

J. J. WALSH.
CABLE OR CONDUCTOR HANGER.
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992,301.

Patented May 16, 1911.

Fig. 1

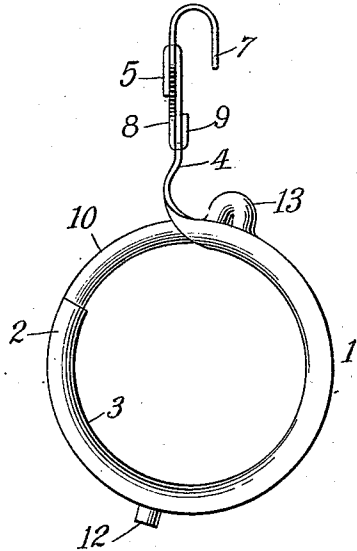


Fig. 2

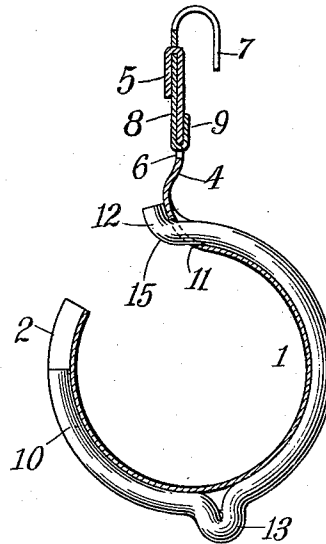


Fig. 3

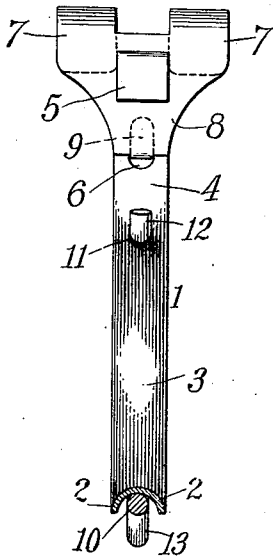
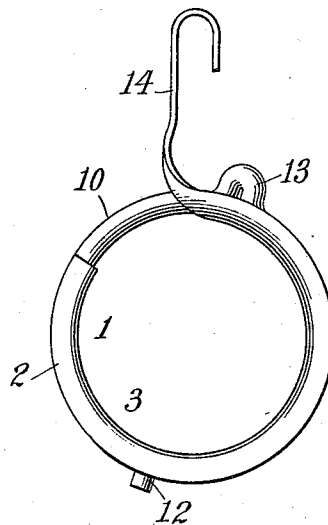


Fig. 4



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CABLE OR CONDUCTOR HANGER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN J. WALSH, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented a new and useful Cable or Conductor Hanger, of which the following is a specification.

My invention relates to new and useful improvements in supports or hangers for electric conductors, and more particularly to that type which is constructed to support a conductor from a supporting wire or cable.

The primary object of the invention is to provide a hanger which is extremely simple in construction, easy of manufacture and satisfactory in use and application.

A further and important object is to provide a hanger having a body or conductor-supporting portion of sufficient strength and rigidity to support a line wire or cable without danger of bending or twisting under the weight of the same.

A further object is to provide a device of sufficient strength and rigidity, as above stated, but which will include parts or elements which permit of the easy attaching and securing of the hanger to a supporting wire or cable.

Another object is to provide a hanger or support of the character set forth with simple and efficient means for holding the conductor or line wire in engagement therewith.

A further object is to provide a cable hanger having means for engaging a supporting wire or cable which will tend to maintain the hanger vertical and obviate all tendency of the hanger to creep along the supporting wire or cable or become materially displaced from the position in which it is initially secured.

To the ends above stated the invention consists in the improved hanger to be fully described hereinafter and the novelty of which will be particularly pointed out and distinctly claimed.

I have fully and clearly illustrated my invention in the accompanying drawings which are to be taken as a part of this specification, and wherein:

Figure 1 is a view in side elevation of a device embodying one form of my invention. Fig. 2, is a sectional view of the device shown in Fig. 1. Fig. 3, is a view in front eleva-

tion, partly in section of the device shown in Fig. 1. Fig. 4, is a view in side elevation of another form of the invention.

