

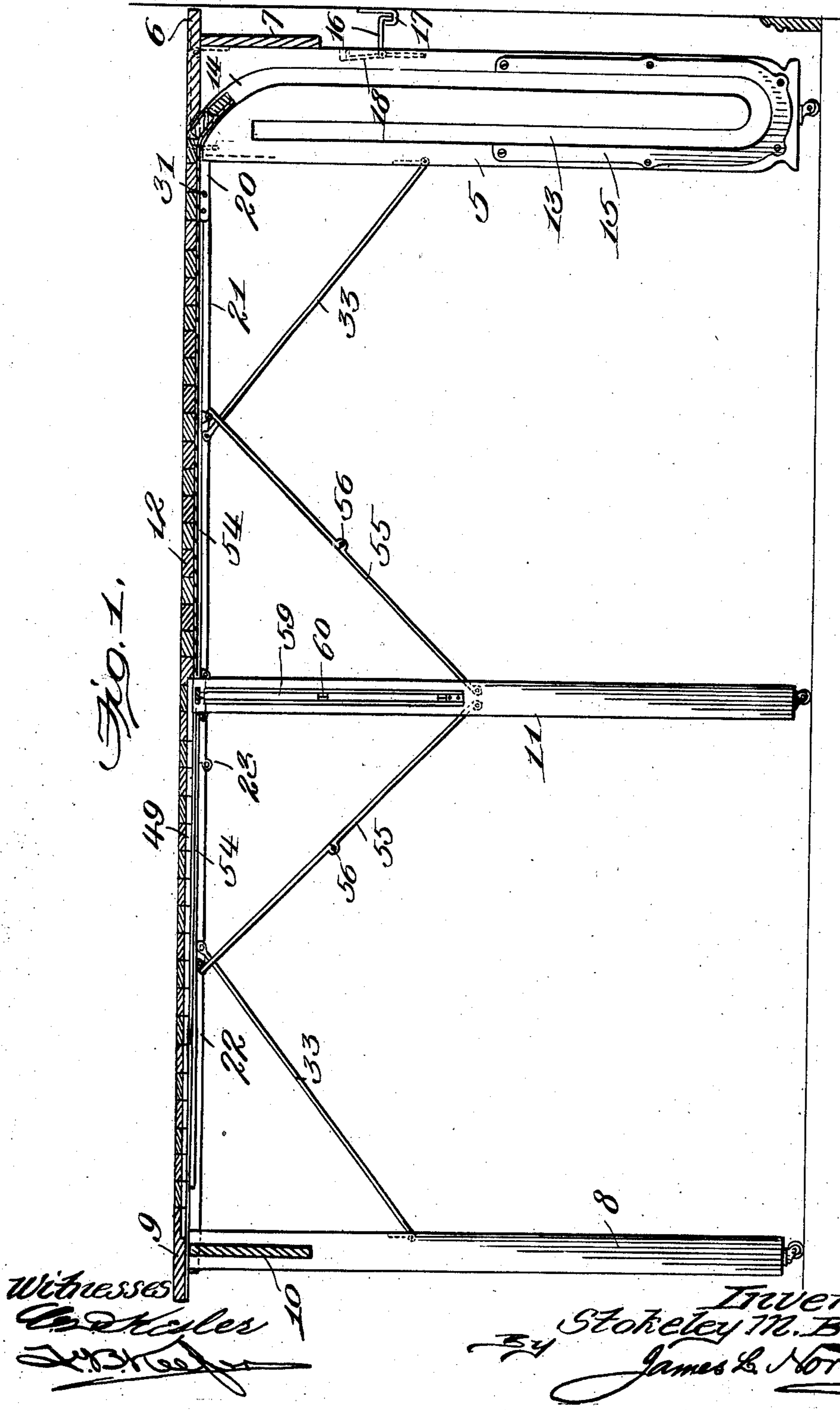
S. M. BOND.
FOLDABLE TABLE.

APPLICATION FILED NOV. 20, 1909.

963,502.

Patented July 5, 1910.

