E. T. Ligon.

Formation of Joints of Steel & Iron Plates.

No. 76088 Patented Mar. 31, 1868.

Fig. 3.

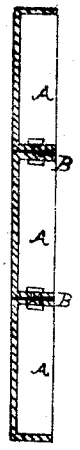


Fig. 1.

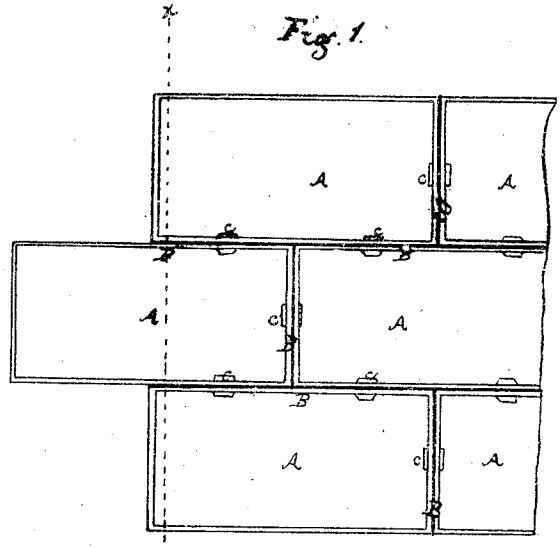
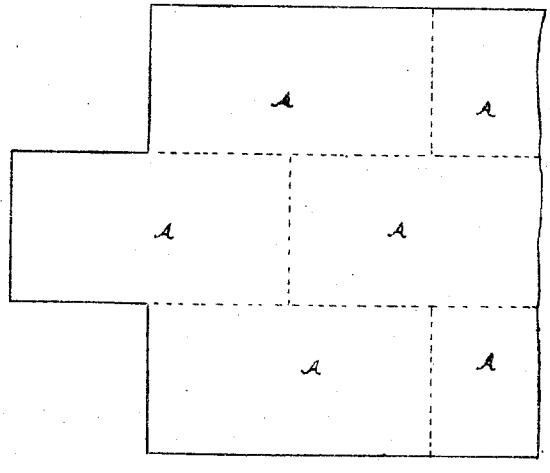


Fig. 2.



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E. T. LIGON, OF DEMOPOLIS, ALABAMA.

Letters Patent No. 76,088, *dated March* 31, 1868; *antedated March* 20, 1868.

IMPROVEMENT IN THE FORMATION OF JOINTS OF STEEL OR IRON PLATES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, E. T. LIGON, of Demopolis, in the county of Marengo, and State of Alabama, have invented a new and improved "Combination of Steel or Iron Plates with Copper;" and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention relates to an improved combination of steel or iron plates with copper, and it consists in so bending the edges of steel or iron plates, coated upon their outside with copper, in any suitable manner, as, for instance, by my improved mode, for which an application for Letters Patent is now pending before the United States Patent Office, that, when such plates are laid or placed edge to edge, not only will a continuous joint of copper be left, but all the rivets and edges of the plates will be upon the inside, if to a vessel such plates are applied or attached.

As copper is much softer than steel or iron, it is obvious that, when the plates are riveted, as copper is next to copper, a more perfect joint is the result, and one less liable to oxidation than steel or iron. The seams or joints to the several plates, produced as above described, may, if so desired, upon the outside to such plates, be filled with solder, whereby additional strength is given to the plates, and their attachment to each other, as well as a smooth and unbroken surface presented to the sea, if the plates are applied to a vessel, thus greatly reducing the friction thereon.

By the turning or bending in of the edges of the plates, when secured together as described, they are far stronger, and a more uniform and even strength throughout the entire plates secured, rendering them, in a great measure, self-sustaining, without any packing.

The mode of securing together steel or iron plates coated with copper, above described, is more especially designed for vessels, but it is obvious it may be applied to other purposes. In the accompanying plate of drawings, my improved combination of steel or iron plates coated with copper is illustrated—

Figure 1 being a view of a series of the same upon their inside.

Figure 2, a view of the same upon the outside; and

Figure 3, a transverse section in the plane of the line x x, fig. 1.

Similar letters of reference indicate corresponding parts.

A, in the drawings, represents a series of plates, that, along their edges, B, are bent over and then secured together by rivets, or in any other suitable manner. These plates A are made of steel or iron, and upon one side are coated with copper, and by such copper surface, at their bent-over edges, they are in contact with each other, forming a copper joint, and one the advantages of which have been hereinbefore referred to.

I claim as new, and desire to secure by Letters Patent—

The application of the coating of copper to the bent-over edges of steel or iron plates, as described, for the purpose of forming a tight joint, less liable to oxidation than steel or iron, as herein shown and described.

E. T. LIGON.

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