Referring to the drawings by numerals of reference: 1, designates the body of a cable hanger consisting of a hook-like member substantially circular in general contour, and formed from a strip of sheet metal of considerable strength and body, said strip having its edge portions bent outwardly toward each other to form stiffening flanges 2, 2, extending along the outer side of the hook. In the form shown the flanges are formed by flexing the body of the hook longitudinally in such a manner as to render the said hook substantially U-shaped in cross section. While the manner of forming these flanges provides a hook having the desired rigidity and strength I do not desire to be limited to the form shown as other ways may be devised for providing the flanges, and still fall within the scope of my invention.

The construction just described, is not only desirable in forming a support which will not bend or twist under the weight of the conductor, but is also of advantage in another important particular, namely, that the inner face of the hook-like member upon which the conductor rests, is formed with a smooth rounded surface, shown at 3, which prevents excessive wear of the insulation with which the cables are usually covered, owing to movement of the conductor and hanger relative to each other under influence of wind, or from other causes.

It will be seen upon reference to the drawings that the hook member 1, is formed with a shank 4, which may be of any desirable length, said shank comprising a flat band or plate of sheet metal formed at its upper end with a bent over portion 5, lying substantially parallel with the body of the shank, as clearly shown in the drawings. The shank, at a point preferably below the end of the bent over portion 5, is formed with a perforation 6, as clearly shown in Figs. 2 and 3.

Clamped between the bent over portion 5, of the shank, and the body of the latter, is a cable-engaging device consisting of a plate of sheet metal having upper spaced hooks 7, 7, between which said bent over portion is located, and a lower extension 8, having a projection 9, which projects through the

perforation 6, in the shank, and is bent down into engagement with the rear face of the latter, said bent over portion 5, and projection 9, serving jointly as the means for
5 securely and rigidly connecting the shank with the hooked cable-engaging portion just described.

The hooks 7, 7, are designed to be hooked over a supporting wire or cable, and being
10 more flexible than the shank 5 by reason of being made of thinner stock, as clearly shown in the drawing, may be easily clamped down thereon so as to prevent relative movement between the hanger and the
15 supporting-cable, not shown. An important feature consists in spacing the hooks 7, 7, apart from each other, for the reason that when connected to the cable hanger, a substantially vertical suspension of the hanger
20 is assured, and rocking movement, or slipping relative to the supporting cable is prevented, when the conductor is pulled through the hook member 1, owing to the increased area of engagement of the hanger with the
25 supporting cable.

Means is provided for closing the mouth or opening to the conductor supporting hook, so as to retain the conductor in said hook. This means consists of an open or
30 split, rigid ring 10, preferably of stout wire bent into approximately circular form and located within the space between the stiffening flanges on said hook, said ring being of such diameter, and its open portion of such
35 length, that it is retained in operative position on the hook member 1, without other retaining means than the flanges mentioned.

At a point adjacent its junction with its shank, the hook 1, is formed with an opening
40 11, through which the end of the ring which is located on the back of the hook projects, said end being formed with a lug 12, or stop, which engages the inner face of the hook, when the ring is moved to open
45 position, so as to limit the opening movement of the ring, all as clearly illustrated in Fig. 2, of the drawings.

The ring may also be provided with a lug 13, located intermediate its ends to serve
50 primarily as a hand-hold by means of which the ring may be conveniently manipulated, but which has the added function of serving as a stop to engage the back of the hook and limit the closing movement of the ring.

In Fig. 4, I have shown another form of the invention, in which the rigid hook 1, and the means for retaining the conductor are the same in all essential details as the form shown in the other figures, but the suspension devices for engaging the supporting
60 cable are made integral with the shank of the hook, as at 14, instead of being a separate element. In this case as in the form shown in Figs. 1, 2, and 3, the hooks which
65 engage the supporting cable are of thinner

stock than that of the hook-member 1, so as to be capable of being tightly clamped upon the supporting cable.

It is believed the application and operation of the invention will be apparent from 70 the above description, but they may be briefly stated as follows: The hooks 7, 7, being engaged over the supporting cable, and if desired, clamped down thereon, the split ring 10, is rotated about the hook 1, 75 until the open portion of said ring registers with the mouth or opening of the hook, as shown in Fig. 2, when the conductor may be placed in the hook through said alining openings. The retaining ring is then ro- 80 tated in a reverse direction from that just stated until the end bearing the lug 13, bridges the opening to the hook and passes over the free end of the hook, to assume a position shown in Fig. 1. In this position, 85 the cable is securely held within the hook 1, against release therefrom.

