Nov. 5, 1963 K. H. WILSON 3,109,678

TABLE AND SEAT STRUCTURE

Filed June 30, 1961 2 Sheets-Sheet 1

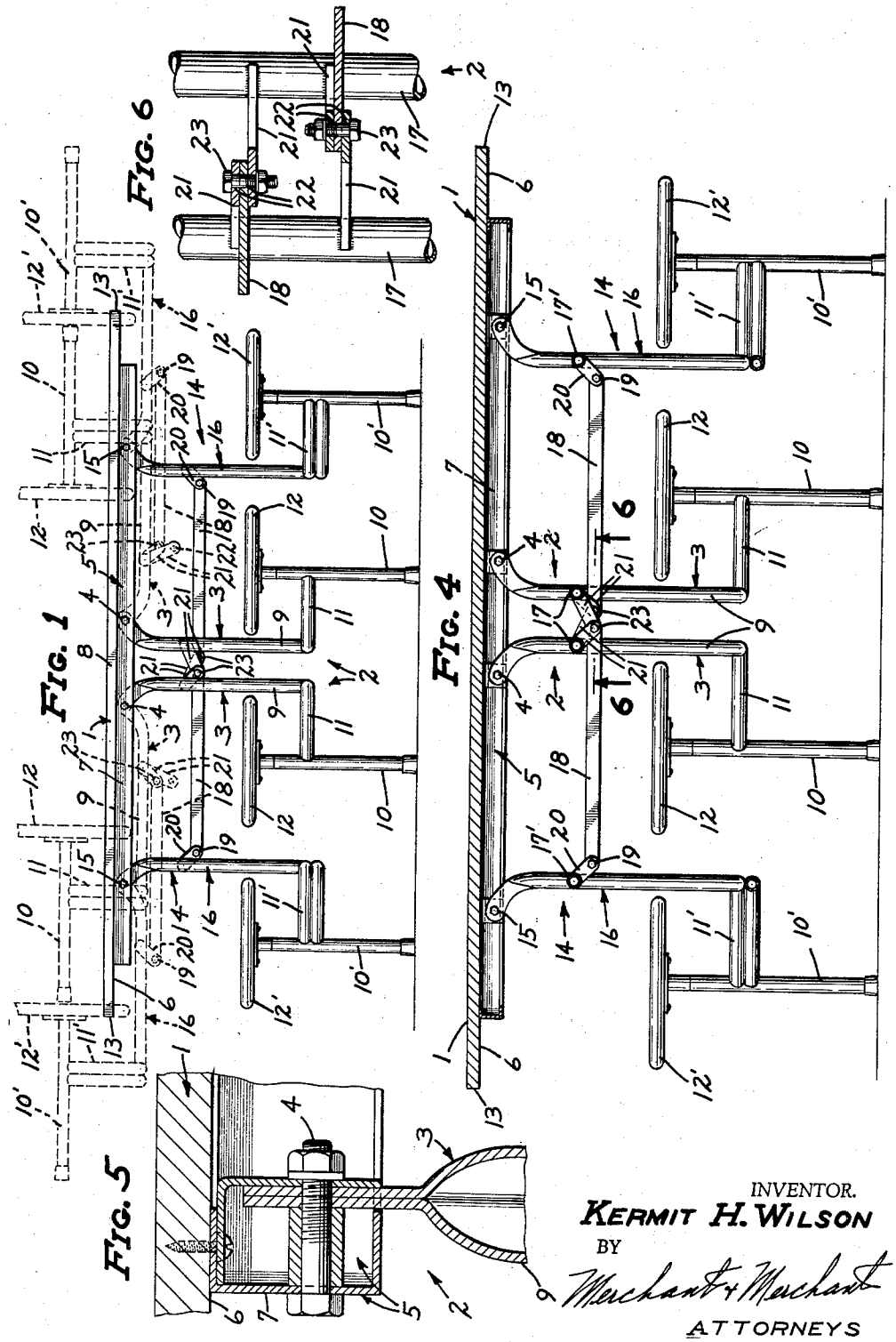


FIG. 1

FIG. 4

FIG. 5

FIG. 6

INVENTOR.
