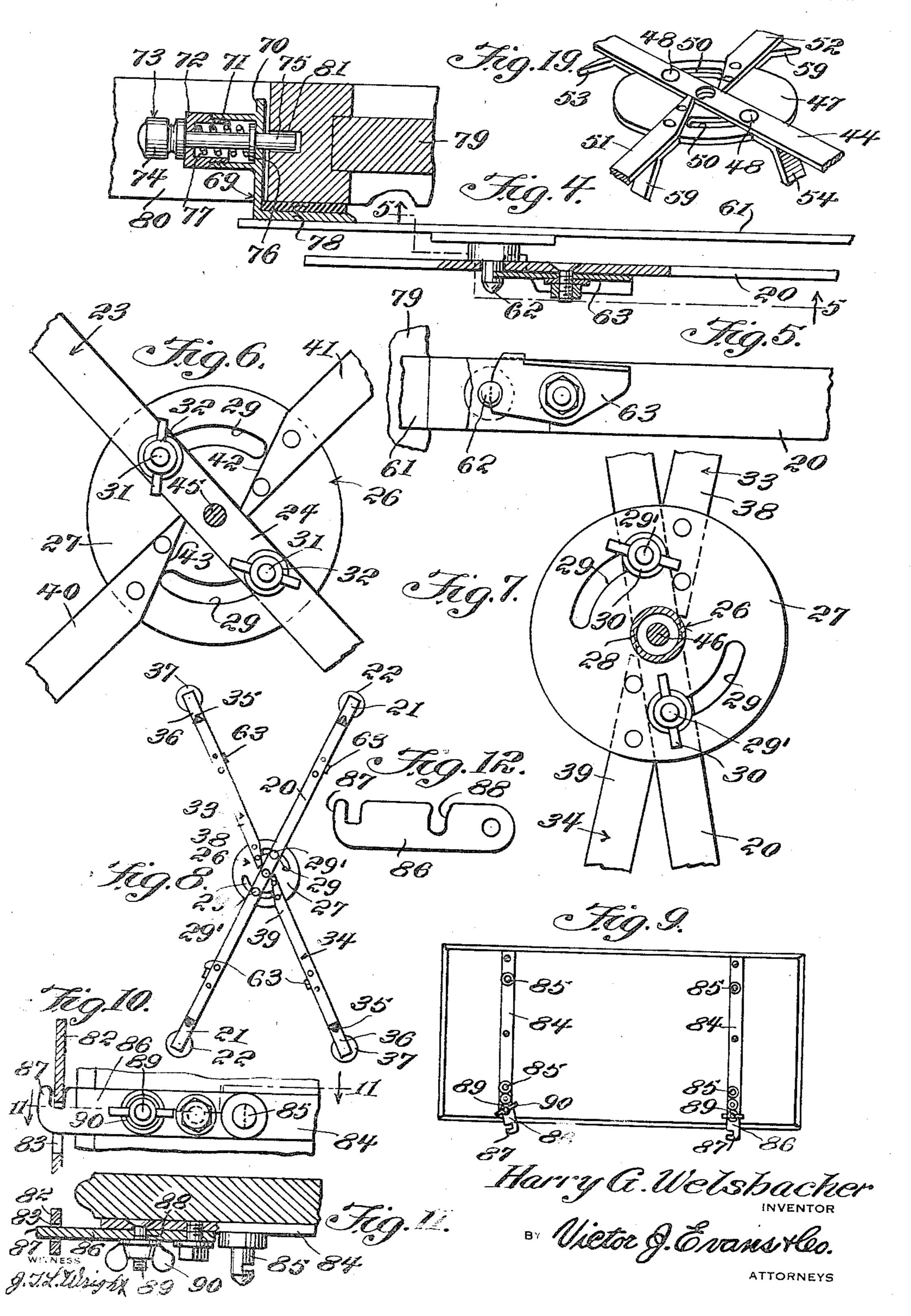
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COMBINATION TABLE

