No. 869,518. PATENTED OCT. 29, 1907.

J. W. RECTOR.

CONCRETE CHIMNEY.

APPLICATION FILED SEPT. 19, 1906.

Fig. 3.

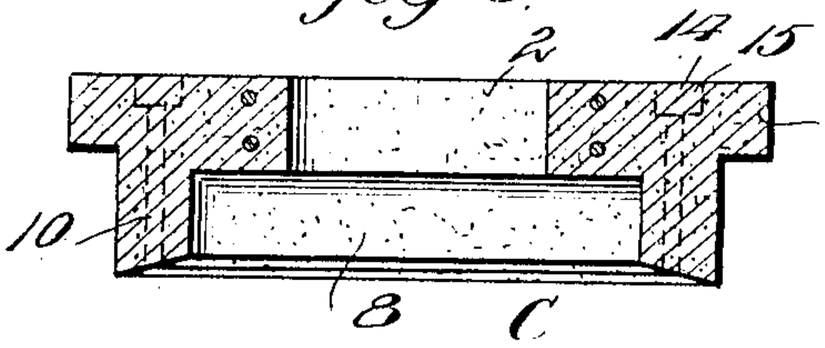



Fig. 1.

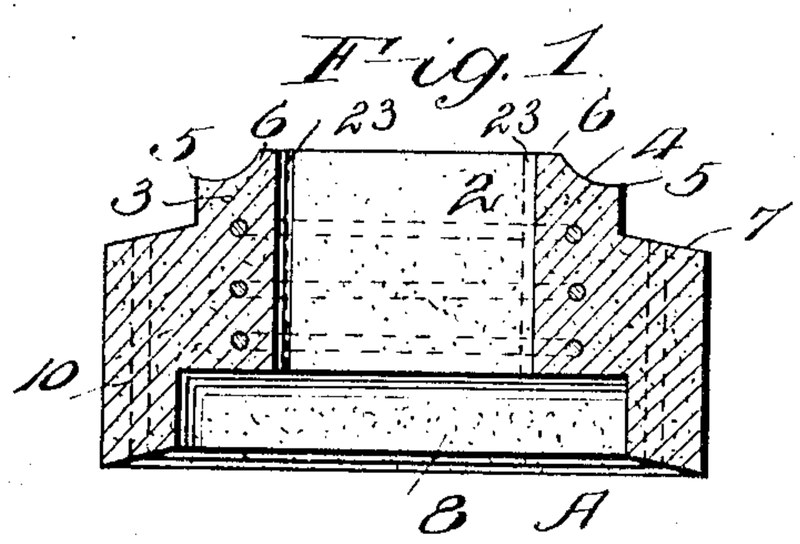



Fig. 2.

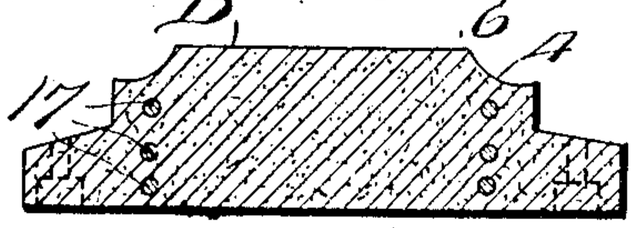



Fig. 4.