4 SHEETS—SHEET 1.



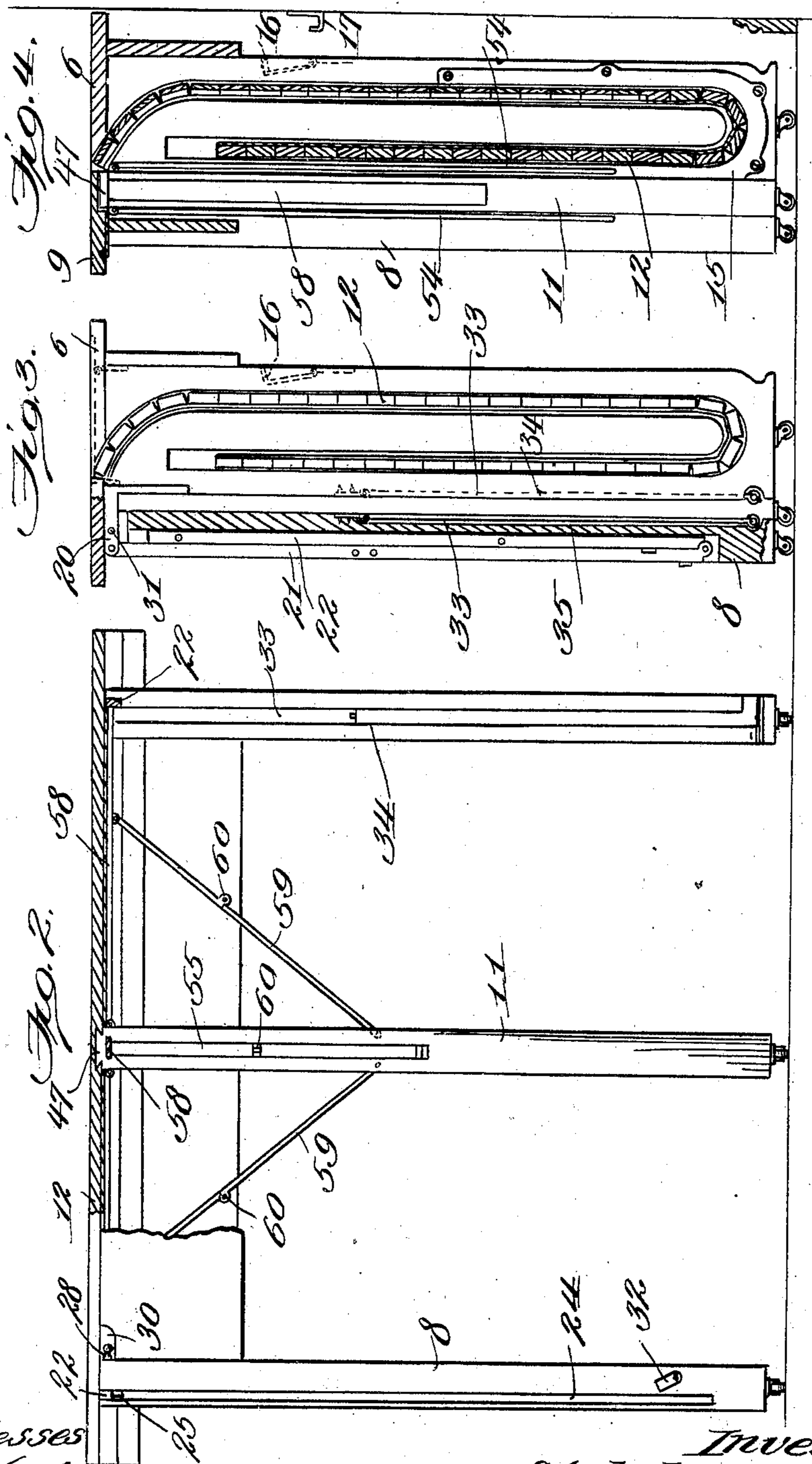
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