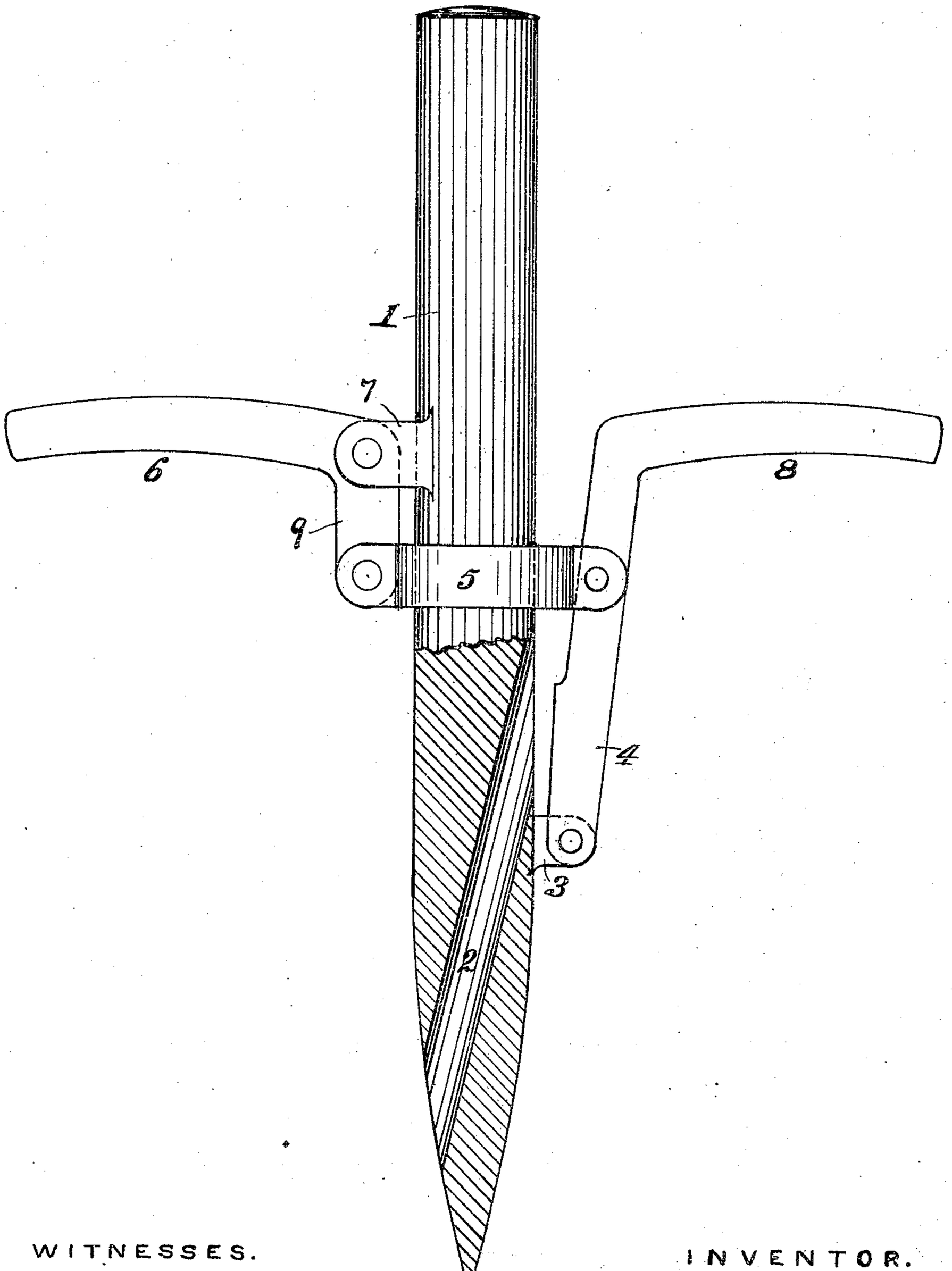
J. URBANZ.

CABLE SPLICER.

APPLICATION FILED OCT. 14, 1909.

959,407. Patented May 24, 1910.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JACKOB URBANZ, OF PORTER, WASHINGTON.

CABLE-SPLICER.

959,407. Specification of Letters Patent. **Patented May 24, 1910.**

Application filed October 14, 1909. Serial No. 522,655.

To all whom it may concern:

Be it known that I, JACKOB URBANZ, a subject of the Emperor of Austria-Hungary, and a resident of Porter, Chehalis county, Washington, have invented certain new and useful Improvements in Cable-Splicers, of which the following is a specification.

My invention relates to an improvement in cable splicers, the word cable being used as descriptive of a rope made of strands, whether the material be wire or a vegetable fiber.

The object of my invention is to produce a device which will facilitate the work of making a splice in a cable and, incidentally, make a better splice.

My invention comprises the novel parts and combinations of parts which will be hereinafter described and particularly pointed out in the claims terminating this specification.

In the drawing accompanying this specification I have shown my invention embodied in the form which is now preferred by me.

The drawing shows my device with the point end in section.

