

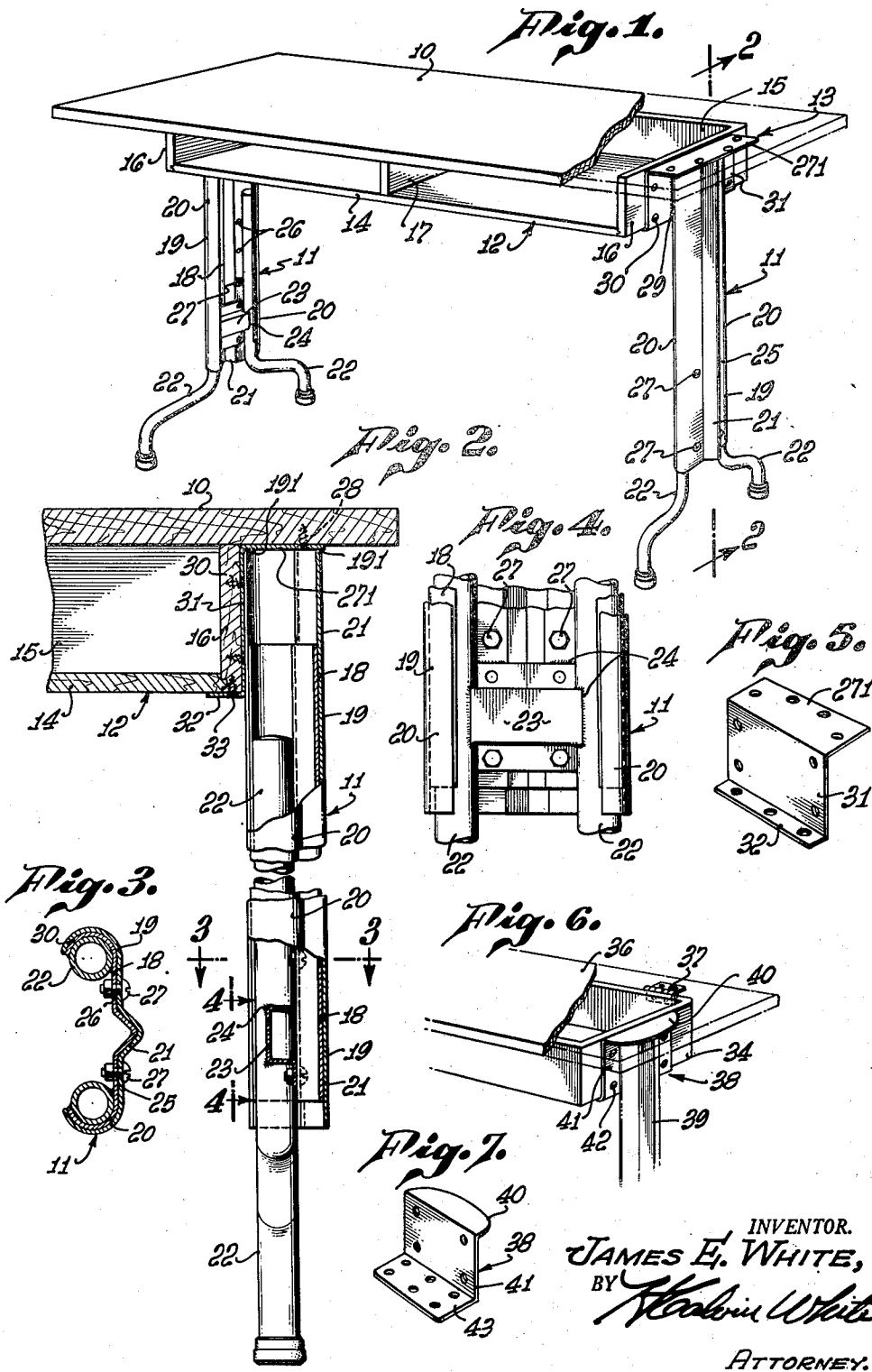
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TABLE LEG MOUNTING ARRANGEMENT

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TABLE LEG MOUNTING ARRANGEMENT

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This invention relates generally to improved tables or desks characterized by various features of ruggedness, simplicity and adjustability rendering them particularly adapted for schoolroom use. In certain respects, the tables of the present invention represent improvements on the table shown in my copending application for patent, Serial No. 27,391, filed May 17, 1948, now Patent 2,547,269, issued April 3, 1951.

The table structure of my above mentioned application comprises essentially a top, a pair of vertically adjustable end leg assemblies, and a rigid brace member or beam extending along the underside of the top between the legs. The general object of the present invention is to provide improved tables of this general type incorporating particularly improved means for interconnecting the top, legs, and brace member in a manner maximizing the strength and rigidity of the assembled structure while at the same time facilitating erection of the table from a partially disassembled shipping condition. Preferably, I employ a rigidly constructed book compartment structure underlying the table top as the brace member to serve the dual purposes of strengthening the table structure and receiving books or other student's supplies.

