

(No Model.)

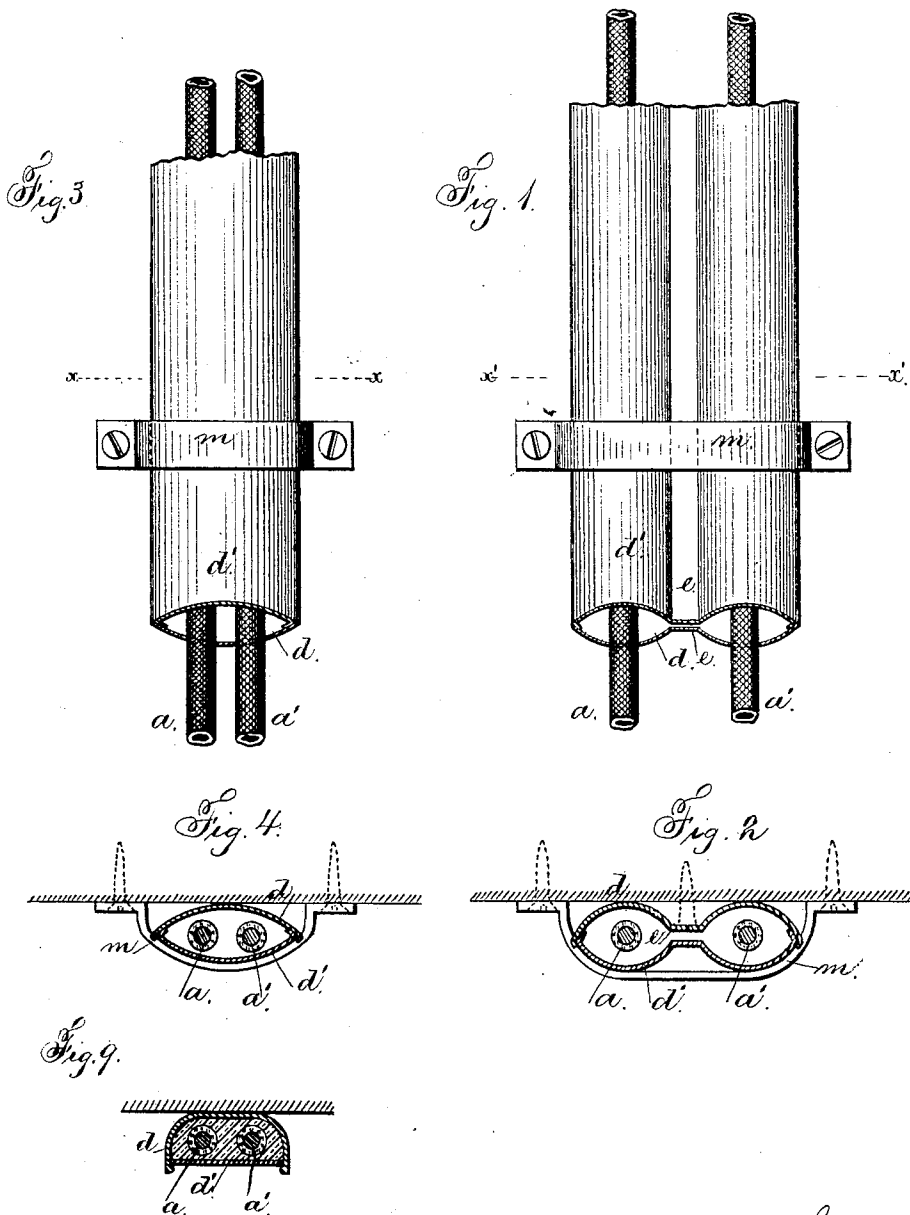
2 Sheets—Sheet 1.

H. EDMUNDS, Jr.

CASE FOR ELECTRIC CONDUCTORS.

No. 291,170.

Patented Jan. 1, 1884.



