

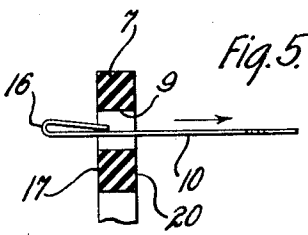
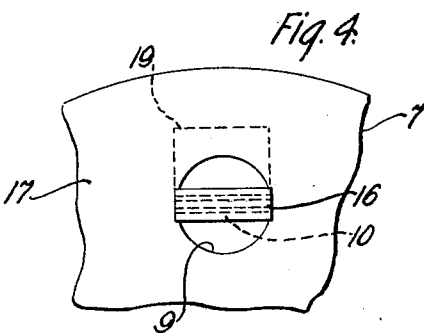
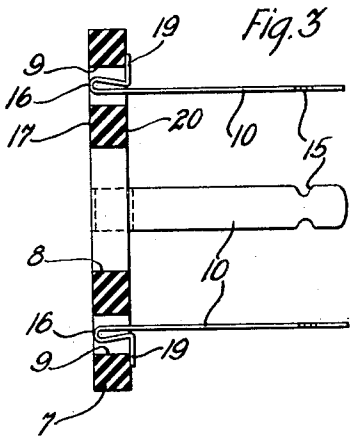
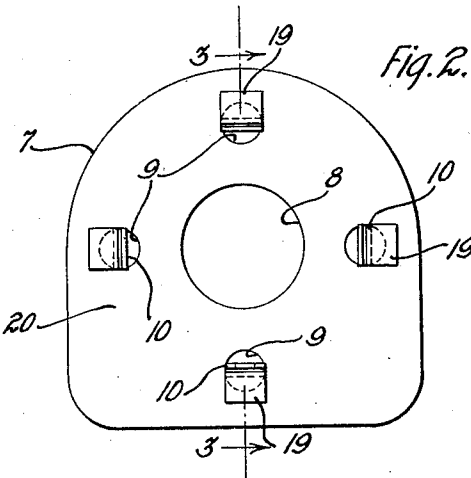
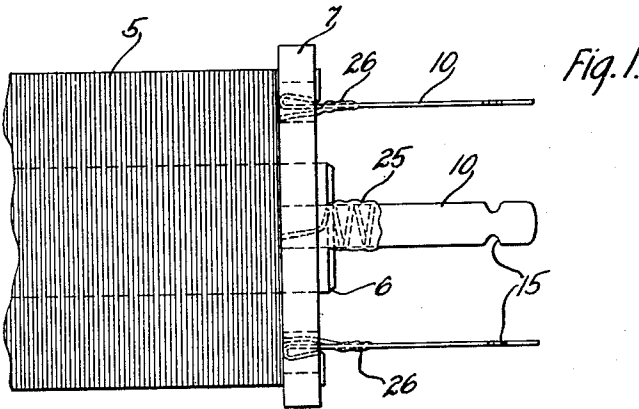
March 1, 1932.

G. L. ROCK

1,847,100

TERMINAL AND METHOD OF ATTACHMENT THEREOF

Filed Nov. 8, 1927



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UNITED STATES PATENT OFFICE

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TERMINAL AND METHOD OF ATTACHMENT THEREOF

Application filed November 8, 1927. Serial No. 231,935.

This invention relates to terminals and methods of attachment thereof, and more particularly to terminals used with electromagnetic coils and the like and methods for securing such terminals in position.

The primary objects of this invention are the provision of terminals of simple and durable design and expeditious methods for attaching such terminals in position.

10 In accordance with the general features of the invention one embodiment thereof consists in a metallic terminal member in strip form for electromagnetic coils, the connection end of which may be passed through a 15 circular aperture in an insulating member, the aperture having a diameter corresponding substantially with the width of the terminal. A doubled portion at the other end of the terminal is forced within the aperture 20 until it is flush with one surface of and securely wedged in position upon the insulating member, after which the free end or tip of the doubled portion is formed flat against the front surface of the member, thus locking 25 the terminal against movement in either longitudinal direction.

The objects of the invention will become apparent from the following detailed description when considered in connection with 30 the accompanying drawings, wherein

Fig. 1 is a fragmentary side view of a coil, the insulating plate or head associated therewith having terminals connected thereto, representing one embodiment of the invention; 35

Fig. 2 is an end view of the terminals and insulating plate as viewed from the right of Fig. 1;

Fig. 3 is a central vertical sectional view taken on the line 3—3 of Fig. 2;

Fig. 4 is an enlarged fragmentary view of the upper portion of the insulating plate and associated terminal member as viewed from the left in Fig. 3, and 45

Fig. 5 is a fragmentary vertical sectional view of the upper portion of Fig. 3 but showing the terminal member at the time of being wedged into position within the insulating plate. 50

Referring now to the drawings wherein

like numerals have been employed to designate similar parts throughout the various figures, the numeral 5 designates a coil of wire with a core 6 which supports an insulating member or plate 7 composed preferably 55 of phenol fibre or other material of like nature. The insulating member 7 has a central aperture 8, and holes 9 spaced in predetermined relation drilled through it midway between its periphery and the aperture 60 8, which holes provide for the insertion of metallic members of strip form or terminals 10. Each of the terminal members 10 is provided at one end with a groove 15 for connecting an electrical conductor, and at the other 65 end with a folded portion formed by folding the member back upon itself at the location indicated as 16.

