

May 16, 1939.

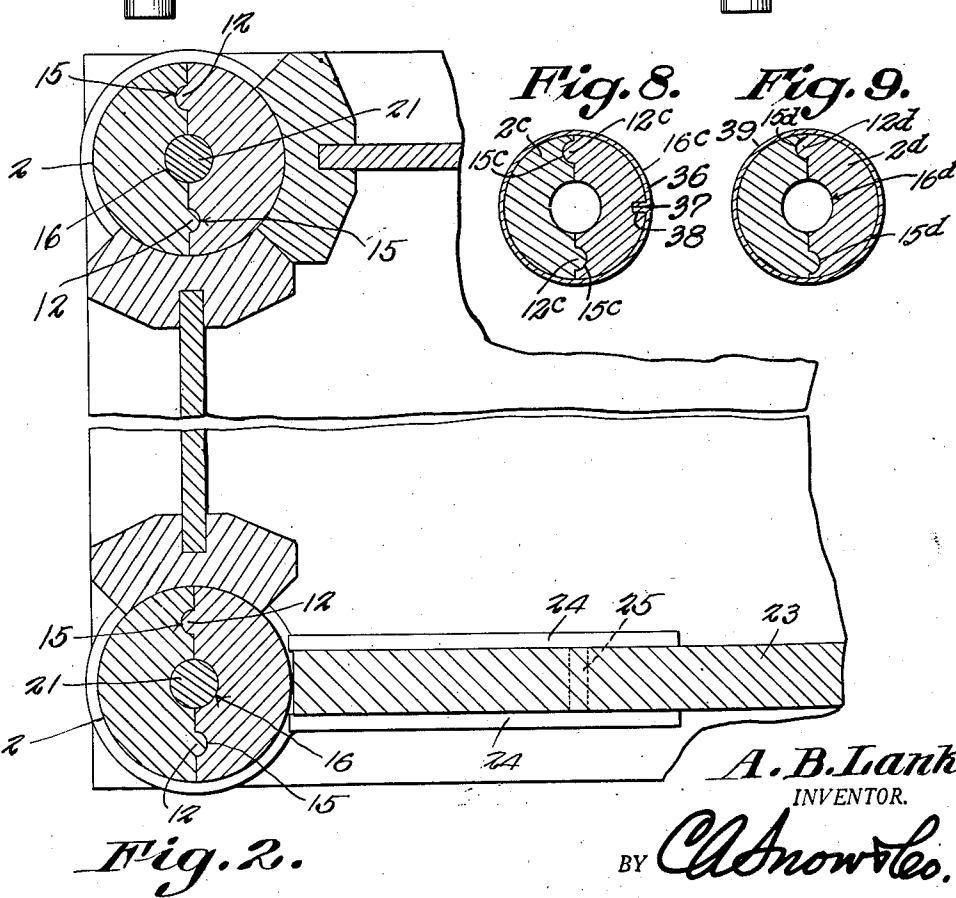
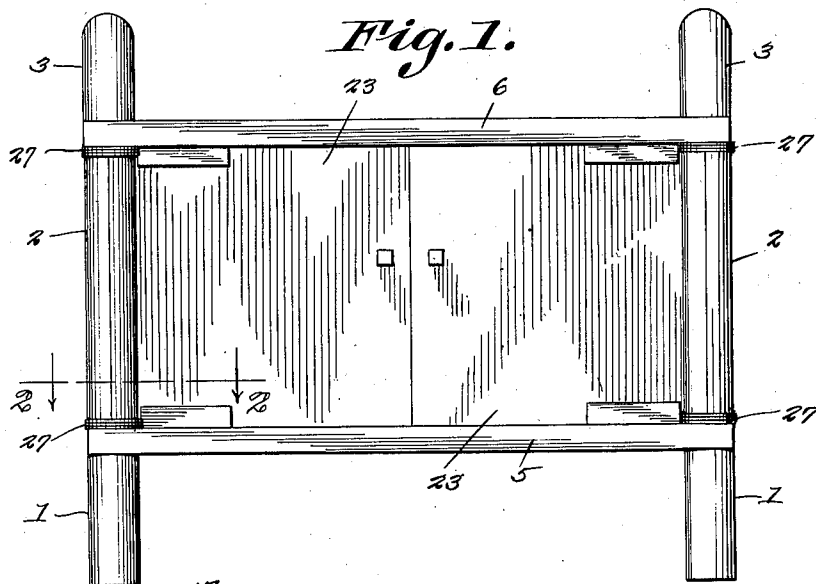
A. B. LANK

