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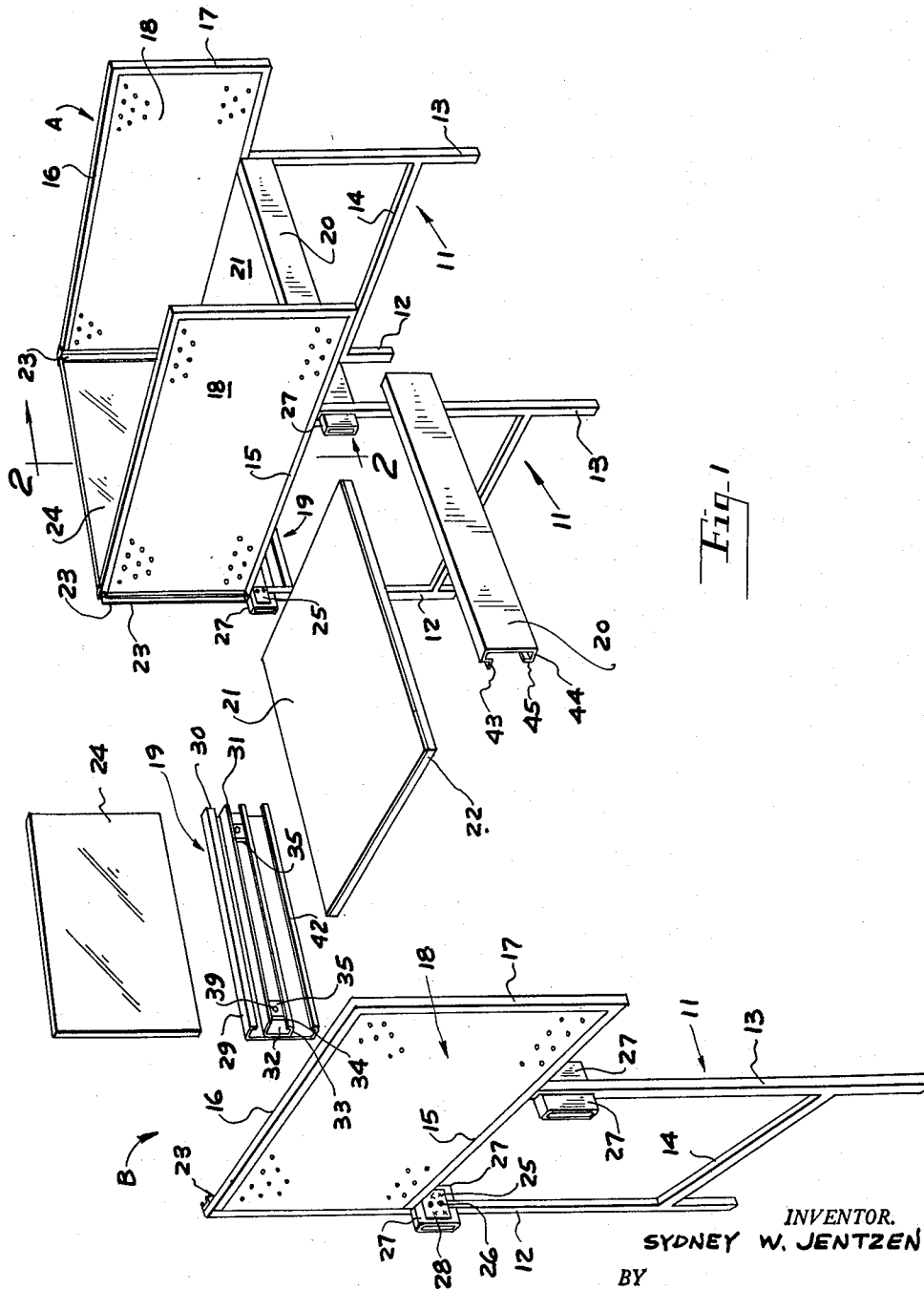
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LANGUAGE LABORATORY STUDENT STATION

