Sept. 3, 1929. F. A. CANNON 1,726,536

CABLE SUPPORT

Filed Feb. 21, 1928

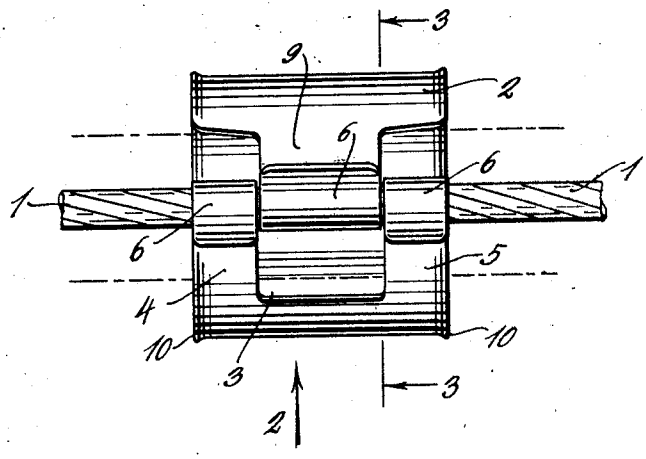


Fig. 1.

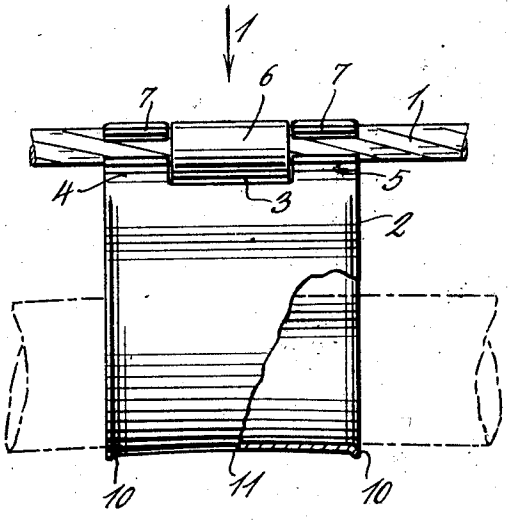


Fig. 2.

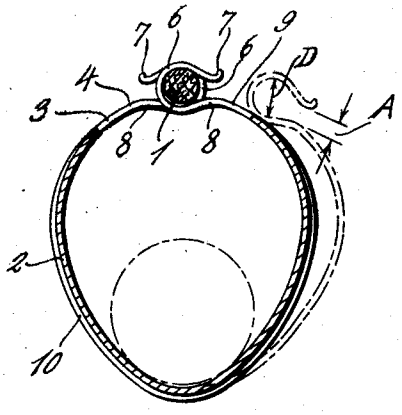


Fig. 3.

Inventor

Frank A. Cannon.

By A. J. O'Brien

Attorney

Patented Sept. 3, 1929. 1,726,536

UNITED STATES PATENT OFFICE.

FRANK A. CANNON, OF DENVER, COLORADO.

CABLE SUPPORT.

Application filed February 21, 1928. Serial No. 255,905.

This invention relates to improvements in cable support of the type employed in supporting telephone cables from messenger strands.

In the construction of overhead telephone lines, it is now customary to stretch a messenger strand between the poles and to support the telephone cables from these messenger strands by means of specially constructed cable supports.

It is the object of this invention to produce a telephone cable support that shall be of simple construction and which can be easily constructed by means of a die which will form the article with one or more operations and which can readily be applied to the messenger cable.

In order to describe my invention so that it can be readily understood, reference will be had to the accompanying drawing in which the preferred embodiment thereof has been illustrated and in which:

Fig. 1 is a top plan view looking in the direction of arrow 1 in Fig. 2 and shows one of the cable supports in place on the messenger strand;

Fig. 2 is a side elevation looking in the direction of arrow 2, in Fig. 1; and

Fig. 3 is a section taken on line 3—3, Fig. 1.

