No. 746,469. PATENTED DEC. 8, 1903.

B. CULLEN.

ELECTRICAL WIRE SUPPORT.

APPLICATION FILED MAY 20, 1903.

NO MODEL.

Fig. 1.

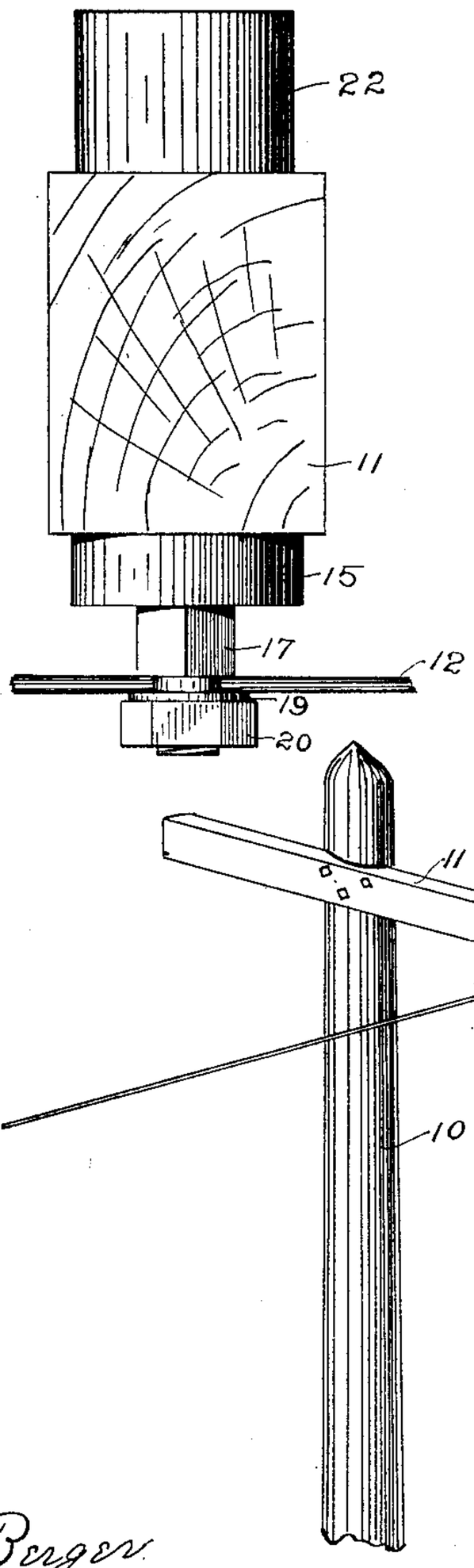

Fig. 2.

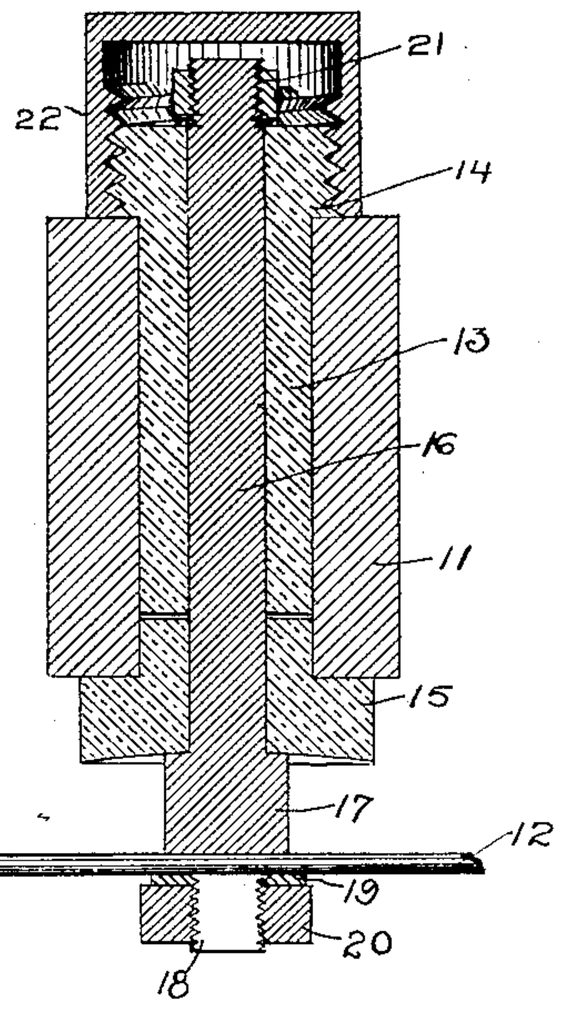

Fig 3

Witnesses
Arthur Berger
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No. 746,469. Patented December 8, 1903.

UNITED STATES PATENT OFFICE.