Filed March 23, 1959

2 Sheets-Sheet 1



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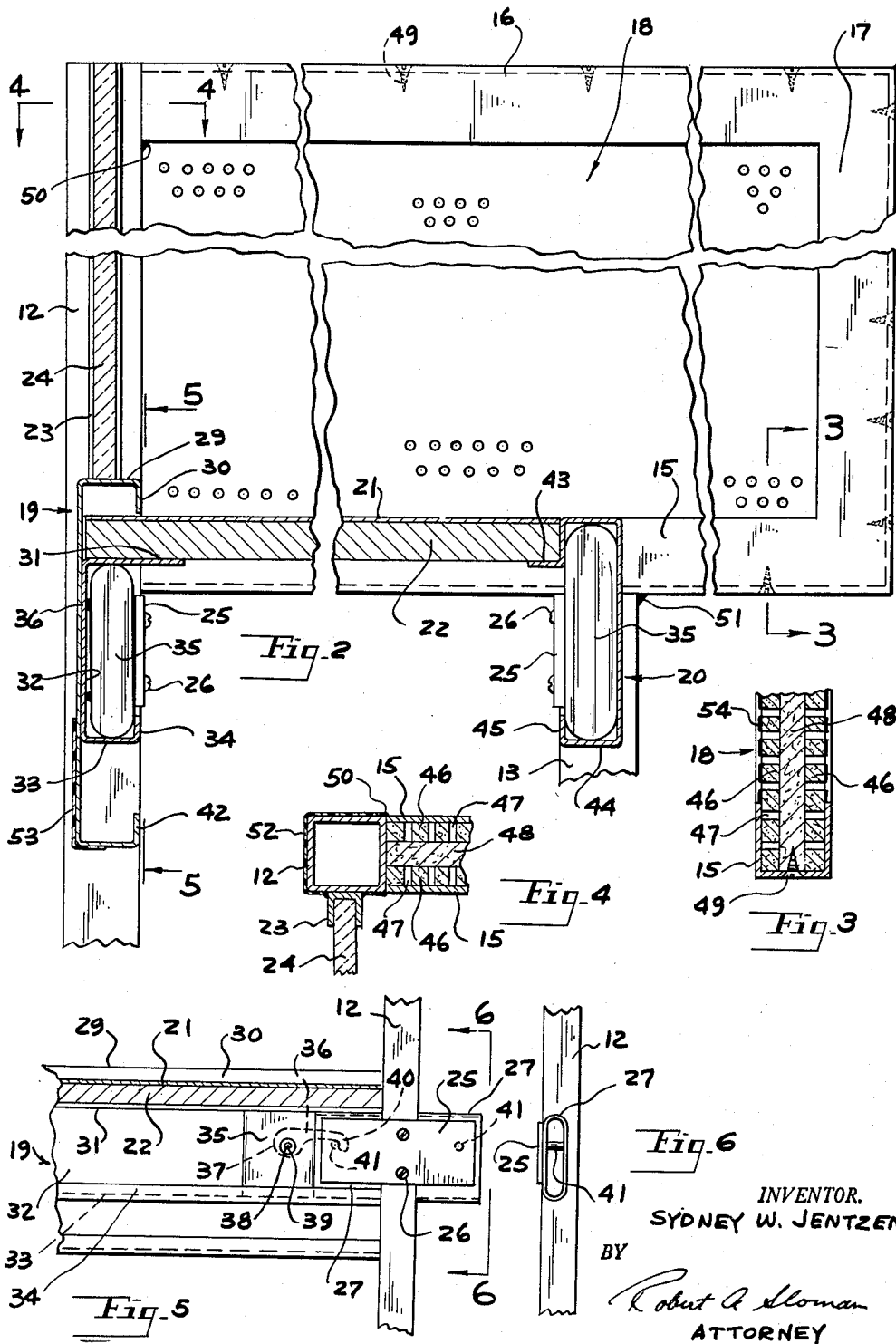
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LANGUAGE LABORATORY STUDENT STATION

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4 Claims. (Cl. 311—105)

This invention relates to a language laboratory student station and more particularly to a modular means for erection and/or rearrangement thereof.

It is an object of the present invention to provide suitable end frames defining the legs of the student station together with front and rear longitudinal channels interconnecting said frames and locking means for quick assembly and disassembly of the frames and channels.

