(No Model.)

J. C. ANDERSON.

METHOD OF BURNING BRICK.

No. 405,066. Patented June 11, 1889.

Fig-3-

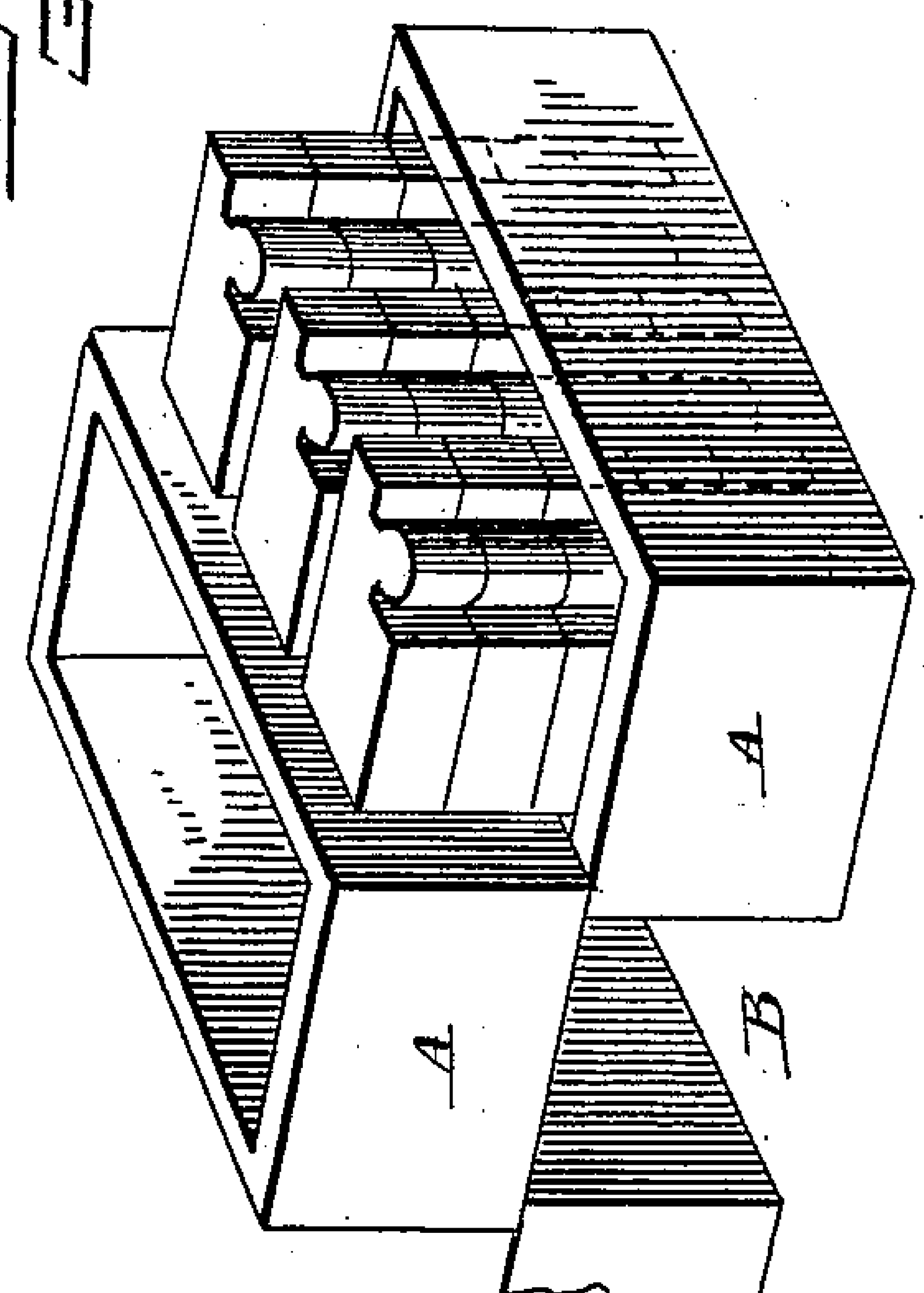


