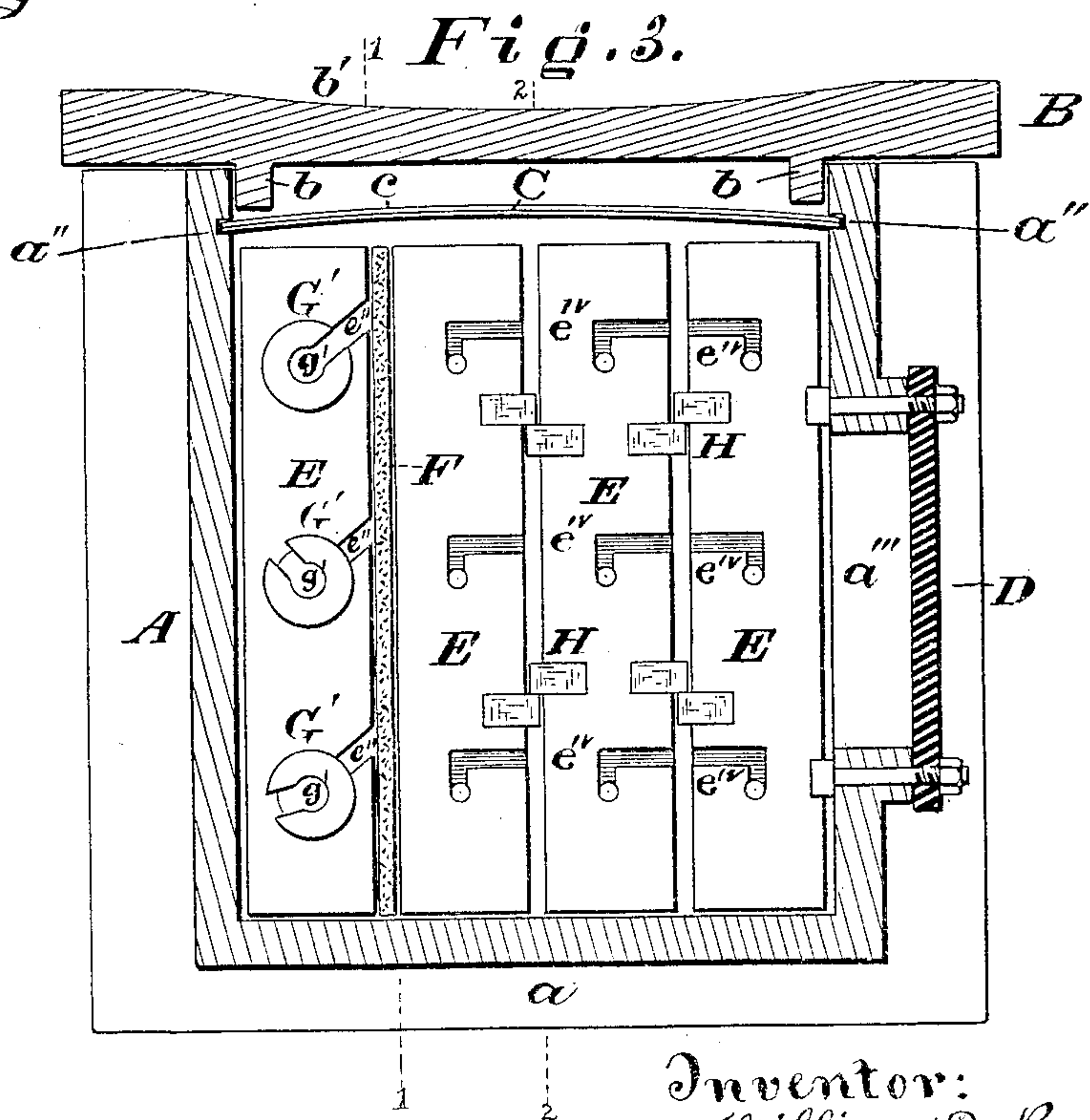