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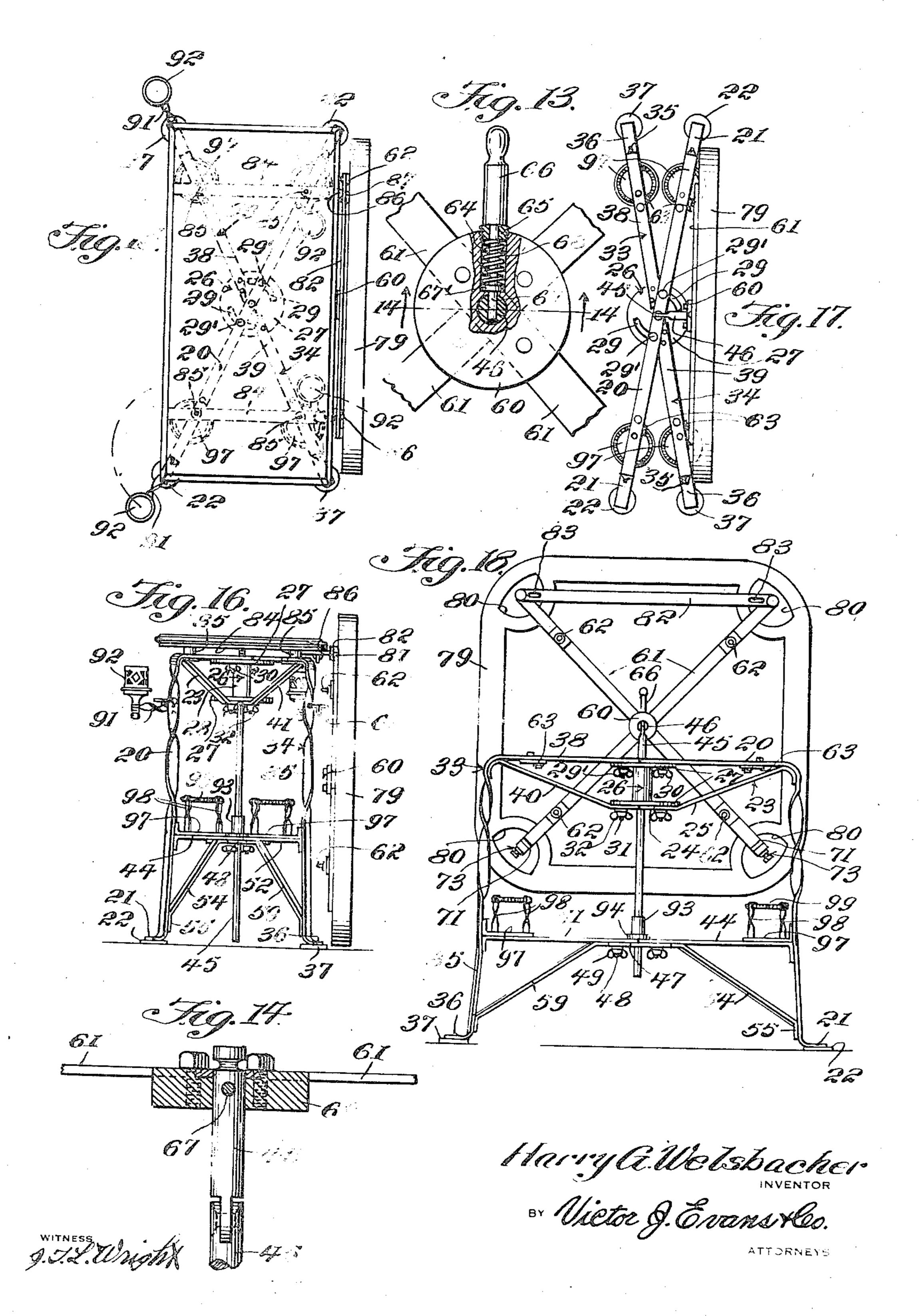
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UNITED STATES PATENT OFFICE

2,184,206

COMBINATION TABLE

Harry G. Welsbacher, Canton, Ohio

Application January 11, 1939, Serial No. 250,439

13 Claims. (CI. 311-3)

My invention relates to improvements in tables or the like.