KERMIT H. WILSON
BY
Merchant & Merchant
ATTORNEYS

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FIG. 2

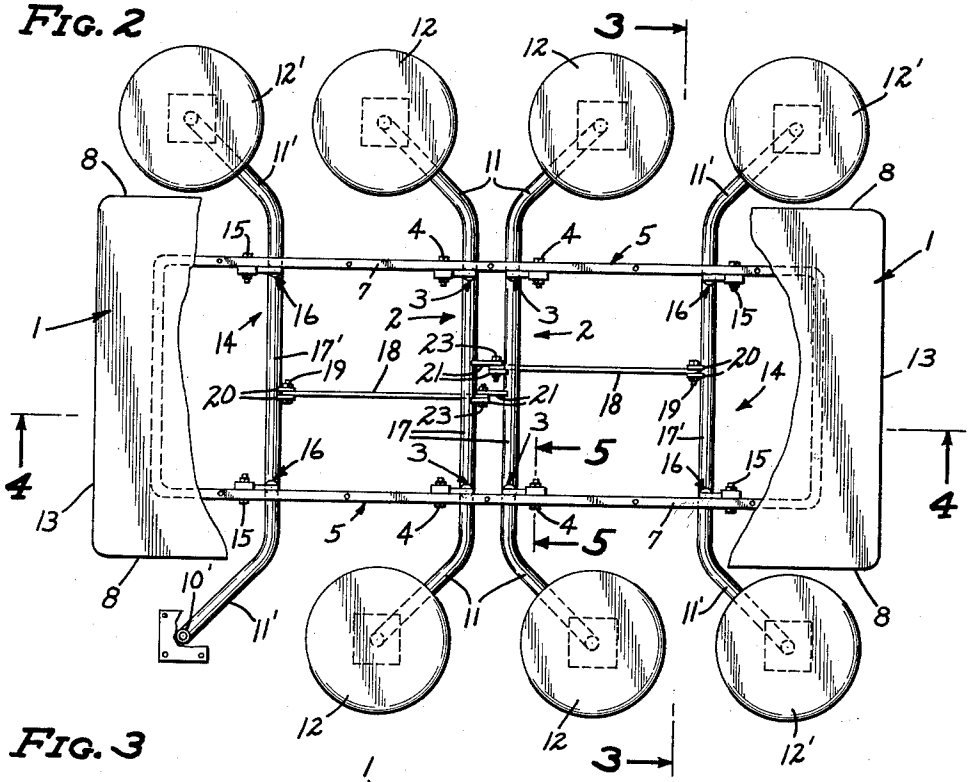
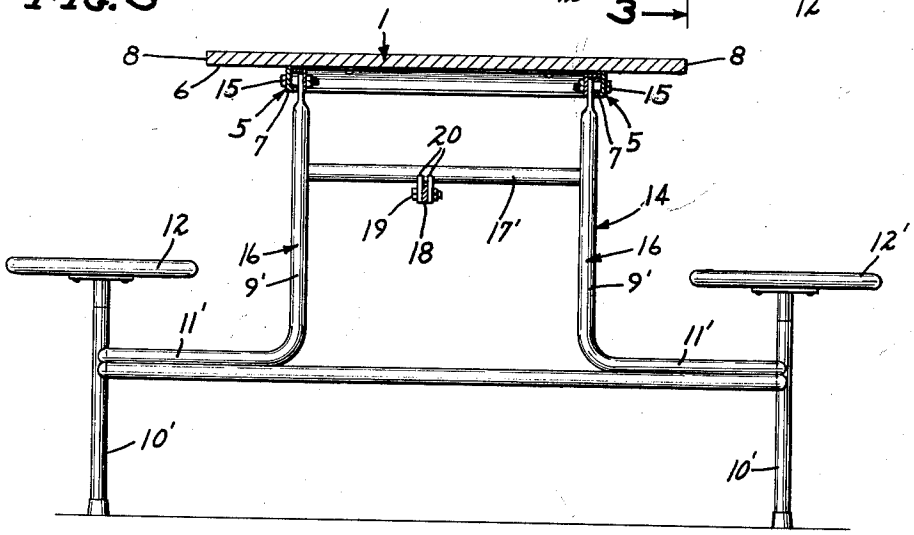