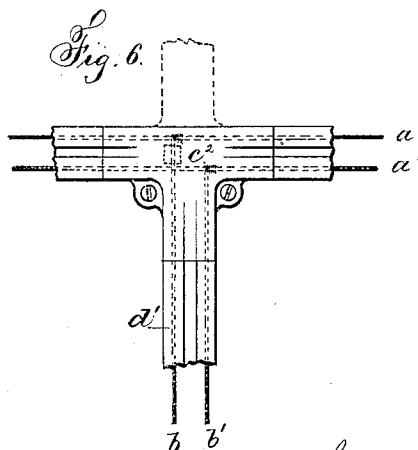
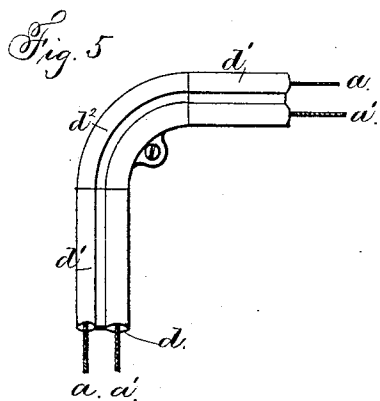
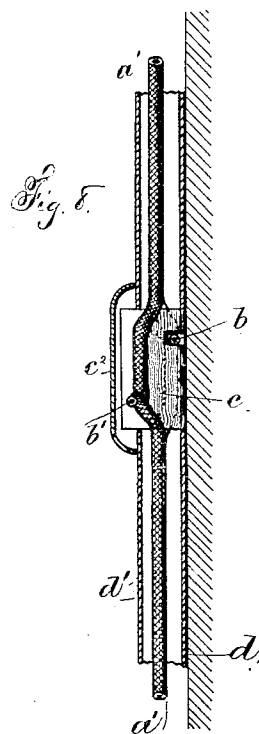
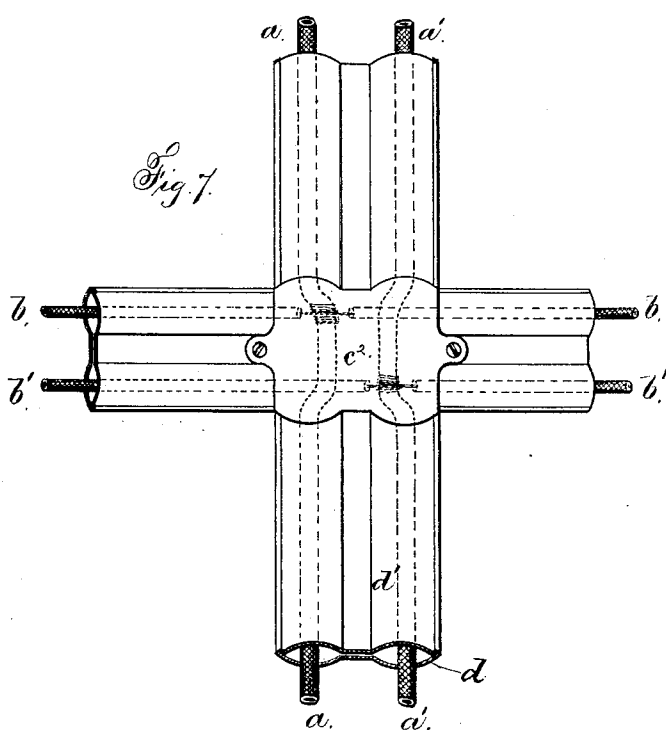
Witnesses
Harold Ferrell
Chas. H. Edmunds

Inventor.
Henry Edmunds Jr.
per Lemuel W. Ferrell
Att'y

H. EDMUNDS, Jr.
CASE FOR ELECTRIC CONDUCTORS.

No. 291,170.

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Harold Serrell
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att'y

UNITED STATES PATENT OFFICE.

HENRY EDMUNDS, JR., OF NEW YORK, N. Y., ASSIGNOR TO THOMAS J. MONTGOMERY, OF BOSTON, MASSACHUSETTS.

CASE FOR ELECTRIC CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 291,170, dated January 1, 1884.

Application filed April 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY EDMUNDS, JR., of the city and State of New York, have invented an Improvement in Cases for Electric Conductors, of which the following is a specification.