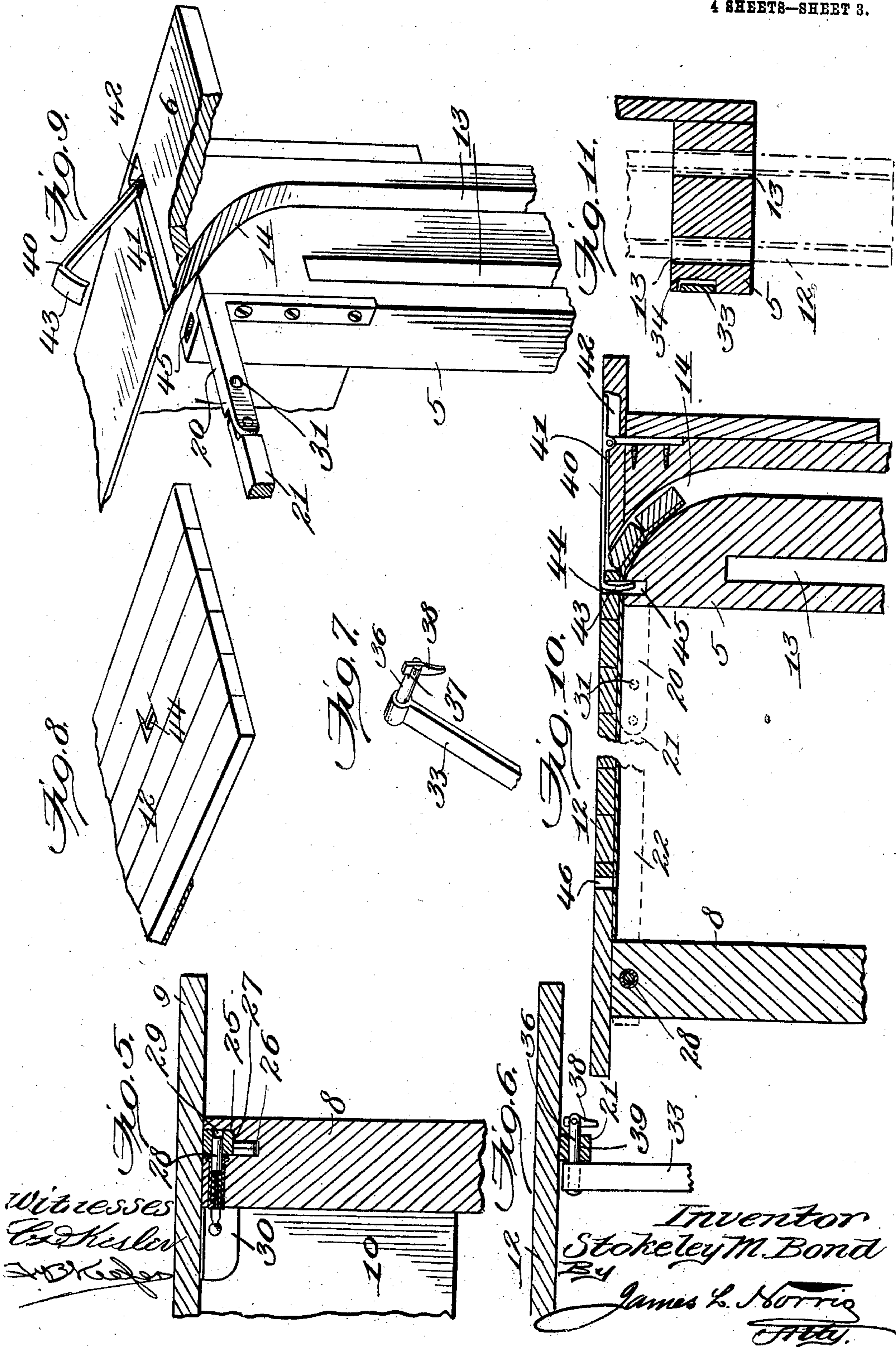
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J. B. Kessler

