No. 753,303. PATENTED MAR. 1, 1904.

W. G. PARK.

MOLD FOR CEMENT BLOCKS.

APPLICATION FILED JULY 29, 1903.

NO MODEL.

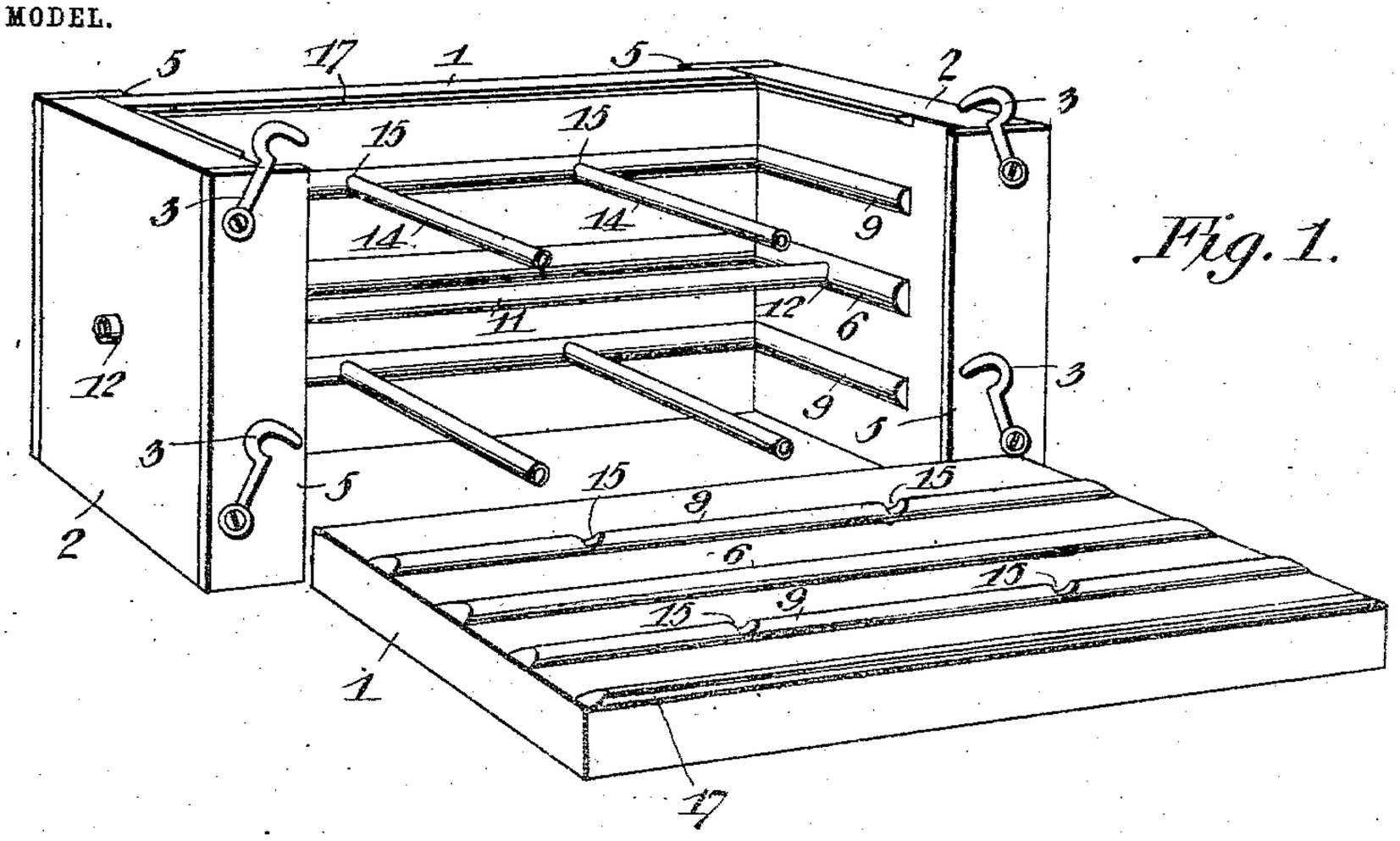
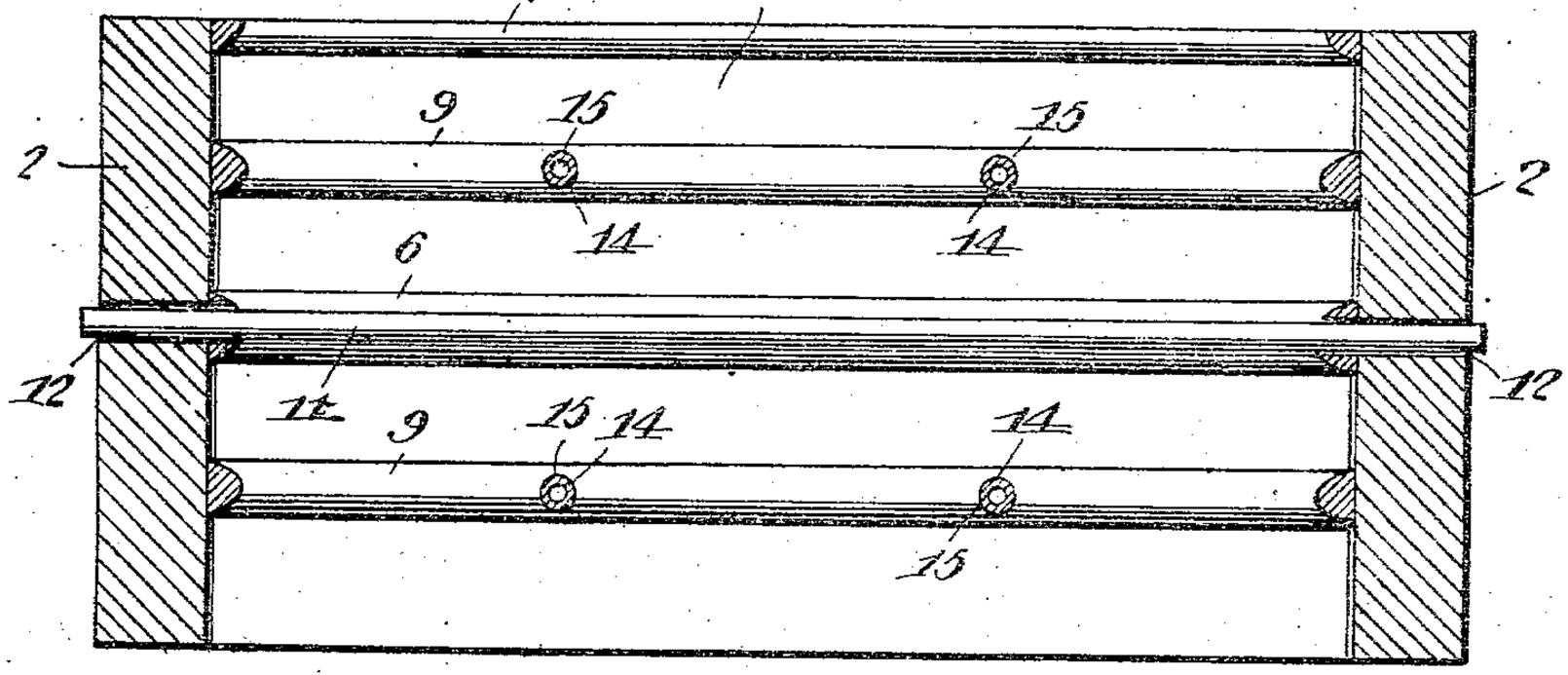