FIG. 3



INVENTOR.
KERMIT H. WILSON
BY
Merchant & Merchant
ATTORNEYS

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TABLE AND SEAT STRUCTURE

Kermit H. Wilson, % Sico Manufacturing Company, 5215 Eden Ave. S., Minneapolis, Minn.

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My invention relates generally to table structures, and more particularly to combination table and seat structures which may be folded, when not in use, for storage.

An object of my invention is the provision of a table comprising a generally rectangular table top element, supporting means for said top element, said supporting means including a longitudinally spaced pair of laterally spaced pairs of legs, each leg of said pair comprising a normally upright upper leg portion underlying said top element adjacent an opposite longitudinal edge thereof, a normally upright lower leg portion laterally outwardly of an opposite longitudinal edge of said top element, and an angularly disposed intermediate connecting portion, the angularly disposed intermediate portions of longitudinally adjacent of said legs diverging laterally outwardly in a substantially horizontal plane, means pivotally connecting each pair of said legs to said top element on axes extending normal to the longitudinal dimensions of said top element and in longitudinally spaced parallel relation to each other for swinging movements in opposite directions between their normally upright positions and inoperative folded positions parallel to said top element, and a seat supported by the lower portions of each of said legs in overlying relationship to the intermediate connecting portions of said legs, said seats being laterally outwardly spaced from vertical planes of the adjacent longitudinal edges of said top element, whereby said seats may be caused to pass beyond the plane of said top during final folding movements of said legs.

A further object of my invention is the provision of a device of the class immediately above described in which each pair of said legs is pivotally connected to said top element on opposite sides of the longitudinal center of said top element.

A still further object of my invention is the provision of a device of the class above described in further combination with novel means for detachably locking together said pairs of longitudinally spaced legs, when said legs are disposed in their operative positions.

A further object of my invention is the provision of a device of the class above described which incorporates a minimum of working parts, which is relatively simple in its operation, and which may be produced at a minimum of cost.

A still further object of my invention is the provision of a device of the class above described which is rugged and durable in construction, which is relatively simple to fold and unfold, and which occupies a minimum of space, when folded, for storage and shipment.

The above and still further objects of my invention will become apparent from the following detailed specification, appended claims, and attached drawings.

Referring to the drawings wherein like characters indicate like parts throughout the several views:

FIG. 1 is a view in side elevation of my novel table;

FIG. 2 is a view in top plan, some parts being broken away and some parts shown in section;

FIG. 3 is a view partly in vertical section and partly in end elevation taken on the line 3—3 of FIG. 2;

FIG. 4 is a view in vertical section taken substantially on the line 4—4 of FIG. 2;

FIG. 5 is an enlarged fragmentary view in section as seen substantially from the line 5—5 of FIG. 2; and

FIG. 6 is an enlarged fragmentary view taken on the line 6—6 of FIG. 4.