BEAUREGARD CULLEN, OF NEW ALBANY, INDIANA.

ELECTRICAL-WIRE SUPPORT.

SPECIFICATION forming part of Letters Patent No. 746,469, dated December 8, 1903.

Application filed May 20, 1903. Serial No. 157,965. (No model.)

To all whom it may concern:

Be it known that I, BEAUREGARD CULLEN, of New Albany, county of Floyd, and State of Indiana, have invented a certain new and useful Electrical-Wire Support; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like numerals refer to like parts.

The object of this invention is to provide an improved means for supporting telegraph or telephone wires and the like, especially arranging and mounting the insulation so that it will be protected from injury, and so arranging the various parts of the wire-support that rain and sleet cannot ground or waste any of the current. In effecting this last-mentioned object the parts are so arranged that the rain on the main parts of the wire-support will drip off and cannot run down to and make an electric connection with the wire. In such arrangement the wire is mounted below the cross-arm and below the insulation, and therefore is covered or sheltered from the rain and sleet.

The nature of this invention will be understood from the accompanying drawings and the following description and claims.

In the drawings, Figure 1 is an end elevation of the cross-arm, with a wire-support thereon and a section of the wire in side elevation, the wire being partly broken away. Fig. 2 is a transverse vertical section through what is shown in Fig. 1 on a line with the wire. Fig. 3 is a perspective view of the top of the telegraph-pole with one cross-arm and one wire in place.

In detail, 10 is a telegraph-pole, 11 the cross-arm, and 12 the electric wire. A vertical hole is bored through the cross-arm for the round insulating-sleeve 13, that is enlarged at its upper end and threaded at 14. This insulator does not extend entirely through the hole in the cross-arm and is supplemented by a lower insulator 15, that extends some distance up into the hole through the cross-arm and has an enlarged head extending below the cross-arm, that is preferably concave on its under side. These insulators 13 and 15 have a hole extending centrally through them for the metallic wire-supporting metal rod 16. It has an enlarged head 17 on its lower end, that bears against the concave under surface of the lower insulating-piece 15, and also has a split threaded end 18, that receives over it the washer 19 and the nut 20. The upper end of the rod 16 is also threaded to receive a nut 21, and over the upper end of the insulator 13 and of the rod 16 I place a projecting cap 22, that is internally threaded to screw on the insulator and rest upon the cross-arm, as appears in Fig. 2.

The parts are mounted as follows: The insulator 13 is put in place in the cross-arm and the insulator 15 is put in place on the arm 16, and then said rod is inserted upwardly through the insulator on the cross-arm and the nut 21 screwed thereon. The cap 22 is then screwed on, as shown. The wire is secured to the rod 16 by being inserted in the split end 18 of said rod and the washer 19 and nut 20 being secured in place. By this it is seen that the main portions of the insulating material are protected from injury by the cap 22 and the cross-arm. The portion of the insulator extending below the cross-arm is not much exposed to injury. It is also seen that the concavity of the part 15 will prevent the rain which may flow down the side of said part 15 from running across its lower face into contact with the metal shank 17 and ultimately with the wire 12. The cap 22 protects the upper part of the wire-support and the lower part of the insulator is protected by the cross-arm above it and what little moisture may gather on the lower part of the insulator will drip off from the edge thereof, and therefore no continuous sheet of moisture can extend from the wire to the cross-arm. This is important because of the great loss of current during rainy weather by reason of the large number of wire-supports to which a wire is connected and through which the current is wasted, and a little waste at each pole on a long wire will often cause considerable loss and often incapacitate the wire.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with means for supporting an electric wire having a vertical hole through it, of an insulator formed of two pieces, the upper piece extending partially through said hole and enlarged at its upper end to rest on said supporting means and

the lower piece extending upward partially through said hole with an enlargement to bear against the under side of said supporting means and the lower end thereof formed concave, a wire-support extending centrally through said insulator with a shoulder on its lower end to abut against the lower end of the insulator, and means on the upper end of said wire-holder for securing it, and the pieces of the insulator in place.

2. The combination with means for supporting an electric wire having a vertical hole through it, of an insulating-sleeve extending downward in said hole with the upper end enlarged and threaded, an insulating-piece extending upward in the lower part of the hole with its lower end enlarged, a wire-support extending through said insulating-pieces with a shoulder on its lower end of less diameter than the insulator, a nut on the upper end of said wire-support for securing it in place in said insulating-pieces, means for securing the wire to the lower end of said wire-support, and a screw-cap for screwing on the upper end of the insulating material, substantially as set forth.

In witness whereof I have hereunto affixed my signature in the presence of the witnesses herein named.

BEAUREGARD CULLEN.

Witnesses:
JOSEPH S. FOLEY,
JOHN DANDENBULT.