

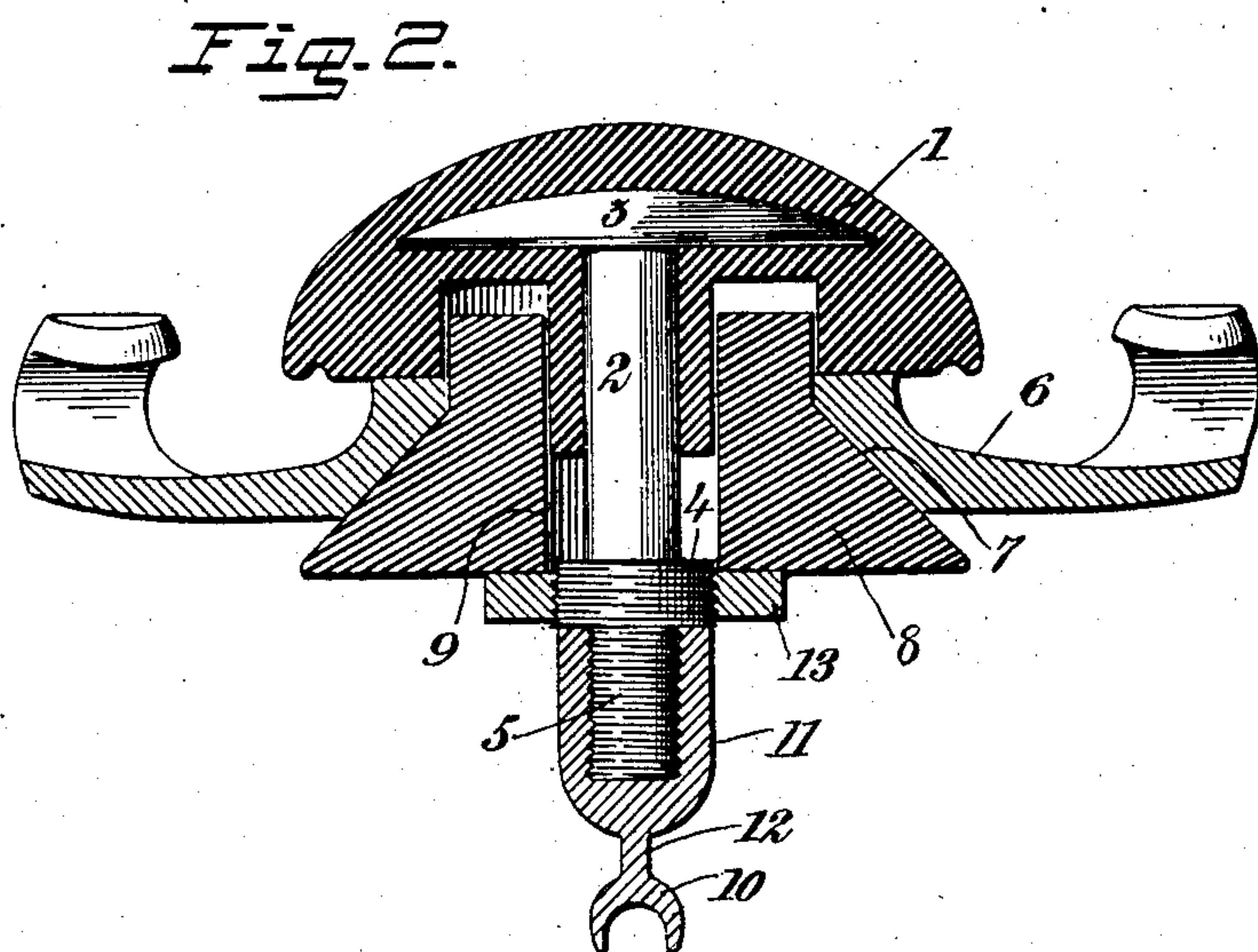
