May 9, 1944. F. E. POSEY 2,348,416

SHELTER TABLE

Filed May 25, 1942 4 Sheets-Sheet 1

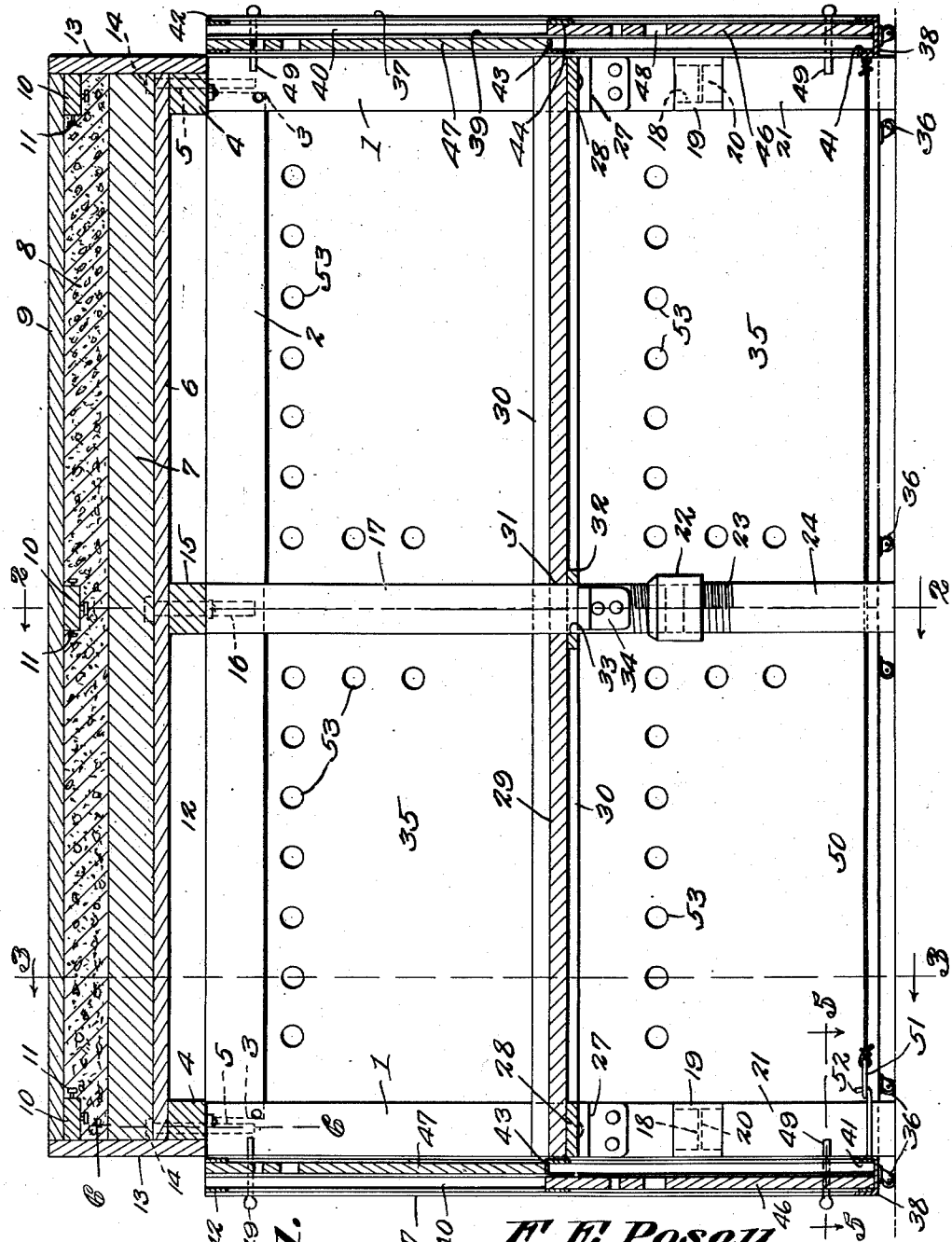


Fig. 1.

F. E. Posey INVENTOR.

BY C. A. Snow & Co.

