June 18, 1935. H. L. SKOOGH 2,005,481

FOLDING TABLE

Filed July 17, 1933 2 Sheets-Sheet 1

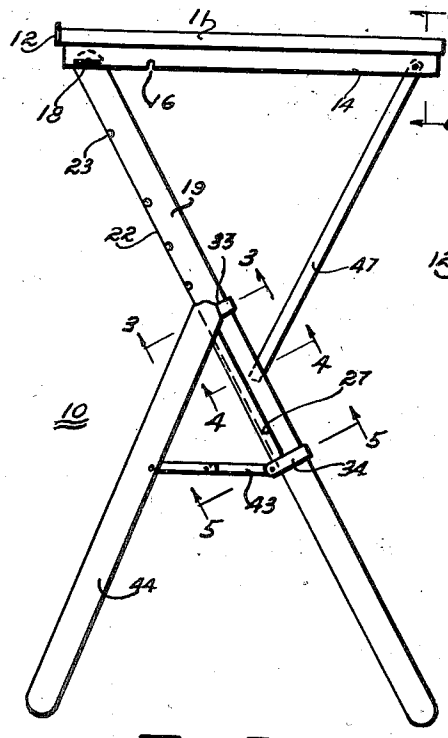

FIG-1

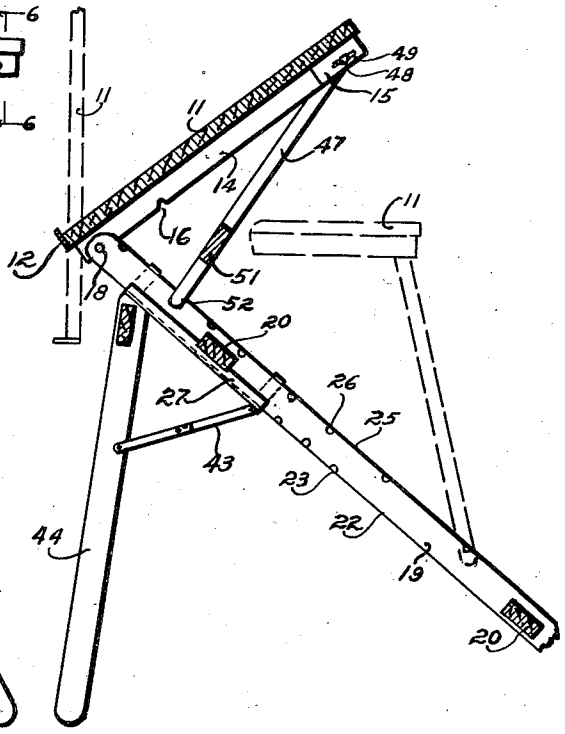

FIG-2

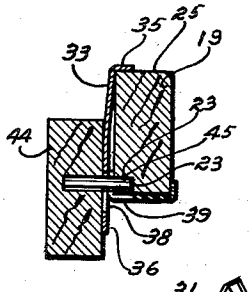

FIG-3

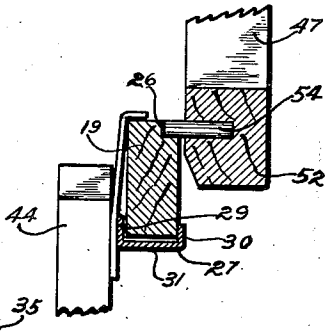

FIG-4

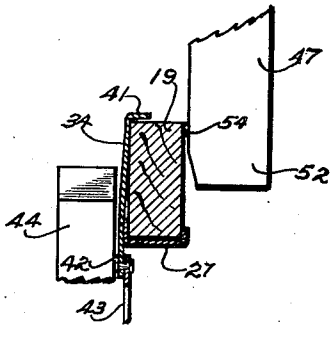

FIG-5

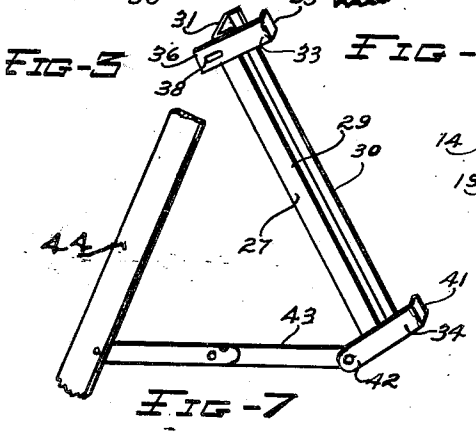

FIG-7

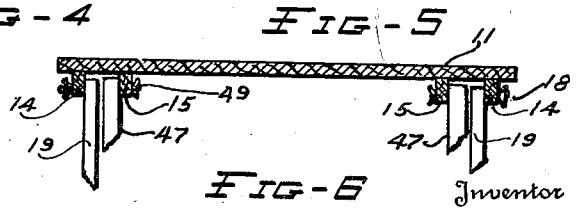

FIG-6

