### I. B. SPAULDING.

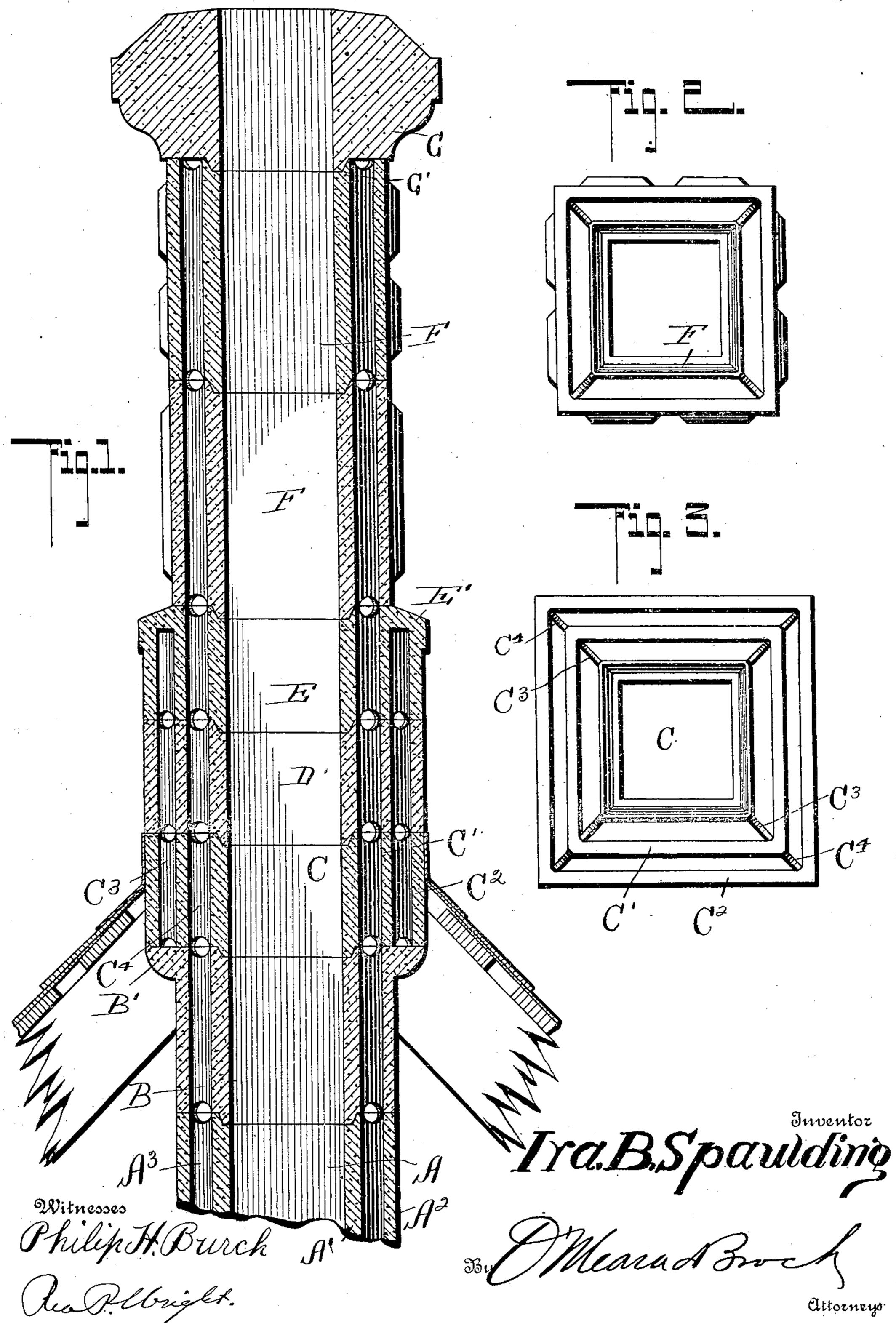
#### CONCRETE CHIMNEY.

APPLICATION FILED OCT. 2, 1907.

915,123.

Patented Mar. 16, 1909.

