

Jan. 19, 1926.

1,570,538

J. THOMAS

METHOD OF MAKING ARTIFICIAL STONE

Filed March 24, 1925

Fig. 1

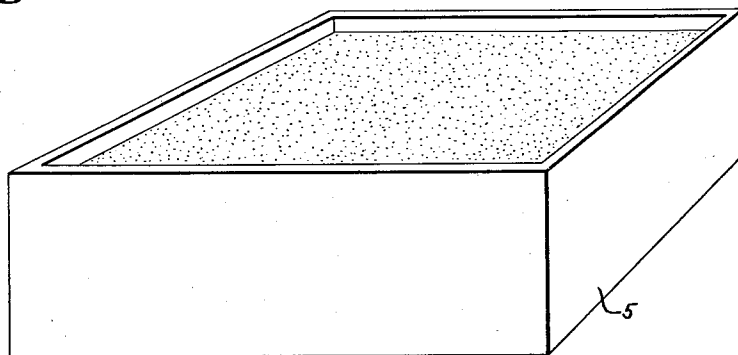


Fig. 2

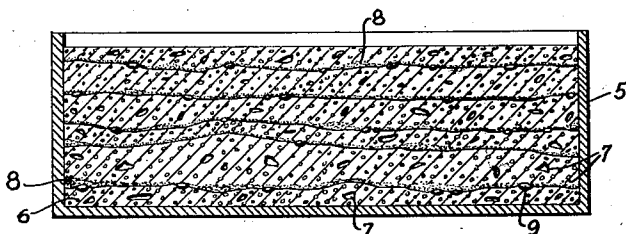


Fig. 3

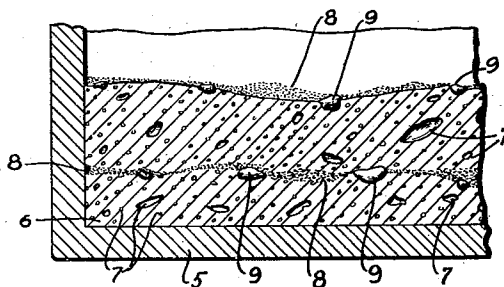
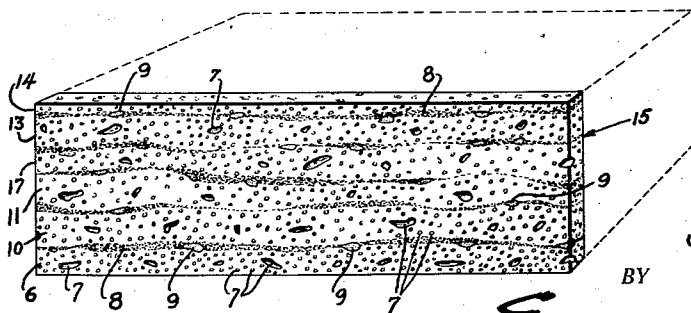


Fig. 4



INVENTOR.

JAMES THOMAS

BY

Edward H. Moore
ATTORNEY.

UNITED STATES PATENT OFFICE.

JAMES THOMAS, OF MONTROSE, CALIFORNIA.

METHOD OF MAKING ARTIFICIAL STONE.

Application filed March 24, 1925. Serial No. 17,922.

To all whom it may concern:

Be it known that I, JAMES THOMAS, a citizen of the United States, residing at Montrose, in the county of Los Angeles and State of California, have invented new and useful Improvements in Methods of Making Artificial Stone, of which the following is a specification.

This invention relates to the formation of artificial stone, and refers more specifically to a process for accurately simulating the veining, formation, and other characteristics possessed by natural stone.

In some building structures the walls and wainscoting are often formed of natural stone, such as marbles, in blocks or slabs, for producing ornamental effects. Some natural stone, such as "travertine" (volcanic rock or lava) is now frequently employed for such purposes, as its graining and other natural characteristics when finished, produce beautiful artistic effects. As this rock is only formed in certain volcanic countries, the cost of transportation and custom duties render its use highly expensive, and in the case of inexpensive building structures its use is prohibitive.

By employing my improved process I am enabled to produce an accurate simulation of the above mentioned rock, or stone, in both color, texture, veining, and other characteristics so that the same cannot be readily detected from the natural stone except possibly by experts, and at a fraction of the cost.

The drawings hereto attached and forming a part of this specification represent the various steps employed in the process of forming the artificial stone.

Fig. 1 is a perspective view of a mold form employed in the process.

Fig. 2 is a cross section through the mold form illustrating the formation of the various cementitious layers of material.

Fig. 3 is an enlarged section of a portion of a mold form showing two bottom layers of material and illustrating the formation of the same.

Fig. 4 is a perspective view of a slab of artificial stone sawed from a block of cast stone, the dotted lines indicating the complete block.

Referring more specifically to the drawings, 5 designates a mold form preferably of rectangular configuration, and of a size

sufficiently large to enable the manufacturers to cast a block that may be readily cut or sawed into "slabs" suitable for commercial use.

In preparing the composition stone, I preferably employ a gypsum cement commercially known as "Keene's cement", in the proportion of two (2) parts of cement to one (1) part of water in order to produce a heavy thick viscous mixture, similar to a very heavy lubricating oil, introducing into the mixture a suitable amount of coloring matter, such as lamp black, raw umber, raw sienna, or ochre, to simulate the color of the natural "travertine" stone. It will be understood that by varying the proportions of cement and water the porosity of the finished blocks of stone will be increased or diminished as desired.

After the mixture of the desired consistency has been formed, a layer is poured into the mold form 5, the air entrained therein will cause a large number of concavities 7 to form in the mass, some of the concavities being of considerable size. Before the cementitious mixture has set a small quantity of dry cement 8 colored as desired, is dusted or laid in thin masses on the upper surface of the mass to produce the streaked or strata effect found in the natural stone. To further increase the simulation of the artificial stone, small lumps 9 of the cement partially wet are deposited on the surface of the mass. Succeeding layers 10, 11, 12, 13 and 14, are deposited one on top of the other in substantially the same manner as the first layer, and as the thickness of each layer is irregular, the dry cement sprinkled on the upper surface will when the entire mass has set, form the various stratas that appear in the natural stone.

When the cast block has become sufficiently hard the same is removed from the mold form, and sawed into slabs of different thicknesses, the surfaces of the sawed slabs simulating the appearance of sawed slabs of natural stone with remarkable fidelity.

What I claim is:

1. The herein described method of forming artificial stone, which consists in forming a cementitious mixture of semi-fluid consistency and pouring the same into a mold form in a plurality of layers, and depositing a small quantity of dry material on the

surface of each layer to form stratified veins in the mass when the same is hardened.

2. The herein described process of forming artificial stone, which consists of mixing a gypsum cement with water to form a thick slow pouring mixture, depositing the same in superimposed irregular layers in a mold form, the top of each layer being
10 sprinkled with a dry material to form veins in the mass, and finally sawing the cast mass into slabs after the same has hardened.

3. The herein described process of form-

ing an artificial stone, which consists in mixing two parts of cement and one part of water to form a semi-fluid mixture, pouring the same in layers in a mold form; depositing upon the surface of each layer a dry mineral substance to form stratified veins
20 in the mass when hardened, and finally sawing the hardened block transversely with respect to the stratified veins to form slabs.

In witness that I claim the foregoing I have hereunto subscribed my name this 28th
25 day of February, 1925.

JAMES THOMAS.