R. B. HEIMBECKER & S. R. M. ORUM.

TROLLEY WIRE HANGER.

APPLICATION FILED FEB. 24, 1908.

931,301. Patented Aug. 17, 1909.

Fig. 1.

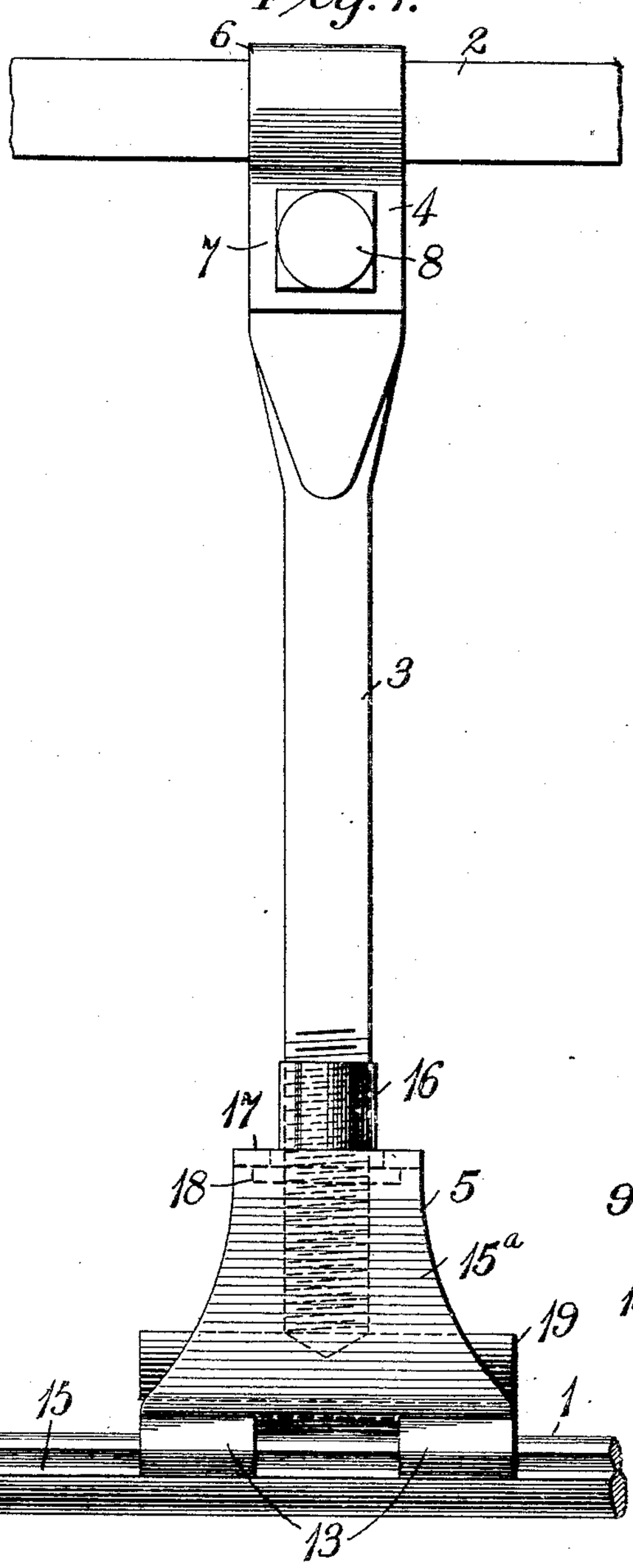


Fig. 2.

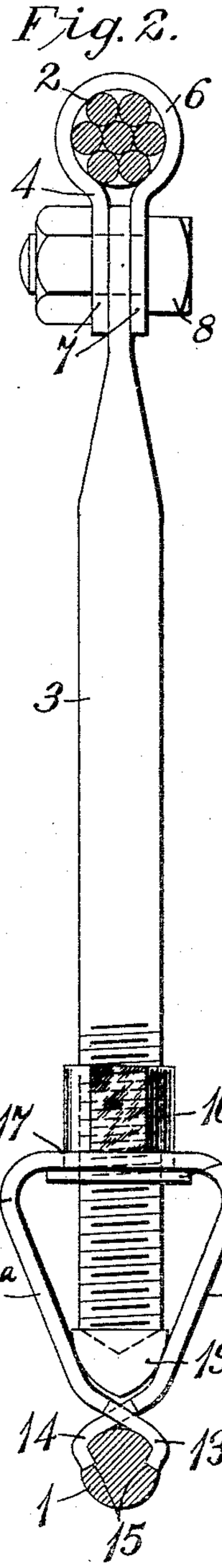


Fig. 3.