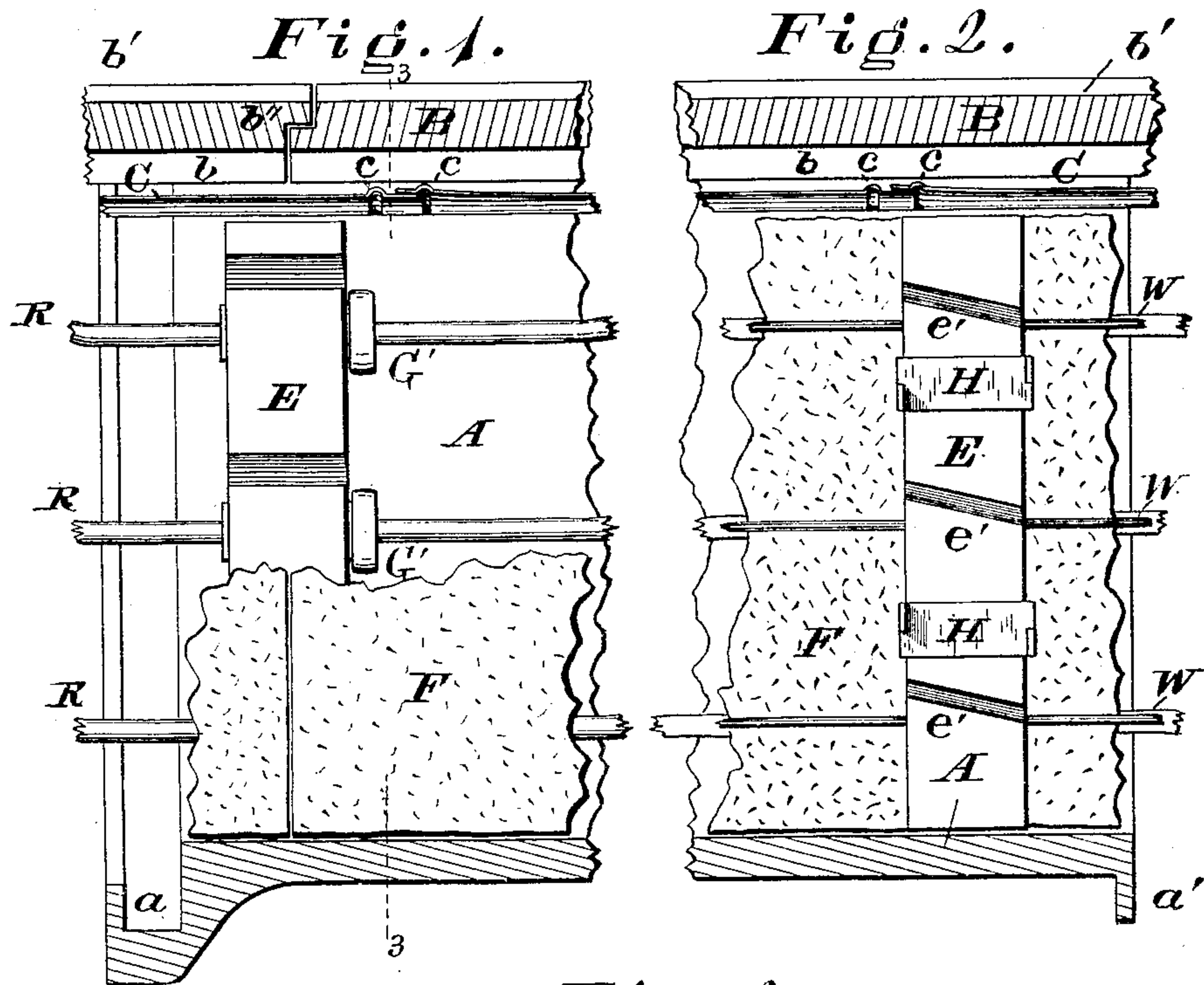