I attain the above structural rigidity combined with facility of erection by the employment of a pair of novel bracket plates specially formed and positioned to interconnect the other table parts in most effective manner. These two bracket plates are preferably welded or otherwise rigidly fixed to the upper ends of the two leg assemblies during manufacture and adapted for rapid attachment to the table top and book compartment structures during final assembly.

Each of the leg assemblies of the present invention preferably includes a vertically extending sheet metal panel section turned inwardly at its lateral edges to form a channel-like leg member open at its inner side. A further object of the invention is to so mount the previously mentioned brackets to the upper ends of these sheet metal panels as to extend across their open inner sides and thus greatly strengthen the panels against deformation from their channel shaped form.

Structurally, each of the brackets may include a first portion overlying the upper end of the leg assembly and a second portion extending downwardly between the leg assembly and the book compartment or other brace member. Upon erection, the upper horizontal portion of the bracket may be connected to the underside of the table top, and the depending portion connected to the

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adjacent end of the book compartment to rigidly interconnect the various parts in a mutually bracing relationship. Further strength and rigidity may be attained by forming the bracket plate to have a second horizontal portion extending beneath the book compartment and attached to its underside. The provision of this lower portion of the bracket is especially desirable where the table top is to be movably hinged to the book compartment and cannot itself be attached directly to the bracket or leg structure.

The above and further features and objects of the present invention will be better understood from the following detailed description of the typical embodiments illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of a preferred form of adjustable school desk embodying the invention, with the desk top partially broken away to show the construction of one of the bracket plates for interconnecting the top, book compartment and an end leg assembly;

Fig. 2 is an enlarged fragmentary vertical section through one end of the desk, taken on line 2-2 of Fig. 1;

Fig. 3 is a horizontal section through the end leg assembly, taken on line 3-3 of Fig. 2;

Fig. 4 is a fragmentary view taken at the inside of the leg assembly on line 4-4 of Fig. 2;

Fig. 5 is a perspective view of the bracket plate itself;

Fig. 6 is a fragmentary perspective view corresponding to Fig. 1 but showing a variational form of desk in which the top is movably hinged to the book compartment; and

Fig. 7 is a perspective view of the attaching bracket plate of Fig. 6.

The table or desk of Figs. 1 through 5, typically illustrated in a two-student size, comprises essentially an upper horizontal top 10, a pair of end leg assemblies 11, a book compartment structure 12 extending along the underside of the desk top between the two leg assemblies, and a pair of angular bracket plates 13 acting to rigidly interconnect the table top, book compartment and leg assemblies. The rectangular book compartment structure 12 is of a horizontal dimension somewhat smaller than the table top, and comprises a lower shelf 14, a rear wall 15, a pair of vertically extending end walls 16, and a central partition 17, all rigidly interconnected in any suitable manner.

Each of the end leg assemblies 11 includes a pair of vertically telescopic inner and outer sheet metal panels 18 and 19 turned inwardly along their side edges at 20 to positively interfit against

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horizontal separation. Intermediate their curved side edges, these panels have a pair of vertically extending ribs 21 slidably interfitting to strengthen and guide the two panels in their telescopic relation. The two curved outer edges 20 of inner panel 18 extend about and are welded to a pair of tubular legs 22 which project downwardly and outwardly for engagement with a supporting floor surface. A channel shaped member 23 extends between these two legs at a location near the bottom of the inner panel, and is welded at 24 to both the legs and panel to strengthen the lower leg section. As will appear later, the outer sheet metal section 19 of each leg assembly is connected through the corresponding bracket 13 to the table top, so that relative vertical movement between the two sheet metal panels effects a vertical adjustment of the table. To retain the two panels in any desired adjusted condition, the outer panel has two pairs of openings 25 selectively registrable with a series of vertically spaced pairs of openings 26 in the inner section. Screw bolts 27 are inserted through any selected pairs of openings in the inner and outer sections to retain those sections in any adjusted condition.

As seen best in Figs. 1, 2 and 5, bracket plate 13 includes an upper horizontal portion 271 directly overlying the upper end of the outer leg panel 19 and welded to the upper edge of the panel at 191, preferably along substantially the entire extent of that edge. This upper portion of the bracket extends horizontally beyond the panel for attachment to the underside of top 10 by screws 28. From the inner edge of its upper portion 271, the bracket plate extends downwardly at 31 between upper leg panel 19 and end wall 16 of the book compartment. This depending portion of the bracket plate is rigidly welded at 29 to the opposite lateral edges of the upper leg panel, and is attachable directly to the end wall of the book compartment by screws 30. At the lower end of its depending portion 31, bracket plate 13 extends horizontally inwardly at 32 beneath the book compartment to further support that compartment and strengthen the table structure. This lower horizontal portion of the bracket plate may be connected to the underside of the book compartment by screws 33.

The table is normally shipped in partially disassembled condition, with the top and book compartment disconnected at each end from the leg assemblies carrying the two brackets 13. In order to erect the desk, it is necessary merely to attach the bracket plates to the opposite ends of the book compartment by screws 30 and 33, and then mount the top 10 to the bracket plate by screws 28. The leg assemblies may be easily and quickly adjusted to any desired height either before or after erection of the table.

