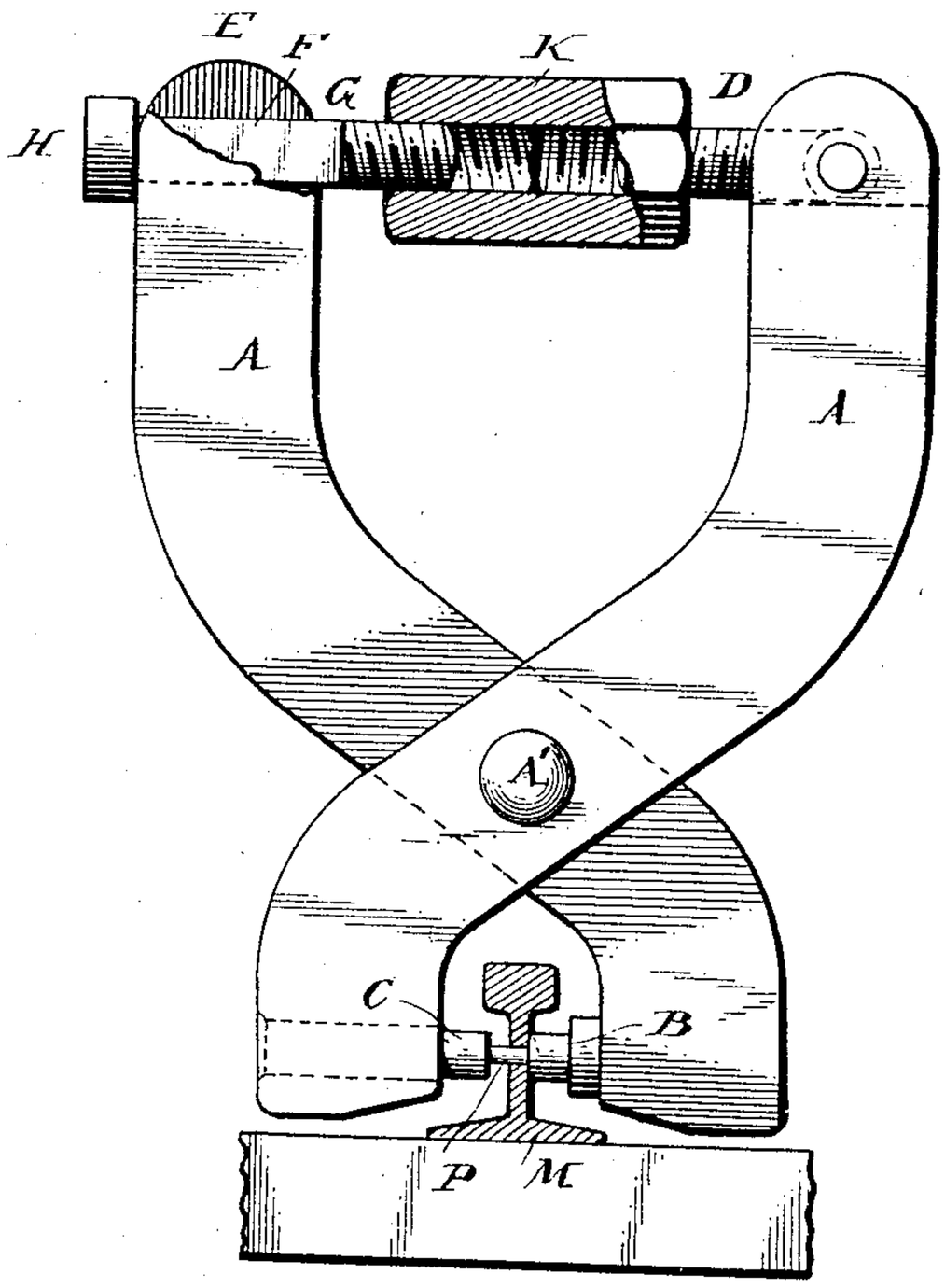
No. 779,663. PATENTED JAN. 10, 1905.

