(No Model.)

D. TRUE.

BOAT KNEE.

No. 280,884. Patented July 10, 1883.

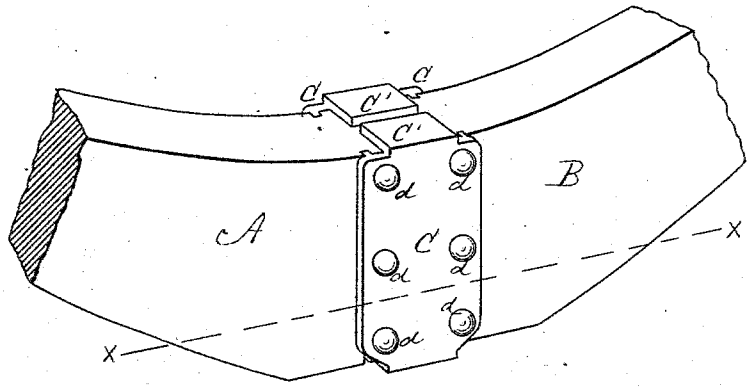


Fig. 1.

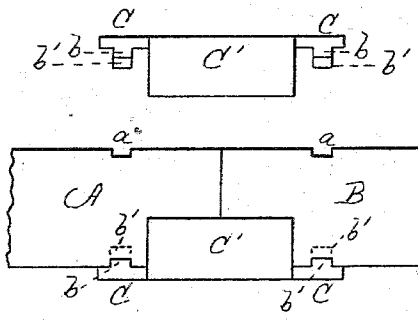


Fig 2.

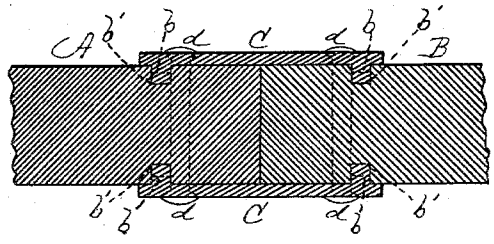


Fig. 3.

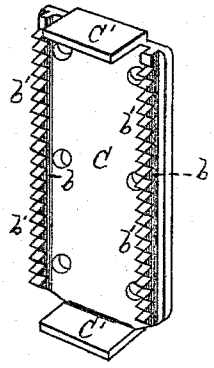


Fig. 4

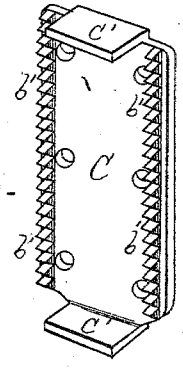


Fig. 5.

WITNESSES

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DAVID TRUE, OF SALISBURY, MASSACHUSETTS.

BOAT-KNEE.

SPECIFICATION forming part of Letters Patent No. 280,884, dated July 10, 1883.

Application filed March 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, DAVID TRUE, of Salisbury, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Boat-Knees, of which the following is a specification.

This invention relates to that class of boat-knees made in two (or more) parts and held together at the adjacent or adjoining portions of said parts, and is applied more particularly to knees used in the construction of dories and similar craft.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a view in perspective of a portion of a boat-knee embodying my invention. Fig. 2 is a plan view of the knee, with one of the plates moved out of position. Fig. 3 is a horizontal section on line *x x*, Fig. 1. Fig. 4 is a view in perspective of one of the plates removed. Fig. 5 is a similar view of a modification.

A and B represent the two main portions of the knee, meeting at the bend and held firmly and immovably together by the means below described. Each of the portions A and B is provided with vertical or nearly vertical grooves *a*, cut in its sides, as shown.

C C are strong metallic plates, provided preferably, but not necessarily, with flanges C'. On the inner sides or surfaces of these plates C are beads or tenons *b*, from which project teeth *b'*. The width or depth of the tenons *b* from the commencement of the teeth to the surface of the plate is equal to the depth of the grooves *a*. The plates C are placed with the teeth *b'* in the grooves *a*, and then by blows or pressure the teeth are forced into the wood forming the bottoms or inner sides of the grooves until the main portions *b* of the tenons fill the grooves, thus bringing the plates C against the knee, in which position they are held by any suitable means, but preferably by means of the rivets *d*, passing through the plates and knee. The teeth *b'* being tightly wedged in the wood, the two parts of the knee cannot be wrenched apart or started by any strain to which they can be subjected while they are in position in a boat.

In the modification shown in Fig. 5 there is no tenon, but the rows of teeth project directly from the plate. As there is no tenon in the plate, there need be no grooves in the knee, as the teeth may be forced directly into the side of the knee.

One or more rows or series of teeth may be placed on each side of the plate, and the teeth may, as above indicated, project from a tenon, or directly from the surface of the plate, while the knee may be provided with grooves or not. The teeth may be more or less in number, and the rows may extend in any direction.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a boat-knee, the combination, with the two portions A B thereof, of one or more plates provided with rows or series of teeth adapted to be forced into the said portions of the knee and secured thereto by suitable means, substantially as and for the purpose set forth.

2. In a boat-knee made in two or more parts, the combination, with said parts, of a plate extending across the dividing-line between the inner ends of two of said parts, said plate being provided with teeth adapted to hold, or assist to hold, the said parts from being wrenched apart, and secured thereto by suitable means, substantially as and for the purpose described.

3. The combination, with the parts A B, provided with the grooves *a*, of the plate C, provided with the tenons *b* and teeth *b'*, substantially as and for the purpose set forth.

DAVID TRUE.

Witnesses:
HENRY W. WILLIAMS,
JOSEPH ISHBAUGH.