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FOLDING TABLE

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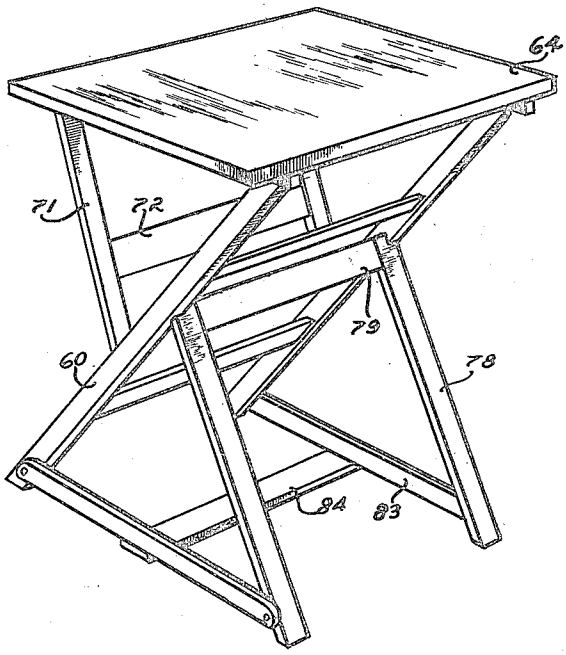

FIG-8

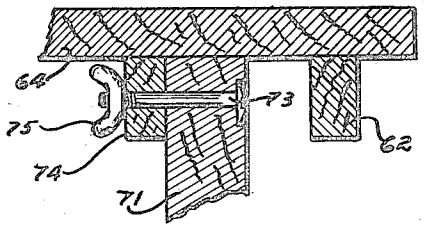

FIG 10

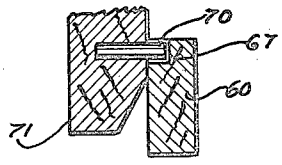

FIG-11

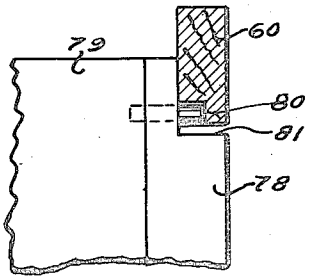

FIG-12

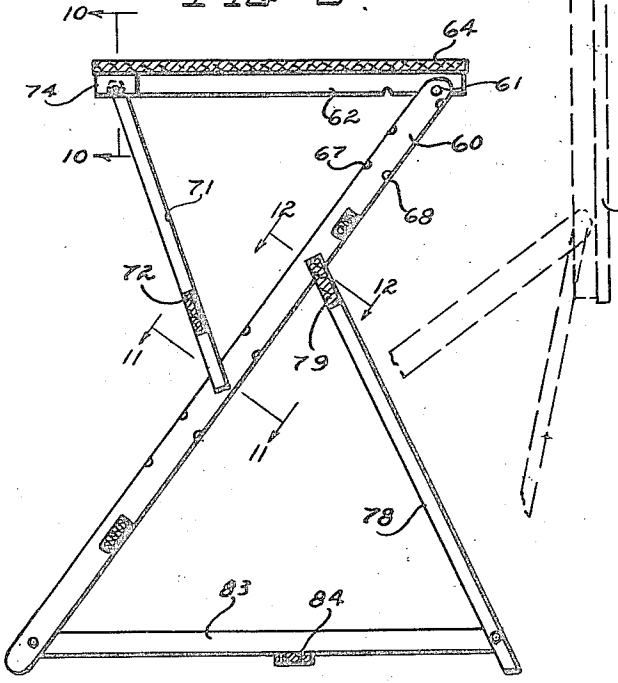

FIG-9

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Patented June 18, 1935 2,005,481