An important object of my invention is to provide a table that is unique in its construction whereby it may be adapted to a variety of uses.

Another object of my invention is to provide a table, the frame of which is adjustable to receive a plurality of tops of varying shapes and designs.

Yet another object of my invention is to provide a table, the frame of which is adjustable so that the top thereof may be converted into a screen, thereby presenting a very attractive appearance.

Still another object of my invention is to provide a table which is attractive in appearance, durable in use, and inexpensive to manufacture.

Other objects and advantages of my invention will be apparent during the course of the following description.

In the accompanying drawings, forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a longitudinal sectional view showing parts in elevation of a device embodying my invention,

Figure 2 is a transverse sectional view taken on the line 2—2 of Figure 1,

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 1,

Figure 4 is a sectional view illustrating the method of clamping the table top on the frame thereof,

Figure 5 is a view taken on the line 5—5 of Figure 4;

Figure 6 is a fragmentary transverse sectional view taken on the line 6—6 of Figure 1 and showing the legs in open position,

Figure 7 is a fragmentary transverse sectional view taken on the line 7—7 of Figure 1, and showing the legs in closed position,

Figure 8 is a plan view of the frame in a partly closed position,

Figure 9 is a bottom plan view of one of the tops embodying a part of my invention,

Figure 10 is a fragmentary sectional view of the clamping means associated with the top illustrated in Figure 9,

Figure 11 is a view taken on the line 11—11 of 50. Figure 10,

Figure 12 is a plan view of the clamp illustrated in Figures 10 and 11,

Figure 13 is a fragmentary transverse sectional view taken on the line 13—13 of Figure 1, showing parts broken away,

Figure 14 is a sectional view taken on the line 14—14 of Figure 13,

Figure 15 is a top plan view of my device, illustrating it as a combination table and screen,

Figure 16 is an end elevation of the same, Figure 17 is a top plan view showing the table removed and the device used as a screen or easel, Figure 18 is a rear elevation of the same, and Figure 19 is a fragmentary perspective view of the lower brace members of the frame.

In the drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 20 designates a substantially U-shaped leg member, the open ends 21 of which are bent outwardly to receive the 15 circular floor pieces 22 thereon. The brace member 23 is formed with a flat center portion 24 and arms 25 extending outwardly and upwardly therefrom to engage the leg member 29. The numeral 26 designates a hub-shaped piece com- 20 prising upper and lower circular disks 27, adjacent the U-shaped member 20 and the brace member 23, respectively, and having interposed therebetween a tubular member 23. The upper plate 27 is provided with arcuated slots 29 which receive screw-threaded bolts 29' depending from the U-shaped member 20 and permit the hub member 26 to be rotated with respect to the frame. Wing nuts 30 are carried by the bolts underneath the flange 27 and permit the hub 30 member 26 to be locked in any desired position with respect to the frame. The bottom plate 27 is similarly formed with arcuated slots which receive bolts and wing nuts 31 and 32, respectively.

The supporting legs 33 and 34 are formed with a vertical upright portion 35 terminating at the lower end in an outwardly bent portion 36 which carries a circular floor piece 37 thereon. The upper portions of the members 33 and 34 are 40 bent inwardly at right angles thereto and the inner ends 38 and 39 thereof are riveted or otherwise secured to the upper plate 27 of the hub member 26. The inner ends 38 and 39 are chamfered so that the diagonal edges thereof 45 will lie adjacent the longitudinal edge of the U-shaped leg member 29 when the hub member 26 is rotated to the closed position, as illustrated in Figure 7. The supporting legs 33 and 34 are provided with braces 40 and 41 which are riveted 50 at their inner ends to the lower plate 27 of the hub member 26 and at their outer ends to the leg supporting member adjacent the upright portion 35, and the inner ends of the braces 40 and 41 are chamfered as at 42 and 43 in accord- 55 ance with the supporting legs so that the chamfered edges thereof will be adjacent the longitudinal edge of the brace 23 when the legs of the table are in the folded position.

