(No Model.)

W. LAWRENCE.

CURRENT CONVEYER FOR ELECTRIC RAILWAYS.

No. 505,204. Patented Sept. 19, 1893.

Fig. 1.

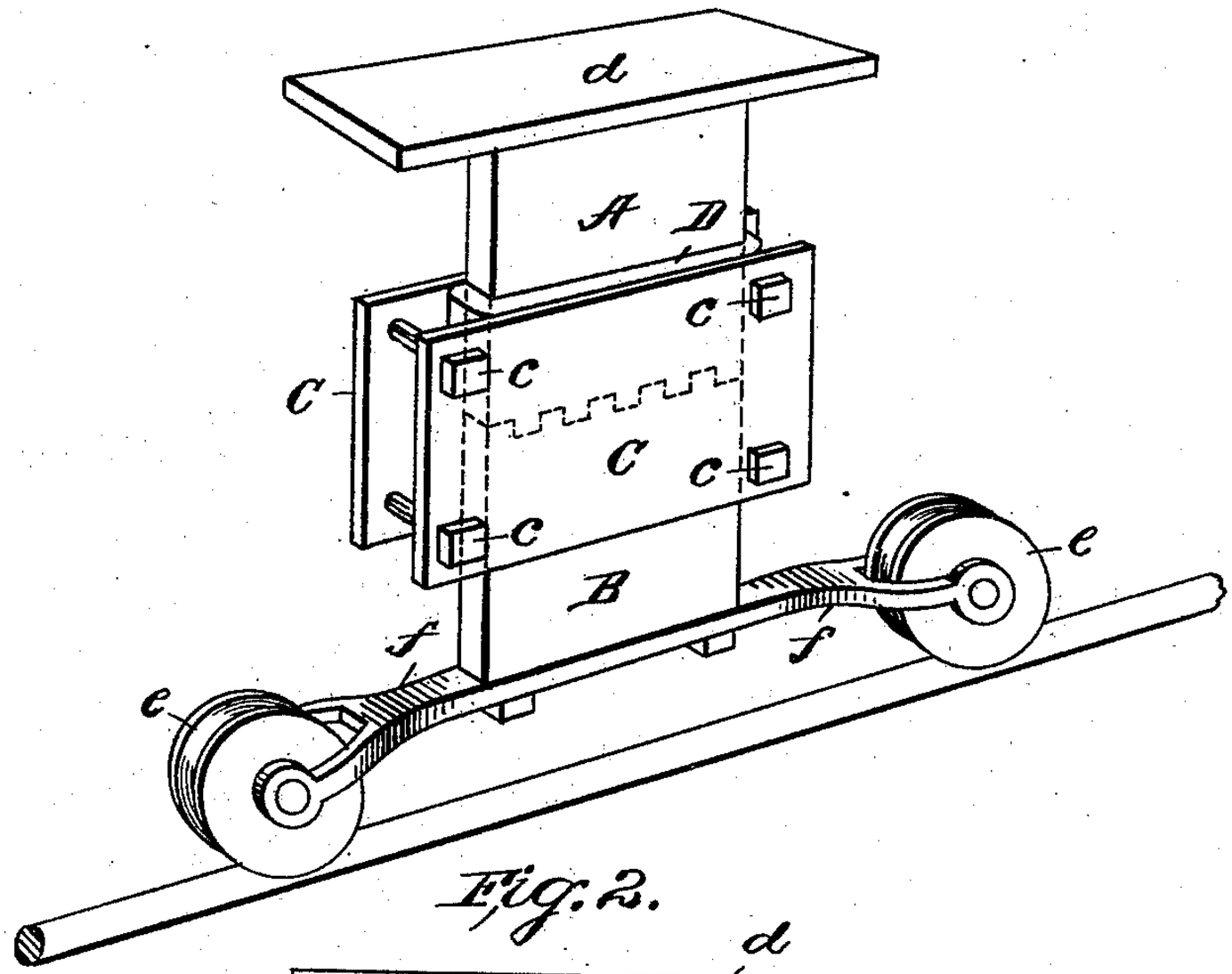
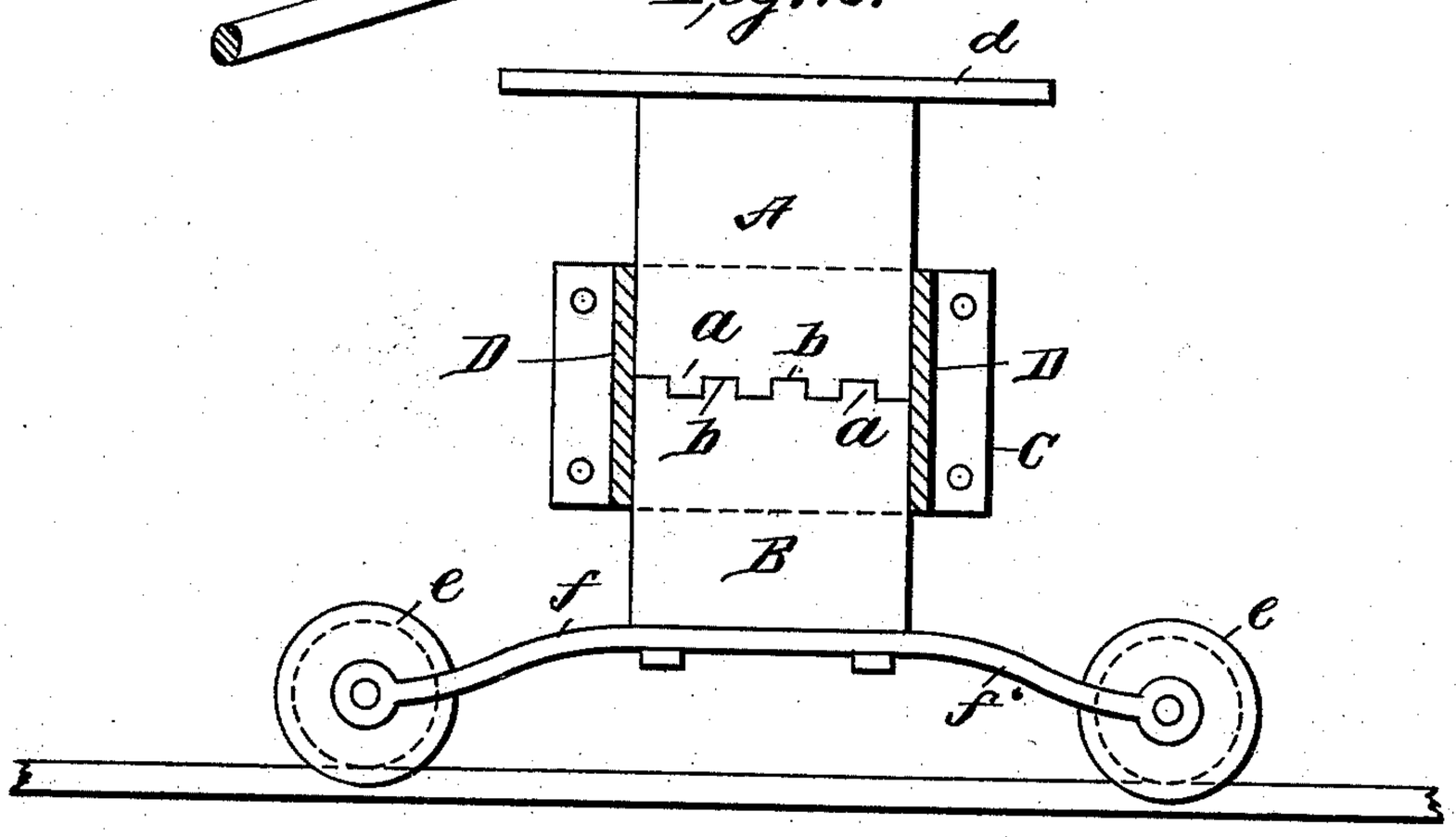


