Oct. 28, 1952 P. C. CURTIS 2,615,771

KNOCKDOWN TABLE

Filed July 10, 1951

FIG. 1.

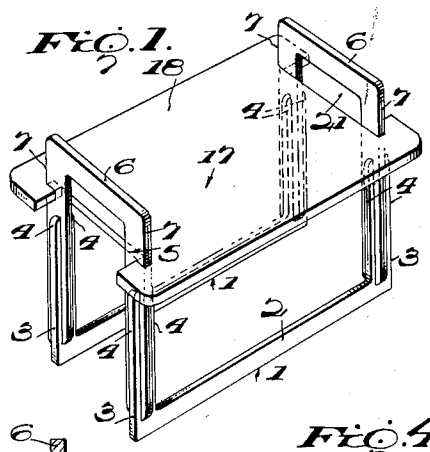


FIG. 2.

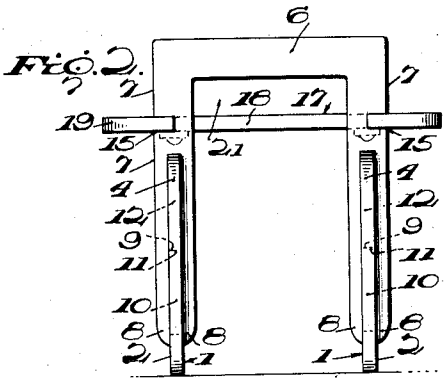


FIG. 3.

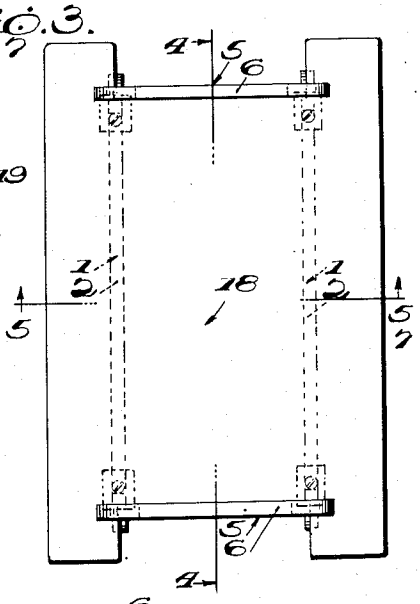


FIG. 4.

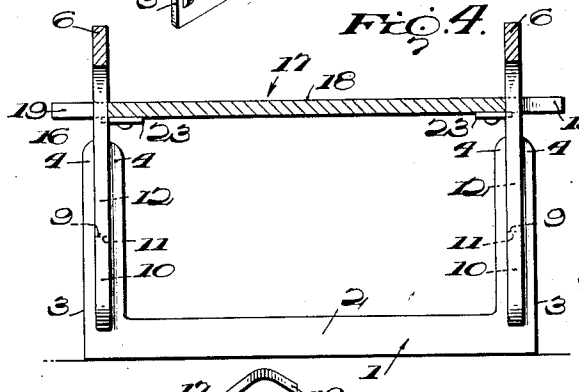


FIG. 6.

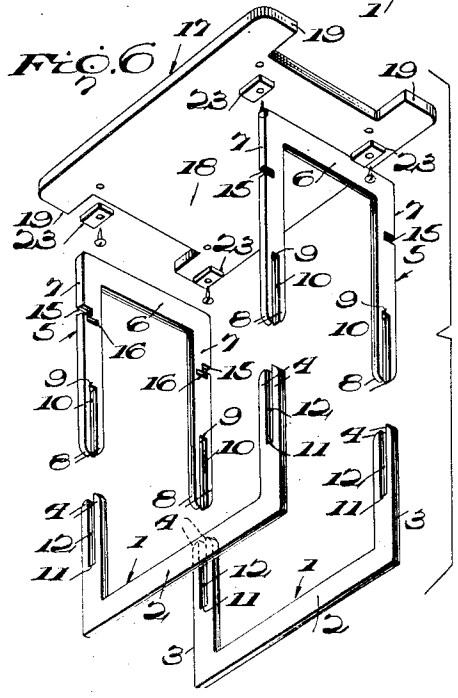
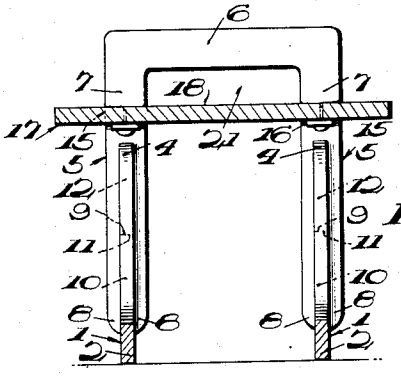


FIG. 5.



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KNOCKDOWN TABLE

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Application July 10, 1951, Serial No. 235,957

2 Claims. (Cl. 311—35)

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This invention relates to the construction of household furniture and the like. More particularly, it is concerned with providing a novel knockdown table assembly, the several parts or sections of which are adapted to be easily fabricated and then interlocked together to form a table without the use of nails, bolts, screws, glue and the like.