In the drawing numeral 1 represents the messenger strand which is a twisted wire strand that is stretched from one supporting pole to another and numeral 2 designates my improved cable support as a whole. My cable support comprises a strip of thin resilient material which may be constructed of steel and which has its outer surfaces galvanized so as to be rust resistant. This strip is bent into the shape shown in Fig. 3 which is somewhat oval or which may also be defined as heart shape. One end of the strip is provided with a notch 3 which extends inwardly to some distance. At the sides of this notch are projections 4 and 5, whose free ends are curved outwardly and reversely so as to form hooks 6. These hooks are of such size that when they are in place on the messenger strand the curvature of their inner surface will correspond to the surface of the strand. The free ends 7 are curved outwardly so as to facilitate the application of the hooks to the strand. Attention is called to Fig. 3 and to the fact that the part of the projections 4 and 5, where the curvature for the hooks commences is curved inwardly at 8 on a comparatively short radius so that any force tending to lift the support or force it upwardly against the messenger strand will produce a resultant that tends to more firmly attach the hooks to the cable instead of a force that would tend to remove them from the cable. This construction has been clearly shown and is considered to be of great importance in a device of this type, as it often happens during the installation that these cable supports are subjected to forces that have a tendency to detach them and thus make it necessary to reattach them at considerable expense and labor. The other end of the support has a central projection or tongue 9 which is of such width that it will extend through the notch 3 in the other end. Tongue 9 is also provided with an outwardly curved end portion which forms a hook 6 of the same shape and size as the hooks at the ends of members 4 and 5. In Fig. 3 the position of the parts before the hook at the end of projection 9 has been put in place has been indicated by dotted lines and from this it will be seen that the opening of the hook has a width A, which is considerable less than the diameter D, so that after the hook has been put in place, it will be quite securely held by the force produced due to the necessity of spreading the hook in applying and removing it from the messenger strand. From Fig. 3 it will be seen that at the beginning of the curvature for the hook on the end of the projection 9, there is an increased curvature like that explained in connection with projections 4 and 5 and therefore when the support is in place, any upward pressure merely tends to more securely attach the support to the cable. From Fig. 3 it will also be observed that the curvature of the support has a much smaller radius at the bottom than at the sides and this produces an oval opening which holds any size of telephone cable so as to prevent it from rolling.

It is obvious that if the support had a circular interior opening that the telephone cable would only rest on the support along a single line; whereas, with the construction shown, the telephone cable will have two lines of contact with the support and will therefore, as above intimated, be held against sidewise movement. This feature of the construction has several advantages over an entirely circular support, although the latter can be used if desired. In order to

strengthen the support the outer edges have been curved so as to provide flanges 10 that tend to increase its resiliency.

When these supports are employed, they are put into place and properly spaced along the messenger strand after which the telephone cable which has been shown by dotted lines is pulled through in the ordinary manner. The friction produced by the telephone cable as it is drawn through the support has a tendency to move the same along the messenger strand and to rotate the support. The tendency to move it longitudinally of cable 1 is resisted by the friction produced between the hooks 6 and the messenger strand and the turning force is resisted by the strength and the resiliency of the material and this turning force is also made ineffective for the purpose of removing the support due to the inward curves at points 8, which, as above explained serve to cause an upward force to more firmly set the supports on the messenger strand.

I want to call particular attention to the great simplicity of this support which, as above described, consists of a single piece of metal that can be cut by means of a die and which is provided with hooks that can be readily formed by proper dies and therefore the cost of manufacturing this hook is very low. The fact that the hook can be snapped into place either by means of the hands of the workman or by means of a special tool, makes it possible to apply them very quickly and they are therefore labor saving devices which reduce the cost of installation.

Attention is directed to the fact that these supports are wide and that therefore they present a large smooth supporting surface to the telephone cables and for this reason the latter are not injured as they would be if the supporting surface had a small supporting area.

The curved edges 10, in addition to adding to the resiliency are also of great importance for the reason that they prevent injury to the cable and facilitate the introduction of the cable during installation.

Although this invention has been described in connection with the supporting of telephone cables, it is obvious that it is equally well adapted for uses in connection with power cables, telegraph cables or any other similar cable or wire that require support and I therefore do not want to be limited to any particular use.

The strip from which the support is made is preferably inwardly convex in the manner shown at 11 in Fig. 2. This construction produces a device which will readily shed water and therefore water will not be retained between cable and the supporting surface. If moisture is permitted to remain between the cable and the support, the metal surface may corrode due to chemical and electrical action.

Having described the invention what is claimed as new is:

A cable support for use in telephone and power line construction for supporting a cable from a messenger strand comprising a thin, wide piece of resilient material bent in the direction of its length so as to form a substantially closed loop, one end having a notch extending inwardly and separating the end into two spaced fingers, the ends of said fingers being curved outwardly through an angle greater than one hundred eighty degrees so as to form two hooks adapted to embrace the messenger strand, the other end terminating in a tongue of such width that it can be inserted through the notch between the spaced fingers, the end of the tongue being curved outwardly through an angle of more than one hundred eighty degrees so as to form a hook adapted to engage the messenger strand from the other side, the opening within the support being free from obstructions and adapted to receive and support a cable, the fingers and the tongue being bent inwardly between the body of the support and the point where the outward curvature begins.

In testimony whereof I affix my signature.

FRANK A. CANNON.