Nov. 10, 1931. M. F. H. GOUVERNEUR 1,831,765

INSULATOR LINK CONNECTER

Filed Feb. 20, 1926

Fig. 1.

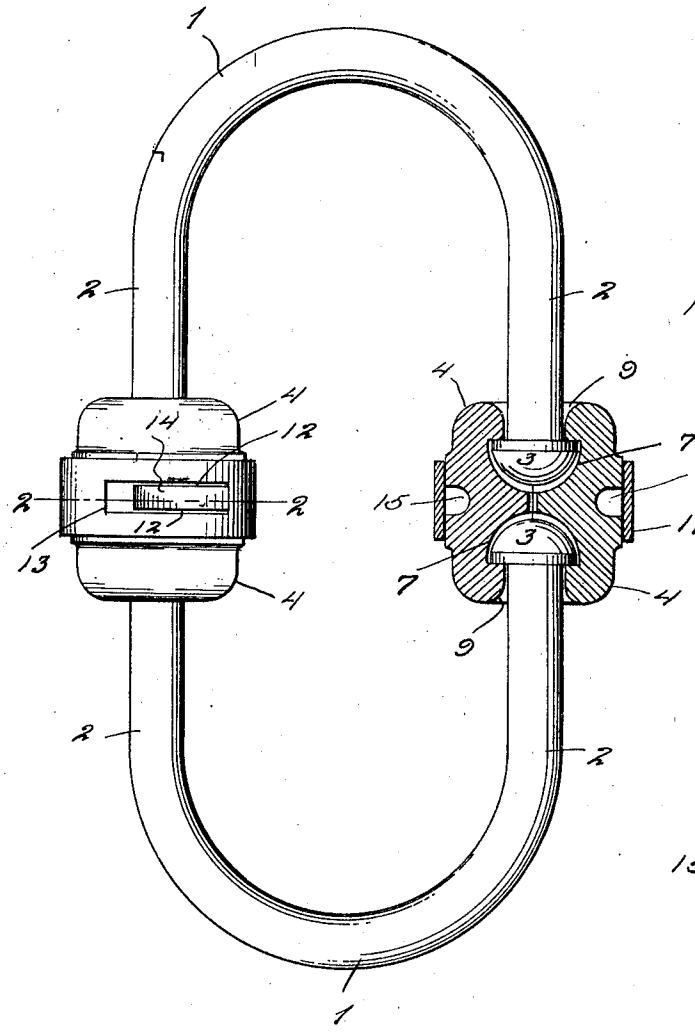
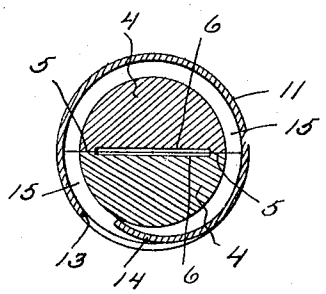


Fig. 2.



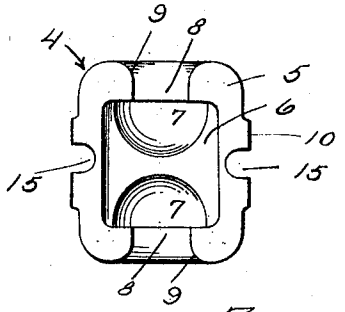


Fig. 3.

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UNITED STATES PATENT OFFICE

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INSULATOR LINK CONNECTER

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The invention relates to means for connecting the suspension links of Hewlett type insulators.

The principal object of the invention, generally stated, is to provide insulator link connecting means embodying counterpart members engageable upon the adjacent ends of links and equipped with means for preventing separation.

The object of the invention, more particularly stated, is to provide insulator link connecting means comprising counterpart clamp members which may be formed as castings and which are held in assembled relation by a band or ring engaged thereabout, the construction and arrangement being such that assembling may be easily effected in midair as is sometimes necessary in such work.

Another object of the invention is the provision of means of this character in which the counterpart members are so formed as to take the longitudinal strain instead of it coming to any great extent upon the band or ring which holds them assembled.

A further object of the invention is the provision of a connecting device in which the cast counterpart members are of such specific formation as to be capable of being easily dressed or ground at their confronting faces and at the surfaces engaged by the retaining band or ring, the major portions of the confronting faces being sunk so as to minimize the area to be finished.

Yet another object of the invention is the provision of a connecting device of this character in which the holes provided for the passage of the links are flared so as to remove the burr to a point remote from the link, the flaring furthermore permitting limited movement of the links with respect to the connecter so that the parts may adjust themselves properly to the line of strain, other detailed features in the construction being provided for the same purpose.

Still more specifically, the object of the invention is to provide insulator suspension links having terminal heads in combination with connecting means disposable thereon by lateral movement and held together by a retaining member placed in position by longitudinal movement with respect to the connecter.

Still another object is to provide a connecter of this character in which the retaining member for the counterpart sections or castings may be easily removed to permit disassembling whenever such is desired.

