O. W. BRENIZER.

HANGER FOR TROLLEY WIRES.

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1,045,809.

Patented Dec. 3, 1912.

Fig. 1.

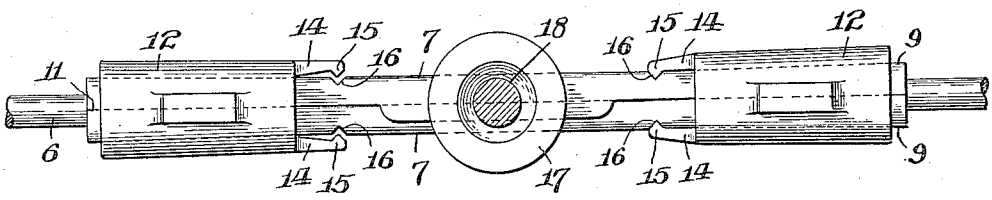


Fig. 2.

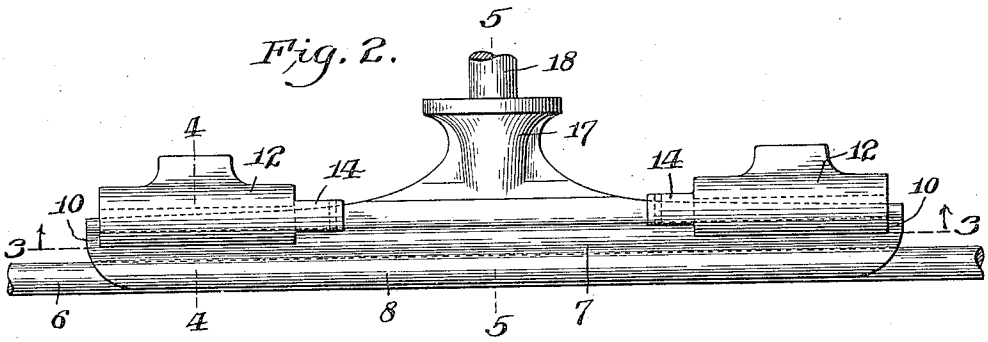


Fig. 3.

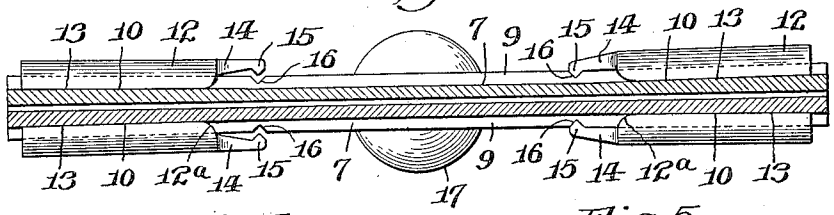


Fig. 4.

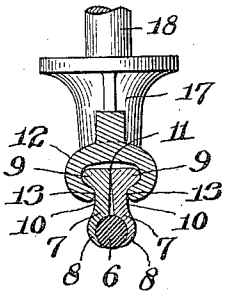
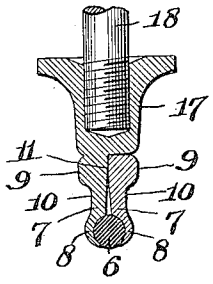


Fig. 5.



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HANGER FOR TROLLEY-WIRES.

1,045,809. Specification of Letters Patent. Patented Dec. 3, 1912.

Application filed June 30, 1910. Serial No. 569,629.

To all whom it may concern:

Be it known that I, ORSON W. BRENIZER, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Hangers for Trolley-Wires, of which the following is a specification.

This invention relates to hangers for the trolley-wires of overhead electric railways.

The object of the invention is to provide a novel, simple and efficient clamping device adapted to clamp the trolley-wire and suspend it in position, and to this end the invention consists in the novel construction and combinations of parts which will be hereinafter fully described and claimed.

In the drawings:—Figure 1 is a plan view of my improved hanger applied to a trolley-wire. Fig. 2 is a side elevation thereof. Fig. 3 is a longitudinal, horizontal section, on line 3—3 of Fig. 2. Fig. 4 is a transverse, vertical section, on line 4—4 of Fig. 2. Fig. 5 is a transverse, vertical section, on line 5—5 of Fig. 2.

