Sept. 6, 1932. J. BLACKBURN 1,875,697

CABLE HANGER

Filed March 29, 1929

Fig. 1.

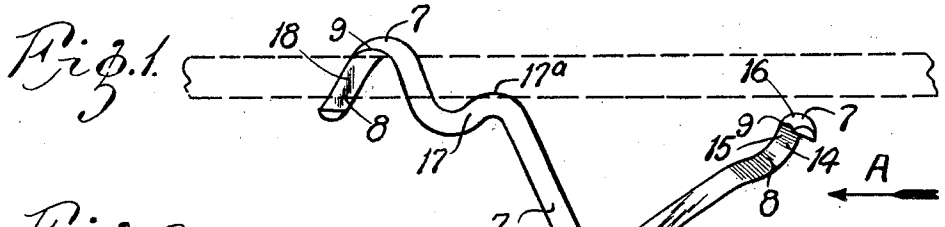


Fig. 2.

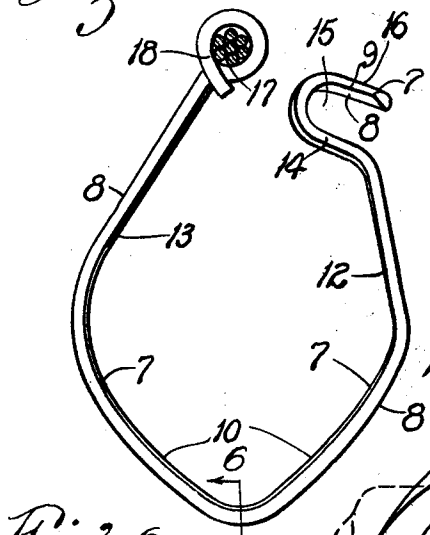


Fig. 4.

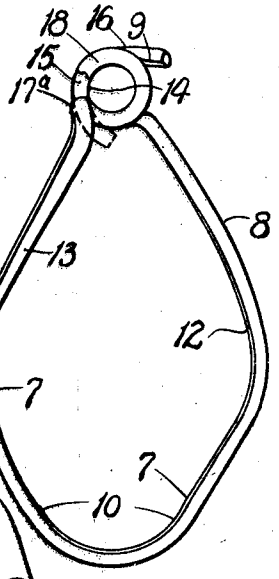


Fig. 5.

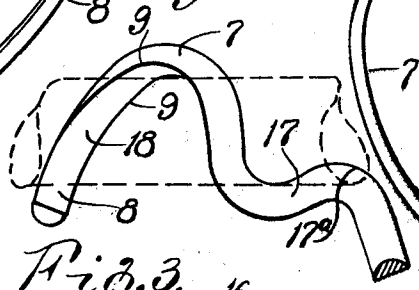
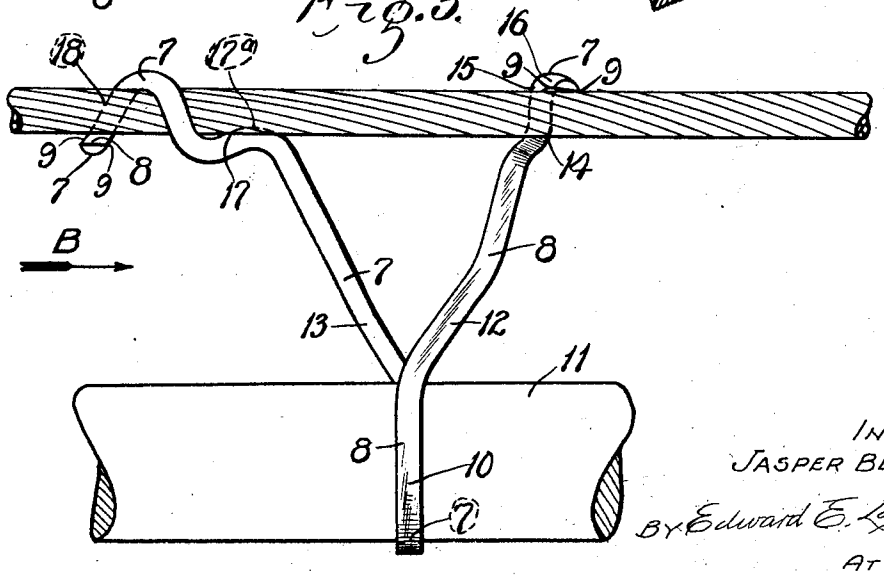


Fig. 6.



Fig. 3.



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UNITED STATES PATENT OFFICE

JASPER BLACKBURN, OF WEBSTER GROVES, MISSOURI

CABLE HANGER

Application filed March 29, 1929. Serial No. 350,881.

My invention relates to improvements in cable hangers, and has for its primary object a cable hanger formed from a single piece of spring wire having one convex and one flat face which hanger is so constructed that it can be readily attached to a supporting or messenger wire by hand and present the convex face of the wire to the cable to be supported therein thereby eliminating the chafing on the cable when swaying under the influence of wind which is present where flat wire hangers are used.

A further object is to construct a cable hanger as above described in such a manner that the attaching members thereof will present their flat faces to the supporting or messenger wire so that the sharp edges thereof will have a tendency to bite into said messenger wire and thereby prevent creeping of the hanger, especially when the cable is drawn therethrough.

