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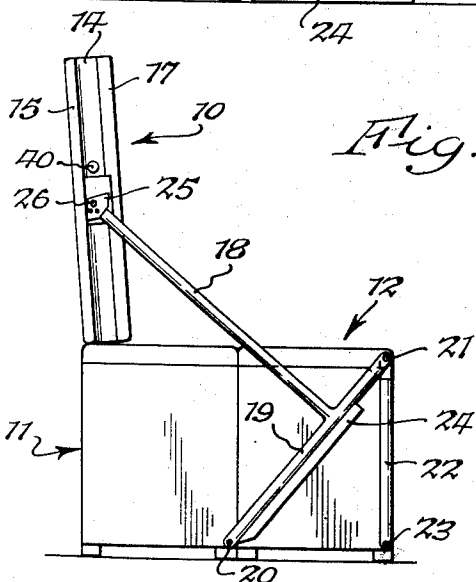
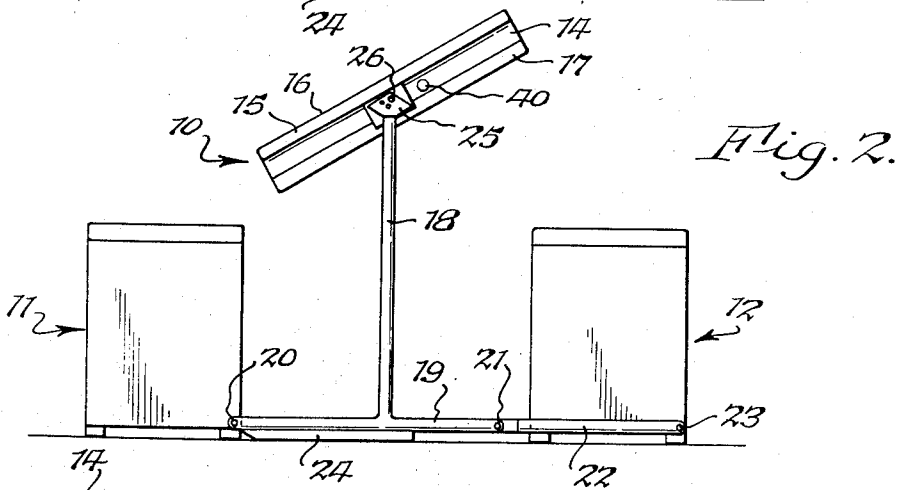
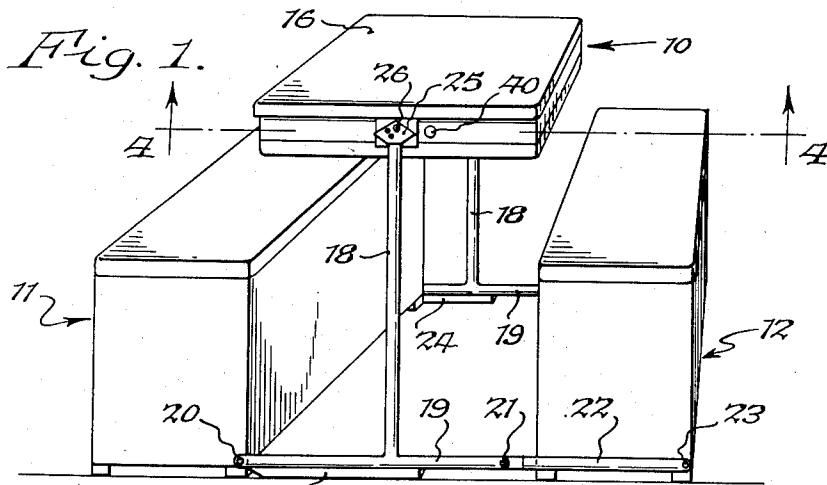
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TABLE BENCH STRUCTURE CONVERTIBLE TO CHAIR

