

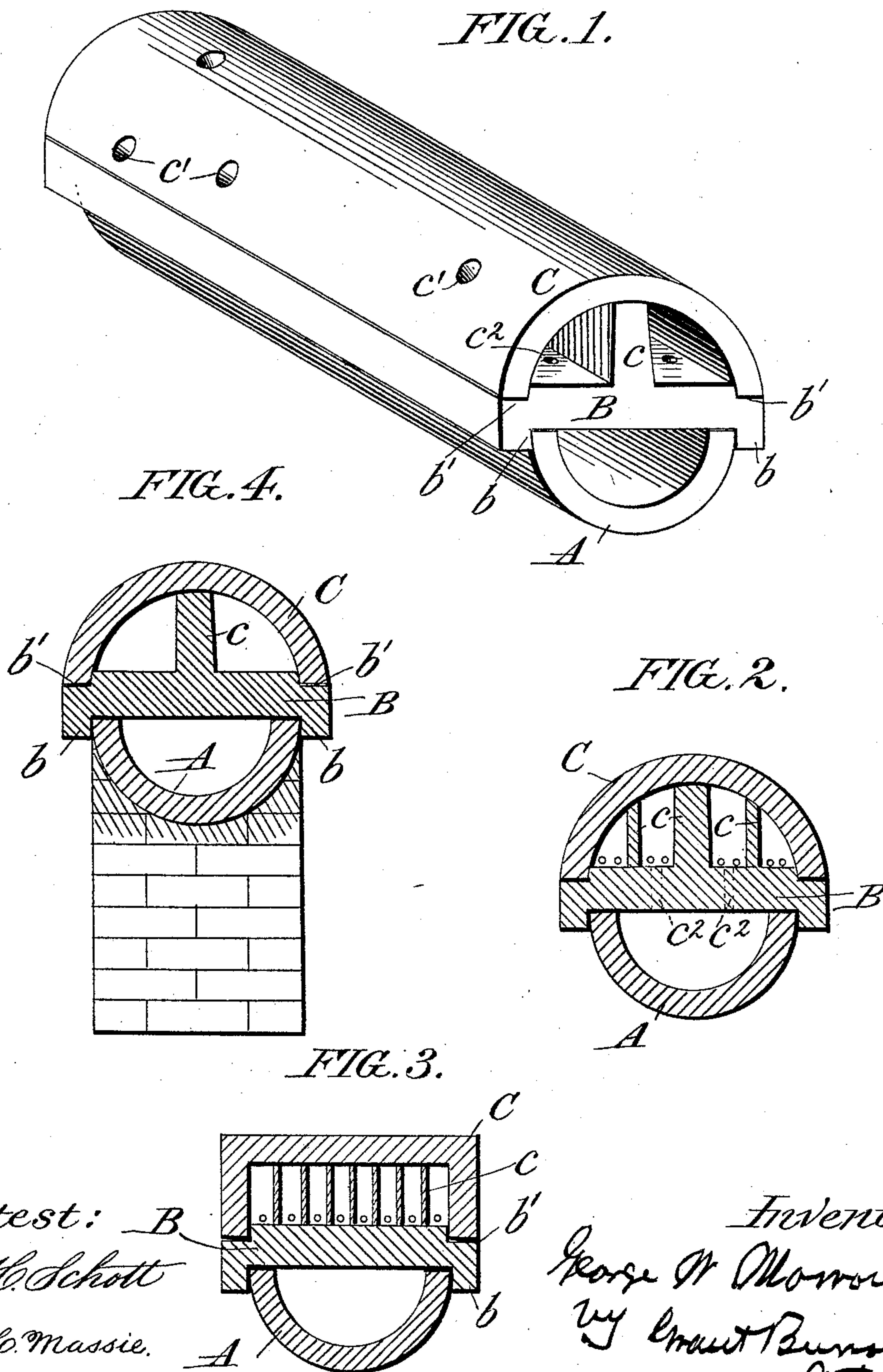
(No Model.)

2 Sheets—Sheet 1.

G. W. MORROW.  
TILE.

No. 527,871.

Patented Oct. 23, 1894.



(No Model.)

2 Sheets—Sheet 2.

G. W. MORROW.  
TILE.

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FIG. 5.

