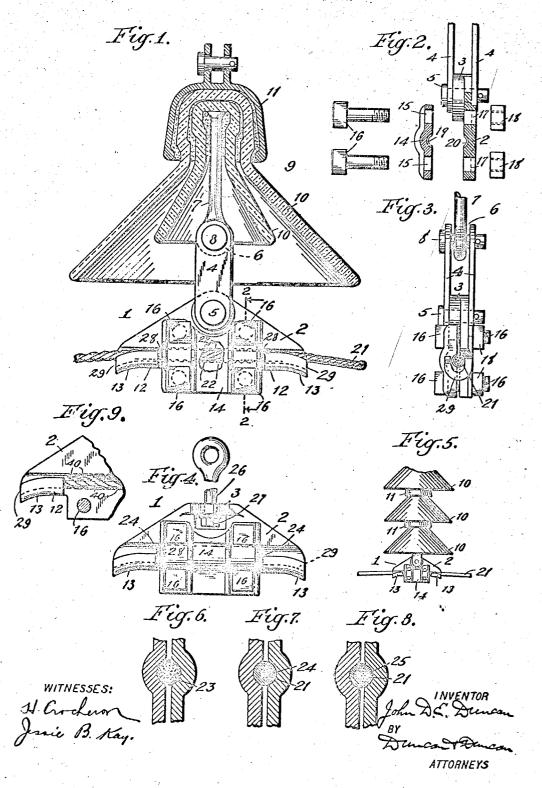
## J. D. E. DUNCAN. CABLE HANGER. APPLICATION FILED NOV. 29, 1907.



## UNITED STATES PATENT OFFICE.

JOHN D. E. DUNCAN, OF EAST ORANGE, NEW JERSEY.

## CABLE-HANGER.

No. 895,171.

Specification of Letters Patent.

Patented Aug. 4, 1908.

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To all whom it may concern:

Be it known that I, John D. E. Duncan, a citizen of the United States, and resident of East Orange, in the county of Essex and 5 State of New Jersey, have invented certain new and useful Improvements Relating to Cable-Hangers, of which the following is a specification, taken in connection with the accompanying drawings.

This invention relates to hangers and relates especially to cable hangers adapted for

use with high tension insulators.

In the accompanying drawings showing an illustrative embodiment of this invention in 15 which the same reference numerals refer to similar parts, Figure 1 is a side elevation of the hanger partly in section, shown in connection with a petticoat insulator. Fig. 2 is a sectional view on the line 2-2 of Fig. 1, 20 showing the parts of the hanger ready to be assembled. Fig. 3 is an end elevation of the hanger shown in Fig. 1. Fig. 4 is a side elevation showing a modified form of hanger. Fig. 5 is a side elevation showing the hanger 25 used in connection with a plurality of petti-coat insulators. Figs. 6, 7 and 8 are detail sectional views showing different forms of bushings used with the hanger to cooperate with cables of different diameters. Fig. 9

In the illustrated embodiment of this invention shown in the drawing, 1 is a cable hanger which may comprise a body 2 having a boss 3 on the upper central portion of the 35 body to which, straps 4 may be secured by the pin 5 which passes through openings in the lower end of the straps 4 and in the boss 3', the upper ends of the straps being also spaced apart to accommodate the eye 6 of a 40 bolt 7 or other supporting means held there by a pin S, as shown in Figs. 1 and 3. This bolt 7 amy be secured within a petticoat insulator 9, made up of one or more nested petticoats 10, supported within a bell 11, or the bolt 7 may be hung in any other suitable manner from the pole or other support.

The lower part of the body 2 may be formed with symmetrically arranged open had a haring alarmost of the support of the body arranged open had a larmost of the support of the

hooks having depressed or flaring ends 13.

50 The clamp 14 is preferably in the form of a plate having four apertures 15 for the reception of bolts 16 which may also pass through the apertures 17 in the bolts 2 to accord the apertures 17 in the body 2, to securely clamp the parts together by the nuts 18.

55 Within both the body portion 2 and the clamping member 14, suitable seats 19 and invention is not, of course, to be limited,

20 may be formed within which the cable 21 may be clamped after having been slipped into the hooks 13, 13. The interior surfaces of the hooks 13 are formed smooth so as to 60 permit without injury the ready longitudinal adjustment of the cable with respect to the hanger; and the depressed or flaring ends 13 of the hooks form saddles 29 to support the cable without chafing or injury in case of 65 breakage or other emergency.