J. W. NELSON.

# RIVETING MACHINE.

APPLICATION FILED MAR. 22, 1904.




Witnesses.
C. Smith Jr.
P. W. Ashley.

J. W. Nelson Inventor
By his Attorney Oscar F. Gunn

No. 779,663. Patented January 10, 1905.

# UNITED STATES PATENT OFFICE.

JAMES W. NELSON, OF NEW YORK, N. Y., ASSIGNOR TO WILLIAM M. DUDGEON, OF NEW YORK, N. Y., EXECUTOR OF RICHARD DUDGEON, DECEASED.

## RIVETING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 779,663, dated January 10, 1905.

Application filed March 22, 1904. Serial No. 199,498.

*To all whom it may concern:*

Be it known that I, JAMES W. NELSON, a citizen of the United States, residing at the city of New York, borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Riveting-Machines, of which the following is a specification.

The object of my invention is to provide a new and improved riveting-machine which is simple in construction, can be readily transported from place to place, can easily be applied, and is especially adapted for riveting bonds on conductor-rails of electric railways.

In the accompanying drawing a side view of my improved riveting-tool as applied on a conductor-rail of an electric railway for securing the bond is shown.

The tool is constructed with two curved levers A, which are crossed and pivoted to each other at the intersection by a pivot A′, the upper arms being about twice as long as the lower arms, so that the device has the shape of an upper larger U-shaped figure and a lower smaller U-shaped figure, the U's being in contact at their cross-pieces and the lower U being inverted.

On the inner surface of one lever A at the lower end a suitable die B for receiving the head of a bond-rivet is secured, and on the inner surface of the other lever A at the lower end thereof a punch or rivet set C is secured opposite the die B.

A screw D is pivoted to the upper end of one lever A, and the upper end of the other lever is forked, as at E, and adapted to receive the outer flattened end F of a screw-bar G, provided with a head or cross piece H at its outer end.

The screw-threads on the screw D and screw-bar G are of reverse order and are screwed into the opposite correspondingly-threaded ends of a sleeve-nut K, preferably made polygonal on its outer surface to permit of readily applying an implement for turning it axially.

The device is so applied on a rail M, in which a bond-rivet P has been inserted, that the head of the bond-rivet rests in the die B and the rivet set C rests against the free end of the rivet at the opposite side of the rail. The screws and sleeve-nut are now swung down so that the free end of the screw-bar G passes into the fork E in the upper end of that lever A opposite the one to which screw D is pivoted, and the head H is at the outer edge of said forked lever, and the sleeve is turned axially to draw the screw D and screw-bar G into its ends, whereby the upper end of the levers are drawn toward each other forcibly, whereby the bond-rivet is set by the punch and die. After the bond-rivet has been set the sleeve-nut is turned in reverse direction to disengage the tool, the screws and nut are swung up, and the device can be removed to another bond-rivet and again used in the manner described.

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

1. In a riveting-tool, the combination with two crossed levers pivoted together at their intersection, of a die on the inner surface of one lever at the lower end, a rivet set on the inner surface of the other lever, at the lower end, a sleeve-nut having the ends of its bore threaded in opposite directions, a screw screwed into one end of the sleeve-nut and pivoted to the upper end of one lever, and a screw screwed into the opposite end of the sleeve-nut and provided at its free end with means for engaging the upper end of the other lever, substantially as set forth.

2. In a riveting-tool, the combination with two crossed levers, pivoted together at their intersection, of a die on the inner surface of one lever at the lower end, a rivet set on the inner surface of the other lever, at the lower end, a sleeve-nut, having the ends of its bore threaded in opposite directions, a screw screwed into one end of the sleeve-nut and having its outer end pivoted to the upper end of one lever, the

upper end of the other lever being forked, a screw screwed into the opposite end of the sleeve-nut, and having its free end shaped to pass into the fork of the lever and provided at its free end with a head-piece, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 16th day of March, 1904.

JAMES W. NELSON.

Witnesses:
OSCAR F. GUNZ,
SOPHIE M. BAEDER.