May 9, 1944. F. E. POSEY 2,348,416

SHELTER TABLE

Filed May 25, 1942 4 Sheets-Sheet 2

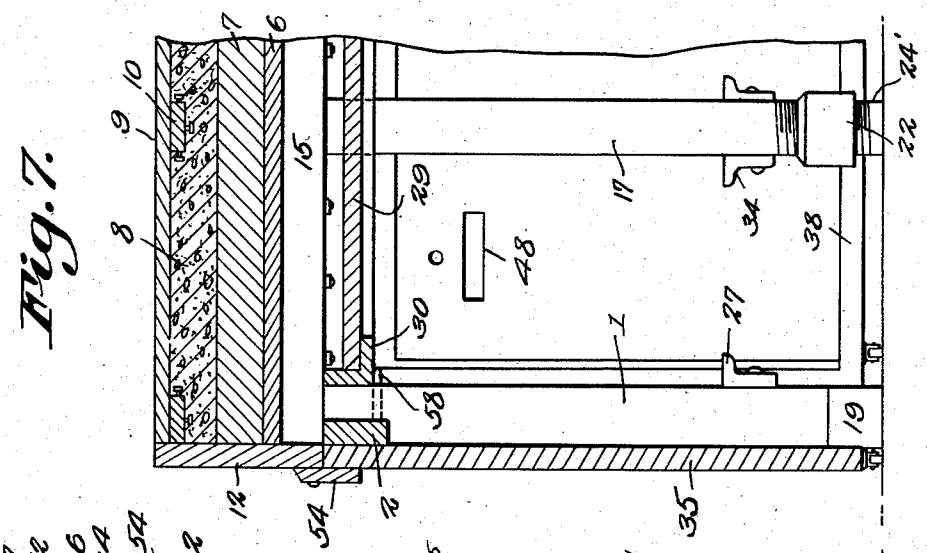


Fig. 7.

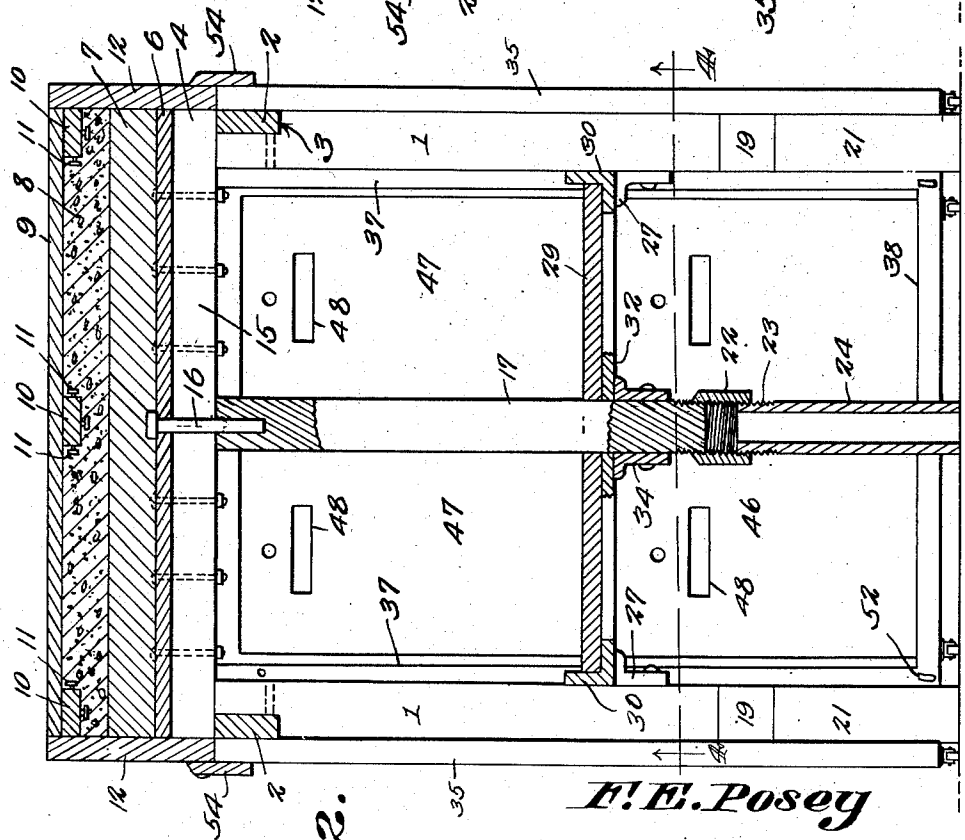


Fig. 2.

