Oct. 16, 1923. 1,471,173

J. A. KULIER

TERMINAL FOR ELECTRIC CONDUCTOR WIRES

Filed March 24, 1920

Fig. 1.

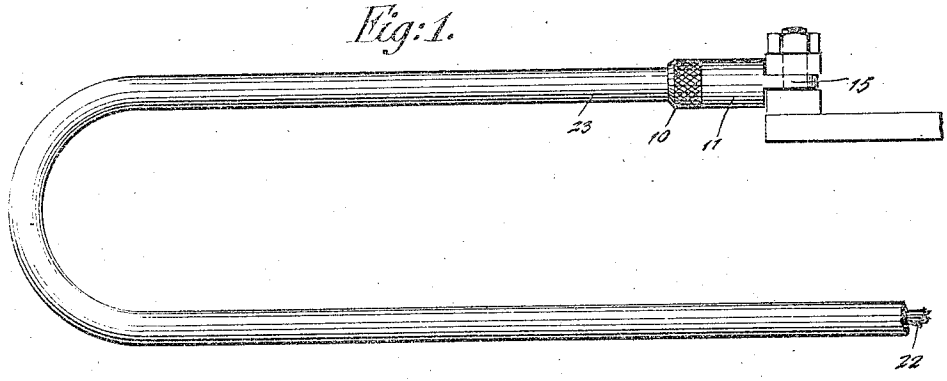


Fig. 2.

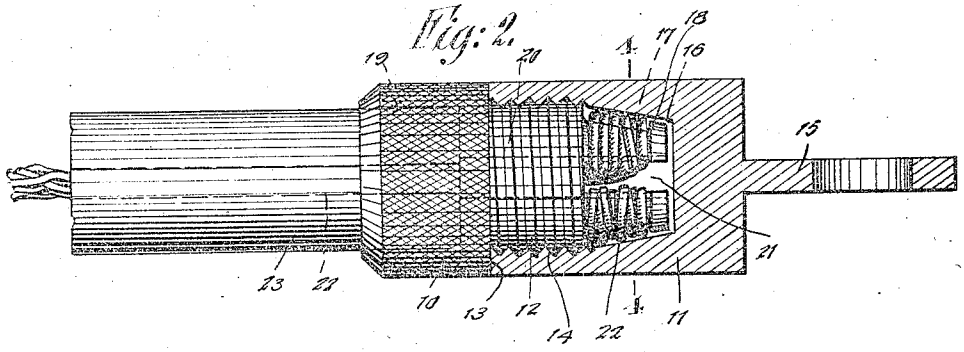


Fig. 3.

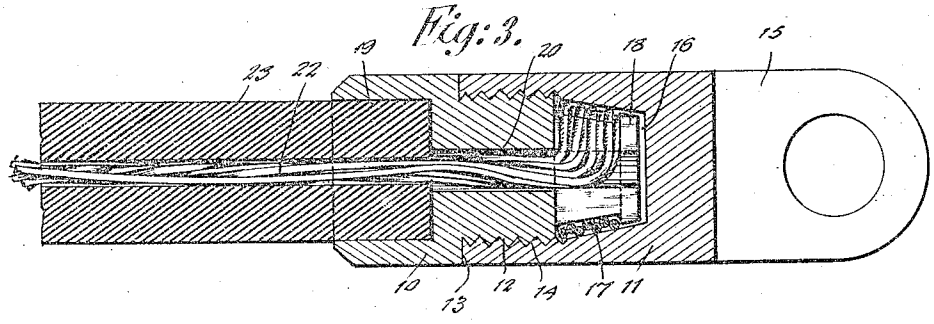
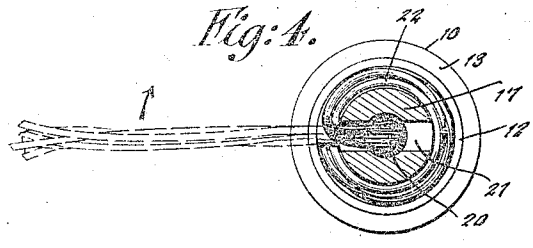


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN ANTON KULIER, OF BROOKLYN, NEW YORK.

TERMINAL FOR ELECTRIC-CONDUCTOR WIRES.

Application filed March 24, 1920. Serial No. 368,237.

To all whom it may concern:

Be it known that I, JOHN ANTON KULIER, a citizen of the United States, and resident of Brooklyn, in Kings County, city, and State of New York, have invented certain new and useful Improvements in Terminals for Electric-Conductor Wires, of which the following is a description.

