

J. Rusch, Armor Clad.

N^o 35,353.

Patented May 20, 1862.
FIG. 2

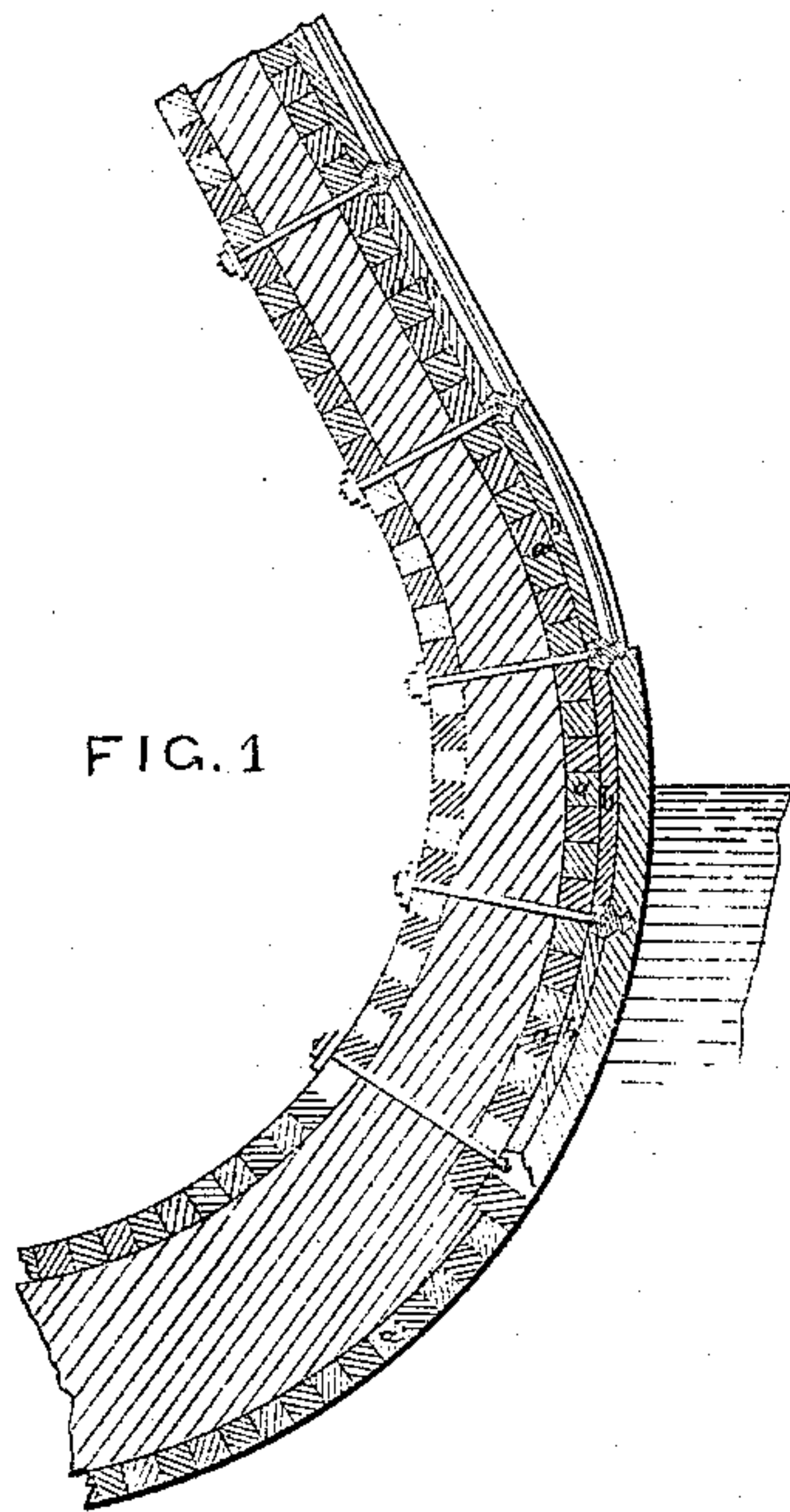