Fig. 1.

Fig. 2.



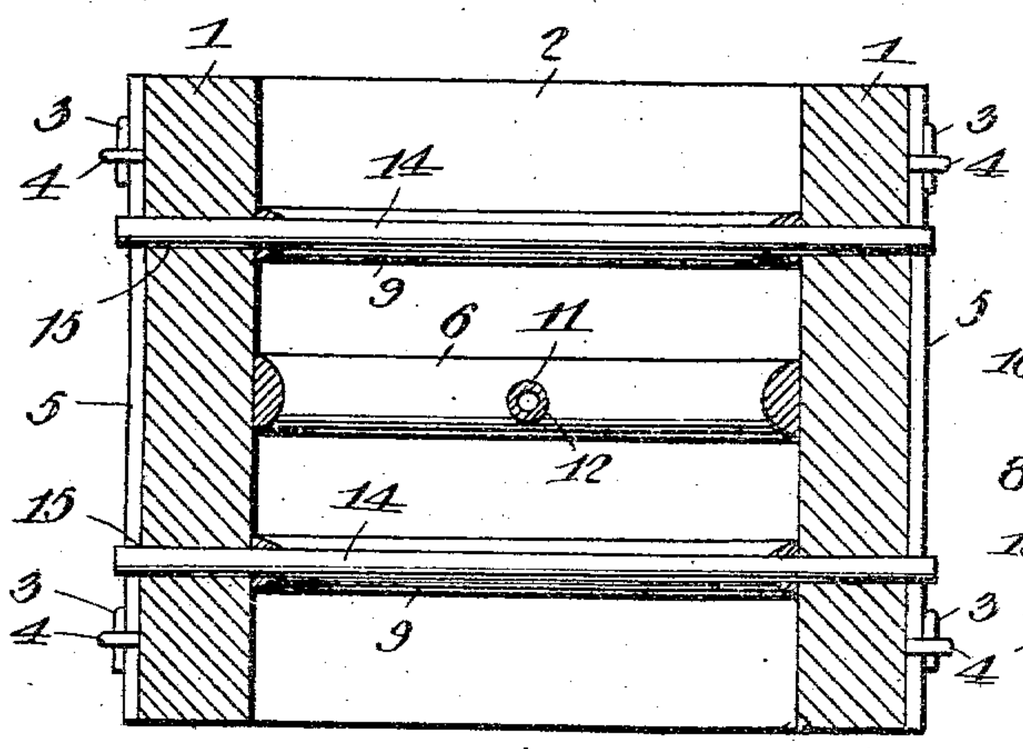


Fig. 3.

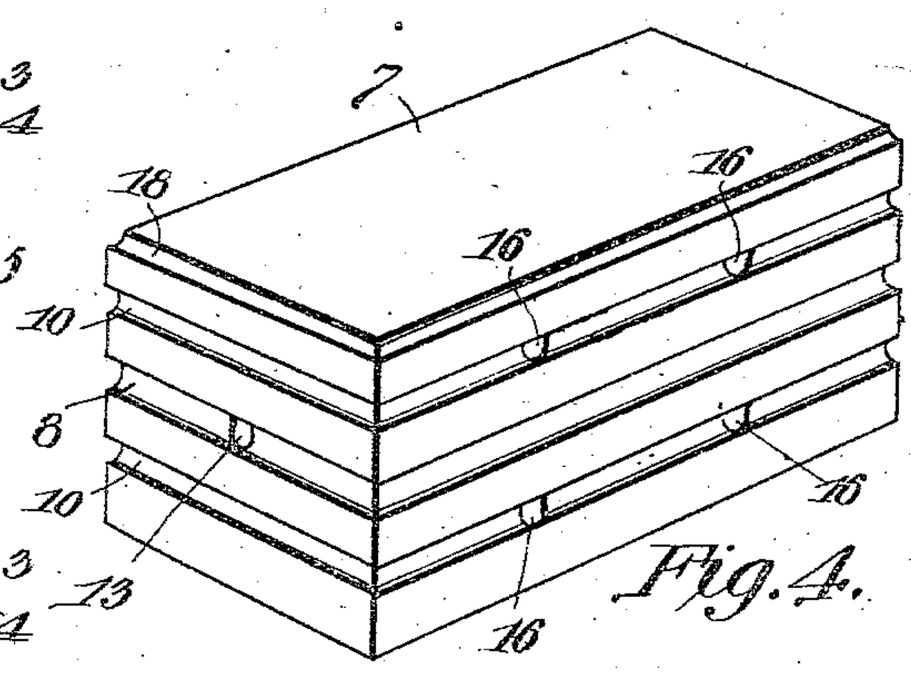


Fig. 4.

Witnesses
E. F. Stewart
F. S. Elmore

Warren G. Park, Inventor.
by Cushman & Co.
Attorneys

UNITED STATES PATENT OFFICE.

WARREN G. PARK, OF AVON, ILLINOIS.

MOLD FOR CEMENT BLOCKS.

SPECIFICATION forming part of Letters Patent No. 753,303, dated March 1, 1904.

Application filed July 29, 1903. Serial No. 167,480. (No model.)

To all whom it may concern:

Be it known that I, WARREN G. PARK, a citizen of the United States, residing at Avon, in the county of Fulton and State of Illinois, have invented a new and useful Mold for Cement Blocks, of which the following is a specification.

At the present day it is the practice in the construction of buildings to employ artificial-stone blocks composed of cement or analogous material shaped in suitable molds in which the material is placed while in a plastic condition and allowed to set or harden. Because of the extreme tendency of these blocks to expand and contract under climatic influences and for various other reasons, it is highly desirable that they should be provided with both interior and exterior air passages or ducts, permitting a free circulation of air around and through them. It is also desirable that these blocks should have formed upon their exterior faces grooves or channels for the reception of cement for uniting the blocks one with another and with interior ducts or passages forming a connection between the cement grooves and through which the cement filling may be introduced into the latter.

This invention relates to an improved mold for the production of blocks possessing the features and fulfilling the general requirements as above set forth, and has for its objects to provide a device of this character of simple construction which will be efficient in operation, one in which the blocks may be cast complete at a single operation, and one in which the mold may be readily removed from the block after the latter has properly set or hardened.

