

July 18, 1933.

E. C. CORDES

1,918,634

DISPLAY RACK

Filed May 15, 1931

2 Sheets-Sheet 1

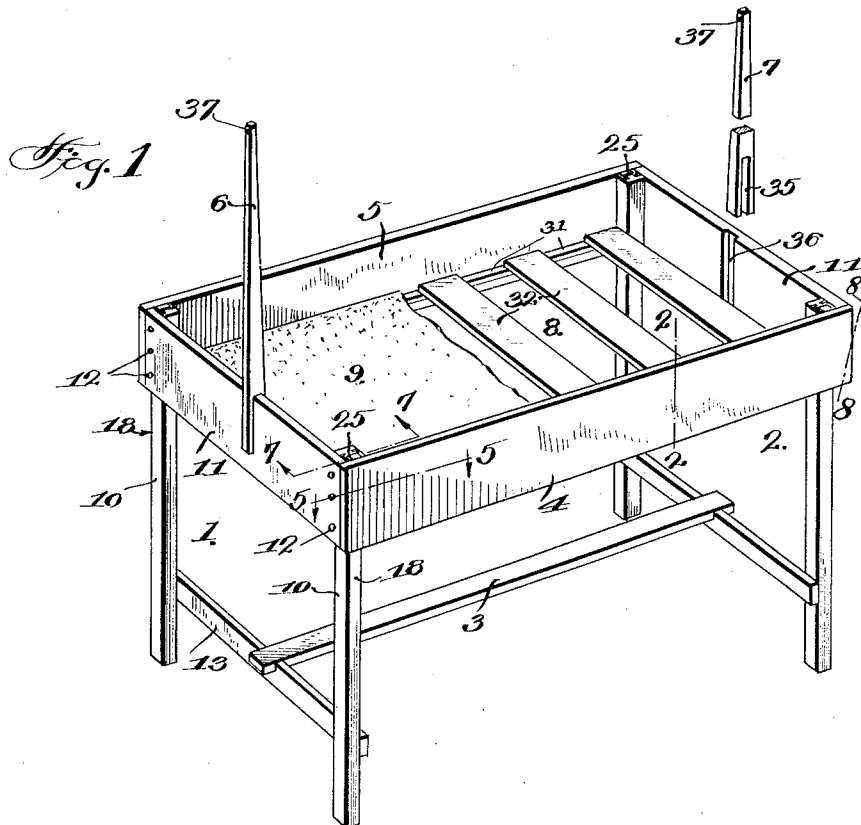
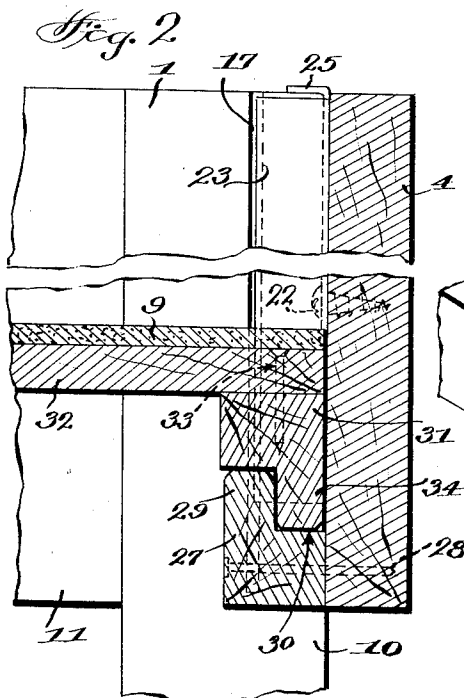
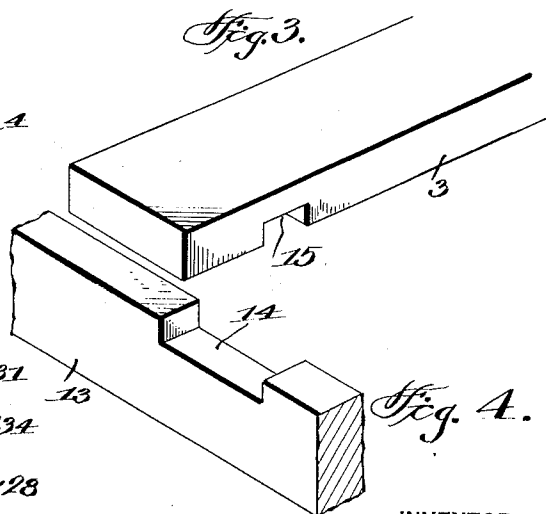


Fig. 4.

