

(No Model.)

G. D. BURTON.

ELECTRICAL CONNECTION AND GUARD THEREFOR.

No. 346,423.

Patented July 27, 1886.

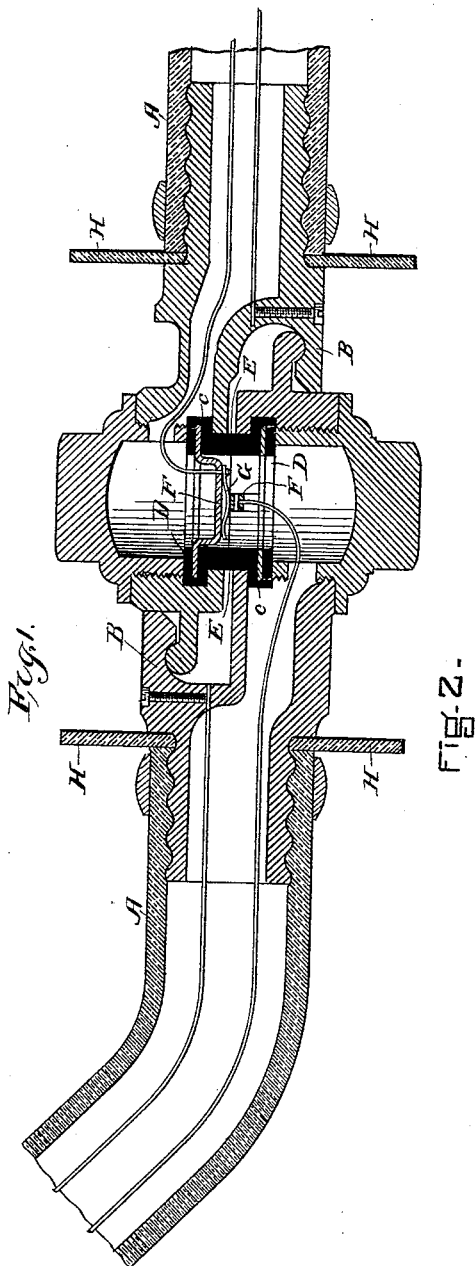
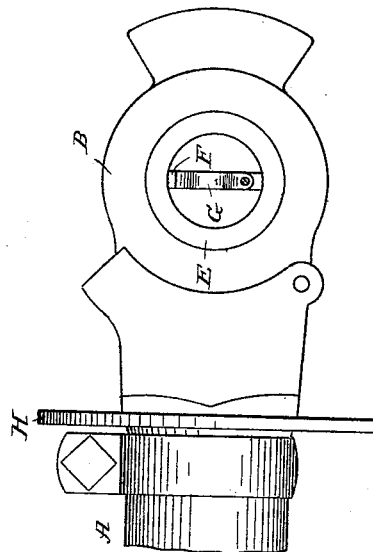


FIG. 2.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

GEORGE D. BURTON, OF NEW IPSWICH, NEW HAMPSHIRE.

## ELECTRICAL CONNECTION AND GUARD THEREFOR.

SPECIFICATION forming part of Letters Patent No. 346,423, dated July 27, 1886.

Application filed January 2, 1886. Serial No. 187,449. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE D. BURTON, of New Ipswich, county of Hillsborough, State of New Hampshire, have invented an Improved Electrical Connection and Guard therefor, of which the following description, in connection with the accompanying drawings, is so full, clear, and exact a specification of an improved form of carrying out my invention as will enable one skilled in the art to which my invention appertains to make and use the same.

This invention relates to certain new and useful improvements in electrical couplings for railway-cars; and it consists in providing the ordinary air-brake hose-couplings, in which the electrical conductors are placed, with a guard or shield, for the purpose of preventing the hands of the operator from coming in contact with the electrified metal surfaces.

In the accompanying drawings, forming a part of this specification, and on which similar letters of reference indicate the same or corresponding features, Figure 1 represents a longitudinal sectional view of the air-brake hose-coupling, showing the electrical conductors within the same and my improved guard applied thereto; and Fig. 2, a side elevation of one member of a coupling of this character, showing one of the guards.

The letter A designates the rubber sections, which are connected with the ends of the air-pipes of air-brakes, and to the free end of each section is attached in any convenient manner one member, B, of a coupling. This coupling is fashioned after the manner of the ordinary Westinghouse air-pipe coupling, and in this instance has placed within it the washers D, of non-conducting material, in addition to the usual washer, E. Between these washers D and the washer E are placed metallic bridge-bars F, having contact-springs G, to which the electrical conductors forming one branch of the circuit are connected. This peculiar arrangement forms the subject of Letters Patent issued to me on the 4th day of May, 1886, and numbered 341,128, for improvements in

electrical connections. The other branch of this circuit is composed of wires connected with the respective members of the coupling, as also seen in Fig. 1.

The letter H designates the special feature of this application, and this feature consists of a disk or shield, of any suitable form, constructed of some non-conducting material, as leather or vulcanized rubber. These disks are secured to the couplings or to the hose-sections in such a manner as to prevent the hand of the operator from receiving an electrical shock from the metal portion of the coupling when effecting the engagement of the members of the coupling. In this instance the shield is fitted upon the tubular portion of the coupling and held in place by the abutting end of the rubber hose. It will be observed, therefore, that when the operator grasps the hose his hands will be kept free from the metal portions of the coupling, through which, as already observed, one branch of the circuit passes.

I do not wish to be understood as confining myself to any particular shape of shield, the essential feature being to interpose some non-conducting surface of such shape and size as to prevent the hands of the operator from accidentally being brought into contact with the electrified metal portions of the coupling.

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

The combination, with an air-brake hose-section having a metallic coupling which forms a part of an electric circuit, of a non-conducting disk carried by the coupling, which acts as a shield and prevents the hand of the operator from coming in contact with the metallic portion of the coupling.

In testimony that I claim the above I have signed my name to the same in the presence of two witnesses.

GEO. D. BURTON.

Witnesses:

CHAS. F. ADAMS,  
E. F. PERKINS.