Feb. 4, 1930. P. G. SWARS ET AL 1,745,876

CLAMP FOR TROLLEY CONDUCTORS

Filed Oct. 22, 1926

Fig. 1.

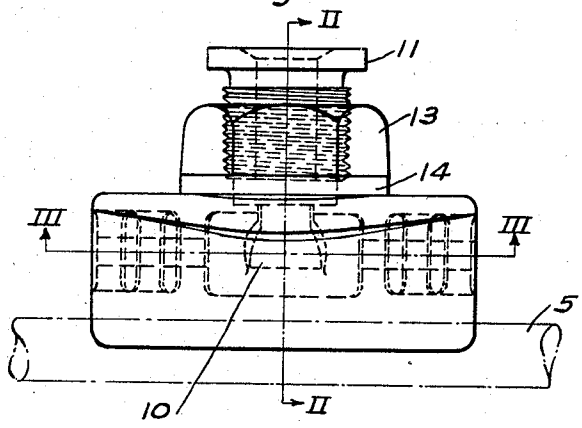


Fig. 2.

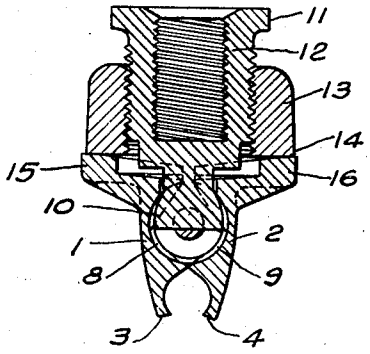


Fig. 3.

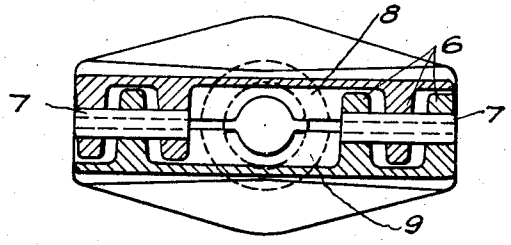
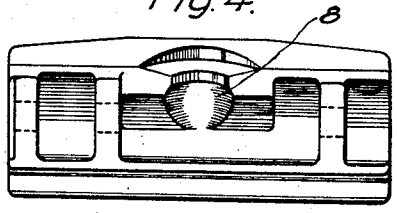


Fig. 4.



WITNESSES:
E. A. McCloskey.
Birney Hines

INVENTORS
Paul G. Swars and
Howard N. Richards.
BY
Wesley G. Carr
ATTORNEY

Patented Feb. 4, 1930 1,745,876

UNITED STATES PATENT OFFICE

PAUL G. SWARS AND HOWARD N. RICHARDS, OF PITTSBURGH, PENNSYLVANIA, ASSIGNORS TO WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA

CLAMP FOR TROLLEY CONDUCTORS

Application filed October 22, 1926. Serial No. 143,370.

Our invention relates to means for suspending trolley-conductors from overhead structures and particularly to clamps for gripping and holding trolley-conductors.

One of the objects of our invention is to provide an improved device of the character specified which shall be simple, durable and cheap in construction and effective and efficient in operation.

Another object of our invention is to provide a clamping device having interchangeable parts.

In a mine or in any other place having a low roof or ceiling, it is desirable to support the trolley-conductor as near the roof as possible, and it is a further object of our invention to provide a clamp that will occupy a minimum amount of space between the roof or ceiling and the trolley-conductor.

Our improved device comprises, in general, two interchangeable jaw members, which are fastened together by means of pins extending through cooperating apertured lugs near each end and which are held in operative position by means of a supporting stem having an enlarged head on its lower end which is adapted to fit in a recess that is located in the central portion of the jaw between the inner ends of the pins that hold the jaws together.

In the accompanying drawings,

Figure 1 is a view, in side elevation, of a trolley-conductor clamp embodying our invention;

Fig. 2 is a view, in section, taken on the line II—II of Fig. 1;

Fig. 3 is a view, in section, taken on the line III—III of Fig. 1; and

Fig. 4 is a view, in side elevation, of the inner side of one of the clamping jaws of the trolley conductor clamp shown in Figs. 1, 2 and 3.

Referring to the drawings, our improved trolley-conductor clamp comprises a pair of clamping jaws 1 and 2, which are provided with a pair of lips 3 and 4 that are adapted to grip a trolley-conductor 5 and have two groups of cooperating apertured lugs 6 on their inner sides that are adapted to be hinged together by means of alined pins 7.

In order that the clamping jaws may be interchangeable, each is provided with one lug near one end and with two lugs near its other end, so that, when two jaws are placed in operative position, the lug on one end of one jaw will fit between the two lugs on one end of the cooperating jaw.

The clamping jaws are provided also with central complementary recesses 8 and 9 which are adapted to receive an enlarged head 10 that is formed on the lower end of a supporting stem 11. The supporting stem 11 has a screw-threaded socket 12 in its upper end by means of which it may be easily secured to a supporting stud (not shown).

The upper portion of the supporting stem 11 is also screw-threaded externally and is adapted to receive thereon a screw-threaded compression nut 13 which is provided with an enlarged portion 14 on its lower end that is adapted to bear against extended lips 15 and 16 on the upper portions of the clamping jaws 1 and 2.

In assembling the clamp, the compression nut 13 is first screwed upon the supporting stem 11, and then the clamping jaws 1 and 2 are placed in position so that the complementary recesses 8 and 9 receive the enlarged head 10 of the supporting stem 11.

One of the pins 7 is then driven through each group of the apertured lugs 6 and is peened or otherwise secured in position.

In erecting the clamp in operative position, the compression nut 13 is screwed downwardly on the supporting stem 11 until the parts of the clamp are locked together, so that the clamp may be screwed upon a supporting stud. The compression nut 13 is next screwed upwardly until the lips 3 and 4 of the jaws may be opened sufficiently to receive the trolley-conductor 5. After the trolley-conductor is placed in position, the compression nut is again screwed downwardly until all the parts are securely locked in position.

Various modifications and changes may be made in the device illustrated herein, as embodying our invention, without departing from the spirit and scope thereof, and all such modifications and changes are intended to be covered by the appended claims.

We claim as our invention:

1. A clamp for supporting trolley conductors comprising, in combination, a plurality of coacting jaws provided with a groove to receive a trolley conductor, intermeshing lugs provided on the jaws, said lugs having openings disposed to be aligned, pins for engaging the openings to hinge the jaws, a supporting stem for the jaws, a head provided on the stem, said jaws having a recess for receiving the head, the lugs and pins being disposed near the ends of the jaws to permit the locating of the recess near the groove in the jaws to give a small overall dimension, said stem and head extending between the pins and serving to retain them in position, and means mounted on the stem for actuating the jaws.

2. A clamp for supporting trolley conductors comprising, in combination, a pair of coacting jaw members provided with lips for engaging a trolley conductor, said jaws being provided with apertured lug members disposed to interfit in hinged relation, pins disposed to extend through the apertured lug members to provide a hinge connection at each end of the jaws, a supporting stem for the jaws, said stem being provided with a head disposed to be pivotally engaged by the jaws, said hinge connections being disposed near the ends of the jaws to provide a central opening for receiving the stem and head to permit the locating of the socket connection between the supporting stem and the jaws near the lips of the jaws to give a small overall dimension, projections provided on the head to limit the rotation of the stem relative to the jaws, and a nut movably mounted on the stem for actuating the jaws to a clamping position.

In testimony whereof, we have hereunto subscribed our names this 20th day of October, 1926.

PAUL G. SWARS.
HOWARD N. RICHARDS.