W. A. McCALLUM.

HANGER FOR TROLLEY WIRES.

APPLICATION FILED MAY 21, 1910.

1,047,546. Patented Dec. 17, 1912.

Fig. 1.

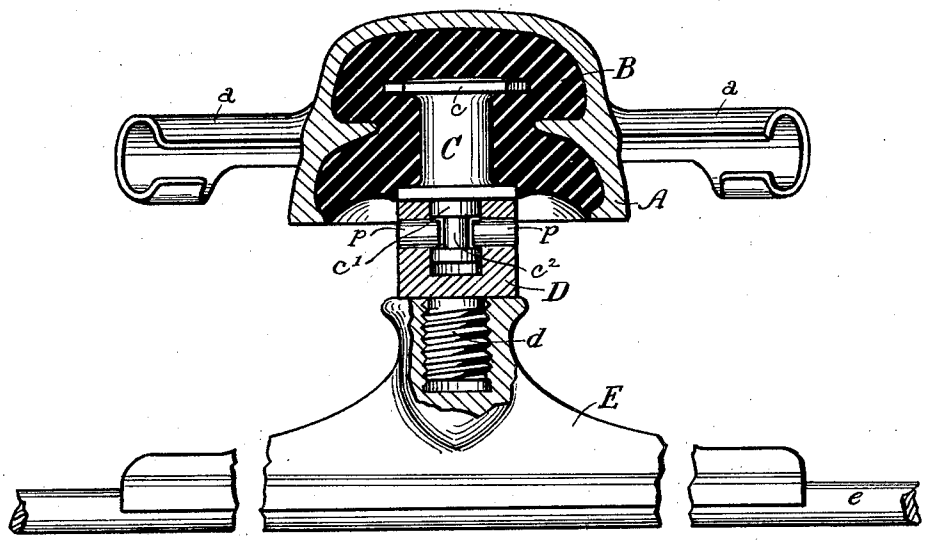


Fig. 2.

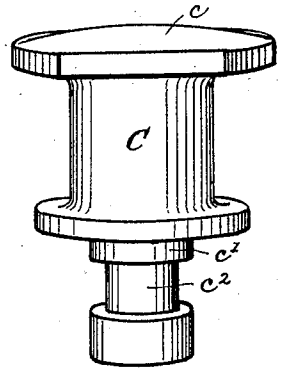
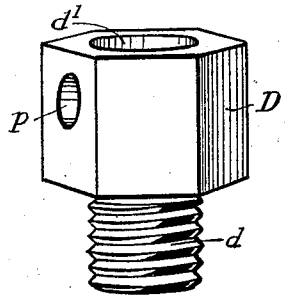


Fig. 3.



WITNESSES:

A. L. Tildesley

Walter A. Knight

INVENTOR.

William A. McCallum

BY

Louis M. Rosea

ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM A. McCALLUM, OF CINCINNATI, OHIO.

HANGER FOR TROLLEY-WIRES.

1,047,546. Specification of Letters Patent. Patented Dec. 17, 1912.

Application filed May 21, 1910. Serial No. 562,583.

To all whom it may concern:

Be it known that I, WILLIAM A. McCALLUM, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented new and useful Improvements in Hangers for Trolley-Wires, of which the following is a specification.

My invention relates to hangers used to suspend the trolley wire ear or clamp from a span wire or other support in electric railway service, and is in the nature of an improvement upon the invention covered by Letters Patent of the United States, No. 955185 granted and issued to me under date of April 19, 1910. Said Letters Patent shows and describes a hanger consisting of an inverted cup or bell provided with lugs or extensions at opposite sides to engage or be engaged by a permanent support, and within the cup, embedded in insulating material is a fixed socket piece open below for the engagement of a rotatable stem projecting outward below for engaging and suspending the trolley ear.

Carrying out the leading purpose of said invention, namely: to suspend the trolley ear in such manner as to be free to assume any radial relation to the hanger, but simplify the construction so as to apply the invention to the older type already in use, I employ a cup or bell, containing, as in the older type, a suspending bolt or stem, directly and fixedly embedded in the insulating material and having a cylindrical shank projecting below, to which I attach a swiveling head with a threaded shank projecting below for engaging the trolley ear.

My invention is illustrated in the accompanying drawings, in which,—

Figure 1 is a side elevation of a hanger sectioned through the insulating filling and through the swiveling head and its threaded shank—the embedded stem being shown unsectioned; Fig. 2 is a perspective of the embedded stem or bolt detached; and Fig. 3 is a perspective elevation of the swiveling head and its threaded extension, detached.

Referring now to the drawings: A designates the cup or bell of the hanger; *a*, *a*, its lateral arms formed to engage and support—in this case—a span-wire; and B the insulating filling which is pressed in while in a semi-plastic condition, over and upon ridges or ribs of the inner wall of the cup, and hardened into a firm mass substantially integral with the material of the cup.

C designates a suspending stem with enlarged head, *c*, embedded in the insulating material B, and rigidly held thereby, with a cylindrical shank c^1 projecting below, having a circumferential groove c^2 cut therein.

D designates a head which, with its projecting threaded stem *d* below, constitutes what may be properly called a suspending bolt for the trolley ear E which engages the trolley wire *e*. The head D is countersunk axially to receive the cylindrical shank c^1 in a close rotating fit, being held in place by pins, *p*, *p*, projecting through the head D at opposite sides into the circumferential groove c^2. The lower extension *d* of the head D is threaded to enter and engage the boss of the ear E in the usual manner, as shown in Fig. 1, by rotating the head D with a wrench—to which end the head D is provided with plane faces as shown. By this means the ear is drawn tight against the lower face of the head D, but the latter still maintains a rotative connection with the hanger through the shank c^1 of the embedded stem C, and thus while suspending the ear E leaves it free to assume any horizontal position required by the trolley wire in relation to the span wire or other support. Thus while the resulting functional advantage is substantially the same as in my former invention herein referred to, it possesses the advantage of simpler and cheaper construction with movable parts all external and accessible for examination, repair, etc., and moreover, may be applied to existing hangers having embedded bolts, by changes easily made.

While herein shown as applied to hangers of the insulating type, it will be obvious that the invention is not necessarily confined thereto; but is applicable to others as well.

I claim as my invention and desire to secure by Letters Patent of the United States:

1. A trolley-wire hanger embodying, in combination, an inverted cup or bell provided with means for engaging a fixed support and with a metal stem extended below the same, having a cylindrical terminal; and a supplemental stem, provided at the upper end with a socketed head adapted to receive and closely embrace the said cylindrical terminal in a rotative engagement preventing vertical or lateral intermovement, said

supplemental stem having a threaded terminal adapted to engage thereby a trolley-ear or clamp by the exclusive rotation of the supplemental stem.

2. In a trolley wire hanger an inverted cup or bell provided with means for engaging a fixed support, a filling of solidified insulating material in the cavity of said bell, a metallic stem fixedly embedded in and projecting below said filling, and a socketed head adapted to receive and closely embrace the said cylindrical terminal in a rotative engagement preventing vertical or lateral intermovement, said supplemental stem having a threaded terminal adapted to engage thereby a trolley ear or clamp by the exclusive rotation of the supplemental stem.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM A. McCALLUM.

Witnesses:
LEWIS M. HOSEA,
A. L. TILDESLEY.