

Aug. 16, 1927.

E. A. BOHLMAN

1,639,161

TERMINAL

Filed June 2, 1921

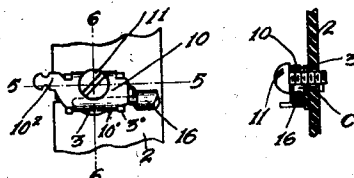
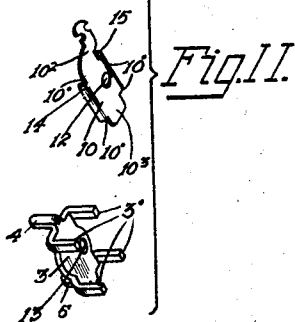


Fig. 4.      Fig. 6.

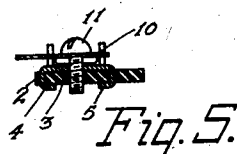


Fig. 5.

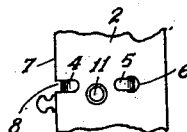


Fig. 10.

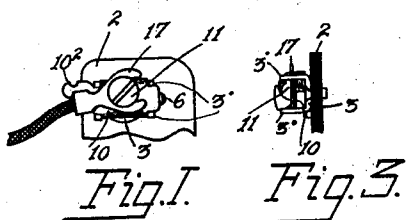


Fig. 1.      Fig. 3.

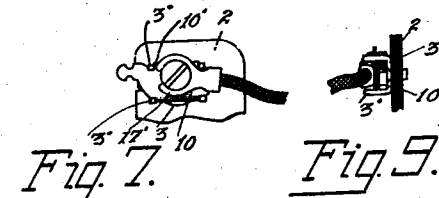


Fig. 7.      Fig. 9.

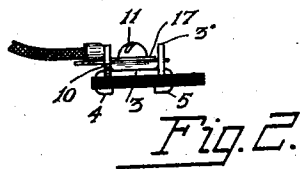


Fig. 2.

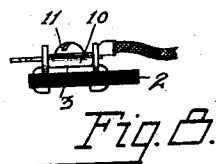


Fig. 8.

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## UNITED STATES PATENT OFFICE.

ERNEST A. BOHLMAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO KELLOGG SWITCHBOARD AND SUPPLY COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## TERMINAL.

Application filed June 2, 1921. Serial No. 474,380.

My invention relates to connection terminals and has to do more particularly with devices of this character which are provided with clamping means for securely holding a conductor or connector, and an object of my invention, among others, is the provision of a connection terminal of the above character in which means are provided for preventing the clamping elements between which the conductor connectors are held from turning in relation to each other.

Connection terminals of the above character are commonly used in connection with telephone apparatus and the conductor connectors which are secured to the connection terminals are of various kinds, such as spike tip connectors, forked connectors and spade connectors. In using these different types of conductor connectors, different types of connection terminals have been used to accommodate them, and another object of my invention is the provision of an improved device of the class described which will provide a connection terminal adapted to receive any of the above types of connectors. The clamping device is in the form of a screw-threaded means for securing the connectors to the connection terminal, producing a very simple, efficient and cheap terminal. I also provide a clip fastening means for the terminal when the same is mounted, thus eliminating the usual screw fastening.

For a more complete understanding of my invention, reference may be had to the accompanying drawing, in which reference characters in the several views denote like parts, and in which—

Fig. 1 is a plan view of a terminal of my invention showing a forked terminal used in connection therewith;

Fig. 2 is an elevation of the terminal;

Fig. 3 is a right end view of the terminal shown in Fig. 1;

Fig. 4 is a plan view of the terminal of my invention showing a spike tipped terminal in connection therewith;

Fig. 5 is a sectional view along the line 5—5 of Fig. 4;

Fig. 6 is a sectional view along the line 6—6 of Fig. 4;

Fig. 7 is a plan view of the terminal of

my invention, showing a forked connector in connection therewith;

Fig. 8 is an elevation of Fig. 7;

Fig. 9 is a right end view of Fig. 7;

Fig. 10 is a bottom view of Fig. 4, and

Fig. 11 is a disassembled perspective view of the various parts of the terminal of my invention.