Inventor
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By James L. Norris

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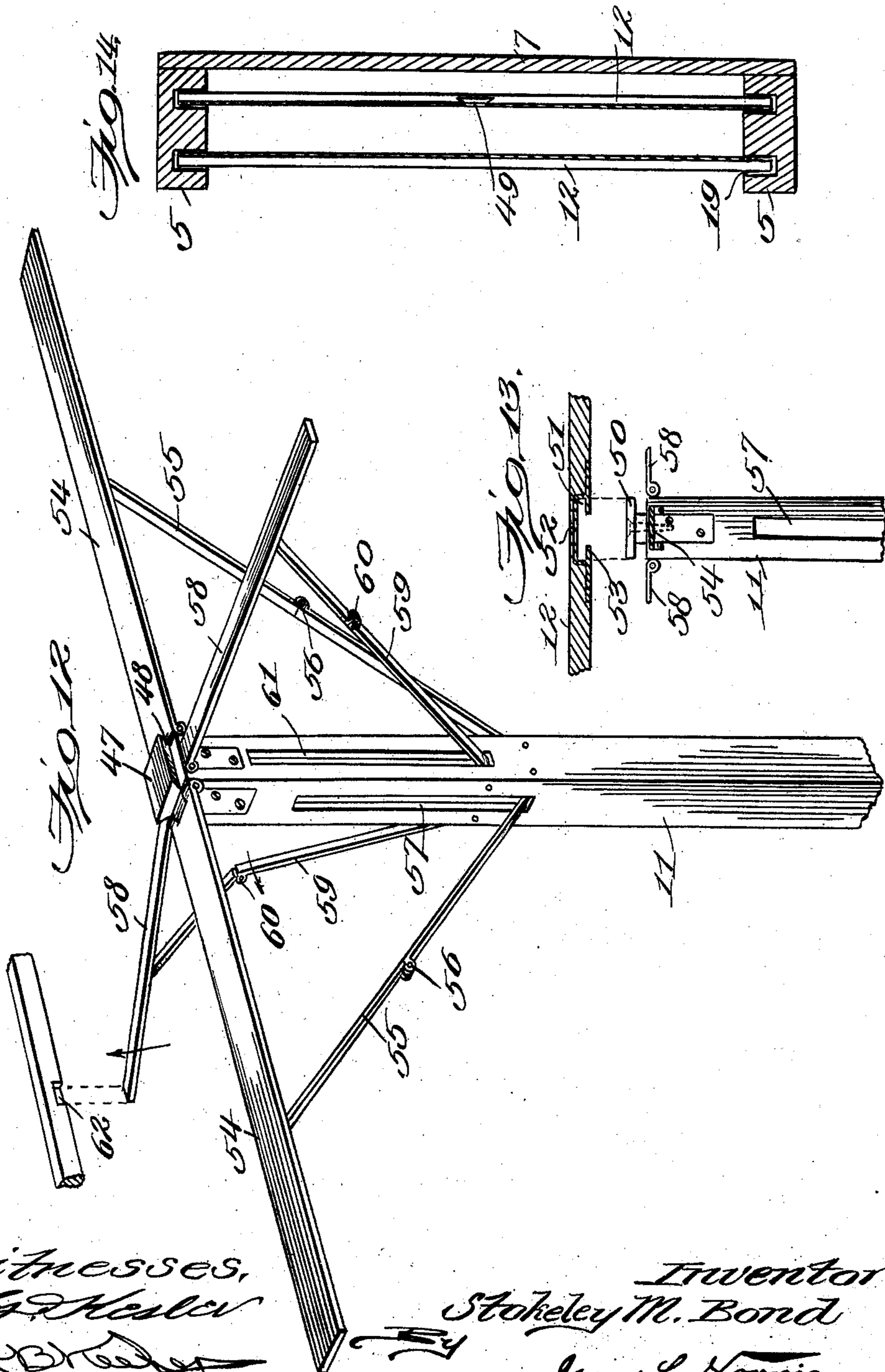
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4 SHEETS—SHEET 4.



Witnesses,
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UNITED STATES PATENT OFFICE.

STOKELEY MARSHAL BOND, OF WAURIKA, OKLAHOMA.

FOLDABLE TABLE.

963,502.

Specification of Letters Patent.

Patented July 5, 1910.

Application filed November 20, 1909. Serial No. 529,104.

To all whom it may concern:

Be it known that I, STOKELEY M. BOND, a citizen of the United States, residing at Waurika, in the county of Jefferson and State of Oklahoma, have invented new and useful Improvements in Foldable Tables, of which the following is a specification.

This invention relates to a foldable table of that class embodying a rolling top section.

The primary object of the invention is to provide a foldable table having a rolling top section with a conveniently operating and comparatively simple organization of elements whereby the table may be reduced to compact form or distended partially or fully, and reliably and positively braced and the rolling top held against swaying or sagging movements.

The invention consists in the construction and arrangement of the several parts which will be more fully hereinafter specified.

In the drawings: Figure 1 is a longitudinal vertical section of a table embodying the features of the invention and shown extended to its full length. Fig. 2 is a cross-sectional view of the table showing a portion of the same in elevation. Fig. 3 is a sectional side elevation of the table shown folded or reduced to compact form. Fig. 4 is a full section longitudinally through the table shown folded. Fig. 5 is a detail cross-section of a portion of the table and particularly illustrating the locking means for one of the side rails or supports. Fig. 6 is a detail cross-section of a portion of the table illustrating the means for attaching one of the braces to one of the side rails. Fig. 7 is a detail perspective view of one of the braces showing the means for attaching the same to one of the side rails. Fig. 8 is a detail perspective view of a portion of the folding table top. Fig. 9 is a sectional perspective view of a portion of the table showing a bracket and a portion of one of the side rails attached thereto and a catch means for locking the folding table top. Fig. 10 is a longitudinal vertical section of a portion of the table particularly illustrating the manner of locking the folding table top. Fig. 11 is a detail horizontal section through one of the table legs showing the slots extending therethrough for the folding table top, the latter being illustrated in dotted lines. Fig. 12 is a perspective view of a portion of the center leg or pedestal and a

part of one of the side rails or supports particularly illustrating the supporting means for the intermediate portion of the folding table top. Fig. 13 is a sectional elevation of a portion of the folding table top and the center leg or pedestal illustrating a modification of the construction shown by Fig. 12. Fig. 14 is a horizontal section through a pair of the end legs for receiving the folding table top and embodying a slight modification in construction.

