

No. 693,755.

Patented Feb. 18, 1902.

G. STEINL.
CHIMNEY.

(Application filed Aug. 20, 1901.)

(No Model.)

Fig. 1.

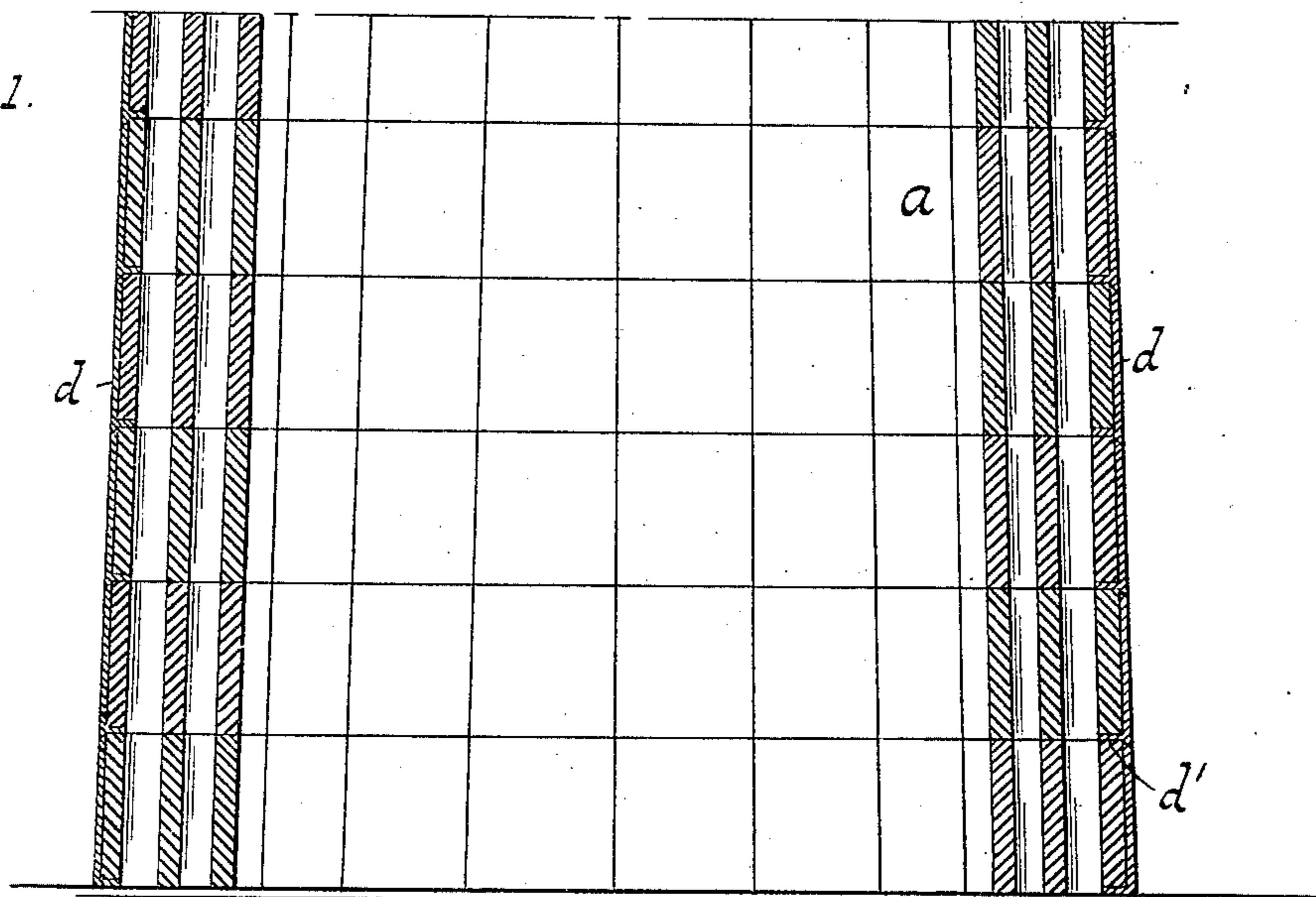


Fig. 3.

