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3,286,221

FLAG TAB RECEPTACLE TERMINAL

Filed June 17, 1964

Fig. 1.

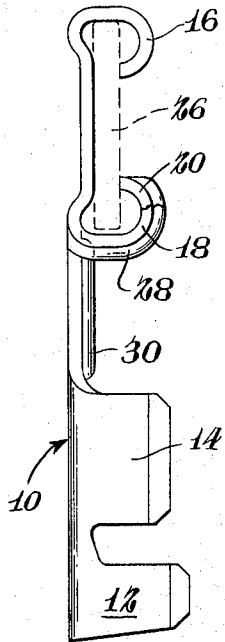


Fig. 2.

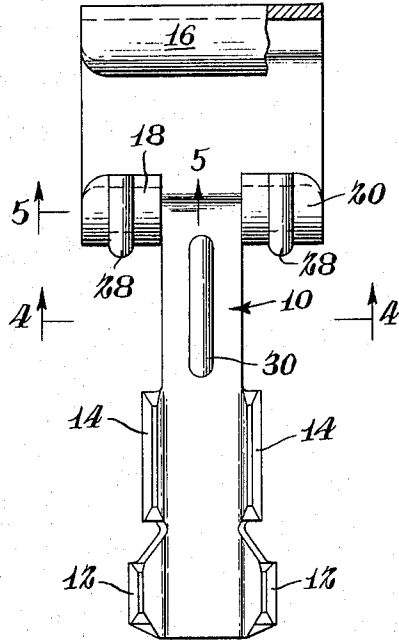


Fig. 3.

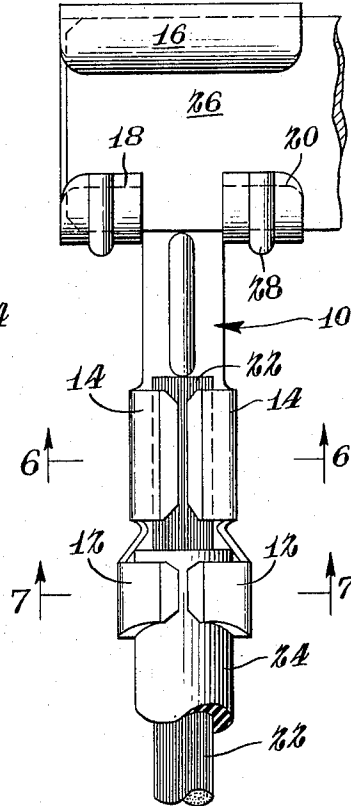


Fig. 4.

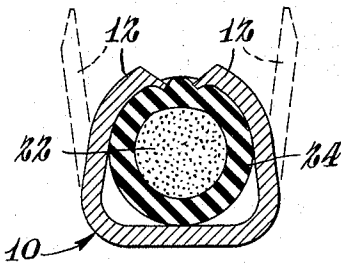
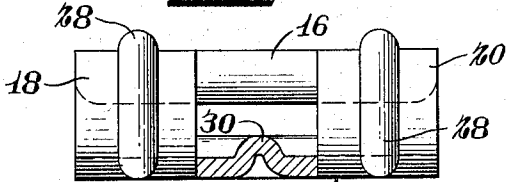


Fig. 6.

Fig. 7.

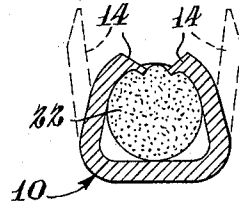
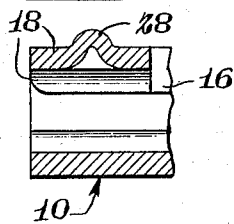


Fig. 9.

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**FLAG TAB RECEPTACLE TERMINAL**

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6 Claims. (Cl. 339—223)

This invention relates to a flag-type terminal having means to mechanically and electrically connect one end of the terminal to an insulated conductor, and which has a tab receptacle at its other end to receive a spade tab extending at right angles to the conductor.

One object of the invention is to provide a flag tab receptacle terminal of simple construction in which a member of sheet metal or the like is formed as by stamping or cold forging with a T-shaped base having ferrule-forming ears at one end of the leg of the T and spaced-apart tab receiving flanges along the top and bottom of the arms of the T.

Another object is to provide tab receptacle flanges suitable for forming from a T-shaped base, one flange along the top of the arms, being continuous throughout the length thereof, and a pair of flanges along the bottom of the arms interrupted by the connection of the leg of the T-shaped base to the arms thereof.

A further object is to provide tab receptacle flanges which are C-shaped in cross section for resilient engagement with a spade tab when inserted therein.