To insure the firm gripping of the cable within the seats 19 and 20, they may be roughened, as shown in Fig. 1, by forming blunt annular teeth and grooves 22 within 70 them, although the spiral gripping teeth or grooves 40 shown in Fig. 9 may be used which may fit and second 19. which may fit and cooperate with the strands

of the cable to be supported.
Suitable bushings of sheet copper or other 75 protecting material may be interposed between the cable and the parts of the hanger which clamp it in position. The split copper bushing 23, may be used for this purpose as indicated in Fig. 6 and also halved bushings 80 of different thicknesses may be used as indicated in Figs. 7 and S, the hanger properly cooperating with cables of different sizes by using a bushing of the proper thickness to give the desired clamping action. In Fig. 7, the 85 bushing 24 is shown considerably thicker than the bushing 25 of Fig. 8 which coöperates with a larger cable. These bushings are preferably of such length as to fit between the inner ends or shoulders 28 of the hooks 90 12 so as to be properly positioned within the 12 so as to be properly positioned within the hanger as the parts are assembled.

The hanger may be mounted from a suitable insulator of the multiple petticoat form shown in Fig. 5 or otherwise; and a swivel- 95 ing connection such as is shown in Fig. 4 is interposed between the insulator and the hanger if preferred, by forming a vertically perforated boss 3, on the hanger through which the bolt 26 passes and is held swivel- 100 ingly in position by the nut 27. The cable may then be slipped over the hooks 12 and adjusted longitudinally with respect to the hanger and then the clamp brought firmly up into gripping position upon the cable and 105 protecting bushing if desired, so as to hold the cable firmly and without injury even under extreme service conditions.

tion with several illustrative embodiments 110

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what is claimed as new and what is desired to be secured by Letters Patent is set forth

in the appended claims.

1. In hangers, a petticoat insulator, a 5 hanger body having supporting means adjacent its upper portion to support said body from said insulator, a plurality of symmetrically located hooks formed on the lower part of said body and projecting from one face of 10 the same, said hooks being provided with downwardly flaring outer ends, a clamp to engage said body between said hooks, there being seats provided with spiral gripping grooves formed in said body and clamp be-15 tween said hooks to cooperate with a cable, a bushing for said cable to engage the inner shoulders of said hooks and means to force said clamp and said body together upon a cable

2. In hangers, an insulator, a hanger body secured to said insulator, a plurality of symmetrically located hooks provided with flaring outer ends formed on the lower part of said body, a clamp to engage said body be-25 tween said hooks, there being scats provided with gripping means formed in said body and clamp between said hooks to cooperate with a cable, a bushing for said cable between said hooks and means to force said clamp and

30 body together upon a cable.

3. In hangers, a body having supporting means adjacent its upper portion, a plurality of symmetrically located hooks formed on the lower part of said body and projecting 35 from one face of the same, said hooks being provided with downwardly flaring outer ends, a clamp to engage said body between said hooks, there being seats provided with spiral gripping grooves formed in said body and 40 clamp between and substantially in line with said hooks to cooperate with a cable, a yieldable bushing for said cable to engage the inner end of said hooks and means to force said clamp and body together.

4. In hangers, a body having supporting 45 means adjacent its upper portion, a plurality of hooks formed on the lower portion of said body, said hooks being provided with flaring outer ends, a clamp to engage said body between said hooks, there being seats provided 50 with gripping grooves formed in said body and a clamp between said hooks to cooperate with a cable.

5. In hangers, a body having supporting means and a plurality of hooks provided with 55 flaring outer ends, and a clamp to engage said body between said hooks, there being seats provided with gripping means formed be-tween said hooks in said body and clamp and adapted to cooperate with a cable.

6. In hangers, a body having supporting means, a plurality of symmetrically located hooks formed on said body and projecting from one face of the same to cooperate with a cable and a clamp to engage said body be- 65 tween said hooks and adapted to permanently secure a cable to said body.

7. In hangers, a body having supporting means and a hook to engage a cable, a clamp to engage said body, there being seats formed 70 in said body and clamp to cooperate with a

cable engaged by said hook.

8. In hangers, a body having means formed thereon to engage and securely suspend a cable, a bushing for said cable and a clamp 75 to engage said body, there being seats formed in said body and clamp to be engaged by said bushing, said clamp permanently securing said cable in position on said body without injury to said cable.

JOHN D. E. DUNCAN.

Witnesses: HARRY L. DUNCAN, JESSIE B. KAY.