(No Model.)

E. H. LEWIS.

ARTIFICIAL BUILDING STONE.

No. 448,968. Patented Mar. 24, 1891.

Fig. I.

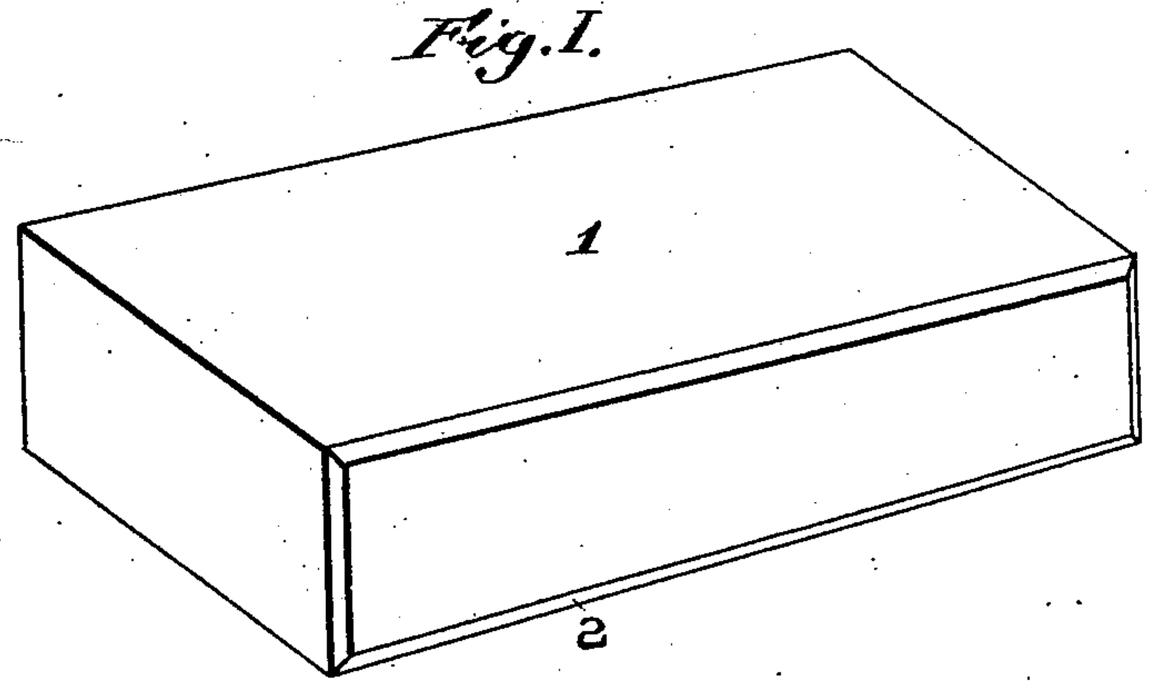


Fig. II.

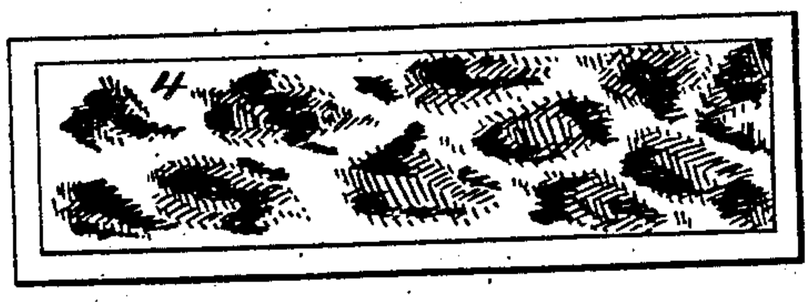


Fig. III.

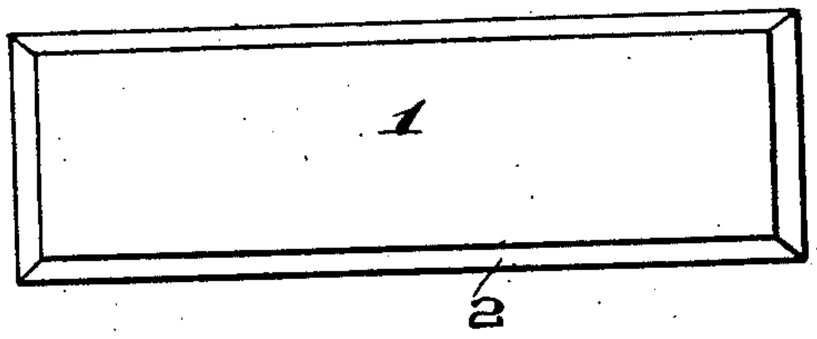


Fig. IV.