The numeral 5 designates the table top receiving legs at one extremity of the table structure and provided with a fixed top board or member 6 and a connecting panel 7 engaging the outer edges of the two legs. Coöperating with the legs 5 is a pair of movable legs 8 also connected by a fixed top board or member 9 and a panel 10. In tables which have considerable length it is preferred that a center leg or pedestal 11 be used, though in shorter tables the use of this center leg or pedestal may be avoided. Operatively associated with the legs as explained is a folding table top 12 composed of closely arranged slats hinged together by any suitable means and adapted to be moved into and outwardly from the legs 5.

The essential elements of the table as above specified will now be described in detail.

In the form of the legs shown by all of the figures except Fig. 14, an elongated U-shaped slot 13 is cut through each leg and extends from near the lower end to a point near the upper end of the same, the outermost member of the slot continuing into an arcuate slot 14 extending inwardly and upwardly through the upper end of each leg 5 and serving as an inlet and outlet for the folding table top 12. The slot 13 will be wide enough to provide for easy movement of the folding table top 12 thereinto and outwardly therefrom, and it will be understood that the slots 13 of the two legs will have all portions of the same in transverse alinement so as to insure an easy and reliable operation of the folding top 12. A U-shaped metal brace 15 is applied around the lower extremity of each slot 13 on the inner side of each leg 5, the legs of said brace projecting upwardly a considerable distance over the leg to reinforce the latter and prevent any tendency of splitting or spreading of the leg by the movement of the folding top 12 thereinto or outwardly there-

from. For convenience in operating the table, each leg 5 also has in its outer edge portion a folding hook 16 to engage a hook plate 17 secured to a wall or other support, the hook 16 of each leg folding into a slot 18 when not in use. The object of the hooks 16 on the legs 5 is to secure the said legs in positive position while the operator is extending the table and also prevent the table when folded, as shown by Figs. 3 and 4, from having any tendency to tilt or fall from upright position. In the form of the leg shown by Fig. 14 the folding table top 12 moves into and outwardly from grooves 19 formed in the inner opposing sides of the two legs. The table top 12 operating with the legs 5 having the slots 13 therethrough, as shown for instance by Fig. 11, is wider than the table top used with the legs 5 provided with the grooves 19, as shown by Fig. 14, and projects outwardly at opposite sides beyond the said legs and forms an overhanging side ledge at each side of the table as shown by Fig. 2.

To the upper inner portion of each leg 5 an angular bracket 20 is fixed, as more clearly shown by Fig. 9, and fulcrumed thereto is a side rail or support formed of foldable sections 21 and 22 jointed as at 23. The sections 21 and 22 of the side rails or supports automatically fold and unfold as the legs 8 are pushed upwardly toward or adjacent to and away from the legs 5, and in the outer edges of the legs 8 longitudinal grooves 24 are formed, one in each, which coincide at their upper extremities with slots 25 extending through the said legs 8 and of such dimensions as to permit the side rails to freely and readily slip therethrough in opposite directions in accordance with the movement of the legs 8. The sections 21 and 22 are connected by a rule joint which projects below the upper edges of the said sections and to one side, as shown by Fig. 5, and the slots 25 are formed with reduced lower extensions 26 for the joints, and by the formation of the lower extensions 26 of the slots 25, shoulders 27 are provided on which portions of the rails have bearing. To lock the legs 8 against movement after the table is fully extended, transversely extending latch bolts 28 are mounted in the said legs 8 to engage openings 29 in the sections 22 of the rails, the inner extremities of the bolts being readily accessible through the medium of finger recesses 30 formed in the inner side of the upper portion of the connecting panel 10. These latch bolts 28 are readily accessible from opposite sides of the table by the operator or user and are simultaneously released from the rails when it is desired to collapse or fold the table. Openings 31 are also formed in the upper horizontal arms of the brackets 20 to receive the bolts 28 to lock the parts of the

