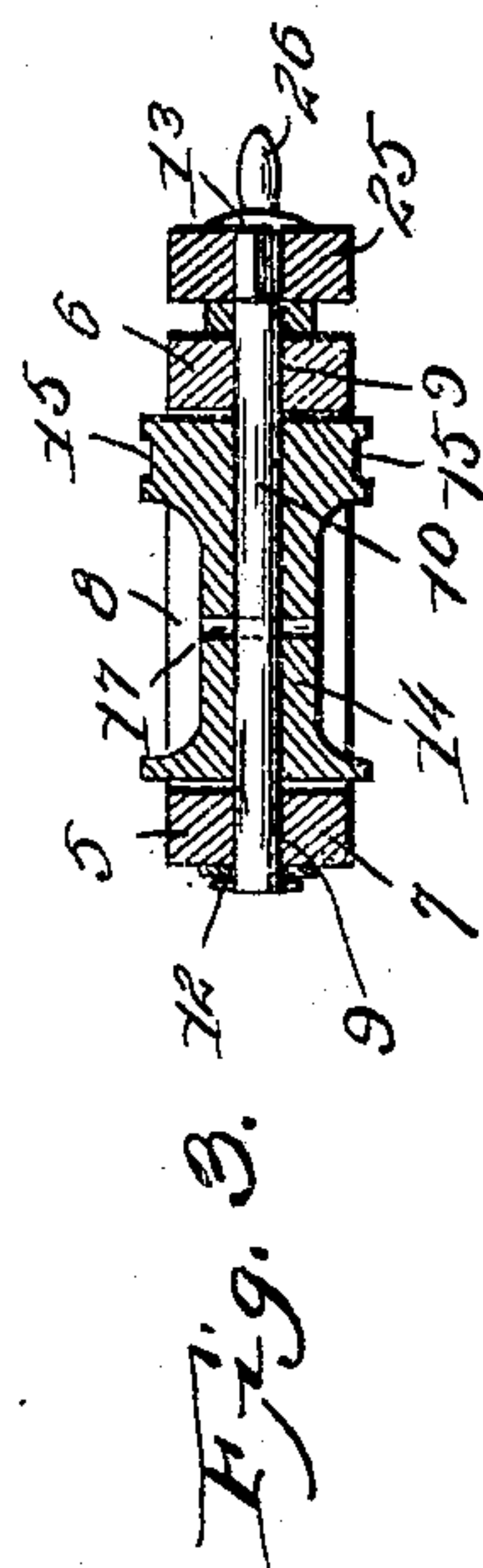
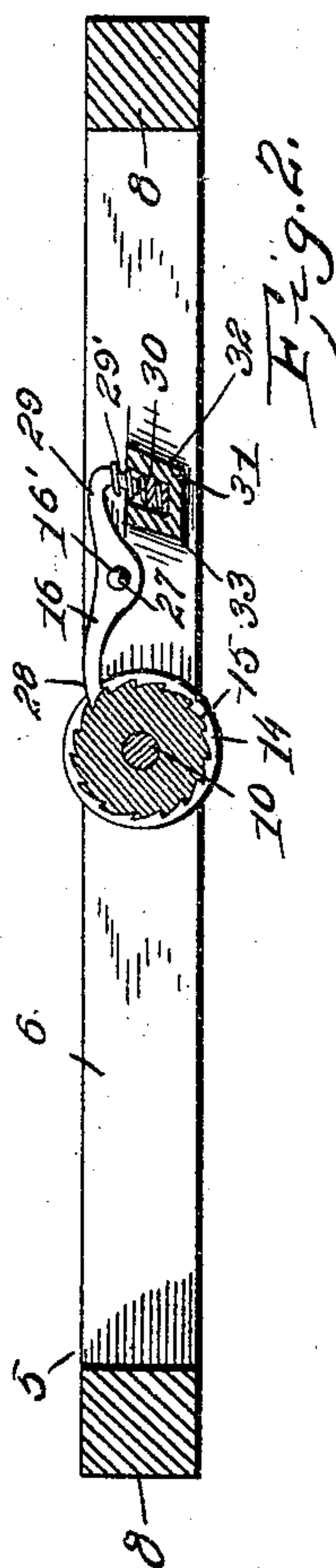