Electric conductors have been introduced into grooved strips of wood and fastened to the walls and ceilings of buildings. In fastening these in place and in erecting wood-work near these conductor-cases, it often happens that a careless workman allows the point of a nail or a screw to penetrate the covering of the conductor and injure the insulation or draw off a portion of the current or short-circuit the same, and heat the nail or screw, and sometimes set fire to the wood-work. To obviate this the conductors have been placed in metallic tubes; but the trouble of passing the conductors through the long lengths of tubes is considerable, and the insulation is liable to be injured, and it is almost impossible to thread upon the conductor the various lengths of tubes required for the different turns and bends in putting up the wires; hence short lengths of conductors are sometimes used, but the numerous joints that are necessary seriously interfere with the reliability of the conductors. Conductors have also been placed in metal cases with covers for underground lines; but these have not been adapted to walls and ceilings. My invention is made to avoid these difficulties; and it consists in combining with the covered insulated conductors a two-part metallic case, that is divided longitudinally, so that the foundation portion of the case can be put up against the wall or ceiling. Then the wires can be laid in place, and afterward the covers of the case can be applied to inclose the conductors and prevent them being injured, at the same time preventing injury or risk of fire in a building, because the case, having a greater conductivity than the inclosed wire, can never become heated by any current passing through the same from accidental contact or short-circuiting of the parts.

In the drawings, Figure 1 represents a portion of a case for two separate conductors. Fig. 2 is a cross-section of the same at the line $x'x'$. Fig. 3 is an elevation of a case for the two conductors in one compartment. Fig. 4 is a

cross-section of the same at the line xx . Fig. 5 represents a bend in the case. Fig. 6 shows a T or branch connection. Fig. 7 is a representation of the cases and a junction-box. Fig. 8 is a section of the same, and Fig. 9 is a cross-section of a form of case with a filling of cement.

The conductors $a a'$ are of ordinary character, covered with insulated material. The case is made of the stationary portion d , that is fastened against the wall or ceiling by screws or nails, and the cover portion d' , that is removable and is attached after the wires are in place. The bands m serve to secure both parts of the case together and to the wall or ceiling. It is advantageous to perforate the case d at intervals, either at the middle of the trough-shaped portion or at the web e , between the two parts $d d'$, Fig. 2, so that nails or screws may be employed in attaching the back parts of the case to the wall before the conductors are introduced into the same. It is generally preferable to employ small filling-pieces at intervals to hold the conductors centrally in the case, or suitable cement may be used for the same purpose, and the outer half of the case, when applied, snaps over or into the stationary portion of the case when pressed into place, and bands m may be employed across the case at intervals to be screwed to the wall, and hold the case firmly in place. When the wire is to be bent at right angles, it is passed through a curved case, d'' , (see Fig. 5,) each part of the curved case being of a corresponding sectional shape to the other parts, $d d'$, of the case. The T-shaped case (shown in Fig. 6) is made for taking off branch circuits. It is similar in section to the adjoining cases $d d'$, and it is secured in place by screws. Where there are branch wires $b b'$ passing off in both directions, the junction-box c , Figs. 7 and 8, allows the conductors to pass entirely across each other without either one interfering with the other. In this case the main conductors are bent up, so as to allow the branch wires to be taken off above and below without approaching near to each other, thereby avoiding any risk of short-circuiting or a spark passing from one to the other. The cap c' serves to cover the junction-box.

When the case is filled in with cement, it is

generally preferable to employ the shape of case shown in Fig. 9, so that the cap-plates d' may be put on in sections as the filling progresses. The edges of the cap-plates are retained behind ribs or projections at the edges of the case d .

I claim as my invention—

The metallic case d , adapted to be fastened to the wall or ceiling, and the metallic cover d' , resting upon the same, in combination with the grooved intersection-block or junction-box

e , of insulating material, and the electric conductors introduced into such grooves, and the cap-piece c' , secured at the intersection, substantially as set forth.

Signed by me this 29th day of March, A. D. 1883.

HENRY EDMUNDS, JR.

Witnesses:

GEO. T. PINCKNEY,
WILLIAM G. MOTT.