

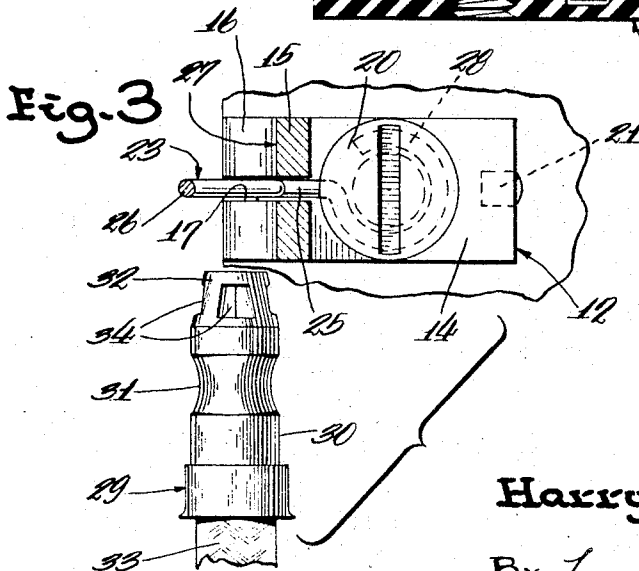
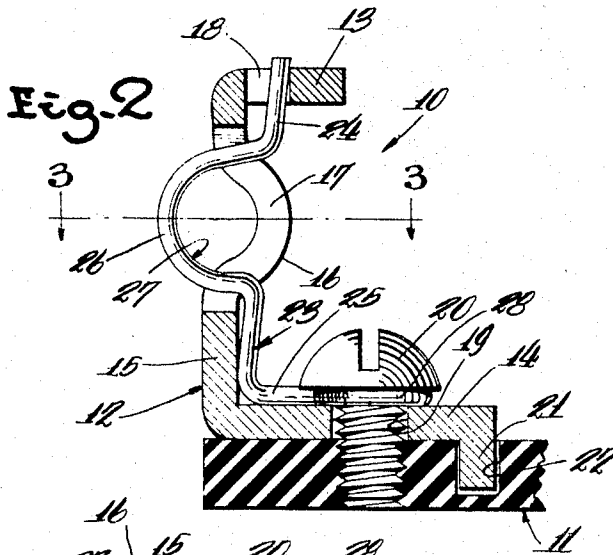
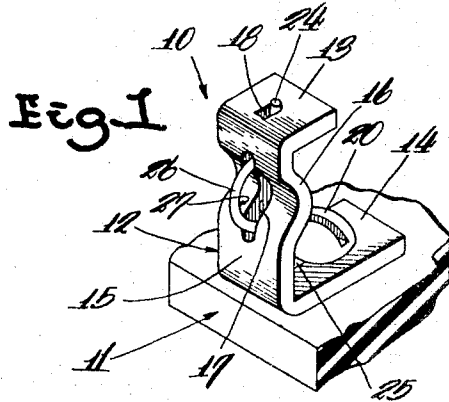
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H. A. DOUGLAS

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ELECTRICAL CONNECTION MEANS

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Harry A. Douglas  
INVENTOR

By *Freeman, Sweet, Albrecht, and Weidman*  
ATTORNEYS

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## ELECTRICAL CONNECTION MEANS

Harry A. Douglas, Bronson, Mich., assignor to  
Kingston Products Corporation, a corporation  
of Indiana

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2 Claims. (Cl. 173—328)

My invention relates to electrical connection means, and more particularly to electrical connection means for receiving conductor terminals of the snap type, and the principal object of my invention is to provide new and improved electrical means of these types.

In the drawing accompanying this specification and forming a part of this application I have shown, for purposes of illustration, one form which my invention may assume, and in this drawing:

Figure 1 is a perspective view of one embodiment of my invention, the base upon which it is mounted being shown fragmentarily,

Figure 2 is a longitudinal sectional view of the embodiment shown in Figure 1, and

Figure 3 is a horizontal sectional view, taken on the line 3—3 of Figure 2, looking in the direction of the arrows, and showing in addition, a conductor terminal adapted for cooperation with the embodiment herein disclosed.

Referring to the drawing, the embodiment herein disclosed comprises a terminal post 10 mounted on a base 11, the base being fragmentarily shown. The terminal post 10 comprises a body portion 12 formed of a single piece of sheet metal bent into generally U-shaped formation. The U-shaped body portion 12 comprises, as viewed in Figures 1 and 2, two spaced generally horizontal walls 13, 14, joined at one end by a generally vertical wall 15.

The vertical wall 15 is provided with a substantially semi-cylindrical curved portion 16 intermediate its ends, and has an aperture 17, relatively narrow in width and extending substantially the vertical extent of the curved portion 16. The upper wall 13 is also provided with an aperture 18, here shown to be of the same width as the aperture 17 and extending from the vertical wall 15 to a point short of the end of the wall 13. The lower wall 14, which serves as a foot for the body portion 12, is formed with an aperture 19 through which a screw 20 or any other suitable fastening means may be disposed to fasten the terminal post 10 to the base 11. In order to prevent the wall or foot 14 from turning about the fastening means 20, the wall 14 may have a portion 21 struck downwardly therefrom and fitting into a recess 22 in the upper face of the base 11.