Riveted or otherwise secured to the U-shaped member a substantial distance from the open end thereof is a brace 44 and extending vertically through the said brace 44, brace member 23, and housed within the tubular member 28 of the hub 26 and terminating substantially above the Ushaped leg member 20 is a shaft 45. The shaft 45 is provided at its upper end with a hinged extension 46 which is ordinarily housed within the tubular member 23 of the hub member 26. A 15 circular plate 47 is rotatably mounted on the shaft 45 adjacent the under side of the brace and is held in appressed relation with the brace by the bolts and wing nuts 43 and 49, respectively, which extend through arcuated slots 50 in the said plate. The supporting legs 33 and 34 are provided with braces 5! and 52 which are riveted or otherwise secured to the said members at their outer ends and to the circular plate 47 at their inner ends. The inner ends are cham-25 fered in a manner similar to the braces hereinbefore described and for the same reason. Additional braces 53 and 54 are provided diagonally of the U-shaped member 20 and the transverse brace 44, the ends 55 and 56 of which are se-30 cured to the U-shaped member adjacent its outer ends 2! and the other ends 57 and 58 of the braces 53 and 54 are fastened to the cross brace 44 adjacent the circular plate 47. The supporting legs 33 and 34 are similarly provided with diago-35 nally disposed braces 59.

From the structure hereinbefore outlined it will be apparent that the supporting legs 33 and 34 may be made to assume a right angular relation with the U-shaped strip 20 by virtue of the arcuate slots in the circular plates 27 and 47 or that, due to this same construction, the supporting legs 33 and 34 may be made to assume an acute angular relation with the U-shaped member 20 and that they may be held in the desired position by the bolts and thumb nuts extending through arcuate slots in the plates.

I have provided a table top supporting member comprising a center disk 60 which is adapted to fit over the upwardly extending end of the hinged 50 extension 46 of the shaft 45. Extending outwardly from the disk 60 are right angularly disposed arms 61 in spaced parallelism with the top of the U-shaped leg member 20 and the supporting legs 33 and 34 when the supporting legs are 55 in right angular relation with the said U-shaped member 20. The arms 61 are provided adjacent their ends with depending pins \$2 adapted to engage registering openings in the top of the U-shaped member 20 and supporting legs 33 60 and 34. The ends of the pins 62 are provided with slotted openings adapted to receive the key 63 which is pivoted to the under side of the U-shaped member 20 and the supporting legs 33 and 34 as illustrated in Figure 5.

tending bore 64 which communicates at its inner end with hinged extension 46 of the shaft 45 and has screw-threadedly affixed in its outer end a plug 65. A plunger 66 is formed with an inwardly extending shank 67 which extends through the plug 65, the bore 64 and into a registering opening in the top of the extension 46. The shank 67 has formed thereon an angular flange 67 within the bore 64 and interposed between the flange and the plug 65 is a circular

spring 68 which is resilient in its action to hold the shank 67 within the opening in the extension 46, but will permit the plunger 67 to be retracted against the action of the spring to bring the said shank out of engagement with the extension 46 and permitting the release of the disk 60 therefrom.

