

(No Model.)

J. LYNCH.  
ELECTRIC WIRE CONDUIT.

No. 396,407.

Patented Jan. 22, 1889.

FIG. 1.

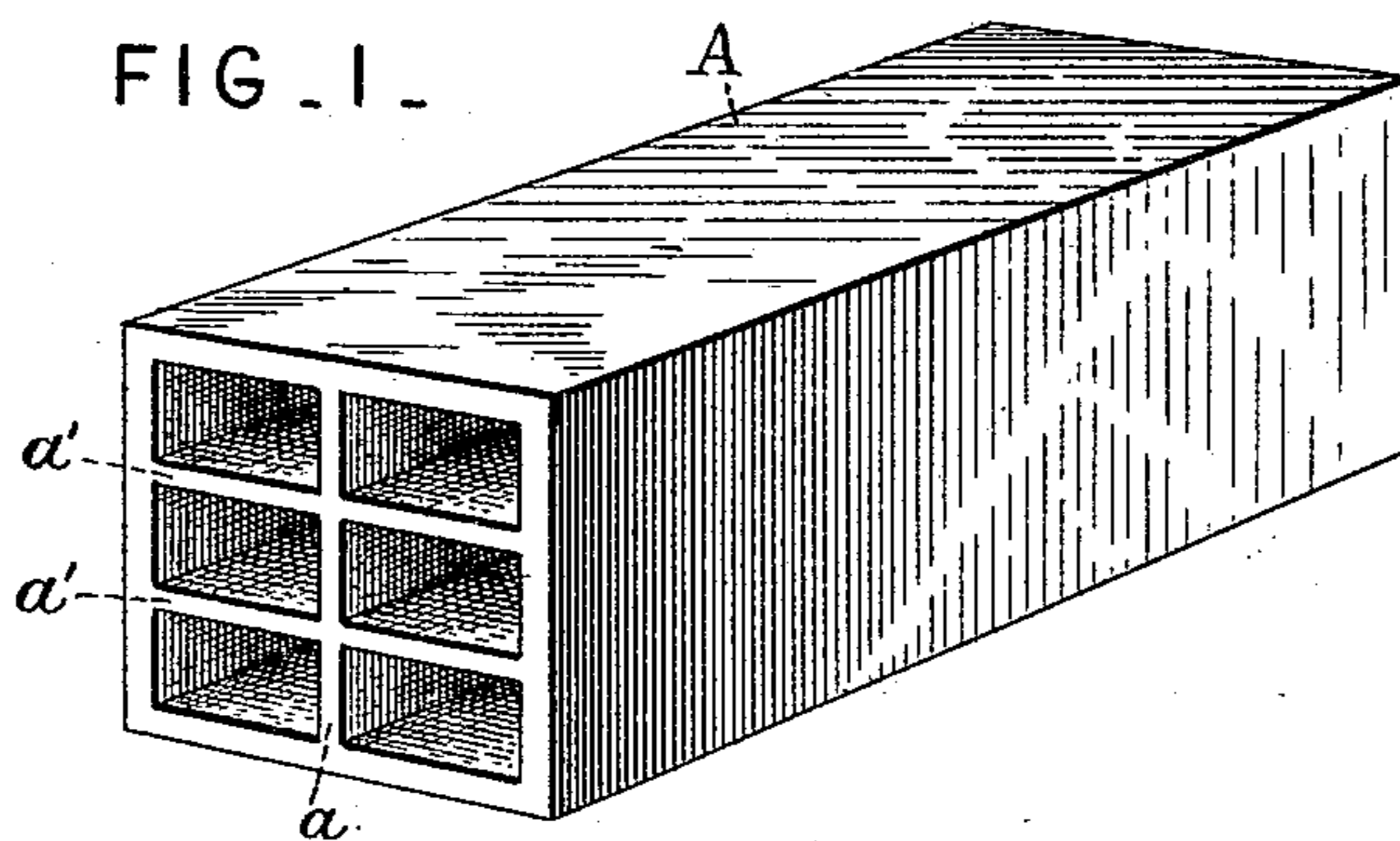


FIG. 2.

