

No. 657,264.

Patented Sept. 4, 1900.

H. B. CAMP.
CONSTRUCTION FOR SUBWAYS.

(Application filed Apr. 2, 1900.)

(No Model.)

Fig. 1.

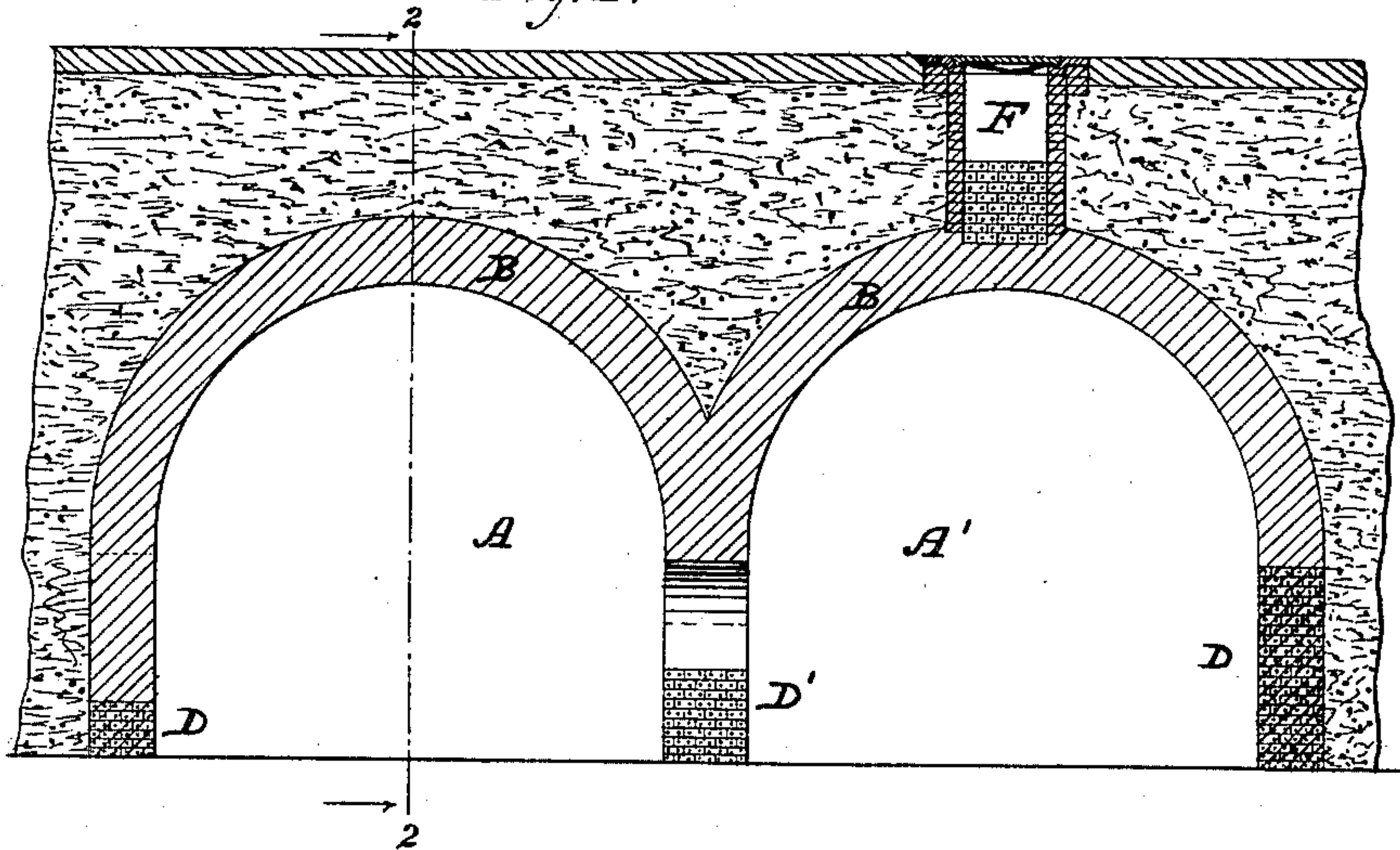


Fig. 2.

