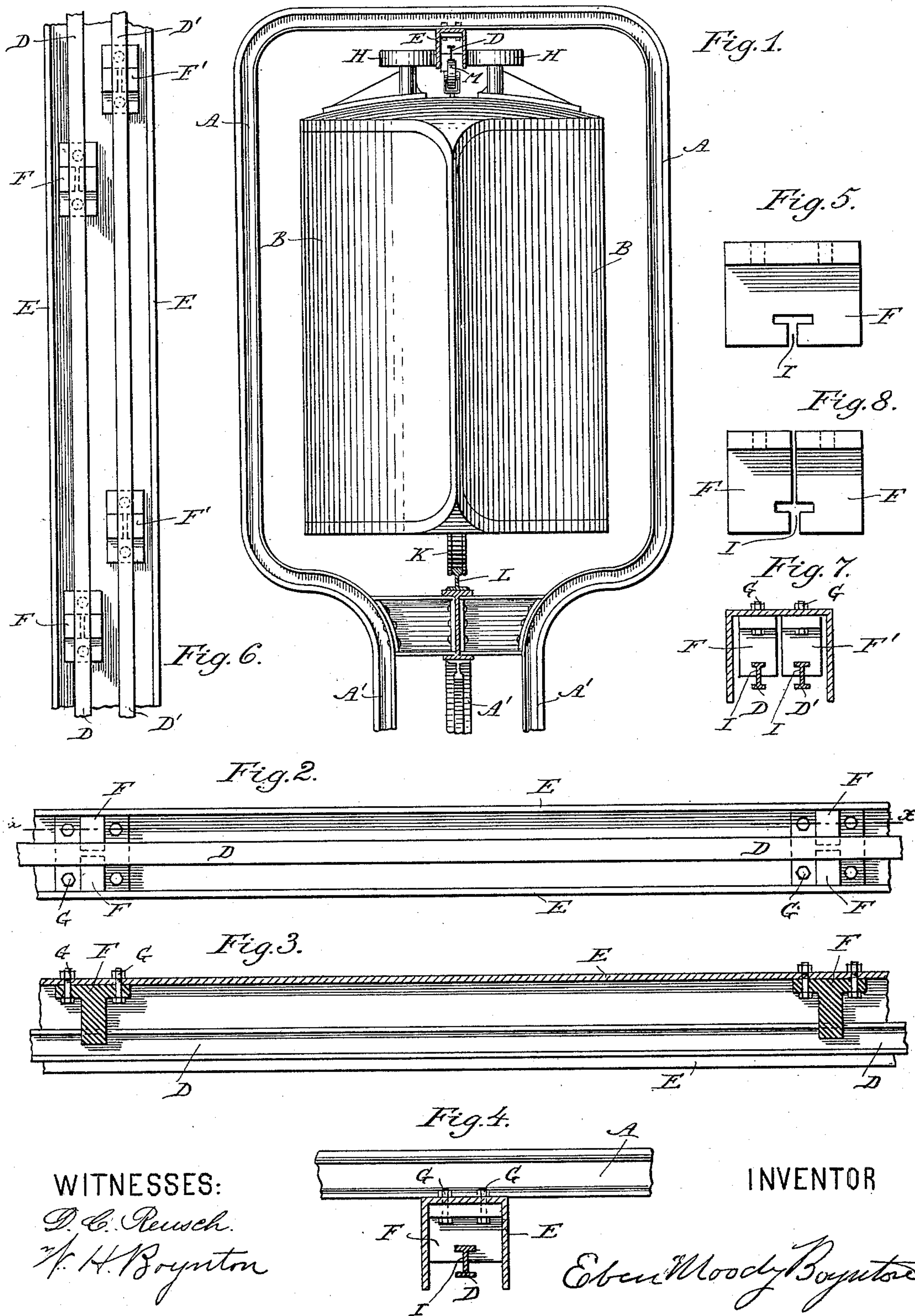


(No Model.)

