F. SCHAFFER.

BUILDING-BLOCKS.

No. 180,794. Patented Aug. 8, 1876.

FIG. 1.

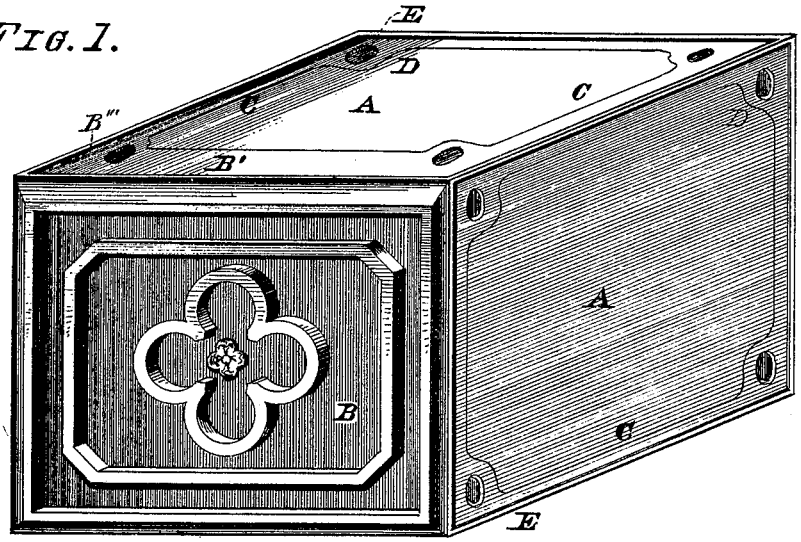
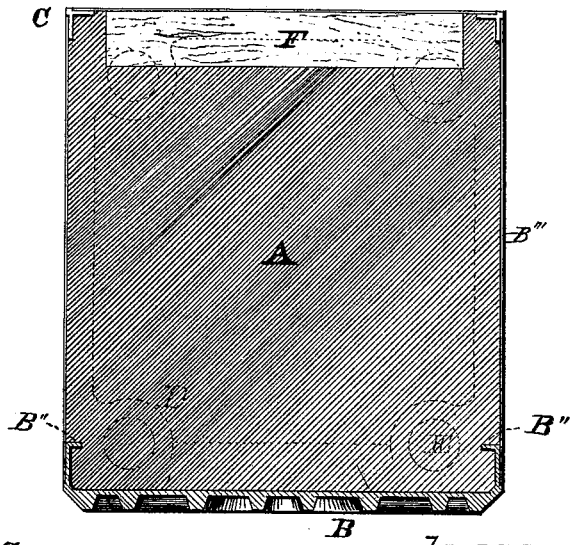



FIG. 2.

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# UNITED STATES PATENT OFFICE.

FRANK SCHAFFER, OF BUFFALO, NEW YORK.

## IMPROVEMENT IN BUILDING-BLOCKS.

Specification forming part of Letters Patent No. **180,794**, dated August 8, 1876; application filed July 19, 1876.

*To all whom it may concern:*

Be it known that I, FRANK SCHAFFER, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements on Artificial and other Building-Stones; and I do hereby declare that the following description, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification.

My present invention relates particularly to the manufacture and preservation of artificial stones for building purposes; and it consists in providing such stones with a casing of cast or sheet iron, to either entirely or partly envelop such artificial stone, the faces of such casing being ornamented, in relief or any oth er manner, in imitation of the natural stones.

My invention further consists in the arrangement of parts and details of construction, as will first be fully described, and then pointed out in the claims.

The object of my invention is to render a wall erected of artificial stones impervious to water, and to protect the same against the influences of weather, whereby it is preserved for a longer space of time than other artificial stones not protected by my improved casing.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I shall proceed to describe its construction, and thereby refer to the hereinbefore-mentioned drawings, in which—

Figure 1 is a perspective view of a building-stone of my improved construction. Fig. 2 is a horizontal section.

Like letters of reference indicate corresponding parts in both figures.

A is an artificial building-stone. It is composed of the usual material of which such stones are produced, and does therefore not differ from others in this respect. B is a metallic casing, composed of the face B′, having a rim or ledge, B″, and the skeleton-frame C. The face B′ is either a plane surface or ornamented in relief or otherwise, such as is usually found on building and edge stones. The skeleton C consists of bars of L-shaped or angle iron, covering all the edges of the stone, and it is provided with lugs D, having recesses E.

The casing may be produced either entire of cast-iron in the process of casting, or put together of pieces of other suitable material, the former process being preferable on account of cheapness, and because it admits of an easier method of ornamenting the stone face.

The casing is inserted into a properly-constructed mold, and the material of which the stone is to be made poured into said mold, wherein it is allowed to set, and thereby to unite with the casing in such manner that a separation is impossible without breaking either the stone or the casing. Before the substance in the mold has set, I place a wooden block, F, made slightly tapering, with its larger part into said substance, so as to be flush therewith. This wooden block may be impregnated with any substance or material tending to its preservation, and if so prepared will be fully as durable as the artificial stone itself. The purpose of this block F is to enable the attachment of the lathing to be made without necessitating drilling into the blocks, which is a very laborious process.

In order to retain the artificial stone within its casing I provide this casing with the L-shaped bars C, which embrace the said stone from all sides, and thereby securely attach the same to said casing.

Instead of the skeleton, I may provide the rim or ledge B″ with an inwardly-projecting ledge, B‴, and dispense with said skeleton. In this case I would provide the artificial stone itself with the recesses E; or, instead of said skeleton, I may incase the artificial stone with an entire metallic casing of suitable material, leaving that part only of the stone exposed which forms the interior walls of a building. In this case I may form perforations in the casing to be filled by the material when poured into said casing to unite the parts.

The casing may be made of sheet metal, and the desired ornaments produced by the well-known process of "drop-stamping," and the several parts entering into the construction of the casing united by soldering or similar manipulation.

In constructing the casing it is desirable that there should be formed a narrow projecting edge on all the edges of the skeleton C, so as to leave the faces of the stone somewhat depressed. This will enable the cement used to unite the stones to be properly spread, and at

the same time forms a solid joint all around the blocks. This cement will enter the recesses E, and thereby form, when hard, pivots, which effectually prevent the stones from being moved, and combine the whole wall to one solid mass of material.

Artificial stones of the description heretofore related may very advantageously be used as edge-stones in brick buildings, which, when ornamented, painted, and sanded, to imitate the color and appearance of natural stones, cannot be distinguished from such. For such stones two adjacent sides of the casing are faced with an entire facing, B′.

In a building constructed of artificial stones, as described, the front and sides will be virtually of iron, and while possessing all the advantages of such a structure, it is by far cheaper than either an iron building or one constructed entirely of sand or other stone. The casing, furthermore, protects the artificial stone against the influences of weather, and will, therefore, be preserved for any length of time.

Having thus fully described my invention, I desire to secure to me by Letters Patent of the United States—

1. As a new article of manufacture, metal casings for artificial stones, composed of the facing B′, and the rim or ledge B″, and the skeleton C, substantially as described.

2. The combination, with an artificial stone, of a metallic face, B, secured to said stone by the ledge B″ and the projecting edge B‴, substantially as described.

3. The combination, with an artificial stone, A, of a wooden filling-block, F, as described, for the use and purpose stated.

4. The combination, with the metallic casing of an artificial stone, of the lugs D and the recesses E, substantially as described.

In testimony whereof I have hereto set my hand in the presence of two subscribing witnesses.

FRANK SCHAFFER.

Attest:

MICHAEL J. STARK,

FRANK HIRSCH.

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