FIG. 1

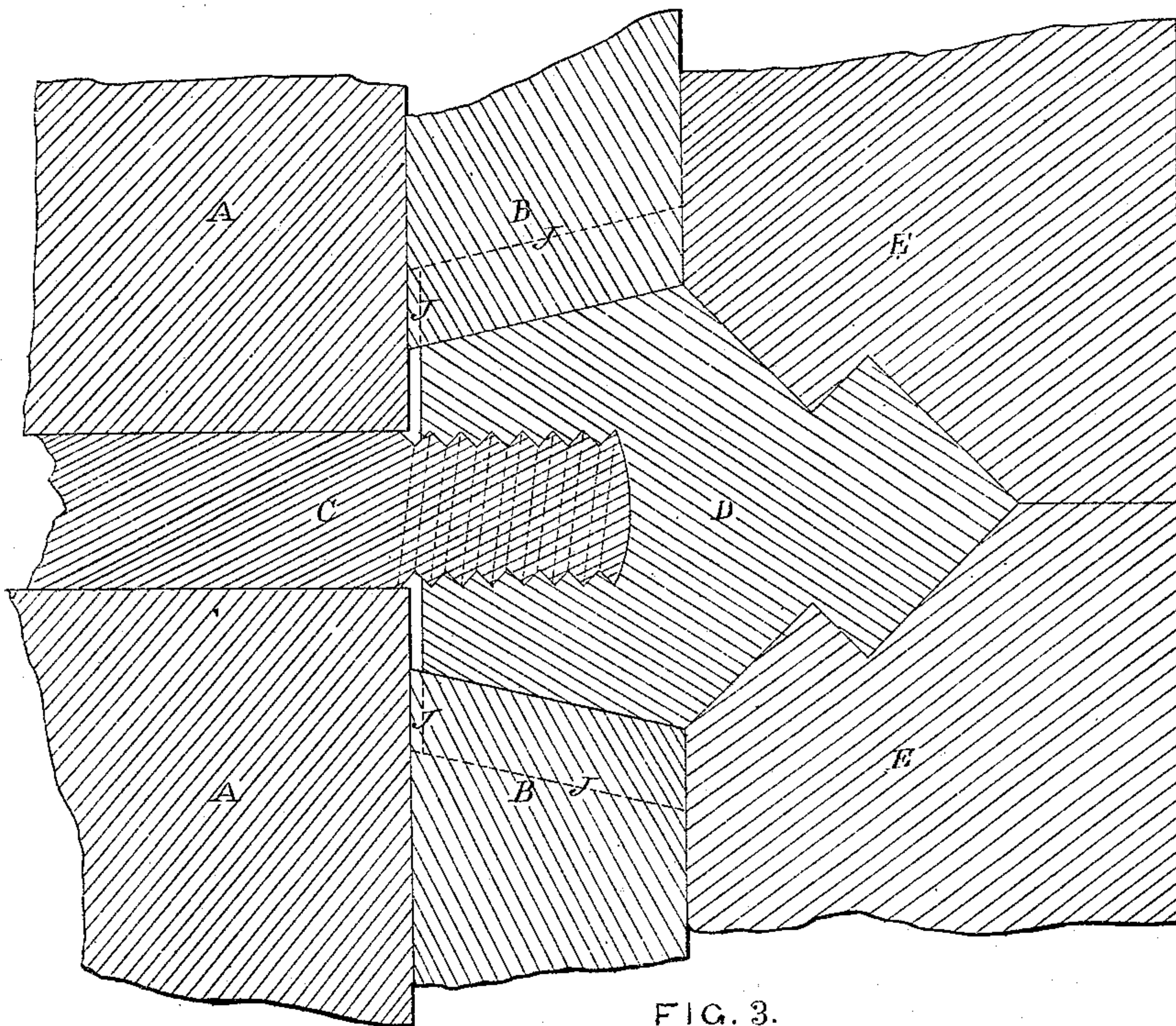
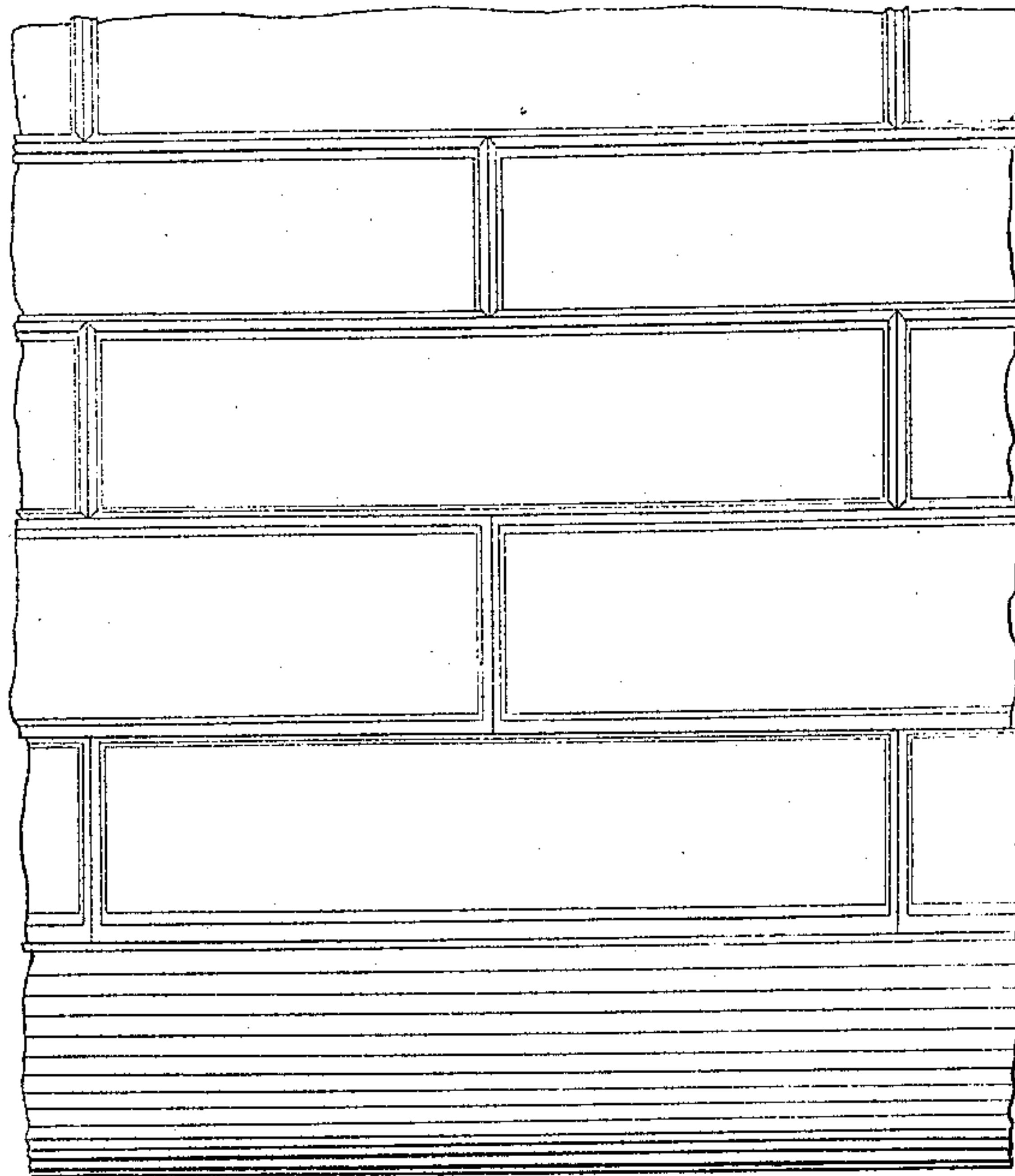


