R. R. BELCHER.

SHELVING CONSTRUCTION.

APPLICATION FILED AUG. 1, 1918. RENEWED OCT. 21, 1919.

1,324,537. Patented Dec. 9, 1919.

2 SHEETS—SHEET 1.

Fig. 1.

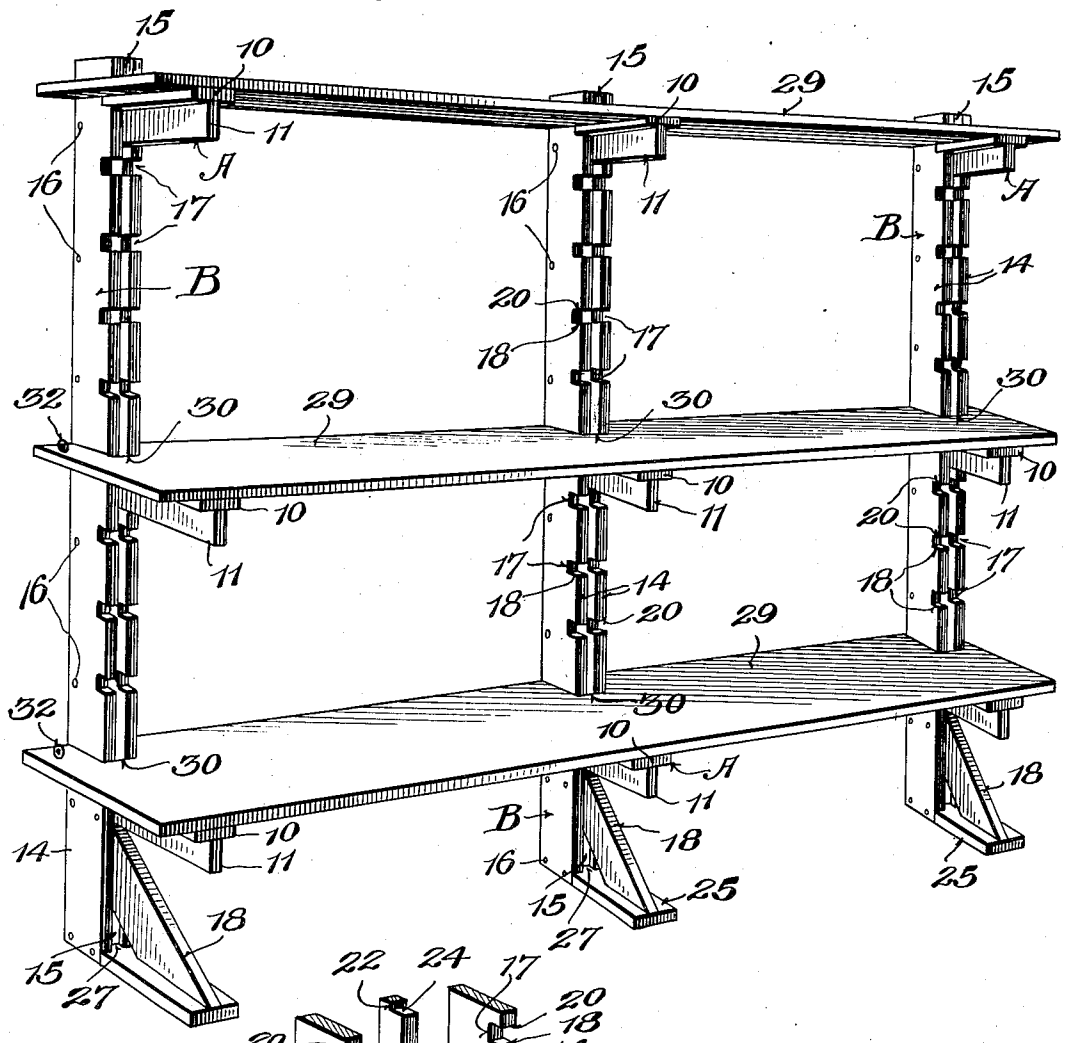
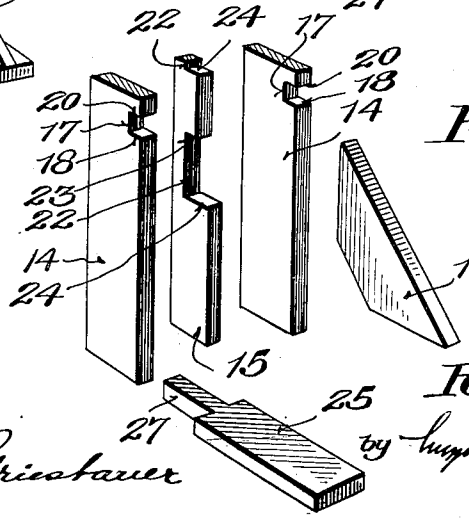


