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CROSS ARM FOR CARRYING TELEGRAPH, TELEPHONE, OR OTHER WIRES

AND ROPES. APPLICATION FILED AUG. 2, 1906.

UNITED STATES PATENT OFFICE.

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CROSS-ARM FOR CARRYING TELEGRAPH, TELEPHONE, OR OTHER WIRES AND ROPES.

No. 855,138.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed August 2, 1906. Serial No. 328,921.

To all whom it may concern:

Be it known that I, HENRY M. Sciple, a Francisco, in the county of San Francisco 5 and State of California, have invented new and useful Improvements in Cross-Arms for Carrying Telegraph, Telephone, or other Wires or Ropes, of which the following is a specification.

This invention relates to cross-arms for carrying telephone, telegraph, or other wires, and ropes, and particularly applicable to sectional poles or poles composed of metal members. It will be understood, however, that 15 the improved cross-arms may be applied to poles composed of wood or metal of any design or form, as the variation in cross sectional contour of the poles may be accommodated by modifying the openings through 20 the centers of the cross-arms. In all wooden poles it is customary to form a mortise by the diameter of each pole so as to receive the cross-arms, and the latter are then bolted to { 25 the side of the pole subjecting it to a side strain. This construction invites decay and attack by moisture and causes one side of the pole to carry all the weight of arms and wire or ropes, and other destructive mediums.

30 In the present invention the entire weight of the arms and the wire or ropes held on the latter are supported by the upper ends of the poles subjecting them to a crushing strain only.

The invention consists in the construction and arrangement of the several parts which will be more fully hereinafter set forth.

In the drawing, Figure 1 is an elevation of a portion of a metal pole showing the im-40 proved arms applied thereto. Fig. 2 is a top plan view of the same. Fig. 3 is a plan view of one of the arms. Fig. 4 is a longitudinal vertical section through the upper or cap cross arm. Figs. 5 and 6 are detail views 45 partially in section of a modification of the arms. Fig. 7 is a detail plan view partly in section of a further modification of the arm. Fig. 8 is an edge elevation of the arm shown by Fig. 7.

Similar numerals of reference refer to like parts throughout the several views.

The numeral 1 designates a pole which in the present instance is shown as being composed of a number of metal members diverg-55 ing toward their upper extremities. This pole, however, may be an ordinary wooden !

pole or a solid metal pole. The improved arms 2 and 3 are in their simplified form of citizen of the United States, residing at San | integral construction and the arms 2 have central eyes or openings 4 of such diameter as 60 to loosely fit over the pole. The arm members 5 have a plurality of openings 6 therein to receive the pins or posts for the insulators or for other fastening devices. Close to the eyes or openings 4 the said arm members also 65 have larger openings 7 extending therethrough for the accommodation of the bolts

supporting the arms. The cap arm 3 differs in construction from the arms 2 by having a central socket 8 to 70 receive the upper end of the pole 1 and when the latter is of that structure embodying a central brace device it is passed through the socket and secured, or has its head bearing upon the upper surface of said socket. The 75 cap arm 3 is also provided with a plurality of openings 9 to receive insulator pins or other sawing the same inward about one-third of | fastening means. The arms 2, which may be of any number, are supported from the arm 3 by depending bolts or rods 10 secured 80 to the said arm 3 and passing through the arms 2 and terminally held in the lowermost of said latter arms. The arms as shown by Figs. 1, 2, 3 and 4 are composed entirely of metal. The arms 2 and 3 may also be pro- 85 vided at the center with openings 11 through which spikes may be driven to hold them on a wooden pole if desired and prevent the arms from turning, but the suspending feature heretofore described is the most impor- 90 tant. The arms will all have the openings 11 therein and spikes may or may not be used as desired.

> The suspending bolts or rods 10 may be of any preferred construction and of any 95 length, and in applying the several arms the suspension of the same, through the medium of the bolts or rods 10, will be found exceptionally convenient and comparatively inexpensive in the cost of erection of the com- 100 plete pole and arms.

> Figs. 5 and 6 show arms provided with central metallic members 12 having opposite sockets 13 to receive wooden arms 14, but in this instance the same suspending feature 105 will be carried out. Figs. 7 and 8 show central socket or ring members 14ª composed of duplicate sections which are bolted through the medium of terminal flanges 15 to the arms 16.

It will be observed from the foregoing that the improved arm in its preferred and modi-

fied constructions is fully prepared without delay for attachment to a pole and requiring but very simple tools to accomplish the work of applying the same. The principal 5 or essential feature of the invention, however, is sustaining the weight of the arms from the upper end of the pole no matter what the nature of the said pole may be.

It will be understood that changes in the ro proportions and dimensions may be adopted at will to accommodate various applications.

What I claim is:

1. The combination with a pole, of a plurality of cross-arms disposed thereon, one of 15 the arms resting on the upper end of the pole, and means connecting the upper arm to the lower arms, the said lower arms being suspended from the upper arm.

2. The combination with a pole, of a plurality of arms held thereon, one of the arms 20 resting on the upper end of the pole and the remaining arms provided with intermediate openings to fit over the pole, and means for connecting the said arms.

3. The combination with a pole, of a cap 25 arm having a socket fitted on the upper end of the pole, and other arms below the cap arm provided with openings in the center to fit over the pole, and means for suspending the arms below the cap arm from the latter. 30

In testimony whereof, I affix my signature

in presence of two witnesses.

HENRY M. SCIPLE.

Witnesses:

CHAS. E. BOND, S. C. HARGREAVES.