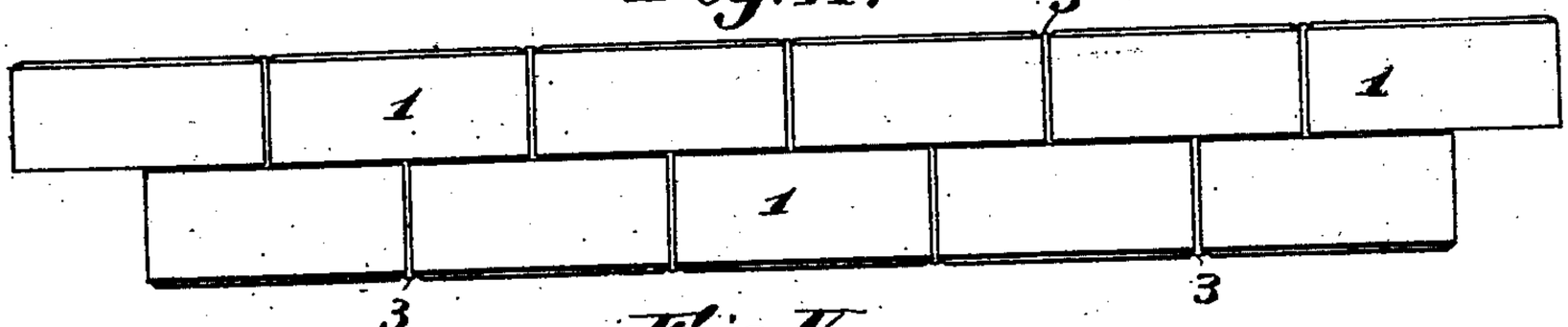
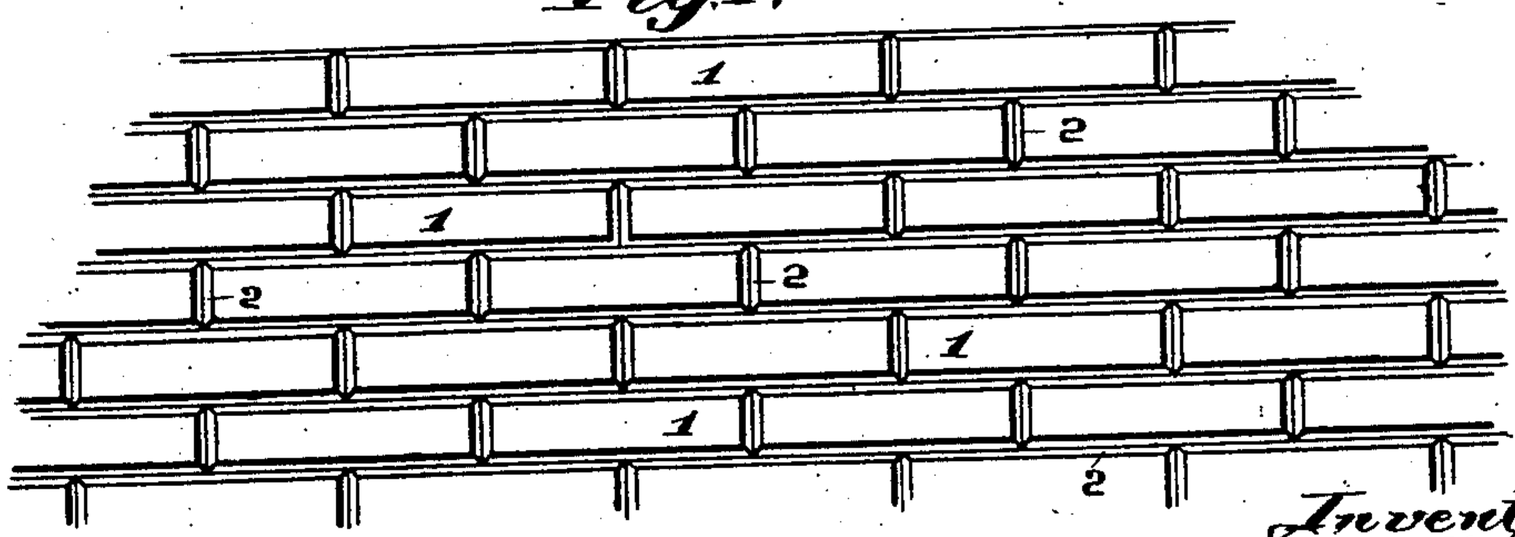


Fig. V.



