July 4, 1950 R. R. ERICKSON 2,514,319

FOLDING TABLE AND BENCH

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Fig. 2

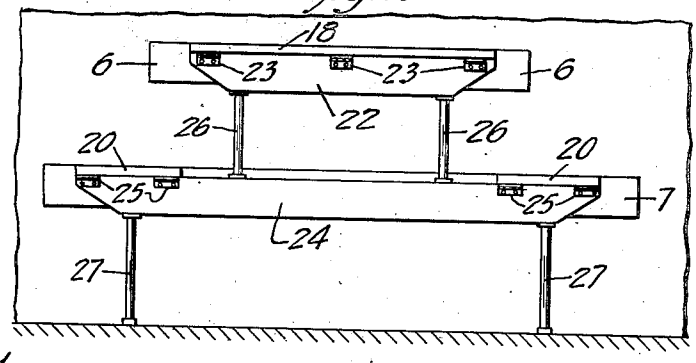


Fig. 1

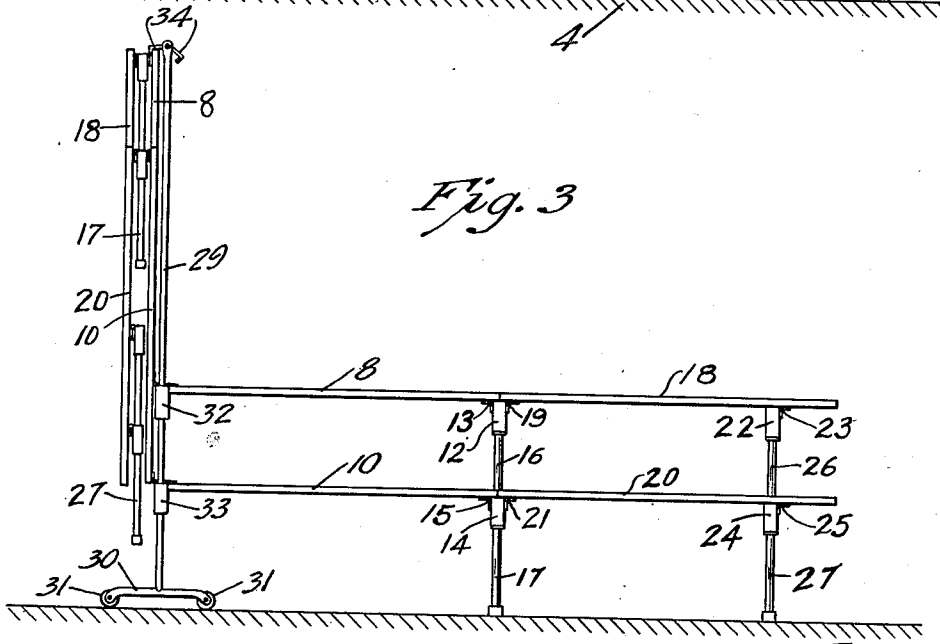


Fig. 3

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FOLDING TABLE AND BENCH

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8 Claims. (Cl. 155—124)

1

This invention relates to folding tables and benches.

At the present time for school house use, hall use, and in many other situations, it is desirable to provide a dining table including a table top and benches which can be disposed in out-of-the-way collapsed condition as against a wall when it is desired to use the school house or hall for other purposes and which can yet be swung down to extended position to provide benches and a table as for school and hall lunches and the like.

It is the general object of this invention to provide a novel and improved folding table and benches of cheap and simple construction which can be operated with ease as a unitary structure to swing the same down from a collapsed position against a support such as a wall, standard, or the like to a downwardly swung extended position projecting outwardly from the wall or standard and which will serve to form a dining table or the like when in its downwardly swung extended condition.