F. E. Posey

INVENTOR.

BY C. A. Snow & Co.

May 9, 1944. F. E. POSEY 2,348,416

SHELTER TABLE

Filed May 25, 1942 4 Sheets-Sheet 3

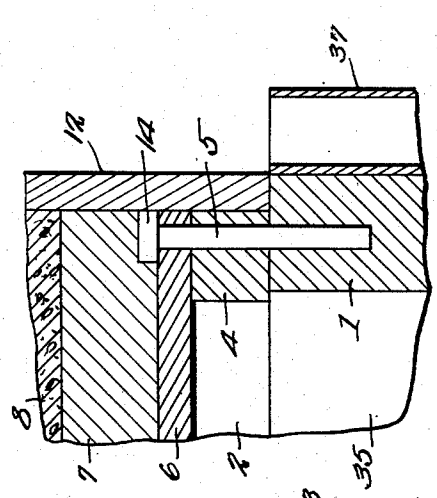


Fig. 6.

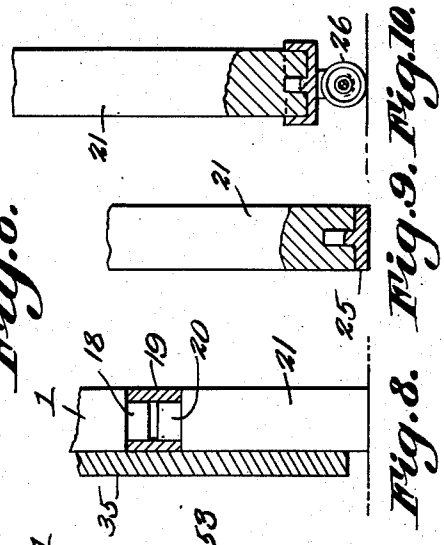


Fig. 8. Fig. 9. Fig. 10.

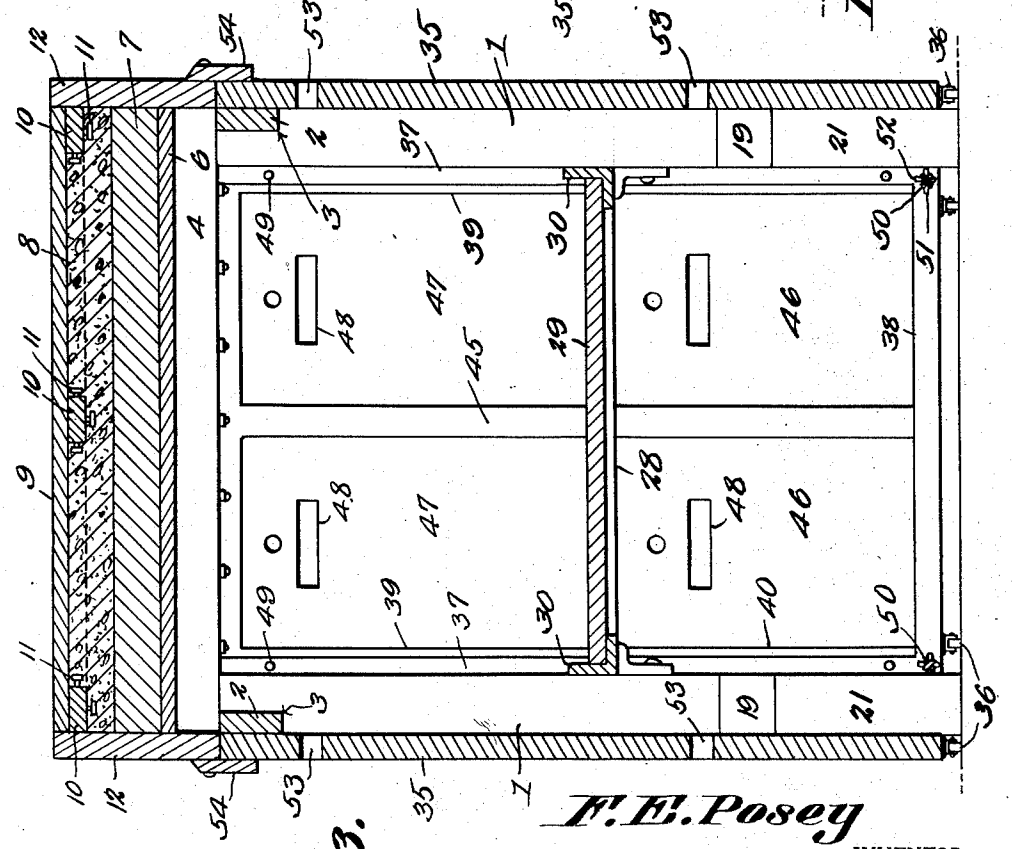


Fig. 3.