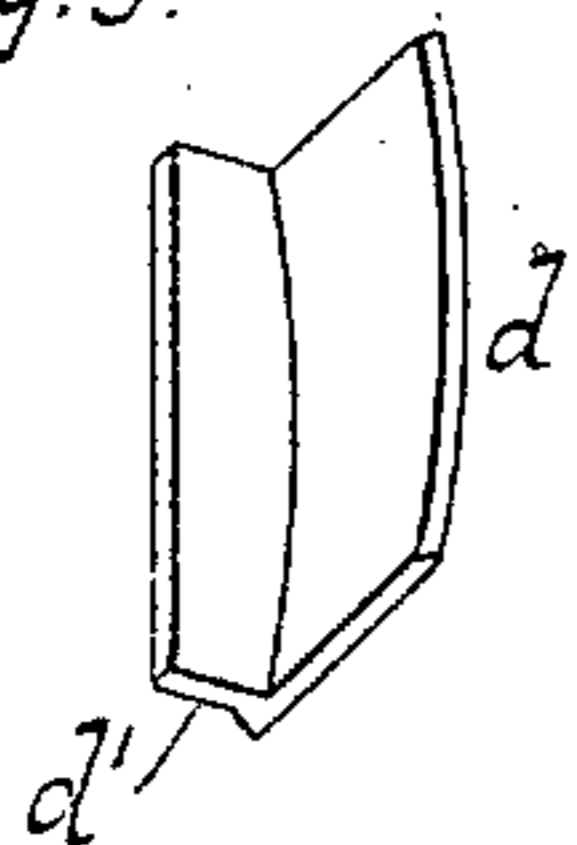


Fig. 2.

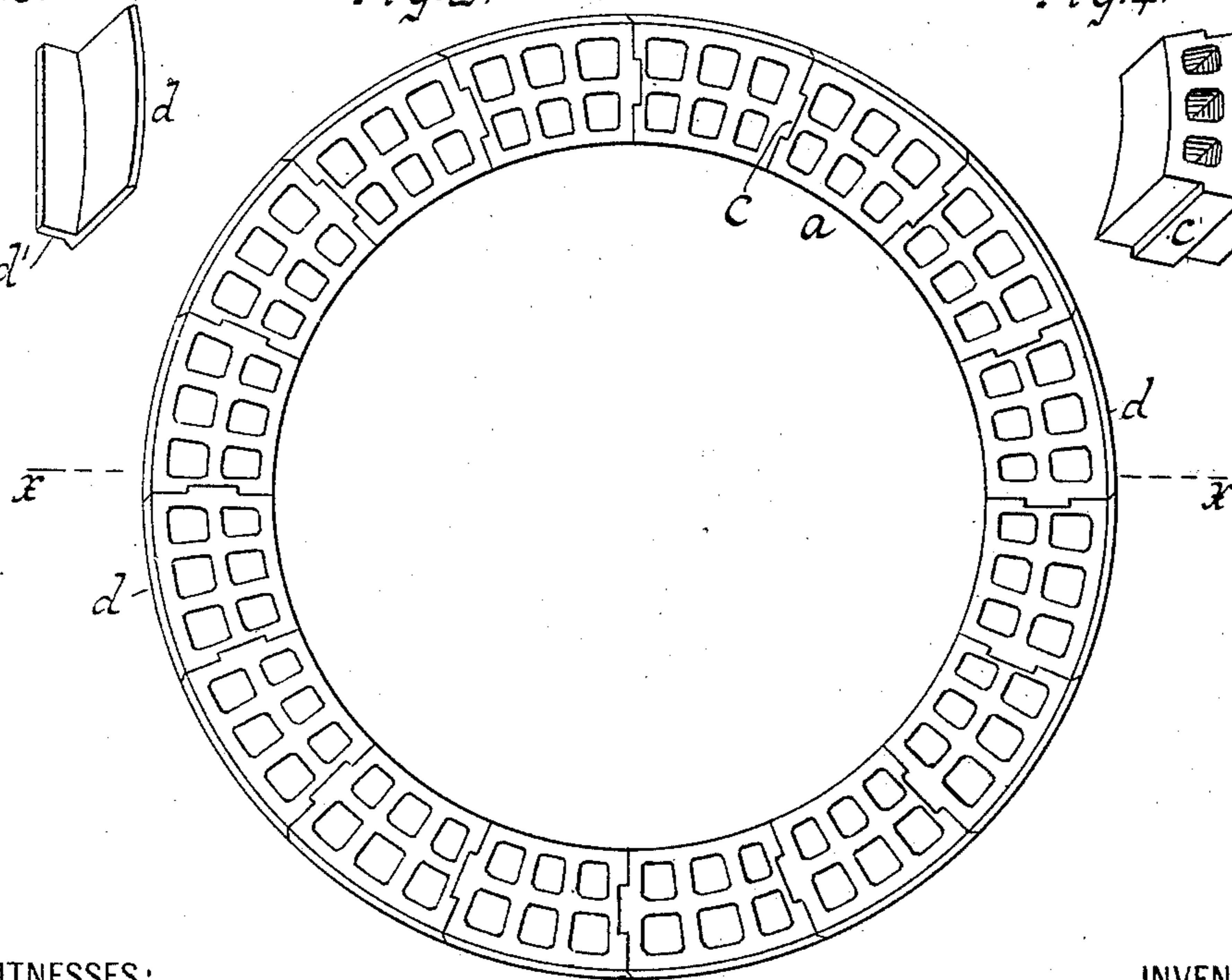
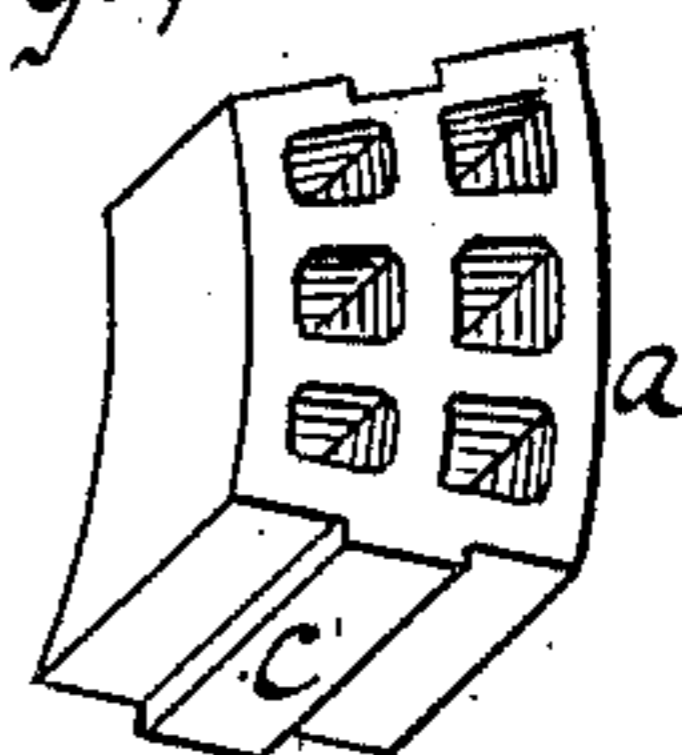