The objects and advantages of the invention will more fully appear from the following description made in connection with the accompanying drawings wherein like reference characters refer to the same or similar parts throughout the different views, and in which

Fig. 1 is a vertical sectional view taken through a portion of a room equipped with one of the folding table and benches of the invention, the folding table and benches being shown in downwardly swung extended position in full lines and being shown in upwardly swung collapsed position in dotted lines;

Fig. 2 is an end view looking toward the right end of the structure shown in Fig. 1, the table and benches being in downwardly swung extended position; and

Fig. 3 is a view in side elevation showing a pair of my folding tables and benches mounted on a caster equipped standard, one of the table and benches being downwardly swung in extended position and the other table and benches being upwardly swung and collapsed against one side of the standard.

Referring first to Figs. 1 and 2, there is shown a portion of a room such as found in a school house, a hall, or the like and including a floor 4 and a vertical wall 5. In accordance with the invention a pair of supporting bars 6 and 7 respectively are attached to the wall 5 at two different levels, the bar 6 being located above the bar 7 at table height and the bar 7 being located

2

at bench height. A table top 8 is connected at its inner end by suitable hinges 9 to the upper support bar 6 for upward swinging movement to approximately a vertical position and for downward swinging movement to approximately a horizontal position. A pair of bench tops 10 are connected at their inner ends by hinges 11 to the lower supporting bar 7 also for upward swinging movement to substantially vertical position and for downwardly swinging movement to substantially horizontal position. The two bench tops 10 are respectively located laterally of the table top 8, one at either side of the table top as shown.

A first upper cross bar 12 underlies the outer end of the table top 8 and projects partially beyond the same when the table top is horizontally disposed and this upper cross bar is connected to the end portion of the table top 8 at its lower side by means of hinges 13 so that the upper cross bar 12 may be swung through approximately 90° from the full line position shown in Fig. 1 to lie closely against the under side of the outer end portion of the table top 8. A first lower cross bar 14 which is vertically aligned with the upper cross bar 12 and which underlies both the table top 8 and the bench tops 10 is located so that it projects slightly beyond the outer ends of the bench tops 10 when the parts are disposed as shown in full lines of Fig. 1 and this cross bar 14 is in turn connected to the outer end portions of the bench tops 10 at the under sides thereof by means of hinges 15. It should perhaps be stated that the table top 8 and the bench tops 10 are of the same length. The first upper and lower cross bars 12 and 14 are connected by a pair of struts 16 which project between the same, and these struts as illustrated may consist of iron pipes attached to the respective cross bars 12 and 14 by sockets 16*a*. A pair of legs 17 are secured to the lower edge of the lower cross bar 14 to project downwardly below the same, and these legs may consist of iron pipes attached to the cross bar 14 by means of sockets 17*a*, and preferably the legs 17 at their lower ends will carry supporting pads 17*b* which will cushion these legs and prevent them from marring the floor 4.

While the structure as thus far described forms a complete unit, it is usually desirable to provide a table and bench structure of longer length than can be supported by the supporting bars 6 and 7 and the one pair of legs 17 when the folding table and bench is downwardly swung in extended position, and accordingly, an extension

section of the folding table and bench may be provided as is shown in Figs. 1 and 2. The extension section includes a table top extension 18 which will align with the table top 8 and which is connected at its inner end by hinges 19 to the upper cross bar 12. Also, the extension includes bench top extensions 20 aligned with the bench tops 10 and connected at their inner ends by hinges 21 to the lower cross bar 14. A second upper cross bar 22 is connected by hinges 23 to the outer portion of the table top extension 18 at the lower side thereof, and a second lower cross bar 24 vertically aligned with the cross bar 22 is connected by hinges 25 to the outer end portions of the bench top extensions 20 at their lower sides. It should be noted that the two cross bars 22 and 24 are so hinged to the table top extension 18 and the bench top extensions 20 that these bars will be swung outwardly on their hinges rather than inwardly. The second cross bars 22 and 24 are interconnected by struts 26 which are run therebetween and are similar to the struts 16 previously described, and the second lower cross bar 24 carries downward extending legs 27 similar to the legs 17 previously described.

