(No Model.)

P. C. RICKETTS.

RAILWAY CAR ELECTRICAL CIRCUIT COUPLER.

No. 281,730. Patented July 24, 1883.

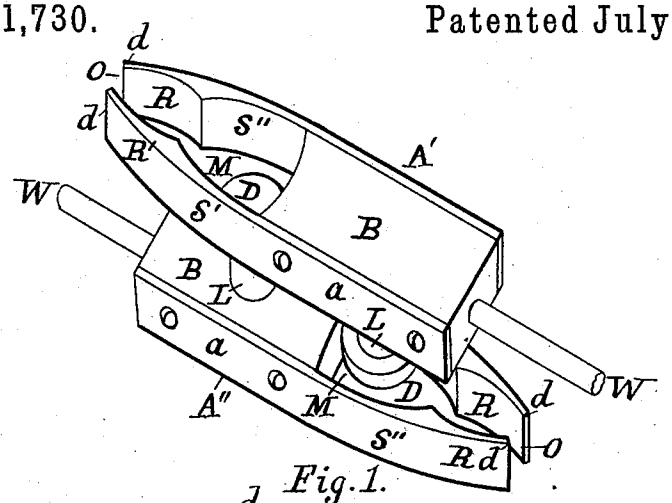


Fig. 1.

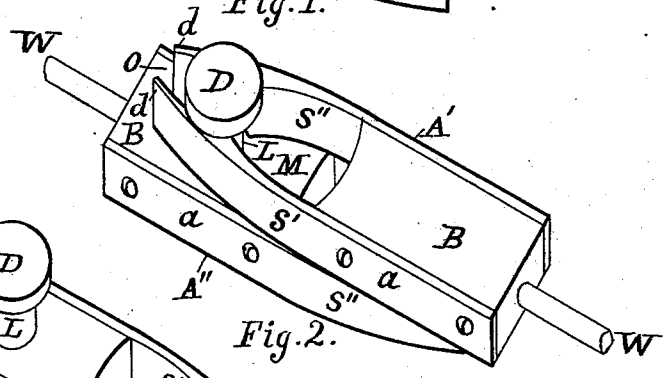


Fig. 2.

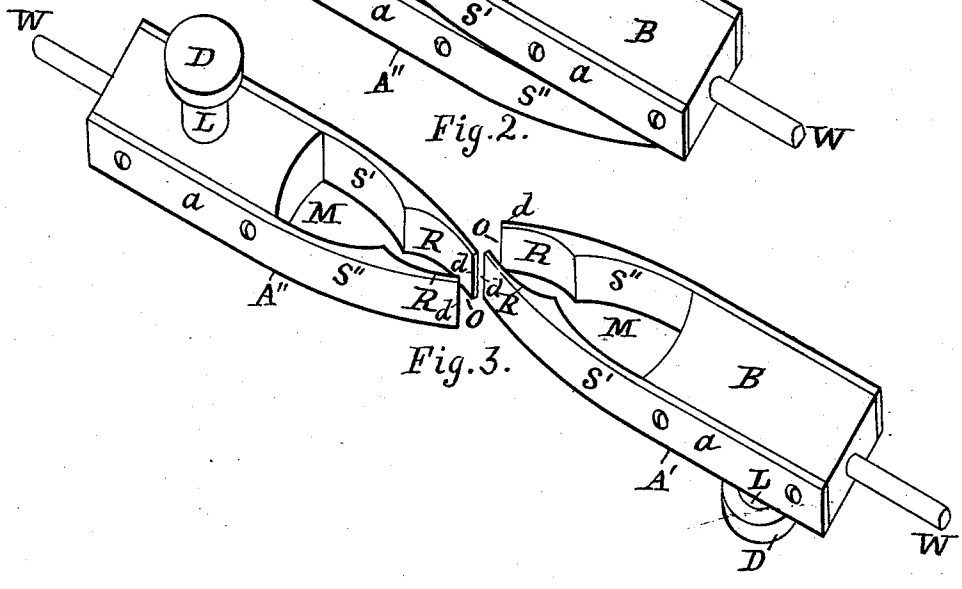


Fig. 3.