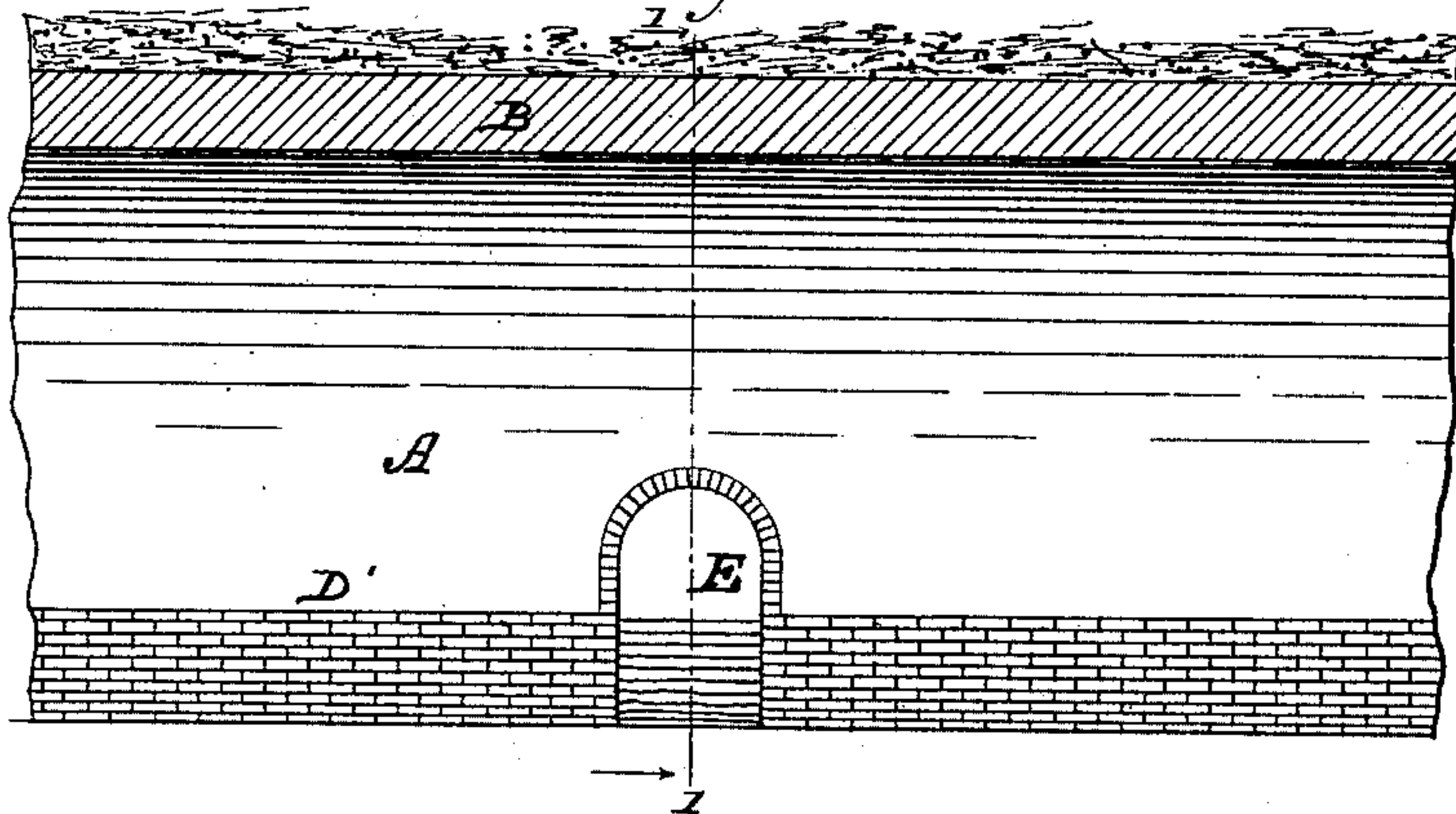


Fig. 3.