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

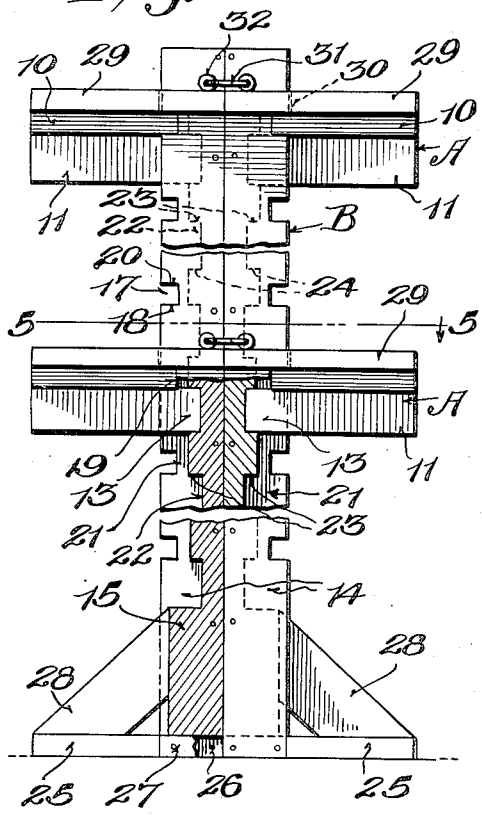


Fig. 4.

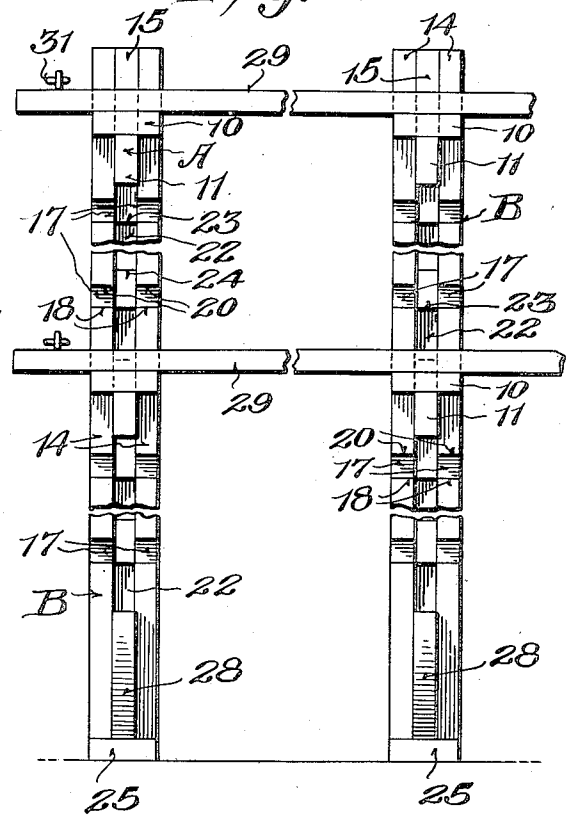


Fig. 5.