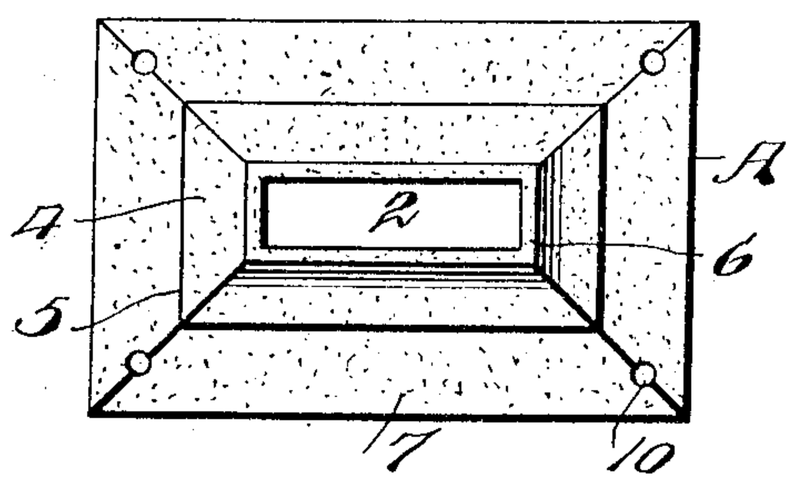
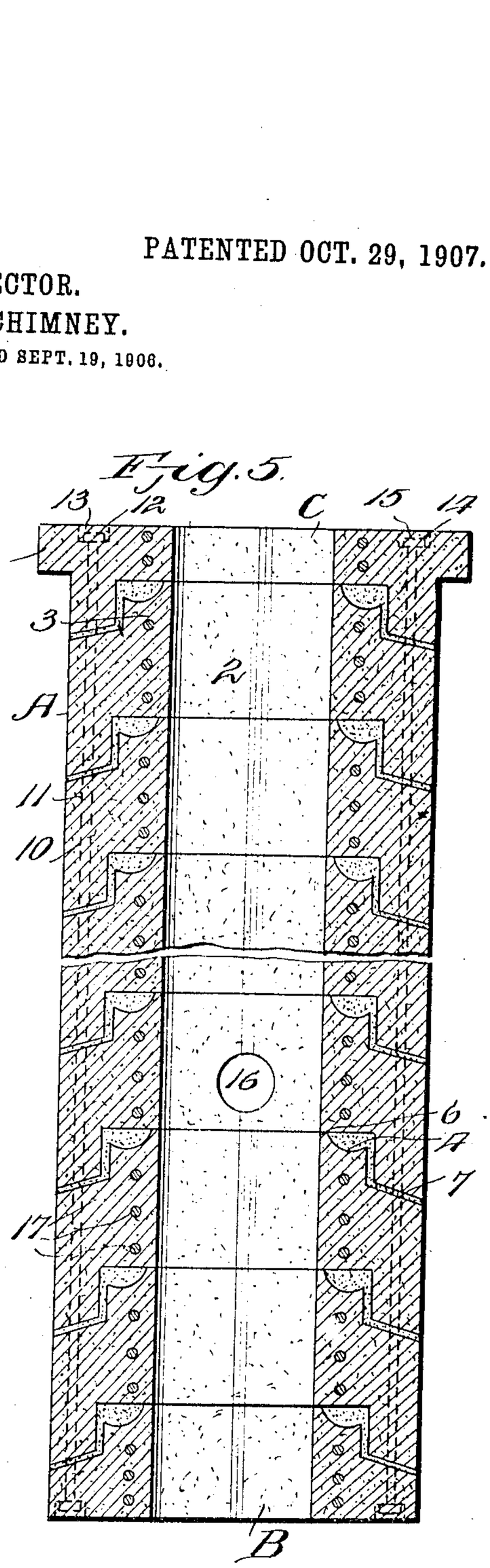



Fig. 5.

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# UNITED STATES PATENT OFFICE.

JOHN W. RECTOR, OF SAVANNAH, NEW YORK.

## CONCRETE CHIMNEY.

No. 869,518. Specification of Letters Patent. Patented Oct. 29, 1907.

Application filed September 19, 1906. Serial No. 335,291.

*To all whom it may concern:*

Be it known that I, JOHN W. RECTOR, a citizen of the United States, residing at Savannah, in the county of Wayne and State of New York, have invented new and useful Improvements in Concrete Chimneys, of which the following is a specification.

This invention relates to chimneys constructed of concrete or similar plastic material, and the object of the invention is to provide a block of improved construction to be employed in the erection of this class of chimneys.

A further object of the invention is to provide the improved chimney blocks with cement or mortar receiving grooves whereby overflow of the cement or mortar in an inward direction shall be obviated, thus enabling a chimney to be constructed with a perfectly smooth and unobstructed flue aperture.

A further object of the invention is to construct the chimney blocks with apertures for the passage of binding or connecting rods which apertures shall be so located that there will be no danger of their being obstructed by the mortar or cement used in erecting the chimney.

A further object of the invention is to provide the chimney blocks with reinforcing wires whereby crumbling or disintegration shall be prevented, even if cracking should occur.