To these ends the invention comprises the novel details of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view of my improved mold, having one of its sides thrown down to expose the interior to view. Fig. 2 is a longitudinal section on a line centrally of one of the longitudinal members. Fig. 3 is a transverse section taken centrally of one of the transverse members. Fig. 4 is a perspective view of a block produced by my improved mold.

Referring to the drawings, 1 indicates the sides, and 2 the ends, of my improved mold, the top and bottom of which are preferably open. These parts are composed of any suitable material and are maintained in their set-up or casting position by means of hooks 3, pivoted to the ends and engaging eyes 4, carried by the sides, the ends being provided with inwardly-extending vertical flanges 5, which overlap the ends of the sides 1 upon their exterior faces. In this connection it is to be understood other suitable means for securing the sides and ends relatively may be adopted, that herein employed being shown simply to illustrate one simple form of arrangement for permitting ready connection and disconnection of the parts in setting up and collapsing the mold.

6 indicates a primary rib of semicircular form in cross-section formed upon or otherwise associated with the inner faces of the sides and ends and situated preferably at the vertical center of the molds. This rib, which is, in effect, continuous throughout the inner circumference of the mold, serves in practice to produce upon the circumferential face of the block 7 (illustrated in Fig. 4) a continuous groove or channel 8 of semicircular form in cross-section, which when the blocks are assembled constitutes an exterior air duct or passage through which the air may circulate freely around the block.

9 9 indicate a pair of supplemental ribs of semicircular form in cross-section disposed at equal distances one above and the other below the primary rib 6. These ribs which are formed upon or otherwise associated with the inner faces of the sides and ends are, in effect, continuous throughout the inner circumference of the mold and serve to produce upon the block 7 continuous circumferential grooves or channels 10, which in practice receive the cement for securing the blocks together in a wall.

11 is a cylindrical member which extends centrally and longitudinally through the mold, with its ends removably seated in suitable openings 12, formed through the ends 2. These openings 12 are disposed centrally of the primary rib 6, whereby the member 11

will during the casting operation produce an air duct or opening 13, extending centrally and longitudinally through the block 7 and communicating at its ends with the circumferential air-duct 8, whereby the air in circulating through the latter will also pass freely through the former, maintaining a circulation upon both the exterior and interior of the block.

14 indicates a series of cylindrical members disposed transversely of the mold with their ends removably engaging openings 15, formed in the sides 1. These members are arranged in pairs, one pair having their opposite ends disposed centrally of the upper secondary rib 9 and the other pair having their ends similarly disposed relative to the lower rib 9, whereby these members will in practice produce transverse openings or ducts 16 through the block 7, a pair of said ducts being arranged to connect the opposite sides of the upper cement-channel 10, while the other pair similarly connects the lower channel 10, the function of these ducts 16 being to permit the introduction of cement through the block into the portion of the cement-channel lying upon its lower face when assembled.

The cylindrical members 11 and 14 may be of any suitable material, but for the sake of lightness preferably consist of sheet-metal tubes.

In practice the sides and ends of the molds are assembled in the manner above described and the longitudinal and transverse tubular members are arranged in position. The mold is then filled with plastic material, where it remains until sufficiently set or hardened, when the tubular members are all removed and the parts of the mold disconnected and withdrawn from around the block, thus producing in a simple manner and at a single operation an artificial-stone building-block, such as illustrated in Fig. 4.

The mold is provided upon its interior and at its upper edge with a rib 17, extending entirely around the inner circumference of the mold and designed to produce upon the edge of the block a mortar-receiving groove or recess 18 quarter-circular in cross-section.

From the foregoing it will be seen that I produce a device of simple construction which is admirably adapted for the attainment of the ends in view, and it is to be understood that I do not limit myself to the precise details herein set forth, inasmuch as various minor changes may be made therein without departing from the spirit of the invention.

Having thus described my invention, what I claim is—

1. The combination with a mold having its walls composed of separable parts, of a plurality of ribs associated with and wholly surrounding the inner face of the mold circumferentially thereof, a member extending longitudinally through the mold with its ends disposed centrally of one of the ribs, and a member extending transversely of the mold with its ends disposed centrally of another of the ribs.

2. The combination with a mold having its walls composed of separable parts, of a primary rib associated with and wholly surrounding the inner face of the mold circumferentially thereof, a member extending longitudinally through the mold with its ends disposed centrally of said rib, a pair of secondary ribs associated with and wholly surrounding the inner face of the mold circumferentially thereof upon opposite sides of the primary rib, and members extending transversely through the mold with their ends disposed centrally of the secondary ribs.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WARREN G. PARK

Witnesses:
WALTER ASQUITH,
GRACE WOODS.