2,158,291

POST CONSTRUCTION

Filed Jan. 10, 1938

2 Sheets-Sheet 1



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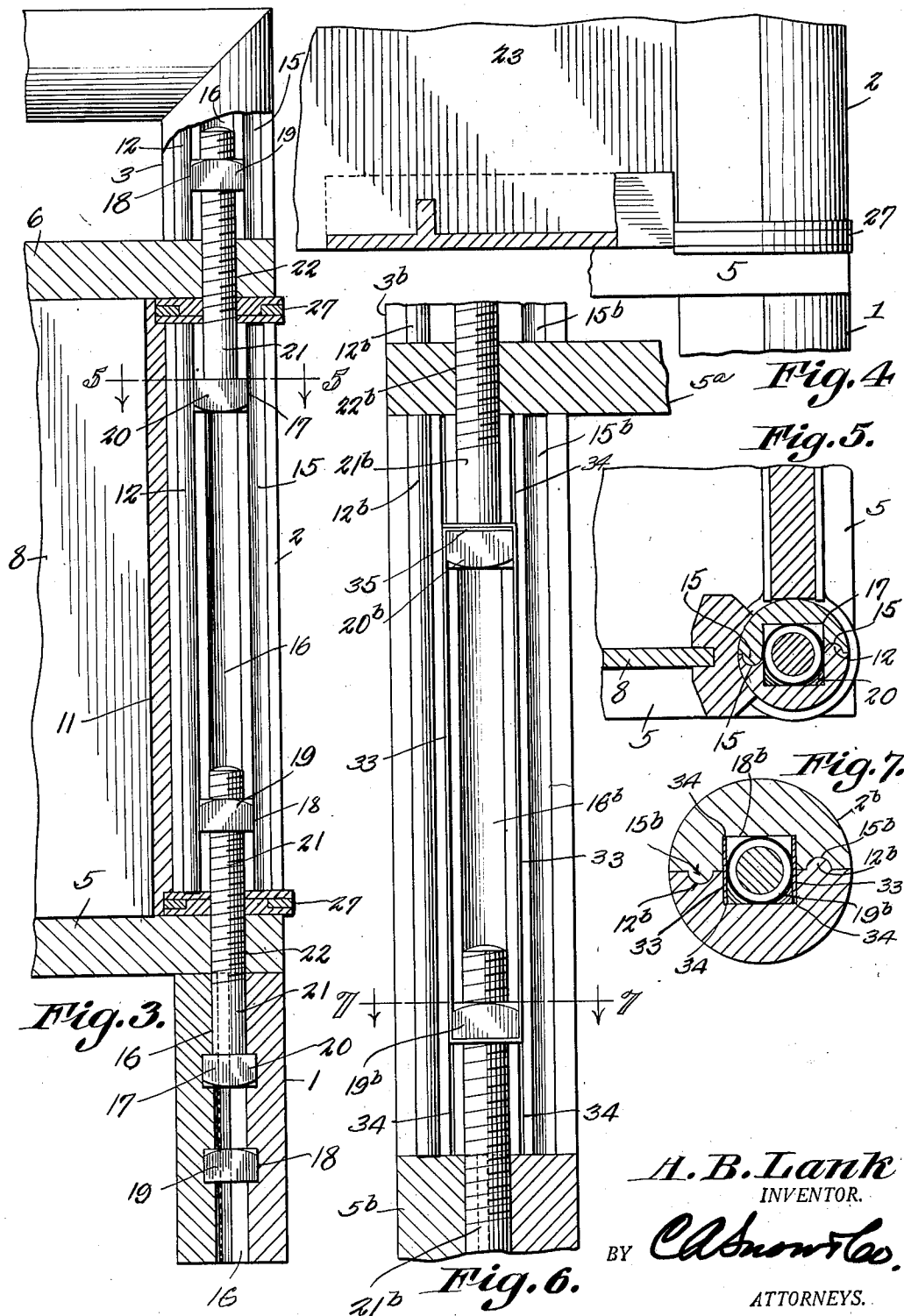
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POST CONSTRUCTION

