

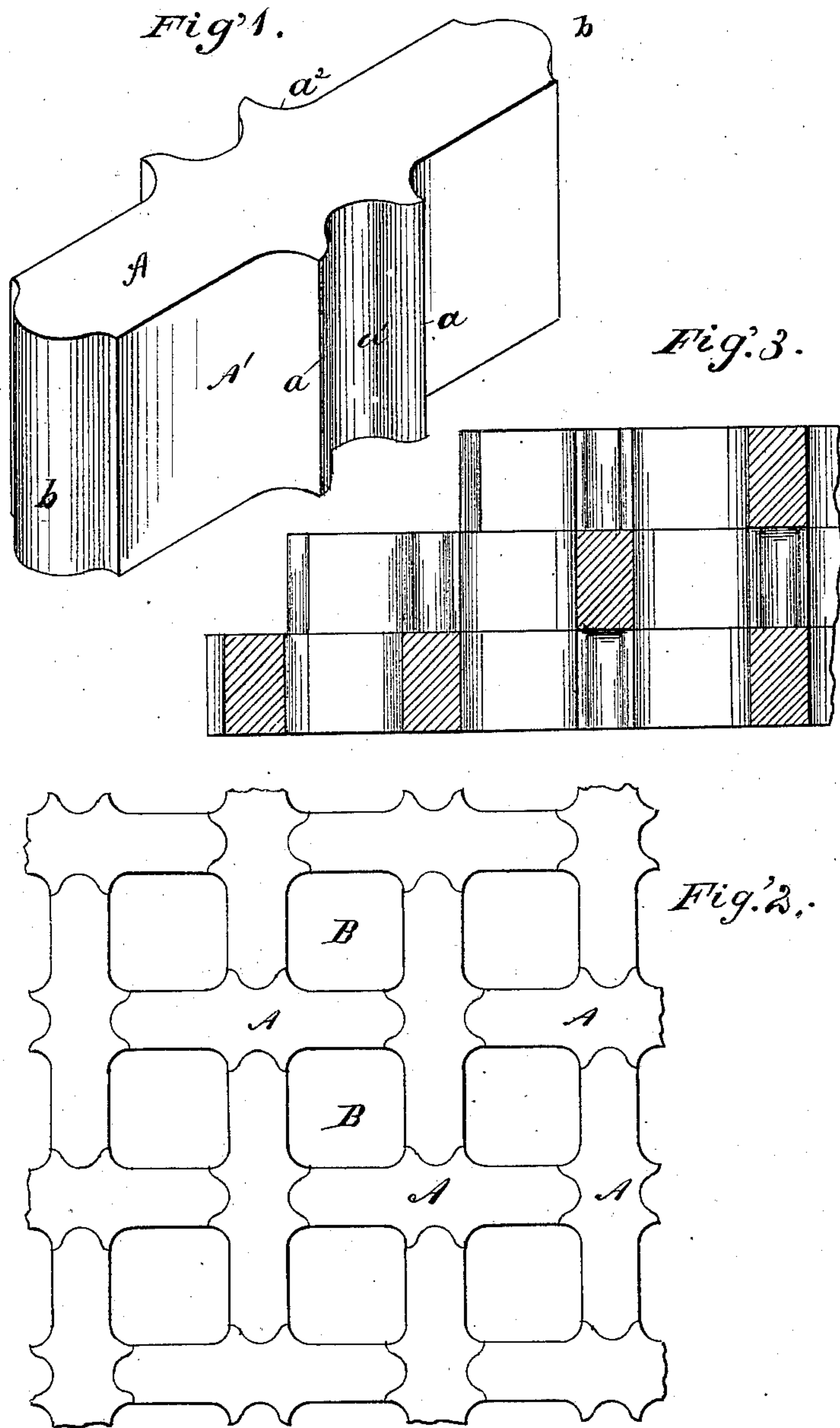
(No Model.)

S. A. RICHARDS.

BRICK FOR REGENERATIVE FURNACES.

No. 308,577.

Patented Nov. 25, 1884.



Witnesses
C. L. Dohman
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UNITED STATES PATENT OFFICE.

SAMUEL A. RICHARDS, OF JOLIET, ILLINOIS.

BRICK FOR REGENERATIVE FURNACES.

SPECIFICATION forming part of Letters Patent No. 308,577, dated November 25, 1884.

Application filed April 24, 1884. (No model.)

To all whom it may concern:

Be it known that I, S. A. RICHARDS, a citizen of the United States, residing at Joliet, in the county of Will and State of Illinois, have
5 invented certain new and useful Improvements in Brick for Regenerative Furnaces; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to
10 which it appertains to make and use the same.

This invention relates to that style of bricks for regenerative furnaces which are constructed with tongues and grooves, in order that all the bricks of each course of the furnace may
15 be firmly interlocked to prevent lateral displacement of individual bricks and insure the maintenance of the smooth continuity of the flues.

My improvement consists of a brick the
20 sides of which are constructed with projecting vertical ribs, whereby grooves are formed without weakening the body of the brick, (which is, on the contrary, rather stiffened by these ribs,) so that it can be made as thin as may be
25 necessary or desirable.

It further consists of a concavely-rounding connection or filling between the exterior side of these ribs and the body of the brick, in order that the flues of a furnace built of these
30 bricks may have rounding corners, which are more desirable than sharp angles, because, being more favorable to a scouring action of the ascending gases, they prevent the accumulation of dust or fume.

35 In order that my invention may be clearly understood, I have illustrated in the annexed drawings, and will proceed to describe a practical form thereof.

40 Figure 1 is a perspective view of a brick embodying my invention. Fig. 2 is a plan view of a part of a course of my brick. Fig. 3 is a section of a part of three courses of my bricks.

The same letters of reference indicate identical parts in all the figures.

45 The body A of my brick is of substantially uniform thickness throughout. The top and bottom are smooth, but each side A' is provided with two projecting vertical ribs, *a a*, equidistant from the center of the brick, which
50 ribs form a vertical groove, *a'*, on the side of the brick, preferably of the illustrated wavelike contour in cross-section. A tongue, *b*, is formed on each end of the brick, shaped to fit in the groove *a'*. The form of the tongues and
55 grooves may be considerably varied, as is obvious. The exterior side of each rib *a* is connected to the body of the brick by a concave filling, *a''*.

Bricks formed as described are laid in the
60 manner clearly shown in Fig. 2, all the bricks of each course being interlocked by the vertical tongues and grooves. The flues B have rounding corners. The bricks of one course
65 should break joints with the bricks of the next course.

I claim as my invention—

1. A brick having a tongue at each end and a corresponding groove across each side, the grooves being formed by projecting ribs, substantially as before set forth, so that the body
70 of the brick is of substantially uniform thickness throughout.

2. A brick having a tongue at each end and a corresponding groove across each side, the
75 grooves being formed by projecting ribs, which are joined on the exterior to the sides of the brick by a concave filling, substantially as before set forth.

In testimony whereof I affix my signature in
80 presence of two witnesses.

SAMUEL A. RICHARDS.

Witnesses:

A. L. RATHMAN,
F. H. TREAT.