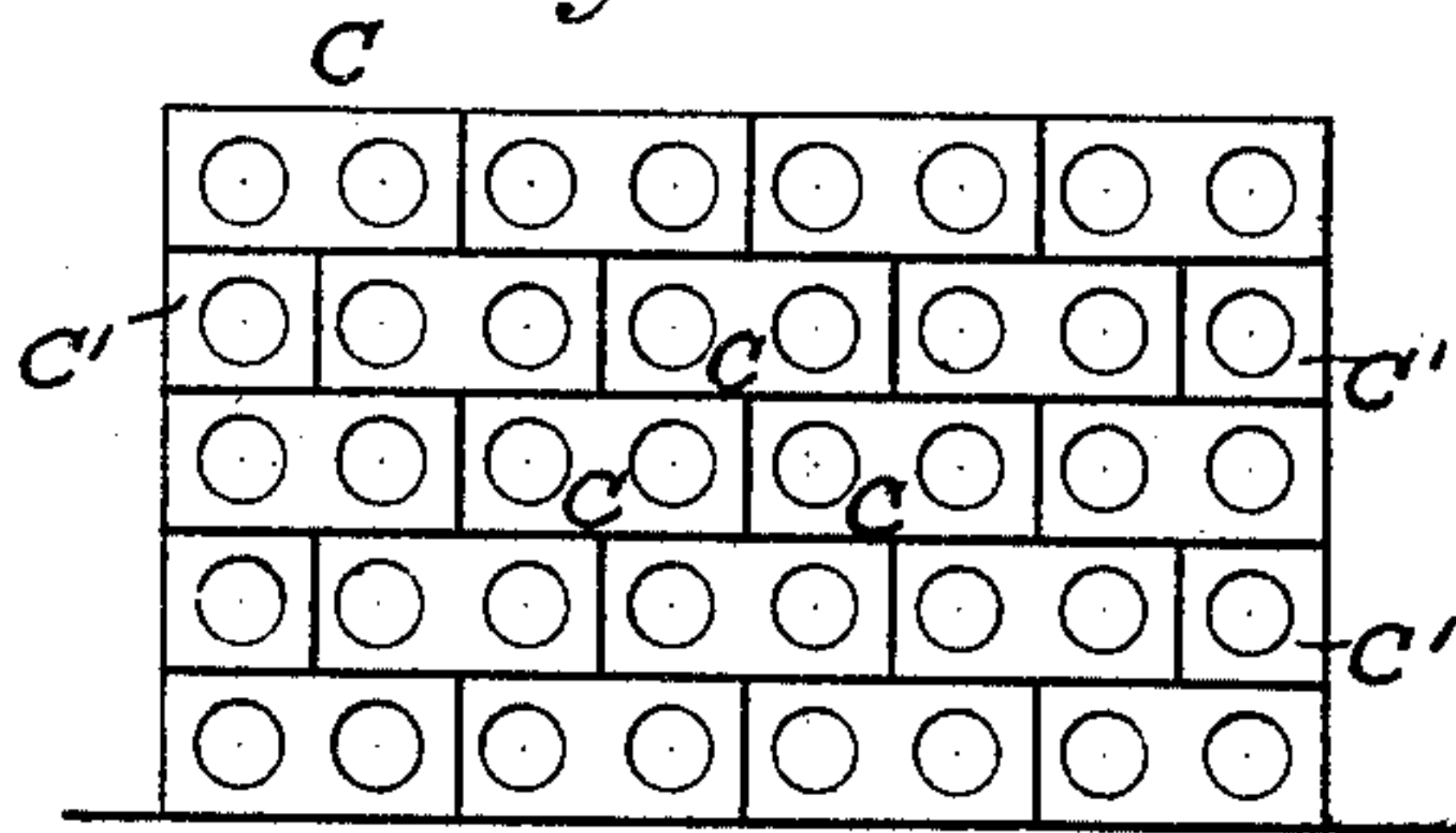