Assuming that the folding table and bench is in downwardly swung extended condition as shown in full lines Fig. 1, the device forms a combined table and bench structure which will accommodate a number of people for eating purposes or other use. The legs 17 and 27 rest on the floor 4 and they, together with the supporting bars 6 and 7, strongly support the entire structure. When it is desired to clear away the folding table and bench so as to make use of the floor space for other purposes, this can be readily accomplished by lifting the central portion of the structure slightly as by grasping and raising one of the struts 16 whereupon by pushing against the end of the table top extension, the structure can be jackknifed and swung upwardly in collapsed position to an upwardly extended and collapsed position against the wall 5. The wall 5 may be equipped with hooks 28 at a suitable height which may be engaged with the outer end of the table top 8 to suspend the device in the collapsed position. It will be noted that as the structure is swung upwardly to its collapsed position from its extended position, the struts 16 and 26 and the legs 17 and 27 will remain vertical due to the rectilinear pivoting of these parts. When the structure has been collapsed as shown it will occupy very little space in the room and practically the full use of the room may be enjoyed.

In Fig. 3 a slightly modified type of structure is shown which need not be hung from a wall. In the case of the structure shown in Fig. 3 a pair of vertical standards 29 are provided having at their lower ends arms 30 carrying casters 31 to permit the device to be rolled to any desired point. Carried at two levels and projecting beyond opposite sides of the standards 29 are supporting bars 32 and 33 respectively which correspond in function to the bars 6 and 7 of the first described construction. A pair of table tops 8 are hinged at their inner ends to swing upwardly and downwardly from opposite sides of the bar 32 while a pair of bench tops 10 are hinged at their inner ends to swing upwardly and downwardly from opposite sides of bar 33, and two complete folding table and bench structures as heretofore described will be provided, one at each side of the standards 29. The standards 29 will

be equipped near their upper ends with hooks 34 to catch and hold the outer ends of the table tops 8 when the table tops are upwardly swung. With the arrangement shown in Fig. 3 the folding table and benches may be swung outwardly in extended position from the two sides of the standards 29 as in the central part of a room after the standards 29 have been rolled to the desired position. Of course, the folding tables and benches may be swung upwardly and collapsed against the standards 29 as is indicated at the left side of Fig. 3 when this is desired, whereupon the entire apparatus may be rolled away so as to make the floor space available for any desired use.

It will be seen that each folding table and double bench forms a unitary structure and that a highly effective, simple, and inexpensive folding table and bench structure has been provided capable of use in various types of buildings such as school houses, halls, and the like where a double use of the space available is required.

It will, of course, be understood that various changes may be made in the form, details, arrangement, and proportions of the various parts without departure from the scope of the present invention, which, generally stated, consists in the matter shown, and described, and set forth in the appended claims.

What is claimed is:

1. A folding table and bench comprising an upright support, a table top hinged at one end to said support for swinging movement, a cross bar underlying said table top and hinged to the other end of the same, a bench top hinged for swinging movement at one end to said support below and laterally of said table top, a second cross bar underlying said table top and said bench top and hinged to the other end of said bench top, vertical struts extending between and interconnecting said two cross bars and downwardly extending legs connected to said second mentioned cross bar, the said structure being swingable as a unit from an upwardly collapsed position against said support to a downwardly swung position with said table and bench top substantially horizontally disposed.

2. A folding table and bench comprising an upright support, a table top hinged at one end to said support for swinging movement, a first upper cross bar underlying said table top and hinged to the other end of the same, a table top extension hinged at one end to said first upper cross bar, a second upper cross bar underlying said table top extension and hingedly connected thereto adjacent the other end of said table top extension, a bench top hinged for swinging movement at one end to said support below and laterally of said table top, a first lower cross bar underlying said table top and said bench top and hinged to the other end of said bench top, a bench top extension hinged at one end to said first lower cross bar, a second lower cross bar underlying said table top extension and said bench top extension and hinged to said bench top extension adjacent its other end, struts running between and interconnecting the two first cross bars, struts running between and interconnecting the two second cross bars, legs connected to and extending downwardly from the first lower cross bar and legs connected to and extending downwardly from the second lower cross bar, the said structure being swingable as a unit from an upwardly collapsed position against the said support to a downwardly swung position with the table and bench tops

and table and bench top extensions horizontally disposed.