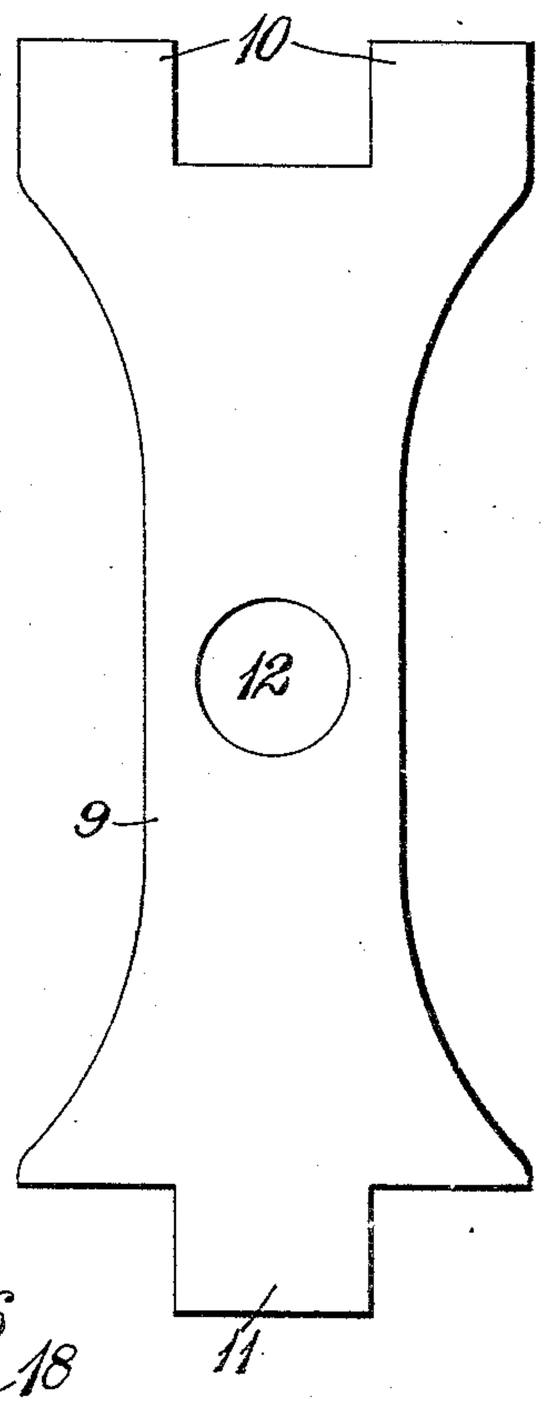
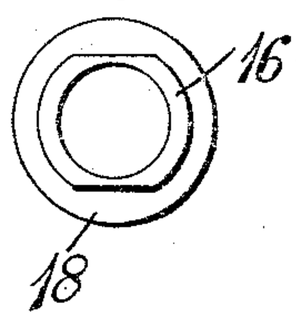


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ROLAND B. HEIMBECKER, OF WILKINSBURG, AND SAMUEL R. M. ORUM, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS, BY MESNE ASSIGNMENTS, TO WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, OF EAST PITTSBURG, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

TROLLEY-WIRE HANGER.

No. 931,301. Specification of Letters Patent. Patented Aug. 17, 1909.

Application filed February 24, 1908. Serial No. 417,457.

To all whom it may concern:

Be it known that we, ROLAND B. HEIMBECKER and SAMUEL R. M. ORUM, citizens of the United States, and residents, respectively, of Wilkinsburg, in the county of Allegheny and State of Pennsylvania, and of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Trolley-Wire Hangers, of which the following is a specification.