To the attainment of the foregoing and other objects and advantages, the invention preferably consists in the details of construction and the arrangement and combination of parts to be hereinafter more fully described and claimed and illustrated in the accompanying drawings in which:

Figure 1 is an elevation of a pair of insulator connecting links connected by means of the devices forming the subject matter of the present application, one connecting device being shown in elevation and the other in longitudinal section,

Figure 2 is a cross sectional view through one connecter taken on the line 2—2 of Figure 1, and

Figure 3 is a face view of one of the counterpart members.

Referring more particularly to the drawings the numeral 1 designates links such as are used for suspending insulators of the Hewlett type in strings. It is well known that insulators of this variety are formed with interlinking curved passages for the accommodation of substantially U-shaped links. Obviously, some means must be provided for connecting the successive links in order to form an insulator string and it is with this object in view that I have designed the present invention. In the present instance the links 1 are shown as having their arms 2 terminating in heads 3 which are partially spherical in shape.

The connecting means preferably comprises a pair of counterpart or mating members 4 readily capable of formation as castings and of any desired size, shape and material. Each casting member is represented as being semi-cylindrical, the flat face 5 being sunk at its intermediate portion as indicated at 6 for the reason that it then becomes a simpler matter to grind off or dress the edge portions to insure proper fitting together of two of the members. These members are also formed with partially spherical recesses 7 located in spaced relation to each other and to the ends, these recesses communicating with openings 8 in the end portions, the openings 8 having their outer portions flared as indicated at 9 for the twofold purpose of permitting a certain amount of play with respect to the links and removing the burr, formed in casting, to a point remote from the link. Such a burr may, if desired, be readily removed by grinding though inasmuch as it is not adjacent the link its presence cannot work any material disadvantage. The recesses 7 are of slightly greater size than the heads 3 so as to receive them easily without any danger of binding, play being desirable for the further reason that the various parts may then accommodate themselves more readily to the line of strain when assembling has been effected.

The members 4 are formed centrally with an outstanding rib 10 which is preferably ground off or dressed to have a more or less smooth surface of comparatively true cylindrical form for engagement thereon of a ring or band 11 which is disposed in embracing or encircling relation to the counterpart members for holding them in assembled relation. In order that the band may be held against displacement, it is preferably cut along spaced parallel lines 12 and transversely as shown at 13 to define an elongated tongue 14 of a more or less resilient nature. The members 4 are formed centrally of the outstanding ribs 10 with grooves 15 which mate to define a continuous channel about a pair of the assembled members.

In assembling, a pair of the counterpart members are engaged upon adjacent links, the heads 3 of the latter being received within the recesses or sockets 7, the links themselves extending through the openings 8. The band 11 is then slipped onto the assembled members by longitudinal movement with respect thereto and the tongue 14 is bent or forced inwardly by any suitable means so that it will engage within the continuous groove 15, thereby preventing displacement of the band or ring. It is preferable that the cuts 12 be formed by sawing so as to provide a slight clearance at the edges of the tongue thereby preventing binding or catching when the tongue is forced inwardly to engage within the groove. Furthermore, the tongue is preferably of less length than the slot formed by the cutting out thereof so as to leave an opening between the end of the tongue and the adjacent end of the slot through which may be inserted a tool for bending the tongue out in case it is desired to effect disassembling of the connecter with respect to the links.

In actual practice I have discovered that a connecting device constructed in this manner is highly efficient in its holding action and experiment has proved that very little strain comes upon the band or ring. Obviously, assembling is very easily effected and no special tools are needed other than some sort of plier-like device for forcing the tongue into the groove. Another point of advantage is no particular difficulty will be experienced in effecting connection or disconnection in mid-air as the parts are few and easily connected. If a number of insulators be connected in a string by means of the connecting devices it is clear that they possess sufficient rigidity or limit movement of the links to such an extent that the entire string may be readily hoisted into place, excessive buckling being entirely avoided. The various features of advantage should be readily apparent to one skilled in the art.

While I have shown and described a preferred embodiment of the invention, it should be understood that the disclosure is merely illustrative as the right is reserved to make such changes or modifications as will widen the field of utility and increase the adaptability of the invention provided such variations constitute no departure from the salient features of the invention or the scope of the claims hereunto appended.

Having thus described the invention, I claim:

1. Connecting means for insulator suspension links having terminal heads, comprising counterpart members with mating recesses for the reception of said heads, said members having each a peripheral groove therein, a band encircling said members for holding them against separation, and means on the band engageable within one of the grooves to prevent movement of the band longitudinally of said members, said means consisting of a resilient tongue bendable to extend within the groove.

2. Connecting means for insulator suspension links having partially spherical terminal heads, comprising counterpart castings with spaced recesses mating for the reception of the heads, said recesses being partially spherical and of greater size than the heads to permit limited play, said castings each having a groove in its periphery, a band encirclingly engaged upon the castings and formed with a struck-out tongue bendable to engage within either of the grooves.

3. Connecting means for insulator suspension links having terminal heads, com-

prising counterpart castings with recesses mating for the reception of the heads, said castings being formed with grooves in their peripheries mating to define a continuous groove extending circumferentially about the assembled members, and a band embracingly engaged upon the castings and formed with a struck-out tongue extending circumferentially and engaging within said continuous groove to prevent longitudinal displacement of the band with respect to the castings.

In testimony whereof I affix my signature.

MINOR F. H. GOUVERNEUR.