Filed Nov. 25, 1953

2 Sheets-Sheet 1



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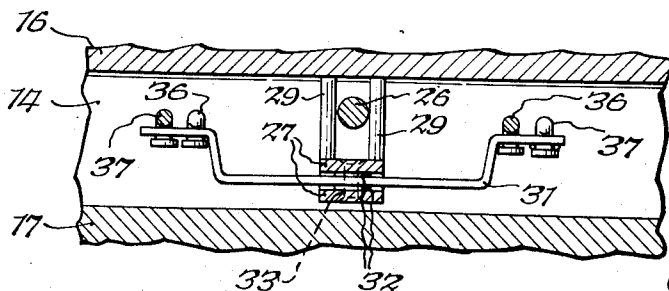
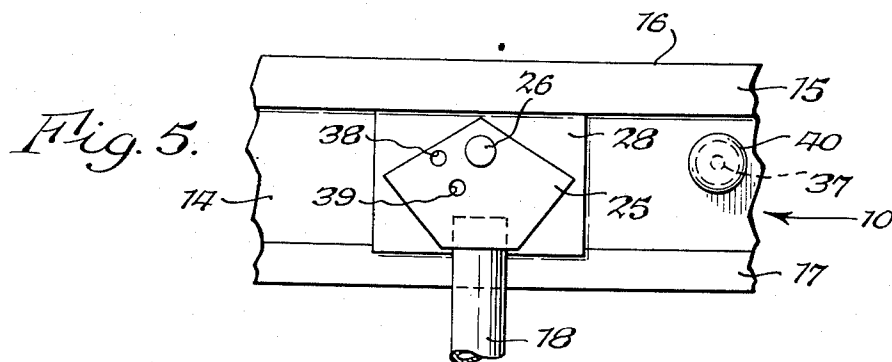
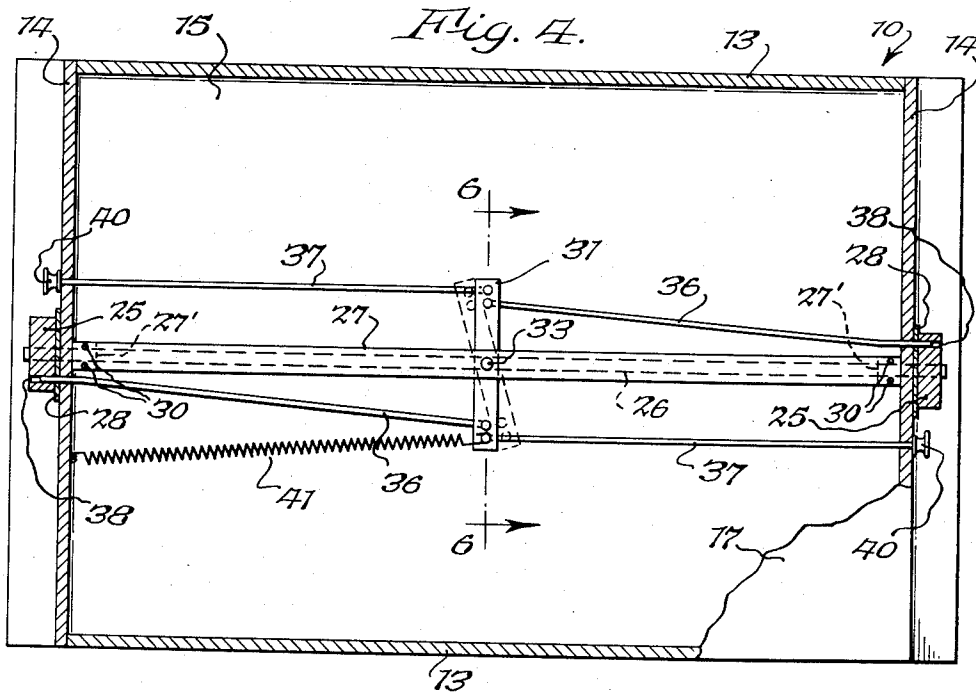
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TABLE BENCH STRUCTURE CONVERTIBLE TO CHAIR

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2 Sheets-Sheet 2



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TABLE BENCH STRUCTURE CONVERTIBLE TO CHAIR

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Application November 25, 1953, Serial No. 394,360

4 Claims. (Cl. 155—43)

This invention relates to a convertible furniture article, and more particularly to a table with benches along opposite sides thereof which is convertible to a chair having a seat and back.

