

(No Model.)

E. H. JOHNSON.

COUPLING DEVICE FOR ELECTRICAL CONDUCTORS.

No. 264,298.

Patented Sept. 12, 1882.

Fig. 1.

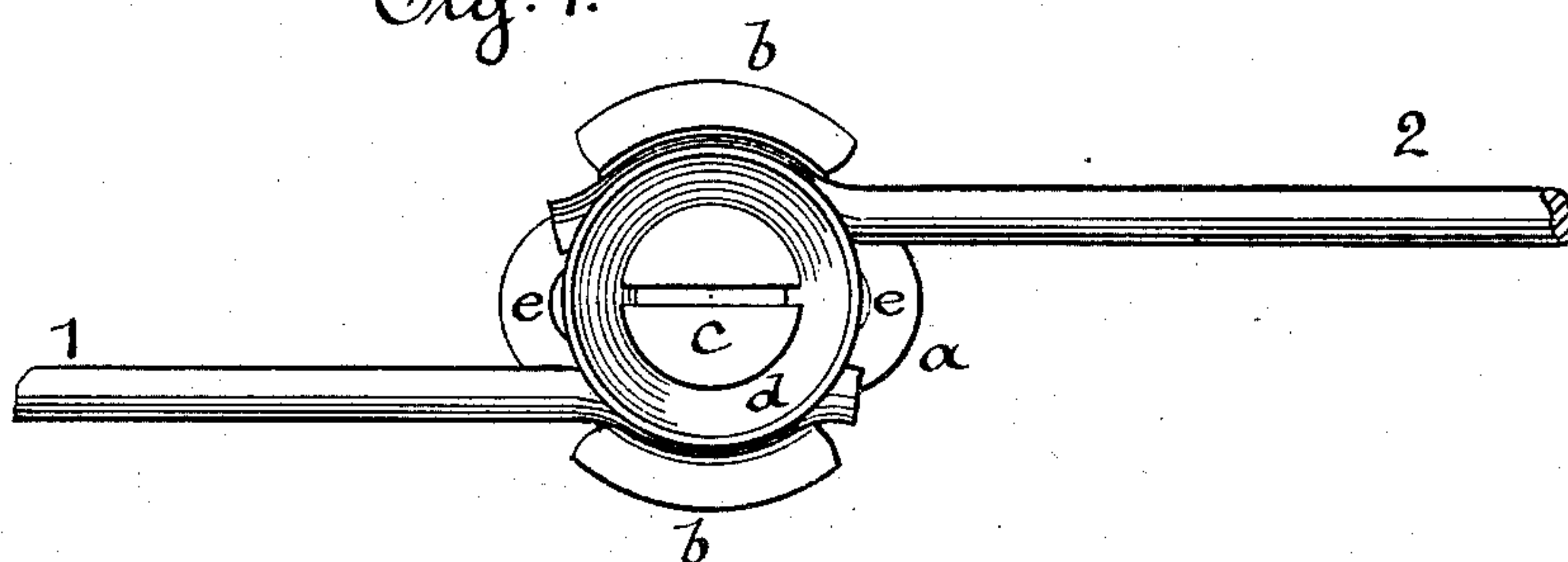


Fig. 2.

