No. 703,760. Patented July 1, 1902.

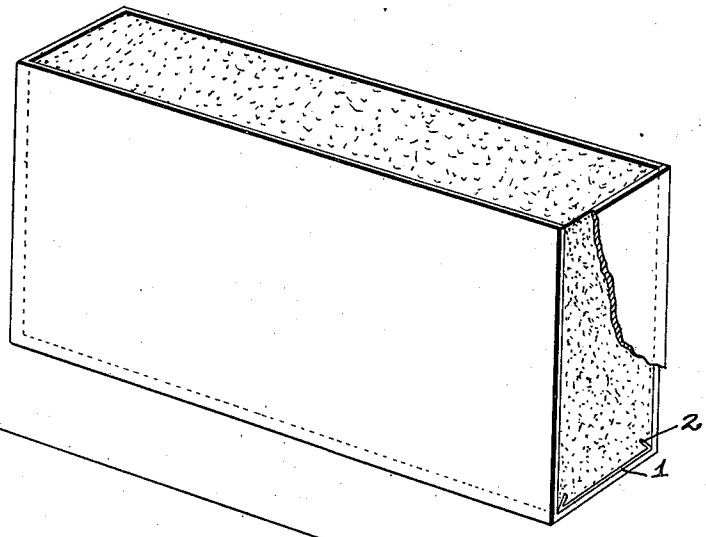
L. A. BROWN.

BRICK OR BLOCK.

(Application filed Aug. 21, 1901.)

(No Model.)

Fig. 1.



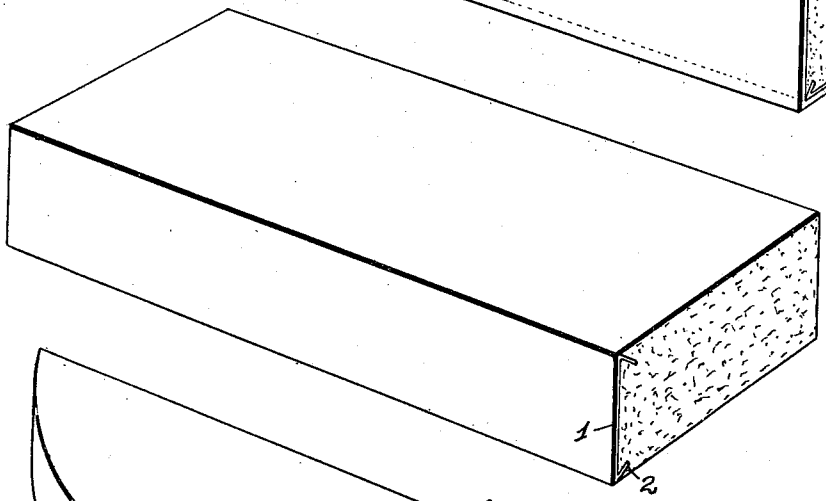


Fig. 2

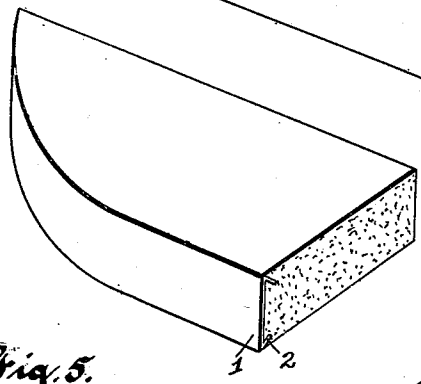


Fig. 3.

Fig. 4.

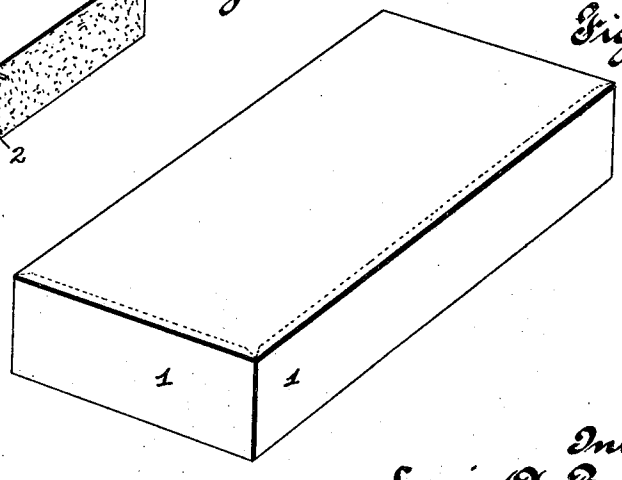
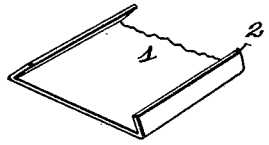


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

LEWIS A. BROWN, OF ST. LOUIS, MISSOURI.

