

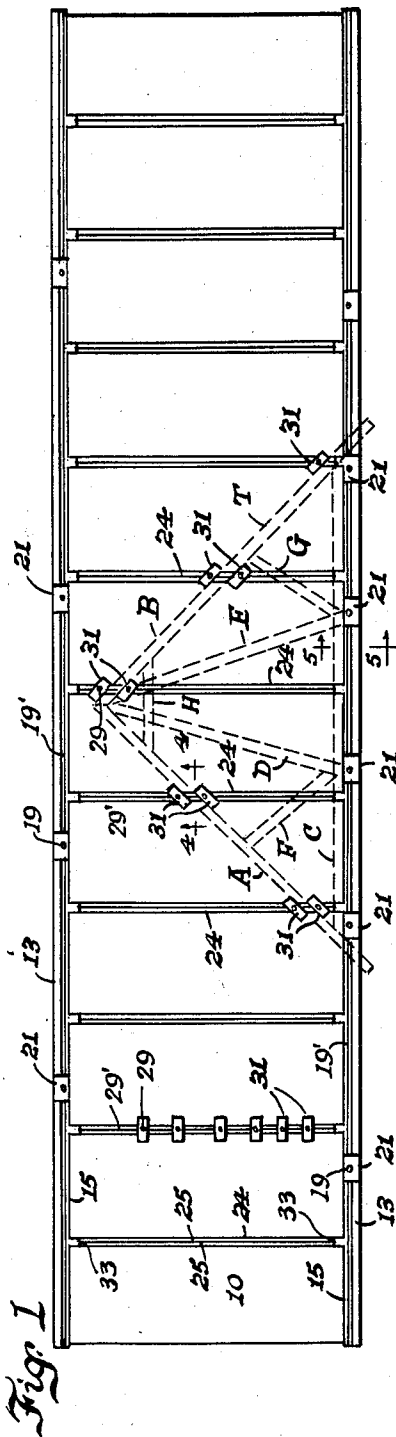
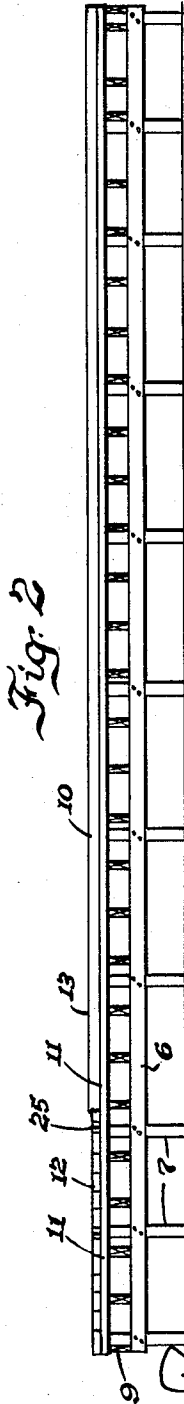
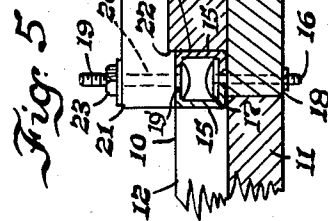
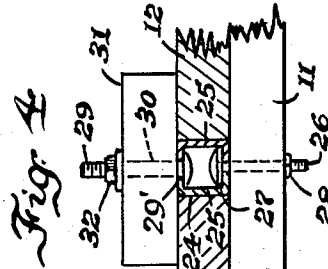
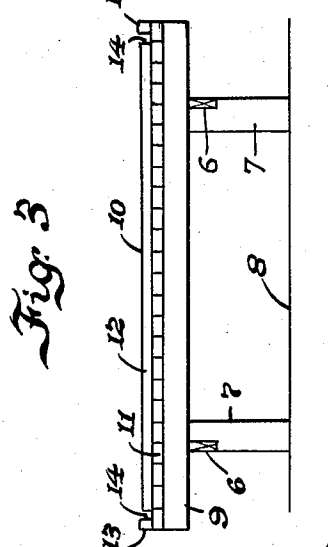
Jan. 5, 1960

L. R. JOHNSON

2,919,733

BUILDING FRAME PREFABRICATING TABLE

Filed Aug. 14, 1956



Inventor
Lloyd R. Johnson

Andrew J. [Signature]
City

1

2,919,733

BUILDING FRAME PREFABRICATING TABLE

Lloyd R. Johnson, Beloit, Wis., assignor to Fullerton Lumber Company, Minneapolis, Minn., a corporation of Minnesota

Application August 14, 1956, Serial No. 604,037

4 Claims. (Cl. 144—288)

This invention relates to a table for use in the more economical and more uniform prefabrication of building frames, such as roof-trusses.

