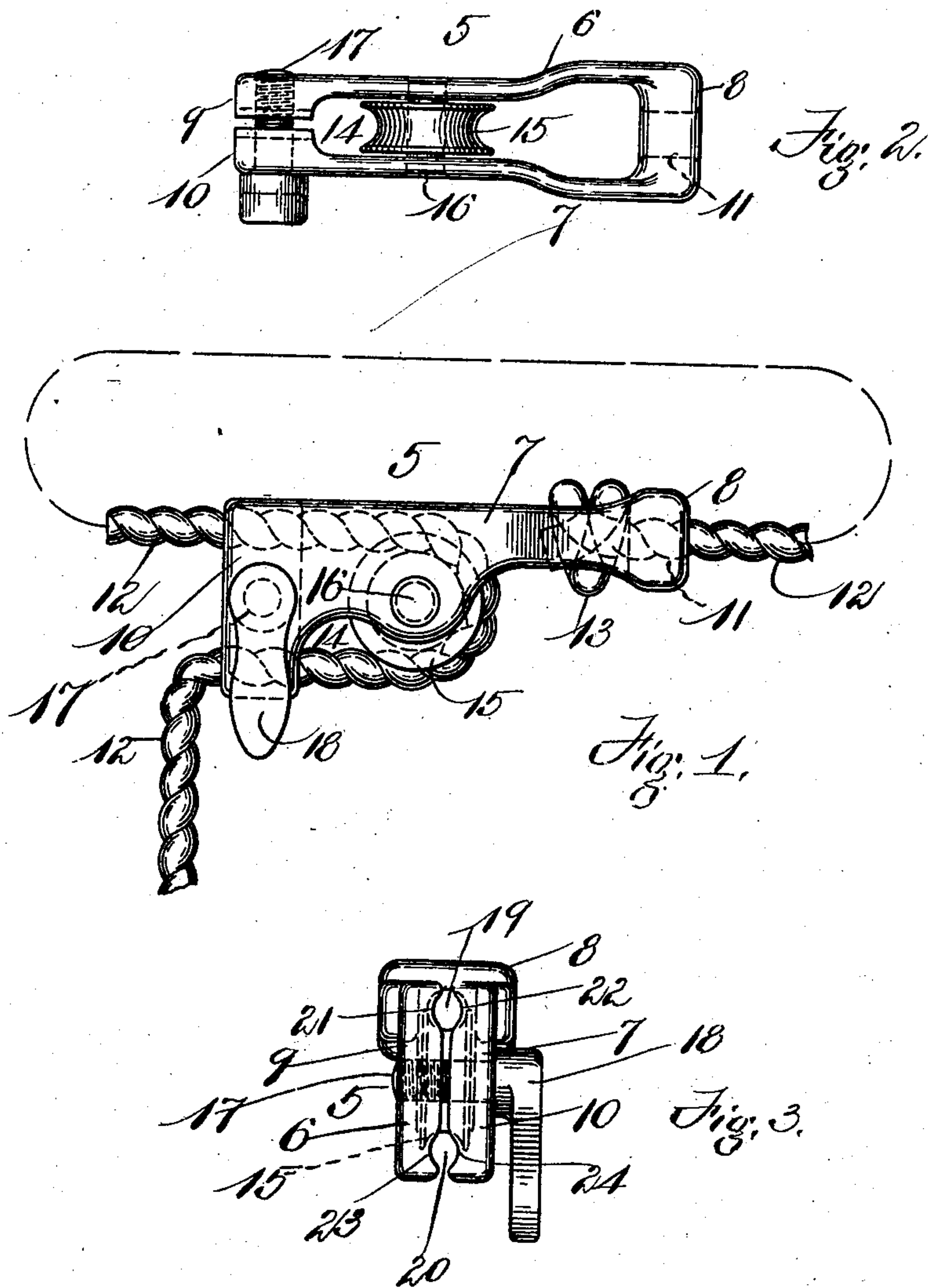


No. 889,530.

PATENTED JUNE 2, 1908.

C. L. LARRABEE.
WIRE OR ROPE TIGHTENING CLAMP.
APPLICATION FILED MAR. 11, 1907.



Witnesses:

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COLONEL L. LARRABEE, OF SCHENECTADY, NEW YORK.

WIRE OR ROPE TIGHTENING CLAMP.

No. 889,530.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed March 11, 1907. Serial No. 361,818.

To all whom it may concern:

Be it known that I, COLONEL L. LARRABEE, a citizen of the United States, residing at Schenectady, in the county of Schenectady and State of New York, have invented new and useful Improvements in Wire or Rope Tightening Clamps, of which the following is a specification.

The object of this invention is to provide a clamp for wires, ropes, cables and the like which is adapted to hold two ends of the same rope or two ends of two different ropes in fixed relation to each other when said rope or ropes are under tension.

The object of the invention is further to provide a clamp capable of performing the function hereinbefore set forth and also adapted to assist in the operation of subjecting said ropes to tension.

The object of the invention is further to provide a strong, simple and durable device for the purposes hereinbefore set forth.

