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KEEL AND PROW STEM FOR BOATS

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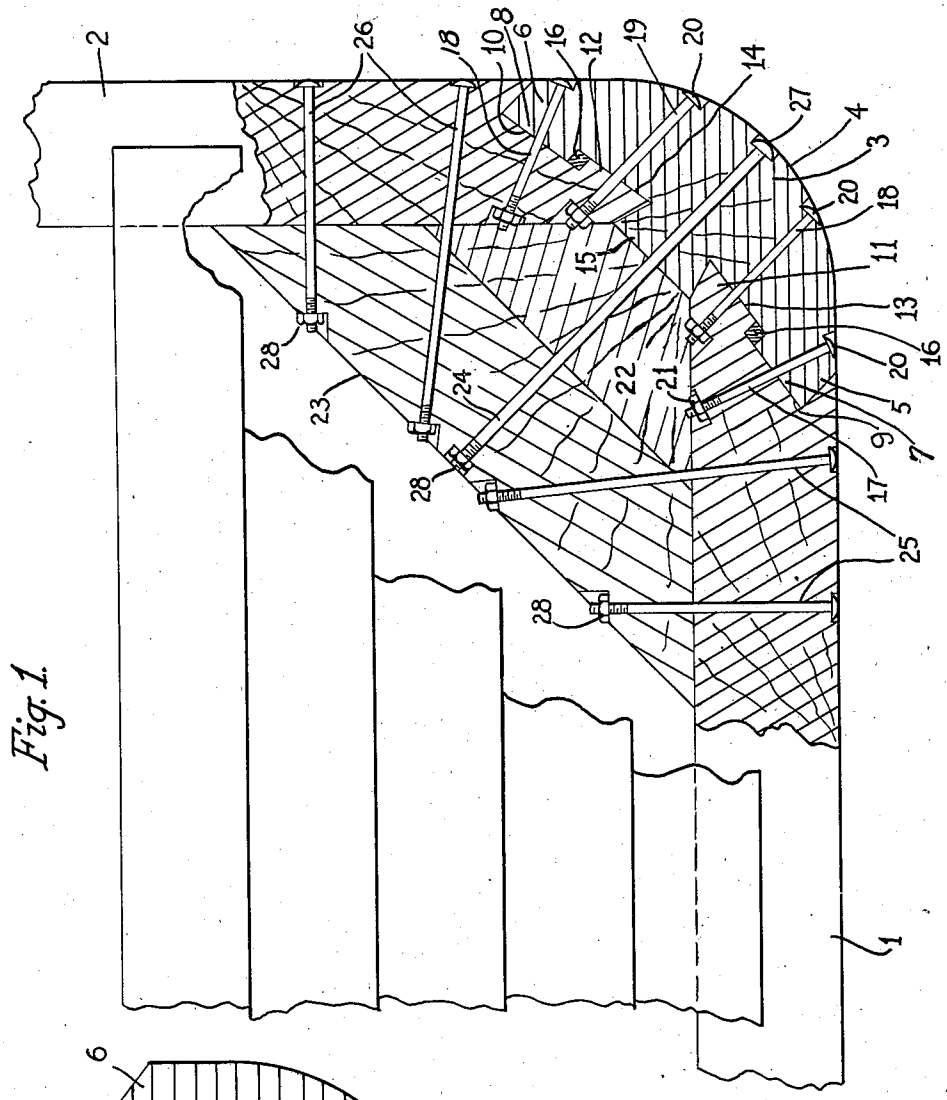


Fig. 1.

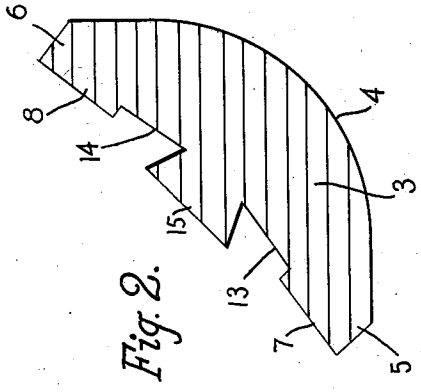


Fig. 2.

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KEEL AND PROW STEM FOR BOATS

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4 Claims. (Cl. 114—82)

My invention relates to improvements in keel and prow stem construction for wooden boats especially, although not necessarily.

The invention is designed with the primary object in view of providing practical, efficient means whereby the keel beam and prow stem beam of such boats may be formed of separate, straight timbers adapted to be replaced separately and formed of different kinds of timber, as desired.

To the accomplishment of the above, and subordinate objects presently appearing, a preferred embodiment of my invention has been illustrated in the accompanying drawing, set forth in detail in the succeeding description, and defined in the claims appended hereto.

In said drawing:

Figure 1 is a fragmentary view, partly in vertical longitudinal section, and partly in side elevation, of a wooden boat embodying my invention, and

Figure 2 is a view in side elevation of the bridge section.