At this point attention is directed further to the construction of the ring 10, it being noted that the length of the ring from the 90 upper end, or that end bearing the lug 12, to the lug 13, is greater than from said lug to the other end of the ring, and consequently the weight of the ring between said lugs is greater than from said lug 13, to the other 95 end of the ring, and consequently the weight of the ring between said lugs is greater than the remaining portion of the ring, the result being that when the ring is moved to the limit of its position to close the mouth of the 100 hook, the end of said ring bearing the lug 12, depends below the other end and tends by its preponderance of weight to maintain the ring in closed position. This is important, particularly if the ring is slightly 105 larger than the body of the hook, so as to be loose thereon and therefore, have too free rotative movement relative thereto. In practice it is preferable to form the ring 10, so as to tightly grip the hook 1. 110

A feature of minor importance, but which has its advantages adding to the desirability of the complete device, is the manner of forming the lug 12, which it is seen is provided by bending the end of the wire com- 115 posing the ring upward, so that it not only serves as a stop for the movement of the ring, but by being so formed a cam surface 15, is provided which, should the end of the ring drop below the point of the hook-member 1 when the ring is being moved to 120 closed position, will engage said point to cause the end of the ring to ride up into its proper place in the space between the flanges 2, 2, on the hook 1. 125

Having thus described my invention, what I claim is:

1. A hanger of the character described, comprising a conductor receiving hook of sheet metal having stiffening flanges, and 130

a movable closure for the hook, said closure being guided and retained by said flanges, and a cable engaging device connected to said hook.

5 2. A hanger of the character described, comprising a conductor receiving hook of sheet metal having stiffening flanges, a movable closure for said hook, said closure consisting of a ring having an opening to register with the mouth of the hook, said ring
10 being retained and guided on said hook by the flanges of the latter, and adapted to be rotated around the hook to open and close the mouth of the same.

15 3. A hanger of the character described, comprising a conductor receiving hook of sheet metal having stiffening flanges, a movable closure for said hook, said closure consisting of a ring having an opening to register with the mouth of the hook, said ring
20 being retained and guided on said hook by the flanges of the latter, and adapted to be rotated around the hook to open and close the mouth of the same, and means for limiting the movement of the said ring.

25 4. A hanger of the character described, comprising a conductor receiving hook of sheet metal having stiffening flanges, a movable closure for said hook, said closure consisting of a ring having an opening to register with the mouth of the hook, said ring
30 being retained and guided on said hook by the flange of the latter, and adapted to be rotated around the hook to open and close the mouth of the same, and means for limiting the movement of said ring on both its opening and closing movements.

35 5. A hanger of the character described, comprising a conductor receiving hook of sheet metal having stiffening flanges, a movable closure for said hook, said closure consisting of a ring having an opening to register with the mouth of the hook, said ring
40 being retained and guided on said hook by the flanges of the latter, and adapted to be rotated around the hook to open and close the mouth of the same, and a stop on the ring cooperating with a part of the hook to limit the movement of the ring.

45 6. A hanger of the character described, comprising a conductor receiving hook of sheet metal having stiffening flanges, a movable closure for said hook, said closure con-

sisting of a ring having an opening to register with the mouth of the hook, said ring
55 being retained and guided on said hook by the flanges of the latter, and adapted to be rotated around the hook to open and close the mouth of the same, a stop on the ring cooperating with a part of the hook to limit
60 the movement of the ring, and a hand-hold on the ring by means of which the latter is manipulated.

7. A hanger of the character described, comprising a conductor receiving hook of sheet metal having stiffening flanges, a movable closure for said hook, said closure consisting of a ring having an opening to register with the mouth of the hook, said ring
65 being retained and guided on said hook by the flanges of the latter, and adapted to be rotated around the hook to open and close the mouth of the same, a stop on the ring cooperating with a part of the hook to limit the opening movement of the ring, and a
70 hand-hold on the ring by means of which the latter is manipulated, said hand-hold also serving as a stop cooperating with the hook to limit the closing movement of the ring.
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8. In a hanger of the character described, a conductor receiving hook of sheet metal having stiffening flanges, a cable engaging device connected to the hook, and a gravity
85 operated closure for the hook.

9. In a hanger of the character described, a conductor receiving hook of sheet metal having stiffening flanges, a closure surrounding the hook and located between and guided by said flanges, said closure consisting of a
90 split ring having an opening to be brought into register with the mouth of the hook, and a suspension device connected to the hook.

10. A hanger of the character described, 95 comprising an annular, conductor-receiving element having a circumferential stiffening flange and an opening through which a conductor may be passed, a flexible suspension device at the upper portion of said element, and a closure for said opening mounted on and rotatable about said element.
100

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Witnesses:

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