Fig-4-

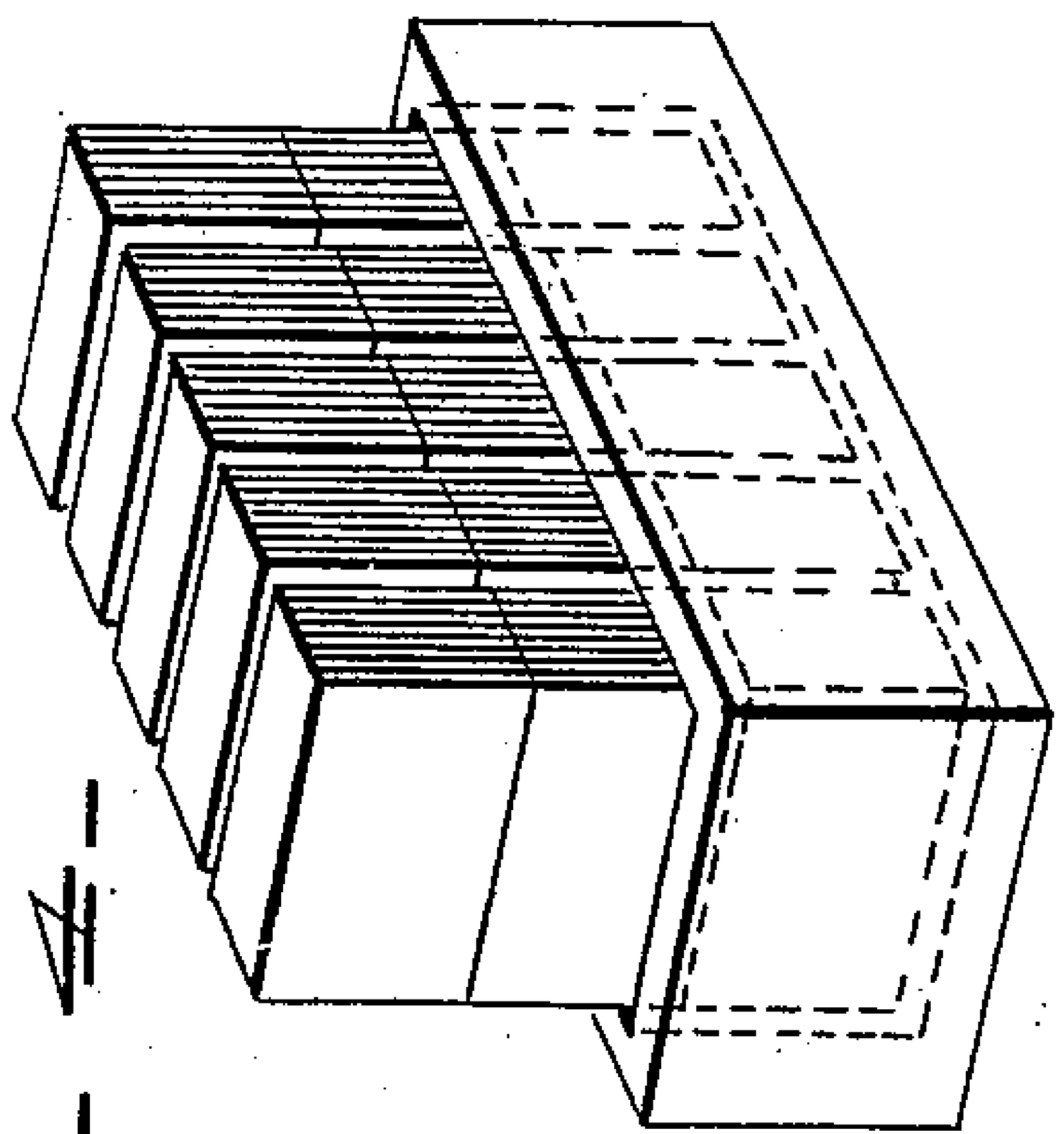


Fig-5