F. E. Posey

INVENTOR.

BY Albert Co.

May 9, 1944. F. E. POSEY 2,348,416

SHELTER TABLE

Filed May 25, 1942 4 Sheets-Sheet 4

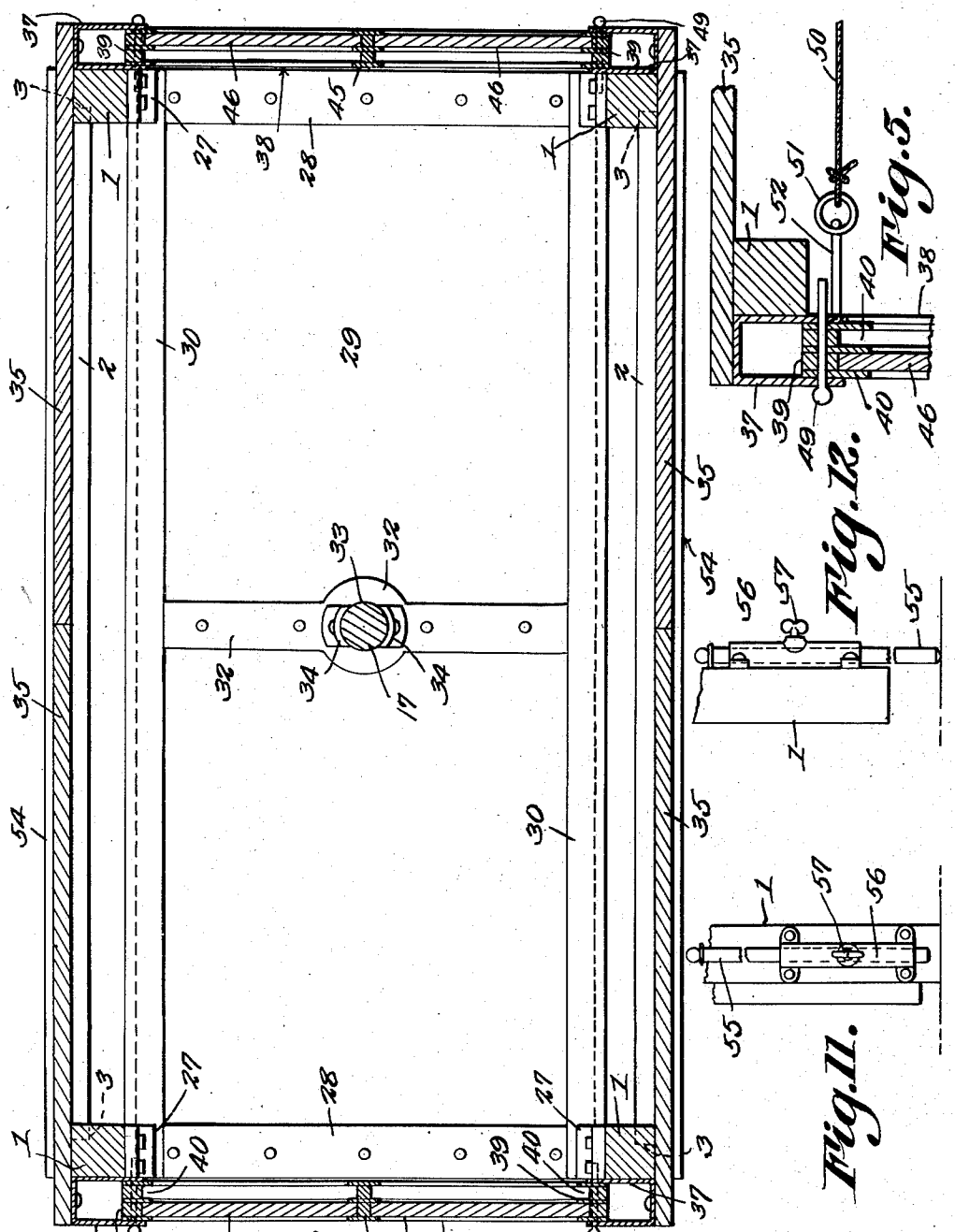


Fig. 4.

