

No. 632,211.

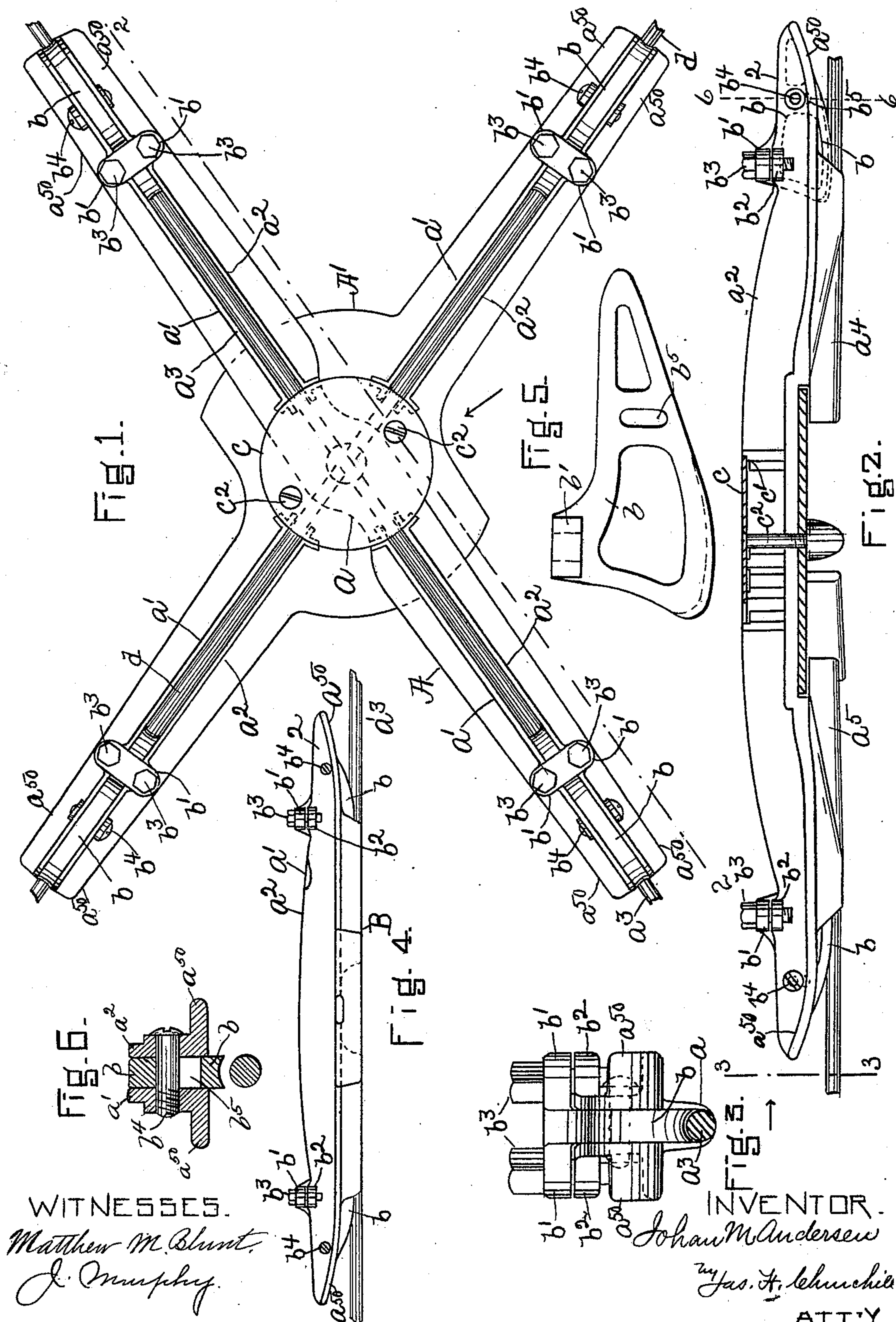
Patented Aug. 29, 1899.

J. M. ANDERSEN.

ELECTRIC CONDUCTOR SUPPORT.

(Application filed July 2, 1897.)

(No Model.)



UNITED STATES PATENT OFFICE.

JOHAN M. ANDERSEN, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO ALBERT ANDERSON, OF SAME PLACE.

ELECTRIC-CONDUCTOR SUPPORT.

SPECIFICATION forming part of Letters Patent No. 632,211, dated August 29, 1899.

Application filed July 2, 1897. Serial No. 643,183. (No model.)

To all whom it may concern:

Be it known that I, JOHAN M. ANDERSEN, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented an
5 Improvement in Electric-Conductor Supports, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

10 This invention relates to an electric-conductor support of the class shown and described in United States Patent No. 531,354, granted to me December 25, 1894.

My present invention has for its object to
15 improve the construction of electric-conductor supports of the class referred to, whereby sparking is avoided when the trolley-wheel meets and leaves the said support, and also to provide a more efficient means for secur-
20 ing the trolley-wire to the support.

Figure 1 is a top or plan view of an electric-conductor support embodying this invention; Fig. 2, a section on the line 2 2, Fig. 1, looking in the direction of the arrow thereon;
25 Fig. 3, a section on the line 3 3, Fig. 2, looking toward the right; Fig. 4, a modification to be referred to; Fig. 5, a detail of the clamping-dog; and Fig. 6 a section on the line 6 6, Fig. 2.