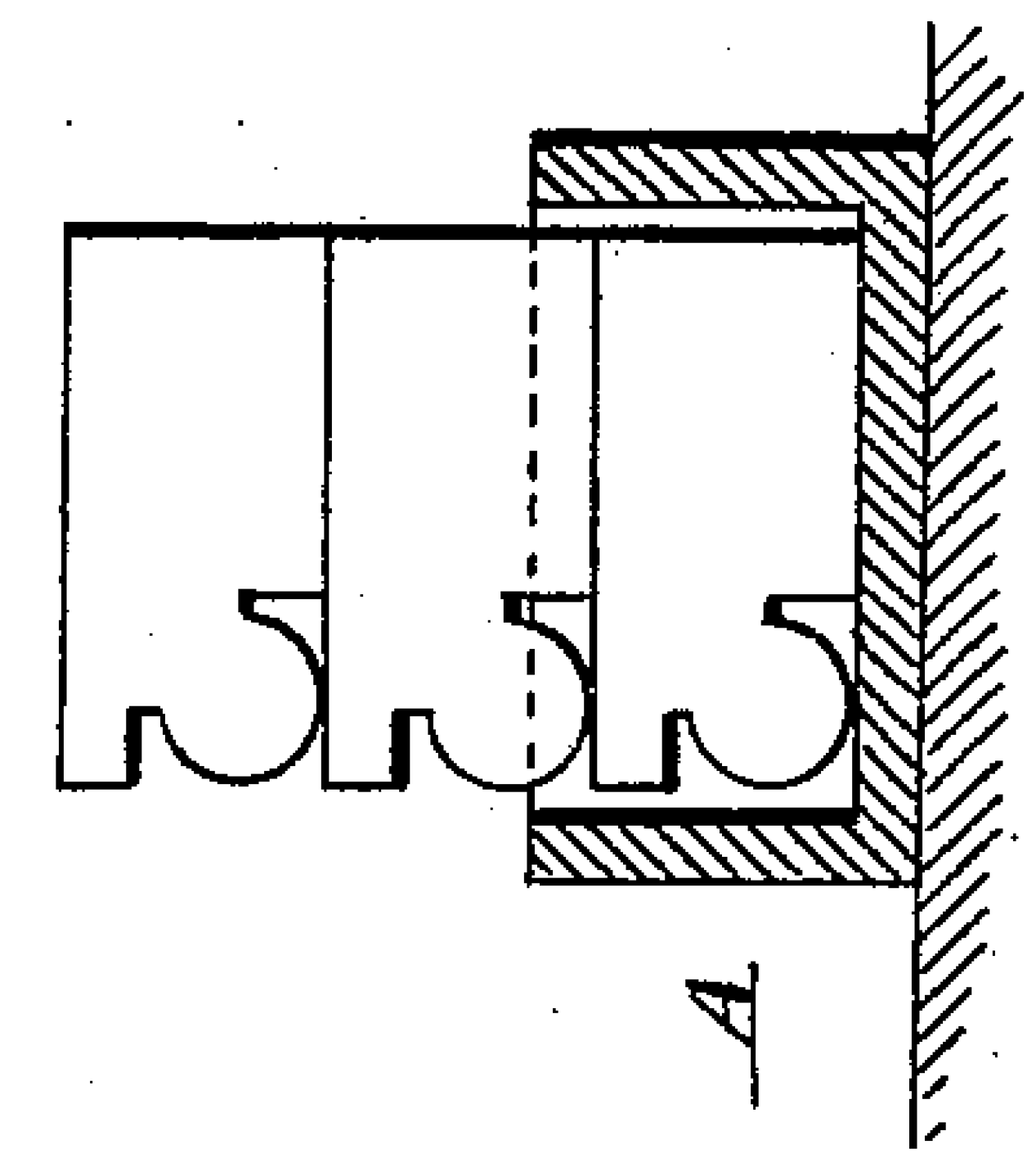


Fig-1-