table in folded or fully collapsed condition. When the table is only partially extended, for example to the terminals of the sections 21, the sections 22 under such adjustment remain in the longitudinal grooves 24, and when the table is fully closed both sections 21 and 22 become housed in the grooves 24, the legs 8 adjacent to said grooves being provided with turn-buttons or analogous devices 32 to hold the folded side rails positively in the said grooves. These turn-buttons 32 may also be used for holding the sections 22 in the grooves 24 when the table is only partially extended. To sustain the side rails in positive position, folding braces 33 are employed and fulcrumed and pivoted respectively to the inner sides of the legs 5 and 8. The braces 33 are foldable downwardly into grooves 34 and 35 formed in the inner sides of the legs 5 and 8, as clearly shown by Fig. 3, and the free ends of said braces are provided with outwardly projecting bolts 36 formed with slotted ends 37 in which keys 38 are intermediately pivoted. The sections 21 and 22 of the side rails or supports have openings 39 formed therein and by slightly springing the braces 33 inwardly and turning the keys 38 to aline with the bolts 36 the latter are inserted through the said openings 39 and the keys permitted to assume their normal positions, thereby separably locking the free ends of the braces to the side rails and maintaining the latter against sagging or bending and holding the table top 12 with sufficient resistance to obviate any tendency to depression thereof. In tables of comparatively short length the braces 33 will be ample to sustain the table 12 in positive supporting position, but in tables of considerable length embodying long foldable tops 12 it will be necessary to use an intermediate supporting means, which will be presently described.

To hold the foldable tops 12 against movement or entire separation at one extremity from the legs 5, a catch 40 is mounted in a groove 41 in the fixed top board or member 6 over each leg 5, the outer extremities of the grooves 41 being countersunk as at 42 and the catches fulcrumed at points adjacent to their outer terminals so they may be tilted by depressing the outer extremities thereof into the countersinks 42. The inner ends of the catches 40 are in the form of hooks 43 to engage openings 44 in the foldable table top 12, as shown by Fig. 10, the catches when depressed in locking position having their upper surfaces flush with the upper surfaces of the fixed top boards or members 6. The openings 44 aline with sockets 45 in the tops of the legs 5 adjacent to the brackets 20 so that the hooks 43 will project through the said openings 44 into the sockets 45 and reliably secure the folding table top 12. The sockets 45 are important

adjuncts in the retention of the table top 12 in immovable position by reason of the fact that the angular or hooked end of each catch 40 engaging the rear vertical wall of its corresponding socket at a point below the under side of the table top will obstruct any tendency to the accidental disengagement of the catch from the table top when the said catch is in locking position. The folding table top 12 at intermediate points is provided with other openings 46 to receive the hooks 43 of the catches 40 so as to hold the foldable table top 12 when the latter is only partially extended or drawn outwardly from the legs 5.

As above indicated, in long table structures it is preferable to use an intermediate leg or pedestal 11, and on the top of this leg or pedestal is a head 47 having dovetail edges 48 to engage a longitudinal groove 49 of corresponding contour formed in the center of the under side of a portion of the length of the top 12. The head just explained at the top of the leg or pedestal 11 may be modified in shape as shown by Fig. 13, wherein a head 50 of flanged contour is used to engage a correspondingly shaped groove 51 in the under side of a portion of the top 12, the groove 51 having a metallic lining 52 which is extended outwardly over the under side of the top a short distance from the side walls of the groove 51 to strengthen the said top at these points and also provided with inwardly projecting flanges 53 to hold the head 50 in engagement with the groove. The intermediate leg or pedestal 11 has elongated supporting bars 54 hinged thereto to extend longitudinally under and in close bearing relation to the foldable top 12, and attached to these supporting bars 54 are braces 55 composed of sections intermediately connected by rule joints as at 56 and foldable into grooves 57 in the opposite side of the leg or pedestal 11. The supporting bars 54 engage the longitudinal center of the under side of the top 12 and the latter is transversely supported by shorter bars 58 disposed at right angles to the bars 54 and also hinged to the sides of the leg or pedestal 11 in planes at right angles to the sides of said leg to which the bars 54 are attached. The bars 58 also have foldable braces 59 secured thereto and to the leg 11 and composed of sections having intermediate rule joints 60, the said braces 59 being foldable into grooves 61 in the adjacent side of the leg or pedestal. By providing the braces 55 and 59 with rule joints it is obvious that when the braces are open or unfolded they will hold the bars 54 and 58 in horizontal position against the under side of the foldable top 12. To prevent the leg or pedestal 11 from having lateral movement or vibration or becoming displaced from a true support-

ing position, the outer ends of the supporting bars 58 are caused to engage notches or seats 62 in the inner portions of the opposite side rails.