The present invention relates to improvements in terminals for electric conductor wires, and has for its object to provide a terminal of simple and reliable construction which may be connected to a wire in a manner as to insure the greatest electrical efficiency, and a strong connection mechanically incapable of being accidentally pulled apart or loosened.

A further object is to dispense with the the use of set screws, other easily disturbed parts and soldering and provide a construction which will be substantially moisture-proof at its interior.

With these and other objects in view an embodiment of my invention is shown in the accompanying drawings, and this embodiment will be hereinafter more fully described with reference thereto, and the invention will be finally pointed out and claimed.

In the accompanying drawings:

Figure 1 is a view showing an embodiment of my invention, connected to a terminal screw.

Figure 2 is an enlarged view showing a device partly in section.

Figure 3 is a vertical longitudinal sectional view, and,

Figure 4 is a cross sectional view taken along the line 4—4, the parts shown in section in Figure 2 being removed.

Similar reference characters indicate corresponding parts throughout the several figures of the drawings.

Referring to the drawings, the embodiment of my invention shown therein comprises two cooperating members 10 and 11, the member 10 being reduced and screw-threaded at its upper portion, as at 12, forming a shoulder 13 adjacent the screw-threads, the member 11 being socketed and interiorly threaded, as at 14, to engage the threads of the portion 12 of the member 10, the lower shoulder portion of the member 11 engaging tightly upon the shoulder 13 of the member 10. The shoulder portions of the member 10 and the member 11 preferably have cylindrical outer surfaces of corresponding diameter, and either or both may be knurled to facilitate relative turning. In the illustration I have shown the member 10 knurled.

At one end of the member 11 there is provided a flat apertured portion 15, adapted to be engaged with a terminal screw or the like, as shown in Figure 1.

The socket of the member 11 is tapered inwardly of the screw threads, as at 16, forming a conical side wall, and upon the member 10 there is provided a conical head 17 having at its end an annular flange or shoulder portion 18, the conical surface of the head and the periphery of the flange being spaced from the conical surface 16 of the socket in the engaged position of the members 10 and 11 to provide therein an annular conical space for the reception of the electric conductor wire, as will hereinafter more fully appear.

The member 10 is recessed at its outer end, as at 19, and a cylindrical passage or bore 20 extends therefrom axially through the said member. The head 17 is provided with a transverse cut 21, slightly narrower than the diameter of the bore, and having its center line extending through the axis of the said bore.

The insulated wire conductor to which the terminal is adapted to be connected, usually, and as illustrated in the drawings, comprises a plurality of wire strands 22 enclosed in an insulating covering 23 of rubber or other suitable material. In order to connect the terminal, the wire is bared at the end of the conductor, and is passed through the passage 20 of the member 10, the insulating covering being drawn into and seated in the recess 19, and is then bent transversely into the cut 21, as shown in dotted lines, Figure 4. The free portion is then wound about the conical head beneath the flange 18, the surface of the wire then projecting slightly beyond the periphery of said flange. The member 11 is then screwed upon the member 10, and in the fully engaged position the surface 16 is tightly clamped upon the wires surrounding the head, thereby securing the conductor to the terminal and effecting a positive and electrically efficient contact between the wires and the metal of the terminal.

The terminal may be disconnected from the conductor with equal facility by sepa-

rating the members 10 and 11, unwinding the wire from the conical head and pulling the conductor out of engagement with the member 10. The transverse cut 21 may, if desired, extend only at one side of the passage 20.

I have illustrated and described a preferred and satisfactory embodiment of my invention, but it is obvious that changes may be made therein within the spirit and scope thereof, as defined in the appended claims.

I claim:

1. A pair of complemental members, adapted to be detachably connected together and constituting a terminal connector for electric conductors, one of said members having a tapered recess, and a head on the other member adapted to project into said recess, said head having an exterior tapering wall conforming generally to the taper of said socket and approaching closely to the socket wall whereby to provide a space between said head and the wall of said recess, said head being split and adapted to receive a conductor both between the separated portions of the head and about the conical outer surface of the head.

2. A device as described comprising a socket member of conducting material having an inner frusto-conical recess at its inner portion and screw threads beyond said frusto-conical recess, a second hollow member adapted to receive a conductor axially therethrough and having a threaded portion adapted to detachably engage with the threads upon said socket member, said hollow member having a head projecting therefrom adapted to enter within the frusto-conical recess and having an outer frusto-conical wall spaced from the wall of said frusto-conical recess, said head being slotted diametrically throughout the length of the frusto-conical outer wall whereby to divide the head into a pair of separated horns, said head having a shoulder at its outer end to confine that portion of the conductor which is wrapped about the outer conical wall.

In testimony that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

JOHN ANTON KULIER.

Witnesses:
ELIZABETH KULIER,
VIOLET SEMINS.