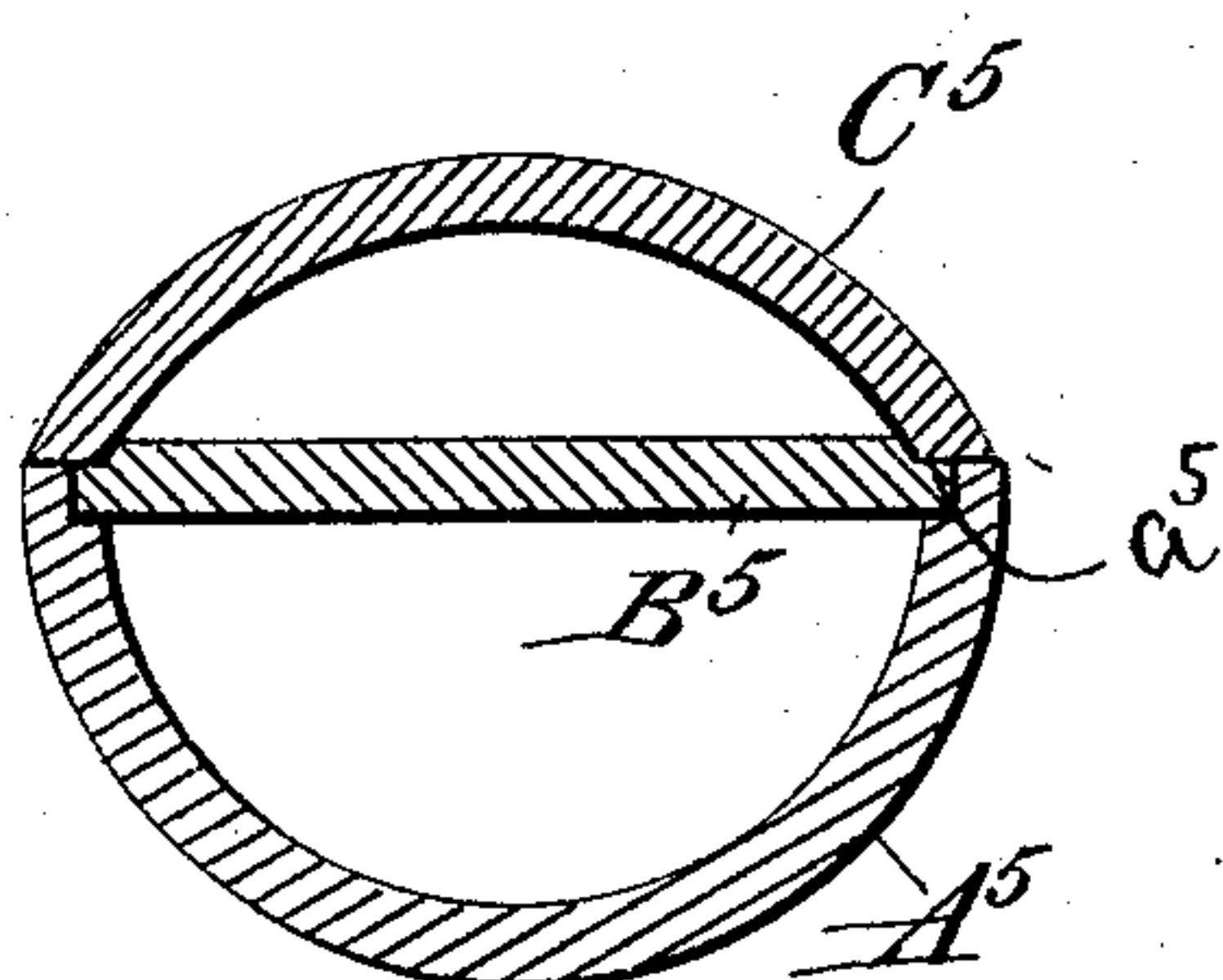


FIG. 6.