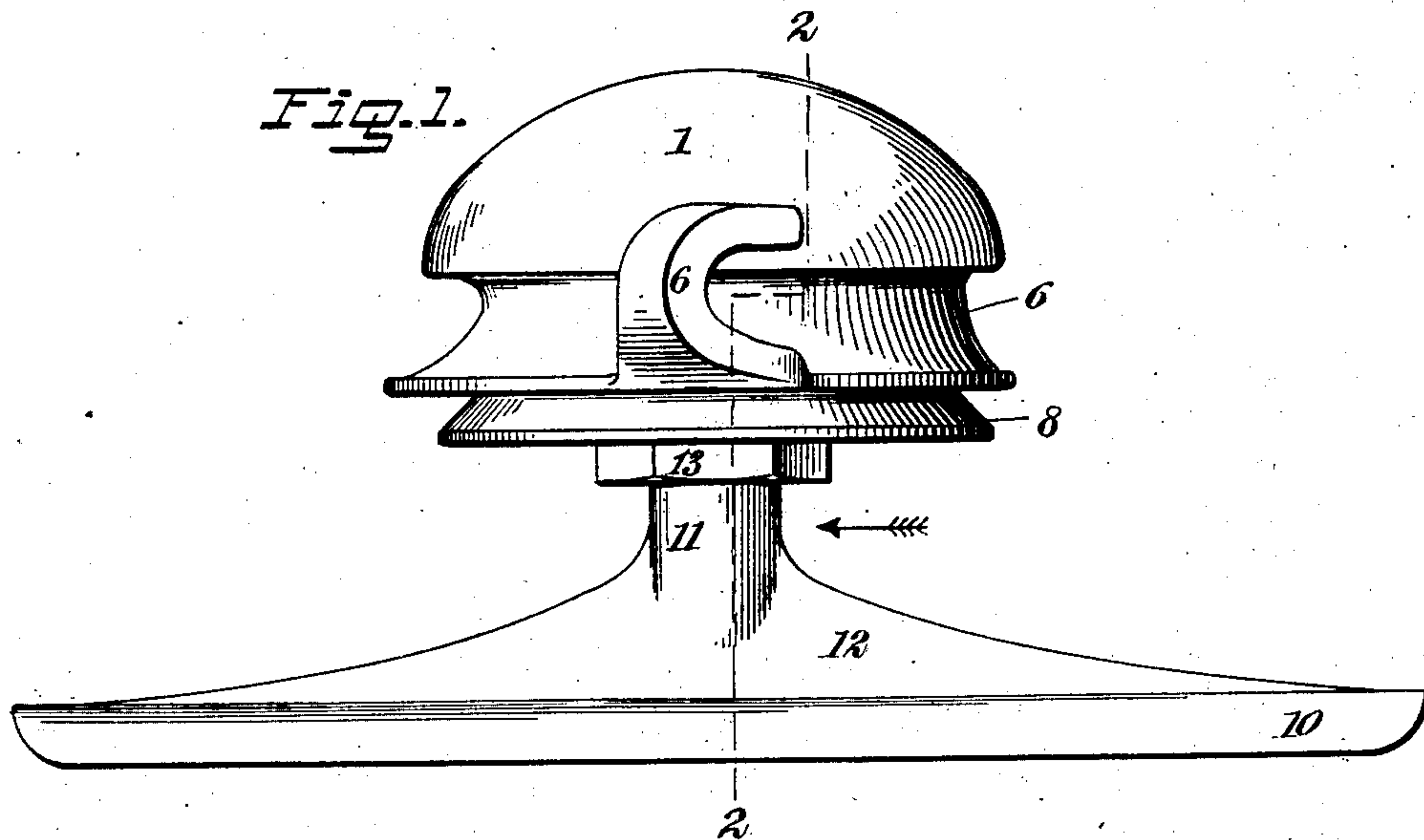
No. 729,440.

