

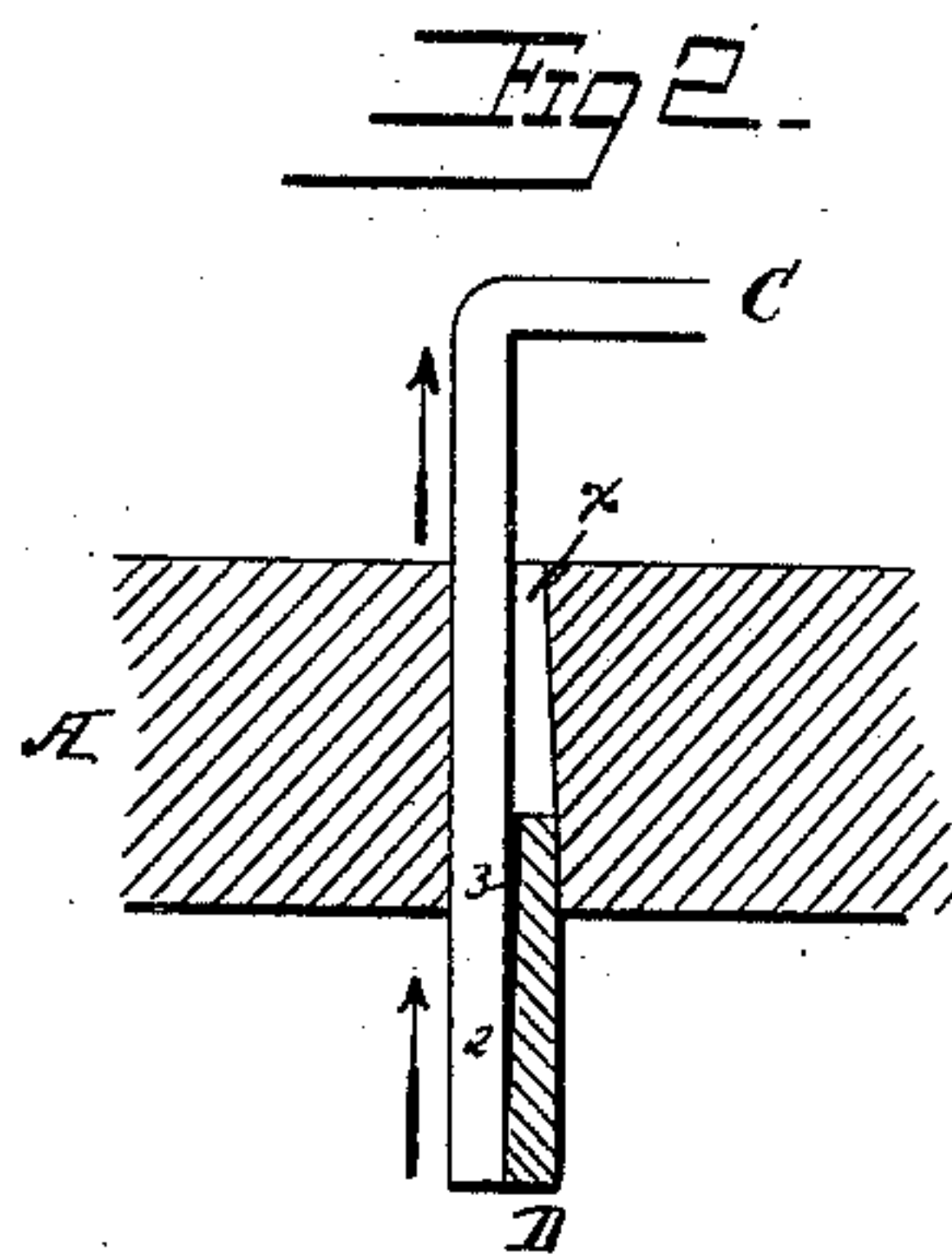
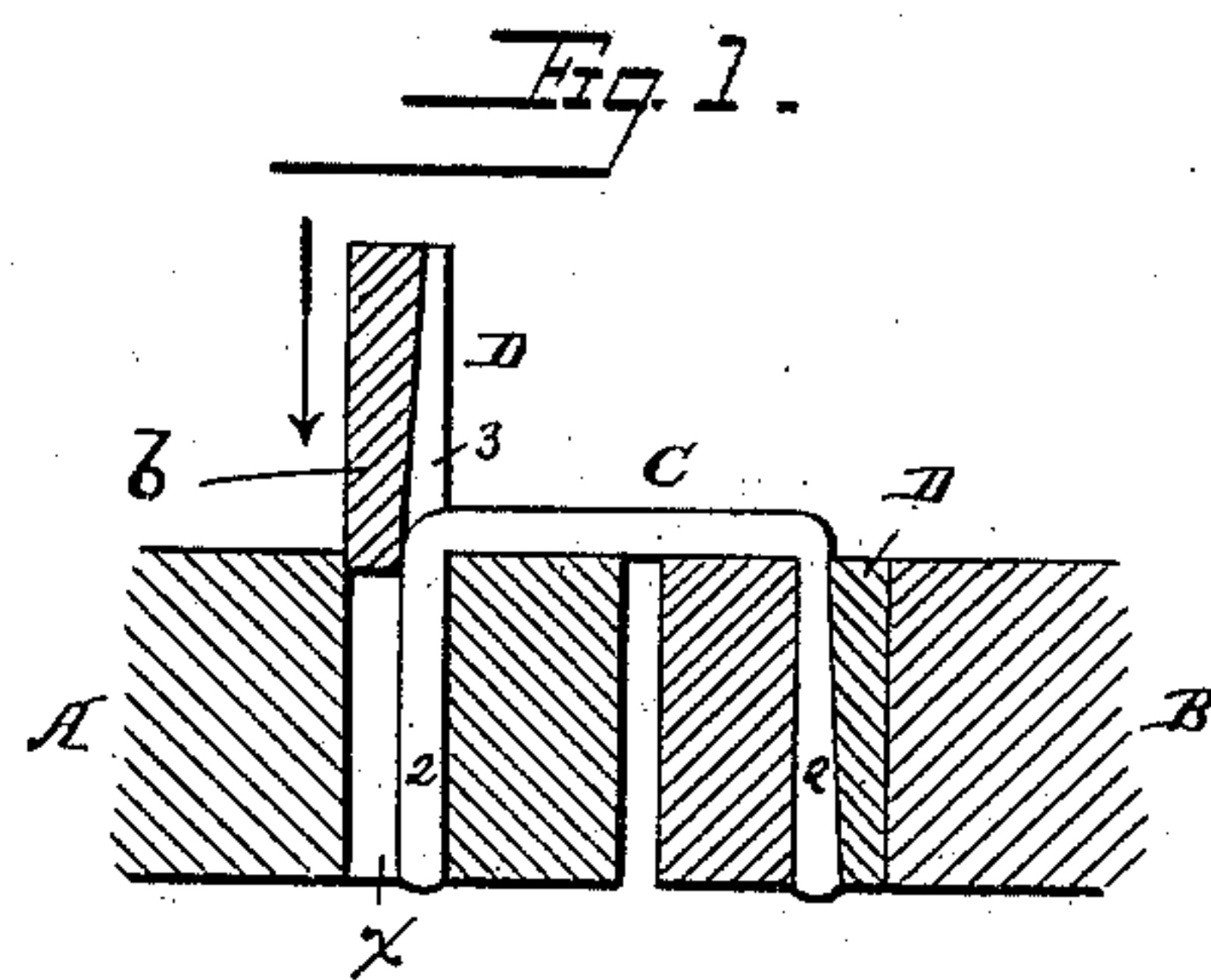
(No Model.)