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2 Sheets-Sheet 2

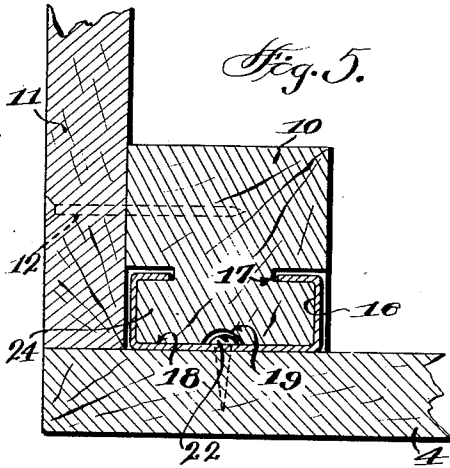


Fig. 5.

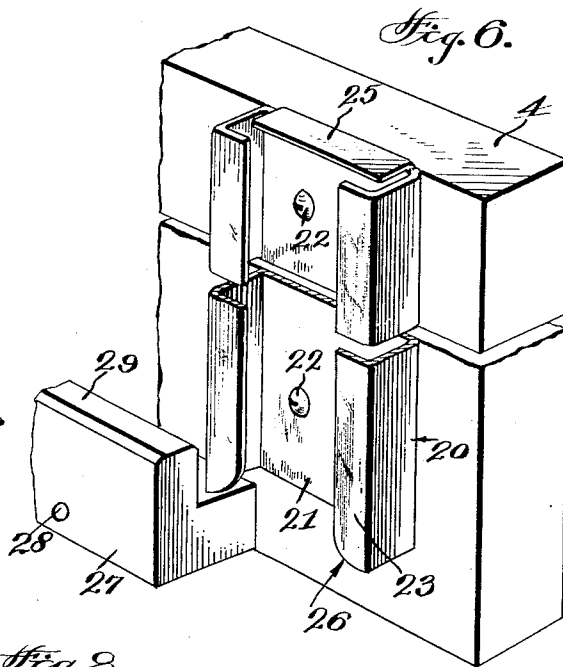


Fig. 6.

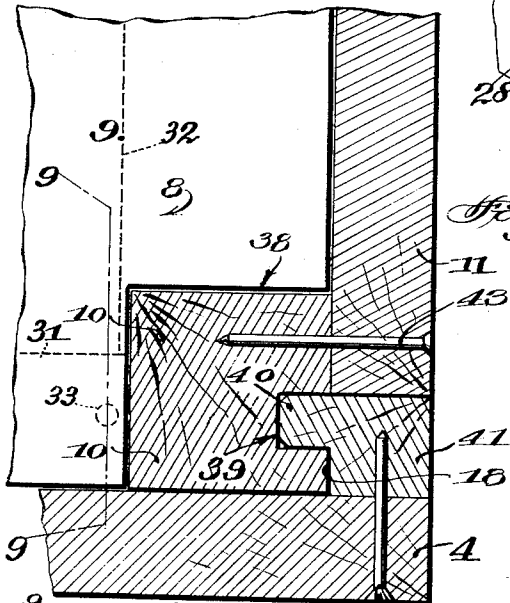


Fig. 8.

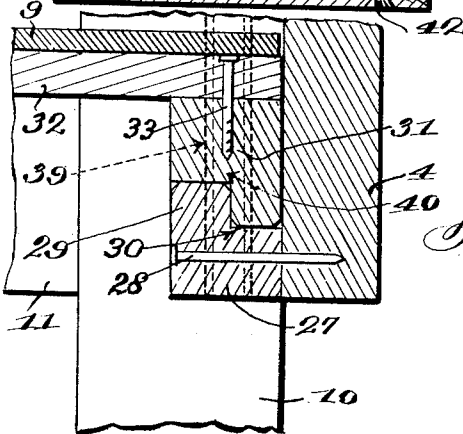


Fig. 9.

