I. Shaw. Armor Claa.

Patented May 1862. Nº35,279.

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UNITED STATES PATENT OFFICE.

THOMAS SHAW, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND P. S. JUSTICE.

MEANS OF CONNECTING METALLIC ARMOR-PLATES FOR MARINE OR OTHER BATTERIES.

Specification of Letters Patent No. 35,279, dated May 13, 1862.

To all whom it may concern:

Be it known that I, Thomas Shaw, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and Improved Mode of Fastening Armor-Plates; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention consists in the uniting of the plates firmly by means of a fusible

metal as hereafter described.

In order to enable others to practice my invention, I will proceed to describe its con-

struction and operation.

On reference to the accompanying drawing which forms a part of the specification, Figure 1, represents a section of the wall of an iron clad boat in the course of construction. Fig. 2, a view of the same in the direction of arrow, a, Fig. 3, a magnified portion of Fig. 1, in the direction of arrow b.

25 Similar letters refer to similar parts

throughout the several views.

A, Fig. 1, represents the first layer of plate, which is firmly secured to the side of the ship, by means of screws or bolts.

30 B, is the second layer of plate, arranged so as to cover every joint of the first layer of plate, as shown in Figs. 1 and 2, and is secured by means of the fusible metal as described hereafter.

Fig. 3, represents the plate in position ready to receive the fusible metal which is done this wise, after the plates, A, are secured to the sides of the ship, C, by means of screws, N. The plates B are put in their

proper position, leaving a space for the fusi-40 ble metal to run and attach itself, allowing blocks of metal E to intervene for that purpose. The outside crevices are closed by means of wood or metal slat, G, to extend the whole length of the crevice, and is held 45 in position by means of T headed bolts. The lower crevice intervening plate A and B is closed with fusible metal, D.

The surfaces of the plates A and B are intended to be covered with a fusible metal 50 previous to placing them in the position shown. The plates being now in position afore described, the molten metal is run in from the top sufficient to fill all the crevices, when it is allowed to cool the slat G is re- 55 moved and the bolt heads cut off.

F is an edge view of a sheet of metal which extends the whole length of the plate for the purpose of guiding the metal to the

crevice awhile being poured in.

It is evident that there are many fusible alloys that can be used for the purpose of filling up the intervening crevice, and that there are other positions in which the plate could be placed without altering the result. 65 I therefore do not wish to confine myself to the exact position of the plate described or to a certain alloy.

What I claim and desire to secure by Letters Patent is—

The firmly uniting of armor plate by means of fusible metal substantially as described.

THOMAS SHAW.

Witnesses:
Elias J. Shaw,
Hugh Clark.