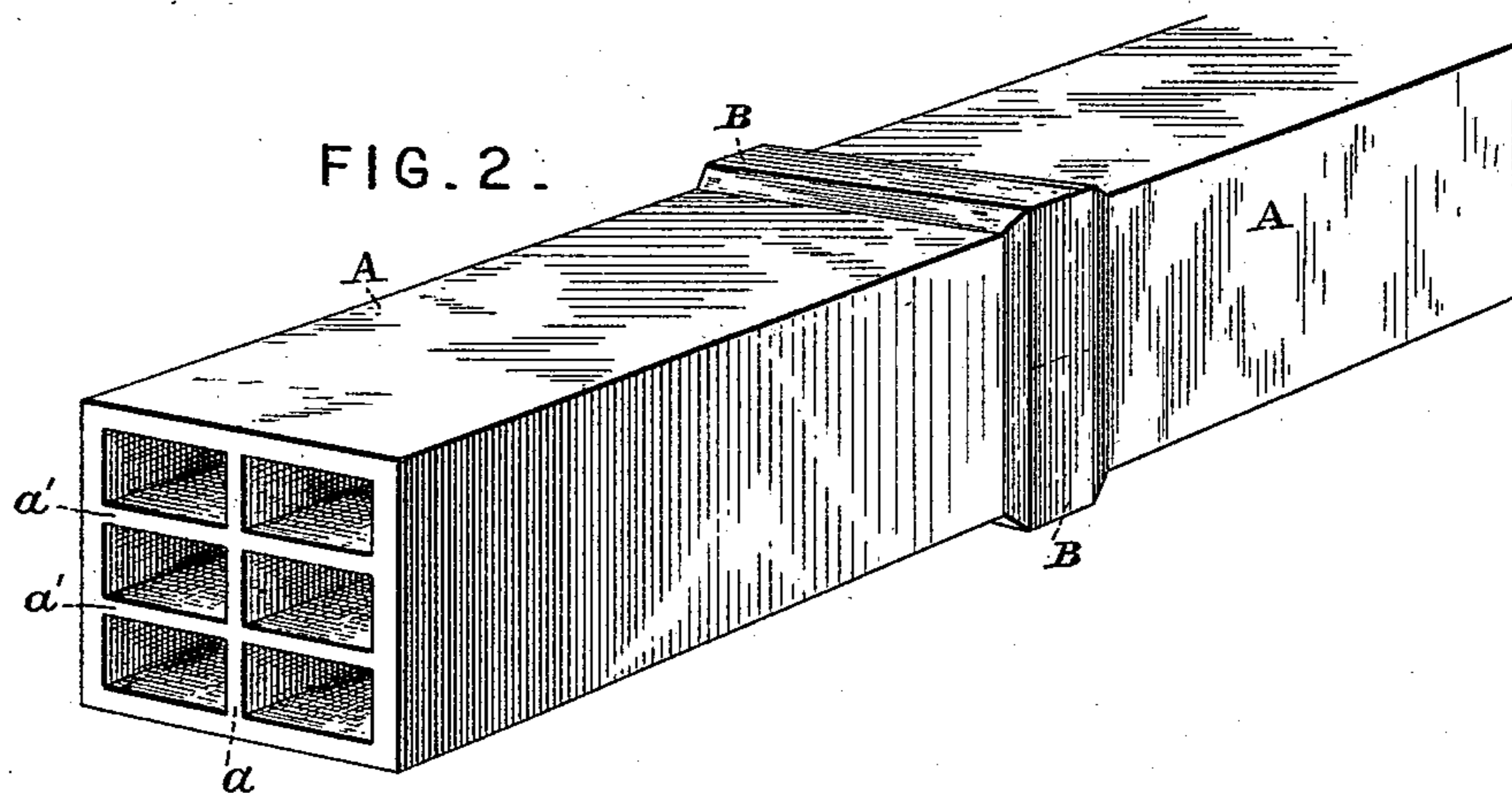


FIG. 3.