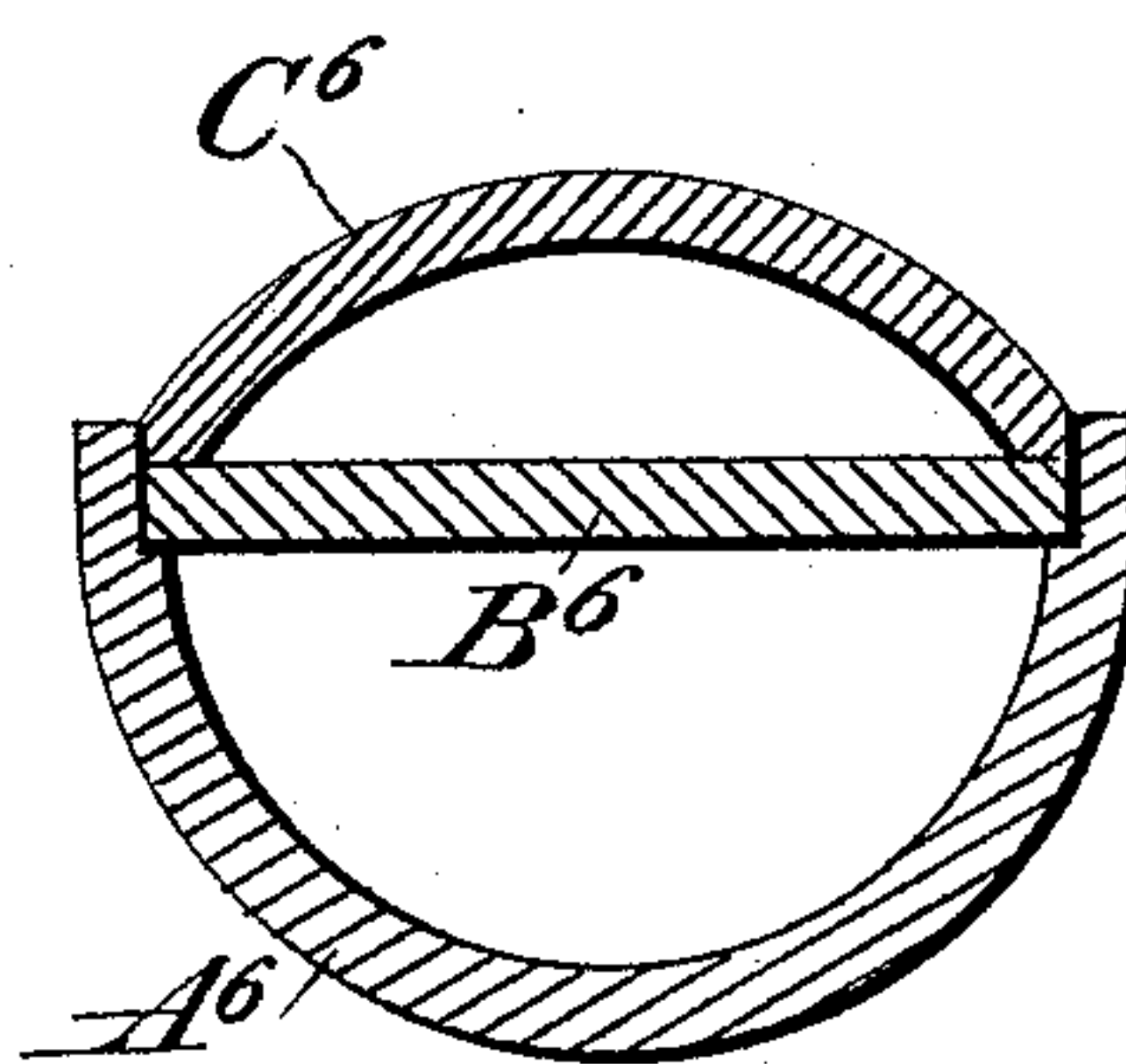


FIG. 7.