To collapse the table, the braces 33 and bars 58 are first released from the side rails, the catches 40 disengaged from the top 12, and the latch bolts 28 simultaneously drawn inward to disengage the said side rails, and while holding the latch bolts the operator pushes inwardly on the legs 8 and the table top 12 is forced downwardly into the slot 13 or groove 19, as the case may be. As the parts are moving together as just explained, the rail sections 22 will slip outwardly through the slots 25 and subsequently by a like movement through the legs 8, the sections 22 bending or breaking joint by reason of the presence of the joints 23 when free to do so. Owing to the groove 49 in the table top 12, the intermediate leg or pedestal 11 will not be moved until the head thereof is engaged by the outer terminal of the said groove, and when this engagement ensues the intermediate leg will be moved with the legs 8 toward the legs 5, the braces 55 and 59 being first folded to let down the supporting bars 54 and 58. When the parts of the table have been fully collapsed the rail sections 21 and 22 will be disposed in the grooves 24 in the outer portions of the legs 8 and the braces 33 arranged in the grooves 34 and 35 respectively formed in the legs 5 and 8.

It is obvious that openings may be formed at different points in the rail sections to accommodate only partial distention of the table and securement of the latch bolts 28 and also for correspondingly applying the braces 33.

The collapsible table, as hereinbefore explained, will be found exceptionally advantageous in its construction and operation and in view of the fact that it may be reduced to such small form it can be made to occupy a very small space within a compartment or room.

When two persons operate the table it will be unnecessary to use the hooks 16 and hook plate 17 as one person may hold the end of the table bearing the hooks 16 while the remaining person pulls on the opposite end. The parts are so proportioned that the top 12 when extended will have its upper surface flush with the upper surfaces of the top boards or members 6 and when the two top boards are brought together, as shown by Figs. 3 and 4, they will also be flush. The table when collapsed or folded as shown by Figs. 3 and 4 may be used as a support for various articles if desired.

It is proposed to use such materials in the construction of the table as will best serve the purpose, and the invention is not limited to any particular means for movably

and closely assembling the strips or slats of the foldable top 12.

What is claimed is:

1. In a table of the class specified, the combination of pairs of legs, a foldable table top fixed at one extremity to one pair of legs and slidably movable downwardly into and upwardly through the inner opposing side portions of the other pair of legs, and a single intermediate leg slidably engaged solely by the central portion of and remaining in connection with the table top and moved to and from operative position by said top.

2. In a table of the class specified, the combination of pairs of legs, one pair of legs being movable toward the other, a foldable table top fixed at one extremity to the movable pair of legs and shiftable equally there-with toward and from the other pair of legs and also slidable downwardly into and upwardly through the inner opposing portions of the latter pair of legs, and a single intermediate leg slidably and solely engaging the central portion of and remaining in operative connection with the table top and on which the table top has sliding movement during a portion of its operation, the said intermediate leg being moved in opposite directions by the table top.

3. In a table of the class specified, the combination of pairs of legs, one pair of legs being freely movable toward and from the other pair, a foldable table top fixed to the movable pair of legs and slidable downwardly into, upwardly through and outwardly from the inner opposing portions of the remaining pair of legs and composed of closely arranged flexibly connected slats, the table top having a bottom groove extending over a portion of the longitudinal center thereof, and an intermediate leg having the upper portion slidably engaging and remaining in association with said groove, the intermediate leg being moved out of and into operative position by the table top.

4. In a table of the class specified, pairs of legs, one pair of legs being movable toward and from the other pair, foldable side rails movable through and slidable downwardly into the movable pair of legs and hinged to the remaining pair of legs, and a foldable table top fixed to the movable pair of legs and slidable downwardly into, upwardly through and outwardly from the remaining pair of legs.

5. In a table of the class specified, the combination of pairs of legs, one pair of legs being movable toward and away from the other pair, a folding top fixed to the movable pair of legs and slidable downwardly into, upwardly through and outwardly from the other pair of legs, and folding side rails movably attached to the pair of legs into which the table top has

movement and also movable through and slidable downwardly and foldable into and outwardly from the other pair of legs simultaneously with the movement of the table top into and outwardly from the pair of legs which it slidably engages.

6. In a table of the class specified, pairs of legs, one pair of legs being movable toward and from the other, a folding table top fixed to the movable pair of legs and slidably movable into, upwardly through and outwardly from the other pair of legs, folding side rails movably attached to the pair of legs into which the table top has slidable movement and also movable through and foldable downwardly into and outwardly from the other pair of legs, and folding braces movably attached to the pairs of legs and secured to the side rails.