After each terminal member 10 has been 70 folded in the manner described the connection end thereof, having the groove 15, is inserted within one of the holes 9 which has a diameter substantially equal to the width of the member 10. After this insertion the member is forced through hole 9 until the 75 doubled portion thereof enters the hole, at which time additional force is applied to wedge the doubled portion into the hole until the outer surface of the fold at position 16 is flush with a surface 17 of the insulating 80 plate 7. The wedging of the fold of the terminal 10 within the aperture 9 causes the terminal to be firmly secured in position and precludes further possible advancement of the terminal through the hole 9. To prevent 85 forcing the terminal 10 in a direction opposite to that in which it was initially inserted a tip or end portion 19 of the folded portion thereof is turned back against surface 20 of the insulating member 7. Thus the terminal 90 10 is firmly secured and locked against longitudinal displacement in either direction.

Conductor leads 25 and 26 from the coil 5 are connected to the terminal members as shown in Fig. 1 by being wound about and 95 soldered thereto near the surface 20 of the insulating plate 7. The coil leads 26 are threaded through the drilled holes 9, sufficient space being present between the terminals and the walls of the holes to readily per- 100

mit the insertion of the leads. The coil leads 25 are threaded through the central aperture 8 which is of sufficient size to permit the insertion of the leads 25 between the surface of the core 6 and the wall of the aperture 8.

From the foregoing description it will be understood that the invention enables the production of an article efficiently fulfilling its purpose, simple in construction and economical to manufacture. Ordinary holes are drilled through a plate or disc of material and doubled metallic strips wedged therein and made flush with one surface. The metallic strips are firmly and finally secured by the wedging action, no twisting or tightening or positioning thereafter being necessary, and there are no portions of the strips projecting beyond the back surface 17 of the plate. The wedge formed by the fold of the metallic strip or terminal and the bent portion on the tip of the fold preclude longitudinal movement in either direction and provide firm and substantial security. Although the invention has been disclosed and described in connection with one embodiment thereof, namely electrical terminals, it is to be understood that it is not intended thereby to limit the scope of the invention to that field alone but to apply the invention in as broad a scope as is defined in the following claims.

What is claimed is:

1. The method of attaching terminal members to a member, which consists in doubling the end of a flat metallic strip, to form a substantially closed loop in which the end nearer the bend is larger in gross cross section than the end nearer the open portion providing an aperture within the member having a diameter substantially equal to the width of the doubled portion of the strip, and forcing the strip through the aperture until the doubled portion thereof is wedged into the member.

2. The method of attaching terminal members to a member, which consists in doubling the end of a flat strip of metal, to form a wedge in which the doubled portion is larger in gross cross section than the opposite end thereof providing an aperture within a member having a diameter substantially equal to the width of the strip, forcing the full length of the strip through the aperture until the doubled portion thereof is wedged flush with a surface of the apertured member to secure the strip in position, and forming the end of the doubled portion against a surface of the member to preclude the displacement of the strip.

3. In an article having a terminal connecting means, a member having an aperture, a flat strip of metal substantially equal in width to the diameter of the aperture, a portion of the end of the strip doubled back upon itself to form a substantially closed loop in

which the end nearer the bend is larger in gross cross section than the end nearer the open portion, the doubled portion being wedged into the aperture flush with a surface of the apertured member, and a tip on the end of the doubled portion formed against the apertured member to lock the strip in position.

4. In an article having electrical terminal connecting means, a flat strip of metal, one end of the strip having a doubled portion and the other end providing an extending portion for making electrical connections, an insulating plate having a central hole for receiving a core and an aperture substantially equal in width to the width of the metallic strip, the doubled portion of the metallic strip being bent into a substantially closed loop with the end nearer the bend larger in gross cross section than the open end thereof and being wedged into the aperture, and a tip on the doubled portion of the strip formed against a surface of the insulating plate.

5. The method of attaching a terminal to an apertured member, consisting in doubling the end of a flat strip of metal to form a wedge in which the end nearer the bend is larger in gross cross section than opposite end thereof, providing an aperture within the member having a diameter substantially equal to the width of the metal strip, and wedging the doubled portion of the strip within the aperture by forcing grooves with the sides of the strip in the walls of the aperture to secure the strip in position.

In witness whereof, I hereunto subscribe my name this 26th day of October A. D., 1927.

GEORGE LYNDEN ROCK.