UNITED STATES PATENT OFFICE

2,005,481

FOLDING TABLE

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Application July 17, 1933, Serial No. 680,699

5 Claims. (Cl. 311—93)

This invention relates to an improvement in folding tables and more particularly to those for use as drawing and painting tables.

The preferred embodiment of the invention discloses a table having a top or work surface which is supported on a plurality of adjustable members. These members rigidly support the top in any one of a variety of positions and are quickly and easily manipulated for adjusting the top from one position to another.

While it is true that many tables of this class have heretofore been developed and marketed, it is believed the majority fail to fully meet the requirements thereof in many respects. The present invention is, therefore, directed to the provision of a table of this class having all the advantages of similar tables now on the market as well as including further advantages not heretofore made available. These objects and advantages are set forth as follows:

(1) Full adjustability of the table top to meet any required use.

(2) Simplicity of construction of the adjustable supporting members for the top and ease of adjustment to alter the position of the table top.

(3) Ruggedness and rigidity of the adjustable members over a long period of time, and

(4) Simplified construction and the resultant economy of manufacture.

Other and further objects of the invention may be more fully understood from a consideration of the following specification which is taken in conjunction with the accompanying drawings and in which,

Figure 1 is a side elevation of one of the preferred modifications of this invention showing the table in one position of use;

Figure 2 is a vertical transverse sectional view showing one position of adjustment of the table top and including, in dotted line, still further positions to which the table top may be adjusted;

Figure 3 is an enlarged fragmentary sectional view taken substantially on the line 3—3 of Figure 1 and shows the means by which one of the supporting members is slidably and pivotally joined to another of the supporting members;

Figure 4 is an enlarged fragmentary sectional view taken on the line 4—4 of Figure 1 and shows the means for removably engaging one member with another as well as further details of the slidable shoe structure shown in Figure 3;

Figure 5 is an enlarged fragmentary vertical sectional view taken on the line 5—5 of Figure 1 and further illustrating the construction of the slidable shoe and its connection with other elements of the device;

Figure 6 is a vertical sectional view of the table top and its supporting rails;

Figure 7 is an enlarged perspective view of the slidable shoe;

Figure 8 is a perspective view of a modification of the invention shown in Figures 1 and 2 of the drawings;

Figure 9 is a slightly enlarged vertical sectional view of the modification of Figure 8 and includes, in dotted lines, one extreme position of adjustment of the table top;

Figure 10 is an enlarged fragmentary vertical sectional view taken substantially on the line 10—10 of Figure 9;

Figure 11 is a further enlarged fragmentary sectional view taken substantially on the line 11—11 of Figure 9; and

Figure 12 is a sectional view taken substantially on the line 12—12 of Figure 9.

Referring to the drawings, one modification of the invention is shown generally indicated by the reference numeral 10. The device comprises a table top 11, to one side edge of which may be affixed an adjustable and/or removable pencil or instrument ledge 12. Joined to the underside of the top in any suitable manner are rails 14 which extend the full width of the top adjacent the ends. Spaced inwardly from the rails 14 are further short rails 15. Cut into the lower face of the rails 14 and commencing adjacent corresponding ends thereof are slots 16. These slots are adapted to receive the free ends of bolts 18 which are permanently fitted in the upper ends of table legs 19. The legs 19 are comparatively heavy and rugged since they constitute the main support for the table top. The free end of each bolt 18 projects through a corresponding slot 16 and, with a suitable washer and wing nut, serves to rigidly yet removably join the upper ends of legs 19 to the rails of the table top. Since the legs 19 constitute the main support for the top, they are spacedly connected and reinforced by one or more cross braces 20 which are secured thereto in any conventional manner. Formed in the lower edge 22 of each leg 19 are varyingly spaced notches or recesses 23. In the upper edge 25 of the leg, further spaced recesses 26 are provided. The recesses on the lower and upper sides of the leg are for the purpose of engaging and locating adjustable supporting members hereinafter more fully described.