7. In a table of the class specified, pairs of legs, one pair of legs being movable toward and from the other, a folding table top fixed to the movable pair of legs and slidably movable into, upwardly through and outwardly from the other pair of legs, folding side rails movably attached to the pair of legs into which the table top has slidable movement and also movable through and foldable downwardly into and outwardly from the other pair of legs, and folding braces movably attached to the pairs of legs and detachably connected to the side rails, the braces remaining in movable association with the pairs of legs.

8. In a table of the class specified, pairs of legs, one pair of legs being movable toward and from the other pair, a table top fixed to the movable pair of legs and slidable downwardly into, upwardly through and outwardly from the remaining pair of legs, foldable side rails movably attached to the pair of legs into which the top has sliding movement and also movable through and foldable downwardly into and outwardly from the other pair of legs, and braces movably connected to and remaining in association with the pairs of legs and separably attached to the side rails, the braces also being foldable into the legs.

9. In a table of the class specified, pairs of legs, one pair of legs being movable toward and from the other pair, a foldable table top fixed to the movable pair of legs and slidable downwardly into, upwardly through and outwardly from the other pair of legs, foldable side rails movably attached to and remaining in association with the pair of legs into which the foldable top has slidable movement and also movable through and foldable downwardly into and outwardly from the other pair of legs, and latch devices carried by the movable pair of legs for engaging the side rails to lock the latter, the legs, and the foldable top in distended condition.

10. In a table of the class specified, pairs of legs, foldable side rails movably connected to one pair of legs and also foldable into the remaining pair of legs, latch devices carried by the pair of legs in which the side rails are foldable to engage the said side rails and lock the parts of the table against movement, the latch devices also being operable to lock the parts of the table against movement when collapsed, and a folding table top movable into and outwardly from one pair of legs.

11. In a table of the class specified, pairs of legs, one pair of legs being held fixed and the other movable toward and from the fixed pair of legs, a folding top secured to the fixed pair of legs and also to the movable pair of legs and slidable downwardly into, upwardly through, and outwardly from the inner opposing portions of the fixed pair of legs, the table top and parts of the fixed pair of legs having openings and sockets respectively formed therein, and gravitating catches held on the top portion of the fixed pair of legs and provided with angular terminals to extend through the openings of the table top into the sockets of the fixed pair of legs to prevent movement of the said top.

12. In a table of the class specified, pairs of legs, one pair of legs being fixed and the other movable in relation thereto, foldable side rails movable through and slidable downwardly into and outwardly from the movable pair of legs, a foldable top slidable downwardly into, upwardly through and outwardly from the fixed pair of legs, latch devices carried by the movable pair of legs for locking the side rails against movement, and catch means on the fixed pair of legs for engaging the folding top to prevent movement of the latter.

13. In a table of the class specified, pairs of fixed and movable legs, the legs having grooves therein for receiving the folding parts of the table, foldable side rails movably attached to and remaining in association with the fixed legs and movable through and slidable downwardly into and outwardly from the movable pair of legs, a folding top fixed to the movable pair of legs and slidable downwardly into, upwardly through and outwardly from the fixed pair of legs, and folding braces attached to the side rails and the legs and

movable into and outwardly from different portions of the legs.

14. In a table of the class specified, pairs of end legs, a foldable top movable into and outwardly from one pair of the legs, and an intermediate leg having its upper extremity engaging the foldable top and movable by the latter during the operations of opening and closing the table.

15. In a table of the class specified, pairs of end legs, a foldable top movable into and outwardly from one pair of legs, and an intermediate leg having foldable supporting devices to engage the under side of the foldable top, the intermediate leg being movable by the foldable top.

16. In a table of the class specified, pairs of end legs, a foldable top movable into and outwardly from one pair of legs and having a groove extending partially over the length thereof, and an intermediate leg having a head engaging said groove, the intermediate leg being movable by the top in opening and closing the top.

17. In a table of the class specified, pairs of end legs, a foldable top movable into and outwardly from one pair of legs, foldable side rails, an intermediate leg engaging the foldable top and movable by the latter, and foldable supporting devices to bear against the under side of the intermediate portion of the top, a part of said supporting devices engaging the side rails.

18. In a table of the class specified, pairs of end legs, folding side rails, folding braces separably connected to the side rails and movably attached to the legs, a foldable top movable into and outwardly from a pair of the end legs, a single intermediate leg loosely engaging and remaining continually in association with the foldable top and movable by the latter, and supporting devices bearing against the under side of the foldable top and having braces foldable into different portions of the intermediate leg, a part of the supporting devices separably engaging the side rails.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

STOKELEY MARSHAL BOND.

Witnesses:

CHAS. S. ELLIS,

JOHN L. VERTREES.