The principal object is to provide a table capable of quick and easy adjustment for the easy uniform construction of a number of trusses for any pitch of roof and any width of building within a wide range, the table having blocks that are easily adjustable to various positions and fastenable securely in various arrangements for different trusses, thereby avoiding the objections going with the use of wooden blocks nailed to a table for each setup which must later be removed and discarded after each job, the table being, of course, damaged by the repeated fastening and unfastening where nails are used. The other method employed was to build a special pattern for each truss needed and make the trusses according to the pattern, but that method was even more objectionable because of the awkwardness and slowness, as well as inaccuracy, of that method, as compared to the handiness and speed and closer accuracy and uniformity of the present method, and because of the problem presented in the storage of a number of such large pattern structures, not to mention the sizeable investment a building contractor or lumber company would soon find had to be tied up in that way, because of the large variety of sizes and shapes of trusses required for different roofs.

The invention is illustrated in the accompanying drawing, in which—

Fig. 1 is a plan view of a truss table embodying my invention;

Figs. 2 and 3 are a front view and end view, respectively, Fig. 3 being on a slightly larger scale, and

Figs. 4 and 5 are sectional details on a still larger scale, taken on the correspondingly numbered lines of Fig. 1.

The same reference numerals are applied to corresponding parts in these views.

Referring to the drawing, the truss table comprises a pair of parallel wooden supports 6 carried horizontally on legs 7 in elevated relation to the floor or ground 8, these supports having a series of wooden joists 9 nailed thereto in closely spaced parallel relation for support of a wooden deck 10, made up of sub-floor boards 11 running lengthwise of the deck and nailed to the joists in crosswise relationship thereto, and floor boards 12 running crosswise of the deck and nailed to the subfloor. Extending lengthwise of the deck 10 and suitably fastened to boards 11 in spaced parallel relation to the ends of the floor boards 12 are oak stringers 13 defining longitudinally extending spaces 14 therebetween, and in each of these spaces 14 are disposed a pair of opposed metallic channel members 15, as shown in Fig. 5, the same being fastened by their lower flanges by means of bolts 16, the headed ends of which are passed through holes in metallic straps 17, that abut at their ends the webs of the channels to hold them apart, and have their end portions bearing on top of the lower flanges to clamp

2

the same to boards 11 when nuts 18 are tightened sufficiently on the protruding lower ends of bolts 16. Other bolts 19, which have their lower headed ends slidable in T-slot guideways 19' defined between the upper flanges of channels 15, extend through vertical holes 20 in rectangular wooden blocks 21 that are wide enough to straddle both the strip 13 and the tops of the two channels 15 in space 14, and are thicker through the latter half, thereby defining a longitudinally extending shoulder 22 for locating engagement with stringer 13. A nut 23 is threaded on the protruding upper end of each bolt 19 and serves (with its washer) when tightened to clamp the associated block in adjusted position along stringer 13.

There are similar pairs of opposed metallic channels 25 in spaces 24 that are provided crosswise of deck 10 between spaces 14, and there are bolts 26 the headed ends of which are disposed between the lower flanges of the channels for clamping these channels to boards 11, the bolts extending through holes in metallic straps 27, that hold the channels apart by engagement with the webs thereof and serve to clamp the channels down by engagement with the tops of the lower flanges thereof when the nuts 28 threaded on the lower ends of the bolts 26 are tightened. Bolts 29, whose headed lower ends are slidable in T-slot guideways 29' defined between the upper flanges of channels 25, are entered in vertical holes 30 in rectangular wooden blocks 31 to clamp the latter onto the deck 10 in any position of adjustment along the channels 25 and in any position of rotation about the bolts 29 as a center when the nuts 32 are tightened on the protruding upper end portions of the bolts.