30 In Figs. 1 and 2 I have shown my invention as embodied in a crossover comprising two members A A', pivotally secured together. The member A comprises a substantially flat central portion a , from which extend substantially diametrically opposite upright walls a'
35 a^2 , connected at their bottom to form a groove or way in which is placed the trolley-wire a^3 , the said groove or way being inclined downward from the center toward its outer end, so
40 that the trolley-wire may enter the said way with its under side substantially flush with the bottom of the said groove or way, which bottom is thickened from its outer end toward its center to form guiding-ribs $a^4 a^5$, (see Fig.
45 2,) having their under side substantially straight and in line with the under side of the conductor or trolley-wire a^3 . In accordance with this invention the upright walls $a' a^2$ are projected or extended beyond the outer end
50 of the bottom of the guideway or groove in which the trolley-wire a^3 is laid, and the pro-

jecting ends marked 2 extend upward above the level of the trolley-wire and form a projecting nose, which is provided with side flanges a^{50} downwardly and rearwardly curved from
55 the end of the nose to a point substantially in a vertical line with the outer end of the bottom of the groove or way in which the trolley-wire is laid, the said side flanges being then carried back substantially to the center por-
60 tion a .

The projecting nose 2 has secured between its side walls a clamping dog or cam b , having its rear end, as herein shown, made higher than the height of the nose, so that it may extend below the nose and bear upon the upper
65 side of the trolley-wire a^3 and at the same time enable laterally-extended lugs or ears b' at its upper part to extend over the upright side walls of the nose and above lugs or ears b^2 on
70 said side walls and to be firmly secured to the lugs b^2 by set-screws or bolts b^3 . The clamping-dog b is secured to the side walls of the nose by a screw or bolt b^4 , extended through the said walls and through a vertical slot b^5
75 in the clamping-dog, (see dotted lines, Fig. 2, and full lines, Figs. 5 and 6,) which slot permits the dog to move bodily up and down between the side walls of the nose to adapt itself to trolley-wires of different sizes without
80 cramping or binding at the bolt or screw b^4 .

By extending the upright walls $a' a^2$ beyond the point at which the trolley enters its guideway and providing the projecting ends of said walls with side flanges, as shown in Fig.
85 2, the formation of arcs or sparks between the trolley-wheel and the support when the trolley-wheel both meets and leaves the support is avoided, for by reference to Fig. 2 it will be seen that the flanges of the trolley-
90 wheel will engage the side flanges a^{50} on the nose 2 before the said wheel leaves the trolley-wire and engages the guiding-ribs $a^4 a^5$, thereby avoiding the trolley-wheel jumping as it passes from the wire to the guiding-rib,
95 and as a result the life of the support, the trolley-wire, and trolley-wheel will be prolonged. Furthermore, the construction of clamping-dog herein shown enables the trolley-wire to be firmly clamped to the conduc-
100 tor-support without regard to the size of the said wire.

The member A' of the crossover (herein shown) carries a trolley-wire *d* and is also provided with projecting noses 2 and clamping-dogs *b*; but in other respects it is and
 5 may be of the same construction as shown in the patent above referred to, and the crossover herein shown is provided with the anti-buckling disk or plate *c*, resting on shoulders *c'* on the rear ends of the upright side walls *a' a''*
 10 and fastened by screws *c''* to the center portion of the member A'.

In Fig. 4 I have shown my invention as applied to a switch B of the construction shown in United States Patent No. 524,672, granted
 15 to me August 14, 1894, and which is provided with upright side walls *a' a''*, having the projecting noses 2, provided with the side flanges *a''* and with the clamping-dogs *b*.

I claim—

20 1. In a support for electric conductors of the class described, the combination with upright walls connected at their lower ends to form a groove, channel or way for the reception of the trolley-wire and provided with
 25 projecting ends extended beyond the outer end of the bottom of said groove or way to form a nose, side flanges attached to the projecting ends of said upright walls, and a clamping-dog secured between the side walls
 30 of said nose to engage the conductor above the outer end of the bottom of the groove or way, substantially as described.

2. In a support for electric conductors of the class described, the combination with up-

right walls connected at their lower ends to 35 form a groove, channel or way for the reception of the trolley-wire and provided with laterally-extended ears, of a clamping-dog secured between the said upright walls and provided with laterally-extended ears, and means 40 to secure the ears on the dog to the ears on the upright walls, substantially as described.

3. In a support for electric conductors of the class described, the combination with upright walls forming a groove or way provided 45 with a downwardly-inclined bottom forming a guiding-rib for the trolley-wheel in a substantially straight line with the trolley-wire, extensions of the said upright walls projecting above the trolley-wire beyond the outer 50 end of the bottom of said groove and provided with rearwardly curved or inclined side flanges, and lugs or ears on said upright walls, of a clamping-dog secured between the extensions of the upright walls and provided 55 with laterally-extended lugs or ears projecting above the lugs or ears on the said upright walls, and means to secure the lugs on the clamping-dog to the lugs on the upright walls, 60 substantially as described.

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

JOHAN M. ANDERSEN.

Witnesses:

JAS. H. CHURCHILL,
 J. MURPHY.