J. B. Fontaine.

Pressure Plate.

No. 59,716. Patented Nov. 13, 1866.

Fig: 2.

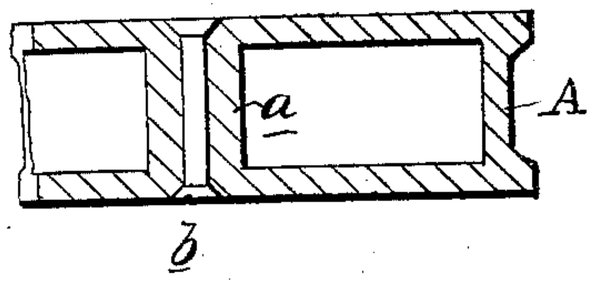
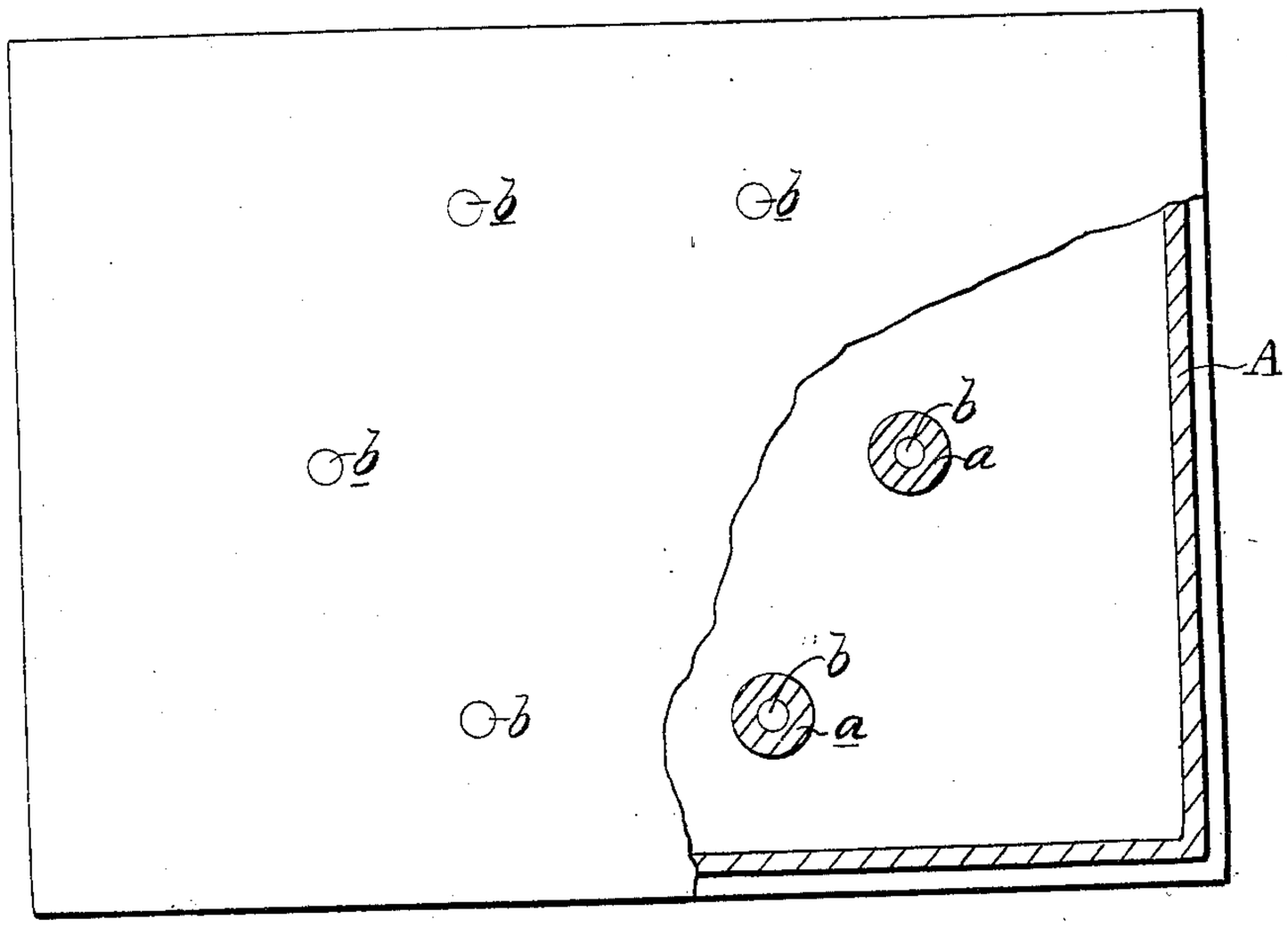


Fig: 1.



Witnesses:

John Parker
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Inventor:

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By his Atty
H. Howson

UNITED STATES PATENT OFFICE.

JOHN B. FONTAINE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HOFF, FONTAINE & ABBOTT.

IMPROVEMENT IN HOLLOW PRESSURE-PLATES.

Specification forming part of Letters Patent No. **59,716,** dated November 13, 1866.

To all whom it may concern:

Be it known that I, JOHN B. FONTAINE, of Philadelphia, Pennsylvania, have invented an Improvement in Hollow Pressure-Plates; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in the construction of the hollow cast-iron plates which are heated by steam and used for pressing fabrics; and my improvement consists in riveting such plates at the points where they are stayed, as described hereinafter, so that the plates may more effectually resist the pressure and heat to which they are subjected, and so that a fracture of one or more of the stays may not impair the efficiency of the plate.

In order to enable others to make my invention, I will now proceed to describe the manner of constructing the same.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a plan view, partly in section, of a hollow cast-iron pressure-plate made in accordance with my improvement; and Fig. 2 a vertical section of part of the plate.

Hollow plates of cast-iron heated by steam have been long in use for pressing stockings and other knitted articles of wearing-apparel.

The extent of such plates and the pressure to which they are subjected involve the necessity of employing stays to prevent the yielding and fracture of the plates; and these stays consist of solid cylinders of cast-iron crossing, vertically, the space within the plates, these cylinders being cast with and forming a part of the plates, as seen at *a*, Fig. 2. It has been found that these stays frequently become fractured near one end or the other, either during the shrinking of the metal immediately after casting or through the heat and pressure subsequently applied. The plate is consequently impaired, and in some cases rendered useless. In order to obviate this evil, I proceed as follows:

After the plate A, with its stays *a*, has been cast, I first plane the upper and lower surfaces, and then drill holes entirely through the plate at every point where a stay occurs, the hole being countersunk above and below. Into each hole I introduce a snugly-fitting rod, *b*, in a heated state and rivet both ends, after which I again plane both the upper and lower surfaces, when the plate is complete and ready for use.

Plates thus constructed will remain entire, although subjected to the most severe pressure; and even if a fracture of one or more of the stays has taken place during the cooling of the casting, the rivets prevent the occurrence of any detrimental result of such fractures.

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

A hollow cast-iron die or plate stayed and riveted in the manner and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN B. FONTAINE.

Witnesses:

H. HOWSON,

JOHN WHITE.