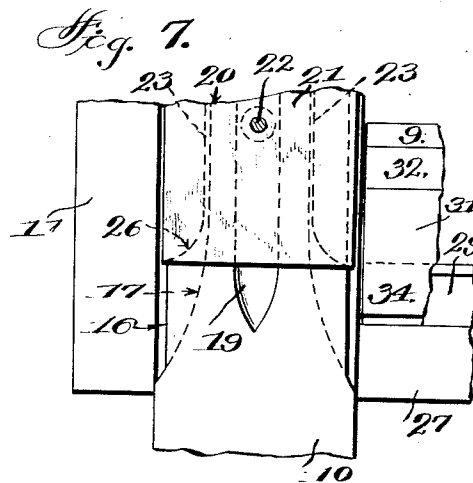


Fig. 7.

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DISPLAY RACK

Application filed May 15, 1931. Serial No. 537,687.

This invention relates to improvements in display racks, and it consists of the constructions, combinations and arrangements herein described and claimed.

5 An object of the invention is to provide a knock-down display rack which has facilities for rapid setting up and knocking down and a sturdy maintenance of position when set up.

10 Another object of the invention is to provide a display rack which comprises but a few previously manufactured parts that have only to be fitted together in order to produce a sturdy structure for any display purpose.

15 Other objects and advantages will appear in the following specification, reference being had to the accompanying drawings in which

20 Figure 1 is a perspective view of the improved display rack, one of the staffs being disassembled and a portion of the bottom being broken away to reveal what is herein known as the tray.

Figure 2 is a cross section taken on the line 2—2 of Figure 1.

25 Figures 3 and 4 are detail fractional perspective views of the longitudinal brace and one of the cross rails.

Figure 5 is a horizontal section taken on the line 5—5 of Figure 1.

30 Figure 6 is a fractional perspective view of one of the side boards with its leg receiving shoe.

Figure 7 is a detail section taken on the line 7—7 of Figure 1.

35 Figure 8 is a cross section illustrating a modified corner construction, the view appearing as though taken on line 8—8 of Figure 1.

Figure 9 is a detail section taken on the line 9—9 of Figure 8.

40 The herein disclosed display rack is intended to meet a need of grocers, proprietors of produce markets, keepers of dry goods stores and the like for a place where their wares can be displayed to advantage without having to 45 disarrange the permanent plan of the store by building in an additional fixture, nor necessitating arduous labor in setting up or taking down the fixture as occasions demand.

50 In other words, the improved display rack comprises a few pre-constructed parts which

are readily assembled and disassembled, and what is equally important, capable of a sturdy maintenance when set up, not to mention the capability of being gathered together 55 in a small compass when taken down. Reference is made to the drawings. In its general aspects the rack comprises two ends denoted 1 and 2, a longitudinal brace 3, two side rails or boards 4, 5, two staffs 6, 7, a tray 8 and a 60 bottom 9. The two ends 1, 2 are identical in every respect, and the construction of one is as follows:—

A pair of legs 10 is bridged at the top with a cross rail or board 11 which is nailed or otherwise permanently attached at 12 at its 65 ends to the top extremity of the legs so that the outer longitudinal edge of the cross board will be approximately flush with the adjacent end of the legs. A cross rail 13 bridges the legs near the bottom. By way of digres- 70 sion, each of the cross rails 13 is notched at 14 (Fig. 4) to receive the longitudinal brace 3 correspondingly notched at 15 (Fig. 3).

Opposite sides of the legs 10 are rabbeted 75 at 16 and grooved at 17 (Fig. 5), the groove and rabbet set on one side facing the inside of the adjacent cross board 11 (Fig. 5) where the nails 12 go through as already pointed out. The remote sides 18 of the legs are set 80 back a little (Fig. 5) from the transverse edges of the cross boards 11. These remote sides are also centrally grooved at 19 (Figs. 5 and 7) for a purpose presently known. All of the foregoing parts of the end 1 (also 85 2), excepting the longitudinal brace 3, constitute a unit. This unit is manufactured as such, and maintains its unity regardless of how much the rack is set up or taken down.