Mounted, one on each of the legs 19, is a sliding shoe 27. This shoe is generally channel

shaped in cross section (see Figure 4) having side walls 29 and 30 and base wall 31. Joined to or formed integral with the ends of the side walls 29 are brackets 33 and 34. The upper bracket 33 extends considerably above the side wall 29 and terminates in a short flange 35 which is spaced from and parallel to the base wall 31. This bracket also extends beneath the base wall 31 to form a projection 36 in which a slot 38 is made. A corresponding slot 39 is cut into the base wall 31 and, if as shown in the drawings, the bracket 33 is attached to the shoe, the slot 39 continues upwardly into the side wall 29. The shoe 27 is held in position on the leg 19 by engagement of the base wall 31 with the edge 22 of the leg. The flanges 29 and 30 engage the side walls whereas the inturned flange 35 of the bracket 33 engages the upper edge 25 of the leg. The shoe, when moved longitudinally of the leg, registers slot 39 with any one of the recesses 23. The lower bracket 34 is similar to the bracket 33, having an inturned flange 41 which engages the edge 25 of the leg, and a depending portion 42. This last mentioned portion is pivotally connected with one end of a foldable brace 43. The shoe 27 has connected therewith, a supporting member 44. This member, at its upper end, is provided with a pin 45 which projects from its inner face through the slot 38 of the bracket 33 and into slot 39 of the shoe. Slot 39 extends sufficiently below the base wall 31 to permit pin 45 to be moved into or out of slot 39. Thus, when the shoe is moved longitudinally of the leg, and the slot 39 is out of register with one of the leg recesses 23, the pin 45 lies in the lower portion of slot 38. However, when slot 39 of the shoe registers with one of the recesses 23, and because of the weight of the leg 19 and table top 11, pin 45 will move through slot 39 into one of the recesses 23, thus locating the upper end of the member 44 with respect to the leg 19. Since the pin 45 provides a more or less pivotal support for the member 44, the brace 43 is attached to the member 44 to limit its spread relative to leg 19 and as one end of the brace is joined to the shoe 27, any upward or downward movement of the shoe carries with it the member 44 and brace 43. It will of course be understood that the device comprises two legs 19, two shoes 27, and two supporting members 44, which are identical with the above description presented concerning one of each of these elements. Should the table be designed for particularly rough use, it may be found advisable to provide a plate or sway braces or other suitable means for connecting shoes 27 to cause their simultaneous and uniform movement longitudinally of the legs 19.

A further pair of supporting members 47 are pivotally joined, at their upper ends, to rails 15 by means of suitable bolts 48. The bolts are provided with wing nuts 49 which are tightened to maintain the members in any one of their adjustable positions. In order that these members may move simultaneously during adjustment, and also to increase their rigidity, a cross member 51 is provided. This member is secured in any conventional manner to the adjacent faces of the members 47. The free ends 52 of the members 47 are each fitted with a pin 54 which projects slightly beyond one side wall of the member. The projecting portion of the pin is adapted to fit into any one of the many recesses 26 in the upper edge 25 of the leg 19. Figure 2 of the drawings shows, in full and dotted lines, two positions of adjustment which the members 47 may have to change the angularity of the table top 11.

By reason of the fact that the supporting members 44 and 47 may be moved independently of each other, and also because members 44 are slidable with respect to legs 19 instead of having fixed pivotal connection therewith, the table above described may be easily adapted for any kind of drawing, sketching, painting, etc. For example, the table top may be tipped to a vertical position as shown in dotted line in Figure 2, the members 47 engaging the uppermost recesses 26 of the legs 19. The table top may be adjusted to a horizontal position or any angularity between that and the vertical position above mentioned at practically any desired working height. Figure 1 shows the table top in elevated horizontal position, whereas one of the dotted line showings of Figure 2 indicates that the table top may be horizontal at considerably less height, this dotted showing being of the approximate height of a desk or nonfolding table. By moving shoes 27 downwardly of the legs 19, and thereby lowering the point of engagement of the members 44 with said legs, and also by lowering the point of engagement of the members 47 with said legs, the table top may be tilted in a direction the reverse of that shown in full lines in Figure 2.