Fig. 2.



Witnesses:
Mark M. Dickey
E. E. Mecares.

Inventor,
Wm Lawrence
By Fr Baker
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM LAWRENCE, OF NEW YORK, N. Y., ASSIGNOR TO THE LAWRENCE ELECTRIC COMPANY, OF SAME PLACE.

CURRENT-CONVEYER FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 505,204, dated September 19, 1893.

Original application filed August 17, 1892, Serial No. 443,323. Divided and this application filed June 27, 1893. Serial No. 478,942. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LAWRENCE, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Electric-Current Conveyers, of which the following is a full, clear, and exact specification.

This application is a division of my former application, Serial No. 443,323, filed August 17, 1892, for improvements in electric engines.

My invention pertains to the means employed for conveying the current from an electric wire to a current distributer connected with propelling apparatus, and its object is to provide a contact or conducting plate formed in two parts held together within suitable insulation by an outer casing, whereby should said outer casing become worn through, the lower part of the contact plate will fall away, and danger of the current becoming grounded will be avoided.

My invention also comprises means for maintaining a perfect connection between the wheels of the contact plate and the electric wire.

In order that my invention may be properly understood and explained in detail, I have annexed hereto a sheet of drawings, in which—

Figure 1 is a perspective side elevation of my contact plate complete, and Fig. 2 is a side elevation of the same, showing the insulating material in section.

The contact plate consists of two separate parts A and B, which are adapted to fit together to make electrical contact. The plates are shown provided with the tongues *a* and grooves *b*, or their equivalent, the tongues of the one part entering the grooves in the other part, whereby the two parts form one substantially continuous plate. The plate A B thus organized is protected by plates C which serve to incase the parts A B, thus covering the joint *a b;* and said plates C are shown extended at the sides to enable bolts *c*, or their equivalent, to be passed through said extended ends to hold the casing against the parts A B. But the casing C may be otherwise suitably held on plate A B.

D, indicates suitable insulating material which is wrapped around the parts A B, insulating said parts from the casing C. It will be seen that with insulating material D of a more or less elastic nature, and the casing C clamped against the insulating material, the parts A and B will be held securely together. The upper or part A of the contact plate has a suitable connecting piece *d* formed therewith or secured thereto to connect with a distributing plate on a vehicle.

The lower part B of the contact or conducting plate is provided with grooved contact wheels *e*, which are adapted to engage with an electric wire or conductor F. I have shown two of these contact wheels *e* in the drawings, but it is obvious that a greater or less number may be employed without departing from my invention. Said contact wheels may be provided at either end of a bow or other shaped spring *f* which is secured to the lower part B of the contact plate (as seen in Fig. 1), or, it is obvious, said contact wheels may be journaled directly in said part B or in an extension thereof.

What I claim, and desire to secure by Letters Patent, is—

1. A contact plate for conveying the current of electricity from an electric wire, said plate consisting of two separate parts tongued and grooved together, and incased within suitable insulating material, an outer casing for holding the latter, a bow shaped spring secured to the lower edge of said plate, and grooved contact wheels at its outer ends, substantially as shown and for the purposes described.

2. A contact plate formed in parts, fitted one against the other, insulating material around said parts, a casing binding said parts together, and contacts connected with one of said parts, substantially as set forth.

3. A contact plate formed in parts fitted together, a casing holding said parts together, insulating material between said plate and said casing, wire engaging contacts and movable connections carrying said contacts and connected with said contact plate, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM LAWRENCE.

Witnesses:

JULIUS KIRKFELD,

MARK M. DECKER.