Such a convertible furniture article is intended for indoor use, although it need not be so limited, and is of particular value in houses or apartments having small rooms in which it is desired to have a table and seats therefor set up only for dining or card playing purposes and the like, so that when the table is not needed additional floor space may be made available and at the same time a chair is provided.

An object of the invention is to provide a convertible furniture article of the type described which can be converted into either of its alternate forms quickly and with facility.

Another object is to provide such a convertible furniture article which when set up as a table with benches provides a steady and strong structure, and when set up as a chair provides a comfortable seat with back rest.

A further object is to provide such a convertible furniture article which is simple in construction, can be manufactured at relatively low cost, and is not likely to get out of order or require repairs.

Other objects and advantages will be apparent from the following description and accompanying drawings in which:

Fig. 1 is a perspective of the convertible furniture article embodying my invention viewed from one end thereof and showing the same set up as a table with benches along the opposite longitudinal sides thereof.

Fig. 2 is an end elevational view of the same end of the article shown in Fig. 1 and showing the table partially tilted preparatory to converting the furniture article into a chair.

Fig. 3 is a similar end elevational view of the furniture article but showing the same after full conversion into the form of a chair having a seat and back.

Fig. 4 is a horizontal sectional view through the table part shown in Fig. 1 and taken on line 4—4 thereof and showing principally in elevation the mechanism for locking the table on its support.

Fig. 5 is an enlarged fragmentary elevational view of the central portion of the end of the table shown in Fig. 1.

Fig. 6 is an enlarged sectional view through the locking mechanism and taken on line 6—6, Fig. 4.

Referring to Fig. 1 the convertible furniture article embodying my invention is shown set up as a table indicated generally at 10 with movable, spaced and generally parallel benches indicated generally at 11 and 12 along opposite longitudinal sides of the table. The table 10 is shown as comprising a box-like frame including longitudinal side members 13, 13 and end members 14, 14 suitably connected at their meeting corners. This box-like frame on one side is covered by a panel 15 which may be made of any suitable material so that the exposed or outer side thereof provides a table surface 16 when the table part is in a horizontal position as shown in Fig. 1. The panel 15 may be attached to the box-like frame in any suitable manner and as shown preferably overhangs slightly the side members 14, 14 as shown in Fig. 4. The opposite side of the frame member is also covered by a panel 17 which likewise is suitably attached to the rectangular frame. Preferably the exposed or outer side of the panel 17 is upholstered or cushioned so that a comfortable back rest will be provided when the article is converted to a chair as hereinafter described.

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Each end of the table part 10 is shown as supported on an upright member or leg 18 which preferably is in the form of a metal tube welded at its lower end to a lever 19 which also is preferably a piece of metal tubing. The point of connection of the leg 18 to the lever 19 is intermediate the ends of the lever and slightly closer toward one end thereof. The end of the longer arm portion of each lever 19 is shown as pivotally connected to the bench 11, as indicated at 20, adjacent the bottom thereof and adjacent that side thereof which opposes the other bench 12. The pair of levers 19 are so connected to the bench 11 that the axes of the pivotal connections 20 are in coincidence and substantially horizontal.

The opposite or free end of each lever 19 has a pivotal connection as indicated at 21 with a companion link 22. The axes of the pivotal connections 21 between each companion pair of levers 19 and links 22 are in coincidence and substantially horizontal. The opposite or remaining end of each link 22 is pivotally connected to the bench 12, as indicated at 23, adjacent the bottom thereof and adjacent that side thereof which is remote from the bench 11. The axes of the pivotal connections 23 are also in coincidence and substantially horizontal. In order to maintain each pair of levers and links in substantially horizontal alignment, a foot 24 is shown as arranged under each lever 19.

The upper end of each upright 18 has rigidly connected thereto a head 25 in the form of a plate. This is preferably accomplished by having the upper extremity of the upright 18 externally threaded and screwed into an internally threaded recess provided in the head 25, as shown in Fig. 5. Each such head 25 has a hole to receive the corresponding end of a pivot rod 26 which is arranged centrally of the table part 10 and extends longitudinally thereof through holes provided in the end members 14 and relatively thin metal wear plates 28 suitably fastened on the outer side of these end members and engaging with the inner and opposing face of the respective head 25. Thus the table part 10 can be rotated on the heads 25 about the horizontal axis of the pivot rod 26.