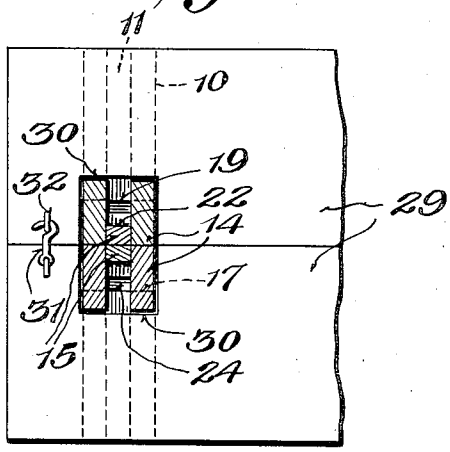


Fig. 6.

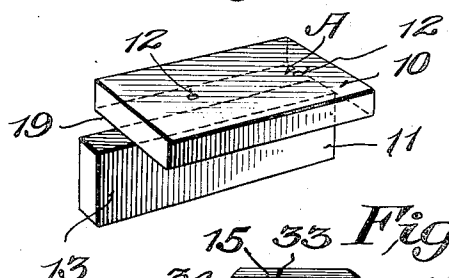
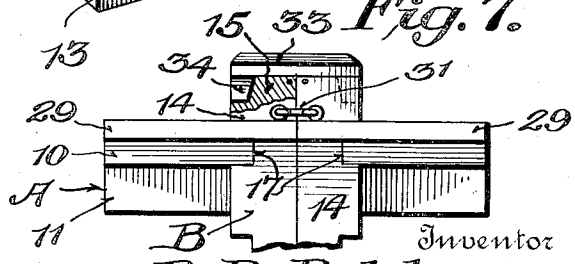


Fig. 7.



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UNITED STATES PATENT OFFICE.

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SHELVING CONSTRUCTION.

1,324,537. Specification of Letters Patent. Patented Dec. 9, 1919.

Application filed August 1, 1918, Serial No. 247,821. Renewed October 21, 1919. Serial No. 332,278.

To all whom it may concern:

Be it known that I, RALPH ROY BELCHER, a citizen of the United States, residing at Bainbridge, in the county of Decatur and State of Georgia, have invented new and useful Improvements in Shelving Construction, of which the following is a specification.

This invention relates to shelving constructions for use in stores, warehouses and the like, and has as its purpose to provide a shelving construction which embodies but relatively few parts, each of which part is very simple in construction, so that the shelving may be formed of wood and be cheaply manufactured. Shelving made in accordance with the present invention, while being very simple and cheap, is relatively strong and may be readily installed, easily removed and arranged.

The above and other objects of my invention are obtained in the structure described in the following specification and illustrated in the accompanying drawings, and wherein:—

Figure 1 is a perspective view of a section of shelving constructed in accordance with the present invention.

Fig. 2 is a perspective view on an enlarged scale of the lower ends of the members or parts forming a standard, the parts being separated for purposes of illustration.

Fig. 3 is an edge view, partly in elevation and partly in section, of two lines of shelving placed back to back.

Fig. 4 is a front elevational view of the shelving construction.

Fig. 5 is a horizontal sectional view taken on line 5—5, Fig. 3.

Fig. 6 is a perspective view of one of the shelf supporting brackets.

Fig. 7 is a side view, partly in section, showing a cap piece for the columns.

Referring to said drawings, wherein like reference characters represent like parts in the several views, the letter A designates the shelf supporting brackets, each of which, by preference, merely comprises two strips 10 and 11 of wood. The strip 10, which serves as a shelf receiving portion, is secured along its central longitudinal portion by means of nails 12, screws, glue or the like, to the edge of the strip 11, which serves as a web. The web portion 11 is longer than the shelf receiving portion 10 so as to extend beyond one end thereof and form a socket engaging portion 13.

The letter B designates, generally, the columns or posts upon which the brackets A are adjusted vertically. Each of the posts B comprises a pair of spaced outside strips 14 and a central or spacing strip 15 between the outer strips, the several strips being secured in assembled position in any suitable manner, but preferably by means of nails 16. The strips 14 and 15 are, by preference, constructed of wood so as to reduce the cost of manufacture and facilitate assembling.

