Oct. 10, 1933. J. H. GRAY 1,929,580

MEANS FOR REENFORCING CABLE SLEEVES

Filed Aug. 23, 1932

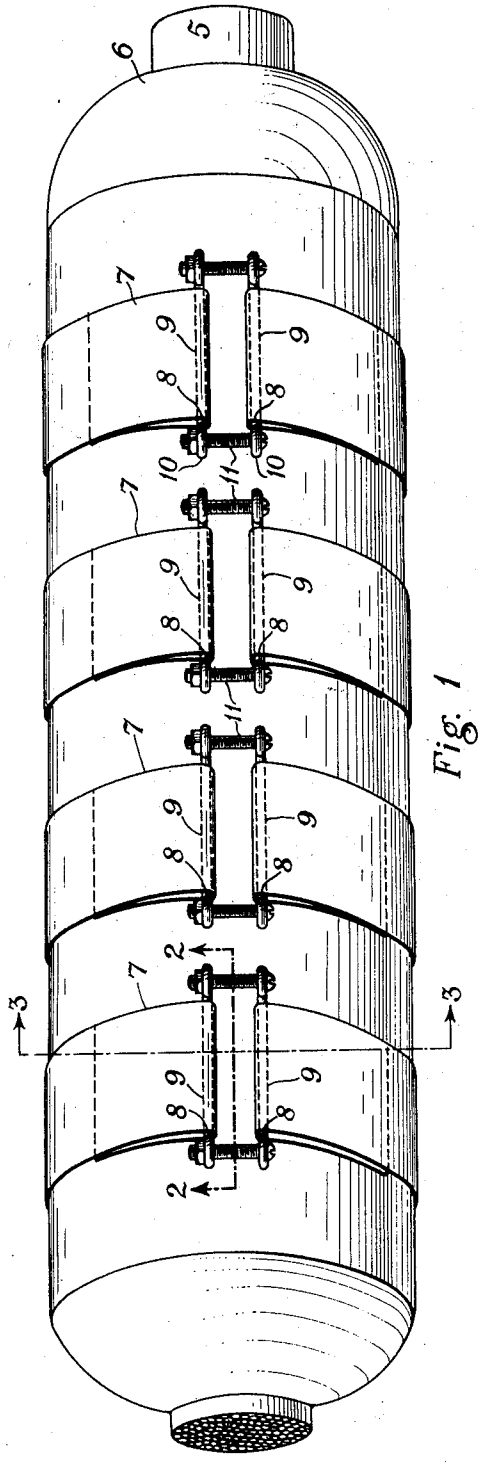


Fig. 1

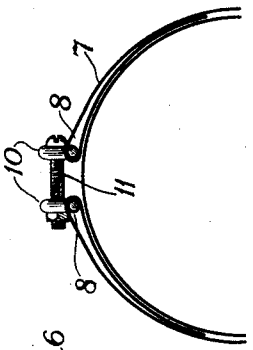


Fig. 3

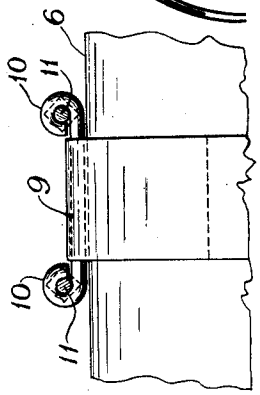


Fig. 2

INVENTOR
J. H. Gray
BY
ATTORNEY

Patented Oct. 10, 1933

1,929,580

UNITED STATES PATENT OFFICE

1,929,580

MEANS FOR REENFORCING CABLE SLEEVES

Joseph H. Gray, Elizabeth, N. J., assignor to American Telephone and Telegraph Company, a corporation of New York

Application August 23, 1932. Serial No. 630,128

1 Claim. (Cl. 24—19)

This invention relates to reenforcing devices, and more particularly to adjustable bands for reenforcing sleeves of cables under pressure.

Electric transmission cables are sometimes maintained permanently under pressure, for instance, gas pressure for certain well known reasons. In some cases it has been found necessary to reenforce the larger of the lead sleeves of such gas filled cables, as the internal gas pressure may cause such high stresses at these points that expansion or bulging of the sleeves takes place.

Accordingly, it is an object of this invention to provide means for reenforcing the cable sleeves to prevent their distortion under these conditions, and thus eliminate damage to the cable and its contained conductors which would be caused thereby.

Another object is to provide an arrangement of this character which may be easily applied to the cable sleeve and which may be manufactured at a relatively low cost.

These and further objects will be apparent from the following description, when considered in connection with the accompanying drawing, in which one embodiment of the invention is illustrated.

Referring to the drawing, Figure 1 is a perspective view showing a cable sleeve with the improved band reinforcing means applied thereto;

Fig. 2 is a view of the band taken on the line 2—2 of Fig. 1; and

Fig. 3 is a further view of the band taken on the line 3—3 of Fig. 1.

The cable 5 has a sleeve 6 to which the reenforcing bands 7 are applied as shown in Fig. 1. These bands are in the form of strips of ductile metal such as zinc, and may be of any desired width and length. In practice these strips are cut from rolls or coils containing a considerable length, and such cutting may be performed at the point where the application of the strips to the cable sleeves takes place.

In assembling the bands 7 on the cable sleeve 6, the metal strip is cut to such length that when wrapped once around the sleeve there will be an excess length at each end of several inches. These ends are bent back inwardly, and when in position lie between the surface of the cable sleeve and the main portion of the band. A loop portion 8 is formed on each end at the point where the band is bent and a link 9 is seated in each loop. These links have a straight portion which lies in transverse relation to the bands, and these portions are of a length substantially equal to the width of said bands. An eye 10 is formed on the end of each link and extends beyond the edge of the band. A bolt 11 is passed through the adjacent eyes of each pair of links and when tightened draw the links together. The drawing together of the links causes tension in the band and this tension causes the ends of the sheet metal which are bent back over the links to be pinched between the surface of the sleeve and the band and thereby holds them against slipping. By this means as the tension of the band increases, the pinching action on the ends also increases, resulting in the ends being held more securely as the tension increases. Each of the bolts is independently adjustable with respect to its companion bolt so that the individual edges of the flat strip may be adjusted to provide a uniform clamping surface throughout when applied to the cable sleeves. This uniform clamping surface is important in cases where the cable sleeve is more expanded at one point than at another point or where said sleeve tapers, for instance from a maximum diameter at the center or other portion of the sleeve to smaller diameters at each end or other portions of the sleeve. The bands and their ends are thus held in fixedly and uniformly clamped relation about the cable sleeve. It will be apparent that by reenforcing cable sleeves in this manner, a multiplicity of sizes of parts is not required to care for various sizes of cable sleeves in various stages of expansion, as the banding material can be cut readily in the field to the necessary length for each individual case. A high degree of skill is not required in applying the reenforcing bands and the work can be accomplished with simple tools.

What is claimed is:

A band for reenforcing sleeves of electric transmission cables under pressure, including a strip of ductile metal having ends bent inwardly and back to lie between the strip and the cable sleeve, loop portions formed at the points where the strip is bent, a link member seated in each loop portion in transverse relation to the strip and having terminating eye portions extending outwardly from the strip, and means adjustably connected to the registering eye portions of each pair of link members for drawing each edge of the strip together independently of the opposite edge to fixedly clamp said edges against their respective ends and provide a uniform clamping surface about the cable sleeve in accordance with the diameter of the sleeve.

JOSEPH H. GRAY.