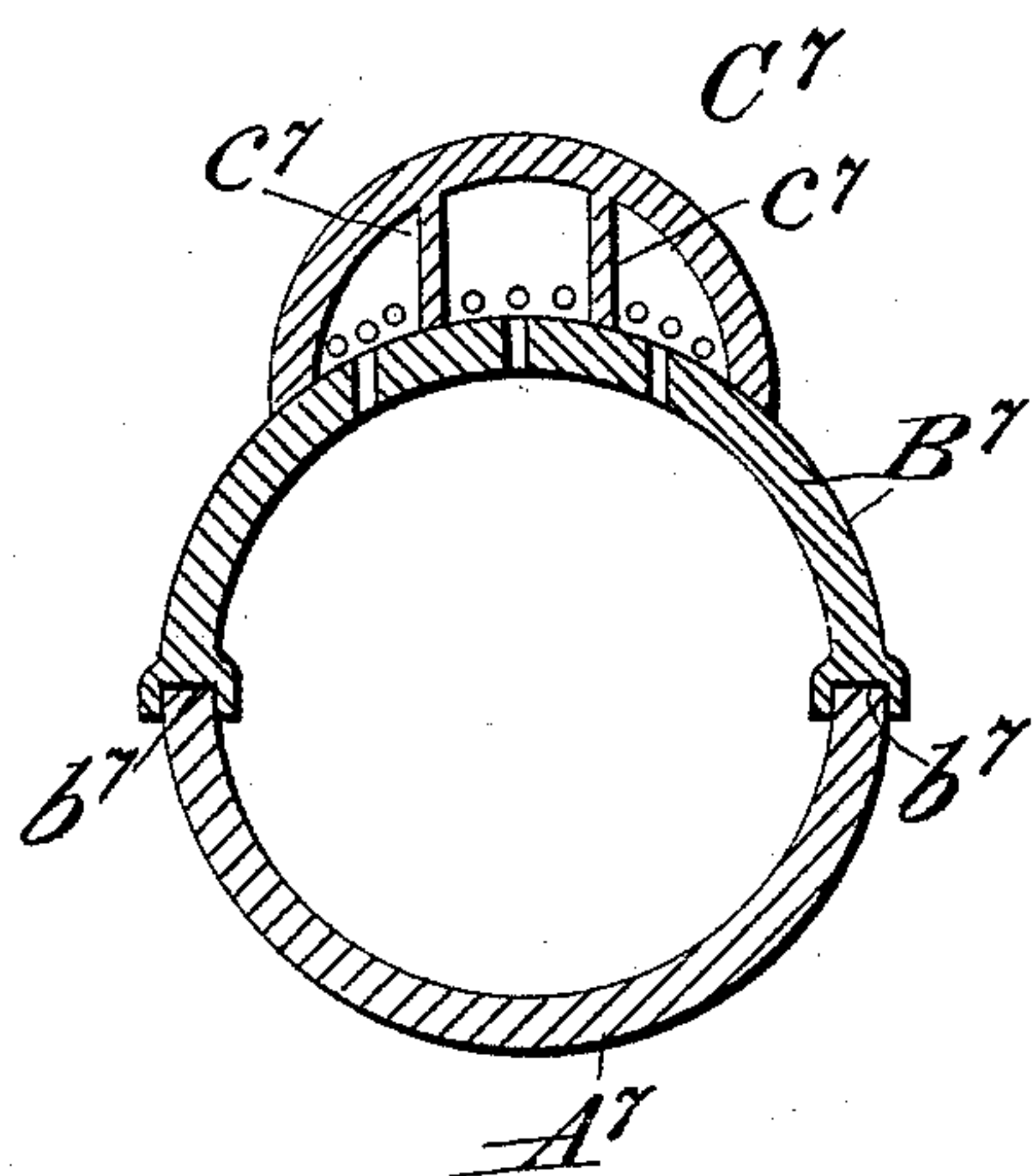
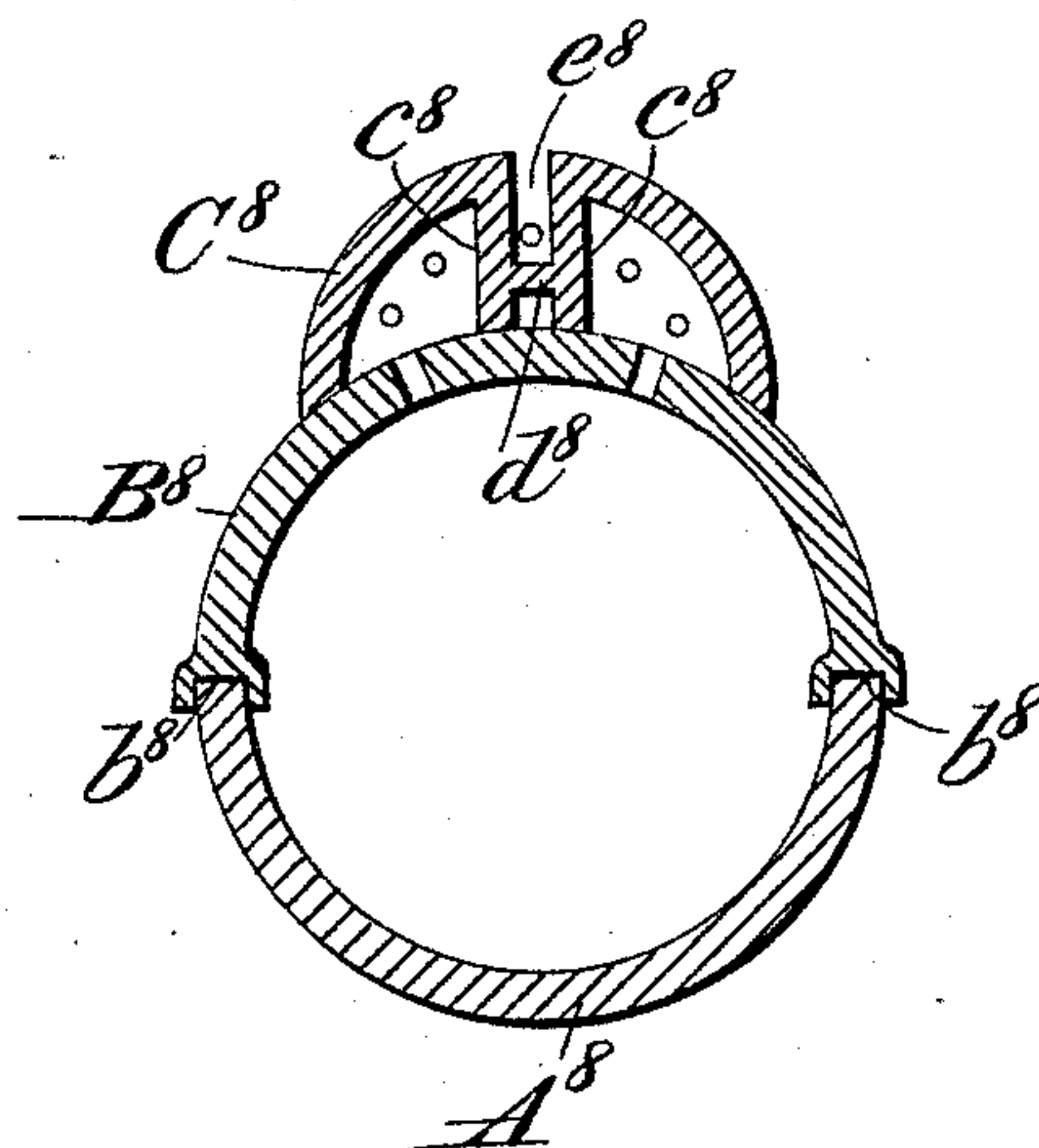