Reference being had to the drawing by numerals, according to my invention, the keel beam 1 and prow stem beam 2 are formed of separate timbers with the front end of the keel beam 1 and the lower end of the prow stem beam 2 spaced apart a distance suitable for a purpose presently seen and beveled oppositely relatively, as shown.

A bridge section 3 of any suitable wood is interposed between said ends of said beams 1, 2 and secured thereto as follows: The bridge section 3, which is formed with an outer edge 4 of the usual longitudinal curvature obtaining between the usual keel beam and prow stem beam is provided with edgewise tapering ends 5, 6 formed on the inner edge of said section with flat-faced tenons 7, 8 disposed in flat-bottom mortises 9, 10 provided in the front end of the keel beam 1 and the lower end of the prow stem beam 2, respectively. The front end of the keel beam 1 and the lower end of the prow stem beam 2 are provided with flat-faced tenons 11, 12 in a common plane with the tenons 7, 8 disposed in mortises 13, 14 in said inner edge of said section 3. A dovetail, transverse, central key 15 on said inner edge of said section 3 forms one side of each mortise 13, 14 and is interposed with a dovetail fit between the tenons 11, 12.

Transverse wedge pins 16, preferably square in cross-section and of any suitable material, are driven in the mortises 13, 14 between the tenons 7 and 11 on the one hand, and the tenons 8, 12 on the other hand.

Bolts 17 extend through the ends of said section 3, including the tenons 7, 8 and through the front ends of said beam 1 and the lower end of said beam 2, respectively, in the common plane of said beams and section 3. Bolts 18, 19 extend through said section 3 intermediate the bolts 17, also in said common plane, and through said front and lower ends of said beams 1, 2, including the tenons 11, 12. The bolts 16, 17, 18, 19 extend obliquely through the ends of said beams 1, 2 with heads 20 countersunk in said section 3 and nuts 21 countersunk in said beams 1 and 2.

Superposed wooden brace blocks 22, 23 are provided in the angle formed by said beams 1, 2 with one brace block 22 opposed flat against the key 15. A central bolt 24 extends through said section 3 and key 15 and through said brace block. Other bolts 25, 26 extend through said beam 1 and the brace blocks 22, 23 on the one hand, and through said beam 2 and said blocks on the other hand. The bolts 24, 25, 26 are also provided with countersunk heads and nuts 27, 28.

As will now be seen, the keel beam 1 and the prow stem beam 2 are securely held by the key section 3 and the described bolts in proper position relatively and by removing the bolts passing through either of said beams and the bolts securing the bridge section 3 to the same and to the brace blocks, either of said beams may be replaced.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention without further explanation.

Manifestly, the invention, as described, is susceptible of modification without departing from the inventive concept, and right is herein reserved to such modifications as fall within the scope of the appended claims.

What I claim is:

1. In a boat structure, a keel beam having a front end, a prow stem beam having a lower end spaced above and forwardly of the front end of the keel beam, and an elongated bridge section between said ends of said beams having a curved outer edge and an inner edge provided with tenons mortised into said ends of said beams, and tenons on said ends of said beams mortised into said inner edge of said section.

2. In a boat structure, a keel beam having a front end, a prow stem beam having a lower end spaced above and forwardly of said end of the keel beam, an elongated bridge section between said ends of said beams having a curved outer edge and an inner edge provided with a pair of tenons adjacent the ends of the section, respec-

tively, mortised into said ends of said beams, a pair of tenons on said ends of said beams, respectively, mortised into said inner edge of the section and disposed between the first-mentioned tenons, and a larger tenon on said inner edge of said section intermediate the second-mentioned pair of tenons having a dovetail fit between said ends of said beams.

3. In a boat structure, a keel beam having a front end, a prow stem beam having a lower end spaced above and forwardly of said end of the keel beam, an elongated bridge section between said ends of said beams having a curved outer edge and an inner edge provided with a pair of tenons adjacent the ends of the section, respectively, mortised into said ends of said beams, a pair of tenons on said ends of said beams, respectively, mortised into said inner edge of the section and disposed between the first-mentioned tenons, a larger tenon on said inner edge of said section intermediate the second-mentioned pair of tenons having a dovetail fit between said ends of said beams, and bolts extending through said section and said ends of said beams.

4. In a boat structure, a keel beam having a front end, a prow stem beam having a lower end spaced above and forwardly of said end of the keel beam, an elongated bridge section between said ends of said beams having a curved outer edge and an inner edge provided with a pair of tenons adjacent the ends of the section, respectively, mortised into said ends of said beams, a pair of tenons on said ends of said beams, respectively, mortised into said inner edge of the section and disposed between the first-mentioned tenons, a larger tenon on said inner edge of said section intermediate the second-mentioned pair of tenons having a dovetail fit between said ends of said beams, bolts extending through said section and said ends of said beams, brace blocks extending diagonally between said beams adjacent said ends thereof, and bolts extending through said beams and brace blocks.

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