W. E. BANTA.

ELECTRIC WAY.

No. 318,411.

Patented May 19, 1885.



Attest:

A. P. Knight;
Geo. S. Wheelock.

Inventor:

William E. Banta
By Knight Bros. Attys.

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Fig. 4.

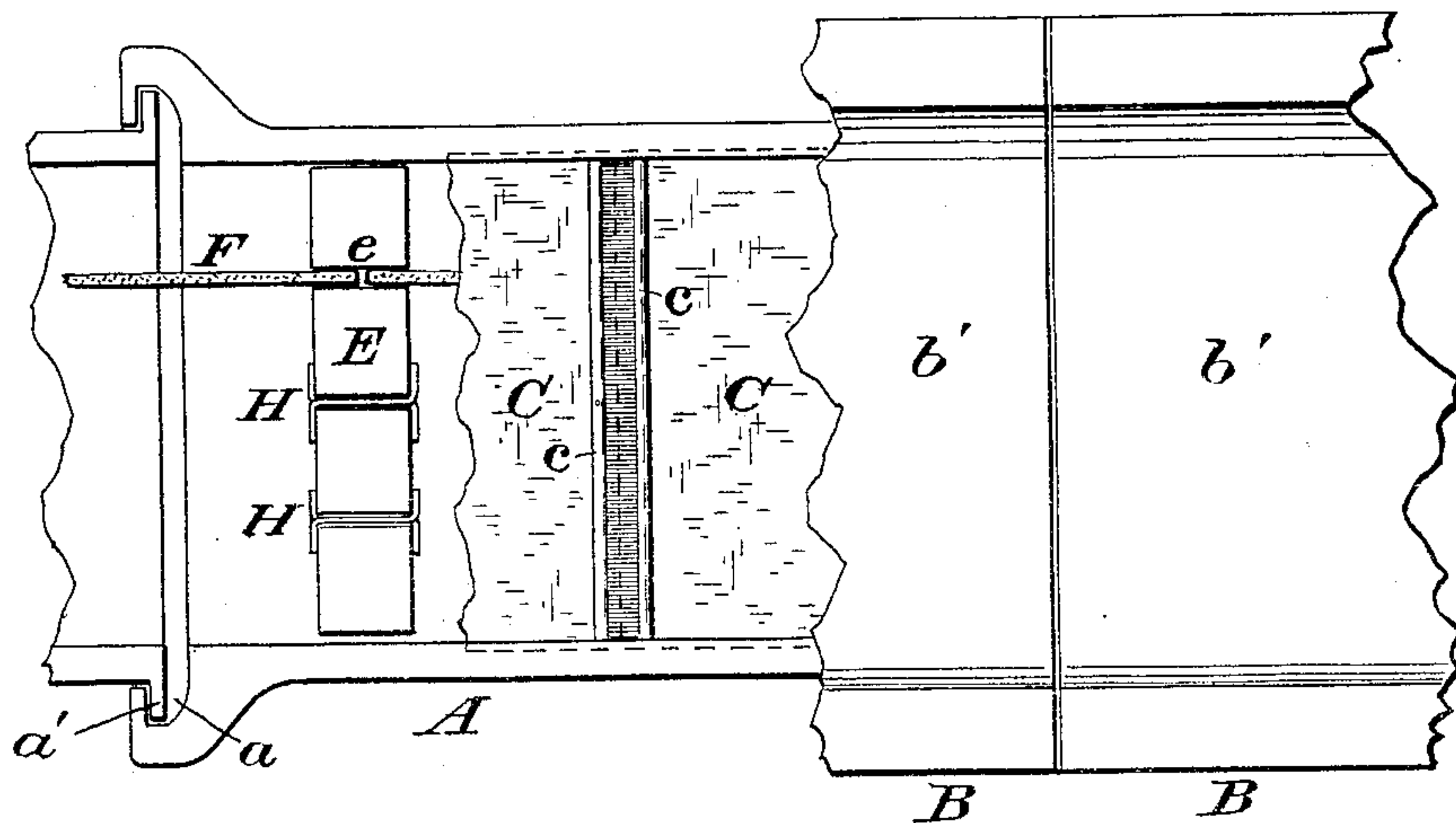


Fig. 7.



Fig. 5.