FIG. 3.

Witnesses
N. B. Mountfort
Joseph A. Hessel

Inventor
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UNITED STATES PATENT OFFICE.

JOSEPH RUSCH, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND JOSEPH LUX, OF SAME PLACE.

IMPROVEMENT IN ATTACHING ARMOR-PLATES TO VESSELS.

Specification forming part of Letters Patent No. 35,353, dated May 20, 1862.

To all whom it may concern:

Be it known that I, JOSEPH RUSCH, of the city, county, and State of New York, have invented a new and Improved Mode of Securing Iron Armor-Plates to Fortifications, Hulls of Ships, &c.; and I do hereby declare that the following is a full and exact description of my said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The invention consists in the mode of securing the armor-plates, which, by the plan proposed, is effected by running continuous angular clamps or tongues of the shape indicated along and into the corresponding edges or grooves of the plates, as shown by the annexed drawings, and sinking or embedding these continuous clamps into the body to which they may be attached, as also shown by said drawings.

Figure 1 represents a part of a transverse vertical section of the hull of a ship, the lower part of which shows the sheathing complete—i. e., the tongues and grooves of the clamps and plates severally—and also the mode of sinking or embedding and securing the clamps. Fig. 2 represents an elevation of the same, showing the continuity of the clamps with and without the armor, and horizontally as well as vertically. Fig. 3 represents a full-size section of the seam, showing the position of the plates and clamps when secured and the mode of interlocking and of securing the same.

A A is the planking proper.

B B is an extra thickness of planking.

C is the bolt.

D is the clamp, showing the tongues, and

E E are the plates, showing the grooves.

It will be seen that by this method of sheath-

ing the wedge-like posterior of the clamp is let into the outer planking, thus wedging and strengthening the whole at the same time that this extra planking serves as a support to the armor, which latter, by the mode of fastening heretofore used, is supported exclusively by the bolts or pins.

a a a, Fig. 1, represent the planking proper. b b b represent the outer planking or bedding for the sheathing.

If simple bolts or pins be used, the plates have no hold or support, except such as is afforded by these alternate and partial fastenings, whereas by my method each plate is wedged into the clamps through its entire length and breadth, leaving the plates free of borings. By the former method both the lateral and gravitating weight of the armor hangs on and is supported by these pins or bolts. By my method the gravitating or dead weight of the armor (by far the most considerable) rests principally upon the planking b b b and is supported by it, while the strain on the pins or screws is comparatively light; and these screws themselves may be multiplied to any desired extent without weakening any part of the sheathing, as is the case where the pins connect directly with the plates, as in the old method.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the additional planking or bed B B, bolt C, continuous clamp D, and grooved armor-plate E E, all constructed and applied in the manner and for the purposes herein shown and described.

JOSEPH RUSCH.

Witnesses:

N. B. MOUNTFORT,

JOSEPH A. NESSELER.