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BOAT
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# UNITED STATES PATENT OFFICE. 

HARRY R. LANGSLOW, OF ROCHESTER, NEW YORK.<br>BOAI:<br>Application filed October 26, 1923: Serial Na, 670.873.

To all whom it may concern:
Be it known that I, Harry R. Langslow, a eitizen of the United States, residing at Rochester: in the county of Momroe and $s$ State of Yew York, have invented certain new and useful Improvements in Boats; and I do hereby declare the following to be a full, clear, and exact des ription of the same, reference being had to the accompanying 10 dranings foming a patt of this specification, and to the reference numerals manked thereon.
My present invention relates to boat buiding being more particularly applicable 5 to the construction of canoes and it has for its object to improve and strengthen the deching at the bow and stern in such manner as to give greatep rigidity and durability to the seams and joints in this region 0 particularly where the gunwales and planking are connected to the stem or stem posts. To these and other ends the invention vesides in certain improvements and combinations of parts all as will be heneinafter more 5 fully described, the novel features being: pointed out in the claims at the end of the specification.

In the drawings:
Figure 1 is a fragmentary side elevation :0 of the bow of a canoe constructed in accordance with and illustrating one embodiment of my invention;

Figure 2 is a top plan view thereof;
Figure 3 is an enlarged detail section through the stem taken on the line 3-3 of Figure 1;

Figure 4 is a bottom plan riew of the deck piece detached;

Figure 5 is an enlarged transverse section taken on the line 5-5 of Figure 2;

Figure 6 is an enlarged transverse section on the line 6-6 of Figure 2.

Similar reference numerals throughout the sereral views indicate the same parts.

The weakest part of the canoe structure is in the region of the bow or stern where the post or dead wood, the gunwales and the side planking are brought together. This is also the region that receives the roughest treatment in the way of jars and sudden strains as in towing and in making landings where the stem collides with the wharf or pier. In the practice of my present invention I make the deck piece by means of which these joints are strengthened so that it embraces and holds together the planking
at the sides being preferably composed of an integral metal casting. having provisions for receiving and tightly holding the various elements that are to be joined together. My invention, as before stated, is applicable to various boat structures but is particularly adaptable to canoes because of their liglit construction and I will describe it as applied to the bow of a canoe.

Referring more particularly to the drawings 1 indicates the stem on dead wood, 2 . the outer gummale and 3 the inner gunwale of a familiar type of canvas covered canoe. The ends of the greater portion of the tramsverse ribs 4 to which the planking 5 is secured (which planking; in turn, is corered with a canwas 6) are received and fastened between the outen and inner gunwales 2 and 3. I teminate these gunwales at $T$ and 8 , respectively, the several ribs 4 beyond the ends thereof being attached only to the planking and the latter being secured as usual to the stem or dead wood. 1. I then apply a deck piece: 9 which is preferably a one piece aluminum casting with: side flanges 10 terminating at the bow in a downward extension 11 that forms a socket encompassing and extending a substantial distance downward over the stem 1. In connection therewith may be formed a perforated lug 12 furnishing an eye for the attachment of the painter. This outer flange 10 fits over and embraces the planking 5 from the terminal point of the outer gunwale 2 to the stem and prevents the bow and the otherwise unsupported ribs 4 thereof from spreading. At its rear end on each side the said outer flange is joined by an inner flange 13 forming an undercut abutment 14 for the end of the outer gunwale 2 that is shaped to fit it. The terminal 8 of the inner gumale preferably extends somewhat beyond this on the opposite or inner side of the flange 13. At this point bolts 15 are passed through the outer gunwale 2, the planking 5 , the flange 13 and the inner gunwale 3 securing them all rigidly together, the heads of the bolts being preferably passed through a common washer plate 16 on the outside. It will thus be seen that the spreading of the boat body in the region of the bow is absolutely prevented by the rigid flanges 10 of the deck piece while at the same time the gunwales are strongly attached to the bow structure without the complication of runnig them into the stem 1
and weakening the latter by further cutting away the always slim mass of this member. As it is, the planking 5 alone is secured to the stem and is tightly held againt the same
5 by the bow socket 11 on the deck piece before referred to. Preferably, a bolt 17 is passed through the socket piece 11 and the stem 1 to increase the rigidity and constitute a forward securing element for the deck 0 piece. The careful shaping and fitting of the gunwales at the joint or seam made with the stem and which ordinarily requires a high class of skilled boat building labor is eliminated while at the some time practisumwales without preliminary steaming and shaping.
The appearance of the deck piece 9 is improved and it is also strengthencd by a top $\therefore 0$ rib 18 coincident with the projection of the rib 13 and by an under rib 19 in the form of a downwardly turned flange at the rear edge.

I claim as my invention:
ith a boat having a stem and side planking, of a metallic deck piece on the bow thereof having a socket portion fitting over and secured to the stem and having side flanges embracing the
30 planking and gunwales overlapping the deck piece and disposed at opposite sides of the flanges and secured thereto.
2. The combination with a boat having a stem and sicle planking, of a deck piece on
$: 3$ the bow thereof secured to the stem and having side flanges embracing the planking,
and a gunwale terminating in the deck piece and fiastened thereto.
3. The combination with a boat having a stem and side planking, of a metallic deck 40 piece on the bow thereof having side flanges embracing the planking and outer and inner: gunwales terminating in and secured to the deck piece.
4. The combination with a boat having a stem and side planking, of a metallic deck piece on the bow thereof having side flanges embracing the planking and flanges on its under side and outer and inner gunwales terminating in the deck piece and fastened together on opposite sides of the last mentioned flanges.
5 . The combination with a boat having a metallic deck piece embracing the bow thereof, of inner and outer gunwales termi- 55 nating therein and secured together on opposite sides of a portion thereof.
6. The combination with a boat having a metallic deck piece on the bow thereof provided with side flanges engaging the sides of the boat to prevent them from spreading, the ends of said flanges being undercut and the deck piece being further provided with inwardly offset flanges adjacent to such undercut portions, of outer gunwales having 65 their ends fitting the said undercut portions of the deck piece and lying against the offset flanges, inner gunwales lying against the inner sides of the latter and fastening devices securing the gunwales and the flanges together.

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