Positioned at the ends of the arms 61 are brackets 69 having an upwardly extending flange 70 upon which is formed a hollow cylinder 71 10 and screw-threadedly engaging the cylinder 71 is a cap 72. A pintle 73 is positioned within the cylinder II and is formed with an enlarged head portion 74 exteriorly of the cap 72 and an inwardly extending shank 75 extending therefrom 15 through the flange 70 of the bracket 69 and terminating a substantial distance from the inner side thereof. Formed on the shank 75 and within the cylinder 7! is an annular flange 76 and interposed between the flange 76 and the cap 72 20 is a circular spring 77 which is resilient in its action to permit the pintle 73 to be retracted to bring the end of the shank 75 flush with the upright flange 70 of the bracket 69. The bases of the brackets 69 are provided with a felt pad 73 25 to protect the surface of the table top 79 which is here illustrated as being substantially square in plan and having openings 80 at each of its four corners. The openings 80 receive the bracket 69 and the parts formed thereon in their en- 30 tirety, and the inner sides of the openings 80 are provided with cul-de-sacs 81 which receive the shank 75 of the pintle 73 when the said shank is held in the innermost position under the action of the spring 77.

It may be seen that this arrangement of locking the table top to the frame will permit either side of the top to be used. This is often desirable in cases where games are played on a table, whereby one side of the top may have a game 40 such as a checker board marked thereon, and the other side may have a different game or be finished in the conventional manner. One surface of the table may be finished in the form of a picture or a screen, and at times it may be de- 45 sirable to place this side in a vertical position and it is for this purpose that I have provided the hinged extension 46 on the shaft. It may be seen that the shank 46 may be pulled upwardly so that the hinged portion thereof will be above 50 the top of the U-shaped member 20.

When the U-shaped member 20 and the supporting legs 33 and 34 have been folded to a closed position as illustrated in Figure 17, the shaft 45 is pulled upwardly until the hinged portion is above the top of the U-shaped member 20 and the shank 46 assumes a horizontal position. The shank is made to substantially bisect the larger angle between the legs so that the table may be received therebetween, as clearly 60 illustrated in Figures 17 and 18.

When it is desired that the device be used entirely as a screen, it will be necessary that the top assume a vertical position with its lower edge substantially on the floor, as illustrated in 65 Figure 16, and for this purpose I have joined two adjacent ends of the cross bars 61 with a supporting strip 82 and adjacent either end thereof are slotted openings 83. When the table is in this position, I find it desirable to provide a 70 second top for the frame and, as here illustrated, the said second top is of substantially rectangular formation in plan and finished in the conventional manner. The under surface of this top carries a pair of spaced bars 84 ad-75

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jacent to and parallel with the shorter sides. Depending from these bars are pins 85 constructed similarly to the pins 62 in a manner whereby they may be received within the registering openings in the top of the supporting legs 33 and 34 and U-shaped member 20. Pivoted to one end of the bars 84 are clamp members 86. The clamp members 86 are formed with an outer hooked end 87 and intermediate its ends 10 thereof is a slot 38 adapted to receive the bolt and wing nuts 89 and 90, respectively. As illustrated in Figure 16, the legs of the table are made to assume the folded position and the rectangular top is placed thereon and firmly affixed 15 thereto in a manner hereinbefore described. The clamps 26 projecting from one longitudinal end thereof are adapted to be received within the slotted openings \$3 within the bar \$2. For this purpose the wing nut 90 is loosened so that the 20 clamps 36 may be pivoted inwardly and the hook ends 37 inserted within the slotted openings 83. When the clamps 86 have been pivoted outwardly so that the hook end 86 engages with the outer edge of the slotted openings 83 the 25 winged nuts 90 are tightened and hold the clamps in fixed engagement with the bar 82.

Adjacent the closed end of the U-shaped member 20 and the top of the supporting legs 33 and 34. I have pivotally attached arms 91 which carry receptacles 92 at their outer ends. As illustrated in Figure 1, the receptacles 92 may be pivoted to a position underneath the table top or made to assume a position exteriorly thereof. The receptacles 92 may be used for holding glasses, or the like, when the table is used as a tea or card table.