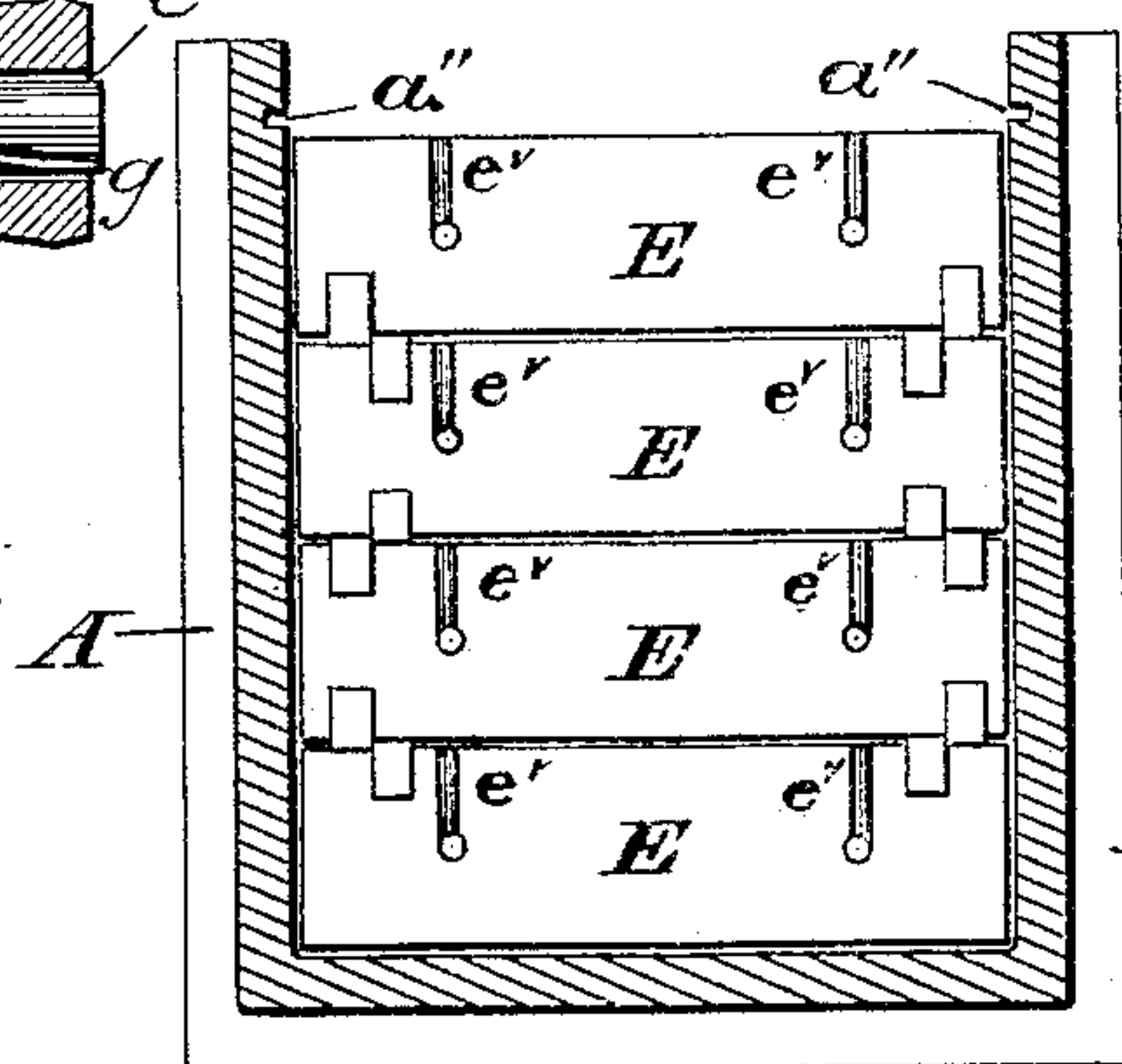


Fig. 6.

