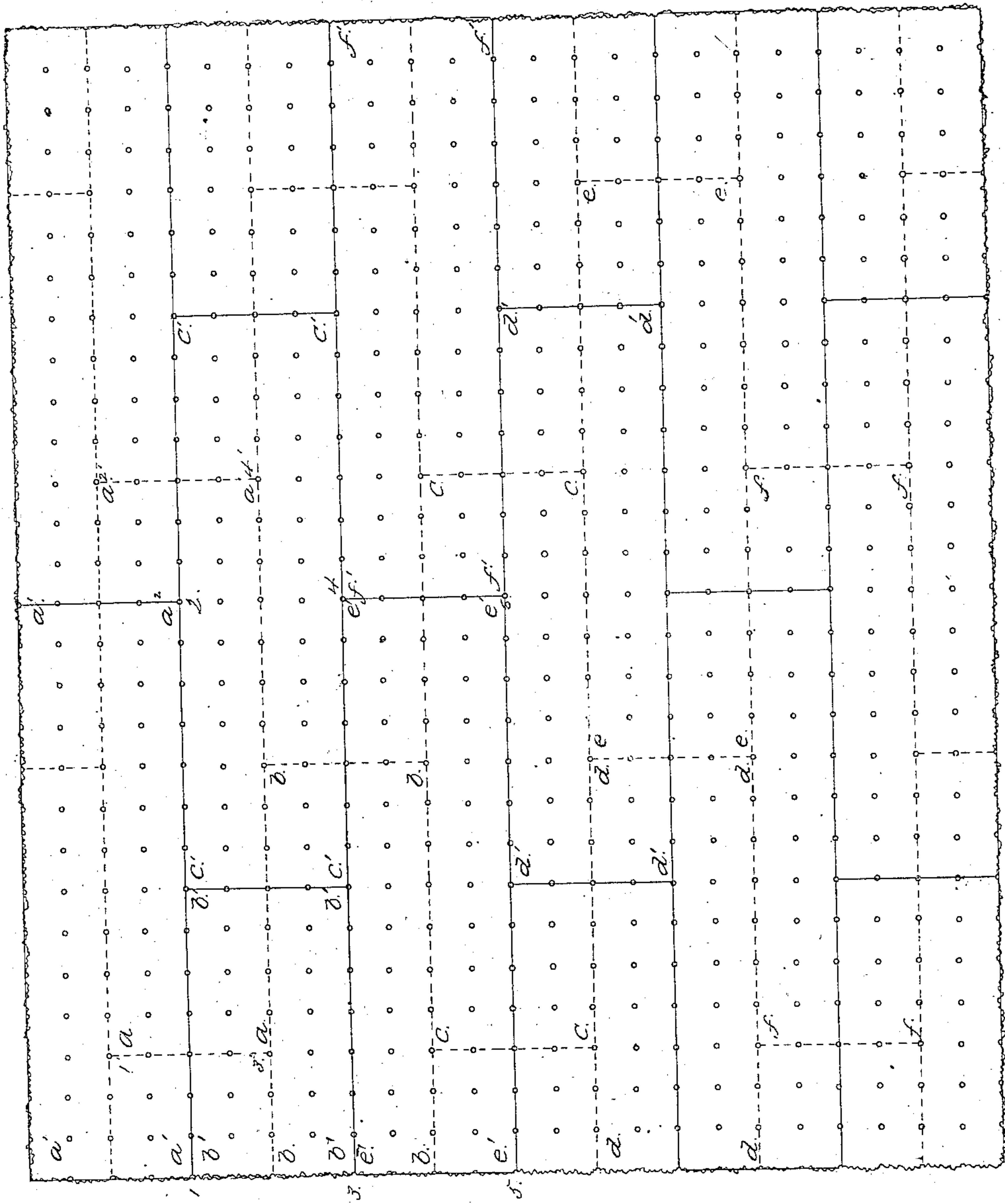


W. Beszke.

Joining and Riveting Metal Plates.

N^o 10,247.

Patented Nov. 22, 1853.



UNITED STATES PATENT OFFICE.

WILLIAM BESCHKE, OF ALEXANDRIA, VIRGINIA.

JOINING AND RIVETING METALLIC PLATES.

Specification of Letters Patent No. 10,247, dated November 22, 1853.

To all whom it may concern:

Be it known that I, WILLIAM BESCHKE, of the city and county of Alexandria and State of Virginia, have invented a new and Improved Mode of Joining and Riveting Metallic Plates or Surfaces; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in joining and riveting plates together in such a manner as to give the greatest strength to the whole.

In order to enable others to use my invention I will now describe its principles, reference being had to the accompanying drawings making a part of this specification.

In order the better to illustrate, we will take a number of metallic or other plates (*a, b, c, d, e, f,*) and join them (1, 2, 3, 4, 5, 6, &c., representing the joints) over these are placed the plates (*a' b' c' d' e' f'*) which are intended to give strength to the joints of the first set of plates by completely covering them.

The largest sized iron plates are 14 feet by 4 feet. To a plate of this size the holes for the rivets should be about one foot apart, but this distance is not obligatory so that the rivet holes are equidistant from each other on the plates and edges. The edges are punched with only a "half round," so that two adjoining edges are held down by the same rivet passing through and covering both. The plates are placed along side of each other so as to "break joint," and a second set of plates is then placed upon these in such a manner that the middle of the upper plates shall cover and be riveted to the joints of the under plates; the edges of the upper plates will then necessarily be fastened down by a rivet passing through

them and the middle of the under plate. The weak parts of the under set of plates, namely the joints, are thus made as strong as any other portion of the plates. In other words, the lower set of plates are now equally strong in every part.

The advantage of this method of joining and riveting over that now employed is thus obtained. By the ordinary method the edge of one plate is made to lap over that to which it is to be riveted: the joint is there the weakest. By that now proposed every joint is covered by and securely fastened to another plate, thus leaving no weak point. In riveting it is advisable to use an even number of plates for the thickness, as 2, 4, 6 &c., as the joints are thus more perfectly covered.

In using a thickness of two plates the rivet passing through the center of the upper plate passes also through and confines the edges of the joint of the lower plates thus covered, hence in all the plates the rivet holes must be equidistant from each other and from those (half round) of the edges or joints.

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

The method of equally dividing the weakness resulting from the joining of iron, steel, or any other metallic plates; and is effected by putting said plates together so as to break joint at the ends, and riveting over these another similar set of plates so as to break joint at the sides and ends with the first, thus entirely covering the joints of the first, the rivets over the surface being equidistant from each other and from those confining the edges.

WILLIAM BESCHKE.

In presence of—

GEO. C. THOMAS,
E. W. MOORE.