Carried by the shaft 45 adjacent the cross brace 44 is a bearing 93. The bearing 93 is formed with an annular flange 94 at its lower end, and bearing against the inner face of the flange 94 is a circular disk 95 which supports the tray 96. As illustrated in Figure 1, the tray 96 will be positioned centrally of the table in a manner whereby it will not interfere with per-45 sons seated at the table. The tray may be used for any desired purpose, such as holding drinkmixing utensils, glasses, or the like. Carried by the cross braces 44, 51 and 52 adjacent the Ushaped member 20 and the supporting legs 33 and 34 are plates 97, and extending upwardly therefrom are supporting arms 98 which carry an annular spring 99 therearound. The spring 99 is sufficiently taut to hold therein a container such as a tall glass, or the like.

invention herewith shown and described is to be taken as a preferred example of the same and that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of my invention or the scope of the appended claims.

Having thus described my invention, I claim:

1. In a table, the combination of a frame constituting an inverted U-shaped strip, the arms of which comprise leg portions; a brace member joining the arms of the said U-shaped member a substantial distance from the ends thereof; a vertically disposed shaft carried centrally by the said strip and the said brace member; a plate member rotatably carried by the shaft adjacent the said U-shaped member; and leg members formed with right angularly disposed top portions, the ends of which are secured to the said plate and rotatable therewith.

2. In a table, the combination of a frame con-

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stituting an inverted U-shaped strip, the arms of which comprise leg portions; a brace member joining the arms of the said U-shaped member a substantial distance from the ends thereof; a vertically disposed shaft carried centrally by the said strip and the said brace member; a plate member rotatably carried by the shaft adjacent the said U-shaped member; leg members formed with right angularly disposed top portions, the ends of which are secured to the said plate and 10 rotatable therewith; and means to maintain the said rotatable plate in fixed relation with the said U-shaped strip.

3. In a table, the combination of a frame constituting an inverted U-shaped strip, the arms of 15 which comprise leg portions; a brace member joining the arms of the said U-shaped strip a substantial distance from the ends thereof; a vertically disposed shaft centrally carried by the said strip and the said brace member; a sup- 20 porting strip having a flat central portion mounted on the said shaft and with the ends thereof extending outwardly and upwardly therefrom and secured to the said U-shaped member; a hub-shaped element having spaced upper and ²⁵ lower flanges and a tubular connecting portion rotatably mounted on the said shaft between the U-shaped strip and the said supporting strip; leg members formed with right angularly disposed top portions, the ends of which are secured 30 to the upper flange of the said hub-shaped element and rotatable therewith; and brace members connecting the said leg members and the said lower flange of the said hub-shaped element.

4. In a table, the combination of a frame con- 35 stituting an inverted U-shaped strip, the arms of which comprise leg portions, a brace member joining the arms of the said U-shaped member a substantial distance from the ends thereof, a vertically disposed shaft centrally carried by the 40 said strip and the said brace member, a plate member having arcuated slots rotatably carried by the shaft adjacent the said U-shaped member. screw-threaded pins formed on the said Ushaped member and extending through the arcu- 45 ated slots in the said plate, wing nuts carried by the pins below the said plate and adapted to maintain the same in a fixed non-rotatable relation with the said U-shaped strip, and leg members formed with right angularly disposed top 50 portions, the ends of which are secured to the said plate and rotatable therewith.

5. In a table, the combination of a frame constituting an inverted U-shaped strip, the arms of which comprise leg portions, a brace member 55 joining the arms of the said U-shaped member a substantial distance from the ends thereof, a vertically disposed shaft carried centrally by the said strip and the said brace member and extending a substantial distance above the said 60 U-shaped flange, a plate member rotatably carried by the shaft adjacent the said U-shaped member, leg members formed with right angularly disposed top portions, the ends of which are secured to the said plate and rotatable therewith, 65 a disk mounted on the upwardly extending end of the said shaft, right angularly disposed arms extending therefrom in spaced parallel relation with the said leg portions, clamp means positioned at the ends of the said right angularly dis- 70 posed arms, and a table top adapted to be clamped by the said clamp means.