FIG. 8.



Attest:

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# UNITED STATES PATENT OFFICE.

GEORGE W. MORROW, OF TORONTO, OHIO, ASSIGNOR OF THREE-FOURTHS  
TO CHARLES T. YOUNG, OF SAME PLACE.

## TILE.

SPECIFICATION forming part of Letters Patent No. 527,871, dated October 23, 1894.

Application filed February 6, 1894. Serial No. 499,310. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. MORROW, a citizen of the United States, residing at Toronto, in the county of Jefferson and State of Ohio, have invented certain new and useful Improvements in Tiles, of which the following is a full, clear, and exact description, such as will enable those skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings.

This invention relates to improvements in tiles, and it has for its object the construction of such a device that can be used either as a conduit for electric wires or as a coping for walls.

While the invention is adapted to be used as a coping for walls, it is especially adapted to be used in the construction of underground conduits for electric wires, and it will be described as being applied to the latter use.

The tile is made in three sections, base, intermediate, and crown or upper. These sections are so constructed that when assembled to form the tile, a drain will be formed in the lower part, and in the upper part a receptacle, or conduit proper, for the wires, the latter being formed by the crown or upper section and the drain by the base or lower section, the two being separated by the intermediate section. The crown and base sections are in the form of longitudinal sections of cylinders of nearly equal diameters, the upper section being the larger. The intermediate section is of such a form and construction and is so placed as to form a partition between the drain and the conduit proper. It also connects the edges of the lower section as to prevent the same from spreading, and to support the upper section, against any downward pressure that would tend to crush the tile. The connections between the sections are such, that the edges of an upper section extend over the edges of the section immediately below, so that descending water cannot enter the tile.

The invention further consists in the novel construction, combination and arrangement of parts such as will be hereinafter fully described, pointed out in the appended claims,

and illustrated in the accompanying drawings.

In the accompanying drawings, in which similar letters of reference designate corresponding parts, Figure 1 is a perspective view of a tile embodying the invention. Fig. 2 is a cross section, showing a modification, the conduit chamber, proper, being subdivided into several compartments. Fig. 3 is a similar view showing the upper section of the tile of a rectangular form. Fig. 4 is a cross section, showing the tile used as the coping for a wall. Figs. 5, 6, 7 and 8, are transverse sectional views, showing various modifications of the tile.