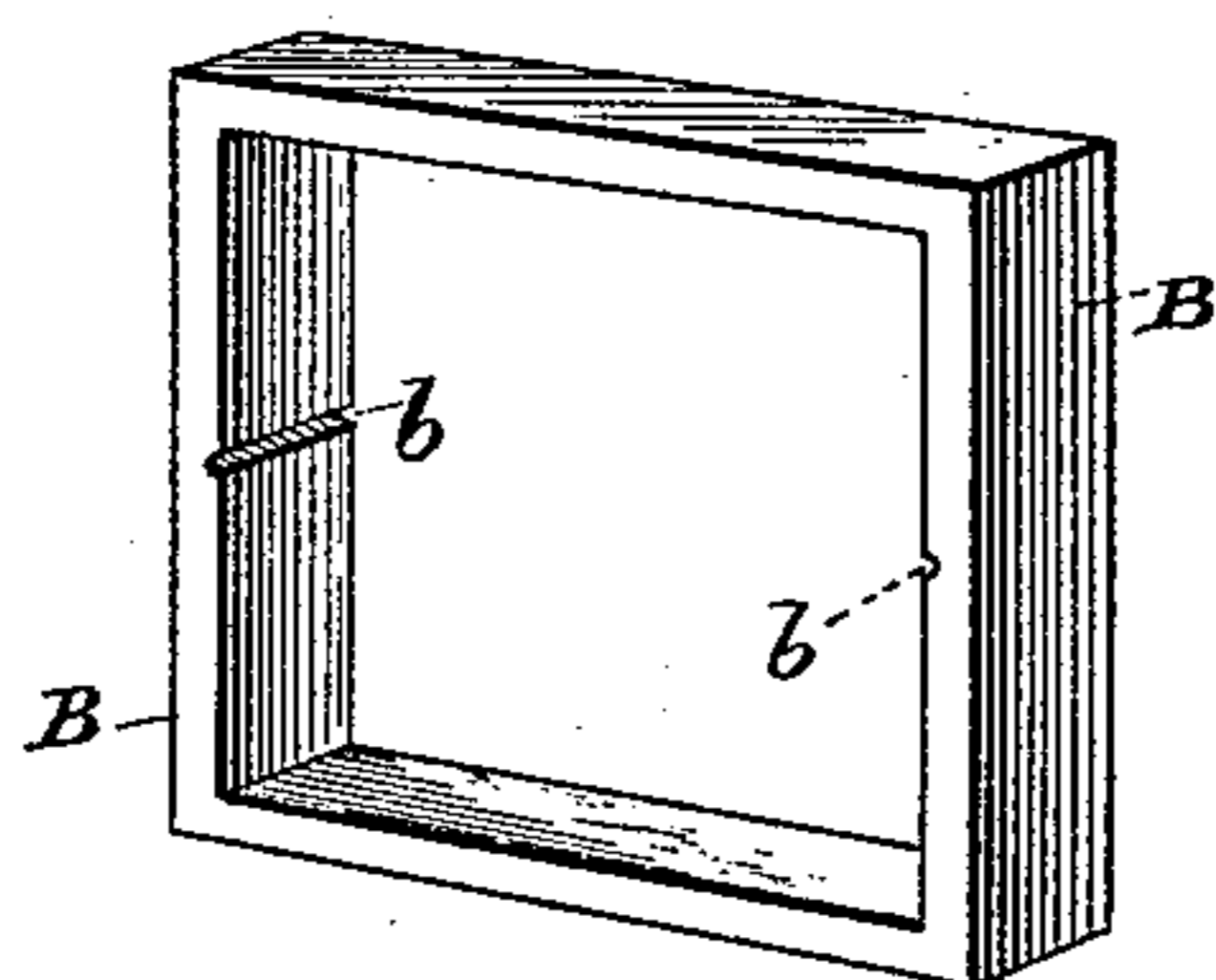
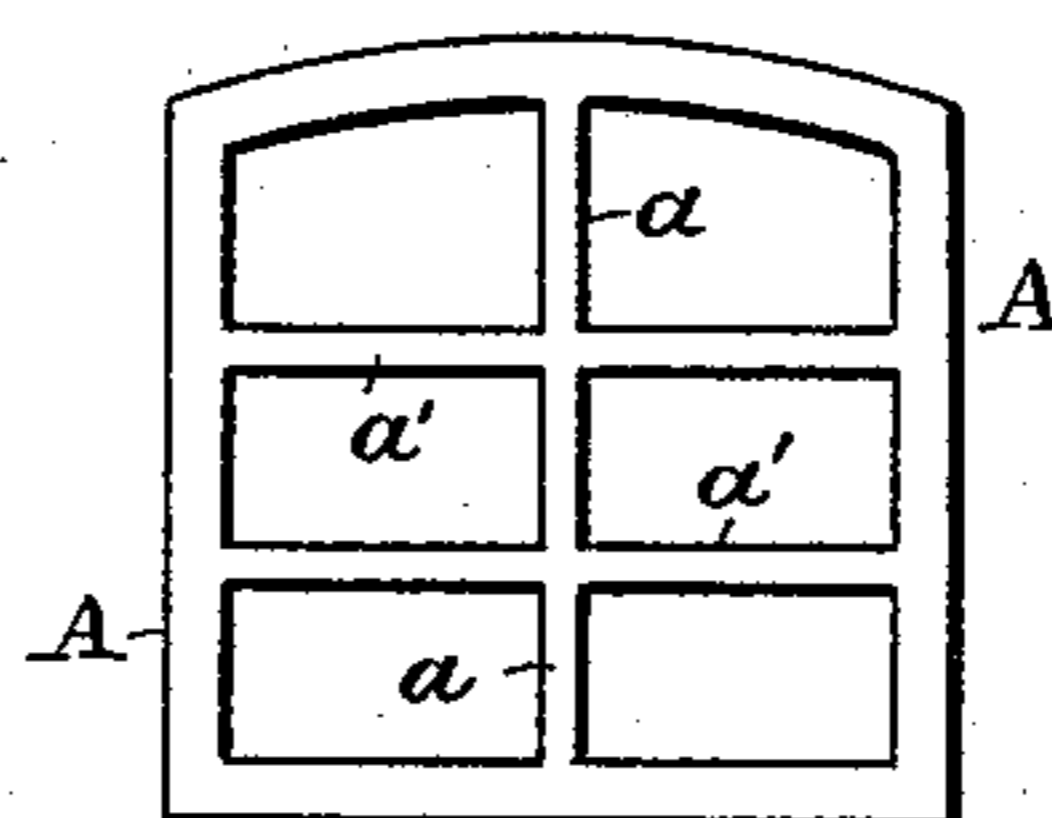


