

A. BRANDON.

INSULATING SUPPORT FOR ELECTRIC CONDUCTING WIRES.

No. 342,324.

Patented May 25, 1886.

Fig. 1.

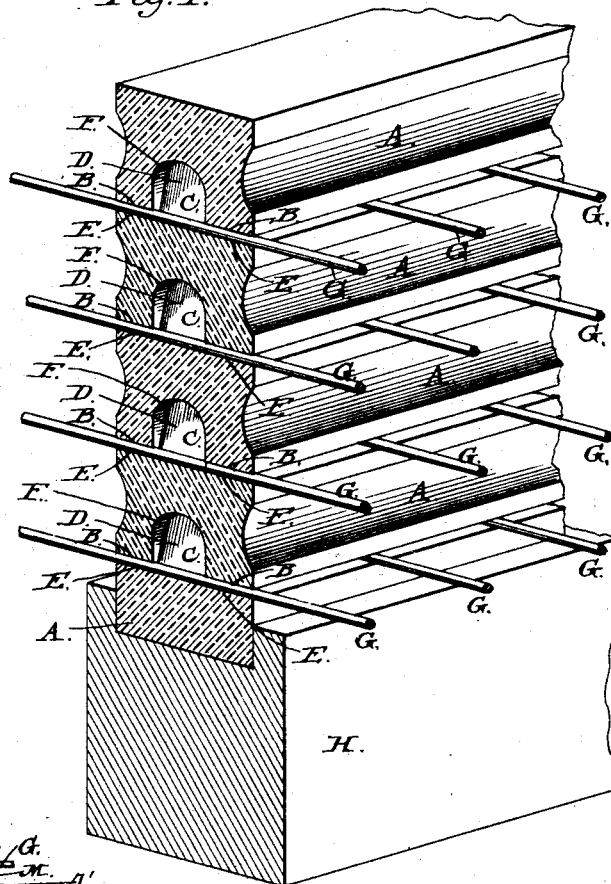


Fig. 3.

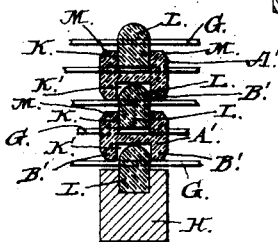


Fig. 2.

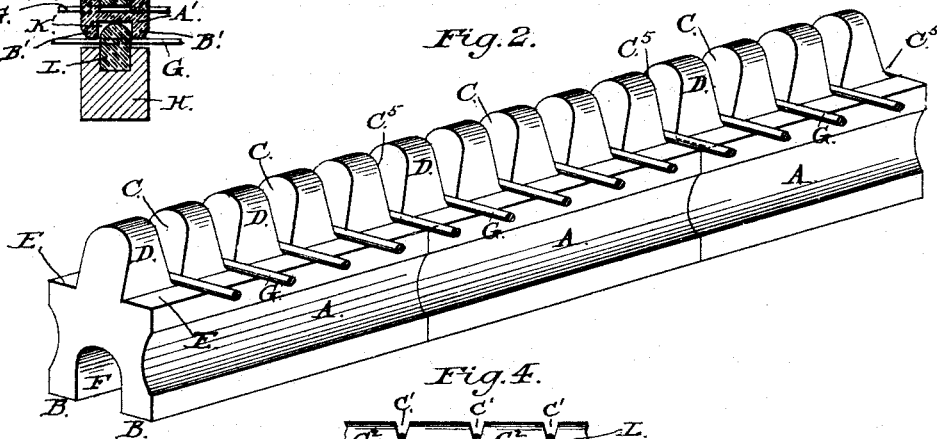
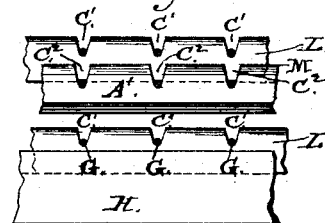


Fig. 4.