Referring to the drawings by letter, A, B and C respectively designate the sections of which the tile is composed. The base section A has a semicircular form, and when the tile is used as a conduit for electric wires, it serves as a drain and is suitably connected with a sewer to carry off the drainage. Immediately above the base and seated thereon is the intermediate section B, which is substantially flat in form. Projecting from the under face, near the edges of the same, are the flanges *b, b*, at substantially right angles to the said face. The space between the flanges is such that when the intermediate section is placed upon the base section, the edges of the latter will be inclosed between the said flanges. The intermediate section is given considerable thickness to insure the possession of considerable strength. By means of the flanges *b, b*, inclosing the edges of the base section, the latter is so bound and strengthened, that it cannot be broken easily by any undue downward pressure which would tend to spread the edges apart, the intermediate section serving to hold the same together.

The upper face of the intermediate section B is cut away at its edges, as at *b', b'*, to form seats for the edges of the crown or upper section C. The latter serves with the intermediate section to form the conduit proper. To aid it in sustaining any undue crushing strain a longitudinal partition *c*, or partitions, extends from the intermediate section to the top of the arch. This longitudinal



support also serves to divide the conduit longitudinally into compartments for the reception of the wires. There may be several of these partitions as are shown in Figs. 2 and 3, and furthermore, the crown may have a rectangular form as shown in Fig. 3. When the tile is used for a conduit, openings  $c'$ ,  $c'$ , connect the interior of the crown with the exterior. The openings  $c^2$ ,  $c^2$ , allow any water that may be in the conduit to escape to the drain.

In using the tile to form a coping, the wall is built up until it is of almost the desired height, when the base section A is put in place and then the wall is built around the same. The intermediate section and the crown are then put in place and suitably cemented together. In this way a covering is formed for the wall which will render its top impervious to the action of the weather.

By forming the tile of several sections in the manner described, several advantages are secured. They can be much more easily and cheaply made, easily handled in constructing the conduit, and when a section is broken, it can be readily replaced without destroying the entire tile, and the tile can be packed for transportation with the economizing of room in view.

In the modification shown in Fig. 5,  $A^5$ ,  $B^5$ , and  $C^5$ , respectively designate the base, the intermediate and crown sections. In this instance it is sought to simplify the construction as much as is possible, there being no partitions to divide the upper chamber into compartments. The intermediate section rests in recesses formed in the inner periphery of the base section, near the upper edges of the same, and the crown section is seated upon the joint formed by the base and intermediate sections, the latter being recessed, as at  $a^5$ , for the reception of the same.

In the modification shown in Fig. 6, it is also sought to simplify the construction. In this figure  $A^6$ ,  $B^6$  and  $C^6$ , respectively designate the base, intermediate and crown sections. In this instance, the intermediate section rests wholly within the base section, and the crown section rests upon the intermediate section and its edges abut the upwardly extended edges of the base.

In the modification shown in Fig. 7,  $A^7$ ,  $B^7$  and  $C^7$ , respectively designate the base, inter-

mediate and crown sections. Here the base is formed as in the previous instances, but the intermediate section,  $B^7$ , is curved and has formed in its edges grooves  $b^7$ ,  $b^7$ , which register with the edges of the base section. Upon the intermediate section the crown section  $C^7$  is supported. The latter is subdivided by the partitions  $c^7$ ,  $c^7$ .

In the modification shown in Fig. 8,  $A^8$ ,  $B^8$ , and  $C^8$  respectively designate the base, intermediate and crown sections. In this instance the base and intermediate sections have the same construction as that shown in the preceding one. The crown section, however, is somewhat differently partitioned. It is provided with two vertical partitions  $c^8$ ,  $c^8$ , which support a horizontal partition  $d^8$ , the section being open above the horizontal partition and between the upright ones. The slot or chamber  $e^8$  thus formed is to be used when a particularly strong insulation is required. The wire is placed in the chamber and embedded in cement or concrete.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a tile, the combination of the base section, the intermediate section mounted thereon, and the crown section mounted upon the intermediate section, substantially as described.

2. In a tile, the combination of the base section, the intermediate section mounted thereon, the crown section mounted upon the intermediate section, and the longitudinal support extending from the intermediate section to the crown section, substantially as described.

3. In a tile, the combination of the base section, the intermediate section mounted thereon having its outer edges extending downwardly and outside of the edges of the said base section, and the crown section mounted upon the intermediate section with its edges inclosing the intermediate section and extending below the upper face of the latter, substantially as described.

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

GEORGE W. MORROW.

Witnesses:

WALTER H. ADAMS,  
JOHN A. BURCHFIELD.