Still a further object is to provide means to reinforce the pair of flanges by providing the same with reinforcing ribs therearound.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my flag tab receptacle terminal whereby the objects above contemplated are attained as hereinafter more fully set forth, pointed out in my claims and illustrated in detail on the accompanying drawings, wherein:

FIG. 1 is a side elevation on an enlarged scale showing a flag tab receptacle terminal embodying my invention;

FIG. 2 is a plan view thereof;

FIG. 3 is also a plan view thereof and shows an insulated conductor and a spade tab associated with the terminal;

FIGS. 4 and 5 are sectional views on the lines 4—4 and 5—5, respectively, of FIG. 2; and

FIGS. 6 and 7 are sectional views on the lines 6—6 and 7—7, respectively, of FIG. 3.

On the accompanying drawings I have used the reference numeral 10 to indicate a T-shaped base formed of sheet metal or the like which, as shown in FIGS. 2 and 3, has a vertical leg and horizontal arms. Adjacent the lower end of the leg a pair of insulation-engaging ears 12 and a pair of conductor-engaging ears 14 are provided.

The arms of the T-shaped base 10 are provided with tab receptacle, channel-forming flanges 16, 18 and 20, the flange 16 being continuous along the top of the arms and the flanges 18 and 20 being discontinuous along the bottom of the arms. The flanges 18 and 20 are interrupted by the leg of the T-shaped base.

An insulated conductor is illustrated in FIGS. 3, 6 and 7 in association with my flag tab receptacle terminal, and comprises a conductor 22 and an insulating sheath 24 therefor. The conductor 22 is mechanically and electrically connected with the terminal by crimping the ears 14 thereagainst as shown in FIGS. 3 and 6 while the insulated conductor is mechanically connected with the ter-

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terminal by crimping the ears 12 thereinto as shown in FIGS. 3 and 7. The channel-forming flanges 16, 18 and 20 are adapted to receive and resiliently engage a simple spade-type tab 26 as shown in FIG. 3 and by dotted lines in FIG. 1.

A terminal of the character disclosed is particularly useful where space at the end of the tab is limited. The actual terminal is approximately one-fourth the size shown in FIGS. 1, 2 and 3, and the total length of the arms of the T-shaped base is approximately one-third inch. A relatively short tab 26 can, accordingly, be associated with respect to the tab receptacle end of the terminal as shown in FIG. 3.

To provide a terminal of the type shown involves certain problems with respect to the tab receptacle flanges 16, 18 and 20. While an adequate length for the flange 16 may be had extending the full length of the arms of the T-shaped base, the flanges 18 and 20 must be interrupted by the leg of the base. Accordingly, to reinforce the relatively short flanges 18 and 20, I provide them with reinforcing beads 28 extending therearound as shown in FIGS. 1, 4 and 5.

The comparatively narrow leg of the T-shaped base may also be bead-reinforced as shown at 30 in FIGS. 1, 2 and 4.

In order to provide sufficient resiliency for good electrical contact between the terminal edges of the channel-forming flanges 16, 18 and 20 and the spade tab 26, all three flanges are C-shaped as illustrated in FIG. 1.

From the foregoing specification it will be obvious that I have provided a terminal of flag-type suitable for connecting an insulated conductor at right angles relative to a spade tab or the like when all parts are formed integral from a T-shaped piece of sheet metal as illustrated. A novel tab receptacle flange arrangement is disclosed which is suitable for forming the tab receptacle at one end of the base by means of tab receptacle flanges provided along the sides of the arms of the T.

Some changes may be made in the construction and arrangement of the parts of my flag tab receptacle terminal without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims any modified forms of structure or use of mechanical equivalents which may reasonably be included within their scope.

I claim as my invention:

1. In a flag tab receptacle terminal, a base, two pair of ferrule-forming ears adjacent one end of said base, one pair of said ears being adapted to form a ferrule around an insulated conductor and the other pair of said ears being adapted to form a ferrule around the conductor of said insulated conductor, a tab receptacle at the other end of said base, said tab receptacle comprising a channel-forming flange along said other end of said base and a pair of opposed channel-forming flanges separated by a portion of said base extending from said pairs of ears to said tab receptacle.

2. A flag tab receptacle terminal in accordance with claim 1 wherein said channel-forming flanges are C-shaped in cross section for resilient engagement of their terminal edges with a spade tab inserted therein.

3. A flag tab receptacle terminal in accordance with claim 2 wherein said opposite channel-forming flanges have reinforcing ribs extending therearound.

4. In a flag tab receptacle terminal of the character disclosed, a T-shaped base, ferrule-forming means on the leg of the T to mechanically connect said base with an insulated conductor and to mechanically and electrically connect said base with the conductor of such insulated conductor, and means on the arms of the T for frictionally

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receiving a spade tab comprising a first flange along the entire top of the arms and a second flange along the bottom of the arms exclusive of the connecting portion of the arms to the leg.

5. A flag tab receptacle terminal according to claim 4 wherein said pair of opposite channel-forming flanges have reinforcing ribs extending therearound.

6. A flag tab receptacle terminal according to claim 4 wherein said flanges form opposite facing channels to receive the side edges of the spade tab.

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