The invention consists of a wire or rope tightening clamp comprising in its construction the combination of elements set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings: Figure 1 is a side elevation of my improved clamp with a rope attached and clamped thereto, said rope being broken away to save space in the drawings and a portion thereof illustrated by broken lines. Fig. 2 is a plan view of said clamp. Fig. 3 is an end elevation of the same as viewed from the left of Fig. 1.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 is a U-shaped frame, that is, said frame is U-shaped in the sense that it has two sides 6 and 7 joined together by a base 8 and terminating in free ends 9 and 10, respectively. The base 8 is provided with a hole 11 extending longitudinally of said frame and adapted to receive one end of a rope or wire 12, said rope terminating in an enlarged or knotted portion 13 which prevents the same from being withdrawn from the hole 11 and securely fastens one end of said rope to the frame 5. A cylindrical guide-member 14 is supported upon said frame between said sides and consists, preferably, of a grooved pulley 15 journaled to rotate upon a pin 16 extending transversely of the frame 5 and fast at its opposite ends to the sides 6 and 7 of said frame. The free ends 9 and 10 are adapted to be forced to-

ward each other by means of a clamp-screw 17, one end of which has a screw-threaded engagement with the free end 9, the other end of which is provided with a handle 18 which bears against the outer face of the free end 10 of the side 7.

The free ends 9 and 10 are provided with two pairs of grooves 19 and 20 upon their inner faces to receive the rope 12. The pair of grooves 19 consists of two grooves 21 and 22 formed in the inner faces of the sides 6 and 7, respectively and upon one side of the clamp-screw 17, while the other pair of grooves 20 consists of two grooves 23 and 24 formed in the inner faces of the free ends 9 and 10 of the sides 6 and 7, respectively, said pair of grooves 20 being located upon the opposite side of the screw 17 to that upon which the pair of grooves 19 is located. Said grooves 21 and 22 are in lateral alinement with each other and in longitudinal alinement with the hole 11, the bottoms of said grooves being substantially in alinement with the periphery of the pulley 15. One end of the rope 12, in the case of a return line, as illustrated in Fig. 1, passes between the grooves 21 and 22, thence partly around the pulley 15 and returns between the grooves 23 and 24—that is, the rope 12 extends from diametrically opposite sides of the pulley 14 toward the free ends 9 and 10 and between said free ends, so that when the free ends are forced toward each other by the clamp-screw 17 said rope 12 is clamped therebetween in the grooves 21 and 22 and 23 and 24.

It is evident that instead of a return wire or rope, as illustrated in Fig. 1, two different ropes may be used, the end of one of said ropes being fastened to the frame, as illustrated at the right of Fig. 1, and the end of the other of said ropes being clamped to said frame as illustrated at the left of said Fig. 1.

The operation of my improved wire tightening clamp is as follows: Assuming that a return rope or wire is employed and is to be tightened, one end 13 thereof is fastened to the clamp, as illustrated at the right of Fig. 1, and extends thence around some stationary object or objects, the other end thereof being passed between the adjacent sides 6 and 7 of the frame through the grooves 21 and 22, around the pulley 15 and back through the grooves 23 and 24. The free end of the rope at the left of Fig. 1 is drawn taut until the rope 12 has become sufficiently subjected to tension or tightened, whereupon the same is

clamped to the frame 5 by tightening the clamp-screw 17, thus forcing the free ends 9 and 10 toward each other and securely clamping the rope 12 between said free ends and between the grooves 21 and 22 and 23 and 24. The operation is substantially the same where two ropes are used as in a straight line rope or wire, one end of one of said ropes as hereinbefore set forth being fastened to the right hand end of the frame 5, and the other, as illustrated in Fig. 1, to the left hand end thereof by means of the clamp-screw 17.

It will be noted that by the construction hereinbefore described wherein the rope 12 as it enters the clamp through the pair of grooves 19 is in alinement with the other end of the rope in the hole 11, a straight pull between the two ends of the rope will be transmitted through the frame 5 when tension is placed upon said rope, as hereinbefore described, and, therefore, there will be no tendency to twist or distort the rope when said tension is applied.

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

1. A wire or rope tightening clamp comprising a U-shaped frame consisting of two sides and a base, said base provided with a hole adapted to receive a rope or wire, a pulley journaled on said frame between said sides, and a clamp-screw adapted to force the free ends of said sides toward each other, said free ends being provided with two pairs of grooves upon their inner faces to receive a rope or wire, whereby a rope or wire extending partly around said pulley and from diametrically opposite sides of said pulley toward said free ends and upon opposite sides of said screw may be clamped inde-

pendently between said sides in said grooves on opposite sides of said screw.

2. A wire or rope tightening clamp comprising a U-shaped frame consisting of two sides and a base, said base provided with a hole adapted to receive a rope or wire, a pulley journaled on said frame between said sides, and a clamp-screw adapted to force the free ends of said sides toward each other, said free ends being provided with two pairs of grooves upon their inner faces on opposite sides, respectively, of said screw to receive a rope or wire, one of said pairs of grooves being in alinement with said hole, whereby a rope or pulley extending partly around said pulley and from diametrically opposite sides of said pulley toward said free ends may be clamped independently between said sides in said grooves on opposite sides of said screw.

3. A wire or rope tightening clamp comprising a U-shaped frame consisting of two sides and a base, said base provided with a hole adapted to receive a rope or wire, a cylindrical member supported on said frame between said sides, and a clamp screw adapted to force the free ends of said sides toward each other, whereby a wire or rope extending partly around said pulley and from diametrically opposite sides of said pulley toward said free ends and upon opposite sides of said screw may be clamped independently therebetween on opposite sides of said screw.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

COLONEL L. LARRABEE.

Witnesses:

HARRY M. RUGG,
CHARLES J. ROGERS.