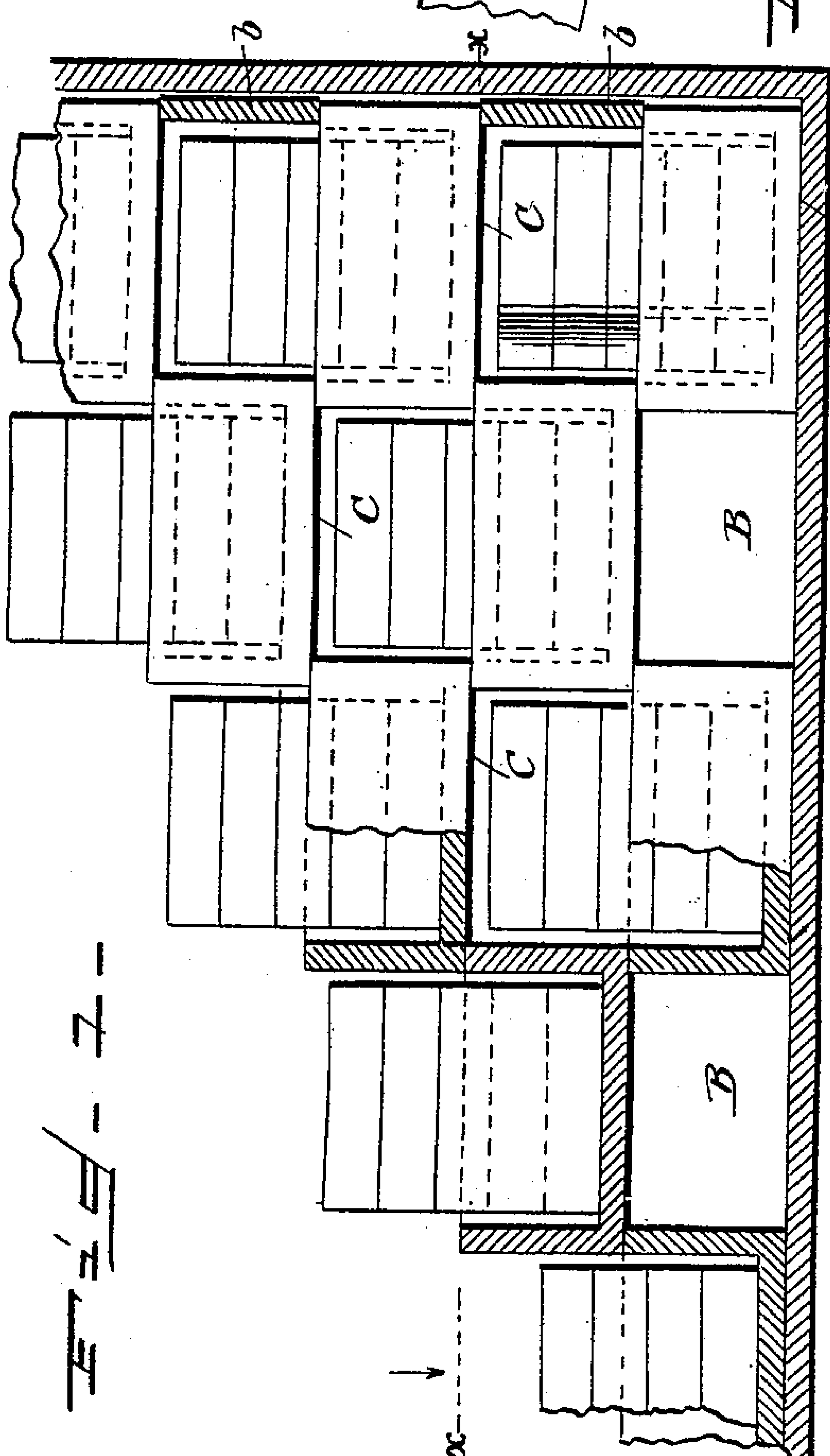
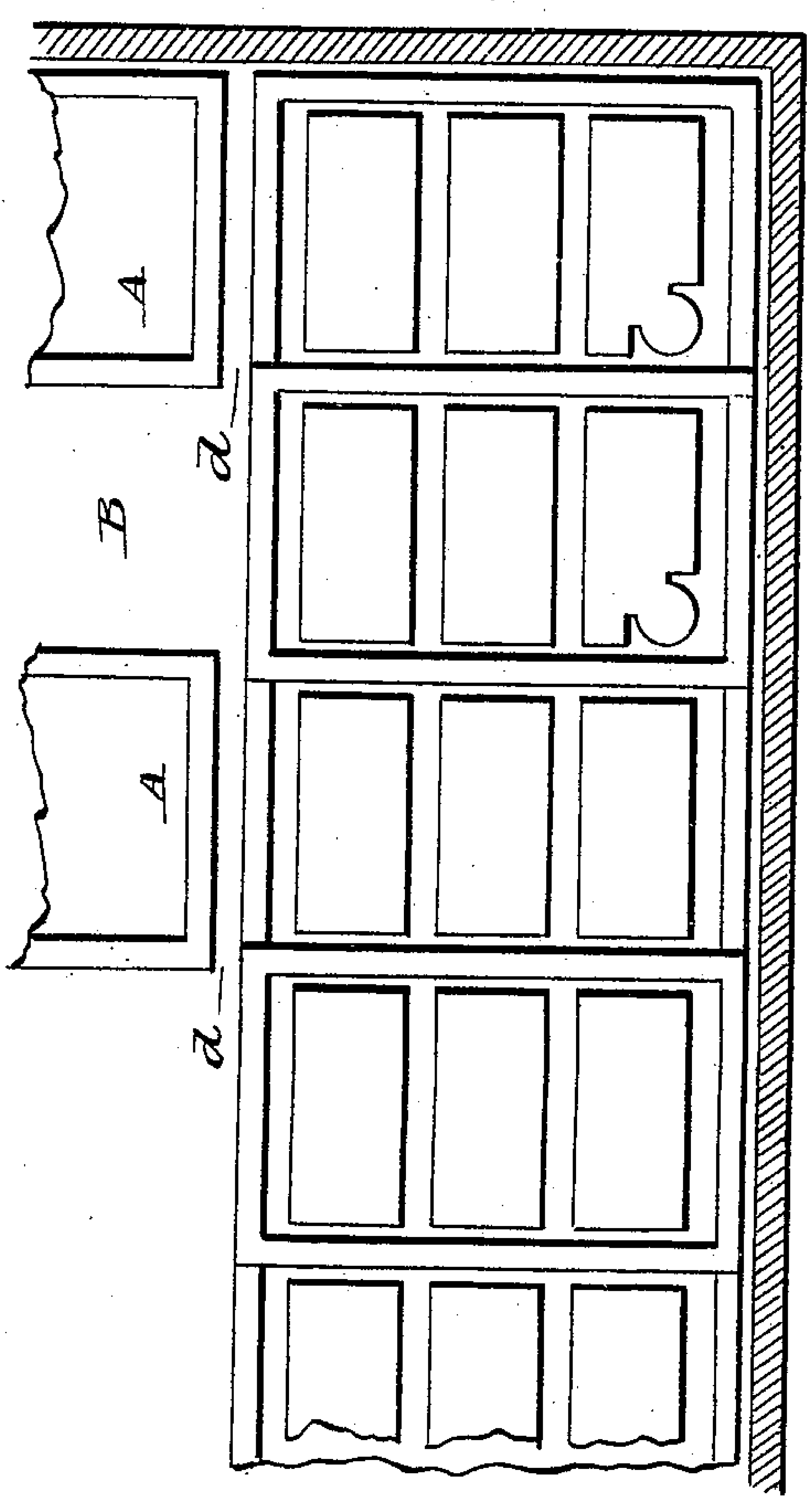