In the past, efforts to provide a knockdown table assembly, wherein the various parts or sections thereof could be easily fabricated and then locked together to form a table without the use of nails, bolts, screws, etc., have not met with success for one or more reasons.

Certain of these tables were assembled from parts having such an intricate design or complex shape, that they did not easily lend themselves to mass production or quick fabrication.

In addition, these same tables frequently required more than ordinary skill or special tools by the person assembling the several sections when the table was put together.

Other tables, although fabricated from simple interlocking parts, were not satisfactory since they lacked the strength and rigidity required for normal use.

Furthermore, it was considered necessary for such tables to be made only of metal parts, since it was believed that other materials such as plywood, or plastics did not have the inherent strength to provide a strong and rigid table assembly able to withstand normal wear and abuse. These parts were also not easily replaceable when lost or broken.

All of these factors added to the expense of such tables and precluded extensive manufacture and sale of the same.

It has been found, however, that by uniquely designing the several parts of a table, that a novel table assembly can be provided having exceptionally simple interlocking parts. This table has such inherent strength and rigidity that it can be made from materials readily available such as plywood, which is relatively inexpensive and easily worked.

The parts of the table of the instant invention can be quickly and easily fabricated without the need for special machinery or the services of a skilled craftsman and no special skill is required for assemblage of the parts or sections to make the finished product.

The table can also be assembled without the use of nails, glue, bolts, rivets, screws or special tools, all of which greatly decreases the cost of the table, so that considerable savings in material and labor can be passed on to the consumer.

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The table of the instant invention is also provided with novel leg elements which have handles or bails for lifting or transporting the assembled table formed integrally therewith.

Prior to assembly or after dismantlement of the table, the several parts can be quickly and conveniently stored in a minimum amount of space. For the purposes of shipment or transit, these same parts can be readily placed within a small package or container.

Accordingly, it is an object of this invention to provide a novel table assembly having simple interlocking parts, which can be easily fitted together without the use of nails, screws, glue, rivets or the like or the use of special tools.

It is a further object of this invention to provide a novel knockdown table assembly made from a minimum amount of parts, and from parts which are easily replaceable.

A further object of this invention is to provide a novel table assembly which can be fabricated from materials readily available such as plywood.

A further object of this invention is to provide a novel knockdown table assembly made from simply designed parts, which lend themselves to easy and quick fabrication.

A further object of this invention is to provide a novel table assembly having parts which can be placed conveniently in a package or container for shipment or storage.

A further object of the invention is to provide a novel table assembly having handles or bails for lifting or transporting the assembled table formed integrally with the leg elements or sections.

Another object of this invention is to provide a knockdown table having a novel top which can be conveniently and removably locked to the inner part of the legs thereof.

These and other objects will become more apparent by reference to the following detailed description when taken in conjunction with the drawings, wherein:

Figure 1 is a perspective view of the table of the instant invention;

Figure 2 is an end view of the table shown in Figure 1;

Figure 3 is a top plan view of the table shown in Figure 1;

Figure 4 is an elevational sectional view of the table taken along lines 4—4 of Figure 3;

Figure 5 is an elevational sectional view of the table taken along lines 5—5 of Figure 3; and

Figure 6 is an exploded view of the table show-

ing the relationship of the several parts immediately prior to assembly.

With further reference to the drawings and particularly Figures 1 and 5, it will be observed that the table assembly of the instant invention is comprised of a pair of spaced side frames 1. Each side frame is so formed from a single piece of plywood as to be comprised of an elongated floor engaging web portion 2, and leg elements 3 projecting substantially vertically upward from each end thereof.

Each of the leg elements 3 is possessed of exceptional rigidity and strength because of the integral web portion 2. This web portion also acts to distribute equally on each leg 3, any upward thrust upon the legs. Each leg 3 also has a plurality of spaced upwardly projecting fingers 4 at their free ends.

Mounted upon the side frames 1 at each of their extremities is an end member 5. Each end member in turn is formed from a single piece of plywood so as to be comprised of a web portion 6, and a pair of depending, downwardly projecting legs 7. As in the case of the base members, this web portion 6 acts to reinforce legs 7, and to distribute equally on each leg 7, any downward thrust upon the legs. Each of these legs 7 has a plurality of spaced fingers 8, at the free ends thereof. Fingers 8 are disposed at an angle which is substantially transverse to the upwardly projecting fingers 4 on the side frames and they are adapted to interlock with these latter fingers, when legs 7 of the end members are placed over legs 4 of the side frames and thrust downward until the bases 9 of the elongated, upwardly projecting slots 10 in the legs 7, contact the bases 11 of the elongated downwardly projecting slots 12 in the legs 3 of the side frames.

The end and side frames are then securely and rigidly locked together without the use of any external fastening means such as nails, screws, bolts, glue, etc.

It will also be noted by referring to Figures 2 and 4 that each end member 5 is also provided on the outer margin of each leg 7 intermediate its ends with a horizontal slot 15, the function of which will be described later. Spaced downwardly from each slot 15 on the inner face of leg 7, a hollowed-out recessed portion 16 may also be located, the function of which will be discussed later.

