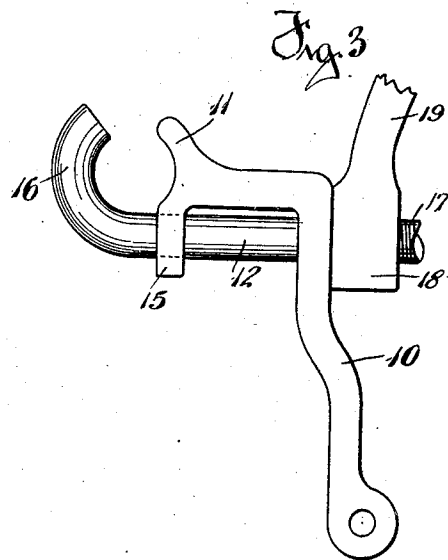
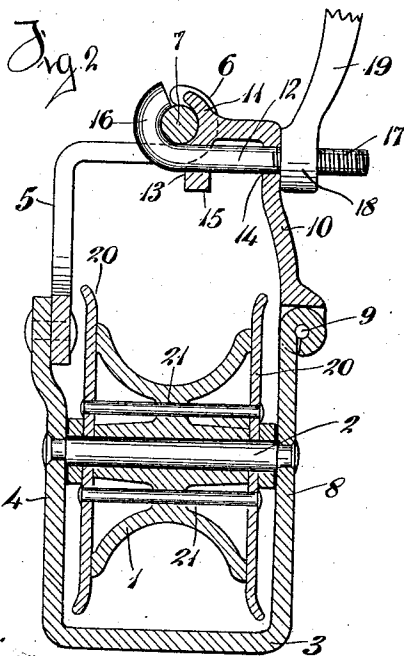
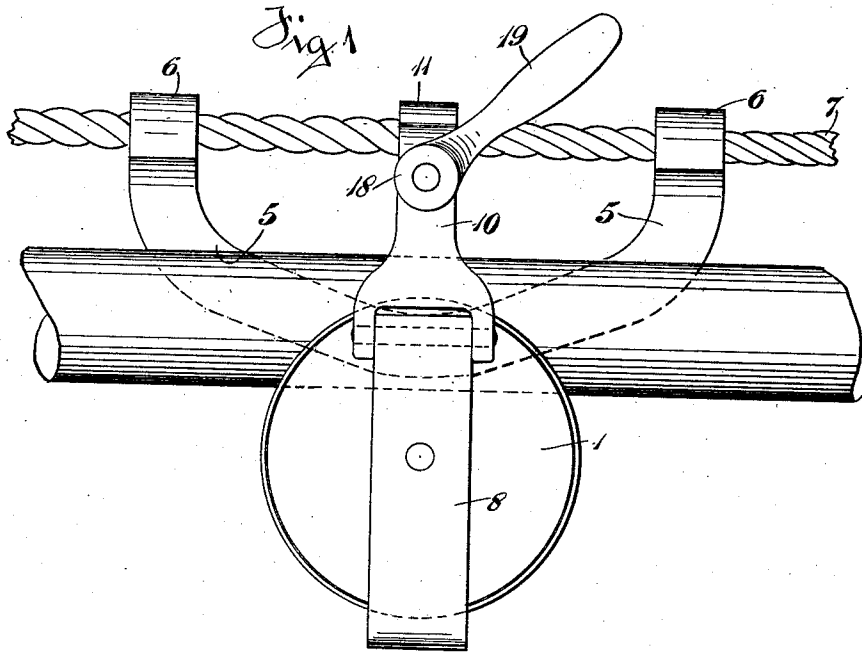


F. N. BIERCE.
CABLE ROLLER.
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1,061,895.

Patented May 13, 1913.



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FREDERICK N. BIERCE, OF CINCINNATI, OHIO, ASSIGNOR TO THE SPECIALTY DEVICE COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

CABLE-ROLLER.

1,061,895.

Specification of Letters Patent.

Patented May 13, 1913.

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To all whom it may concern:

Be it known that I, FREDERICK N. BIERCE, a citizen of the United States, and a resident of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cable-Rollers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to cable rollers such as are suspended from a supporting wire for drawing electric cables from pole to pole in the installation of overhead electrical transmission systems.