Referring with greater particularity to the drawings, the numeral 1 indicates a generally rectangular rigid top element. Supporting means for said top element 1 includes a longitudinally spaced pair 2 of laterally spaced pairs of legs 3. Preferably and as shown by reference particularly to FIGS. 1, 2, and 4, one each of the longitudinally spaced pairs of legs 2 is pivotally secured to the underside of the top element 1 on an opposite side of the longitudinal axis of said top element 1. Preferably and as shown, this connection is arrived at through the medium of pivot pins 4 passing through a depending frame mechanism 5 suitably secured to the undersurface 6 of the top element 1. The frame mechanism 5 includes longitudinally extended laterally spaced rails 7, one each adjacent an opposite longitudinal edge 8 of said top 1. It will be noted that the axes of the pivot pins 4 extend transversely of the longitudinal dimension of the top element 1 and that the pivoted connections of each of the legs 3 of a given pair is axially aligned.

As shown, each of the legs 3 comprises a normally upright upper leg portion 9 which underlies the top element 1 adjacent an opposite longitudinal edge 8 thereof, and is pivotally secured to said top element 1 as at 4, as above described. Each of said legs 3 also includes a normally upright lower leg portion 10 laterally outwardly of an opposite longitudinal edge 8 of said top element 1, and an angularly disposed generally horizontal intermediate connecting portion 11. It will be noted by reference particularly to FIGS. 1, 2, and 4, that the intermediate connecting portions 11 of each of the legs 3 of each pair of legs 2 diverge laterally outwardly.

A swivel seat 12 is carried by each of the normally upright lower leg portions 10 of each leg 3 in overlying relationship to the intermediate connecting portions 11 thereof. Seats 12, as shown particularly in FIG. 2, are laterally outwardly spaced from the vertical planes of the adjacent longitudinal edges 8 of the top element 1, whereby said seats 12 may be moved beyond the normally horizontal plane of the top element 1 during final folding movements of the legs 3 in opposite directions on their axes 4, see particularly FIG. 1 in this regard.

Adapted to cooperate with the longitudinally spaced pair 2 of legs 3 in support of the opposite ends of the top element 1 are other leg structures 14 which are pivotally secured as at 15 to the rails 7 on axes parallel to the axes of pivot pins 4. It will be noted that each of said leg structures 14 is positioned midway between an adjacent pair 2 of legs 3 and an opposite end 13 of the top element 1, and that each of the legs 16 thereof are identical in all respects to the legs 3, the upper portions thereof being identified by the numeral 9', the lower portions by the numeral 10', the intermediate connecting portions by the numeral 11', and the seats associated with each thereof by the numeral 12'. By reference particularly to FIG. 2, it will be noted that the angular intermediate portions 11' of each of the opposed legs 16 of said leg structures 14 project laterally outwardly in generally parallel relationship with the intermediate connecting portion 11 of the longitudinally adjacent legs 3 associated with each of the longitudinally spaced pairs of legs 2.

Rigidly securing the legs 3 of each pair of legs 2 together for common movement toward and away from each other, to wit: from the full line operative position of FIG. 1 to the inoperative dotted line folded position thereof, are crossbars 17; whereas similar crossbars 17' connect the legs 16 of the leg structures 14 together for similar common movements.

Connecting each of the opposed pairs 2 of legs 3 together with their adjacent leg structures 14 are rigid links 18, one end of each of which is pivotally secured as at 19 to a lug 20 projecting laterally from the inter-

mediate portion of the crossbars 17'. The opposite end of each of the links 18 is likewise pivotally secured to a pair of cooperating locking lugs 21, one each rigidly secured to and extending outwardly from a different one of the crossbars 17. With reference to FIG. 6, it will be seen that the locking lugs 21 are provided with apertures 22 which are disposed in axial alignment when the pairs 2 of legs 3 are moved to their upright table supporting operative positions. A nut-equipped locking screw 23 extends through the aligned apertures 22 and through the adjacent end of a respective link 18 to securely lock the pairs of legs 2 and the connected leg structures 14 in their operative positions. Obviously, removal of the locking screws 23 permits the pairs 2 of legs 3, and the leg structures 14 to be moved to their folded inoperative positions, as represented by the dotted lines of FIG. 1.