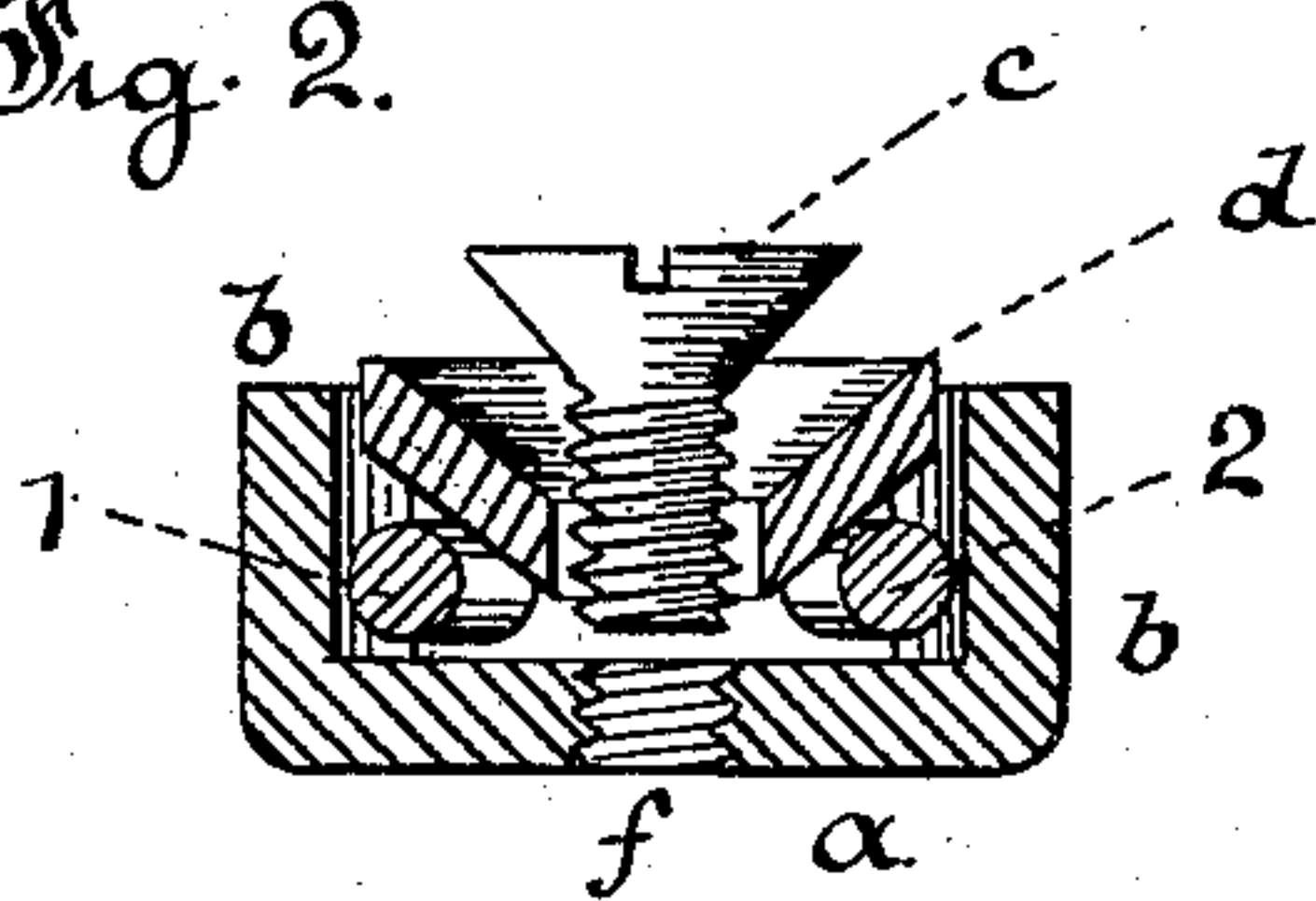
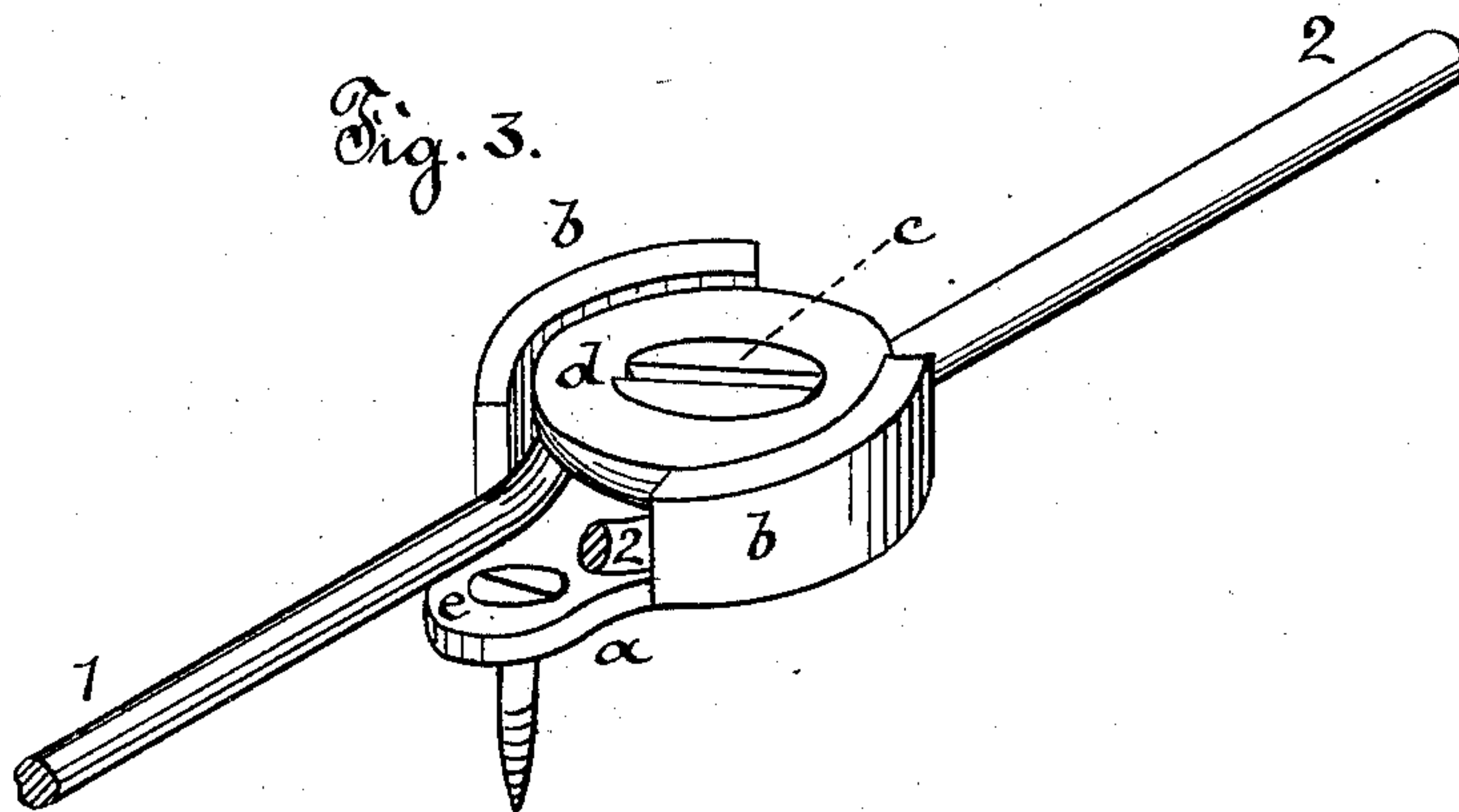