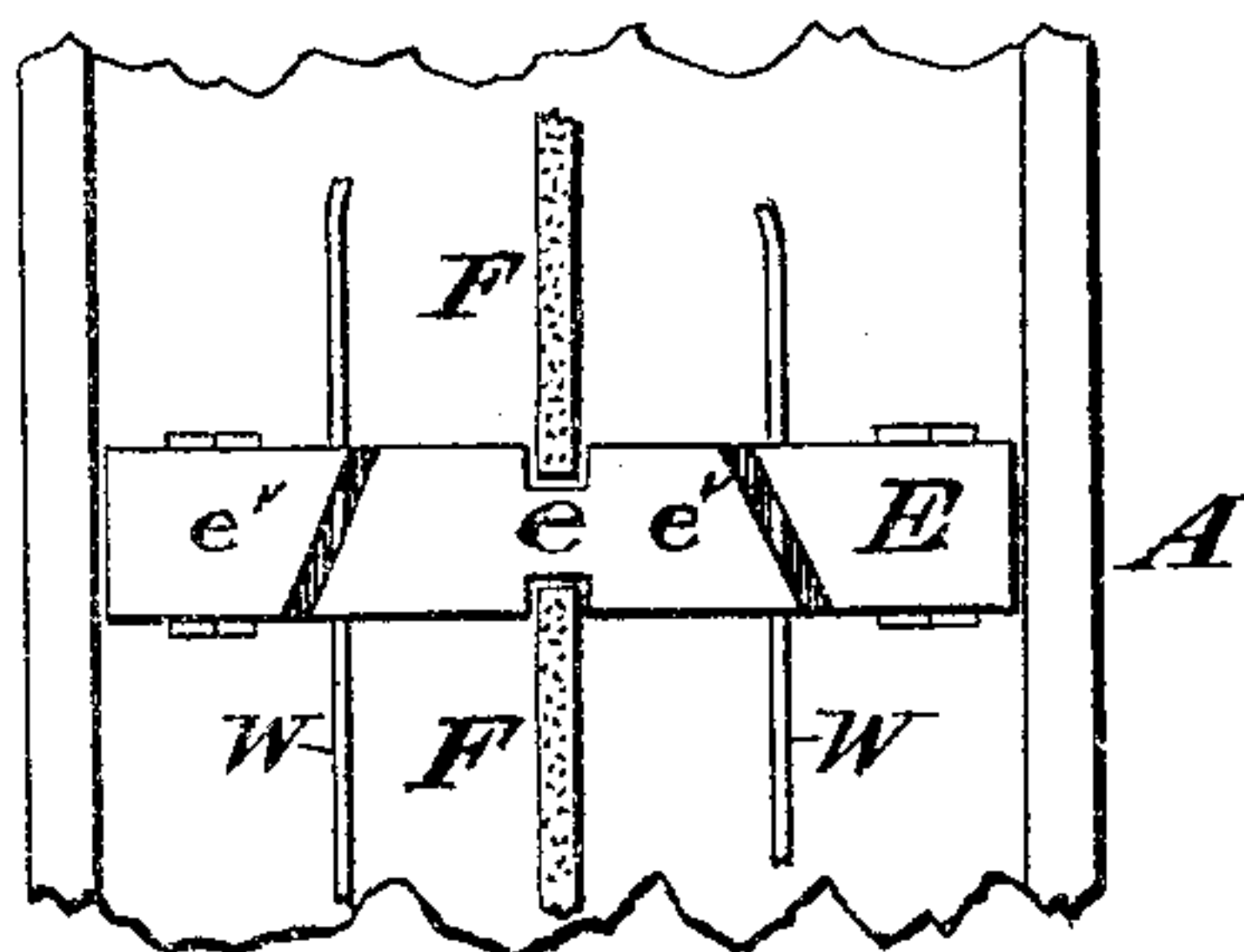


Fig. 8.



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UNITED STATES PATENT OFFICE.

WILLIAM E. BANTA, OF SPRINGFIELD, OHIO, ASSIGNOR OF TWO-FIFTHS
TO JOHN M. DODD AND ABNER M. CROWTHERS, BOTH OF SAME PLACE.

ELECTRIC WAY.

SPECIFICATION forming part of Letters Patent No. 318,411, dated May 19, 1885.

Application filed March 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. BANTA, of Springfield, Clark county, Ohio, have invented a new and useful Improvement in Electric
5 Ways, of which the following is a specification.

My invention relates to improvements in the canalization of electrical conductors within closed troughs or conduits—such, for example, as described in United States Patent No.
10 260,273, granted to me on the 26th of June, 1882. In my present invention I provide within such conduit a series of equidistant piers, of which each pier consists of a number of blocks, preferably of rectangular section,
15 which blocks, whether ranked side by side or stacked one upon another, are so formed as to properly uphold and insulate the wires or other conductors. In its most complete form such
20 conduit is arranged for diverse kinds of conductors—such as wires or rods—of which the different kinds may be separated into insulated groups by one or more longitudinal partitions. For (the comparatively numerous)
25 wire conductors each block has a number of oblique notches, which, nearer the interior of the block, become horizontal, so as to securely lock or retain the inserted wire or spool. Thicker and comparatively rigid conductors
30 are inclosed in a longitudinally spirally slotted spool having a flange, and which, being inserted slot inward within either a key-hole-shaped notch or a simple orifice in the block, operates to securely retain and support such conductor within the conduit. The consecutive
35 blocks of each pier may be held together by cramps or other suitable fastenings. Grooves near to and parallel with the top of the containing-trough receive the edges of crown-sheets, which, being sprung into said grooves
40 with an upward camber, are luted at their junctions with each other and with the trough-walls, so as to hermetically close the trough independently of the cap-course. Over all is placed a cap-course of terra-cotta, cast-iron,
45 or other rigid and indestructible material, which serves to protect the crown-sheets, and whose upper surface may be roughened, so as to do duty as a sidewalk-curbing, or may be channeled, so as to serve as a gutter.