E. L. ORCUTT.

RAIL CONNECTION FOR ELECTRIC RAILWAYS.

No. 378,517.

Patented Feb. 28, 1888.



Attest:
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UNITED STATES PATENT OFFICE.

EDWARD L. ORCUTT, OF SOMERVILLE, MASSACHUSETTS.

RAIL-CONNECTION FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 378,517, dated February 28, 1888.

Application filed October 29, 1886. Serial No. 217,532. (No model.)

To all whom it may concern:

Be it known that I, EDWARD L. ORCUTT, a citizen of the United States, and a resident of Somerville, Middlesex county, Massachusetts, have invented certain new and useful Improvements in Rail-Connections for Electric Railroads, of which the following is a specification.

My invention has for its object to electrically connect the abutting ends of railway-rails or the rail-sections of other electrical conductors; and my invention consists in providing the ends of the rails with transverse sockets and connecting the ends of a connecting-strip thereto by means of wedge-like pins, as fully described hereinafter, and as shown in the accompanying drawings, in which—

Figure 1 is a longitudinal section of an electrical rail-joint, illustrating my invention. Fig. 2 is a section showing another mode of using the parts.

A B are abutting rails, either railway-rails or other conductors, near the end of each of which, in the web thereof, is a transverse socket or opening, x .

C is the electrical connecting-strip, of copper or other comparatively non-oxidizable or non-corrosive metal, having its ends bent relatively to the body thereof, which ends are adapted to be inserted in the sockets in the rails; and D D are pins which, when driven into the sockets x , serve to connect the conductor-strip at each end to each rail. As shown in Fig. 1, each pin has a tapering shank, b , slightly smaller at the extreme end than the diameter of the socket x , so that when the pin is driven into the socket it will be wedged firmly therein and securely connect the strip to the rail. At the same time the surface of the pin will be forced into such close contact with the face of the socket that no moisture or other matter can penetrate between the two, no oxide can form, and the perfect electrical connection is maintained. Preferably the pins are of copper or other soft metal, so as to readily take the contour of the socket. The shanks of the pins may be round

or of any other configuration to correspond with the sockets x .

The connecting-strips C, I have shown as consisting of a rod with its ends 2 2 bent at right angles, and each pin D has a longitudinal recess, 3, contracting in depth toward the outer end and adapted to receive the bent end of the strip after the latter is inserted in the socket x .

By placing the pin in the position shown at the left in Fig. 1 and then driving it into the socket to the position shown at the right, the end of the strip is most securely wedged in its place and firmly fastened with its face in intimate contact with the pin, and the faces of the latter and the socket so closely wedged together that no moisture can penetrate between them.

In Fig. 2 the pin D is reversed, the shallow part of the channel or groove 2 being inward, the end 1 of the strip C is pushed through the socket and laid in the channel, and the pin and strip are together driven into the socket.

In each arrangement above described the strip C is of such a length between the pins that its body will be bent or bowed as the ends of the rails A B are brought together and will flatten as the rails separate, thus accommodating itself to the contraction and expansion of the rails. It will also be seen that in each case the pin can be readily removed by applying a punch to its inner end and driving it outward.

Without limiting myself to the precise construction and arrangement of parts shown, I claim—

The combination of the socketed rails, connecting-strip bent at the ends, and pins having longitudinal channels increasing in depth toward one end and wedging the ends of the strip in the socket, substantially as described.

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

EDWARD L. ORCUTT.

Witnesses:

MORRIS E. KANALY,
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