Fig-2-



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UNITED STATES PATENT OFFICE.

JAMES C. ANDERSON, OF HIGHLAND PARK, ILLINOIS.

METHOD OF BURNING BRICK.

SPECIFICATION forming part of Letters Patent No. 405,066, dated June 11, 1889.

Application filed June 9, 1888. Serial No. 276,615. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. ANDERSON, a citizen of the United States of America, residing at Highland Park, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in the Method of Burning Brick, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to a new and useful improvement in the method of burning brick.

The object of my invention is to burn shaped, molded, and ornamented pressed brick without having the same contorted out of shape by the gravity or compression of one upon another in the setting or piling in the kiln, and also to protect this kind of brick from being damaged by the water-smoking incident to the burning of the same, and, further, to protect such brick from the damaging contact of the flame in firing.

It will be understood that in firing or burning fine grades of pressed brick such brick must be so arranged and piled in the kiln that at least one of their face edges shall be protected from the flame contact, which is done in the case of plain brick—*i. e.*, brick having no molding contour thereon—by piling them face to face, one over and on the other, so as to protect the contiguous or adjoining faces, while the other face and sides of the brick are exposed to the full force of the flame. In arranging and piling bricks, however, in the kiln having molded contours and ornamented faces, such faces cannot be so protected in the piling, and are therefore left exposed to the action of the flame, which, in playing upon them, causes them to be discolored, branded, and checked. To overcome this seggars have been used in some cases to protect the same, but have been found objectionable in the ordinary way of arranging and piling seggars in the art of pottery, one immediately above and resting upon the top of the other, for the reason that in brick-making a large volume of water-smoke is raised in the first part of the firing, which is too great in volume to be eliminated from the seggars, being thus closed on the top, and the great number of seggars required are not only expensive, but take up so much room in the body of the kiln as to make it too expensive for this kind of work. To overcome these objections I have provided a system or method of arranging and piling suitable seggars in a kiln so that the weight of the whole mass will be sustained by the respective seggars, and yet the seggars themselves, so arranged, will be entirely open on top, so that the bricks arranged and piled therein will not only be protected from the blast of the flame, but will be free to emit the water-smoke and allow the same to arise and be eliminated in the burning process as freely as though piled in an open kiln.

In carrying out my invention I arrange and pile the seggars in a system of honeycombed-like cells, so spacing them as to allow the edges only of the seggars to rest upon each other, arranging them with alternating seggars and spaces, so that the bricks piled within one seggar shall protrude upward and out of the top of the seggars into and occupying the space which would otherwise be occupied by another seggar in the old method; and it will be seen, also, that the weight of the mass will be relieved from the brick themselves, so that when they become softened during the burning process they will not be contorted out of shape and size by the weight or gravity of the overlying mass of bricks.

Referring to the drawings, Figure 1 is a sectional view of a kiln with the seggars piled therein. Fig. 2 is a top or plan view. Fig. 3 is a view in perspective of a series of seggars with one of them filled with brick. Fig. 4 is a view in perspective of a single seggar with brick piled therein. Fig. 5 is a sectional end view of a seggar with brick piled therein.

A indicates the seggars, which are plain rectangular boxes made of fire-clay, with open top. The first row or floor course of seggars is placed in the kiln so as to leave spaces B alternating with the seggars, said space being a little less in width than the width of one of the seggars, so that in the next course the seggars can be placed over these spaces and rest on the edges of the seggars previously set. This row of seggars is now filled with the brick to be burned, said brick being arranged in any preferred form, and are stacked above the upper edge of the seggars two or three

courses high, or nearly as high as the depth of the seggars, so as to leave a space C for the escape of the water-smoke between the tops of the brick and the bottom of the seggar which covers them. In building up the second row and every alternate vertical row of seggars fire-clay slabs *b* are placed on edge on top of the seggar nearest to the wall of the kiln, said slab being of the width of the height of the seggars. Seggars are now placed over the spaces B and filled with brick in the manner previously stated. In the next course a seggar is placed near the wall of the kiln, one edge being supported by the fire-clay tile *b*, while the other edge is supported on the edge of the first seggar in the previously-piled row, a space being left for the bricks in the seggar next below. The seggars composing the next horizontal row are placed a short distance from the previously-laid seggars, so as to leave a space *d* (see Fig. 2) between the vertical rows, which will allow the water-smoke to pass out and rise to the top of the kiln.

It will be noticed that by the method of piling the brick and the seggars in the kiln only about one-half the number of seggars is required, thus making it practicable and comparatively inexpensive to burn bricks in seggars; and, furthermore, as the bricks are arranged and supported in comparatively small bodies, they do not have to support a great weight of brick above them, as in piling them in the kiln, and the bricks will preserve their shape and original dimensions.

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

An improvement in the art of burning brick in seggars, which consists in arranging the seggars in the kiln so as to form open cells between and above the same, filling the seggars and the open cells with the brick to be burned, and finally burning the brick, as set forth.

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

J. C. ANDERSON.

Witnesses:
WM. N. ALLEY,
W. H. H. YOUNG.