

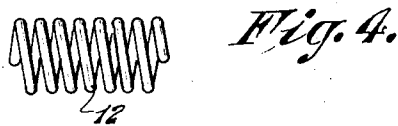
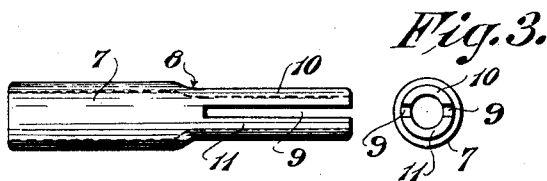
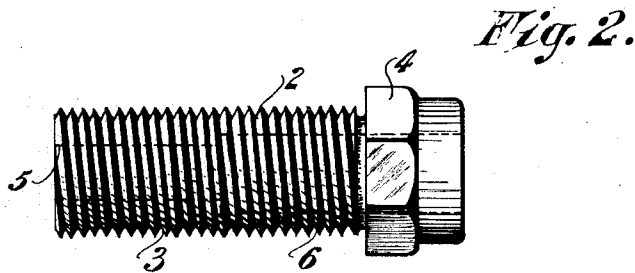
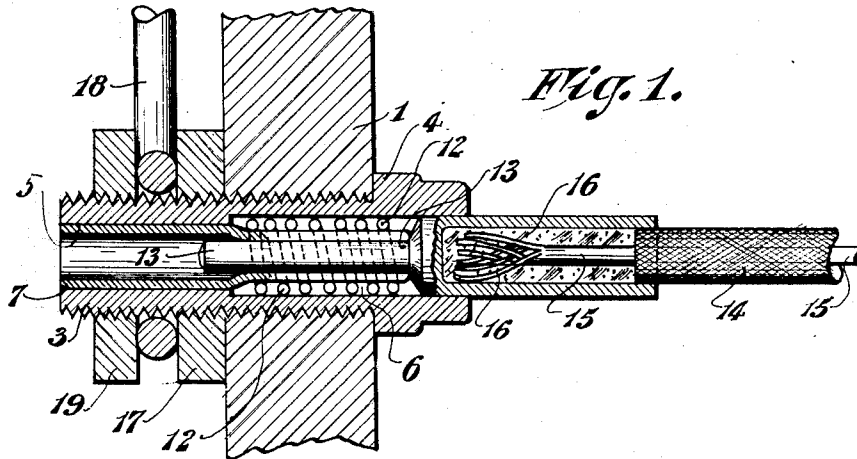
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TELEPHONE PLUG

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TELEPHONE PLUG.

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This invention relates to improvements in terminals for telephone plugs sometimes known as a "tip jack" for making electrical contacts for closing telephone circuits. It is particularly designed for use in connection with radio or wireless apparatus where it is often desirable to change the electrical connections.

Broadly, it comprises a threaded tubular member with means for securing it to the casing of the apparatus or box on which it is to be used and located within and secured to the tubular member is a second tubular member having one end split or slotted and spaced from the interior of the threaded tubular member to provide an elastic end, and, a spring encircling the split portion of the tube, whereby when a plug is inserted the spring will yield to provide sufficient friction for holding the plug in place in the split tubular member. This is desirable as oftentimes the diameters of the plugs are uneven or vary in size.

Referring to the drawings:

Fig. 1 is a sectional view showing a portion of the casing with a cylindrical member threaded into the same and the tubular member with a slitted end having a spring encircling the split portion.

Fig. 2 is an elevational view of the threaded cylindrical member removed from the casing or box.

Fig. 3 is a detail view of the tubular split member, and

Fig. 4 is a detail view of the spring which encircles the split portion of the tubular member.

Referring to the drawings in detail:

1 designates a portion of the casing of a radio or electrical apparatus, 2 the exteriorly threaded cylindrical member which is threaded into an opening of the casing, the threads being indicated at 3. 4 is an integral shoulder portion preferably formed with flat sides or surfaces to receive a wrench or other tool for threading the member 2 into the casing. Formed in the member 2 is a longitudinal opening 5 which opening 5 communicates with the enlarged opening 6. 7 is a tubular member which is located within the openings 5 and 6 of the member 2 as shown in Fig. 1. This member is formed with a reduced portion 8 that is located in the enlarged opening 6 of the member 1.

The reduced portion is formed with two slits 9 for providing the flexible terminal or end portions 10 or 11. Encircling the portions 10 and 11 is the coiled spring 12. This spring is for the purpose of normally drawing the parts 10 and 11 toward each other for exerting a pinching effect on the plug when it is inserted. 13 is the plug which is attached to the telephone cable 14. This cable is formed with the usual core 15 that is secured to the plug 13 by means of the solder 16. When the plug 13 is inserted between the flexible or elastic portions 10 and 11 it will make a good electrical contact therewith. The springs 12 permit the parts 10 and 11 to yield outwardly. This construction permits the plug 13 to make a good electrical contact with the tubular member 7 even if the diameter of the plug varies. As shown in the drawings the dimensions are greatly enlarged. In practice they are made considerably smaller. The larger portion of the tubular member is secured in the opening 5 by a driving fit, or it may be soldered in place. The externally threaded tubular member 2 is secured in place by means of the nut 17. 18 designates an electrical wire, and 19 a nut for securing the wire rigidly in place on the member 2 and against the nut 17.

The present improvement is one that can be manufactured very cheaply and in large quantities. The tubular member is readily slotted and its normal diameter reduced at one end; the larger or inner end of this member can be driven into the externally threaded cylindrical member 2 for producing a good driving fit, the coiled spring 12 is then slipped into the enlarged annular recess 6 which exerts sufficient constricting force to normally move the slitted end inward against the pin 13. The externally threaded member 2 is then assembled in the casing 1 as shown. The thread of the member 2 is easily produced in quantities on a screw machine and the recess 6 formed. It will therefore be seen that I have produced a telephone plug or "tip jack" that can be readily and cheaply constructed and installed. In case any of the parts should become weakened or broken they can be quickly replaced by new parts.

I desire to be understood that I do not limit myself to the exact construction dis-

closed but equivalent structures are included.

What I claim is:

In combination, a one piece member having an external thread for a part of its length which thread terminates in a shoulder part at one end and said member having an internal opening with an unthreaded surface of different diameters extending throughout the length of the member, a tubular member having a smooth outer surface secured in the smaller part of the unthreaded opening, which tubular member is

formed with a slitted portion for providing resilient parallel finger ends and a coiled spring in the larger part of the unthreaded opening of the externally threaded member for engaging and normally forcing the said ends towards each other, whereby when a plug having a long cylindrical surface is inserted in the tubular member between the said ends the latter will yield outwardly against the action of said spring means.

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