Our invention relates to means for suspending electric line conductors, and it has for its object to provide an improved clamping device whereby a trolley conductor may be simply and effectively secured to a suitable support.

Our improved clamping device is specially adapted for use with grooved trolley conductors that are suspended from messenger wires or cables, but its use is not limited in this regard, as it may be employed in connection with conductors of circular cross-section that are supported from bracket arms or cross wires in accordance with a well known practice for low potential lines.

Figure 1 of the accompanying drawings is a front elevation and Fig. 2 is an end elevation of a trolley hanger and clamp constructed in accordance with our invention. Figs. 3 and 4 are detail views of the sheet metal blank from which the jaw member is formed and the clamping unit of Figs. 1 and 2.

Referring to the drawings, a trolley conductor 1 is suspended from a messenger wire or cable 2 by means of a hanger rod 3, a cable clamp 4 and a trolley clamp 5. The cable clamp 4 comprises a loop 6 which surrounds the cable 2 and is provided with a pair of ears 7, the upper end of the connecting rod 3 being flattened to fit between the ears 7 and being secured in position by means of a bolt 8.

The blank 9 which is bent to form the gripping member of the trolley clamp is punched or stamped from sheet metal and is provided at one end with two projections 10 and at the opposite end with a single projection 11 of such width and location as to fit between the projections 10 when the blank is bent to final form. The blank is also provided with a central, circular hole 12, through which the hanger rod 3 may project.

In order to form the gripping device, the blank is bent into triangular form with the projection 11 located in the space between the projections 10, and the ends of the projections are bent inwardly to form gripping hooks or jaws 13 and 14 to engage the side grooves 15 in the trolley wire 1. The sides are bent together, the clamping or gripping action being produced by forcing the upwardly diverging sides 15^a apart, in a manner similar to that employed in the manipulation of ice tongs.

A nut 16 is fitted into the hole 12 in the upper horizontal portion 17 of the gripping member and is provided with a flange 18 that fits against the inner face of the part 17. A wedge 19 is located in the angle formed between the sides 15 and the end of the hanger rod engages a recess in the upper side thereof. Since the lower end of the rod 3 is provided with a screw-thread to receive the nut 16, rotation of the nut in the proper direction will force the wedge 19 downward and produce a strong gripping action between the jaws 13 and 14.

One of the principal advantages of the clamp of our present invention lies in the fact that the jaw members are integral so that the total number of parts is reduced and the arrangement is such that a firm grip may be effected even though the parts are roughly formed and poorly fitted together.

It may be desirable to provide lateral projections at the ends of the wedge 19 in order to prevent sidewise displacement.

We desire that structural modifications which do not depart from the spirit of our invention shall be included within its scope.

We claim as our invention:

1. A trolley wire hanger comprising a rod, a single-piece gripping member having crossed integral jaws, and means for producing a clamping action between the jaws.

2. A trolley wire hanger comprising a rod, a single-piece sheet metal gripping member having crossed integral jaws, and means for producing a clamping action between the jaws.

3. A trolley wire hanger comprising a rod, a single-piece sheet metal gripping member having integral crossed projections bent to form jaws, and means for producing a clamping action between the jaws.

4. A trolley wire hanger comprising a rod,

a triangular sheet metal gripping member having crossed end projections bent to form jaws, and means for forcing the sides of the member apart to produce a clamping action between the jaws.

5. A trolley wire hanger comprising a rod screw-threaded at its lower end, a sheet metal gripping member having end projections which cross each other and have hooked extremities, a wedge for forcing the sides apart and a nut seated in a hole in said member, said rod being screwed into the nut and engaging the wedge.

6. A trolley wire hanger comprising a sheet metal gripping member of triangular shape and having crossed projections of hook shape at its lower end, a wedge seated between the sides of the member, a nut seated in a hole in the top of the member, and a hanger rod screwed through the nut and engaging a recess in the upper side of the wedge.

In testimony whereof, we have hereunto subscribed our names this 31st day of January, 1908.

ROLAND B. HEIMBECKER.
SAMUEL R. M. ORUM.

Witnesses:
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