The object of my invention is to provide a construction for such cable rollers which can be readily and easily suspended from the messenger wire, and clamped and locked immovably in position, in which the tendency of the roller to slip on the wire under the strain of drawing the cable from pole to pole shall be entirely obviated, and in which the roller and its frame can be readily and easily detached from the supporting wire when the cable is in place.

The invention consists of that certain novel construction and arrangement of parts to be hereinafter particularly pointed out and claimed in which the roller is supported in a frame suspended by hooks at either end with free space for the location or removal of the cable, and an intermediate hinge member is provided hinged outside the roller and provided with a clamp adapted to grasp and hold the supporting wire to lock the roller and frame immovably in position.

In the drawing, Figure 1 is a side elevation of my improved cable roller construction in position on the supporting wire. Fig. 2 is a central vertical section of the same. Fig. 3 is a side elevation of the hinge member.

The grooved cable roller 1, usually of cast iron, is mounted on a spindle 2 in the metallic U-frame 3. One arm 4 of this U-frame has riveted thereto, or integral therewith, suspension arms 5, 5, which extend upwardly and outwardly parallel with the groove of the roller and are provided at their upper ends with hooks 6, 6, adapted to be hooked over the messenger or supporting wire 7, which is strung from pole to pole,

and by means of which wire the series of cable rollers are suspended for drawing the cable taut, and to which wire the cable is ultimately secured in installing the overhead lines. The frame for supporting the roller is so formed that when suspended by the hooks 6, 6, the weight of the roller and frame will maintain the proper balance, and in primarily locating the rollers the frames are merely hooked over the wire at the desired point. Pivoted to the other arm 8 of the U-frame on the pintle 9 is a hinge or grip member 10. The upper end of this hinge is provided with a recessed bearing surface 11 to partially engage the messenger wire, and a hook bolt 12 is loosely mounted in registering openings 13 and 14 in a lug 15 depending from the bearing plate 11 and the upper portion of the hinge member. This hook bolt is provided with a hook 16 at one end, and is screwthreaded at 17 at the other. Mounted on the screwthreaded end is the nut 18, provided with the operating handle 19 for rotating the nut 18 to take up the hook bolt and form a vise between the hook 16 and the grooved bearing plate 11, to grasp and lock the hinge member and with it the roller and frame to the messenger wire. Instead of the nut with the handle, an ordinary winged nut could be used, or an ordinary nut could be tightened with a wrench.

As the messenger wire is usually formed of twisted strands, as the nut 18 is tightened, the hook on the bolt will turn slightly to permit the rounded edge of the hook to engage between the strands, and in this way so firm a grip will be obtained that no strain on the roller in drawing the cable, up to the breaking limits of the supporting wire, will release the frame or cause it to slide on the wire.

In stringing an overhead cable, the messenger wire is first strung from pole to pole, and a proper number of cable rollers are suspended from the wire and locked rigidly in place by closing the hinged member engaging the hook bolt over the wire and giving a few turns of the nut by the handle to securely grip the wire, and the rollers are then ready for drawing the cable. When the cable is drawn taut, the lineman ties the cable to the messenger wire at frequent intervals, releases the cable rollers by a turn

or two of the nut, opens the hinge and the roller is removed and dropped to the ground.

As the cables are frequently strung at quite a height, the cast iron rollers are apt to be broken, and in order to provide against this tendency, I provide steel disks 20, 20, for each side face of the roller which are properly riveted in place by rivet bolts 21, 21. These disks are of sufficient diameter to form side flanges for the groove of the roller, and completely protect the edges of the roller from being chipped off or broken when dropping to the ground.

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

1. In a device of the character specified, a cable roller, with a frame open above in which the roller is mounted, independent

suspension members for the frame to engage over a supporting wire, and an adjustable gripping member pivoted to the frame to grip the supporting wire intermediate the suspension members.

2. In a device of the character specified, a cable roller, with a frame open above in which the roller is mounted, independent suspension members for the frame to engage over a supporting wire, and a gripping member pivoted to the frame to grip the supporting wire intermediate the suspension members, the gripping member comprising a bearing plate and a hook bolt adapted to be tightened to grip the supporting wire to hold the roller and frame in position.

FREDERICK N. BIERCE.

Attest:

FRANK W. KUNKEL,
EARL W. GRIFFIN.

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