In the drawings my improved hanger is shown applied to a portion of an overhead trolley-wire, and my improved hanger in its preferred form is of the following construction:—7, 7 are two longitudinal bars or ears on the lower portions of which are formed oppositely-disposed jaws 8, 8 and on the upper portions of which are formed outwardly-extending, longitudinal ribs 9, 9. The jaws 8, 8 are made parallel to each other and are adapted to embrace the trolley-wire 6, and the outer faces 10, 10 of the bars or ears 7, 7 beneath the ribs 9, 9 converge from the ends of the ears toward the central portions thereof, as clearly shown in Fig. 3 for a purpose hereinafter explained. The upper inner portions of the bars or ears 7, 7 engage and are fulcrumed on each other, as at 11, in a manner to permit the lower portions of the ears to move toward and from each other and permit the seating of the jaws 8, 8 against the sides of the wire 6. After the upper portions of the bars or ears 7, 7 are engaged with each other, and the jaws 8, 8 are seated against the sides of the wire 6, the wire is held clamped between the jaws by suitable end members 12, 12 which are C-shaped in cross-section and which embrace the upper portions of the bars or ears 7, 7 and the ribs 9, 9 formed thereon, the inner faces 13, 13 of the free ends of the members 12, 12 engaging the faces 10, 10 of the ears 7, 7.

Each C-shaped member 12 is constructed so that the free ends of the inner faces 13, 13 may be sprung apart a slight distance when forced upon the bars or ears 7, 7, whereby the spring action of said members against the outer faces 10, 10 of the ears will force the jaws 8, 8 into firm engagement with the sides of the wire 6. The inner ends of the C-shaped members 12, 12 are provided with projecting arms 14, 14 which extend substantially parallel to the bars or ears 7, 7, and are provided with teeth 15 adapted to engage notches 16, 16 formed in the ribs 9, 9 of the bars or ears 7, 7. When the C-shaped members 12, 12 are forced upon the bars or ears 7, 7 in the position shown in the drawings, the arms 14, 14 of each member 12 are in the condition shown at the left hand end of Figs. 1 and 3, and after the members 12, 12 have been forced into the positions shown, the arms 14, 14 are bent into the condition shown in Figs. 1 and 3 to engage the teeth 15, 15 with notches 16, 16.

In assembling the parts, the bars or ears 7, 7 are first engaged with each other and with the wire 6. This being done, the members 12, 12 are forced or driven endwise toward each other upon the bars or ears 7, 7, until they reach the positions shown in the drawings, whereupon the arms 14, 14 of each member 12 are hammered toward each other to engage the teeth 15, 15 with the notches 16, 16.

The distance between the outer faces 10, 10 of the bars or ears 7, 7 is slightly greater than the distance between the inner faces 13, 13 of each member 12 before the members 12, 12 are applied to the bars or ears 7, 7; and the inner ends of the faces 13, 13 of each member 12 are flared outwardly, as at 12^a to permit the application of the members 12, 12 to the ends of the bars or ears 7, 7. It will thus be seen that when the members 12, 12 are forced upon the bars or ears 7, 7, as previously explained, the faces 13, 13 of each member 12, will be forced a slight distance apart thereby causing inward pressure against the outer faces 10, 10 of the bars or ears 7, 7. It will also be seen that when the parts are assembled, as previously described, the inwardly converging faces 10,

10, together with the teeth 15, 15 engaging the notches 16, 16 will prevent any liability of the members 12, 12 working outwardly upon the bars or ears 7, 7.

When it is desired to remove the hanger from the trolley-wire, it is merely necessary to bend the arms 14, 14 outwardly to disengage the teeth 15, 15 from the notches 16, 16 and then force the members 12, 12 from the ends of the bars or ears 7, 7 upon the jaws 8 and may be moved apart to free the wire.

One of the bars 7 is provided with a centrally-arranged, upwardly-extending boss 17, provided with a screw-threaded opening therein into which is screwed the lower end of a screw-threaded rod 18 by means of which the hanger may be suspended from any suitable support, such, for example, as the supports usually carried by the cross-wires and provided with downwardly-extending screw-threaded rods, the rod 18 representing the rod of such support.

I claim:—

1. In a hanger for trolley wires, two clamping members provided on their lower portions with wire clamping jaws, suspending means connected to one of said members, said members having outer opposite faces which converge from the outer ends of said members toward said means, and a member engaging said faces and forcing said jaws toward each other, one of said members being resilient and pressing said jaws toward each other.

2. In a hanger for trolley wires, two clamping members provided on their upper portions with outwardly extending, longitudinal ribs and on their lower portions with wire clamping jaws, suspending means connected to one of said members, said members having outer opposite faces which converge from the outer ends of said members toward said means beneath said ribs, and a member C-shaped in cross section embracing said ribs and engaging said faces and forcing said jaws toward each other, one of said members being resilient and pressing said jaws toward each other.

3. In a hanger for trolley wires, two clamping members provided on their lower portions with wire clamping jaws and provided also with notches, suspending means connected to one of said members, said members having outer opposite faces which converge from the outer ends of said members toward said means, a member engaging said faces and forcing said jaws toward each other, one of said members being resilient and pressing said jaws toward each other, and arms projecting from said member and provided with projecting teeth, said arms being bent and said teeth being engaged with said notches.

In testimony whereof I affix my signature in the presence of two witnesses.

ORSON W. BRENIZER.

Witnesses:
A. V. GROUPE,
S. I. HARPER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."