

Oct. 9, 1928.

1,687,074

A. WICHERT

ELECTRICAL COUPLING

Filed Sept. 20, 1926

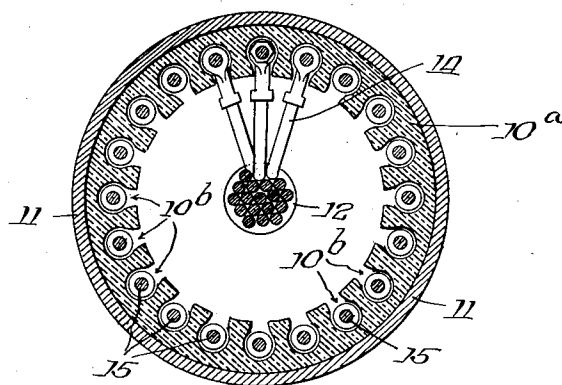
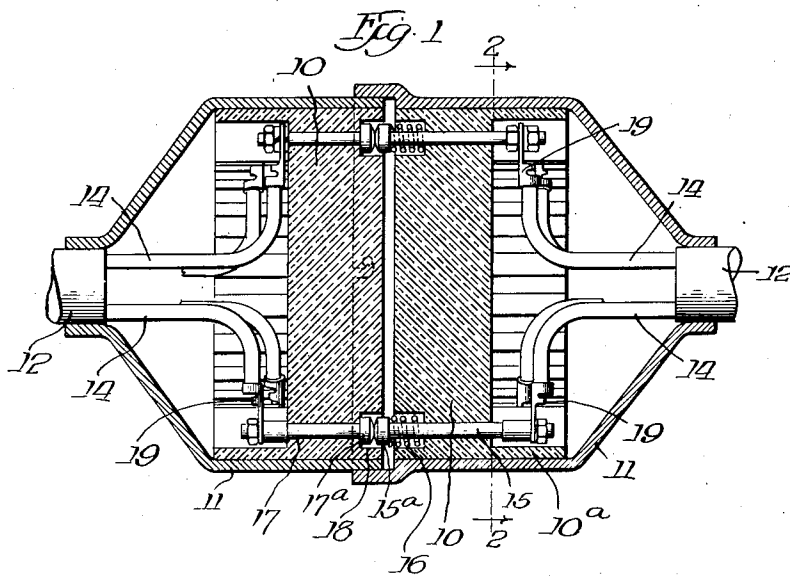


Fig. 2

Witness:

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UNITED STATES PATENT OFFICE.

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ELECTRICAL COUPLING.

Application filed September 20, 1926, Serial No. 136,389, and in Germany September 26, 1925.

This invention relates to the construction of couplings for connecting a plurality of electric conductor terminals.

A general object of the invention is the provision of a construction which may be embodied in compact and handy size for rapid and convenient manipulation, and by which the contacted terminals may be held effectively in electrical connection by mechanical pressure.

Another object is the provision of a construction which will avoid the detempering effects of electric currents in the spring members utilized for maintaining the desired contact pressures.

A further object is the simplification of the construction by elimination of plural connections between the contact terminal and the conductors which they serve.

Other and further objects will be pointed out or indicated hereinafter or will be apparent to one skilled in the art upon an understanding of the invention and its employment in practice.

In the drawing forming a part of this specification, I illustrate one form of device in which the invention may be embodied, but it is to be understood that this is presented for purpose of illustration only and the claims are not to be regarded as limited to this particular form.

In said drawing,

Fig. 1 is a longitudinal section of a coupling showing the cooperating contact carriers in assembled relationship; and

Fig. 2 is a cross section on substantially line 2—2 of Fig. 1, but with parts omitted.

Referring to the drawing, let it be understood that the reference numeral 10 designates contact carriers of insulating material which are mounted in coupling sockets or casings 11, adapted to be joined in registering relationship by means of bayonet slot connections or the like. Into the socket members 11 lead the cable sheaths 12 carrying the several flexible conductors 14 which are to be electrically connected through the coupling. The coupling members 10 are counterbored at one side to provide a recess with an encompassing wall portion 10^a in which are formed circumferentially distributed connection slots 10^b. At the ends of these slots the coupling members are bored through for re-

ception of the posts of the contact members. On one of the coupling members these contact members, designated 15, are movable longitudinally and have the contact heads 15^a against which bear the coil springs 16 tending to project the contact heads from the member 10. In the other coupling member the contact posts 17 are stationary and their heads 17^a are seated in slots 18 countersunk in the face of the coupling member. The contact members on the two coupling members are adapted to align when the sockets 11 are connected. The conductors 14, which are flexible, are led in through the ends of the sockets and are connected to respective contact posts by means of the binding clips 19. The contact slots 10^b are so arranged as to prevent the binding clips rotating into contact with one another, and juxtaposed binding clips preferably are attached to their contact posts in staggered relationship so that they will not come into contact, the contact posts being of different lengths to permit this. The flexible conductors yield to permit the movable contact posts 15 being pressed outwardly by their springs 16.

In making the coupling, the movable contact posts are forced back against the influence of their springs 16 as the sockets are coupled together, and under the tension of the springs are held in contact with the stationary contact members 17, which pressure also aids in keeping the bayonet slot connections of the socket members in engagement. An adequate pressure of the contact members upon one another is thus maintained to insure the connection being preserved for the desired current densities, and the springs are protected against the detempering effects of the current. By suitable arrangement of the socket connecting means it may be assured that the corresponding lines are connected in making the coupling.

What I claim is:

1. In an electrical coupling, a coupling member provided at one side thereof with a recess forming a marginal encompassing wall, said wall being provided with slots extending longitudinally of and being arranged circumferentially of said member and opening into said recess, and contact elements extending through said member and being aligned with and extending into said slots,

the ends of said elements at the other side of said member being exposed for contacting action.

2. In an electrical coupling, a coupling member provided at one side thereof with a recess forming a marginal encompassing wall, said wall being provided with slots extending longitudinally of and being arranged circumferentially of said member and opening into said recess, contact elements extending through said member and being aligned with and extending into said slots, the ends of said elements at the other side of said mem-

ber being exposed for contacting action, and conductors provided at their respective ends with binding clips extending into said slots and fitting on the respective adjacent ends of said elements, the edges of said slots being disposed for coaction with the associated binding clip to prevent rotary movement of the latter into contacting relation with an adjacent clip. 15 20

In testimony whereof I have hereunto subscribed my name at Basel, Switzerland, this 3rd day of September, A. D. 1926.

ALFRED WICHERT.