Each of the outer strips 14 has spaced apart longitudinally of its front edge a plurality of notches, these notches being rectangular in shape and being equal in length to the thickness of the shelf portion 10 of the brackets A so as to snugly receive the inner end of the same. It will be seen from the drawings, and particularly from Fig. 3, that each of the notches 17 has an upwardly facing shoulder 18 upon which shoulder 19, formed by the under surface of the shelf portion 10 of the bracket A on either side of the socket engaging portion, rests. Each of the notches 17 also has a downwardly facing shoulder 20, against which the upper surface of the shelf receiving portion 10 engages. Corresponding notches 17 in the strips 14 are in horizontal alinement with each other.

The central strip 15 of each column B is of less depth or thickness than the outside strips 14, and has its rear edge flush with the rear edges of the side strips so as to provide a longitudinal groove 21 between the forward edges of the side strips. The front edge of the spacing strip 15 is also provided with notches 22 which are spaced apart similarly of the notches 17 of the strips 14, but with the upper edge or downwardly facing shoulder 23 of each notch 22 in horizontal alinement with the upwardly facing shoulders 18 of the corresponding notches 17. The notches 22 are in length equal to the height of the socket engaging portion 13 of the brackets A, so as to snugly receive said portion with the upper edge of the portion 13 closely engaging the downwardly facing shoulder 23, and the lower edge of the portion 13 resting on the upwardly facing shoulder 24. At the lower end of each of the columns or posts B is a forwardly ex-

tending foot or pedestal 25, which prevents the shelving from falling forwardly away from the wall of the building or store room. The lower end of the spacing strip 15 of each column B terminates short of the lower ends of the outer strips 14 so as to provide a socket 26 adapted to receive a narrow tongue 27 extending from one end of the body portion of the foot 25. A diagonally extending brace 28 is secured at its upper end between the strips 14 and is fastened at its lower end to the foot 25.

The shelves designated by the numeral 29 are also, by preference, constructed of wood and each shelf is notched, as at 30, to fit the posts B when the shelves are laid upon the brackets A.

It is often desirable to locate the shelving construction away from the wall of the building, to provide plurality of aisles, and in such event it is found to be of advantage to set up two lines of shelving back to back, as shown in Fig. 3. To secure the sections or lines of shelving together, a hook 31 may be fastened to one shelf and an eye 32 in the oppositely disposed shelf so as to receive the free end of the hook. If desired, the hook and eye may be carried by the posts B.

From the foregoing description it will be seen that the various members or parts may be readily formed of straight strips of wood and the notches in the standards, being rectangular in shape, may be easily and quickly formed without requiring complicated machinery, where done by machine, or considerable labor and mechanical skill when done manually.

If desired, the brackets A may be secured to the standard by bolts or the like, but this is not preferable, as it is desired that the brackets be easily removable to facilitate adjustment of the shelving. Furthermore, such securing means are not necessary, for the brackets fit snugly in the notches of the posts or standards and can only be removed by pulling them forwardly in a horizontal plane. Due to the engagement of the shoulders 19 and the upper edge of the socket engaging portion 13 of each bracket with the shoulders 18 of the notches 17 and the downwardly facing shoulders 23 of notches 22, respectively, the brackets are maintained in a horizontal position and will not sag at their outer ends when merchandise is placed upon the shelving. Furthermore, due to the close fit of the rear end of the shelf receiving portion 10 of each bracket A between the opposed shoulders 18 and 20 of the notches 17, the shelves are held against downward movement at their outer ends.

In Fig. 7, I have shown a cap piece for the posts B which may be conveniently used to finish and tie the posts together, and it may be used with or without the hook 31. This cap piece comprises the finishing plate 33 which has the downwardly projecting lugs 34 designed to enter and engage notches in the tops of the posts B, which notches may be conveniently formed by cutting away a portion of the spacing strip 15 at the top.