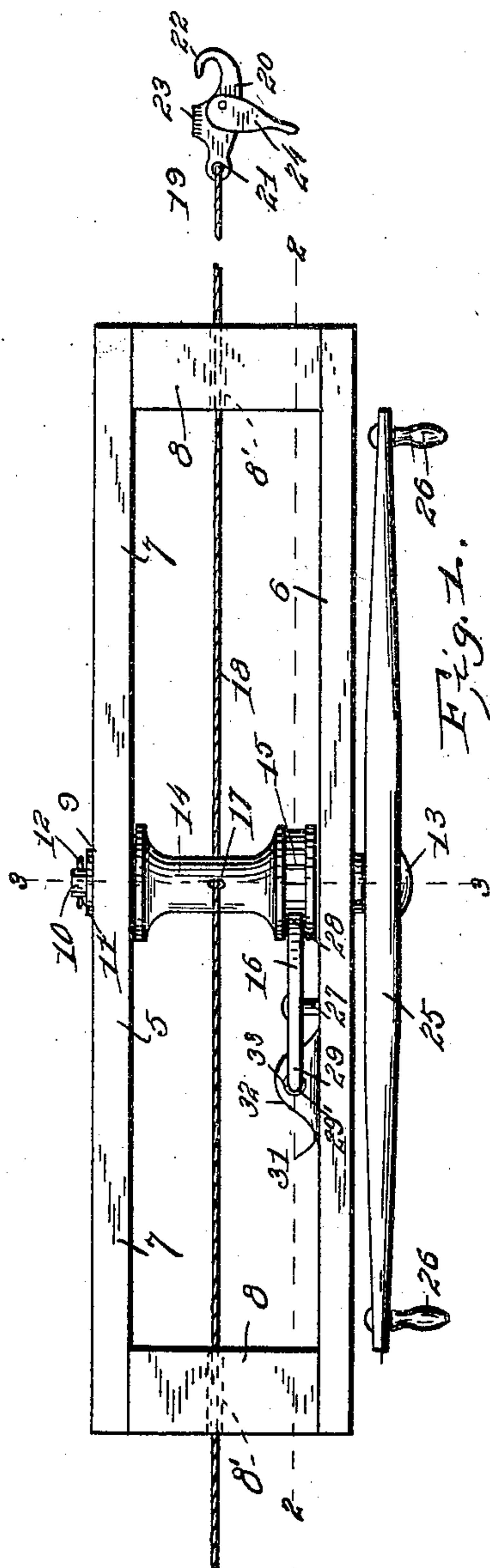