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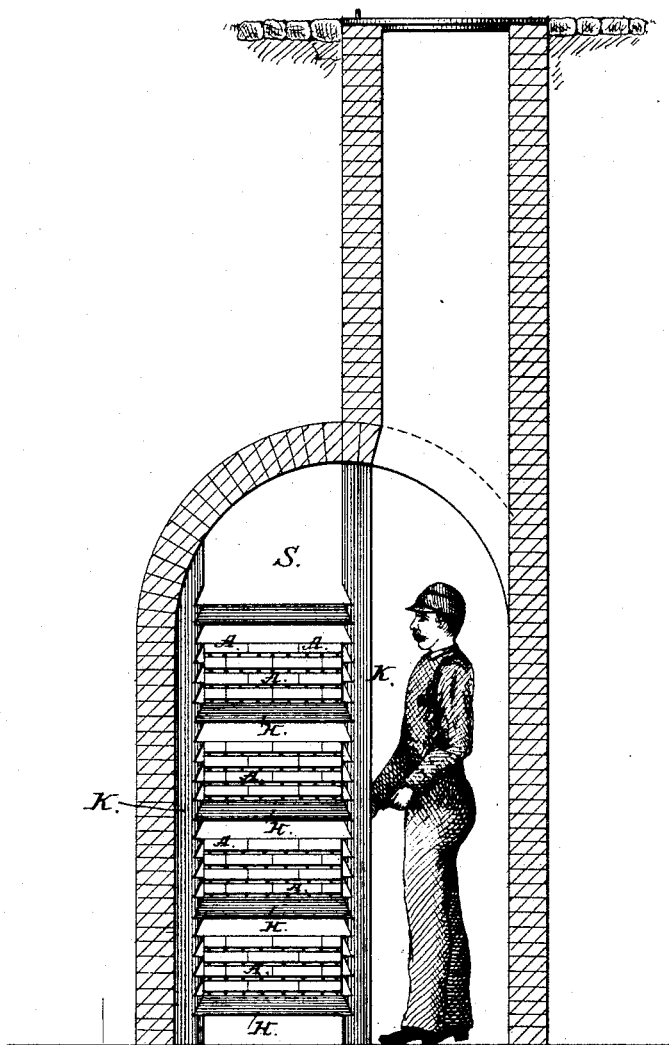
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Fig. 5.



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UNITED STATES PATENT OFFICE.

ALEXANDER BRANDON, OF NEW YORK, N. Y.

INSULATING-SUPPORT FOR ELECTRIC CONDUCTING-WIRES.

SPECIFICATION forming part of Letters Patent No. 342,324, dated May 25, 1886.

Application filed February 17, 1886. Serial No. 192,193. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER BRANDON, of the city, county, and State of New York, have invented a new and useful Improvement in Insulating-Supports for Electric Conducting-Wires; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a sectional view of a series of my improved insulating and supporting bars arranged to support a series of electric conducting-wires; Fig. 2, a view in perspective of one of the bars detached; Fig. 3, a view in perspective, and Fig. 4 a side elevation, of a modification of my invention; Fig. 5, a transverse section through a subway for carrying the wires in line with one of its man-holes.

My invention relates to supports for telegraph, telephone, or electric light wires which are designed to be inclosed in subways or conduits where a large number of parallel wires are carried in the same direction, and has for its object to provide a cheap and efficient means for supporting the wires, which shall effectually insulate them and will permit ready access to any one or more of the wires and their removal or replacement with ease, as required.

It consists, mainly, of a bar of insulating material formed with a longitudinal tongue formed or fitted on one side or face thereof, and a counterpart longitudinal recess on its opposite face, whereby any two or more of the bars may be fitted together so as to interlock, the longitudinal tongue being notched transversely at equal intervals to receive the wires, as hereinafter more fully described.