E. M. BOYNTON.
ELECTRIC CONDUCTOR SUPPORT.

No. 467,679.

Patented Jan. 26, 1892.



UNITED STATES PATENT OFFICE.

EBEN MOODY BOYNTON, OF WEST NEWBURY, MASSACHUSETTS.

ELECTRIC-CONDUCTOR SUPPORT.

SPECIFICATION forming part of Letters Patent No. 467,679, dated January 26, 1892.

Application filed March 19, 1891. Serial No. 385,575. (No model.)

To all whom it may concern:

Be it known that I, EBEN MOODY BOYNTON, of West Newbury, county of Essex, and State of Massachusetts, have invented certain new and useful Improvements in Electric Conductors, of which the following is a full and clear specification.

My invention has the object of utilizing the overhead guide-beam of my bicycle-railroad system, as illustrated in Patents Nos. 359,008, 394,092, and 409,006, dated, respectively, March 8, 1887, December 4, 1888, and August 13, 1889, so that instead of only serving as a guide it also serves the purpose of guarding and supporting an electric conductor placed in its interior. The facility this combination offers for giving the conductor the necessary number of supports permits the use of a conductor of a much larger section than is possible under the present trolley systems, and also gives the opportunity for the utilization of a conductor of a higher specific resistance than copper. This reduces the construction expenses very materially, at the same time making it possible to utilize a much heavier current than a copper conductor of the smaller section, which the larger cost of material necessitates, is able to carry. The current can be returned to the generator either through the supporting-rail or through the overhead guide-beam.

Reference is to be had to the accompanying drawings, forming part of the specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a cross-section of an elevated structure, showing a bicycle-car in position. Fig. 2 is an inverted plan of the overhead guide-beam, showing the conductor inside same. Fig. 3 is a sectional elevation of Fig. 2, taken on the line X X. Fig. 4 is a cross-section of Fig. 2. Fig. 5 gives an enlarged detail view of the conductor-support. Fig. 6 is an inverted plan like Fig. 2, with two conductors instead of one. Fig. 7 is a cross-section of Fig. 6. Fig. 8 is a variation of Fig. 5, showing the same in two sections.

In the drawings, A A is the arch supporting the overhead guide-beam E.

B B is the car, with the driving-wheel K resting on rail L.

A' A' is the supporting-column.

The top of the car is guided by the rollers H H, and the current is taken from the con-

ductor D by the trolley-wheel M, and is returned to the generator through rail L. As shown in Fig. 4, the conductor D is suspended from a block F, of insulating material, fastened to the top of guide-beam E by bolts G G. Fig. 5 gives a more detailed view of F, also showing the slot I, of a form corresponding to the section of D, in which the latter is resting, held there by friction or in any other suitable manner. The insulator F can also be divided in sections, as shown in Fig. 8. The distance between the insulators F will be regulated by the stiffness of the conductor D, as it is desirable to have as few as possible, thus giving less opportunity for leakage of current and relying upon the surrounding air-space as the best insulator. If it is not desirable to return the current to the generator through the rail L or guide-beam E, the latter perhaps being constructed of wood, a second conductor F' can be inserted inside E for this purpose, as shown in Figs. 6 and 7. The conductors may be supported by one and the same insulator, or, which is preferable, by separate ones, as shown in the drawings, thus insuring better insulation.

I do not confine myself to any special form of this conductor, as it is obvious that many other forms may serve the purpose; neither do I limit myself to any particular form of the insulators, as these may either be in one piece or in several sections, as their main purpose is to support the conductor.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A bifurcated beam having in its interior blocks of insulating material, from which blocks one or more conductors are suspended, substantially as set forth.

2. A bifurcated beam and a car provided with wheels bearing against the beam, utilizing the same as a guide, said beam having in its interior blocks of insulating material, from which blocks one or more conductors are suspended, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

EBEN MOODY BOYNTON.

Witnesses:

C. C. VAN SANTEN,
W. H. BOYNTON.