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2 Sheets-Sheet 2



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POST CONSTRUCTION

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6 Claims. (Cl. 287—25)

This invention aims to provide a novel post structure, adapted to be used in the making of furniture, boxes, and for many other purposes in connection with cabinet making or building, the construction being such that a simple knock-down device is afforded, it being possible to bring about assembly without the use of tools.

A further object of the invention is to supply a device of the class described which will enable a mill owner to use up advantageously, small pieces of wood which otherwise would be wasted.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:

Fig. 1 shows in front elevation, the device forming the subject matter of this application, embodied in a cabinet.

Fig. 2 is a horizontal section on the line 2—2 of Fig. 1, parts being broken away;

Fig. 3 is a vertical section wherein parts are broken away, parts remaining in elevation;

Fig. 4 is an elevation showing that the post construction may be used with a hinge structure, parts appearing in section;

Fig. 5 is a section on the line 5—5 of Fig. 3; Fig. 6 is a vertical section showing a modification;

Fig. 7 is a transverse section on the line 7—7 of Fig. 6;

Fig. 8 is a transverse section showing one means whereby the posts may be rendered fire proof;

Fig. 9 is a section showing another means whereby the posts may be made fire proof.

Reference will be made first to the structure shown in Figs. 1 to 5 of the drawings.

In the cabinet C of Fig. 1, selected as a mere illustration, there are provided lower posts 1, intermediate posts 2 and upper posts 3. A shelf or panel 5 is disposed between the posts 1 and 2, and a shelf or panel 6 is disposed between the posts 2—3, there being as many or as few of the posts and panels as occasion may require. The word "panel" is employed to designate generally,

any article wherewith the device hereinafter described may be used conveniently.

As to the posts 1, 2 and 3, they are divided along longitudinal diametrical planes, to form parts which are glued together or joined otherwise. Each part of each post is provided on its inner surface with a longitudinal rib 12, received closely in a longitudinal groove 15 in the opposed part of the post, the grooves and the ribs aiding in holding the parts of each post against shifting laterally with respect to each other. Each post has an axial bore 16, and is provided near its ends with internal polygonal seats 17 and 18, extended across the bore, the rib 12 and the groove 15 of each part of the post being disposed on opposite sides of the bore. The bore 16 and the seats 17 and 18 are located partly in one half of the post and partly in the opposite half of the post. In the seats 18, nuts 19 are held, and in the seats 17 are held the heads 20 of bolts 21, located in the bores 16 and extended beyond the ends of the posts. The shelves 5 and 6 have holes 22.

The method of assembly will be understood readily from the drawings. The protruding end of the bolt 21 of one post is inserted through the hole 22 of the shelf 5 or 6 (if a shelf is used), into the bore 16 of an adjoining post, and is threaded into the nut 19 of the adjoining post until the shelf is bound tightly between the ends of the posts, a rigid structure being afforded, but the nature of the device being such that it can be set up or taken down without the use of tools.

The hinges 27 for the cabinet doors 23 are mounted to turn on the bolts 21.