A top surface 17, comprised of a thick web portion 18, from which project outwardly a plurality of arms 19, is then interlocked with the legs 7 of the end members 4, to form a table top.

The table top is interlocked to the end frames 5 by means of the slots 15 in the outer marginal edges of legs 7, when portions of the arms 19 on table top immediately adjacent web 18 are inserted in these slots. When top 17 is interlocked with legs 7, it will also be noted that a space 21 exists between the webs 6 of the end members and the top 17 of the table. This enables one to slip his fingers in between the top of the table and the webs 6, so that the table can then be easily lifted and carried about. In other words, in this position the webs 6, in addition to strengthening and rigidifying legs 7, also act as bails or handles by means of which the table can be easily carried when in an assembled condition.

If desired, the table top 17 can be further anchored to legs 7 on the end members by means of a plurality of latching lugs 23, pivotally attached to the underside of the table at convenient points so that they may be inserted in the recessed portions 16 located on the inner faces of legs 7. The latching legs 23 may advantageously be made of plywood scraps.

It will thus be observed that a novel knockdown table assembly has been provided, having interlocking parts which can be easily assembled without the need for external fastening means such as screws, bolts, nails and the like. Each of the several slots in leg members 3 and 7 are only of sufficient width to provide a snug fit for the element or part which is receivable therein.

In addition, a table assembly has been provided, which is made from such uniquely and simply designed parts that even a child may put them together. This table has such inherent strength and rigidity because each interlocking part serves to strengthen and reinforce the parts adjacent thereto, that it can be made of materials readily available such as plywood.

Although the preferred embodiment of the invention contemplates that all the parts of the table be made of plywood because of its availability and low cost and the fact that it can be easily worked, it is conceivable that other materials could also be used.

Furthermore, although plywood having a thickness of about ¾ of an inch is the usual size of plywood employed in the making of furniture of this kind, it has been found that because of the inherent strength and rigidity afforded the table because of the interlocking arrangement of the several parts or sections of the table of the instant invention, and the web portions provided for the end frames and side base members, that plywood having a thickness within the range of ⅜ to ⅝ of an inch can also be used with excellent results for all the parts. In practice plywood of ½ an inch thickness has been found advantageous. This savings in material is obvious and can in turn be passed on to the consumer.

Accordingly, many changes and modifications may be made in the invention without departing from the spirit and scope thereof as defined by the appended claims.

What is claimed is:

1. A knockdown table assembly of the type described comprising the combination of a pair of spaced side frames, each of said side frames having an elongated floor engaging web portion, and leg elements projecting substantially vertically upward from each extremity of said web portion, each of said leg elements having a plurality of spaced upwardly projected fingers at the free ends thereof, a pair of end members, each of said end members having a web portion and downwardly projecting leg elements at each extremity thereof and each of said downwardly projecting leg elements having a plurality of spaced downwardly projected fingers at the free ends thereof, said last-mentioned fingers being disposed transversely to said upwardly projecting fingers on the leg elements of the side frames, whereby said downwardly projecting fingers are adapted to interlockingly engage said upwardly projecting fingers, when the end members are mounted on said side frames, each of said legs on said end frames also having a horizontal slot on its outer marginal edge intermediate the ends thereof, and a table top comprised of a thick web portion and an outwardly projecting arm at each corner thereof, whereby the top is adapted to

interlockingly engage the legs on said end members below the webs thereof and in spaced relationship thereto when portions of the arms of the table top immediately adjacent the web portion thereon are inserted in the horizontal slots on the leg elements of said end members.

2. A knockdown table assembly of the type described comprising the combination of a pair of spaced side frames, each of said side frames having an elongated floor engaging web portion, and legs projecting substantially vertically upward from each end thereof, and each of said legs having a plurality of spaced upwardly projecting fingers at the free ends thereof, a pair of end members, each of said end members having a web portion, and downwardly projecting legs at each extremity thereof and each of said downwardly projecting legs having a plurality of spaced downwardly projecting fingers at the free ends thereof, said last-mentioned fingers being disposed transversely to said upwardly projecting fingers on said legs of the side frames whereby said downwardly projecting fingers are adapted to interlockingly engage said upwardly projecting fingers, when the end members are mounted on said side frames, each of the legs on said end frames also being provided with a horizontal open slot on its outer marginal edge intermediate its ends, and a recessed portion spaced downwardly from said slot on the inner face thereof, a table top comprised of a thick web portion and an outwardly projecting arm at each corner thereof, whereby the top is adapted to be interlockingly engaged with the legs on said end members below the webs thereof and in spaced relationship thereto when portions of the arms of the table top immediately adjacent the web portion thereon are inserted in the horizontal slots on the leg elements of said end members, and a plurality of latching lugs pivotally mounted to the underside of said table top, each of said lugs being adapted to be inserted in a recessed portion in the said inner face of a leg element on said end frames.

PHILIP C. CURTIS.

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