A still further object is to construct a cable hanger of resilient or spring wire having integrally formed hooks or attaching members which are designed to pass readily over the largest diameter of the messenger wire when a stranded cable is used but which members are so arranged relative to each other that they will, by reason of the inherent elasticity of the entire hanger, when attached have tension placed thereon and have canting or biting grips at their various points of contact with the messenger wire

In the drawing:

Fig. 1 is a side elevation of my device showing the first step of applying the same to a messenger or supporting wire;

Fig. 2 is an end view of the same viewed in the direction of the arrow A in Fig. 1;

Fig. 3 is a view of my device as attached to the messenger or supporting wire with the cable in position;

Fig. 4 is an end view with parts broken away of Fig. 3 viewing the same in the direction of the arrow B;

Fig. 5 is an enlarged fragmental perspective view of the hanger showing the gripping hook; and

Fig. 6 is an enlarged cross section of the wire from which the hanger is formed.

In the construction of my device I employ a piece of resilient wire having a convex face 7 and a flat face 8 leaving relatively sharp corners 9. The wire is bent in the form of a loop as at 10 which forms a seat for the cable 11. Adjacent the seat 10 are arms 12 and 13. These arms diverge outwardly from the seat as illustrated in Figs. 1 and 3. The upper portion of the arm 12 is bent inwardly as indicated by the numeral 14 so as to form a substantially horizontal shoulder with the flat face 8 uppermost The portion 14 is then bent around so as to form a hook 15. This hook has the flat face of the wire on its underside. The hook, however, is slightly tilted so that when the same is slipped over the messenger wire, one of the sharp edges 9 formed on the shoulder 14 will contact with the undersurface of the messenger wire, and the opposite sharp shoulder 9 on the upper portion 16 of the hook 15 will also contact with the messenger wire thereby having a tendency to exert a biting grip when an attempt is made to slide the hanger along the wire.

The arm 13 is provided with an extension or resilient arm 17 which is slightly bowed downward at its center so as to leave a heel 17*a*. The arm 17 extends at an angle to the arm 13 and is so arranged that it presents one of its edges to the under surface of the messenger wire. This arm 17 is then bent so as to form a spiral or gripping hook 18, which hook presents its flat surface to the messenger wire. This hook is also arranged that certain of its edges will contact with the messenger wire and have a tendency to bite therein thus further preventing any creeping of the hanger.

The hook 15 and the spiral gripping hook 18 are so arranged that their normal axes are at an angle to the axis of the messenger wire and at an angle to each other so that when they are attached a certain amount of twisting tension or torsion will have to be set up in the hanger as a whole thus skewing these hooks on the messenger wire and causing the contacting edges of the hooks to bind tightly against the messenger wire. The torsion thus set up forms a strong friction grip

and has a tendency to cause the sharp edges 9 to bite into the messenger wire when any attempt is made to slide the hanger along the wire after it has once been attached. The tension of the wire, however, is not so great that the hanger cannot be readily applied by hand but it is sufficient, however, to prevent any creeping of the hanger when once applied while drawing the cable through the hanger.

It is also to be noted that the gripping hook 18 and the supporting hook 15 are slightly larger than the largest diameter of the messenger wire when a stranded wire is used. This permits the hanger to be attached at any point along the wire, it being unnecessary to choose certain points for the attachment of the hanger.

An important feature of my device is that the axes of the hooks are arranged at an angle to or out of line with each other so that when the hanger is applied to a messenger wire, which necessitates the bringing of the axes of these hooks in alignment, a certain amount of twisting of the hanger as a whole is necessary, which sets up torsion in the hanger and causes the tight binding.

It will also be noted that the resilient arm 17, which is lightly bowed downward at its center, is forced up tightly against the under surface of the messenger wire when the hook 15 is brought up high enough to be slipped over the wire. This sets up an additional tension in the arm 16 and causes it to bind tightly against the lower surface of the messenger wire, and at the same time this action will cause the upper portion of the spiral gripping hook to be forced downward against the upper surface of the messenger wire so that not only will this gripping hook be forced against the messenger wire on diametrically opposite horizontal points but also on diametrically opposite points along the top and bottom of the messenger wire. Of course, by diametrically opposite I do not mean that these contact points must be in the same plane taken diametrically through the wire, but what I wish to convey is that these points of contact while being on opposite sides of the wire are laterally spaced from each other. By this construction I not only use the torsion set up in the hanger due to the twisting therein while applying the hooks but also gain the additional torsion set up in the resilient arm 17 when springing the hook 15 into position and thereby I obtain a double canting gripping on the messenger wire by the spiral gripping hook.

Having fully described my invention, what I claim is:—

A cable hanger formed of a single strand of spring wire having a convex and a flat face, a cable seat formed intermediate the ends of said wire and having the convex face thereof uppermost, diverging arms formed at the ends of said cable seat, a tilted hook formed at one end of said wire and integral with one of said arms and adapted to have the flat face of the wire opposed to a messenger wire, a resilient arm integral with and at an angle to the remaining arm and presenting one edge of the wire to the under face of the messenger wire, and a spiral gripping hook internal with said resilient arm, said gripping hooks having the flat face of the wire opposed to the messenger wire.

In testimony whereof I have affixed my signature.

JASPER BLACKBURN.