50 In the accompanying drawings, Figures 1, 2,

and 3 represent the preferred form of my electric way by sections on the lines 1 1, Fig. 3, 2 2, Fig. 3, and 3 3, Fig. 1, respectively. Fig. 4 is a top view of the same, portions of the cap-course and crown-sheeting being broken away. 55
Figs. 5 and 6 are respectively an elevation transverse of the conduit and a top view of that form of my invention in which the pier is constructed of blocks laid horizontally and stacked one upon another. Fig. 7 shows a spirally-slotted 60
spool for wire, and Fig. 8 is a face view of a portion of a block in which such spool occupies a simple hole or orifice extending horizontally through the block.

A represents a small portion of a trough, 65 preferably of the represented rectangular transverse section, and of any suitable material—such as terra-cotta, iron-stone, or cast-iron. This trough is manufactured in any convenient lengths, which are formed at one end 70
with sockets *a*, and at the other end with flanges *a'*, adapted to occupy and be cemented within precisely similar sockets in the next consecutive trough-length.

B are cap-pieces, which may be of hewn 75 stone, iron-stone, terra-cotta, or cast-iron, and may have flanges *b*, that fit snugly within the opening of the trough-top, and which have rabbeted joints *b''*. Such pieces may be roughened on their upper surface to serve as a curb, 80
or such surface may have a valley or depression, *b'*, so as to fit it to discharge the functions of a street-gutter. Grooves *a''* in the inner walls of the trough parallel with and near the top edge receive the edges of crown-sheets 85
C, which, being sprung into said grooves, assume the arched or cambered form shown. The contiguous edges of these sheets being caused to overlap, beads *c* near said overlapping edges serve to stiffen the sheets and to 90
operate as curbs for a luting of paraffine, pitch, or other suitable material, which is poured in the melted condition upon said joint, and also on the joint formed by contact of the sheet edges with the trough-walls. Openings *a'''* in 95
the trough-walls may enable connection of branch conduits. Such of these openings as are not in use are closed by caps D. Within the trough are numerous equidistant piers, of
100 which each pier consists of a series of rectan-

gular blocks, E, of glass, porcelain, terra-cotta, papier-maché, cast-iron, phosphor-bronze, or other suitable substance. These blocks are preferably ranked vertically side by side, as in
 5 Figs. 1, 2, 3, and 4, and have rabbets e to receive and hold longitudinal partitions F, of any suitable material, preferably of wood rendered indestructible by any customary or suitable means, such as by impregnation with cor-
 10 rosive sublimate, ozocerite, creosote, or silicate of potash. These partitions may, however, be of other material—such as metal, terra-cotta, or paper-stock.

For support of wire conductors W one ver-
 15 tical side of each block (or two opposite sides) has oblique notches e' , which, farther into the block, become level, so as to support the wire or its containing-spool G in that position, and retain or lock the same to such position by the
 20 oblique prominences of the entrance of the notch.

When it is desired to inclose the wire in a spool, such spool G may have a slot with a spiral entrance, g , which spool may occupy a
 25 notch, e'' , that is level in direction of the length of the wire, but sloping downward into the substance of the block; or it may occupy a simple hole or orifice, e''' , passing horizontally through the block, (for support of inflexible

conductors or rods R.) The notches may enter 30 the block horizontally and then descend, as at e^{iv} , and may be inclosed in longitudinally-slotted spools G'. The consecutive blocks may be fastened together by metallic cramps H. Where the blocks are laid in the horizontal po- 35 sition they have oblique notches e^v in their upper sides, which at their bottoms become rectangular to the vertical sides of the block.

The longitudinal partitions may be composed of pieces of greater length than the dis- 40 tance between the consecutive piers, and may extend through the piers.

I claim as new and of my invention—

1. In an electric way, the trough A, closed 45 above by luted crown-sheets C, occupying grooves a'' in the trough-walls, and by a protecting rigid cap-course, B, substantially as set forth.

2. In an electric way, a series of support- 50 ing-piers composed of blocks E, having rabbets e , which receive one or more longitudinal partitions, F, substantially as set forth.

In testimony of which invention I hereunto set my hand.

WM. E. BANTA.

Attest:

GEO. H. KNIGHT,
 S. S. CARPENTER.