BRICK OR BLOCK.

SPECIFICATION forming part of Letters Patent No. 703,760, dated July 1, 1902.

Application filed August 21, 1901. Serial No. 72,803. (No model.)

To all whom it may concern:

Be it known that I, LEWIS A. BROWN, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Bricks or Blocks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to bricks or blocks; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

One object of this invention is to provide a brick having a metallic plate secured to one or more of its sides.

Another object is to provide means for securing the plate to a brick while the brick is being molded, so that the edges of the plate will be inclosed within the brick, and thereby securely held in position.

Figure 1 is a perspective view of a brick within a mold, showing how the brick is molded around the edges of the plate. Fig. 2 is a perspective view of a complete brick. Fig. 3 is a perspective view of a brick having a rounded surface. Fig. 4 is a perspective view of a brick having metallic plates on two of its sides. Fig. 5 is a perspective view of one end of the plate before being attached to the brick.

The brick may be composed of any known material and may be cast in different forms, as shown.

The essential feature of the invention consists of a metallic plate 1, having projections 2 extending inwardly at an angle, and the material composing the brick is molded around the said projections 2, thereby holding the plate securely in position.

In the drawings I have shown the plate located in the bottom of the mold, into which the material forming the brick is poured in a plastic state and allowed to become solid, either assisted by heat or in any known manner. The said plate is of equal width with the mold and brick, and when the brick is completed the said plate covers the entire surface thereof, forming a cover which will thoroughly protect the brick from the elements.

If desired, the plate may be provided with an enameled surface and may be used for ornamental purposes, and in this way a very substantial enameled brick can be provided and the enamel will not become broken so easily as in the bricks of ordinary construction, in which the enamel is secured directly to the surface of the brick.

In Fig. 4 I have shown a plate secured to the side and another plate secured to the end, and this form of brick is especially adapted for corners, while the form shown in Fig. 3, having a rounded surface, may be used for all purposes for which such forms are adapted. These bricks are molded in substantially the same way as above described.

I preferably construct my improved brick or block out of substance commercially known as "perannite" and which is formed of the following principal ingredients: sand, cement, sulfur, lampblack, and pigment, and the process of forming the perannite out of the above ingredients is as follows:

The process by which the composition is formed consists in reducing the amount of sulfur required to form the composition to a liquid state and mixing therewith the cement, which may be either natural or artificial. The sand before being mixed with the cement and sulfur is heated to a high temperature—about 500° Fahrenheit—in order to remove the impurities and solidify the mixture after it is placed therein. The sand while still heated is mixed with the cement and sulfur and forms a solid mass. The mass is then liquefied by applying a temperature of about 750° Fahrenheit, and while in this state the lampblack is mixed therewith in order to render the mass porous and fusible. The temperature of 750° is maintained for about fifteen minutes, and while being in this state the pigments are added to give the desired color, after which the temperature is gradually reduced to about 300°, at which stage the mass becomes viscid and pliable and in a condition to be poured into the mold to be formed into the object desired. After the composition is formed as above specified and while the temperature of said composition is about 300° Fahrenheit it is then poured into a suitable form or mold, located in the bottom of which is a metallic face-plate. The composition is

then allowed to harden by natural process, and this solidification firmly holds the metallic plate in the proper position on the face of the brick or block.

I claim—

1. The combination with a brick or block, of a metallic plate having projections rigid with its edges which extend into the body of the brick in different directions, substantially as specified.

2. The combination with a brick or block, of a metallic plate having its edges turned inwardly and inclosed within the brick or block, the exposed surface of the plate being of equal width with the body of the brick or block and forming the outer surface thereof, substantially as specified.

3. A brick, having one or more of its surfaces protected by metallic plates, the inner edges of which are turned into and molded within the brick, substantially as specified.

4. The combination with a brick, of a metallic plate having its edges turned inwardly and inclosed within the brick, the said plate forming the outer surface of the brick, substantially as specified.

5. The combination with a brick, of a plate 1 having its edges 2 turned inwardly at an incline and inclosed within the brick, the said plate being connected thereto while the brick is being molded, substantially as specified.

6. The combination with a brick or block composed of sand, cement and sulfur, of a metallic plate having its edges turned inwardly and inclosed within the brick, the said plate forming the outer surface of the brick or block, substantially as specified.

7. The combination with a brick or block, of a metallic plate having projections extending into the body of the brick in different directions to prevent detachment of the said plate, substantially as specified.

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

LEWIS A. BROWN.

Witnesses:

ALFRED A. EICKS,

JOHN D. RIPPEY.