(No Model.)

R. ROWLAND.

CLIP FOR ROPE TRAMWAYS.

No. 422,892. Patented Mar. 4, 1890.

Fig. 1.

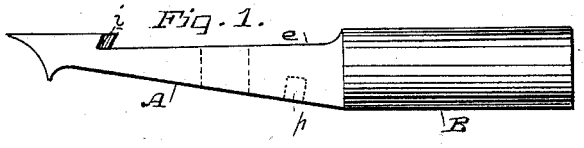


Fig. 2.

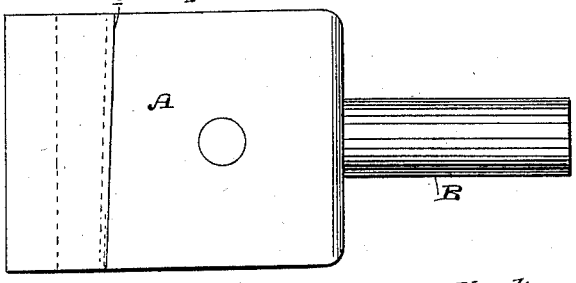


Fig. 3.

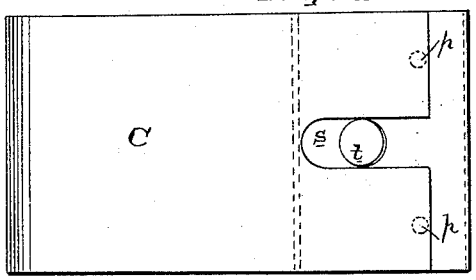


Fig. 4.

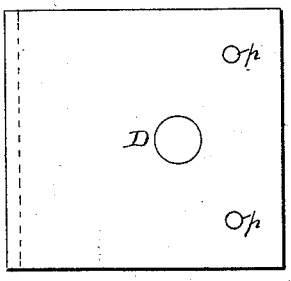


Fig. 5.

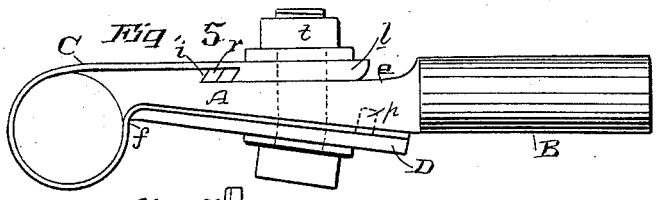
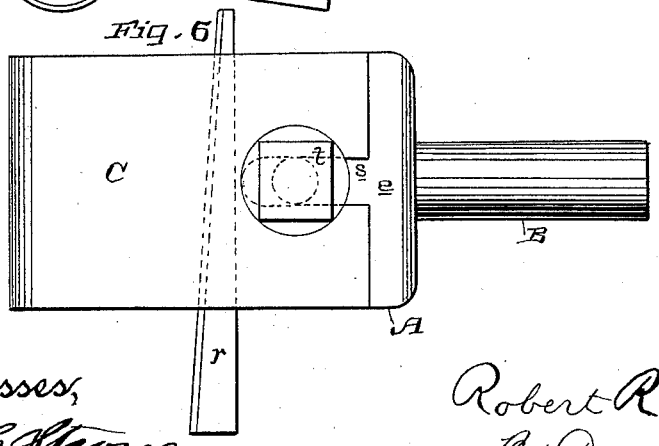


Fig. 6.



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CLIP FOR ROPE TRAMWAYS.

SPECIFICATION forming part of Letters Patent No. 422,892, dated March 4, 1890.

Application filed December 6, 1889. Serial No. 332,823. (No model.)

To all whom it may concern:

Be it known that I, ROBERT ROWLAND, a citizen of the United States, residing at Romley, Chaffee county, State of Colorado, have invented an Improvement in Clips for Rope Tramways; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of clips for use in connection with endless ropeways for sustaining and carrying the load and container, and which is exemplified by Letters Patent of the United States No. 210,851, issued to Andrew S. Hallidie, December 18, 1878, in which a flexible leaf is caused to bend over and tighten upon the wire rope, said leaf being secured to and carried by a body portion, from one end of which the load or container is carried.

My invention consists in the novel arrangement and combination of parts hereinafter fully described, and specifically pointed out in the claims.