It will be seen from the drawings that the brackets A are maintained against upward movement at their outer or free end because of the engagement of the lower edge of the socket engaging portion 11 with the upwardly facing shoulder 24 of the notches 22, and the engagement of the upper surface of the portion 10 with the downwardly facing shoulder 20 of the notches 17. This is of advantage, as it will prevent movement of the shelf in a vertical direction and the consequent derangement of the merchandise thereon when the shelf is accidentally struck or jarred, as, for instance, when a person placing merchandise on a shelf accidentally strikes the shelf.

It is, of course, obvious that my invention is susceptible of various changes and modification which would be within the spirit of the invention without departing from the scope of the following claims.

What I claim is:

1. In a shelving construction, a bracket having a shelf receiving portion and a socket engaging portion; and a supporting column having a series of longitudinally spaced notches to receive the socket engaging portion of said socket and a longitudinal series of spaced notches to receive the inner edge of the shelf receiving portion of the bracket.

2. In a shelving construction, a supporting column having a series of longitudinally spaced notches each having a downwardly facing shoulder and an upwardly facing shoulder, said supporting column also having a series of longitudinally spaced shoulders forwardly of said notches; and a shelf bracket having a shelf receiving portion provided with shoulders engaging said forwardly positioned shoulders, said bracket also having a socket engaging portion engageable between the shoulders of and in said notches.

3. In a shelving construction, a supporting column having a series of longitudinally spaced rectangular notches and a series of longitudinally spaced upwardly facing shoulders; and a shelf bracket having a socket engaging portion engaging in said notches, and a shelf receiving portion provided with a shoulder engaging with said shoulders.

4. In a shelving construction, a supporting column having a series of longitudinally spaced rectangular notches and a series of longitudinally spaced upwardly facing shoulders spaced forwardly of and on each side of said series of notches; and a shelf bracket having a shelf receiving portion

provided with shoulders engaging said first shoulders, and an extension snugly engaging in said notches.

5. In a shelving construction, a supporting column having two series of longitudinally spaced rectangular notches, and a series of shoulders spaced between and rearwardly of said notches; and a shelf bracket having a shelf receiving portion one end of which engages in said rectangular notches, and a portion extending from said first portion and engaging said rearwardly spaced shoulders.

6. In a shelving construction, a supporting bracket having a plurality of series of longitudinally spaced rectangular notches and a shelf bracket having a shelf receiving portion one end of which engages in the notches of one series, said bracket also having an extension fitting in the notches of the other series.

7. In a shelving construction, a supporting bracket having a series of longitudinally spaced rectangular notches, and a series of longitudinally spaced rectangular notches on each side and forwardly of said first series; and a bracket having a shelf receiving portion engaging in the notches of the forward series, said bracket also having an extension engageable in the notches of the first series.

8. In a shelving construction, a supporting column having a longitudinal groove in one face, a series of rectangular notches in the bottom of said groove and a series of longitudinally spaced rectangular notches in each of the forward edges of the groove; and a bracket having a shelf receiving portion one end of which engages in the last mentioned notches, said bracket also having an extension fitting in said groove and in said first mentioned notches.

9. In a shelving construction, a supporting column comprising two side strips and a spacing strip secured together to form a groove in one face of the column, said spacing strip having longitudinally spaced rectangular notches and each of said outside strips having a series of longitudinally spaced notches, and a bracket having a shelf receiving portion engageable at one end in said notches of the outside strips, said bracket also having a web which at one end extends beyond said shelf receiving portion, said extension being engageable in the notches of the spacing strip.

10. In a shelving construction, a supporting column comprising two side strips and a spacing strip secured together to form a groove in one face of the column, said spacing strip terminating short of the lower ends of the side strips to provide a socket, notches in said strips; brackets having a shelf receiving portion and a socket engaging portion engageable in said notches; a foot having a tongue engaging in said socket; and a brace between the foot and column.

In testimony whereof I have hereunto set my hand.

RALPH ROY BELCHER.