

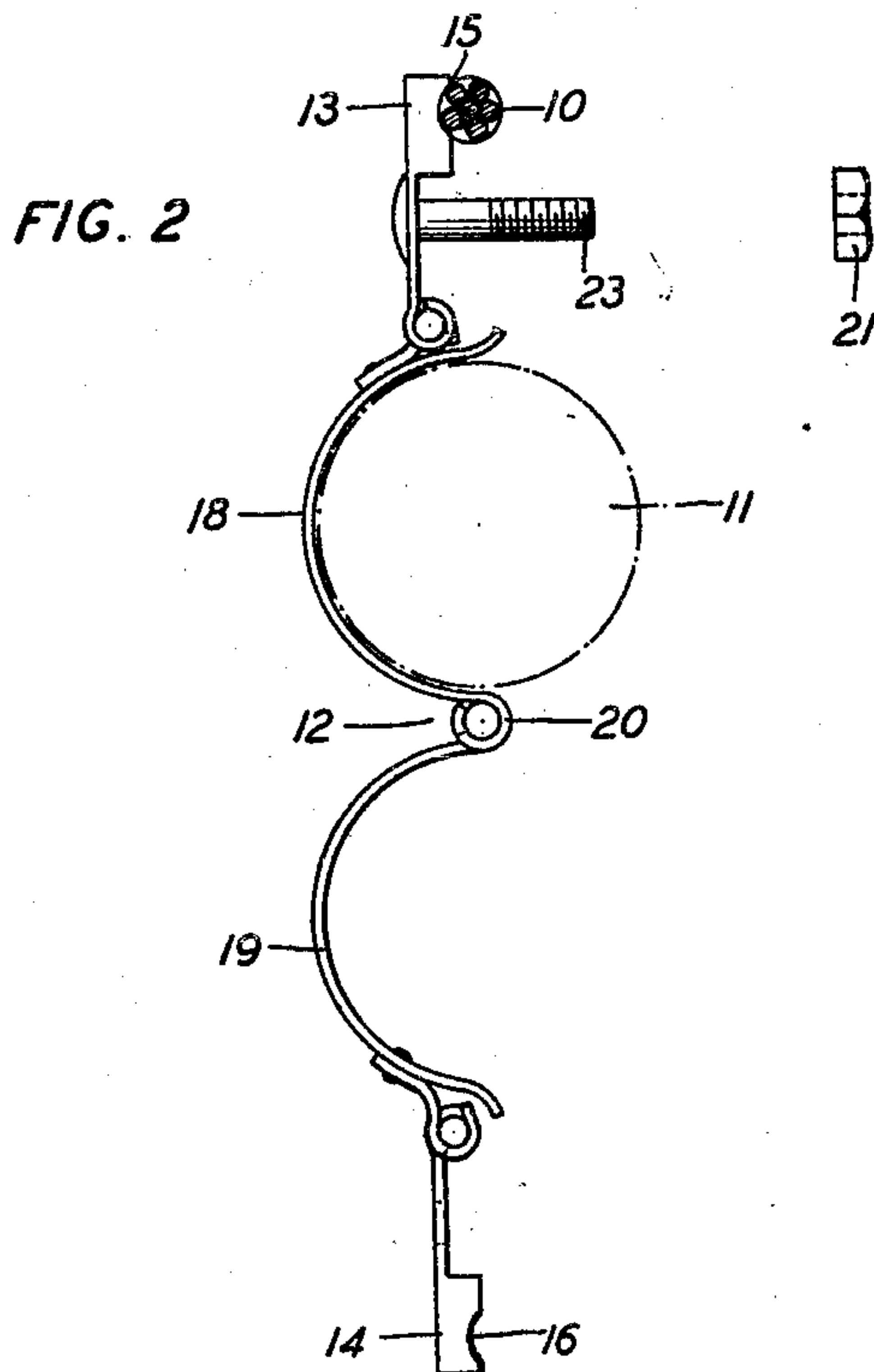
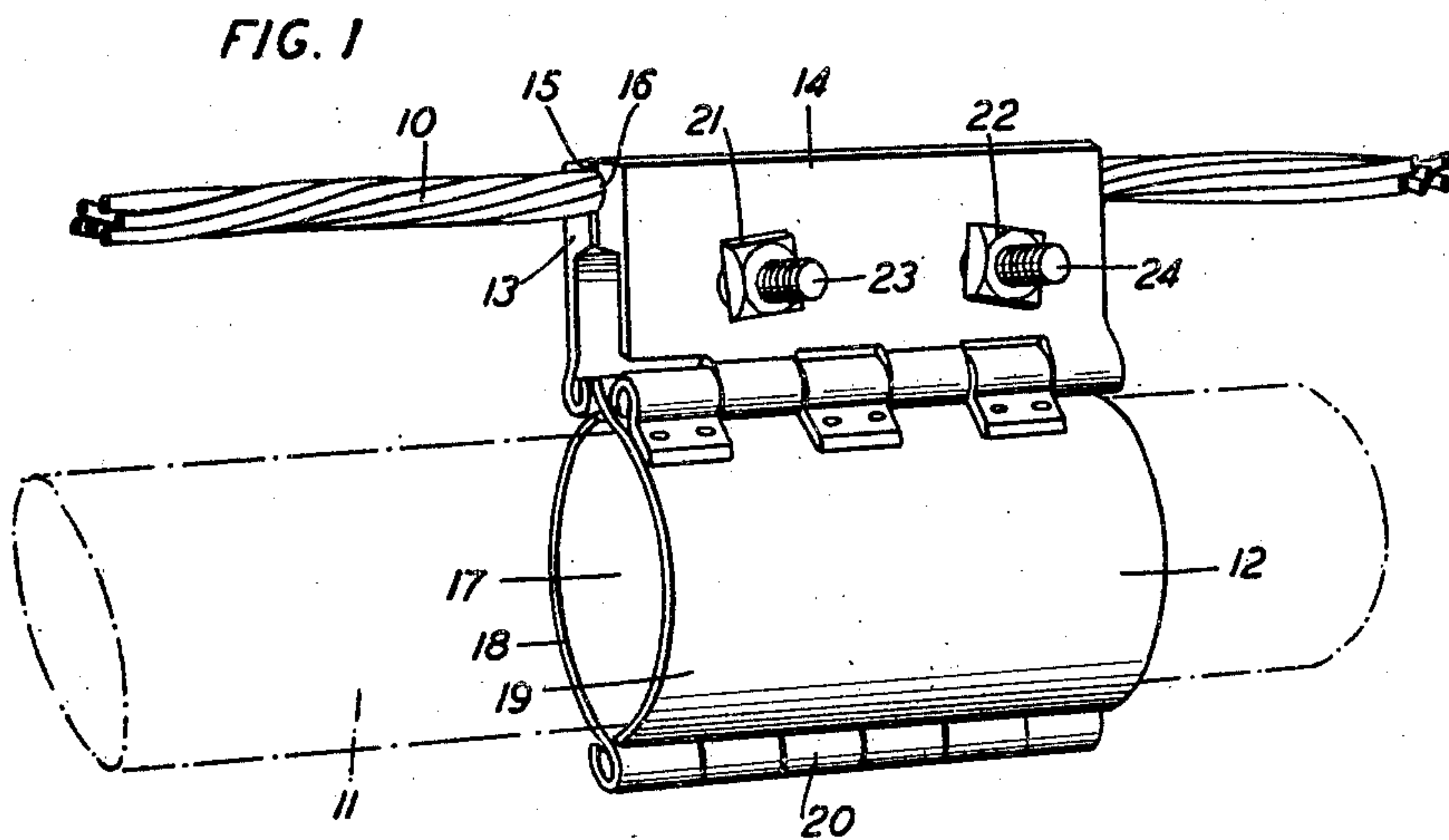
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GRADE CLAMP