It is another object to provide for the framework of the student station a suitable plastic coating of tough vinyl plastic.

It is another object to provide a novel perforated acoustical panel assembly for the sides of the language laboratory station, together with a means of assembling a front glass panel therefor.

It is a further object to apply a vinyl plastic exterior coating to the acoustical panels.

It is a further object to provide a novel and unusual interlocking means for fixedly securing and assembling the station as a unit and for joining the same with adjacent like stations in modular fashion.

These and other objects will be seen from the following specification and claims in conjunction with the appended drawings in which:

Fig. 1 is a perspective partly exploded view of a pair of language laboratory student stations.

Fig. 2 is a fragmentary section taken on line 2—2 of Fig. 1 on an enlarged scale.

Fig. 3 is a fragmentary section taken on line 3—3 of Fig. 2.

Fig. 4 is a fragmentary section taken on line 4—4 of Fig. 2.

Fig. 5 is a fragmentary section taken on line 5—5 of Fig. 2.

Fig. 6 is a fragmentary section of end view taken on line 6—6 of Fig. 5.

It will be understood that the above drawings illustrate merely a preferred embodiment of the invention and that other embodiments are contemplated within the scope of the claims hereafter set forth.

Referring to the drawing and particularly Fig. 1, the present language laboratory student station includes a pair of upright parallel tubular frames 11 each defining front and rear legs 12 and 13, formed of tubular stock, preferably of square cross section.

Cross brace 14 interconnects lower portions of the respective front and rear legs. A rectangular framework is defined within the upper portion of each tubular frame adapted for mounting the present acoustical panels 18. This upper framework consists of bottom channel 15 which extends from front leg 12 over the upper end of rear leg 13 and rearwardly thereof, being fixedly secured to said legs as by the welds 51 shown in Fig. 2.

The acoustical panel frame also includes end channel 17 and the right angularly related top channel 16 all fixedly secured together and forming an integral part of the upright tubular frame 11. There are also provided the upright longitudinal front and rear channels 19—20

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which supportably extend between the pair of frames 11 serving to fixedly interconnect the same.

A table top is provided between said frames which consists of a top layer 21 of Formica supported upon a rectangular wood base 22. The table top is snugly interposed between the lower edges of the acoustical panels 18 with the respective longitudinal front and rear edges of the table top supportably bearing upon the respective plates 31 and 43 forming parts of channels 19 and 20.

Upright channels 23 are fixedly secured to interior portions of the front legs 12 adjacent panels 18 in opposed relation. These channels supportably receive and secure in position the upright glass panel 24 shown in Fig. 1.

A plurality of plates 25 are respectively secured by fasteners 26 to interior surfaces of the front and rear legs directly below acoustical panels 18, and normally projecting to opposite sides of the legs.

Hollow outwardly opening lock housings 27 bear against the opposite sides of front and rear legs 12—13 and are fixedly secured as by welding 28 to portions of plates 25. In connection with the end student station, plate 25 would only extend inwardly rather than to both sides of the corresponding leg.

The front longitudinal channel 19 includes top edge 29 which supportably receives glass panel 24. Edge 29 terminates in depending flange 30 which cooperatively registers with the top surface of table 21—22, as best illustrated in Fig. 2.

Channel 19 has a second inwardly opening channel 32 fixedly secured upon its interior which includes top flange 31 which supports table 21. Channel 32 includes bottom wall 33 and upwardly extending elongated flange 34.

A pair of spaced outwardly opening lock block housings 35 are fixedly secured, as by welding, within channels 32 inwardly of their ends as shown in Fig. 1 and 5.

The inwardly extending lock housing 27, fixedly secured to the respective front legs of frame 11, snugly and cooperatively project into the opposite ends of channel 32 in engaging registry with the corresponding lock block housing 35, Fig. 5.

Within each of said lock block housings there is provided a latch arm 36 whose cam shaped inner end 37 is eccentrically journaled by a suitable transverse sleeve 38 which projects through corresponding apertures in the walls of housing 35, being rotatively mounted thereon. Said latch arm may be rotated so as to lie within housing 35.