Releasable locking means are provided for firmly connecting the table part 10 to the heads 25 on the upper ends of the legs 18 so that the table part may be maintained in different angular positions relative to the legs, such as the horizontal position shown in Fig. 1 or the rear vertical position shown in Fig. 3. For this purpose a manually releasable mechanism is provided within the hollow interior of the table part 10 and is arranged to cooperate with the heads 25. As shown, such mechanism includes a pair of vertically spaced bars 27, 27 extending longitudinally of the table and maintained apart at their ends by blocks 27', 27' and supported in spaced relation to the inner surface of the table panel 15 by means of tubular spacers 29, 29 through which screws 30, 30 extend to fasten the assembly to the table panel 15. At their center, the bars 27 have pivotally connected thereto a lever 31 which, as shown in Fig. 6, is arranged between these bars and is spaced from each by a washer 32. A loose rivet 33 extending through registered holes in the bars 27, lever 31 and washers 32 serves as a central pivot pin for this lever.

The opposite ends of the lever 31 are offset toward the inner surface of the table panel 15 and have pivotal connections at each end with a locking rod 36 and a pull rod 37 which extend away from the lever in opposite directions. One end of each of the locking rods 36 is bent so as to align with and pass through registered holes provided in the corresponding end member 14 and wear plate 28 and is adapted to enter either of two holes 38, 39 provided in the respective one of the heads 25 on the upper ends of the legs 18. The holes 38 and 39 are equidistant from the axis of the pivot rod 26. The outer end of each pull rod 37 passes through a hole in the corresponding end member 14 and has a knob 40 secured to the outer end of the rod. In order to pull the knobs 40 inwardly of the table portion and against the outer surfaces of the end members 14, a spring 41 is shown as connected at one end to one end of the lever 31 and the opposite end of the spring is suitably connected to one of the end members 14.

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When the table part 10 is in the horizontal position shown in Figs. 1 and 5 wherein the outer surface 16 of the table panel 15 provides a horizontal table surface, the outer ends of the locking rods 36 are received in the respective holes or locking recesses 38 in the heads 25. When the table part 10 is in the position shown in Fig. 3 wherein the outer side of the back panel 17 provides a back rest, the outer ends of the locking rods 36 are received in the holes 39 in the heads 25.

Referring to Fig. 4, it will be seen that when either of the pull rods 37 is pulled outwardly the lever 31 is pivoted in a counterclockwise direction to withdraw the ends of the locking rods 36 from locking engagement with either the holes 38 or 39 in the heads 25, depending upon the initial locked position of the table part 10, to free the table part for limited pivotal movement about the axis of the pivot rod 26. When either of the knobs 40 is released the spring 41 urges the locking rods outwardly and will force the outer ends of these rods into engagement with either of the holes 38 or 39 when the ends of these rods are aligned with either set of holes.

Assuming the convertible furniture article is set up in the form shown in Fig. 1 to provide a table with benches along opposite sides thereof, and it is desired to convert the same to a chair having a seat and back rest as shown in Fig. 3, the operator pulls one of the knobs 40 outwardly to retract the locking rods 36 from the holes 38 in the heads 25 on the upper ends of the legs 18. Thereafter the operator tilts the table part 10 in a counterclockwise direction as viewed in Figs. 1-3 until the ends of the locking rods 36 snap into the holes 39 in the heads 25. This operation serves to lock the table part 10 in a different angular position with respect to the leg 18. The operator then pushes the locked table part 10 to the left which through the legs 18 serves to pivot the levers 19 in a clockwise direction about the axes of the pivotal connections 20. This raises the pivotal connections 21 and in effect swings the links 22 in a clockwise direction about the axes of the pivotal connections 23. The net result is to draw the two benches 11 and 12 together into abutting engagement as shown in Fig. 3 in which position the links 22 are substantially vertical and the legs 18 are so angled with respect to the combined upper surfaces of the benches 11 and 12 as to provide arm rests at opposite ends of the chair.