The next elements in order are the side 90 boards 4, 5. Each of these is identical, and the construction of the side board 4 is as follows:—Aside from the board involving nothing more than a plane, rectangular member, it carries at each of its ends a metallic shoe 95 20 (Figs. 5 and 6) which cross-sectionally corresponds with the foregoing rabbet arrangement 16, 17 (Fig. 5).

To the latter end each shoe 20 has a back 100 21 which is drilled or punched with a num-

ber of holes through which round-head screws 22 (Fig. 6) are driven into the board 4. The center groove 19 makes room for the round heads when the shoe is slipped down over the top end of the leg 10. The longitudinal edges of the back 21 are formed into bent flanges 23 to produce what is virtually a pocket by which the T head 24 of the leg 10, resulting from the groove and rabbet arrangement, is received.

A lip 25 (Fig. 6) at the top of the back 21 limits the position of the side board 4 in reference to the leg 10. Curvatures 26 at the bottoms of the bent flanges 23 facilitate the entrance of the T head 24 (Fig. 5) into the shoe pocket. Each shoe 20 is so secured by the screws 22 near the longitudinal ends of the boards 4, 5 that when connection is made with the legs the longitudinal ends of the side boards will either be flush or nearly so with the cross boards 11. This is in the interest of a pleasing finish. In setting up the rack the ends 1, 2 are held in position by one person without difficulty, unless the rack happens to be of unusually large proportions, the preliminary holding of the ends being promptly fixed by the application of the first side board.

The first side board is simply slipped in place by sliding the shoe 20 over the T heads 24. The lips 25 limit the slipping down. After both side boards 4, 5 are put in place the tray 8 comes next, and for the support of this each side board has a carrying rail 27 (Fig. 2), secured by nailing from the inside at 28 to the inside, bottom longitudinal edge. Each rail comprises a tongue and the groove arrangement 29, 30.

Similar rails 31 (Fig. 2) provide end supports for a number of slats 32 (Fig. 1). These slats 32 are secured to the rails 31 by nails 33 (Fig. 2), and the combination constitutes the tray 8. The rails 31 have tongues 34 which fit in the grooves 30 and prevent the rack from spreading laterally.

It is perfectly plain that as long as the nails 33 hold, the side boards 4, 5 will not be permitted to spread even under considerable lateral pressure. So, after the tray 8 has been put in place, following which a notable stiffening of the rack will become apparent, the bottom 9 is laid in place on the slats. Following this the longitudinal brace 3 is put in place whereupon the setting up of the rack is completed with the exception of placing the staffs 6, 7.

These are forked at 35 (Fig. 1) to fit grooves 36 on the insides of the cross boards 11. The staffs may be as high as desired. There are holes 37 in the upper ends, facilitating the attachment of a wire or cord which will be stretched from one staff to the other for the hanging up of articles or display signs.

It is important to observe that the longi-

tudinal brace 3 prevents pivoting of the pairs of legs 10 at the points where these have slip connections with the container means of the display rack. The legs are merely slipped in position as previously pointed out, and while the coupling thus afforded has considerable inherent strength yet the longitudinal brace 3 acts to withstand thrusts in the directions of the cross boards 11, consequently steadying the legs and preventing the container from pivoting as just brought out.

The bottom 9 comprises any appropriate material such as cardboard, thin lumber, etc. and the corners will be cut out at 38 (Fig. 8) to make room for the legs 10. The bottom is easily removed by simply reaching under the rack and pushing up in the space between a pair of slats 32.

Sometimes manufacturing facilities make it difficult to provide the metallic shoe 20. In such an event the corner construction of Figures 8 and 9 will be resorted to. This construction is as readily separable as is the construction in Figure 1. The boards 4 and 11 will be recognized as corresponding with similar boards in Figure 1. The leg 10 (confining the description to one corner) has a single groove 39 on the remote side 18, in which the tongue 40 of an insert 41 fits.