Fig. 5.

Fig. 12.

Fig. 11.

F. E. Posey INVENTOR.

BY Atwood & Co.

Patented May 9, 1944 2,348,416

UNITED STATES PATENT OFFICE

2,348,416

SHELTER TABLE

Frank Eugene Posey, Hamtramck, Mich.

Application May 25, 1942, Serial No. 444,447

8 Claims. (Cl. 312—163)

This invention relates to a table which, while capable of being used for the various purposes common with devices of this kind, is especially designed to be employed as a shelter in the event of air raids or the collapse of a building from any cause.

An object of the invention is to provide an extremely durable structure of this character proportioned to receive one or more persons thereunder, means being employed whereby an occupant of the space beneath the table can quickly enclose the table with a shield serving as a protection against flying fragments or debris.

A further object is to provide the under-portion of the table with an enclosure readily shiftable into or out of shielding position and which movable part has separately movable doors which can be operated from inside or outside the space beneath the table and which, when open, will permit a person to pass through the door opening thus provided.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

In the accompanying drawings the preferred forms of the invention have been shown.

In said drawings

Figure 1 is a vertical longitudinal section through the table structure with its housing members in closed positions.

Figure 2 is a section on line 2—2, Figure 1.

Figure 3 is a section on line 3—3, Figure 1.

Figure 4 is a section on line 4—4, Figure 2.

Figure 5 is an enlarged section on line 5—5, Figure 1.

Figure 6 is an enlarged vertical section through one corner portion of the table top.

Figure 7 is a vertical transverse section through a portion of a modified form of table of reduced capacity.

Figure 8 is a view partly in section and partly in elevation showing the connection between the two sections and one of the legs of the table.

Figure 9 shows the lower portion of a table leg in section and equipped with a wear foot.

Figure 10 shows the lower portion of a leg in section and equipped with a caster.

Figure 11 shows the lower portion of a table leg equipped with a supporting pin, said pin being shown in raised or inactive position.

Figure 12 is a view similar to Fig. 11 showing the pin secured in lowered or supporting position.

Referring to the figures by characters of reference, 1 designates the four corner legs of the table which are preferably square in cross-section and connected at their upper ends by side strips 2 set into and secured to the sides of the legs as shown at 3. End strips 4 are mounted on the legs and constitute portions of the table top, there being dowels 5 extending through these end strips and projecting into the upper ends of the legs as shown so as to provide secure detachable connections between the legs and the top.

The end strips 4 are fastened to the ends of a bottom panel 6 formed preferably of ply-wood and on which is secured a panel 7 formed of heavy planks or the like. This panel, in turn, supports a slab 8 of reenforced concrete and overlying this slab is a top layer 9 preferably of ply-wood which can be reenforced along the sides and center by means of strips 10 anchored to the concrete in any suitable manner, as by means of nails 11 the heads of which are embedded in the concrete. The several thicknesses of the table top are joined at the sides by side strips 12 constituting aprons which project downwardly below the panel 6 and have their lower edges preferably flush with the lower edges of the cross-strips 4. Aprons 13 corresponding with the aprons 12 also connect the several thicknesses of the table top at the ends thereof and these have their lower edges in the same plane with the lower edges of the aprons 12. The dowels 5 heretofore referred to have their upper ends or heads 14 seated in the section 7 of the table top so that they are thus securely held against separation from the table top. Obviously the table top can be lifted readily from the legs at which time the pins or dowels 5 will withdraw from the legs 1. Normally, however, the table top is held securely on the legs and the structure maintained rigid because of the rigidity of the stout dowels or pins 5 and the connections between the legs hereinafter described.

A transverse strip 15 is located preferably at the center of the table top and fastened along the panel 6, this strip being provided with a central depending dowel 16 removably seated in the upper end of a center leg 17.