Figs. 6 and 7 show a variational form of the invention corresponding in many respects to the Fig. 1 form, but having a movable top hinged to the rear of the book compartment at 37 for upward swinging movement to permit access to the book compartment from its upper side. In this form, bracket plate 38 is welded to the upper end of the upper sheet metal leg section 39 in the same manner as in Fig. 1, but is in certain respects formed differently than the bracket 13 of the previous form. Specifically, the upper horizontal portion 40 of bracket 38 has no screw receiving openings for attachment to the movable top, and is curved rather than rec-

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tangular to present a smooth and regular appearance upon opening of the top. As in the previous form, the bracket plate has a vertical portion 41 extending downwardly between the leg assembly and the book compartment and attached to the book compartment by screws 42. Lower horizontal portion 43 of the bracket plate extends inwardly beneath the book compartment for a greater distance than in Fig. 1 in order to compensate for the fact that in this form the bracket cannot be attached directly to the desk top. The erection of the Figs. 6 and 7 form of table is similar to the first form and produces a correspondingly rigid and strong structure.

I claim:

1. A table comprising a top, a pair of vertically elongated end leg units extending downwardly below the top, a rigid book compartment structure extending along the underside of the table top between said leg units, a pair of transverse bracket plates mounted to upper end portions of said leg units respectively, each of said bracket plates including a horizontally extending portion overlying the upper end of the corresponding leg unit and connected to the table top, a depending portion extending downwardly between said corresponding leg unit and the adjacent end of said book compartment structure, and a lower portion extending inwardly beneath and supporting said rigid structure, means attaching said depending portion of each bracket plate directly to the corresponding leg unit at a location lower than said upper portion of the bracket, and means attaching said depending portion of the bracket plate directly to said book compartment structure at a location spaced beneath the table top and above said lower portion of the plate.

2. A table comprising a top, a pair of end leg units extending downwardly below the top and each including a vertically extending sheet metal panel deformed to contain a vertically extending cavity open at its upper end, a rigid structure extending along the underside of the table top between said leg units, a pair of transverse sheet metal bracket plates welded to upper end portions of said leg units respectively, each of said bracket plates including an upper horizontally extending portion overlying the upper end of the corresponding leg unit panel and extending across said open upper end of the cavity therein, and a depending portion extending downwardly between said corresponding leg unit panel and the adjacent end of said rigid structure, welds attaching said depending portions of the two bracket plates directly to said legs at locations spaced beneath the table top, and means fastening said brackets to the table top and to opposite end portions of said rigid structure at locations spaced beneath the top.

3. A table comprising a top, a pair of end leg units extending downwardly below the top and each including a vertically extending sheet metal panel deformed to contain a vertically extending cavity open at its upper end, a rigid book compartment structure extending along the underside of the table top between said leg units, a pair of transverse sheet metal bracket plates mounted to upper end portions of said leg units respectively, each of said bracket plates including an upper horizontally extending portion overlying the upper end of the corresponding leg unit panel and extending across said open upper end of the cavity therein, a depending portion extend-

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ing downwardly between said corresponding leg unit panel and the adjacent end of said book compartment structure, and a lower portion extending inwardly beneath the book compartment structure, means attaching said upper portion of each bracket plate to the table top, welds attaching said upper and depending portions of each bracket plate directly to the corresponding leg unit panel, and means attaching said depending and lower portions of each bracket plate direct to adjacent portions of said book compartment structure.

4. A table comprising a top, a pair of vertically elongated end leg units extending downwardly below the top, a rigid book compartment structure extending along the underside of the table top between said leg units, a pair of transverse bracket plates mounted to upper end portions of said leg units respectively, each of said bracket plates including a horizontally extending portion overlying the upper end of the corresponding leg unit and connected to the table top, a depending second portion extending downwardly between said corresponding leg unit and the adjacent end of said book compartment structure, and a lower third portion extending inwardly beneath and supporting said rigid structure, means attaching said depending portion of each bracket plate directly to the corresponding leg unit at a location lower than said upper portion of the bracket, and means attaching one of said second and third portions of each bracket plate to said book compartment structure at a location spaced beneath the table top.

5. A table as recited in claim 4, in which said last mentioned means comprise fasteners extending essentially vertically through said third portions of the brackets and into the book compartment structure.

6. A table comprising a top, a pair of vertically elongated end leg units extending downwardly below the top, a rigid book compartment

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structure extending along the underside of the table top between said leg units, a pair of transverse bracket plates mounted to upper end portions of said leg units respectively, each of said bracket plates including a horizontally extending portion overlying the upper end of the corresponding leg unit and connected to the table top, a depending portion extending downwardly between said corresponding leg unit and the adjacent end of said book compartment structure, and a lower portion extending inwardly beneath and supporting said rigid structure, means attaching said depending portion of each bracket plate directly to the corresponding leg unit at a location lower than said upper portion of the bracket, and means attaching both said depending and lower portions of each bracket plate directly to adjacent portions of the book compartment structure at locations spaced beneath the table top.

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