With the furniture item in the form of a chair as shown in Fig. 3, it will be seen that the cushioned panel 17 forms a comfortable back rest and the combined upper surfaces of the benches 11 and 12, which are also preferably cushioned, jointly provide a seat upon which a person can comfortably sit. In this connection, the benches 11 and 12 may be of any suitable construction and are not required to be in the box-like form shown.

It will be noted that the various parts of the furniture article are so dimensioned and proportioned that when set up as a table the same is at a comfortable height as are the benches and their spacing relative to the longitudinal edges of the table part 10 is a comfortable distance, and when set up as a chair the back rest forms an upward and slightly rearwardly tilted extension of the continuous seat provided by the benches which are in abutting engagement with each other. Also when the article is set up as a chair and in use as such, it will be noted that pressure of the user's back against the table part 10 will maintain the benches 11 and 12 together.

When it is desired to reconvert the furniture article from the chair form shown in Fig. 3 to the table and bench form shown in Fig. 1, the procedure above described is merely reversed. That is, the legs 18 are swung so as to straighten out the levers 19 and links 22, the levers 19 being lowered until the feet 24 rest on the floor, thereby moving the benches 11 and 12 apart. Thereafter the locking mechanism is released by manipulating either of the knobs 40 to permit the table part 10 to be changed from the angled position relative to the legs 18 shown in Fig. 3 to the perpendicular position between these members shown in Fig. 1.

From the foregoing it will be seen that the present invention provides a very simple, compact, attractive and

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comfortable furniture item which is convertible back and forth from a table with benches or seats along opposite sides to a chair having a seat and back rest.

I claim:

1. A furniture article convertible from a table with benches along opposite sides thereof to a chair having a seat and back, comprising a pair of movable spaced benches arranged substantially parallel to each other, a link pivotally connected at one end to each of the opposite ends of one of said benches, a second link pivotally connected at one end to each of the opposite ends of the other of said benches, means pivotally connecting the free ends of each companion pair of said links to each other, a leg fixedly arranged on each of said first mentioned links and rising therefrom, a table part pivotally supported on the upper ends of said legs, and releasable locking means arranged to maintain said table part in different angular positions relative to said legs.

2. A convertible furniture article as set forth in claim 1 in which said releasable locking means comprises a locking member arranged on the upper end of each of said legs and having locking recesses therein, a locking rod for each of said locking members and slidably carried by said table part and having one end selectively received in one of said recesses in the companion one of said locking members, a lever pivotally mounted on said table part intermediate the ends of said lever, means connecting the opposite ends of said locking rods to the opposite ends of said lever, a pull rod connected to at least one end of said lever and yielding means arranged to resist retraction of said locking rods from said recesses.

3. A furniture article convertible from a table with benches along opposite sides thereof to a chair having a seat and back, comprising a pair of movable spaced benches arranged substantially parallel to each other, a link pivotally connected to each of the opposite ends of one of said benches adjacent the bottom thereof and adjacent that side thereof which opposes the other bench, a second link pivotally connected at one end to each of the opposite ends of the other of said benches adjacent the bottom thereof and adjacent that side thereof which is remote from said one of said benches, means pivotally connecting the free ends of each companion pair of said links to each other, a leg fixedly arranged on each of said first mentioned links and rising therefrom a table part pivotally supported on the upper ends of said support members, and releasable locking means arranged to maintain said table part in different angular positions relative to said support members.

4. A furniture article convertible from a table with benches along opposite sides thereof to a chair having a seat and back, comprising a pair of movable spaced benches arranged substantially parallel to each other, a link pivotally connected at one end to each of the opposite ends of one of said benches, a second link pivotally connected at one end to each of the opposite ends of the other of said benches, means pivotally connecting the free ends of each companion pair of said links to each other, a leg fixedly arranged on each of said first mentioned links and rising therefrom, a head on the upper end of each of said legs, a table part having panels on its upper and lower sides, the outer surface of said upper panel providing a table surface and the outer surface of said lower panel providing a back rest when the furniture article is converted to a chair, means pivotally mounting said table part on said heads for pivotal movement about a generally horizontal axis, and releasable locking means arranged on said table part between said panels and cooperating with recesses in said heads to maintain said table part selectively in different angular positions relative to said legs.

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