Fig. 4.



WITNESSES:

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CHIMNEY.

SPECIFICATION forming part of Letters Patent No. 693,755, dated February 18, 1902.

Application filed August 20, 1901. Serial No. 72,696. (No model.)

To all whom it may concern:

Be it known that I, GEORGE STEINL, a subject of the King of Bavaria, residing at Manhattan borough, New York city, in the county of New York and State of New York, have invented new and useful Improvements in Chimneys, of which the following is a specification.

This invention relates to a construction of chimneys or flues, said construction being set forth in the following specification and claims, and illustrated in the annexed drawings, in which—

Figure 1 shows a sectional elevation of a chimney embodying this invention. Fig. 2 is a cross-section of Fig. 1. Fig. 3 shows a mantle-section. Fig. 4 is a detail view of a block.

In the drawings is shown a chimney formed by blocks *a*, tongued and grooved to one another. These grooves *b* and tongues *c* hold the blocks in proper position relatively to one another or aid to form a firm structure not liable to crack or become fissured or otherwise fall into disorder. For a chimney of round or curved cross-section the blocks are suitably segment or arc shaped; but of course chimneys of other shape—say angular or four-cornered or of polygonal or other form in cross-section—can be constructed from suitably-formed blocks.

In building chimneys which taper or whose walls become thinner as they rise the blocks of succeeding layers are of course taken smaller or thinner, such tapering form being observed, for example, in some chimneys of power-houses, factories, and other establishments; but of course the invention is not limited to any particular class or shape of chimneys.

By forming the blocks hollow their weight is correspondingly diminished and their handling is facilitated, so that these blocks can be readily transported or raised or placed in the required position. After having been placed the blocks or their hollows or spaces are intended to be filled, so as to make a solid block or form chimneys with solid walls. A suitable cement or filling for the blocks, it was found, can be formed by five parts of sand to five parts of cement. The parts were taken by measure. Such filling was found to answer requirements and not to be expensive.

A mantle or protector is shown at *d* for shielding the structure against deterioration or atmospheric influence. A suitable protector about the chimney is formed by clay or clay slabs. The outer or exposed face of these protecting-slabs could be glazed. This mantle or its several slabs or sections *d* are provided or formed with tongues *d'*, which, entering or being inserted between joints of the blocks or body *a*, will secure the mantle-sections in place. The lower edges of the mantle-sections are made to lap or form a downwardly-slanting joint or seam with the next lower section, so that moisture settling on or flowing down the outside of the chimney cannot enter or work in between the mantle-sections.

The blocks *a* can of course be formed of any suitable material known in the art of chimney-building. The tongues and grooves of the blocks are placed at the sides or run vertically and connect the blocks of each layer. The tongues *d'* run horizontally or are secured at the lower edge of each mantle-slab and, if desired, could be slanted to secure a hook-like hold for the sections of the mantle; but a level tongue *d'* has been found to give a secure hold.

What I claim as new, and desire to secure by Letters Patent, is—

1. A chimney formed of filled blocks tongued and grooved together and a mantle for said blocks substantially as described.

2. A chimney formed of blocks and provided with mantle sections or slabs having tongues made to enter or be secured in the joints between the blocks substantially as described.

3. A chimney formed of filled blocks tongued and grooved together, and mantle sections or slabs having at their lower edges tongues made to be secured between the blocks, each section having its lower edge made to lap or form a downwardly-extended joint or seam with the next lower slab substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEORGE STEINL.

Witnesses:

W. C. HAUFF,
E. F. KASTENHUBER.