PATENTED MAY 26, 1903.

L. STEINBERGER.
LOCKING HANGER.

APPLICATION FILED OCT. 31, 1902.

NO MODEL.



WITNESSES:

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LOUIS STEINBERGER, OF BROOKLYN, NEW YORK.

LOCKING-HANGER.

SPECIFICATION forming part of Letters Patent No. 729,440, dated May 26, 1903.

Application filed October 31, 1902. Serial No. 129,584. (No model.)

To all whom it may concern:

Be it known that I, LOUIS STEINBERGER, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Locking-Hanger, of which the following is a full, clear, and exact description.

My invention relates to hangers, my more particular object being to produce a hanger provided with independent fastenings for holding the ear and for securing the several parts rigidly together.

My hanger has several other advantages hereinafter pointed out in this specification and in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a side elevation of my hanger, and Fig. 2 is a vertical section upon the line 2 2 of Fig. 1 looking in the direction of the arrow.

The cap 1, of insulating material, is rigidly connected with a bolt 2, provided with a head 3, this head and a portion of the bolt being preferably embodied in the cap, as indicated in Fig. 2. The bolt 2 is further provided with an enlarged threaded portion 4 and with a comparatively small threaded portion 5. A metallic yoke 6 of the usual construction is provided with a conical opening 7 and is engaged by a substantially conical insulating member 8, provided with a central passage 9, whereby the same is given a somewhat annular form.

A member 10 for supporting the wire or cable is integrally mounted upon a web portion 12, and thereby integrally connected with a socket 11, which is threaded internally and screwed upon the threaded portion 5 of the bolt. A lock-nut 13 is threaded internally, as shown, and screwed upon the larger threaded portion 4 of the bolt.

My invention is used as follows: The yoke 6 being mounted in the usual manner, the bolt 2 is inserted therein from the top, the cap 1 being centrally disposed, as indicated in Fig. 2. The cone 8 is next fitted concentric to the bolt and to the opening 7 of the yoke 6. The lock-nut 13 is now passed upward over the lower

end of the bolt and is screwed upon the enlarged portion 4 thereof until the upper surface of the nut is forced rigidly against the lower surface of the cone 8, thereby forcing the cap 1 and the bolt 2 downward and the cone 8 upward, or the nut is dropped over the socket of the clip. The clip is then screwed fast on the lower end of the bolt, and the nut is then screwed tightly on the larger threaded portion of the bolt, thereby clamping the cone, yoke, and cap firmly together. It will be observed that when the parts mentioned are in the position just described a composite structure of great strength is formed. The ear is next mounted in position, which is done by simply screwing the threaded socket 11 upon the comparatively small threaded portion 5 at the lower end of the bolt. It will be observed that the screw-fastening between the socket 11 and the threaded portion 5 of the bolt is entirely independent of the screw-fastening between the lock-nut 13 and the larger threaded portion 4 of the bolt. The result is that the lock-nut 13 may be loosened or tightened at will for the purpose of adjustment or for any other purpose and that as an independent proposition the ear may be removed and replaced at will.

By means of the device just described if the bolt 2 is once set in a predetermined position and locked rigidly in that position by means of the lock-nut 13 the ear when taken off and replaced will always arrange itself in a predetermined position—say, for instance, at right angles to the general direction of the yoke 6. The operative need not hesitate to take off the ear, as the same can always be replaced so as to occupy its original position. If through any usage the threads are worn and the ear works into a position awry, the same can be easily corrected by loosening the lock-nut 13, adjusting the cap 1 relatively to the yoke 6, and then tightening the lock-nut 13.

It will be observed that the lock-nut 13 is slightly larger than the socket 11. This is for the purpose of enabling the lock-nut 13 to be loosened or tightened while the socket 11 is in position and without disturbing the same. In other words, the lock-nut 13 can be removed from the threaded portion 4 and allowed to drop downward a short distance

without disturbing the connection between the socket 11 and the threaded portion 5 of the bolt. I do not limit myself to the use of the nut 13 as a means for locking the parts together. Any other locking device may be employed.

The above parts together constitute a cheap, neat, and efficient construction, each part being replaceable and the structure as a rule requiring comparatively little skill in manipulation.

In the old style of hangers of similar construction the cap, yoke, and cone are held together by screwing the clip or ear onto the threaded end of the bolt embedded in the cap portion. Owing to the swaying of the trolley-pole and to many other causes the parts soon become loosened, and finally the cap twists itself free from the threaded socket of the clip, and in consequence the line drops and interferes with the proper work of the current.

One object of my invention is to lock the cap, yoke, and cone firmly together, irrespective of the clip. In consequence the swaying of the trolley-pole cannot loosen the hanger parts, whereby loss of time is avoided and much trouble and expense are prevented.

I do not limit myself to the particular form of device above described, as many other forms may be employed all coming within the scope of my invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A hanger, comprising an insulating-cap, provided with a depending member, a metallic yoke engaging said cap, an ear provided with mechanism for engaging said depending member, a cone of insulating material for engaging said member, and a locking device for engaging said member and said cone.