Referring now more in detail to my invention as illustrated in the accompanying drawing, it comprises a mounting block or strip 2 of suitable insulating material such as bakelite, upon which the terminal of my invention is mounted. It comprises a connecting plate member 3, more or less circular in shape, which is provided with a pair of retaining clips 4 and 5 integrally formed with the plate 3 and diametrically opposite each other, the said clips 4 and 5 being for the purpose of securing the same plate 3 to the mounting strip 2. The mounting strip 2 is provided with an orifice 6 of a size to receive a clip 4 or 5, and the edge 7 of the strip 2 is provided with a notch 8 for receiving a clip 4 or 5. The clips 4 and 5 are of such length as to protrude slightly beyond the bottom face of the strip 2, and these protruding ends are turned over, as clearly indicated in Figs. 5 and 10 of the drawing, thus securing the plate 3 to the strip 2 against displacement or movement.

A U-shaped covering or clamped member 10 is provided which cooperates with the plate 3 and is provided with shoulders 10' formed by reducing the width of the end portions 10<sup>2</sup> and 10<sup>3</sup> of the covering or clamped member 10. The plate 3 is provided with four upwardly extending posts 3' which are integrally formed with the plate 3, and these posts register with the four shoulders 10' of the member 10 to prevent sidewise or longitudinal movement of the said member 10. A screw 11 is provided, which passes through a suitable orifice 12 in the member 10 and has screw-threaded engagement with a suitable tapped orifice 13 in the plate 3 to secure the member 10 in position between the posts 3' against displacement. When the U-shaped member 10 is in position between the four posts 3', its legs 14 and 15 rest upon the face of the plate

3, forming a channel C which is adapted to receive a spike tipped connector 16, as illustrated in Figs. 4 to 6, inclusive. The spike tipped connector 16 is inserted into the channel C and when in position the screw 11 is screwed down tightly, causing the connector 16 to be clamped between the member 10 and the face of the plate 3 to hold the connector in place. Should a forked connector 17 be used, the screw 11 is loosened to permit the forked connector 17 to be slipped between the head of the screw 11 and face of the plate 10, and when in this position the screw 11 is screwed down tightly, clamping the said connector 17 in place, as clearly illustrated in Figs. 1 to 3, inclusive. The clamping plate is provided with an end portion 10<sup>2</sup>, which serves as a terminal adapted to receive a soldered connection. In Figs. 7 to 9, inclusive, I illustrate the terminal of my invention, using a forked connector but showing it leading in from the right, to bring out the utility of my connection terminal.

From the above description in connection with the drawings I have provided a universal connection terminal which is adaptable for various types of connectors without any change whatever when using the different types of connectors. Thus, I have produced a terminal of wide utility and which may be used for a variety of purposes.

While I have illustrated one specific embodiment of my invention, I do not wish to be limited to the same, as it is apparent that changes and modifications may be made without departing from the spirit and scope of the appended claims.

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

1. A device of the character described including a mounting strip of insulating material, a contact plate adapted to be secured to said mounting strip by integrally formed

downwardly extending legs located at opposite ends of said contact plate, upwardly extending arms for said contact plate arranged in pairs on opposite ends and on the sides of said contact plate, a clamped member having integrally formed side pieces bent at right angles to the contact surface of said clamped member, shoulders formed by said side pieces and the contact surface of said clamped member adapted to engage the pairs of arms to prevent the rotation of said clamped member, said side pieces of said clamped member adapted to engage the contact plate to form a channel to permit the insertion of a spiked terminal from two longitudinal directions only, and a screw passing through an orifice in said clamped member and having screw threaded engagement with an orifice in said contact plate to clamp the clamped member in position.

2. A device of the character described including a mounting strip, a contact plate secured thereto, having upwardly extending arms, a clamped member having shoulder portions adapted to engage said arms and side pieces adapted to engage the surface of said contact plate adjacent to said arms to form a channel to permit the insertion of a spiked connector from the two longitudinal directions only, a screw passing through said clamped member and having screw threaded engagement with said contact plate to clamp said clamped member in position, said shoulders engaging said arms to prevent rotation of said clamped member, and means including said screw and clamped member for permitting the insertion of a forked connector, said arms extending above said clamped member to prevent the rotation of said forked connector.

Signed by me at Chicago, in the county of Cook and State of Illinois, this 31st day of May, 1921.

ERNEST A. BOHLMAN.