

D. E. MERRICK.

Joints for Iron Ships and Tanks.

No. 142,406.

Patented September 2, 1873.

Fig. 1.

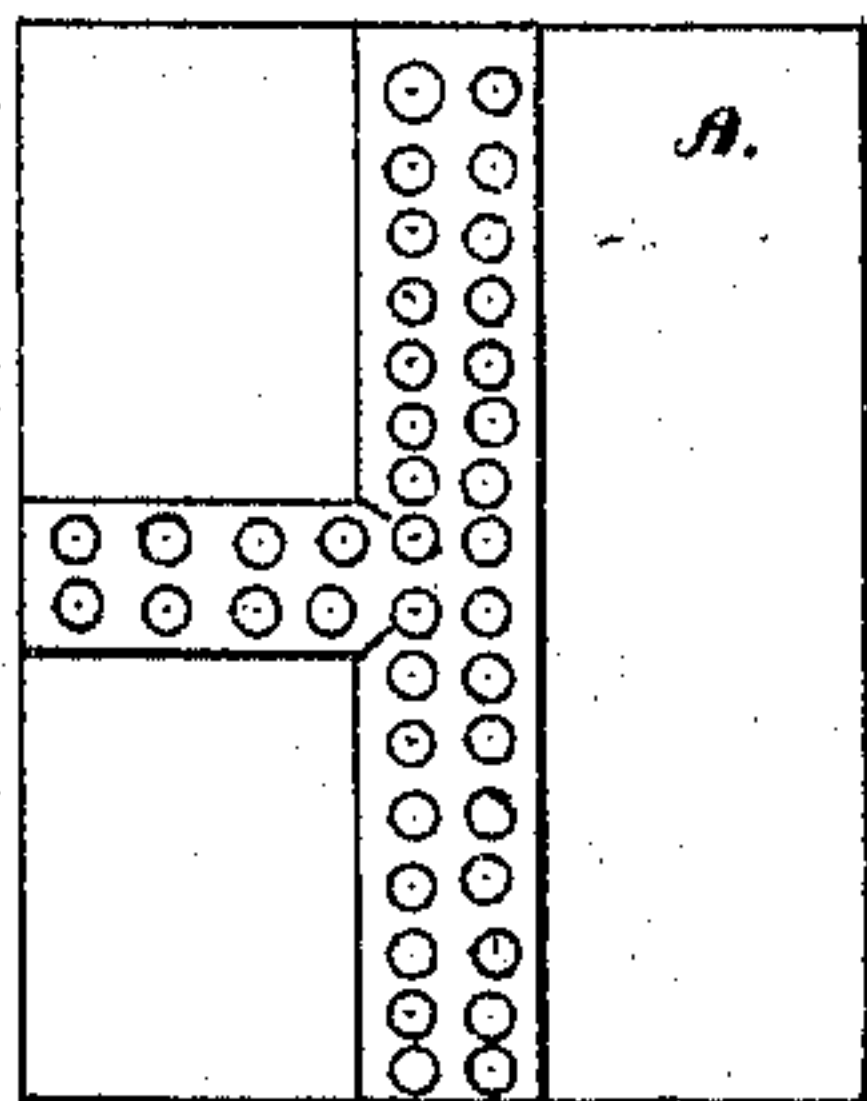


Fig. 2.



Witnesses.

E. J. Smith
W. B. Smith

Inventor

Daniel E. Merrick

UNITED STATES PATENT OFFICE.

DANIEL E. MERRICK, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF HIS RIGHT TO J. B. SMITH, OF SAME PLACE.

IMPROVEMENT IN JOINTS FOR IRON SHIPS AND TANKS.

Specification forming part of Letters Patent No. **142,406**, dated September 2, 1873; application filed May 8, 1873.

To all whom it may concern:

Be it known that I, DANIEL E. MERRICK, of Milwaukee, in the county of Milwaukee, in the State of Wisconsin, have invented certain Improvements in Seams for Iron Ships, Tanks, &c., of which the following is a specification:

My improvement relates to the joining of sheets of metal and making the seams tight for the hulls of steamships, tanks, &c., and is made by a piece of metal riveted over the edges of two sheets of iron or any other metal, with a central rise or tongue coming up between the two sheets of metal, and this central piece riveted or headed down tight, and with seams or grooves in the lapping piece of metal, in which to put cement or any kind of packing, so that the joint shall be tight and remain so permanently.

Figure 1 is a plan view of my invention; and Fig. 2 is a sectional view, showing the ends of the sheets of metal, and the tongue between the two riveted down, and the ends of the grooves.

A, the sheets of metal fastened together; B, the lap piece of metal; C, the rivets; D, the tongue rising up between the sheets of metal, riveted or headed down even with the surface; E, the grooves for packing. The piece of metal, with a rise in it forming a tongue, D, rising up between the sheets A, is prepared by rolling it when hot. This piece or splice of metal is placed on the inside of the vessel, and fits in a recess in the frame of the vessel, so that the metal fits onto the frame solid. The rivets are put through the holes and riveted up solid, the grooves E filled with cement, and then the tongue is riv-

eted down smooth, making a solid, tight joint—one as solid and strong as the metal is at any other place, and perfectly smooth on the outside of the vessel, as the holes for the rivets in the sheets of metal A are countersunk, and the rivets are calculated to just rivet down even with the surface of the sheet.

For a tank, the piece of metal B may be made without the tongue D, and then fill the grooves E with cement and rivet down solid. The piece of metal B is put on the outside and calked, making the inside smooth.

I claim as my invention—

1. A seam or joint of metal made with a strip of metal, B, with a raised tongue, D, in its center riveted to sheets A, and tongue D headed down even with sheets A, and the heads of the rivets countersunk on the smooth side of sheets A, substantially as described.

2. A seam of metal when made with sheets A, strips B, rivets C, and grooves E, all combined substantially as described.

3. A seam or joint of metal when made with sheets A and strips B, one of the strips B running lengthwise of the sheets A, and the other strip B running crosswise of the ends of sheets A, with tongue D headed down even with the surface of sheets A, the strip B running across the ends of sheets A being let into the side of the other strip B, so that its end shall strike tongue D, and both strips B riveted to sheets A, substantially as described.

DANIEL E. MERRICK.

Witnesses:

J. B. SMITH,
E. J. SMITH.