This insert 41 is secured to the side board 4 by nails 42 or their equivalents. The leg 10 is secured to the cross board 11 by nails 43 or their equivalents. The leg 10 is thus carried by the cross board 11 as before. In completing the board assemblage in Figure 8 the tongue 40 is simply slipped down into the groove 39. This is done by taking hold of the side board 4 and moving it downwardly beside the leg from the top, at the same time introducing the tongue 40 into the groove 39 so as to complete the slip connection.

This mode of connection requires something to hold the boards together, or in other words, to hold the cross boards 11 out to their extended position. Inasmuch as the carrying rails 27 are fixed to the side boards 4, 5, it is a simple expedient to leave out a piece of the carrying rails at each end to provide a space large enough for the legs 10 to fit into. The carrying rails 27 thus serve to keep the legs 10 pressed against the inserts 41 and the cross boards 11 in the proper outward position.

Inasmuch as the tray 8 and bottom 9, comprising the bottoming means, are last inserted it follows that these will also aid in keeping the cross boards 11 out where they belong. The tray 8 is connected with the side boards 4 in the identical manner of Figure 2, the interlocking rails 27, 31 being plainly shown in Figure 9.

I claim:—

1. A display rack comprising a set of legs, a portion of each leg being partly grooved to define a T head, cross boards secured to the

legs but leaving the T heads exposed, side boards, shoes carried by the side boards being insertible over the T heads to complete a board assemblage, and means to bottom the board assemblage.

2. A display rack comprising a pair of ends each including cross boards and a pair of legs secured thereto, the remote sides of the legs being set back slightly from the extremities of the cross boards and having a groove and rabbet arrangement defining T heads on said remote sides, a pair of side boards, shoes having backs connected near the ends of said boards, occupying the spaces provided by the set backs of the legs and having bent flanges providing pockets to receive the T heads and having lips for bearing on the tops of the legs to limit the position of the side boards, a tray comprising tongued rails and connecting slats, and tongue-and-groove rails carried by the side boards to be interlocked with the foregoing rails to prevent spreading of the side boards, and a bottom laid on the slats.

3. In a display rack, a leg having a groove and rabbet arrangement on opposite sides defining a T head, a cross board secured to the leg adjacent to one of the grooves and rabbet arrangements and extending but slightly beyond the T head, a shoe pocketing the T head being flush on the outside with the adjacent end of the cross board, and a side board secured to the outside of the shoe and extending over the cross board.

4. In a display rack, a leg having a groove, a board secured to the leg free of the groove, a coacting board, a tongued insert secured to said coacting board and connectible with the groove, and bottoming means connected with one of the boards preventing disconnection of the tongue from the groove.

5. A display rack comprising a pair of boards forming part of a board assemblage, a pair of legs permanently attached to each of said boards, each of the legs having a

groove, a second pair of boards completing the board assemblage, and a pair of means secured to each of the second boards and having means to assume an interlocking engagement with the grooves of the legs.

6. A display rack comprising a pair of boards forming part of a board assemblage, a pair of legs permanently attached to each of said boards, each of said legs having a groove unobstructed by said boards, a second pair of boards completing the board assemblage, a pair of inserts secured to each of the second boards including tongues to fit in the grooves of the legs, means to keep the legs in position against the inserts, and bottoming means for the display rack being rested on the foregoing means.

7. In a display rack, adjacent side and cross boards, a leg attached to one of the boards and having a groove, an insert attached to the other board having a tongue to fit the groove, and means on said other board to keep the leg in position against the insert when said other board and insert are slipped in position respecting the leg.

8. A display rack comprising a set of legs, a portion of each leg being grooved to define an outstanding head, cross boards so secured to the legs as to leave the heads exposed, side boards, engaging securing means carried by the side boards, being interengageable with the heads to lock the boards in assemblage, and means to bottom the board assemblage.

9. A display rack comprising a pair of ends each including cross boards and legs attached to the substantial extremities of said boards, a pair of side boards, and means near the extremities of the side boards being slidably coupled with the legs in abutting engagement of extreme portions of the side boards with extreme portions of the cross boards.

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