The general object of my invention is to provide an improved clip of this class in which the parts are all independent and separate from one another, whereby when any part is worn out it may be readily replaced by a new one.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is an edge view of the body portion. Fig. 2 is a plan of the same. Fig. 3 is a plan of the upper side of the flexible leaf. Fig. 4 is a plan of piece D. Fig. 5 is an edge view of the entire clip. Fig. 6 is a plan of the same.

A represents the body of the clip, and B the shaft, from which the container or other body is suspended by means of a hanger.

C is the thin metallic leaf, which is attached to the body A by rivets or bolts *t*, and is bent around so as to encircle the rope and lap back over and under the body A, as shown in the edge view, Fig. 5.

The body A, I make considerably thicker toward the outer end, from which the shaft B projects, and at a short distance from the base of the shaft I make a wide transverse groove *e* entirely across it. This groove is wider at one end than at the other, so that its inner edge or shoulder *i* is slightly diagonal, and this inner edge is inclined inward, so as to form an acute angle. The leaf, which encircles the rope, is made thin, so as to be flexible. The extremity of this leaf is made thicker by riveting or welding on a piece to form the lug *l*, the inner edge of which is beveled in the same direction as the shoulder *i* is inclined. I then insert a wedge-shaped key *r* into the space between the shoulder *i* and the lug *l*. The opposite edges of this key are inclined to correspond with the incline of the edges *i l*, so that it has a tendency to draw the two parts together. Now by driving this wedge farther in the leaf is drawn forward and the loop portion is tightened upon the rope.

To prevent the leaf C from being displaced by the strain, I make a slotted hole *s* in the re-enforced or thickened part and a hole in the lower part, or near that end which belongs to the lower side of the clip, and through these holes the bolt *t* passes.

For the purpose of strengthening the leaf C at the point *f*, I employ a guard or stiffening-piece D, which is held in position by the bolt *t*. Steadying-pins *p p* can be employed for the purpose of more accurately keeping the leaf C in place. The steadying-pins are attached to the guard D, pass through the leaf C, and fit into corresponding holes in the body A.

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

1. A clip for wire ropes, consisting of the independent body A, the independent leaf C, having its ends passing over and under the body and its middle forming a loop or lap for clamping the rope, and a means for drawing forward the upper portion of the leaf on the upper portion of the body, whereby said loop or lap is tightened on the rope, substantially as herein described.

2. A clip for wire ropes, consisting of the independent body A, having in its upper surface the transverse groove *e*, the independent leaf C, having its ends fitting above and below the body and its middle forming a lap or loop for embracing the wire rope, the upper portion of said leaf having a lug *l* on its under side fitting in the transverse groove of the body, and the key *r*, driven in between the

forward edge of the lug *l* and the wall of the transverse groove, substantially as herein described.

3. A clip for wire ropes, consisting of the independent body A, having the transverse groove *e* in its top, the independent flexible leaf C, having its ends passing over and under the body and its middle forming a loop or lap for embracing the wire rope, the upper portion of said leaf having an elongated slot and a lug *l* on its under surface lying in the groove of the body, the securing-bolt *t*, passing through the body and the lower portion of the leaf C and through its slot in its upper portion, and the key *r*, driven in between the forward edge of the lug *l* and the wall of the groove, substantially as herein described.

4. A clip for wire ropes, consisting of the independent body A, the independent flexible leaf C, having its ends fitting over and under the body and secured thereto and its middle forming a loop or lap for embracing the wire rope, and the guard D on the under surface of the lower portion of the leaf and bearing against the adjacent bend of its loop or lap, substantially as herein described.

5. The clip for wire ropes, consisting of the independent body A, having the transverse groove *e*, and the shaft B, extending from one end, the independent flexible leaf C, having its ends passing over and under the body portion and its middle forming a loop or lap for embracing the wire rope, the upper portion of said leaf having an elongated slot *s* and a lug *l* on its under surface, fitting in the transverse groove of the body, the bolt *t*, passing through the body, through the lower portion of the leaf, and through the elongated slot in its upper portion, and the key *r*, driven in between the inner edge of the lug *l* and the wall of the transverse groove, substantially as herein described.

In witness whereof I have hereunto set my hand.

ROBERT ROWLAND.

Witnesses:
HENRY BROWN,
M. H. HARRIS.