

Feb. 2, 1954

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2,668,089

FOLDING TABLE

Filed Jan. 31, 1952

2 Sheets-Sheet 1

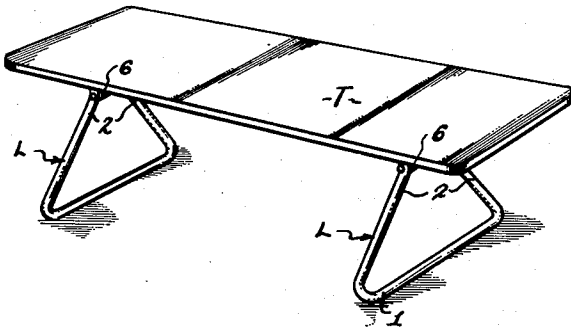


Fig. 1

Fig. 2

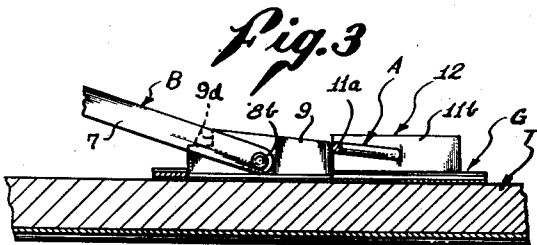
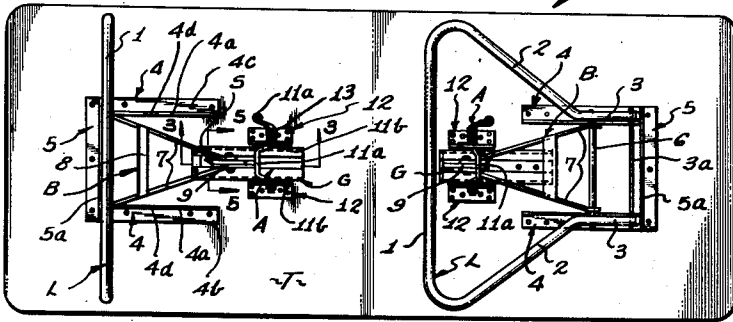