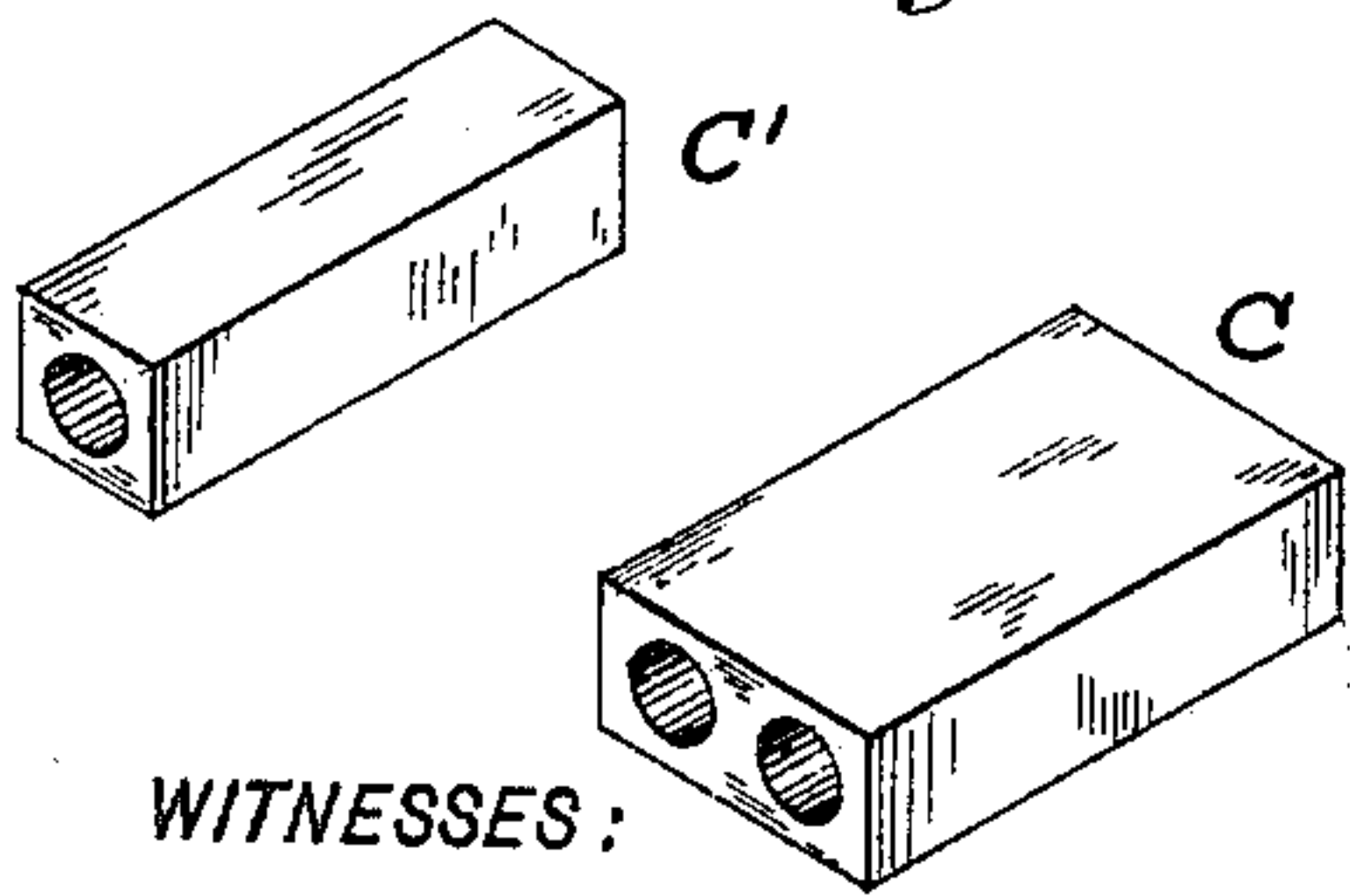