Further objects are to simplify and improve the construction and operation of this class of devices.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention; it being however understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawings: Figure 1 is a vertical sectional view of a chimney block constructed in accordance with the principles of the invention. Fig. 2 is a similar view of a base block. Fig. 3 is a similar view of a cap block. Fig. 4 is a plan view of one of the chimney blocks. Fig. 5 is a vertical sectional view of a chimney constructed in accordance with the principles of the invention.

Corresponding parts in the several figures are denoted by like characters of reference.

The improved chimney block A is constructed by molding the same of plastic material such as a suitable concrete mixture; said block may be made of rectangular or any other suitable shape, in plan, and provided with a flue aperture 2 of suitable shape and dimensions.

The block A is provided in its upper side with a flange 3 entirely surrounding the flue aperture, said flange having in its upper side an annular groove 4 the outer rim or shoulder of which 5 is lower than the inner shoulder or rim 6; the upper face, or ledge 7 of the block A, which surrounds the flange 3, may if desired be slightly beveled or inclined, as shown.

The block A is provided in its under side with a recess 8 for the reception of the flange 3 of the subjacent block; said recess being however of a depth which is slightly less than the height of the flange, so that each block A will be seated upon the rim or shoulder 6 at the inner edge of the groove 4 in the flange 3 of the subjacent block.

A base block B and a cap block C are provided; said base block and cap block being of a construction substantially identical with that of the main chimney blocks A, except that in the base block B the recess 8 is omitted, while in the cap block C the flange 3 is omitted; said cap block being provided in lieu thereof with a laterally extending flange 9.

The several blocks A, B and C are provided near the corners thereof with registering vertical apertures 10 for the passage of binding rods 11 which are provided at the ends thereof with nuts 12 accommodated in recesses 13 and 14 in the base block B and cap block C respectively; the recesses 14 in the cap block being sufficiently large to be filled with mortar or cement as shown in 15 for the purpose of protecting the nuts and the exposed ends of the rods from rust.

One of the chimney blocks A is provided in the side thereof with an aperture 16 for the reception of a stove-pipe; it is obvious that, whenever necessary, several blocks having stove-pipe apertures may be used.

In the construction of the improved blocks there is embedded in each block one or more rings of plain or twisted wire, as shown at 17, said wires being for the purpose of preventing the disintegration of the blocks if in any manner they should be cracked.

From the foregoing description taken in connection with the drawings hereto annexed the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains. The material employed in the manufacture is cheap and extremely durable. When the chimney is erected, a small quantity of mortar or cement is placed in the groove 4 in the flange 3 of each block; when the next block is placed in position, owing to the fact that the outer shoulder of the groove is lower than the inner shoulder, the mortar or cement will overflow the outer shoulder only, and the other block will come to a seat

upon the shoulder 6 of the subjacent block, while the overflowing cement will fill the interstices between the flange 3 and the recess 8, thus forming a perfectly tight joint, while the flue aperture is left perfectly smooth and unobstructed. When the chimney has been built to the requisite height the binding rods are inserted, the recesses 13 in the base block B being opened at the sides to admit of the insertion of the nuts 12 at the lower ends of the rods; when the nuts 12 are tightened upon the upper ends of the rods the chimney blocks will be rigidly connected thereby, and a chimney structure will be provided which is not liable to be upset or destroyed by any cause whatever.

If desired, the improved chimney may be provided throughout with a lining of tile, of the kind which is usually employed as a lining for brick and other chimneys. Such lining has been shown in dotted lines, at 23, in Fig. 1 of the drawings.

Having thus described the invention what is claimed is:

The herein described chimney composed of a plurality of concrete blocks, said blocks each having a central flue aperture, an upwardly extending flange surrounding said aperture, an inclined shoulder leading from said flange to the outer surface of the block, the flange being cut away along the top edge away from said aperture to form a mortar receiving groove, a flange on the underside of said block of less length than the first named flange and provided with an inclined under surface and a square shoulder inside the flange, wire rings embedded in the block and surrounding the flue aperture, and longitudinal binding rods extending through the blocks.

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

JOHN W. RECTOR.

Witnesses:
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