Witnesses:

Clarence B. Cutler

Harry P. Fielding

Inventor:

Palmer C. Ricketts

by W. E. Hagan

his attorney.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

PALMER C. RICKETTS, OF TROY, NEW YORK.

RAILWAY-CAR ELECTRICAL-CIRCUIT COUPLER.

SPECIFICATION forming part of Letters Patent No. 281,730, dated July 24, 1883.

Application filed October 7, 1880. (No model.)

To all whom it may concern:

Be it known that I, PALMER C. RICKETTS, of the city of Troy, county of Rensselaer, and State of New York, have invented a new and useful Improvement in Couplers for the Electric Wires on Railroad-Trains, of which the following is a specification.

My invention relates to such devices as are designed for connecting and disconnecting the wires employed to utilize an electric circuit for signalizing purposes upon a train of cars.

My invention consists in the peculiarly-constructed electric-circuit coupler, as will be hereinafter more fully set forth, and pointed out in the claims.

In the accompanying drawings, forming a part of this specification, there are shown three figures illustrating my invention, and in each of which the same reference-letters are used to designate corresponding parts.

Figure 1 shows in perspective a view of the two-part coupler, with the two corresponding parts composing it separated, one being over and above the other. Fig. 2 illustrates in perspective the coupler parts united and in position to connect the circuit-wires. Fig. 3 exhibits in perspective the two parts of the coupler disconnected.

The several parts composing the apparatus are designated by letters of reference and their co-operating connection described as follows:

The letters A′ and A″ designate the two corresponding parts of the coupler.

S′ S″ denote the two digital metallic leaf-springs, which are attached, at one end of each, to a separating metallic brace, B, at *a*, and which are from this point constructed to taper, so as to approach each other at their digital ends *d d*, with the space O between the latter. Upon the inner and opposite sides of each spring are formed, near the digital ends of the latter, the recesses R R. From the face of each of the braces B are projected the metallic pins L L, and these pins have on their outer ends the bosses or knobs D D. The circuit-wires are designated at W W, and as attached to the ends of the braces exteriorly.

The wires may be screwed into the braces, or connected thereto by any other suitable means which will secure a good metallic contact or electrical connection.

The two parts of the coupler designated as A′ and A″ are both made alike, and when it is desired to connect them for electrical-circuit uses, the pin of each is inserted in the space between the springs (designated at M) of the other, as shown in Fig. 1, and their parallel faces brought together. Then the two parts of the coupler are drawn outwardly by means of the wires, and until the pins L L of each part of the coupler are grasped and clutched by the recesses R R of the other, and in the position as shown at Fig. 2.

When unusual tension upon the circuit-wires occurs from disconnecting the cars, the springs S′ S″ separate at their digital ends, so as to allow the pins of each coupler part to pass through the space O of the other, and thus automatically to disconnect and break the circuit without disturbing the other connections made between the wire and cars. This method of coupling does away with the necessity of disconnecting the circuit between the cars before detaching the latter, and avoids all the accidents consequent upon neglecting it.

I am aware that in a two-part coupling device for electrical conducting-wires each part has been provided with a bifurcated locking-spring arranged to enter a socket of the other part, and the two parts become thus detachably interlocked; and I do not claim such a coupling device.

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

1. The coupling device composed of two parts, each consisting of the metallic spring-fingers connected by intermediate metallic braces, and having their projecting ends adapted to clasp a pin closely between them, and a metallic pin projecting from the intermediate brace, and arranged to engage with the fingers of an opposite part of the coupler, substantially as described.

2. The combination, with the two coupler parts composed of the spring-fingers and intermediate braces, of the pins projecting from said braces, and provided with heads arranged to project across the outer edges of the fingers

when engaged therewith, substantially as described.

3. The coupling device composed of the two parts, each consisting of the spring-fingers, braces, and headed pins, as described, said fingers being separated next to the braces by the wide spaces M, permitting the passage of the pin-heads, but approaching each, and recessed at their tips to clasp the pins snugly under their heads, substantially as described.

Signed at Troy, New York, this 5th day of October, 1880.

PALMER C. RICKETTS.

Witnesses:

CHARLES S. BRINTNALL,

GILES B. VICKERY.