

No. 837,599.

PATENTED DEC. 4, 1906.

J. H. WILLIAMS.  
TEST CLAMP.  
APPLICATION FILED MAR. 9, 1906.

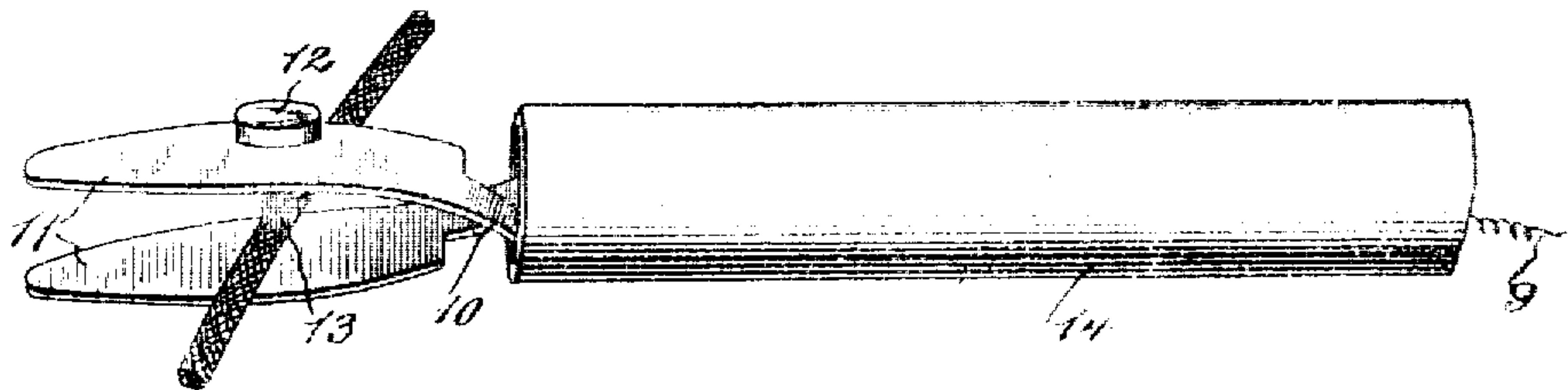


Fig. 1.

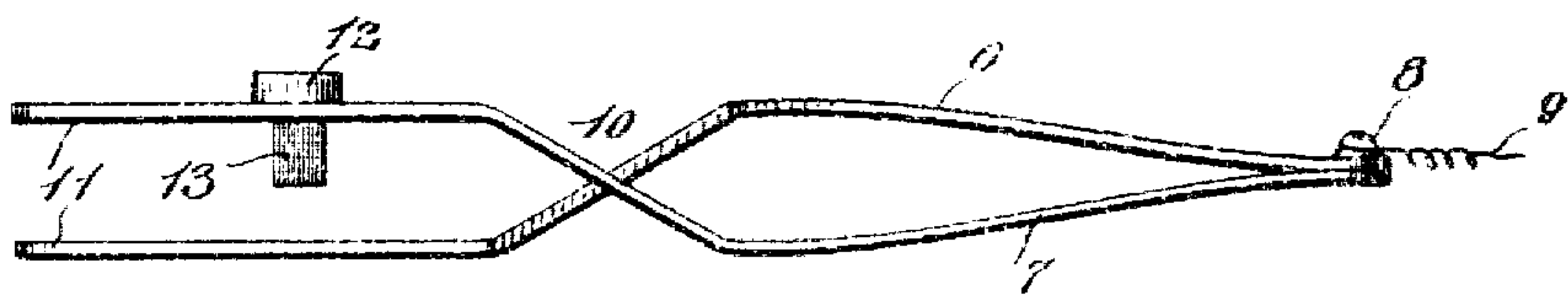


Fig. 2.

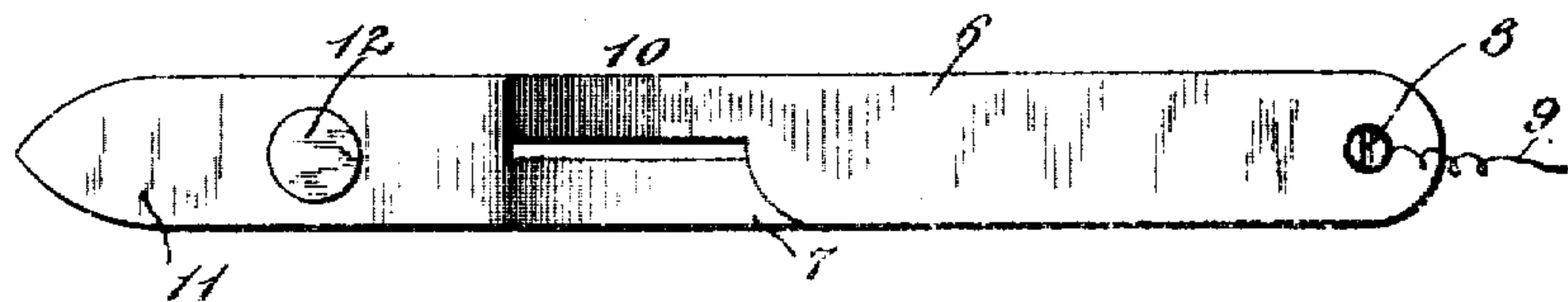


Fig. 3.

Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN H. WILLIAMS, OF EAST CLEVELAND, OHIO.

## TEST-CLAMP.

No. 837,599.

Specification of Letters Patent.

Patented Dec. 4, 1906.

Application filed March 8, 1906. Serial No. 904,988.

*To all whom it may concern:*

Be it known that I, JOHN H. WILLIAMS, a citizen of the United States, residing at East Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Test-Clamps, of which the following is a specification.

This invention is a line-tapper for electric wires designed for use on either insulated or 10 uninsulated wires.

The object of the invention is to form an improved device having points which will cut through the insulation on insulated wires for the purpose of completing a connection 15 without scraping or otherwise injuring the insulation.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the im- 20 plement applied. Fig. 2 is a side elevation thereof with the rubber sleeve removed, the sleeve being used to protect the operator in use on high-voltage lines. Fig. 3 is a top plan view.

Referring specifically to the drawings, the 25 tapper has the form of a spring-clamp having two members 6 and 7, preferably made of flat spring metal. These are fastened together at the rear end by a screw 8, which also 30 serves as a binding-post for the wire 9. The members are halved and crossed, as at 10, forming two jaws 11 between which the wire or conductor is gripped. One of these jaws

is fitted with a screw-plug 12, screwed into a hole in the jaw, and this plug has several 35 needles 13 projecting therefrom toward the other jaw. A rubber sleeve 14 covers the rear or handle portion of the clamp for use on wires having dangerous currents.

The clamp being applied to a wire, as 40 shown in Fig. 1, the members are pressed where they cross, which brings the jaws together and forces the needles 13 through the insulation of the wire into contact, the current passing through the clamp and out the 45 wire 9 to the other side of the circuit. The needles cause no injury to the insulation. The plurality of needles assures a good contact, because they will readily cut through any insulation or non-conducting material 50 which may cover the wire and give a number of points of contact.

I claim—

A line-tapper comprising a pair of crossed spring members having jaws one of which 55 has a penetrating-point projecting toward the other jaw, the members being secured together at their rear ends by a screw, and a wire secured thereto by the screw.

In testimony whereof I have signed my 60 name to this specification in the presence of two subscribing witnesses.

JOHN H. WILLIAMS.

Witnesses:

SHIRLEY BOMMARDT,  
JOHN A. BOMMARDT.