No. 810,795.

PATENTED JAN. 23, 1906.

C. R. McPHERSON.  
WIRE STRETCHER.

APPLICATION FILED MAY 31, 1905.



Witnesses  
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# UNITED STATES PATENT OFFICE.

CHARLES R. McPHERSON, OF MONANGO, NORTH DAKOTA.

## WIRE-STRETCHER.

No. 810,795.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed May 31, 1905. Serial No. 263,168.

*To all whom it may concern:*

Be it known that I, CHARLES R. McPHERSON, a citizen of the United States, residing at Monango, in the county of Dickey, State of North Dakota, have invented certain new and useful Improvements in Wire-Stretchers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to wire-stretchers, and has for its object to provide a device of this nature which will be simple of construction and cheap of manufacture.

Other objects and advantages will be apparent from the following description, and it will be understood that modifications of the specific constructions shown may be made and any suitable materials may be used for the various parts without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a plan view of the stretcher in use and showing the clamps engaged with the ends of the rope. Fig. 2 is a section on line 2 2 of Fig. 1. Fig. 3 is a section on line 3 3 of Fig. 1.

Referring now to the drawings, the present invention comprises a frame 5, consisting of spaced parallel side members 6 and 7, between the ends of which are secured blocks 8, having perforations 8' therein. The members 6 and 7 have bearing-openings 9 therethrough, in which are journaled the ends of a shaft 10. The ends of the shaft extend slightly beyond the side members, and in the end beyond the member 7 there is a perforation 11 for the reception of a cotter-pin 12 to prevent disengagement of this end from the opening 9. The opposite end of the shaft is provided with a head 13. A drum 14 is mounted upon the shaft 10, one end of which is provided with ratchet-teeth 15 for engagement of a pawl 16, to be hereinafter described. The drum has a transversely-extending perforation 17 therethrough for the reception of a rope or cable 18, the ends of which pass through the perforations 8' of the blocks 8. Clamps 19 are engaged with the ends of the rope. Each clamp consists of a plate 20, having a perforation 21 therein at one end for the reception of the rope or cable and the opposite end of the clamp terminates in a hook 22. A flange 23 is formed upon one edge of the plate, the

inner face of the flange being serrated, and a cam-lever 24 is pivoted upon the plate, one end of which lies in contact with the serrated face of the flange. Upon that portion of the shaft 10 between the side member 6 and head 13 is a double crank-arm 25, which may be turned to rotate the shaft and therewith the drum to wind or unwind the rope or cable engaged with the drum, it being understood, of course, that the portion of the shaft just referred to is squared to prevent movement of the arm independent of the shaft. Grips 26 are provided at either end of the arm 25, which can be grasped to rotate the arm.

The pawl 16, mentioned above, consists of a body portion which is enlarged intermediate of its ends, and this enlargement has a perforation 16' therein for the reception of a pivot-pin 27 and by which the pawl is secured to the inner face of the side member 6. The body portion terminates at its ends in fingers 28 and 29, and upon the finger 29 is a downwardly-extending projection 29', upon which is disposed a helical spring 30. The finger 28 lies in engagement with the ratchet-teeth 15 of the drum 14.

A lug 31 is formed upon the inner face of the member 6 adjacent to the pawl 16. This lug, if desired, can be formed integral with the member. In the side 32 of the lug is a socket 33, which receives the projection 29' with its spring 30. This spring serves to hold the finger 28 of the pawl normally in engagement with the ratchet-teeth 15.

In the operation of the stretcher it will be understood that turning of the arm in one direction will rotate the drum to unwind the rope or cable, while turning of the arm in the opposite direction will wind up the rope or cable on the drum, which operation will tighten or stretch a wire disposed between the serrated face of the flange 23 and the cam-lever 24, the hook 22 being engaged in the link of a chain which may be passed around a post. The stretcher can also be used to bring the ends of a broken wire together for splicing of the same, the operation of the stretcher when used for such purpose being readily understood without further description.

What is claimed is—

A wire-stretcher comprising a frame including spaced side members and intermediate end blocks having perforations therein, a shaft journaled in the frame and extending at one end beyond a side member, a drum mounted upon the shaft and provided at one end with

ratchet-teeth, a rope engaged with the drum,  
a lug secured upon the inner face of one of  
the side members and having a socket therein,  
a pawl pivoted to the last-named side member  
5 adjacent to the lug, said pawl having oppo-  
sately-extending fingers, one of said fingers ly-  
ing normally in engagement with the ratchet-  
teeth of the drum, a downwardly-extending  
projection formed upon the other of said  
10 fingers, a helical spring disposed upon the pro-  
jection, said projection and spring being dis-

posed in the socket of the lug to hold the first-  
named finger normally in engagement with  
the ratchet-teeth, and a double crank-arm en-  
gaged with the projecting portion of the shaft. 15

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

CHARLES R. McPHERSON.

Witnesses:

J. R. HIGGINS,  
E. MAGOFFIN.