6. In a table, the combination of a frame constituting an inverted U-shaped strip, the arms of which comprise leg portions, a brace member 75

joining the arms of the said U-shaped member a substantial distance from the ends thereof, a vertically disposed shaft carried centrally by the said strip and the said brace member and extending a substantial distance above the said Ushaped flange, a plate member rotatably carried by the shaft adjacent the said U-shaped member, leg members formed with right angularly disposed top portions, the ends of which are se-10 cured to the said plate and rotatable therewith, a disk mounted on the upwardly extending end of the said shaft, right angularly disposed arms extending therefrom in spaced parallel relation with the said leg portions, bracket members hav-15 ing a vertically disposed flange positioned at the ends of the said right angularly disposed arms, a hollow cylinder formed on the said flange, a cap for the said cylinder, a plunger extending through the cap and the cylinder and terminat-20 ing a substantial distance beyond the said cylinder, an annular flange formed on the plunger and within the said cylinder, a spring interposed between the flange and the cap to permit the outwardly extending end of the said plunger to 25 be retracted within the cylinder against the action of the said spring, and a table top having openings at its corners adapted to receive the said cylinder and plunger therein and a cul-desac in the inner face of the said openings to re-30 ceive the projecting ends of the said plungers.

7. In a table, the combination of a pair of inverted U-shaped members, said U-shaped members disposed in right angular relation with each other and secured at their point of intersection, 35 brace members joining the depending arms of the said U-shaped members a substantial distance from their ends thereof, a vertically disposed shaft carried centrally by the said Ushaped members and the said brace members 40 and extending a substantial distance above the said U-shaped member and with a bore transversely therethrough adjacent its end thereof, a disk mounted on the upwardly extending end of the said shaft and having a bore extending from 45 the shaft to the outer periphery of the disk and in register with the bore in the said shaft of the said disk, a plug member positioned in the bore, a plunger extending through the said plug and terminating within the transverse bore of the 50 said shaft, an annular flange formed on the plunger within the bore of the said disk, spring means interposed between the flange and the said plug member and permitting the plunger to be retracted within the bore against the action of 55 the said spring, right angularly disposed arms extending from the disk in spaced parallel relation with the tops of the said U-shaped portions, clamp means positioned at the ends of the said right angularly disposed arms, and a table top adapted to be secured thereon by the said clamp means.

8. In a table, the combination of a pair of inverted U-shaped members joined in right angular relation with each other, a shank member carried by the said U-shaped strips at the point of junction and extending upwardly therefrom, a disk mounted on the said upwardly extending shank, right angularly disposed arms extending therefrom in spaced parallel relation with the tops of U-shaped portions, pins formed on the said cutwardly extending arms and adapted to be inserted in registering openings in the said U-shaped members and to hold the said disk against rotation, clamp means positioned at the ends of the said right angularly disposed arms,

and a table top adapted to be clamped by the said clamp.

9. In a table, the combination of a pair of inverted U-shaped members joined in right angular relation with each other, a shank member 5 carried by the said U-shaped strips at their point of junction and extending upwardly therefrom, a disk rotatably mounted on the said upwardly extending shank, right angularly disposed arms extending from said disk in spaced parallel 10 relation with the U-shaped portions, pins formed on the said outwardly extending arms and adapted to be inserted in registering opening in the said U-shaped members and to hold the said disk against rotation, bracket members having 15 a vertically disposed flange positioned at the ends of the said right angularly disposed arms, a hollow cylinder formed on the said flange, a cap for the said cylinder, a plunger extending through the cap and the cylinder and termi- 20 nating a substantial distance beyond the said cylinder, an annular flange formed on the plunger and within the said cylinder, a spring interposed between the flange and the cap to permit the outwardly extending end of the said 25 plunger to be retracted within the cylinder against the action of the said spring, a table top having openings at its corner adapted to receive the said cylinder and plunger therein, and a cul-de-sac in the inner face of the said 30 openings to receive the projecting ends of the said plunger.