Sleeve 38 has formed in its outer end a bore 39 of polygonal shape to cooperatively receive the end of an Allen wrench for rotating latch arm 36 from open position within housing 35 to the transverse locking position shown in Fig. 5, where its hooked end 40 overlies and retainingly engages the transverse latch pin 41 within hollow lock housing 27 adjacent thereto. This provides a very effective cam operated locking device for interconnecting the respective elements 27—25 forming the present duo-lock.

Similar locking assemblies are employed for rear channel 20. There the channel terminates in the vertically offset horizontal ledge 43 supporting the rear edge of the table top 21—22.

Channel 20 includes bottom plate 44 and upright elongated flange 45, adjacent and in respect to which there is provided a pair of lock block housings 35 suitably secured thereto inwardly of the ends thereof, the same as shown with respect to channel 19 in Fig. 1.

The lock housings 27 projecting inwardly from an adjacent pair of rear legs extend into channels 20 from opposite ends in engaging registry with outwardly opening corresponding lock block housings 35, for latching interlock therebetween as above described with respect to Fig. 5. Front channel 19 includes a bottom plate and

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the upwardly extending finishing flange 42, Fig. 1, to finish off the construction of the front channel, to reinforce the same, at the same time providing a smooth bottom edge.

The acoustical panels 18 in cooperation with front glass panel 24 and table top 21—22 provide an acoustically isolated work area for the language laboratory student station. Said acoustical panels are of a laminated assembly as shown in Figs. 3—4. The panel includes a pair of spaced outer layers of a suitable composition of acoustical material 46 which is perforated throughout at 47; and sandwiched therebetween is a layer of fibreglass 48.

The entire assembly is nested within the right angularly related channels 15, 16 and 17 and secured thereto by a series of inwardly directed screws 49 also shown in Fig. 2. The panel frame assembly is additionally and fixedly secured to the front leg portions of the upright frames as by welding at 50 Fig. 2.

The steel tubing forming the frames 11, as well as the front and rear channels 19—20 have upon their exterior surfaces and bonded thereto a coating of a tough vinyl plastic, as shown at 52 in Fig. 4 and fragmentarily at 53 in Fig. 2.

The perforated acoustical material 46 forming a part of panel 18 is also coated with a vinyl plastic as fragmentarily indicated at 54 in Fig. 3.

The foregoing description has been directed to a single language laboratory student station such as shown at A in Fig. 1, fully assembled. It is contemplated as a part of the present invention that the elements which make up the student station are of such modular construction that additional stations may be erected in side by side relationship, such as shown at B in Fig. 1. For this purpose the hollow lock housings 27 project laterally from both sides of the front and rear legs. Accordingly a series of modular student stations may be erected in fixed interlocking relation one with the other.

Having described my invention, reference should now be had to the following claims.

I claim:

1. In a language laboratory student station having a pair of tubular frames including front and rear legs,

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acoustical panels and a table top; the improvement of a frame joint securing structure consisting of hollow outwardly opening lock housings joined to the front and rear legs extending towards each other respectively, a transverse lock pin in each lock housing, upright horizontally disposed front and rear channels supportably extending between said frames cooperatively receiving said lock housings respectively, hollow outwardly opening lock block housings secured within said channels inwardly of their ends cooperatively registering with said lock housings respectively, and latch arms journaled within each of said lock block housings and manually rotatable outwardly thereof for interlocking securing engagement with a lock pin in an adjacent lock housing.

2. The student station of claim 1, lock housings projecting outwardly of the tubular frames adapted for projection within the corresponding front and rear channels of an adjacent student station for interlocking engagement therewith.

3. The student station of claim 1, upright channels secured upon the interior surfaces of the front legs adjacent said acoustical panels in opposed relation, and a rectangular transparent panel arranged at right angles to said frames with its upright edges nested within said channels.

4. The student station of claim 1, the mounting of said lock housings including upright plates bearing against and secured to the inner upright surfaces of the front and rear legs respectively, said lock housing being fixedly secured to said plates and registering at their inner ends with side edge portions of said front and rear legs respectively.

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