3. A folding table and bench comprising an upright support, a table top hinged at one end to said support for swinging movement, an upper cross bar underlying said table top and hinged to the other end of the same, a pair of bench tops hinged at inner ends for swinging movement to said support below said table top and respectively laterally of the two sides of said table top, a lower cross bar underlying said table top and said bench tops and hinged to the outer portion of said bench tops, vertical struts extending between and interconnecting the two cross bars and downwardly extending legs connected to said lower cross bar.

4. A folding table and bench comprising an upright support, a table top hinged at one end to said support for swinging movement, a first upper cross bar underlying said table top and hinged to the other end of the same, a pair of bench tops having inner ends hinged for swinging movement to said support below and respectively laterally of the opposite sides of said table top, a first lower cross bar underlying said table top and said bench tops and hinged to the outer ends of said bench tops, a table top extension hinged at its inner end to said first upper cross bar, a pair of bench top extensions hinged at their inner ends to said first lower cross bar, a second upper cross bar hinged to said table top extension adjacent its outer end and underlying the same, a second lower cross bar underlying said table top extension and said two bench top extensions and hinged to said bench top extensions adjacent the outer ends of the same, struts extending between and interconnecting the two first cross bars, legs connected to and projecting downwardly from the first lower cross bar, struts extending between and interconnecting the two second cross bars, and legs connected to and projecting below the second lower cross bar.

5. The structure defined in claim 4 and retaining means for holding the structure collapsed in upwardly swung position against said support.

6. A folding table and bench comprising a pair of horizontal supporting bars adapted to be connected in vertically spaced relation to a vertical support, a table top hinged at its inner end to the uppermost of said support bars, a pair of bench tops hinged at their inner ends to the lowermost of said support bars laterally respectively of opposite sides of said table top, upper and lower cross bars respectively underlying said table top and said bench tops and hingedly connected respectively to the outer ends of the said table top and bench tops, struts running between and interconnecting the said cross bars, legs connected to and projecting below the lower cross bar, a table top extension hinged at its inner end to said upper cross bar, a pair of bench top extensions hingedly connected at their inner ends to said lower cross bar, an upper cross bar underlying said table top extension and hingedly connected to the outer portion thereof, a lower cross bar underlying said bench top extensions and hingedly connected to the outer portions thereof, struts extending between and interconnecting

the two last mentioned cross bars, and legs connected to and projecting below the last mentioned cross bar which was hinged to said bench top extensions.

7. A folding table and bench comprising a caster equipped vertical standard, a pair of table tops hinged at their inner ends to said standard respectively at opposite sides thereof, two pair of bench tops, one pair of which are hinged at their inner ends to said standard at one side thereof below the level of the table top hinges, and the other pair of which are hingedly connected to said standard at the other side thereof below said table top hinges, one bench top of each pair being laterally disposed at one side of said table tops and one bench top of each pair being laterally disposed at the other side of said table tops, first upper cross bars hinged to the outer ends of said table tops, first lower cross bars respectively hinged to the outer ends of the respective pairs of said bench tops, table top extensions hinged at their inner ends to said upper cross bars, bench top extensions hinged at their inner ends to said lower cross bars, second upper cross bars underlying said table top extensions and hinged to the outer portions thereof, second lower cross bars respectively underlying the respective pairs of bench top extensions and hingedly connected thereto adjacent their outer ends, struts extending between and connected to the respective first and second cross bars, struts extending between and connected to the respective second cross bars, and legs connected to and projecting below each lower cross bar and means for retaining the struts at either side of said standard in collapsed upwardly swung condition against the standard.

8. A folding table comprising an upright support, a table top hinged at one end to said support for swinging movement, a leg unit underlying said table top and hinged to the other end of the same, a table top extension, means hingedly connecting said table top extension at one end to the other end of said table top, a second leg structure underlying the other end of said table top extension and hingedly connected thereto, a member disposed in parallel relationship with said table top and hingedly connected at one end to said support and at its other end to said first mentioned leg unit, and an extension member disposed in parallel relationship with said table top extension and hingedly connected at one end to said first mentioned leg unit and adjacent its other end to said second mentioned leg unit.

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