A represents my insulating-bar, molded of glass, hard rubber, or other equivalent non-conducting substance. The upper side or face of the bar is formed with a central longitudinal tongue or projection, which is divided transversely by a series of notches, C C, Fig. 2, into a series of separate lugs or projections, D D. The sides of the notches C C may be parallel, but are preferably inclined or beveled, as shown in the drawings, (see Figs. 2 and 4,) to facilitate the insertion of a wire between them. The width of the lugs or projections D D is so much less than that of the bar as to

leave a wide shoulder or ledge, E, Fig. 2, on each side of the offsets. The opposite side or face of the bar A is longitudinally grooved, as shown at F, to a depth equal to the height of the projections D D, the width of this groove in each block being such as that it will readily receive the projections D D of a counterpart block when it is fitted over and upon them, bearing-surfaces B B being left on each side of the groove, corresponding to the shoulders E E on each side of the projections. When the groove, in any one block is thus fitted upon the notched tongue or projections D D of another similar block, the bearing-surfaces B between the groove and the outer edges of the block will drop into contact with the shoulder or ledge E on each side of the projections D D, and if wires G G be laid transversely in the notches C C, as shown in Fig. 2, these lateral faces B on the upper block will rest upon the wires, and thus serve to confine them in place, as shown in Fig. 1. The blocks are preferably made in short lengths, so as to be easily handled and moved, and uniform in all their dimensions, so as to be interchangeable. The ends of the block may be plain or square, or be so formed as that the end of the one shall form one side of a notch, C', (see Fig. 2,) to be closed and completed when the opposite end of a similar block is placed against it, as shown in Fig. 2, whereby a wire may be supported in the joint between any two blocks properly placed end to end.

In the use of the blocks in tiers the lowermost tier may be supported in a wooden base or bar, H, longitudinally grooved to receive the lower face of said first tier of blocks, as shown in Figs. 1 and 5, and a series of said tiers, each supported upon a similar wooden bar, H, may be placed one above the other, as shown in Fig. 5. The ends of each tier may also be supported between vertical grooved standards or uprights K K', Fig. 5. By means of these transverse insulated and insulating supporting-bars A A a number of wires, G G, may be readily and cheaply strung in a longitudinal conduit or subway, S, (see Fig. 5,) of any form; and when placed in position they will remain securely confined and supported until it may be required to remove them.

As a modification of my device, I contemplate forming the notched tongue-strip in a

separate piece detached from the main block, so that it may be seated for use in a longitudinal groove formed in the block. This modification is illustrated in Figs. 3 and 4 of the drawings, in which A' represents the main supporting-block of insulating material. This block is formed with corresponding central longitudinal grooves, K K', in opposite faces thereof, said grooves being adapted in width to receive the thickness of a longitudinal plate or bar, L, also of insulating material, of such width as that when seated in either groove K K' of the block it shall project out from its face. This bar L is notched transversely on one edge, (see Fig. 4,) the notches C' C' therein corresponding in form and depth to the notches C C of the bar A, hereinbefore described. The projecting strips M M, (see Fig. 3,) on either side of the longitudinal groove K on one side of the block A', are likewise notched transversely at equal distances, (see Fig. 4,) the notches C' C' therein being preferably formed with inclined or beveled sides similar to the notches C C, and of a depth extending to the bottom of the groove K. The lateral bearing-strips B' B', Fig. 3, upon the opposite side of the block on either side of the groove K' therein, are left plain.

In the use of this modification of my invention the wires G G, led through the notches C' C' in a bar, L, are confined by inserting over and upon the notched edge of the bar one of the grooved sides of a block, A', so that the plain bearing-surfaces B' B' on each side of the groove K' shall rest upon the wires, as shown in Figs. 3 and 4. The next tier of wires

is then carried through the notches in the longitudinal strips M M on the opposite or upper side of the block A', and is confined therein by the solid edge of a second strip or bar, L, which is seated for the purpose in the groove K between the strips M M, to rest upon the wires. The grooved or notched blocks A' A' and detached notched tongue strips or bars L L thus accomplish the same results as are obtained by means of the grooved and notched bars A A, first herein described.

I claim as my invention--

1. A non-conducting supporting-block for electric conducting-wires, having a longitudinal groove upon one face, in combination with a longitudinal transversely-notched strip or bar upon its opposite face, substantially in the manner and for the purpose herein set forth.

2. A series of supporting-blocks of non-conducting material, in combination with a transversely-notched tongue adapted to project longitudinally from one face of each block into a counterpart groove in the opposite face of a similar block, and a series of electric conducting-wires carried transversely through the notches and between the blocks, substantially in the manner and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALEX. BRANDON.

Witnesses:

J. F. ACKER, Jr.,
JOHN A. ELLIS.