

(No Model.)

H. C. SPALDING.

UNDERGROUND ELECTRICAL CONDUCTOR.

No. 327,481.

Patented Sept. 29, 1885.

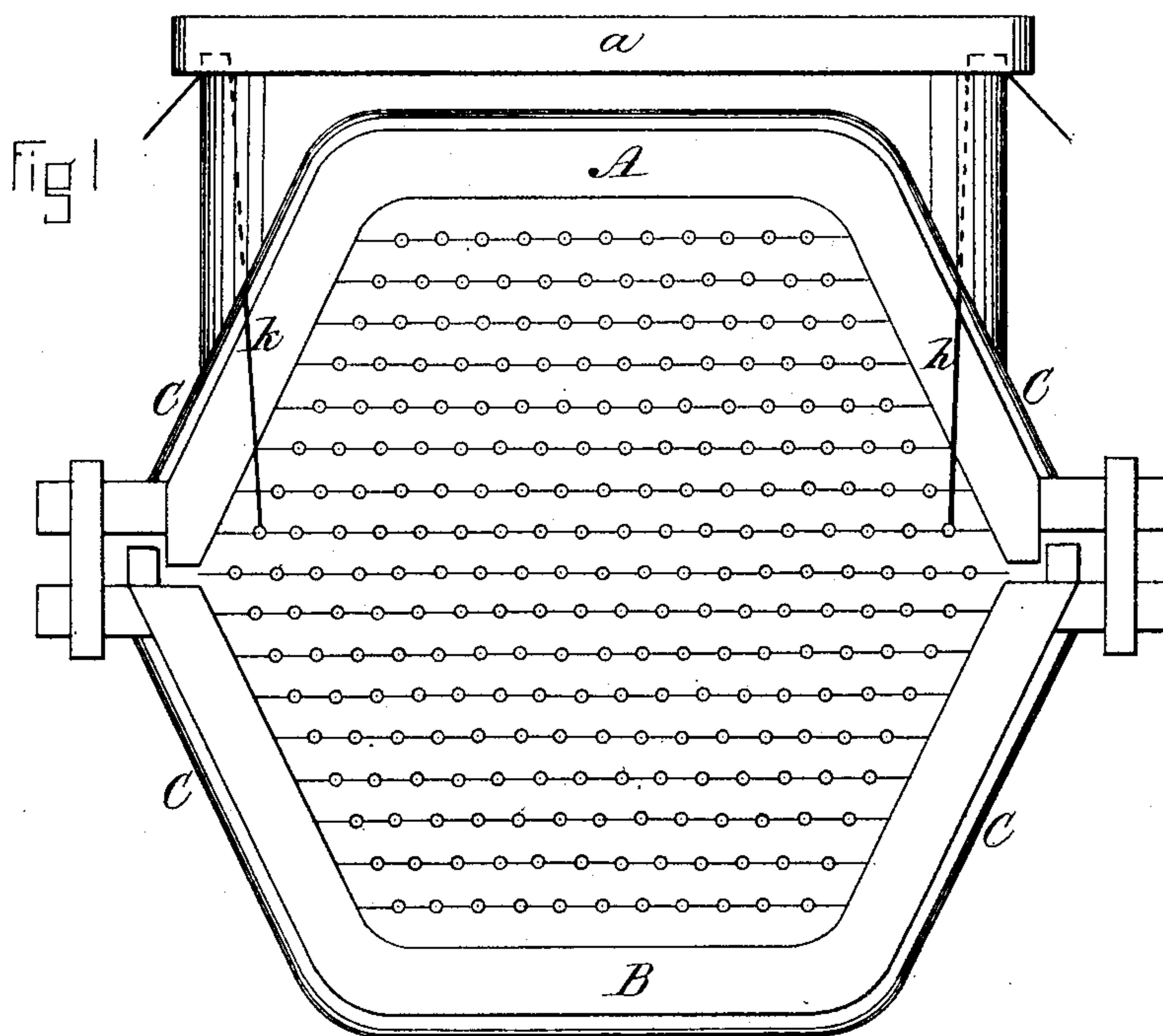


Fig 2

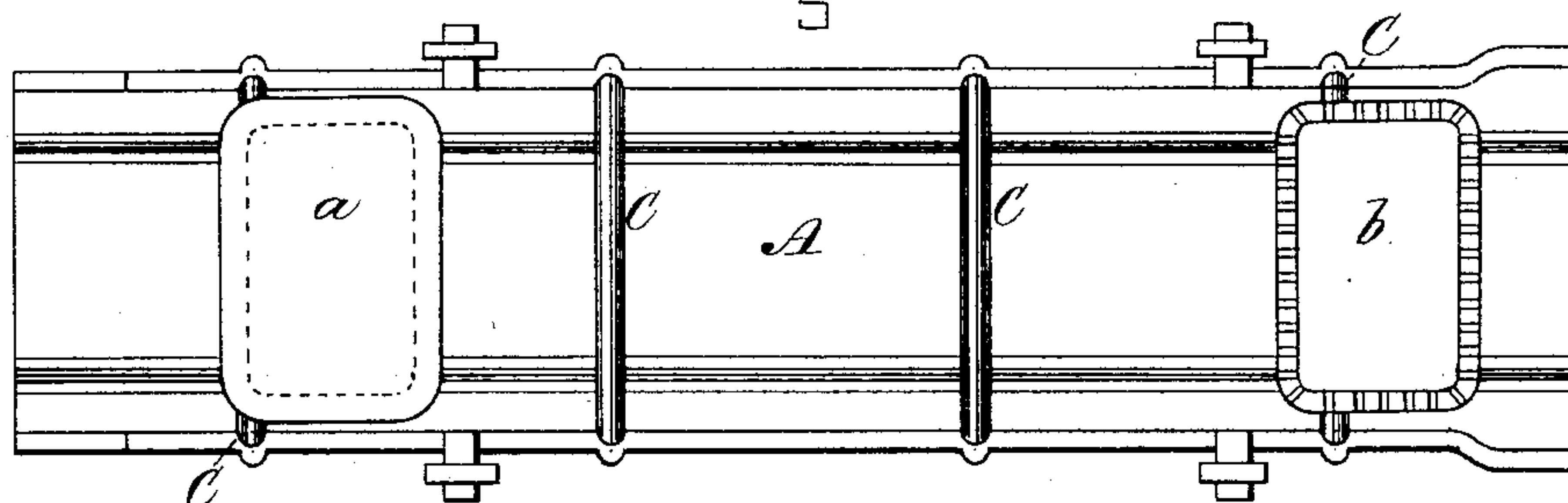
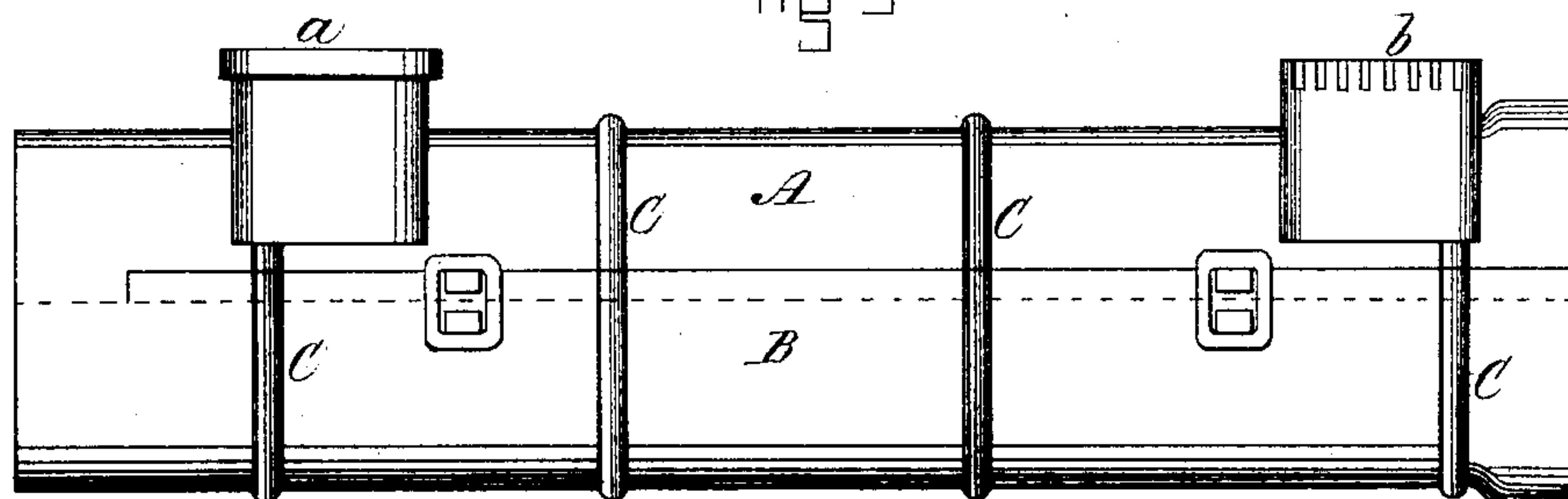