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106/98

448,968

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UNITED STATES PATENT OFFICE.

EUGENE H. LEWIS, OF ST. JOSEPH, MICHIGAN.

ARTIFICIAL BUILDING-STONE.

SPECIFICATION forming part of Letters Patent No. 448,968, dated March 24, 1891.

Application filed April 7, 1890. Serial No. 346,804. (No model.)

106-92

To all whom it may concern:

Be it known that I, EUGENE H. LEWIS, a citizen of the United States, residing at St. Joseph, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Artificial Building-Blocks; 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 which it appertains to make and use the same.

My invention relates to an artificial brick; and the object of the invention is to produce a substantial, durable, and attractive building-block which can be cheaply manufactured and which closely resembles sandstone or brownstone, and is well adapted for all of the uses to which natural blocks of sandstone and brownstone are used.

With these and other ends in view my invention consists of an artificial building-block molded and pressed and composed of the following ingredients, to wit: cement, sand, and a solution composed of alum, lime, sulphate of iron, bichromate of potash, carbonate of magnesia, and sugar or similar saccharine substance in the proportions hereinafter specified.

To enable others to more readily understand my invention, I have illustrated a building-block embodying the same in the accompanying drawings, in which—

Figure I is a perspective view of my improved building block or brick having a smooth surface and chamfered edges. Fig. II is a front elevation of a building-block, showing the same with roughened skin surface. Fig. III is a side elevation of a building-block to more clearly show the chamferred edges thereof. Fig. IV is a top plan view showing the tuck-joint, and Fig. V is a front view of a number of bricks as they appear when assembled in a wall.

Referring to the drawings, 1 designates a building block or brick made in imitation of natural stone, having its edges chamfered or beveled, as at 2, and provided with a smooth-pressed "skin" surface. By providing a building-block with the chamfered or beveled edge I am enabled to point up the bricks after they have been assembled and laid in a wall, and still allow the face of the brick to project beyond the tuck point or joint 3, thus protecting the same from the deleterious action of water, moisture, and other destructive agents which tend to deface and demolish the unprotected tuck-point in general use.

In Fig. II, I have shown a brick having its face 4 molded in imitation of what is known as "split" stone, and having its other sides smooth. In this form of brick I do not chamfer the edges of the face, but leave a narrow smooth surface extending around the edges of the rocky or split surface. A neat finish is thus provided for the brick and an even and unbroken tuck-joint is secured, and when the joint is pointed up it forms an attractive border around the imitation split stone. Although the brick is molded in imitation of the roughened or rocky face of a split brick, still the whole brick is made with a skin surface, which renders it practically impervious to the action of water and moisture.

I will now proceed to describe my composition for an artificial brick or building-block. This composition is as follows: cement, sand, a mixture or solution of water, lime, sulphate of iron, bichromate of potash, carbonate of magnesia, sugar or its equivalent, and water.

In preparing the composition from which the brick are made I first dissolve the following substances in ten gallons of water, to wit: two pounds of alum, one pound of quicklime, and three pounds of sulphate of iron. I then dissolve in separate vessels one pound of bichromate of potash and one-half pound of carbonate of magnesia in one gallon of water. When each of these two solutions have become thoroughly dissolved, I mix said solutions together and allow the mixture to stand for about twenty-four hours, stirring the same occasionally. After this mixture has stood the requisite length of time I add to the same two and one-half pounds of raw sugar or equivalent saccharine matter and forty-five gallons of water. After these ingredients have been thoroughly dissolved the mixture is ready for use.

In making the brick or building-block I use one part of Portland or other suitable cement to four parts of sand, which are mixed in a dry state, and after these ingredients

have been mingled I dampen or moisten the same sufficiently with the solution heretofore described to make the compound plastic, so that it can be molded easily and efficiently.

By using the mixture herein described I obtain a cheap, durable, and substantial brick which closely resembles natural sandstone or brownstone.

It is obvious that the brick can be molded by any of the ordinary brick-molds or press-machines, and that it is given a smooth skin surface in imitation of split stone, as described.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described composition of matter for building-blocks, consisting of sand, cement, alum, lime, sulphate of iron, bichromate of potash, and carbonate of magnesia, substantially as described.

2. The herein-described composition of matter for an artificial building block or brick, consisting of cement, sand, a solution of water, alum, lime, and sulphate of iron, another solution of water, bichromate of potash, and carbonate of magnesia, sugar or equivalent saccharine matter, and water, substantially in the proportions specified, for the purpose set forth.

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

EUGENE H. LEWIS.

Witnesses:
C. O. PARMELEY,
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