FIG. 4.



*Attest.*

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# UNITED STATES PATENT OFFICE.

JOHN LYNCH, OF WASHINGTON, DISTRICT OF COLUMBIA.

## ELECTRIC-WIRE CONDUIT.

SPECIFICATION forming part of Letters Patent No. 396,407, dated January 22, 1889.

Application filed November 5, 1888. Serial No. 290,032. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN LYNCH, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Electric-Wire Conduits; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-  
10 pertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

15 The requirements of a practical terra-cotta conduit-pipe for electric wires are that it shall be of such form that it can be run, like sewer-pipe, through a die, that it shall be one integral piece, and that it can be burned without warping or cracking. This requires that  
20 the walls and partitions shall be of a uniform thickness, or so proportioned as to shrink in burning at a uniform rate, otherwise the thin parts will shrink faster than the thicker portions and will crack and warp. This has  
25 been heretofore accomplished to a certain extent; but the carrying capacity of the forms of conduit of this character heretofore used or proposed is not as great as it should be,  
30 and the object of this invention is to provide a cheap and practical terra-cotta conduit-pipe which shall be better adapted to carry a large number of wires or cables than others of its class. This I secure by making the pipes of  
35 a rectangular cross-section, with rectangular partitions both horizontal and vertical, all of the partitions of uniform thickness and the outer walls proportioned in thickness to the partitions, to secure uniform shrinkage; and  
40 the invention consists of the improved rectangular partitioned terra-cotta pipe hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of conduit-pipes made according to my invention, and Fig. 2 illustrates  
45 the laying of the same. Fig. 3 shows one of the collars detached, and Fig. 4 illustrates a slight modification.

50 A is a conduit-pipe, square in cross-section, with a single vertical partition, *a*, and two horizontal partitions, *a'*, dividing the pipe into six passages. The partitions are all made of a uniform thickness, and the walls about thirty-five per cent. thicker than the parti-

tions—for example, the preferred proportions 55 of passages, walls, and partitions are as follows: Passages four and one-half inches by two and one-half inches, with partitions five-eighths to three-fourths of an inch thick, and pipe-walls seven-eighths of an inch to one inch 60 in thickness. The outer walls, being more exposed to the heat in burning than the partitions, dry and burn quicker, and can therefore be thicker. The clay is run out through a die, and the slots must be absolutely uniform 65 in width, as the least variation in the thickness of the partitions will cause cracks in burning. The pipe is glazed, and afterward, preparatory to laying, all roughness of the  
70 floors of the passages is removed by running a heavy iron block back and forth through them. The arrangement of the partitions, it will be observed, gives passages with a height a little more than one-half of their width, each passage being designed to receive two  
75 cables. Each cable rests on a horizontal bed, and the full area of the square cross-section of the conduit can be charged with cables.

The sections are made with plain square ends to abut together, and the butt-joint is 80 covered by a square collar, B. All joints and seams and the edges of the collars are carefully cemented. The collar may be a whole collar, it being slipped onto the end of one section and then the next section slipped into 85 it; or, preferably, the collars are run with cross-lines *b*, along which they are easily broken, making two half-square pieces, one of which is put down as a bed-plate for the joint in laying and the other is put over the joint 90 after two pipe-sections are laid.

The top of the pipe may be given a slight crown, as illustrated by Fig. 4, merely sufficient to shed water and to help support the  
95 superincumbent earth, without departing materially from the invention.

Having thus described my invention, I claim—

A rectangular terra-cotta-wire conduit-pipe having rectangular partitions, all of uniform 100 thickness and made in one integral piece, substantially as shown and described.

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

JOHN LYNCH.

Witnesses:

G. Y. ATLEE,  
STORY B. LADD.