

April 2, 1935.

H. EDWARDS
ELECTRICAL CONNECTER

1,996,410

Filed July 11, 1933

2 Sheets-Sheet 1

Fig. 1.

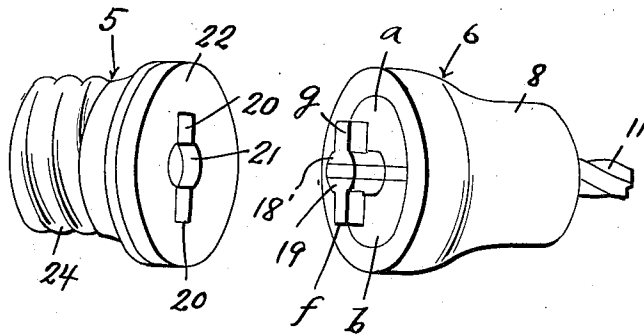


Fig. 2.

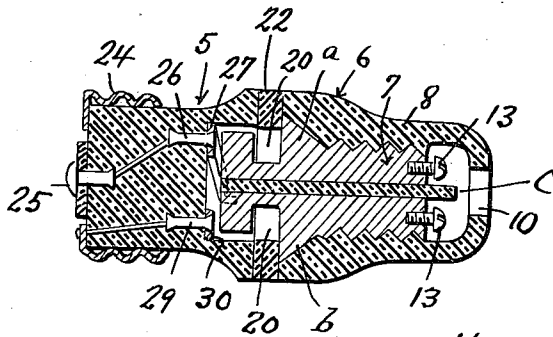
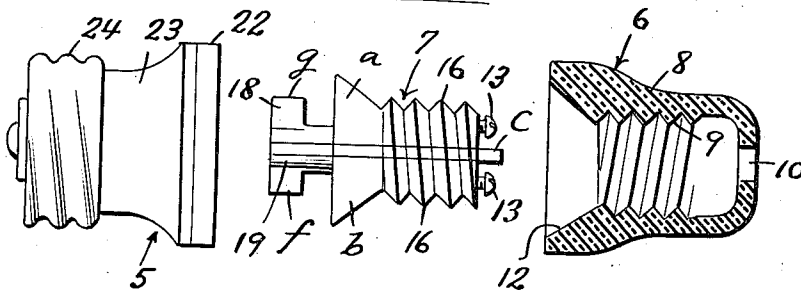


Fig. 3.

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2 Sheets-Sheet 2

Fig. 4.

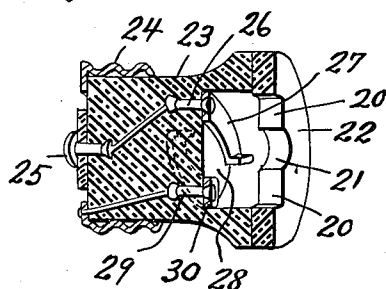
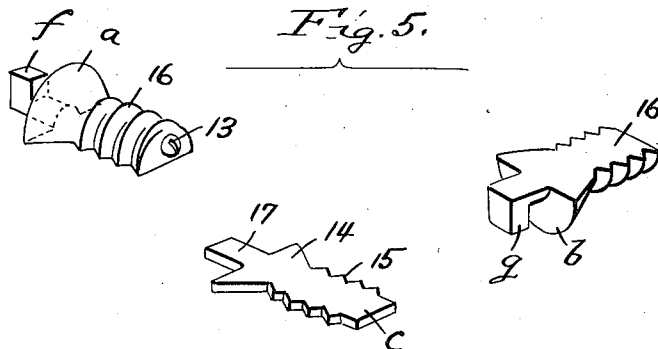


Fig. 5.



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UNITED STATES PATENT OFFICE

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ELECTRICAL CONNECTER

Harry Edwards, Wallace, Idaho, assignor of one-fourth to Chas. E. Horning, and one-fourth to Bert Trowbridge, both of Wallace, Idaho

Application July 11, 1933, Serial No. 679,970

1 Claim. (Cl. 173—343)

This invention appertains to new and useful improvements in electrical connectors, and more particularly to a detachable connection for screw type plugs.

An important object of the present invention is to provide an electrical connector wherein the plug connection of a screw type plug connector is constructed in complement with the screw plug section in such a manner as to afford a positive connection which will not yield to a pulling motion.

Other important objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings:—

Figure 1 represents a perspective view of the two sections of the connector in separated relation.

Figure 2 represents an exploded view showing the shell of the plug section in section, with the core assembly spaced between the shell and the screw section.

Figure 3 represents a longitudinal sectional view through the entire connector assembly before the T-head has been rotated to engage the contact.

Figure 4 represents a longitudinal sectional view through the screw section, the same being in perspective.

Figure 5 represents an exploded view of the core assembly, showing the elements in perspective.

Referring to the drawings wherein like numerals designate like parts, it can be seen in the drawings that numeral 5 represents the screw section of the connector, while numeral 6 represents the plug section of the connector and more specifically, in Figure 2, numeral 7 generally refers to the core assembly of the plug section 6. As is clearly apparent in Figures 1, 2 and 3, the plug section 6 consists of the shell 8 having internal threads 9 and an opening 10 in one end through which the electrical cord 11 can extend. The opposite end of the di-electric shell 8 is provided with an inwardly tapering mouth 12. The core assembly 7 consists of the sections *a—b* and the di-electric spacer plate *c*. The sections *a—b* are of copper or some other suitable conducting material and each has a binding screw 13 at one end, while its opposite end is flared. The flared ends of the sections *a—b* conform with the flared end portion 14 of the plate *c* (see Figure 5) so as to provide a tapering head for snug engagement into the tapered mouth 12 of the shell 8. The plate *c* is provided with teeth 15 which conform with the ribs 16 on the sections *a—b* to provide a spiral thread on the core assembly 7.

The di-electric plate *c* is provided with a re-

duced extension 17 which is interposed between the contact heads 18—19 to insulate the same from each other. These heads are provided with lugs *g—f* which are disposable through the slots 20 radiating from the central opening 21 in the closure plate 22 of the screw section 5 of the connector, as shown in Figure 1.

As is clearly shown in Figure 4, the screw section 5 also includes the di-electric body 23 which has the thread formed shell 24 thereon and the centralized contact 25. The contact 25 is connected to the retaining pin 26 which secures the outwardly sprung spring contact strip 27 to the wall 28 of the body 23, while the shell 24 is connected to the retaining pin 29 which secures the outwardly sprung contact strip 30 to the said wall 28. The lugs *g* and *f* are ridable against these spring contacts 27—30 for establishing an electrical connection between the cord 11 and the shell 24 and contact 25. Obviously, by rotating the section 6 with respect to the section 5, the lugs *g* and *f* are turned crosswise with respect to the opening 21 in the section 5 so that the section 6 cannot be pulled away from the section 5 without first registering the lugs *f* and *g* with respect to the slots 20—20 of the section 5.

The core 7 can be of some suitable di-electric material and conductor elements can extend therethrough from the binding screws 13 to suitable contacts on the head 18. Thus the core will be of solid construction instead of sectional, as shown in the drawings.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:—

A screw plug comprising a threaded shell having a key slot permitting access to the said pocket, contacts in the pocket, an internally threaded body having a conductor opening in one end thereof, an externally threaded core structure for disposition in said body, and having a T-head at one end thereof for passage through said key slot and to interlock therebehind said core structure and T-head being divided longitudinally into a pair of conductor sections, a strip of insulation material between said sections for insulating the same apart, said divided T-head defining a contact head on one end of each of the sections, and a conductor binding member on the remaining end of each of the sections adjacent said conductor opening in the body.

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