10. In a table, the combination of a frame constituting an inverted U-shaped strip, the arms of which comprise leg portions; a brace member 30 joining the arms of the said U-shaped strip a substantial distance from the ends thereof; a vertically disposed shaft centrally carried by the said strip and the said brace member; a shank comprising a continuation of the said shaft 40 hingedly secured to the upper end thereof; a supporting strip having a flat central portion mounted on the said shaft and with the ends thereof extending outwardly and upwardly therefrom and secured to the said U-shaped 45 member; a hub-shaped element having spaced upper and lower flanges and a tubular connecting portion rotatably mounted on the shaft between the U-shaped strip and the said supporting strip and adapted to house the said shank; 50 leg members formed with right angularly disposed top portions, the ends of which are secured to the upper flange of the said hub-shaped element and rotatable therewith; brace members connecting the said leg members and the 55 said lower flange of the said hub element; a table top supporting member comprising a central disk portion mounted on the end of the said shank; right angularly disposed arms extending therefrom in spaced parallel relation with the said ou leg portions; clamp means positioned at the ends of the said right angularly disposed arms; and a table top adapted to be clamped by the said clamp means, the said table top supporting member and the table top being adapted to lie in a horizontal position on the said leg members, or to assume a vertical position by pulling the hinged portion of the shank above the top of the leg members and permitting the said 70 shank to assume a horizontal position due to its hinged relation with the said shaft.

11. In an article of manufacture, the combination of a frame constituting an inverted U-shaped strip, the arms of which comprise leg 75

portions; a brace member joining the arms of the said U-shaped strip a substantial distance from the ends thereof; a vertically disposed shaft centrally carried by the said strip and the said brace member; a shank comprising a continuation of the said shaft hingedly secured to the upper end thereof; a supporting strip having a flat central portion mounted on the said shaft and with the ends thereof extending outwardly 10 and upwardly therefrom and secured to the said U-shaped member; a hub-shaped element having spaced upper and lower flanges and a tubular connecting portion rotatably mounted on the shaft between the U-shaped strip and the 15 said supporting strip and adapted to house the said shank; leg members formed with right angularly disposed top portions, the ends of which are secured to the upper flange of the said hubshaped element and rotatable therewith; brace 20 members connecting the said leg members and the said lower flange of the said hub element; a table top having pins depending from its under surface and adapted to be inserted in registering openings in the said leg members; spaced bars mounted on the under side of the table top and extending beyond one edge thereof; a screen supporting member comprising a central disk portion; right angularly disposed arms extending therefrom; clamp means positioned at the ends of the said right angularly disposed arms; a brace member joining the adjacent ends of the said arms and having openings therein to receive the bars projecting from the said table top; and a screen adapted to be removably secured thereto by the clamping means on the said arms.

12. In an article of manufacture, the combination of a pair of inverted U-shaped memjoined at their point of intersection; brace members joining the depending arms of the said Ushaped members a substantial distance from their ends thereof; a table top having pins depending from its under surface and adapted to be 5inserted in registering openings in the said Ushaped members; spaced bars mounted on the under side of the table top and extending beyond one edge thereof; a central disk portion; right angularly disposed arms extending there- 10 from; clamp means positioned at the ends of the said right angularly disposed arms; a brace member joining adjacent ends of the said arms and having openings therein to receive the bars projecting from the said table top; and a screen 15 adapted to be removably attached by the clamp-

ing means of the said arms.

13. In a table, the combination of a pair of inverted U-shaped members, said members comprising legs and being joined at their point of 20 intersection, brace members joining the depending arms of the said U-shaped members a substantial distance from their ends, a table top having pins depending from its under surface and adapted to be inserted in registering open- 25 ings in the said U-shaped members, clamp means carried by the said U-shaped members to hold the said pins firmly in place, spaced bars mounted on the under side of the table top and extending beyond one edge thereof, a disk mem- 30 ber, right angularly disposed arms extending therefrom, clamp means positioned at the ends of the said right angularly disposed arms, a brace member joining adjacent ends of the said arms and having openings therein to receive 35 the bars projecting from the said table top, and a screen adapted to be removably secured by the said clamping means of the said arms.