Fig. 3.



WITNESSES:

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COUPLING DEVICE FOR ELECTRICAL CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 264,298, dated September 12, 1882.

Application filed November 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, EDWARD H. JOHNSON, of New York, in the county of New York and State of New York, have invented a new and
5 useful Improvement in Coupling Devices for Electrical Conductors; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters
10 of reference marked thereon.

The object of my invention is to produce means for joining the ends of wires in electrical circuits, which shall do away with the expense and inconvenience of soldering them together, shall insure a reliable and lasting contact between the two wires, and shall so fasten them that they cannot be pulled apart. I attain these objects by the use of devices substantially as follows: The ends of the wires
20 which are to be connected are laid in a suitable receptacle, so that they (the wires) are partly inclosed at their sides, such receptacle being a metal or other cup whose sides have apertures to admit the ends of the wires, or a
25 groove or cavity cut in a block of wood or other material, or any suitable inclosure. Between the wires, whose ends must be bared of insulation, is placed the apex of a conical or wedge-shaped metal piece, which may be the
30 beveled head of a screw, the screw portion passing through the bottom of the receptacle, or a beveled washer placed beneath the head of such screw. The wires are ground down and their surfaces polished, so that good contact is made between them through the washer
35 and screw.

Devices illustrating my invention are shown in the annexed drawings, in which Figure 1 is a plan view, showing a metal cup with the
40 wires laid therein and clamped down by a screw and washer. Fig. 2 is a sectional view of the device before the wires are clamped tightly down, and Fig. 3 a perspective view similar to Fig. 1.

45 Similar letters refer to similar parts throughout the several views.

The metal cup spoken of consists of a bottom plate, *a*, and side walls, *b b*, it being left open on two sides opposite each other. Screws *e*

are used to attach the device to a wall or other body.

1 2 are the wires laid within the cup.

d is a beveled washer, placed beneath the beveled head of the screw *c*. The upper portion of the washer fits closely between the
55 sides *a a* of the cup. The screw *c* being screwed down through the screw-hole *f* in the bottom of the cup, the washer *d* forces the wires apart, bending them outwardly and pressing them
60 tightly between the washer and the sides of the cup, electrical connection being made through the washer, screw, and cup. As the wires partly encircle the washer, it is impossible to pull them out.

It is evident that the washer *d* may be dispensed with if the screw-head is large enough to fill the exterior receptacle. It is also evident that the latter need not be of metal, as connection would be made through the screw
70 or washer, or both.

The groove might be cut in a block of wood or other material, the wires laid therein, and a beveled screw forced down between them; or, instead of the sides *b b* of the cup, there might
75 simply be four studs or posts, two on each side of the wires, the wires being forced out between them.

Many other modifications might of course be made without departing from the spirit of my invention.

By the invention above described a junction of the wires is made which, while effective and permanent, is cheaply and easily formed, requiring no especial skill to make it, as all that is necessary to insure perfect contact is to drive the screw in as tightly and
85 closely as possible.

I do not claim broadly a device for joining the ends of metallic wires or bands, consisting of an exterior supporting-case and a wedge
90 driven or placed in between the wires or bands and adapted to force them against the exterior case and to retain them in position, as such a device broadly has hitherto been used.

What I claim is—

1. In a device for joining the ends of wires, the combination, with exterior supports adapted to receive said ends and provided with a

screw-threaded aperture, of a bevel-headed screw, substantially as and for the purposes set forth.

5 2. In a device for joining the ends of wires, the combination, with exterior supports for said wires, of a bevel-headed screw and beveled washer and means for retaining the bevel-headed screw in position, substantially as and for the purpose set forth.

This specification signed and witnessed this 10
19th day of September, 1881.

EDWARD H. JOHNSON.

Witnesses:

H. W. SEELY,
RICHD. N. DYER.