As shown particularly in Figs. 1 and 8, each of the corner legs 1 can be provided with a reduced lower end 18 constituting a tongue. This tongue is fitted snugly in a sleeve 19 which, in turn, ex-

tends around a tongue 20 extending upwardly from a leg extension 21. Thus each of the corner legs can be made of two connected sections the lower one of which, however, can be removed, with its connection 19, when the capacity of the shelter is to be reduced. The center leg 17 has a coupling sleeve 22 threaded thereon and this sleeve is adapted to be detachably and adjustably engaged by the screw-threaded upper end 23 of an extension 24.

With this construction the sleeve 22 can be adjusted upwardly on leg 17 to allow the extension 24 to be removed therefrom and when this section and the extensions 21 are all removed, the corner legs can all engage a floor or other supporting surface, when the capacity of the shelter is reduced. At this time a short leg section 24' can be removably joined by sleeve 22 to the leg 17.

If desired the extensions 21 can be provided at their lower ends with wear shoes as shown at 25 in Fig. 9 or with casters as shown at 26 in Fig. 10.

Brackets 27 are secured to the legs 1 and serve to detachably support a structure comprising end strips 28 and a panel 29, the panel having angle strips 30 at its sides. A central opening 31 is formed in the panel and through this opening is extended the leg 17. An intermediate cross-strip 32 is secured to the bottom of partition 29 and has an opening 33 through which the leg is extended. Brackets 34 are secured to leg 17 and extend under strip 32 so as to support it.

The partition 29 is supported at a distance above the floor level substantially equal to the distance between said partition and the table top and the areas thus defined are intended to be such as to accommodate two persons side by side on the partition and two persons side by side on the floor and below the partition. Thus the space under the table top will accommodate four persons. Under some conditions, however, all of this space would not be necessary and in that event the extensions of the several legs would be removed and the partition would be removed so that the legs 1 and 17 without their extensions would rest on the floor as shown in Fig. 7. Thus the shelter would accommodate only two persons side by side.

There is used in connection with this table an enclosure consisting of two opposed shields. These shields are of a height substantially equal to the distance between the floor level and the bottom edges of the aprons 12. Each shield comprises side panels 35 mounted on casters 36 or other suitable anti-friction devices. The side panels are connected at one end by a frame made up of channeled side members 37, and a channeled bottom member 38. This open channeled frame made up of the parts 37 and 38 is adapted to receive a removable frame 39 which, as shown particularly in Fig. 5, has parallel inner and outer side channels 40, transverse connecting strips 41 at the bottom of the removable frame, transverse connecting strips 42 at the top of the frame, and intermediate transverse connecting strips 43 and 44 substantially at the level of the partition 29, one of these strips, 43, being preferably angular so as to constitute a support as hereinafter explained.

The removable frame 39 is provided at its center with a guide strip 45 having inner and outer guide channels therein as shown in Fig. 4 and slidably mounted between this strip 45 and the channeled sides 40 are pairs of sliding doors 46 and 47 respectively. The lower doors 46 are slidable in the outer channels while the upper doors 47 are slidable in the inner channels and are normally supported by the angle strips 43. When these doors are in their closed positions they serve to completely close the space between the panels 35 of the enclosure or shield. Each door 47 is adapted to slide upwardly off of strip 43 and within the inner channels into open position, thereby serving to expose an opening sufficiently large to allow one person to pass therethrough. Each of the doors has an opening 48 therein into which a hand can be inserted for the purpose of raising the door to permit a hand to be inserted thereunder for forcing the door to full open position. When the doors are in closed position fastening pins 49 can be inserted through the adjacent portions of the channeled frame 39 and the channels 37 as clearly shown in Fig. 5. It will be noted that the pins can be pulled outwardly by a person outside of the shelter or they can be thrust outwardly by a person inside of the shelter.

Two of these enclosures or shields are provided and both of them are so proportioned as to straddle one end of the table and to meet when they are pulled toward each other. To one of the shields is connected a rope 50 or the like having a ring 51 while to the other shield is connected a hook 52. These parts are so proportioned that when the two shields are pulled toward each other and come together at their inner ends, the ring 51 can be placed in engagement with hook 52 so that the shields cannot thereafter be pulled apart.

Ventilating openings 53 can be located wherever desired within the side panels 35 of the shield.