The structure shown in Fig. 3, for example, is adapted to be used primarily when the posts, such as the posts 1, 2 and 3 are under compression. It may be, however, that the posts are under tension. Under such conditions, recourse is had to the structure shown in Figs. 6 and 7. In Figs. 6 and 7, parts hereinbefore described have been designated by numerals already used, with the suffix "b". In this form of the invention, a loop-shaped metal yoke 33 is provided, and its side portions are received in cooperating slots 34 formed in the parts of each post. The lower bolt 21b extends upwardly through the lower part of the yoke 33, and the yoke 33 extends beneath the nut 19b. The side portions of the yoke 33 may be turned inwardly and overlapped, as shown at 35, above the head 20b of the uppermost bolt 21b, the said bolt passing through the overlapped portions of the yoke. It will be obvious that, owing to the provision of the yoke 33, much of the ten-

sion is taken off the wooden posts, the tension being carried by the yoke 33.

It may be desired to render the structure fire proof and as to the fire proofing of the post, the form shown in Fig. 8 may be employed. In Fig. 8, parts hereinbefore described have been designated by numerals previously used, with the suffix "c". A post, such as the post 2c, may be surrounded by a strip of fire proofing material 36, preferably metal, the strip 36 having inturned ends 37, received in a slot 38 formed in one member of the post 2c.

In Fig. 9, parts hereinbefore described have been designated by numerals already used, with the suffix "d". In this form of the invention the post, such as the post 2d is surrounded by a tightly fitting tube 39 of metal or any other fire proof substance.

What is claimed is:

1. In a wooden knock-down structure, a post having a longitudinal bore and an internal seat intersecting the bore, a connecting member including a bolt located in the bore, the bolt being extended outwardly beyond one end of the post, the connecting member comprising as constituent parts, a head on the bolt and a nut threaded on the bolt, one of said constituent parts being held in the seat against rotation, the post being divided longitudinally to permit said one of the constituent parts of the connecting member to be mounted in the seat, and to divide the post into longitudinal sections, and means for holding the sections of the post together.

2. A wooden knock-down structure constructed as set forth in claim 1, and wherein the sections of the posts are of like cross sectional area and are provided on their inner surfaces with interengaged longitudinal tongue and groove parts disposed on opposite sides of the bore.

3. In a wooden knock-down structure, a post having a longitudinal bore and an internal seat intersecting the bore, a connecting member including a bolt located in the bore, the bolt being extended outwardly beyond one end of the post, the connecting member comprising as constituent parts, a head on the bolt and a nut threaded on the bolt, one of said constituent parts being held in the seat against rotation, the post being divided longitudinally to permit said one of the constituent parts of the connecting member to be mounted in the seat, and to divide the post into longitudinal sections, means for holding the sections of the post together, one of the sections of the post being provided with a longitudinal, ex-

ternal groove, and a fire proof covering extended about the post and having inwardly extended flanges received in the groove.

4. In a wooden knock-down structure, a post having a longitudinal bore, and internal seats intersecting the bore, a bolt located in the bore, the bolt being extended outwardly beyond one end of the post, the bolt including a head held against rotation in one seat and a nut held against rotation in the other seat and so constructed as to receive the bolt of a like post, the post being divided longitudinally to permit the head and the nut to be mounted in the seats, and to divide the post into longitudinal sections, means for holding the sections of the post together, and a yoke within the post and engaging the nut and the head of the bolt, to form a tension connection therebetween, the post having grooves receiving the yoke.

5. In a knock-down structure, a wooden post divided longitudinally from end to end to form lateral members, a metal connector comprising as constituent parts a threaded male element and a corresponding threaded female element, one of the constituent parts of the connector being located between and in direct clamping relation with respect to the members of the post, in accessible relation to the other of the constituent parts of the connector when said other constituent part of the connector is correspondingly mounted in another and correspondingly constructed post, and means for securing the members of the first-specified post together, to clamp said one of the constituent parts of the connector between them.

6. In a knock-down structure, a wooden post divided longitudinally from end to end to form lateral members, a metal connector comprising as constituent parts a commercial bolt having a polygonal head and a threaded shank, and a polygonal nut threaded for engagement with the shank, one of the constituent parts of the connector being located between and in direct clamping relation with respect to the members of the post, in accessible relation to the other of the constituent parts of the connector when said other constituent part of the connector is correspondingly mounted in another and correspondingly constructed post, and means for securing the members of the first-specified post together, to clamp said one of the constituent parts of the connector between them.

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