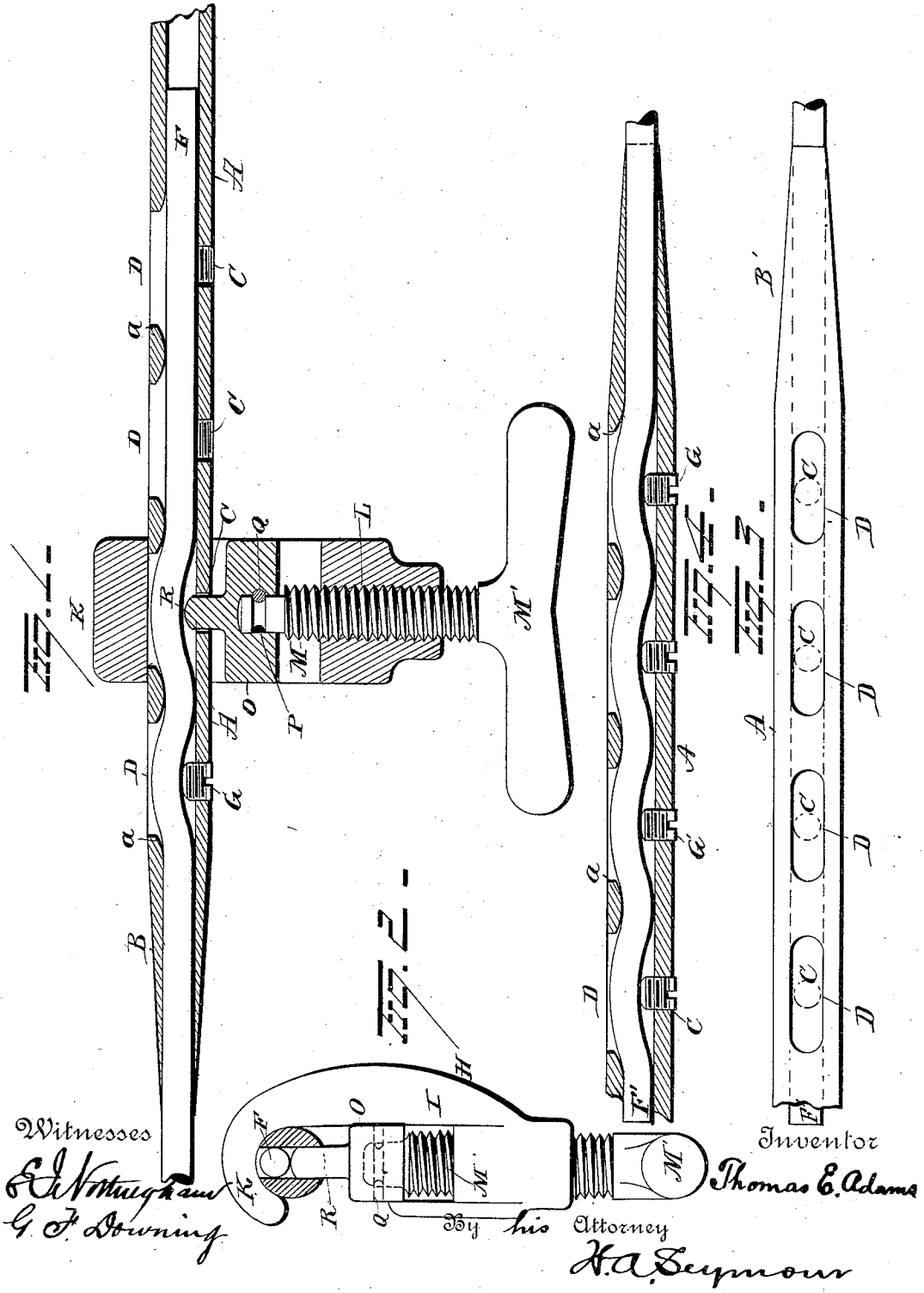
(No Model.)

T. E. ADAMS.

CONNECTOR FOR RAILWAY CONDUCTORS.

No. 416,284. Patented Dec. 3, 1889.