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GRADE CLAMP

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This invention relates to supporting devices and more particularly to means for suspending electrical transmission cable from a messenger or supporting strand.

The object of the present invention is to provide a clamp or supporting device which will grip the cable sufficiently to prevent it from slipping, when the messenger strand is on an angle for a down grade, and yet not injure the cable sheath.

For some time past it has been customary to support aerial cable on down grades by means of a clamp which consisted of two parts, these two parts being bolted together at the top and at the bottom, the top part of the clamp being attached to the messenger strand and the lower part being arranged to grip the cable sheath. It has been found that this method of supporting a heavy lead covered cable has numerous disadvantages, among them being, that in order to grip the cable sheath firmly it was necessary to tighten the nuts to such a degree that the clamp had a tendency to bite into the cable sheath, and to also extrude the sheath between the clamping members, which, of course, shortens the life of aerial cables considerably and is, therefore, highly undesirable.

It was to overcome this objection that the applicants devised the present cable clamp which is not only cheaper to manufacture, but is much easier to install, and in addition is arranged to grip the strand and cable sheath firmly and by one operation. The novel construction of this clamp prevents any movement of the cable sheath therein, thereby preventing any abrasion to the cable sheath while it is firmly secured to the messenger strand.

Applicants' improved clamp comprises a pair of yoke members having longitudinal grooves therein which are adapted to engage the messenger or supporting strand. Pivotally mounted on the lower edge of the yoke members is a saddle member which comprises two semi-circular sections which conform to the shape of the cable to be supported, and are arranged to completely enclose the cable due to the projecting lips extending from the edges of the semi-circular members which are arranged to dovetail. These two sections

are hinged together at their lower edge. Passing through the yoke midway between the hinge and the strand groove is a pair of bolts, the tightening of which secures the yoke to the strand and also draws the two half-round sections together thereby completing in one operation the gripping of the strand and the securing of the cable in the saddle portion of the clamp.

Referring now to the drawings, Fig. 1 illustrates in perspective the cable support attached to a messenger wire and constructed in accordance with one embodiment of this invention.

Fig. 2 is an end view of the cable support in its opened position.

Referring now to Fig. 1, 10 represents a messenger or supporting strand from which the cable 11 is adapted to be suspended by means of a clamping device 12 which is constructed of suitable material such as mild steel.

The clamping device 12 comprises a pair of elongated yoke members 13 and 14, having longitudinal grooves 15 and 16 therein, said yoke members being hingedly secured to a saddle member 17, said saddle member comprising two semi-circular sections 18 and 19, these sections being hingedly secured together at their lower edges by means of a hinge 20. Located on the inner surface of the yoke members 13 and 14 are the longitudinally extending grooves 15 and 16 in which the messenger strand 10 is adapted to be secured when the nuts 21 and 22 are tightened down on the bolts 23 and 24. The tightening of the nuts 21 and 22 also draws the two sections 18 and 19 firmly into contact with the cable 11 thereby completing at one operation the securing of the clamp 12 to the messenger 10 and the cable in the saddle portion 17.

Due to the length and shape of the sections 18 and 19 which form the saddle 17, injury to the cable 11 is avoided when the nuts 21 and 22 are drawn down sufficiently to secure the clamp 12 to the strand 10 and the saddle member to the cable sheath 11.

As shown in Fig. 2 the securing of the clamp 12 to the messenger strand 10 and the securing of the sections 18 and 19 to the cable

sheath is all done in one operation inasmuch as the bolts which hold the yokes 13 and 14 to the strand 10 also force the sections 18 and 19 into firm engagement with the cable 11.

5 It can be readily observed that a considerable amount of time and labor are saved by the use of applicants' clamping device and it is especially advantageous to use this clamp where it is necessary to support a large lead
10 covered cable on a down grade. It was for this particular purpose that the present clamp was devised as it was necessary to have a device which would hold a lead covered
15 cable on a messenger strand at a considerable pitch without slipping and yet not injure the cable sheath.

It has been found in actual test that this clamp will securely hold the largest size cable on the steepest grades without injury to the
20 cable sheath.

What is claimed is:

1. In a cable supporting device adapted to be secured to a messenger or supporting strand, a pair of yoke members provided
25 with longitudinal grooves therein for gripping said strand, a saddle hingedly mounted on said yoke members and arranged to be secured thereto, said saddle member adapted to grip the cable sheath and be secured there-
30 to by the same means which secures the yoke members to the supporting strand.

2. In a cable supporting device adapted to be secured to a supporting strand, a pair of longitudinally grooved yoke members, a
35 saddle hingedly secured to said yoke members, and means for securing said yoke members to said supporting strand.

3. In a device for supporting aerial cable and the like, a pair of yoke members having
40 longitudinal grooves therein adapted to receive a supporting strand, a saddle hingedly secured to said yoke members, said saddle member comprising two semi-circular sections hinged together at their lower edges
45 and adapted to grip the cable sheath and be secured thereto by the same means which secures the yoke members to the supporting strand.

4. In a device for supporting aerial cable and the like, a pair of yoke members, a saddle surrounding the cable and hingedly se-
50 cured to said yoke members for firmly gripping the cable, and means passing through said yoke members for fastening said supporting device to the supporting strand, and
55 for securing said saddle to said cable, said yoke members adapted to be drawn together by said fastening means which secures the strand in the yoke members and the cable
60 in the saddle members.

In testimony whereof, we have signed our names to this specification this 9th and 15th days of October, 1930.

HARRY S. PERCIVAL,
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