2. A hanger, comprising a cap of insulating material provided with a depending member, an ear detachably connected with said depending member, a metallic yoke engaging said cap, and means independent of said ear for securing said cap and said yoke rigidly together.

3. A hanger, comprising a cap of insulating material provided with a depending member, a cone of insulating material for engaging said member, an ear detachably connected with said depending member, a metallic yoke engaging said cap and said cone, and mechanism independent of said ear for securing said cap, said cone and said yoke rigidly together.

4. A hanger, comprising a cap of insulating material provided with a depending member, a metallic yoke engaging said cap, and means for detachably securing said cap and said yoke together, and an ear for engaging said depending member.

5. A hanger, comprising a cap of insulating

material provided with a depending screw, a metallic yoke engaging said cap, an ear provided with a threaded socket for engaging said screw, and locking mechanism independent of said socket for securing said cap and said yoke rigidly together.

6. A hanger, comprising a cap of insulating material provided with a depending screw, a metallic yoke engaging said cap, an ear provided with a threaded socket for engaging said screw, and means, controllable at will and independent of said socket, for securing said cap and said yoke together.

7. A hanger, comprising a cap of insulating material provided with a depending screw, a metallic yoke engaging said cap, an ear provided with a threaded socket for engaging said screw, and a locking device, controllable at will, for securing said cap and said yoke together and releasing the same without disturbing the position of said screw relatively to said ear.

8. A hanger, comprising a cap of insulating material provided with a depending member, a yoke engaging said cap, an annular cone of insulating material encircling said member, means for locking said yoke, said cap and said cone together, and an ear provided with mechanism for securing the same upon said depending member.

9. A hanger, comprising a cap of insulating material provided with a depending member having two portions differing in diameter, an annular cone of insulating material encircling said member, a metallic yoke disposed between said cap and cone, and means mounted upon one of said portions for locking said cap, said yoke and said cone together, said depending member being adapted for supporting an ear to be mounted upon the other of said portions.

10. A hanger, comprising a cap of insulating material provided with a depending bolt, said bolt being provided with a threaded portion, a yoke for supporting said cap, an annular cone encircling said bolt, a nut mounted upon said threaded portion and free to engage said cone, an ear, and means for detachably securing the ear upon said bolt.

11. A hanger, comprising a cap of insulating material, provided with a depending bolt, said bolt being provided with a threaded portion, a yoke for supporting said cap, an annular cone encircling said bolt, a member provided with a thread for engaging said threaded portion of said bolt and with a surface for engaging said cone, thereby locking said cap, said yoke and said cone securely together, and an ear provided with means for securing the ear upon said bolt.

12. A hanger, comprising a cap provided with a bolt, said bolt having a plurality of distinct threaded portions, a metallic yoke for supporting said cap, an annular conical member encircling said bolt and engaging said yoke, a lock-nut engaging one of said threaded

portions, and an ear provided with a threaded socket for detachably engaging the other of said threaded portions.

5 13. A hanger, comprising a cap provided with a bolt, said bolt having a plurality of distinct threaded portions of different sizes, a yoke for supporting said cap, an annular conical member encircling said bolt and engaging said yoke, a nut engaging the larger of
10 said threaded portions and also engaging said conical member, and a clip provided with a threaded socket engaging the smaller of said threaded portions.

14. As an article of manufacture, a central
15 member for supporting a trolley-ear, comprising a cap of insulating material and a bolt connected therewith, said bolt being provided with a plurality of distinct portions for engaging a locking device and a clip-socket respectively.
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15. As an article of manufacture, a central member for supporting a trolley-ear, compris-

ing a cap of insulating material, and a bolt connected therewith, said bolt being provided with a threaded cylindrical portion for engaging a clip-socket, and with a comparatively large threaded portion for engaging a lock-nut. 25

16. A hanger, comprising a cap of insulating material provided with a depending member having two portions differing in size, a yoke for supporting said cap, a fastening member disposed adjacent to said depending member, and a locking device for engaging one of said portions, the other of said portions being free to support an ear. 30 35

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS STEINBERGER.

Witnesses:

WALTON HARRISON,
EVERARD BOLTON MARSHALL.