My invention has been thoroughly tested and found to be completely satisfactory for the accomplishment of the above objects, and while I have shown a preferred embodiment thereof, I wish it to be specifically understood that same may be capable of modification without departure from the scope and spirit of the appended claims.

What I claim is:

1. In a combination table and chair structure, a generally rectangular table top element; supporting means for said top element; said supporting means including a longitudinally spaced pair of laterally spaced pairs of legs; each leg of each of said pairs of legs comprising, a normally upright upper leg portion underlying said top element adjacent an opposite longitudinal edge thereof, a normally upright lower leg portion laterally outwardly of an opposite longitudinal edge of said top element, and an angularly disposed intermediate portion connecting the upper leg portion with the lower leg portion intermediate the upper and lower end of said lower leg portion, the angularly disposed intermediate portions of the legs of each pair of legs diverging in a substantially horizontal plane; means pivotally connecting each pair of said legs to said top element on axes extending normal to the longitudinal dimension of said top element and in longitudinally spaced parallel relationship to each other for swinging movements between their normally upright positions and inoperative folded positions generally parallel to said top element and toward adjacent ends of said top element; and a plurality of seats individually secured to and supported by the lower portions of different ones of said legs in overlying relationship to the angularly disposed intermediate connecting portions of said legs, said seats being laterally outwardly spaced from the vertical planes of the adjacent longitudinal edges of said top element, whereby to permit movement of said seats past the adjacent longitudinal edges of the table-top element during said swinging movements of said pairs of legs.

2. In a combination table and chair structure; a generally rectangular table-top element; a pair of inner leg

structures and a pair of outer leg structures for supporting said top element; said leg structures each comprising a pair of laterally spaced legs; each leg of each of said pairs of legs including, a normally upright upper leg portion underlying said top element adjacent an opposite longitudinal edge thereof, a normally upright lower leg portion laterally outwardly of an opposite longitudinal edge of said top element, and an angularly disposed intermediate portion connecting the lower end of the upper leg portion with the lower leg portion intermediate the upper and lower ends thereof, the angularly disposed intermediate portions of the legs of each pair of legs diverging in a substantially horizontal plane; means pivotally connecting the leg structures to said top element on axes extending normal to the longitudinal dimension of said top element and in longitudinally spaced parallel relationship to each other for swinging movements between their normally upright positions and inoperative folded positions generally parallel to said top element and toward adjacent edges of said top element; and a plurality of seats individually secured to and supported by the lower portions of different ones of said legs in overlying relationship to the angularly disposed intermediate connecting portions of said legs, said seats being laterally outwardly spaced from the vertical planes of the adjacent longitudinal edges of said top element, whereby to permit movement of said seats past the adjacent longitudinal edges of the table top element during said swinging movements of said leg structures.

3. The structure defined in claim 2 in further combination with a pair of rigid links, each pivotally connecting the upper leg portions of one of said inner leg structures with the upper leg portions of an adjacent outer leg structure for common swinging movements of the connected inner and outer leg structures, and a pair of locking lugs one each rigidly secured to a different one of said inner leg structures and having apertures therethrough which are axially aligned when said leg structures are disposed in their operative positions, and a locking bolt extending through said aligned apertures.

4. The structure defined in claim 3 in which the locking lugs provide the pivotal connection of the adjacent end of one of said links to its respective inner leg structure.

References Cited in the file of this patent

UNITED STATES PATENTS

1,493,119	Love	May 6, 1924
1,731,920	Boettger	Oct. 15, 1929
2,702,585	Wilson	Feb. 22, 1955
2,748,837	Beller	June 5, 1956
2,780,506	Howe	Feb. 5, 1957
2,811,197	Nimmo	Oct. 29, 1957
2,849,053	Beller et al.	Aug. 26, 1958

FOREIGN PATENTS

672,048	Canada	Oct. 4, 1955
1,217,256	France	Dec. 7, 1959