2 SHEETS-SHEET 1.



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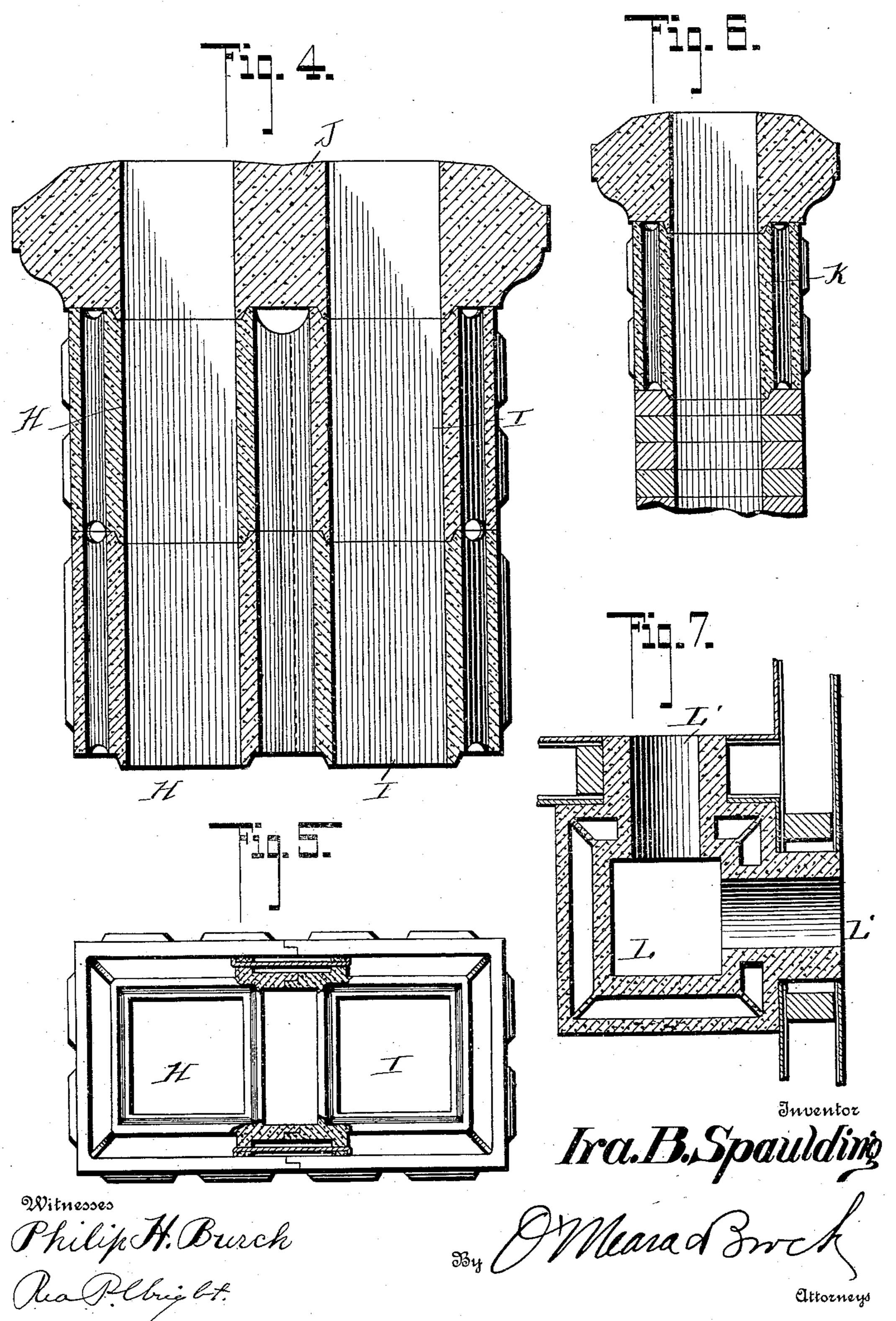
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# UNITED STATES PATENT OFFICE.

IRA B. SPAULDING, OF SOUTH ROYALTON, VERMONT.

## CONCRETE CHIMNEY.

No. 915,123.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed October 2, 1907. Serial No. 395,574.

To all whom it may concern:

Be it known that I, IRA B. SPAULDING, a citizen of the United States, residing at South Royalton, in the county of Windsor 5 and State of Vermont, have invented a new and useful Improvement in Concrete Chimneys, of which the following is a specification.

This invention relates to concrete chimneys, the object being to provide a chimney 10 formed of a plurality of blocks having double walls, so that when the blocks are set up, a

dead air space will be formed.

Another object of my invention is to provide a chimney composed of a series of blocks, 15 laid one upon the other and interlocked, the blocks being secured together by cement mortar whereby they will be securely held in a rigid position at all times.

Another object of my invention is to pro-20 vide cement blocks with a double dead-air space adapted to be used where the chimney passes through the roof, thereby preventing any liability of the roof catching on fire by

an over-heated chimney.

With these various objects in view, the invention consists in the novel features of construction, combination and arrangement, of parts, hereinafter fully described and pointed out in the claims.