Biasing means are provided to cooperate with the terminal post 10, and in this instance, the biasing means comprise a generally right angularly bent resilient member 23, here shown to be formed of a single piece of spring wire, of a diam-

eter to closely but slidably fit within the apertures 17 and 18 formed in the body 12. The member 23, as viewed in Figure 2, is provided with a generally vertical leg 24 and a generally horizontal leg 25. The vertical leg 24 is formed with a curved portion 26, here shown to be substantially semi-cylindrical, and oppositely disposed with respect to the curved portion 16 of the body 12, and being disposed adjacent that portion and cooperable therewith to form a plug 10 conductor terminal receiving recess 27. The member 23 may be held assembled with the body portion 12 and base 11, by means of a loop 28 formed by curling the free end of the horizontal leg 25, and interposing the loop 28 between the head of the screw 20 and the wall 14 of the body portion 12. As shown in Figures 1 and 2, the free end of the leg 24 of the biasing member 23 is disposed within the aperture 18 formed in the upper leg 13 of the body 12, and the movement thereof is limited by the marginal walls of the aperture 18, the resiliency of the biasing member 23 tending to spring the free end of the leg 24 to the right, as viewed in Figure 2, and into abutting engagement with the adjacent wall of the aperture 18.

In Figure 3 there is shown a plug conductor terminal 29 adapted to cooperate with the terminal post 10, and comprising a generally cylindrical portion 30 having an annular furrow 31 formed therein. The plug conductor terminal 29 is formed with a frustro-conical end 32, and may be fastened to a conductor 33 disposed therein, by swedging, as indicated by swedge indentations 34 formed in the frustro-conical end 32.

The cooperating parts of the body 12 and resilient member 23 are so formed to provide a recess 27 that is normally smaller in cross-sectional area than the cross-sectional area of the cylindrical portion 30 of the conductor terminal 29, so that inserting movement of the conductor terminal 29 into the recess 27 will cause the frustro-conical end 32 to cam the vertical leg 24 of the resilient member 23 to the left, as viewed in Figures 2 and 3, thereby increasing the size of the recess 27 to accommodate the cylindrical portion 30 of the conductor terminal 29. Further inserting movement will cause the vertical leg 24 and curved portion 26 of the resilient member 23 to snap into the annular furrow 31, to clamp the conductor terminal against the adjacent parts of the body 12, and in this manner prevent unintentional displacement of the conductor terminal.

From the foregoing it will be apparent to those

skilled in the art that the illustrated embodiment of my invention provides a new and improved electrical contact and connection means, economical in construction and assembly, and accordingly, accomplishes at least the principal object of my invention. It further will be obvious to those skilled in the art that the illustrated embodiment of my invention may be variously changed and modified without departing from the spirit of my invention, or sacrificing all the advantages thereof, and that accordingly, the disclosure herein is illustrative only, and my invention is not limited thereto.

I claim:

1. In combination: a wall, having parts projecting angularly from opposite margins, each of said parts having an aperture, and said wall having a local portion transversely curved, and a slot extending at right angles to said curved portion; a support; fastening means, extending through the aperture in one of said parts and engaging said support to hold said one part to said support; and resilient wire means, having one end interposed between said fastening means and said one part, to hold said wire means in assembled relation, and having another end movable between marginal surfaces of the aperture in said other part, said wire means having an intermediate part locally curved in opposite relation with respect to the curved part of said wall, and extending through said slot to form a recess with the curved part of said wall, the curved part of said wire means being movable with respect to said wall, to vary the size of said recess, and said other end of said wire means engaging spaced

portions of the marginal surface of the aperture in said other part to limit movement of the curved part of said wire means.

2. Receptacle means, comprising: a body, formed of a single strip of sheet metal bent to form an intermediate wall, and end walls extending angularly from said intermediate wall, said intermediate wall having a slot, and said end walls being apertured, one of said end walls receiving a fastening means in its aperture, the fastening means engaging a support to hold the body to the support, said one end wall also having a bent part seating in a recess in the support to hold said body against turning about the fastening means; and resilient wire means, having a loop interposed between the fastening means and the adjacent surface of said one wall, to hold said resilient wire means assembled with said body, and having also a part angularly disposed with respect to said loop and in juxtaposed relation with respect to one lateral surface of the intermediate wall of said body, said wire means part extending through the slot in said intermediate wall and away from the opposite lateral surface, to form with this surface a recess for receiving a conductor terminal, said wire means part being movable toward and away from the opposite lateral surface to vary the size of said recess, and the free extremity of said wire means part engaging spaced portions of the marginal surface of the aperture in the other end wall, to limit movement of said wire means part between predetermined limits.

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