Fig. 3

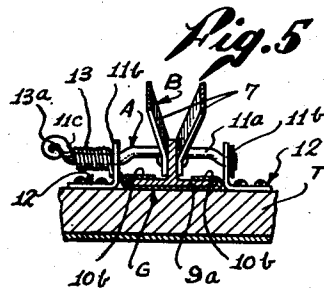


Fig. 5

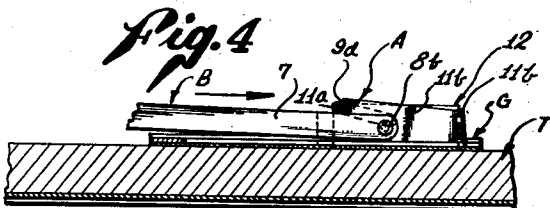


Fig. 4

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2 Sheets-Sheet 2

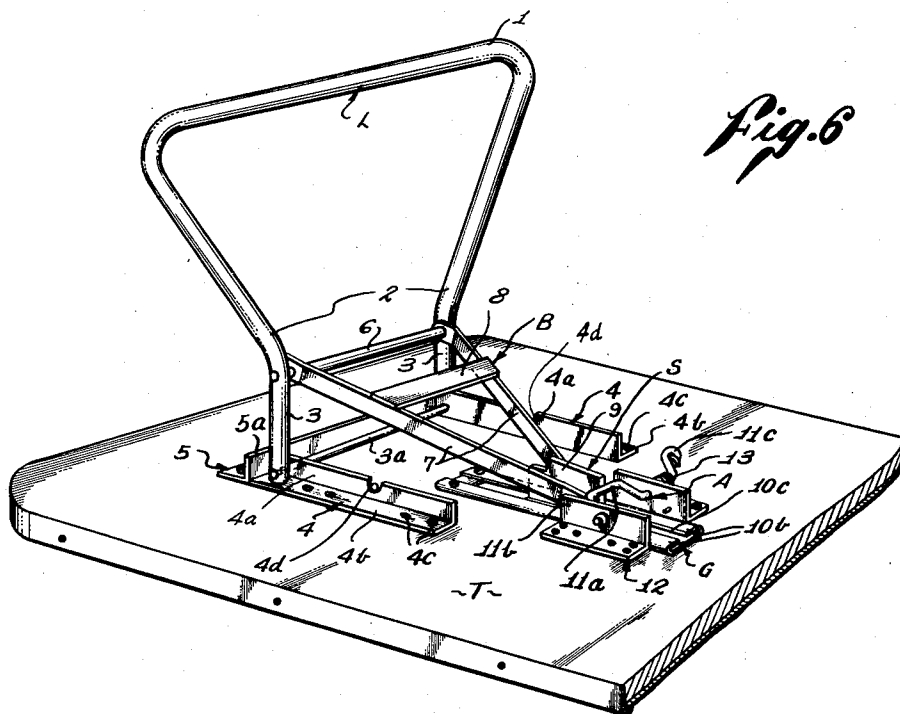


Fig. 6

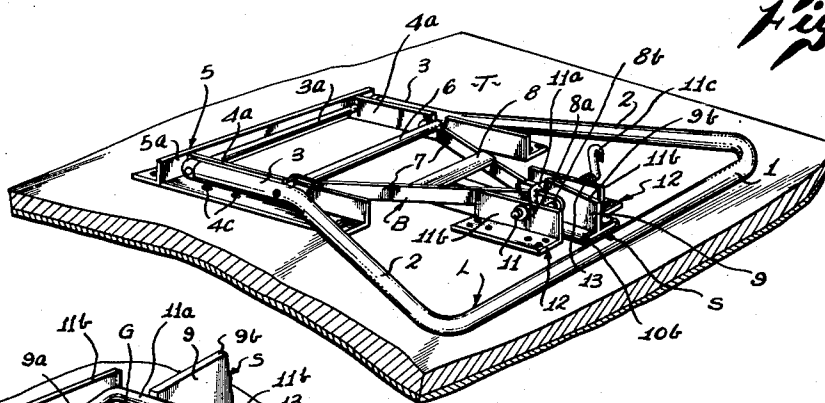


Fig. 7

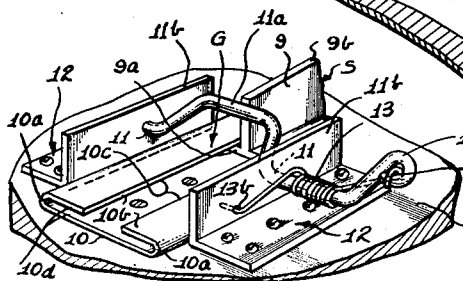


Fig. 8

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FOLDING TABLE

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1 Claim. (Cl. 311-87)

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This invention relates to and has for an object the provision of a folding table of simple but sturdy construction, economical in cost and maintenance and particularly adapted for use in miniature sizes for kindergarten and other classroom usage as well as for use in dining rooms, cafes and cafeterias when made of larger and various sizes and shapes.

An important object is to provide a novel type of supporting units for the table top, instead of the usual four legs of conventional type, with a pair of such units foldably secured to the lower side of the top and each unit including a single support of preferably tubular cross-section bent to form an open triangle. Each support is formed to provide a horizontal base section adapted when extended for use to rest upon a floor with continuing inwardly inclined side sections and transversely spaced parallel end sections hinged to the table top so that the supports can be folded inwardly against the table or extended at right angles to the top, at will.

Another object is to provide devices for rigidly but foldably holding the supporting members in either extended or retracted positions on the top.

A more specific object is to provide guides fixed to the table top, braces hinged to the legs of the supporting members and a slide movable on said guide and a latch engageable at spaced points with and for locking said slide at opposite extremes of its travel so as to firmly hold the supporting members extended and collapsed, respectively.

Other objects may appear as the description progresses.

I have shown a preferred form of table structure embodying my invention in the accompanying drawing, but subject to modification, within the scope of the appended claim, without departing from the spirit of the invention. In said drawing:

Fig. 1 is a perspective view of the table when arranged for use;

Fig. 2 is a bottom plan view thereof with one supporting leg extended and the other collapsed;

Figs. 3 and 4 are fragmentary longitudinal sectional views on line 3-3 of Fig. 2; showing the locking means arranged for holding the supporting legs, respectively, in extended and retracted positions;

Fig. 5 is a fragmentary transverse cross sectional view on line 5-5 of Fig. 2;

Figs. 6 and 7 are respectively, partial enlarged views of the table, as when inverted and seen

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in perspective, showing a leg locked in extended position, and another leg locked in retracted position; and

Fig. 8 is an enlarged fragmentary perspective view of the guide, slide and lock arranged as in Fig. 6 but viewed from a different point.

My folding table as illustrated in the drawings includes a top T of desired configuration but herein shown as of rectangular form and preferably made of plyboard with suitable trimmings as of stainless steel or other material and a nonstainable sanitary covering of plastic material.

A pair of supporting members hereinafter referred to as legs L, L are hingedly mounted on top T at points inwardly of the opposite ends and lateral margins of the top. Said legs are similar in form and size and are preferably formed of metal tubing bent to provide transverse base sections 1, 1, inwardly inclined side sections 2, 2, and longitudinal sections 3, 3, in each case. Sections 3, 3 of each leg are coaxially hinged to a pair of cleats 4, 4 on a transverse rod 3a which extends through the vertical flanges 4a, 4a while the right angular flanges 4b, 4b, of said cleats are secured to the bottom of top T as by screws 4c, on otherwise. A transverse cleat 5 is secured to top T adjacent the outer ends of each pair of cleats 4 and in a position where the upstanding flange 5a will be engaged by the leg sections 3 and limit the swing of legs L beyond true table supporting planes.