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

UNITED STATES PATENT OFFICE.

THOMAS E. ADAMS, OF CLEVELAND, OHIO.

CONNECTOR FOR RAILWAY-CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 416,284, dated December 3, 1889.

Application filed October 11, 1889. Serial No. 326,693. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. ADAMS, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Connectors for Electric-Railway Conductors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in connectors for electric-railway conductors; and it consists in certain features of construction and combinations of parts as will hereinafter be described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in longitudinal vertical section of my improved connector and tool for binding the wire. Fig. 2 is a transverse section of the connector and view in side elevation of the tool used in bending the wire within the connector. Fig. 3 is a plan view of the connector. Fig. 4 is a longitudinal section illustrating the wire secured in the connector.

A is a connector, preferably made of brass, though it may be made of other material, and is provided with tapered ends B B′. The lower side of the connection is provided with any desired number of screw-threaded holes C, and the upper side with any desired number of elongated slots D, the latter being located opposite the holes C. The lower corners *a* of the walls at the opposite ends of the slots D are rounded to prevent the cutting or nicking of the wire.

F F′ represent the opposite ends of a wire conductor, which are inserted in the connector and secured therein by bending the wire and forcing the bent portions into the elongated slots D, and retaining the bend in said slots, so as to bear against the rounded corners *a* by means of set-screws G.

The bending of the wire within the connector is accomplished as follows: H represents a bending-tool, and consists of a body portion I, provided at its upper end with a hook or clamp K, while its lower end has a screw-threaded hole L formed therein, within which is inserted the screw M, the latter being constructed with a handle M′. The upper end of screw M is inserted within the lower end of a vertically-movable block O, which latter is fitted in the clamp-body so as to be guided thereby. An annular groove P is formed in the upper end of the screw, and a pin Q inserted through the block enters this groove, thereby allowing the screw to be freely rotated, but securely fastening the screw to the block. The upper end of block O is provided with a projection R, which is of slightly less diameter than that of the holes C. The tool H is applied to the connector, as represented in Fig. 1 and 2, the clamp or hook portion K extending over the connector and across one of the elongated slots D. By turning the handle in one direction the block is forced upwardly and the projection R forced against the under side of the wire with a force sufficient to bend the wire and force the bend into the slot D. A set-screw G is then screwed into the connector, so as to bear against the under side of the bend and at its center, and thus lock the wire against longitudinal movement. The head of the screw when the latter is in place is flush with the lower surface of the connector, and hence does not interfere with the operation of the trolley when passing over it. Any desired number of bends may be made in the wire, thereby insuring any desired number of separate bearings of the wire on the rounded corners of the end walls of the elongated slots, and thus firmly clamping the wire and preventing its end movement or displacement.

In Fig. 1 it will be observed that the ends of the wires are at some distance apart. This arrangement may be made to allow of the taking up slack wire, and in the event this is desired the bending-tool H is applied to the connector in such manner that the bends in the wire will be straightened to permit the wire to be readjusted and any slack wire taken up, when the wire is again bent and fastened as before. The connectors may be made of considerable length, as shown, in order to allow of a sufficient number of bends in the conductor to firmly fasten it therein and also to allow the ends of the wire to be separated, if found necessary, to give slack to the conductor.

While the improvement is specially adapted for connecting the ends of the electric con-

ductors of electric railways, I do not restrict the invention to such use, as it may be employed for many other purposes.

I make no claim in this patent to the tool herein shown and described for bending the wire within the connector, but reserve such subject-matter for a separate application, it being held as a separate and distinct invention.

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

1. A tubular connector formed with tapered ends and constructed with elongated recesses on one side and with set-screws opposite said recesses, substantially as set forth.

2. A tubular connector formed with tapered ends, and provided with set-screws for fastening the conductor therein, the heads of the set-screws being flush with the surface of the connector, substantially as set forth.

3. A connector provided on one side with a series of set-screws and on the opposite side with a series of elongated recesses or openings having rounded corners formed on their end walls, substantially as set forth.

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

THOMAS E. ADAMS.

Witnesses:
W. A. PALLAUT,
JOHN C. DOLPH.