While no showing is made of the table in completely folded position, it is apparent that the members 47 may be moved into position directly beneath the table top 11 and within the space defined by rails 14. The top 11 may then be swung about the bolts 18 and brought into abutment with the upper edges 25 of the legs 19. Folding the braces 43 permits moving members 44 into close proximity with the legs 19. The table is thus readily foldable to a size substantially no greater than the length of the legs 19 and a depth approximately the thickness of the legs plus the thickness of the tabel top.

Figures 8 through 12 discloses a modification of the present invention. In this instance a pair of legs 60, by means of bolts 61, are joined to rails 62 attached to the underface of the table top 64. Suitable wing nuts permit tightening or loosening the pivotal connection of the legs with the rails. The legs 60 are substantially identical with legs 19 above described, being provided with varyingly spaced recesses 67 in the upper edge of the leg and further recesses 68 in the lower edge. The recesses 67 are adapted to receive pins 70 which are mounted in the lower ends of supporting members 71. These members are rigidified by a cross bar 72 and pivotally connected with the table top 64 through bolts 73 which engage stub rails 74. Suitable wing nuts 75 control the freedom of pivotal movement of the members 71.

Lower members 78 are rigidified, adjacent their upper ends, by a cross bar 79. Pins 80, mounted in the member 78, project outwardly into slotted portions 81 and are adapted to be engaged with any pair of recesses 68 in the underface of the legs 60. The members 78 correspond to the members 44 above described and must therefore be provided with means by which to limit the relative spacing of their lower ends with respect to the lower ends of legs 60. This is accomplished through the provision of rails 83 which are permanently and pivotally joined to legs 60 and members 78. To prevent any relative shifting of these rails, a transverse support 84 is provided. It will be noted that the rails 83 serve a purpose similar to that of the folding braces 43 disclosed in the other modification and, furthermore, that

the legs **60** are full length and constitute the main support for the table top. Members **71** are identical with members **47**. The members **78**, however, may be entirely disconnected from the legs **60**, whereas in the previously described modification, the members **44** are at all times in close proximity with the legs **19** due to their mounting on the shoes **27**.

Although applicant has shown and described only two modifications of his invention, it is pointed out that certain alterations or modifications in the details of the table top and specific structure of certain of the members is contemplated in-so-far as these features and the main objects of the invention are within the scope of the attached claims.

Having thus set forth my invention what I claim as new and for which I desire protection by Letters Patent is:—

1. In a folding table having a top or work receiving portion, a full length leg pivotally joined to said top, a supporting member, a slidable shoe mounted on said leg, slotted means on said shoe registerable with any of several recesses formed in said leg, means on said member having restricted slidable connection with said slotted means, said member means being movable to engage one of said recesses when said shoe is adjusted longitudinally of said leg.

2. In a folding table having a top or work receiving portion, a full length leg pivotally joined to said top, a supporting member, a bearing pin on said member, a shoe mounted on and movable longitudinally of said leg, slotted means on said shoe registerable with any of several recesses formed in said leg, said pin projecting into said slotted means and slidable with respect thereto to interengage said leg when said slotted means registers with any one of the recesses in said leg.

3. In a folding table having a top or work portion, a leg pivotally joined to said top, a supporting member, a shoe mounted to slide longitudinally of said leg, said member being joined to the top and bottom of said shoe whereby to maintain a given angularity of said member at all times relative to said leg.

4. In a folding table having a top or work portion, a leg pivotally joined to said top, a shoe mounted on and movable longitudinally of said leg, said shoe including a channel portion, brackets securing said channel portion in operable position on said leg, a supporting member, a pin on said member mounted in one of said brackets, and means connecting the other of said brackets with said member remote from said pin.

5. In a folding table having a top or work portion, a leg pivotally joined to said top, a supporting member, means carried by and movable longitudinally of said leg, said member having a two point connection with said means whereby to maintain a given angularity of said member relative to said leg irrespective of the location of said means on said leg.

HARRY L. SKOOGH.