My device comprises the combination of two sets of parts having separate but cooperative functions, one consisting of a pointed bar adapted for insertion beneath a strand to separate it from the others and having an opening or perforation within which the end of the strand to be inserted may be entered, and the other consisting of a clamping mechanism for the engagement of this inserted strand so that it may be drawn through the rope or cable.

The first member consists of the round and pointed bar 1, preferably of steel, having a diagonal opening or perforation 2 extending through the same near its tip or point. One end of this opening should preferably be as close to the point as it may conveniently be placed. The other end of this opening is far enough from the point that it will ordinarily be upon the other side of the rope or cable when the bar is inserted beneath a strand.

Lugs 3, integral with the bar 1, are located between the end of the opening 2 which is farthest from the point and said point, these lugs serving as pivot supports for a clamping member designed to engage the end of the strand which has been passed through the opening 2, so that when the pin or bar 1 is withdrawn from the cable the strand will be drawn through the cable until it has been drawn up tightly. This clamping device may be of various constructions, that shown being as a bar 4 which extends alongside the bar 1 and over that end of the opening 2 which is farthest from the point, so that it may engage the strand between it and the bar 1. Numerous means may be employed by which this bar may be held upon the strand. As I have shown it this bar constitutes a lever and its free end is turned outward away from the bar 1 to form a handle 8. If this free end of the lever 4 be made of sufficient length and shape to enable the strand to be gripped so as to be held securely, this alone would be sufficient holding means. I have however, shown additional or reinforcing holding means which consist of the bell-crank lever composed of the two arms 6 and 9 which is pivoted to lugs 7 upon the opposite side of the bar 1, and links 5 connecting arms 9 and 4. This connecting member is preferably composed of two parts which are curved and lie upon opposite sides of the bar 1, the two forming what resembles an elongated ring which embraces the bar 1 and is pivoted to both 9 and 4 and through which the strand may pass. The parts 6 and 8 extend away from the bar 1 and are thereby usable as handles with which to withdraw the bar and pull the strand through, as well as levers with which to hold the strand.

While the form and disposition of levers shown is that preferred, it is evident that their shape and disposition may well be varied without essentially changing the character of the device.

The operation of my device is as follows: The point of the bar 1 is inserted between the strands of the cable or rope where it is desired to insert a strand, until the opening 2 is accessible from the farther side of the cable. That is, the pointed bar 1 is inserted through the cable until that end of the opening 2 which is nearest the point has passed through the cable, the cable then lying between the opposite ends of the opening 2, in which position it is possible to insert the end of the strand to be inserted in the cable, into the opening 2 and through this until it emerges therefrom at the opposite side of the cable. As soon as the end of the inserted strand reaches a point where it may be engaged by the clamping member 4 it may be

clamped thereby and pulled through the cable by withdrawing the bar 1. The rear end of the bar 1 is preferably extended sufficiently that it may be used for holding and guiding the device when in use and as a head upon which to pound when passing it through the cable.

By the use of the device shown it is possible to make a splice more quickly than with the common devices in use and also with more comfort and without as much danger of injuring the hands, as frequently happens in passing the strands through the cable without such a device.

By perforating the pointed cable-opening bar 1, and also by combining this with a strand clamping device, the work of splicing cables is very much facilitated.

What I claim and desire to patent is:

1. A tool for splicing cables comprising a diagonally perforated bar having a pointed end and a strand clamp secured to said bar.

2. A tool for splicing cables comprising a diagonally perforated bar having a pointed end and a combined strand clamp and handle secured to said bar.

3. A tool for splicing cables comprising a pointed bar having a diagonal perforation with one opening near the point of the bar, a lever pivoted to the bar and having a portion thereof adjacent its pivot in position to engage the strand as it emerges from said perforation.

4. A tool for splicing cables comprising a pointed bar having a diagonal perforation near its point, a strand-clamping lever pivoted to the bar between the other opening and the point and extending over the same opening.

5. A tool for splicing cables comprising a pointed bar having a diagonal, strand-receiving perforation near its point, a lever pivoted to said bar between its point and the end of said perforation which is farthest removed from its point, said lever having one part extending from its pivot lengthwise the bar and opposite the adjacent end of said perforation and its other end extending away from the bar to form a handle.

6. A cable or rope splicing device comprising a pointed bar having a diagonal, strand-receiving perforation with the strand-entering end near the point, a clamp-bar pivoted to the said pointed bar in position to clamp the strand after passing through the said perforation, a handle pivoted to and extending outward from the opposite side of the pointed bar, and a link connecting said handle and clamp bar.

7. A cable or rope splicing device comprising a pointed bar having a diagonal perforation with one end near the point of the bar and adapted to receive a strand, a clamping bar pivoted to the pointed bar between the other end of said perforation and the point of the bar and extending away from the point, said clamping bar having a handle extending away from the bar, a bell-crank lever pivoted to the opposite side of the bar and a link connecting said bell-crank lever with the clamping bar.

8. A cable splicing device comprising a pointed rod having a diagonal perforation adapted to receive the strand which is to be inserted, two handle levers pivoted to said bar, one of said levers being in position to clamp the inserted strand and means connecting said handle levers to work together.

In testimony whereof I have hereunto affixed my signature this 1st day of October 1909, at Porter, Washington.

JACKOB URBANZ.

Witnesses:
J. A. Henry,
L. A. Foss.