The sections of the shield are of course proportioned to fit the table with which they are to be used. These sections can be normally positioned about the ends of the table or, if preferred, can be stored at remote points from which they can be readily drawn when it is desired to use them. Under normal conditions the table is used for any desired purposes. In the event of an air raid or other circumstance requiring protection for persons within a building where the table is located, the persons to be so protected assume positions beneath the table after placing the two shields astride the opposed ends of the table. One or more of the persons within the space beneath the table top can then pull one section of the shield as far as it will go along the lower edges of the aprons 12 after which, by means of the rope or ropes 50 provided, the other section is drawn toward the first section until ring 51 can be placed in engagement with hook 52. During this movement of the two sections, they are properly guided by strips 54 attached to and depending from the aprons 12, these strips and the strips 2 thus cooperating to form guide channels for the upper edges of the panels 35.

When the enclosures are secured as explained, the entire table affords excellent protection for the occupants of the space beneath the top. One or more of the occupants of this space can leave by raising one or both of the doors 46 at the head or at the foot of the space so occupied. When it is desired to restore the parts to their normal positions, the ring 51 is disengaged from hook 52 and the two end sections of the shields or enclosures are then pushed outwardly away from the table structure.

The legs 1 can be equipped with extension rods 55 slidable in guides 56 having set screws 57.

Thus should it be desired to remove the extensions from the different legs for the purpose of lowering the table top, the extension 24 could be removed by unscrewing the coupling 22 therefrom and a jack placed under leg 17. The table could then be pushed upwardly through this leg a sufficient distance to permit the removal of the extensions 21 one at a time. The jack could thereafter be lowered and short leg section 24' fastened in place.

To raise the table the extension 24' is removed, a jack placed under leg 17 and the table lifted. The rods 55 are lowered to the floor and fastened. The extensions 21 are then placed under legs 1 and the long extension 24 placed under leg 17.

When the table is lowered, as in Fig. 7, the partition 29 and its reenforcing strips 28, 30 and 32 are slid upwardly along leg 17 until close to the table top where they are fastened by inserting pins 58 thereunder as shown in Fig. 7.

It is to be understood of course that the materials of which the table is to be made can be varied to suit the requirements but the use of a top made up of laminations of ply-wood, planks and concrete have been found to be most effective.

What is claimed is:

1. A shelter table including legs for engaging a supporting surface, a top supported thereby, and shield members removably straddling end portions of the table and slidable on said surface into position to straddle the legs.

2. A shelter table including legs for engaging a supporting surface, a top supported thereby, shield members removably straddling end portions of the table, and rollers connected to the shield members for supporting said members on said surface, said members being proportioned to contact with each other and completely surround the legs of the table.

3. A shelter table including legs for engaging a supporting surface, a top supported thereby, opposed shield members removably straddling opposed end portions of the table, and movable on said surface, said members being proportioned to contact with each other and completely surround the legs of the table, and means under the top and connecting the opposed members for holding them against separation.

4. A shelter table comprising legs for engaging a supporting surface, connections therebetween, a top supported thereon, opposed shield members movable on said surface and straddling and movable relative to the legs, said members being proportioned to contact with each other and completely surround the legs of the table, and doors constituting closures for and carried by the respective members.

5. A shelter table comprising legs for engaging a supporting surface, connections therebetween, a top supported thereon, opposed shield members movable on said surface and straddling and movable relative to the legs, said members being proportioned to contact and completely surround the legs of the table, a frame removably mounted in and constituting a part of each of the members, and doors slidably mounted in the frame.

6. A shelter table including legs for engaging a supporting surface, connections therebetween, a top mounted thereon, opposed shields movable on said surface and straddling and movable relative to the table, said shields being proportioned to contact and completely surround the legs of the table, channel members carried by each shield, a frame removably mounted in the channel members of each shield, and doors carried by the frame.

7. A shelter table including legs for engaging a supporting surface, connections therebetween, a partition removably supported by the legs therebetween to provide upper and lower spaces within the table, a top removably mounted on the legs, opposed shields movable on said surface and straddling and movably mounted relative to the table, said shields being proportioned to contact with each other and completely surround the legs of the table, and upper and lower doors movable in each shield and constituting closures for the areas above and below the partition respectively.

8. A shelter table including extensible legs for engaging a supporting surface, connections therebetween, a top supported thereby, connections between the legs, a partition supported by and between the legs to provide upper and lower areas beneath the top, opposed shields movable on said surface and straddling opposed ends of the table and proportioned to contact and completely surround the legs of the table, and doors carried by the shields affording access to the upper and lower areas in the table.

FRANK EUGENE POSEY.