In the drawings forming a part of this specification:—Figure 1 is a vertical sectional view through my improved chimney. Fig. 2 is a top plan view of one of the cement blocks. Fig. 3 is a top plan view of one of the blocks 35 used where the chimney passes through the roof. Fig. 4 is a modified form of chimney. Fig. 5 is a top plan view of one of the blocks used in constructing the chimney as shown in Fig. 4. Fig. 6 is a vertical sectional view 40 of one of the blocks detached, showing it applied to an ordinary brick-chimney. Fig. 7 is a detail section taken through the chimney arranged in the corner, the block being provided with nipples for connecting it to the 45 adjoining room.

In the drawings A indicates a cement block formed of an inner wall A' and an outer wall A2, which are connected together by partitions A<sup>3</sup> at their corners which are notched so that the space between the walls will communicate with each other. The upper end of the inner wall of the block being rabbeted, and the lower end having a downwardly projecting tongue, so that when one 5 or more of these blocks are arranged one

upon the other, they will be securely held in vertical position, it of course being understood that they are secured together by mortar arranged in their joints. To form the construction of the chimney shown in Fig. 60 1 I arrange a series of these blocks, one upon another, and upon the top block I place a block B provided with a shoulder B', on which is arranged a block C which extends through the roof of the building, and is pro- 65 vided with spaced walls C', C2 forming a double-air space, the walls being connected together by partitions C3, C4, which are also notched, and these blocks are also formed with rabbeted upper edges and are provided 70 with tongues on their lower edges. Upon this block I arrange a duplicate block D, on which is arranged a similar block E, with the exception that the outer air-space is closed at its upper end by a shoulder E', and upon 75 the block E, one upon the other, are arranged one or more blocks F which are constructed exactly like the block A with the exception that their outer walls are formed with any suitable design, so as to form a neat chimney, 80 and upon the upper block I arrange a cap G which is provided with a tongue G' which fits in the rabbet of the upper block, it of course being understood that these blocks and caps are also secured together by mor- 85 tar, and that the ordinary flashing is used around the chimney where it passes through the roof.

In the modification shown in Fig. 4 I show a chimney provided with double flues formed 90 of blocks H and I which are provided with rabbeted co-acting edges which are locked together by irons having angled ends which are placed therein when the sections are set up, and it will be seen that the central venti- 95 lating space will be formed between the same which communicates with the air by an opening formed in the upper block under the cap J, arranged thereon.

In Fig. 6 Thave shown a portion of my im- 100 proved chimney K arranged on the top of an ordinary brick-chimney, which is especially

useful in extending chimneys.

In Fig. 7 I have shown a block L provided with nipples L' extending outwardly there- 105 from at right angles which is adapted to be used in connection with my chimney when placed in a corner of a building, so that the adjacent rooms can be readily connected thereto.

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

Letters Patent is:—

1. A concrete block for chimneys having

three concentric walls providing a straight, central, vertical passage way therethrough and two concentric vertically arranged air spaces formed around the central space be-

tween the walls, and a plurality of vertically arranged partitions connecting said walls.

2. A concrete chimneye omprising a series of blocks placed vertically upon each other, each of said blocks being provided with two concentric walls providing a straight central 15 vertical flue and an air space between said walls concentric with said flue and without communication therewith, an exterior shoulder formed upon the top of one of said blocks a supplemental exterior wall surrounding the 20 sides of one of said blocks, said wall being secured to and spaced from the outer wall of the above mentioned air space of said block, vertically arranged partitions connecting said supplemental walls and the walls of the 25 air spāce, said supplemental wall resting upon the shoulder of the block below it and another block having a supplemental wall se-

cured to the block at the top on all sides, said supplemental wall resting upon the top of the supplemental wall of the block below it. 30

3. A chimney consisting of a plurality of blocks, each of which is provided with two concentric walls providing a central vertical flue and between the walls a vertically arranged air space, an exterior shoulder formed 35 on the top of one of said blocks and another block having a supplemental wall carried by the other blocks, said supplemental wall extending entirely around the block and forming a double air space, the lower edge of said 40 wall resting upon the exterior shoulder of the first mentioned block, and a block provided with a supplemental wall, the upper edge of which is secured to the upper portion of the block and the lower edge of which rests upon 45 the upper edge of the block of the supplemental wall beneath it, said shoulder and the upper supplemental wall closing the upper and lower ends of the air space formed by said supplemental walls. IRA B. SPAULDING.

Witnesses:
Edgar J. Fish,
Walter R. Spaulding.