Fig. 4.



WITNESSES:

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CONSTRUCTION FOR SUBWAYS.

SPECIFICATION forming part of Letters Patent No. 657,264, dated September 4, 1900.

Application filed April 2, 1900. Serial No. 11,086. (No model.)

To all whom it may concern:

Be it known that I, HORACE B. CAMP, a citizen of the United States of America, residing at Akron, Summit county, State of Ohio, have
5 invented certain new and useful Improvements in Constructions for Subways, of which the following is a specification.

The object of my invention is to utilize subways and similar masonry constructions for
10 electric conduits by constructing same in whole or in part of vitrified blocks each provided with one or more perforations arranged to register and aline with the perforations of the next adjoining blocks, and thereby form
15 a conduit or series of conduits through the masonry which may be used for any desired purpose, but is especially adapted for electric wires or cables.

The accompanying drawings show my invention applied to the walls or lining of subways in some of the forms now preferred by me, in which—

Figure 1 is a transverse section on the line 1 1 of Fig. 2 of a double underground tunnel
25 or subway. Fig. 2 is a longitudinal section of the same on the line 2 2 of Fig. 1. Fig. 3 is an end elevation of a group of my perforated vitrified blocks. Fig. 4 represents in perspective the two forms and relative sizes
30 of blocks now preferred by me.

The subways or tunnels A A' may be arched or of any other desired sectional form and lined, as usual, with masonry walls B, constructed wholly or in part of perforated blocks
35 C C'. In the drawings I have shown same arranged in groups D D' of varying sizes, although they may be used, if so desired, in the construction of the entire wall. The groups may be located at any desired points in the
40 wall and are interrupted at suitable intervals in the length of the subway by openings E, which permit access to the conduit for the insertion of the wires or cables therein.

In constructing the walls the perforated
45 blocks are laid end to end in such manner that the perforations of abutting blocks register and aline with each other. The blocks are preferably of sizes that permit the perforations being in perfect arrangement in ver-

tical and horizontal rows. I also prefer to set
50 the blocks in staggered layers both transverse and longitudinal, so that the vertical joints between the blocks lie over the mid-sections of the blocks below. Instead of building the conduit-blocks into the supporting-walls or
55 lining of the subways or tunnels they may be placed in groups on the top of the arches, but below the level of the ground, and access may be had to them through manholes F, located at suitable intervals apart. 60

My invention is adapted to all kinds of masonry structures; but it will be particularly useful and valuable when applied to the masonry of underground subways or tunnels and like constructions that are placed below the
65 surface of the streets in cities where overhead electric conductors are objectionable and frequently prohibited. Such structures are usually placed wholly or in part below the surface of the ground, and the masonry lining
70 may be composed entirely or only in part of perforated blocks in accordance with my invention. The advantages of such constructions are that while these perforated blocks occupy no more space than ordinary solid
75 material they form walls or lining equally as strong and substantially as solid as brick or non-perforated blocks. At the same time they provide commercially-valuable conduits without correspondingly increasing the cost
80 of the subway.

What I claim is—

In subway construction, a plurality of independent perforated blocks forming an integral part of the wall thereof and so arranged
85 that the perforations register and aline longitudinally and form continuous conduits lengthwise of the subway, with transverse openings in the wall interrupting the continuity of the conduits at suitable intervals, substantially as set forth. 90

In testimony whereof I sign this application, in the presence of two witnesses, this 13th day of March, 1900.

HORACE B. CAMP.

Witnesses:

G. H. FOSTER,

C. I. HENDERSON.