Fig 3



WITNESSES

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# UNITED STATES PATENT OFFICE.

HENRY C. SPALDING, OF BOSTON, MASSACHUSETTS.

## UNDERGROUND ELECTRICAL CONDUCTOR.

SPECIFICATION forming part of Letters Patent No. 327,481, dated September 29, 1885.

Application filed December 29, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. SPALDING, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Pipe-Structures for Underground Electrical Conductors, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

My invention is an improvement in conduits or pipes for containing electric conducting-wires, the improvement relating more particularly to the structure of the conduit and to the manner of inclosing or confining the conductors therein.

In applications filed by me I have shown and described the general nature of the conduit, the claims in such applications being, however, confined to features of novelty other than those which form the subject of my present invention, and which consist, first, in making each length or section of the conduit in two parts, which, when united, form a pipe or tube hexagonal in cross-section, and in building up the group of electrical conductors in such manner that the space between any two adjacent wires or between the inner surface of the pipe and the outer layer or series of wires shall be equal; second, in casting the pipe-sections of iron with transverse ribs and providing them with transversely-elongated openings and caps or covers.

In the drawings, Figure 1 is a cross-section of a length of pipe containing a group of conducting-wires. Fig 2 is a plan view of the same, showing the transverse ribs and transverse elongated openings. Fig. 3 is a side view of the same.

A and B are the upper and lower sections, respectively, of a length of pipe. They are made of cast-iron and in such a shape that when united and secured together they have an approximately hexagonal shape. The sections are cast with transverse ribs C that serve to greatly

strengthen the whole structure and permit a much thinner pipe to be used than would otherwise be possible. The upper sections, A, have also transversely-elongated openings *b* that permit ready access to all of the wires contained in a given section. These openings are covered by caps *a*. The wires are laid in the pipes between blocks of insulating material, (shown in Fig. 1,) and they are laid in a group or form to conform to the hexagonal shape of the pipe. For instance, there will be eleven wires on the bottom segment or block of insulating material, twelve on the next, and so on until the center of the pipe is reached, when the number of wires on each block decreases by one. No other arrangement of wires or form of pipe secures the advantages that this does. The wires are all separated from each other and from the sides of the pipe by the same space. There is no superfluous insulating material nor metal in the pipe.

What I claim is—

1. A pipe or tube for conveying electric wires provided with the transverse strengthening-ribs C and with transversely-elongated openings *b*, together with suitable caps or covers *a* therefor, substantially as described.

2. A pipe or tube for conveying electric wires divided longitudinally into the upper and lower sections A and B, the said sections being adapted to be clamped together when the wires are laid therein, each section being provided with the transverse strengthening-ribs C, and the upper section with transversely-elongated openings *b*, whereby the inclosed wires may be inspected or manipulated, together with caps or covers *a* therefor, substantially as specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HENRY C. SPALDING.

Witnesses:

ALEX. L. HAYES,  
GEO. L. WARD.