Each pair of leg sections 3, 3 are cross connected by a rod 6 to which a brace B is pivotally attached at the outer ends of a pair of inwardly converging bars 7, 7 of which each brace is formed, said bars being cross connected by a bar 8 and the inner ends 8a of each bar 7 being hinged at 8b to the upstanding web 9 of a slide S which is adapted to move in a straight path on a guide G affixed to top T.

As best shown in Fig. 8 guide G is of a shallow C cross section with a web 10 correspondingly bent upwardly and again downwardly on transversely spaced lines, as at 10a, 10a, to provide inwardly turned sections 10b, 10b with a longitudinal slot 10c therebetween. Thus there is provided a narrow guide channel 10d in guide G in which a horizontal web 9a of slide S is movably disposed while the rib 9 of said slide is movable in slot 10c as legs L of each unit is swung on its axis.

A latching unit A is provided for holding the slide against unintentional movement from either of its extreme positions but is readily releasable

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to permit adjustment of the legs from one to another position. Said lock includes a single rod bent to form a pair of coaxial sections 11 and a central offset section 11a. Sections 11, 11 are rotatable in upstanding flanges 11b, 11b of angle brackets 12, 12 affixed by suitable means to top T at opposite sides of guide G so that the section 11a of the latch will under different conditions lie in the path of slide S and prevent displacement of legs L, L from preestablished positions.

As shown in Fig. 8 latch A is tensioned as by means of a spring 13 which is coiled around a portion 11 of the latch rod and has one end 13a hooked to an eye 11c of said rod and its other end 13b extended through an orifice in the adjacent flange 11b of the adjacent member 12. The leading edges of webs 9 of slides S are engageable with portion 11a of latch A when legs L are extended to planes at a right angle to top T and thus prevent unintentional or accidental retraction of the legs while permitting intentional release and retraction of the legs at will. Also, as shown best in Figs. 4 and 7, the trailing edges of ribs 9 are similarly engageable by latch portions 11a when the legs L are folded against top T and thereby prevent unintentional extension or unfolding of the legs.

It will be noted that flanges 4a of cleats 4 are correspondingly notched at points 4d to receive the cross-connecting rod 6 when the legs L are folded against the lower side of the top T to the end that said legs will lie horizontally on cleats 4 and against the flanges 4a of said cleats.

In operation, the legs L normally are held at rest horizontally, as shown in Fig. 7 and are so held against unintentional dislodgement by latches A by reason of the portions 11a hooked behind the trailing edges of ribs 9 of slide S until the legs are intentionally extended as shown in Fig. 6 and locked by the latch portions 11a dropping into latching position in front of the leading edges of slide rib 9 under the influence of spring 13. See also Figs. 3 and 4 in which the trailing edges of ribs 9, if too great a distance from the leading edges, may be notched or back cut as at 9d to provide shoulders at proper positions for locking engagement with the latch A.

Due to the particular form of the legs L with the lateral sections 2, 2 bent inwardly at corresponding angles from their junctions with the horizontal sections 1, the inner parallel end sections 3, 3 are well inwardly of the lateral margins of the table T and afford ample leg and

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knee space for persons sitting at the table. Also, all parts are free of any sharp projecting or rough surfaces which might tear hose or clothing accidentally coming in contact therewith.

As shown in the drawings, the slide S has its upper latch engaging edge 9b inclined rearwardly to shoulder 9d in order to compensate for wear as a result of long usage which otherwise might occasion an impairment of the latching engagement with the legs are inwardly folded against the top (see Figs. 6, 7 and 8).

I claim:

A folding table comprising: a flat top, a pair of legs formed to provide horizontal sections paralleling corresponding margins of said top and adapted to rest upon a supporting surface and having spaced lateral sections extending inwardly from their junctions with the horizontal sections with their inner ends parallel and spaced apart at distances substantially less than the length of the horizontal sections, devices for hingedly attaching said legs at their parallel inner ends to the lower surface of said table, slides movable on said table in a direction at a right angle to the axes of said legs and linked to said legs, and latches automatically engageable with different portions of said slide as the legs are swung on their axes to table supporting and retracted positions close to and beneath the table, respectively, devices at opposite sides of said slides for rotatably supporting said latches, said latches having portions offset from their axes of rotation adapted to overlie and engage said slides during the movement of the slides between leg extension and leg retraction positions and to engage different end surfaces of the slides at the completion of each forward and reverse stroke of each slide for holding the legs in different positions.

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