In operation, the blocks 21 and 31 are adjusted along the guideways defined between the channels 15 and 25, as seen in Fig. 1, relative to any building frame, such as a roof truss indicated in dotted lines at T, and are clamped in such adjusted positions by tightening the nuts 23 and 32 associated with blocks 21 and 31, respectively, whereby to enable prefabrication of any desired number of trusses exactly the same as truss T, using blocks 21 and 31 as locating means while the various pieces are being nailed together. Thus, pieces A, B, and C are placed on the table deck 10 to define a triangle, using the blocks 21 and 31 to locate them accurately while they are being nailed together. Braces D and E and other braces F and G are also placed in the truss and fastened together with a peak board H. It is obvious that only the blocks 31 require rotary adjustment about bolts 29 to match the difference in angularity of the pieces A and B relative to piece C in different roof trusses. Blocks 21 for locating piece C never need rotary adjustment. While blocks 31 are shown in only some of the spaces 24, a number of such blocks are provided in each so that the one table may be used in the prefabrication of roof trusses for any pitch of roof and a wide variety of widths of buildings. Blocks 21 can be slipped into or out of guides 19' at the ends of the table. Blocks 31 can be slipped into or out of guides 29' at one end thereof, the channels 25 for that purpose terminating short of the one or both sets of channels 15, as indicated at 33 on Fig. 1. The same blocks 21 and 31 can, of course be used over and over again, because there is no need of driving any nails into or through any of these blocks at any time. While I have shown only a triangular roof truss T, it will be obvious that other shapes of roof trusses and other building frames may be assembled on the deck 10 using the blocks 21 and 31 in a similar manner as above described.

It is believed the foregoing description conveys a good understanding of the objects and advantages of my invention. The appended claims have been drawn to cover all legitimate modifications and adaptations.

I claim:

1. A table for use in prefabricating roof trusses and the like comprising a substantially horizontal rectangular deck having a guideway extending lengthwise thereof adjacent one edge thereof, a stringer secured to the edge portion of said deck parallel to said longitudinal guideway and defining a locating and guiding shoulder adjacent said guideway, blocks of inverted generally L-shaped cross-section disposed over said longitudinal guideway with one leg of the L overlying said stringer and the other leg of the L engaging the shoulder defined by the stringer, means slidable in said longitudinal guideway holding the blocks in abutment with the stringer and securing the same in longitudinally adjusted relation to said stringer, narrow T-slot guideways extending transversely relative to said deck in spaced relation to one another, blocks that are wide in relation to said guideways but small in relation to the lumber used in making a roof truss, said blocks being disposed over said last mentioned guideways, and vertical bolts slidable in said last mentioned guideways holding the blocks in line with said guideways and securing the blocks in longitudinally adjusted relation to said guideways while also permitting pivotal adjustment of the blocks with respect to said bolts to whatever angles are desired.

2. A table for use in prefabricating roof trusses and other building frames as set forth in claim 1, wherein the narrow T-slot guideways extending transversely relative to the deck have inturned flanges defining a passageway which is narrow in relation to the diameter of the heads of the bolts, and the flanges of at least some of said guideways terminate short of said longitudinal guideway defining openings adjacent said longitudinal guideway large enough for passage of the heads of the bolts for removal from and insertion of the bolts in the ends of said T-slot guideways.

3. A table for use in prefabricating roof trusses and other building frames comprising a substantially horizontal rectangular deck having a guideway extending lengthwise thereof adjacent each longitudinal edge thereof, a stringer secured to each longitudinal edge portion of said deck parallel to said longitudinal guideway and de-

fining a locating and guiding shoulder adjacent said guideway, blocks of inverted generally L-shaped cross section disposed over said longitudinal guideways with one leg of the L overlying said stringer and the other leg of the L engaging the shoulder defined by the stringer, means slidable in said longitudinal guideways holding the blocks in abutment with the stringers and securing the same in longitudinally adjusted relation to said stringers, narrow guideways extending transversely relative to said deck in spaced relation to one another, blocks that are wide in relation to said guideways but small in relation to the lumber used in making a roof truss or other building frame, said blocks being disposed over said last-mentioned guideways, and vertical bolts slidable in said last-mentioned guideways holding the blocks in line with said guideways and securing the blocks in longitudinally adjusted relation to said guideways while also permitting pivotal adjustment of the blocks with respect to said bolts to whatever angles are desired.

4. A table for use in prefabricating roof trusses and other building frames as set forth in claim 3, wherein the guideways extending transversely with respect to said deck are T-slot guideways that have inturned flanges defining a passageway which is narrow in relation to the diameter of the heads of the vertical bolts slidable therein, and the flanges of at least some of said T-slot guideways terminate short of at least one of said longitudinal guideways to define openings at the ends of the T-slot guideways large enough for passage of the heads of said bolts, whereby the bolts securing the blocks are removable from and insertable in the ends of said T-slot guideways.

References Cited in the file of this patent

UNITED STATES PATENTS

564,624	Keller	July 28, 1896
679,354	Yarnell	July 30, 1901
744,555	Jacobs	Nov. 17, 1903
1,281,624	Mathison	Oct. 15, 1918
1,490,608	Gilmour	Apr. 15, 1924
1,529,866	Burns	Mar. 17, 1925
2,162,611	Dreher	June 13, 1939
2,662,565	Le Vay	Dec. 15, 1953