

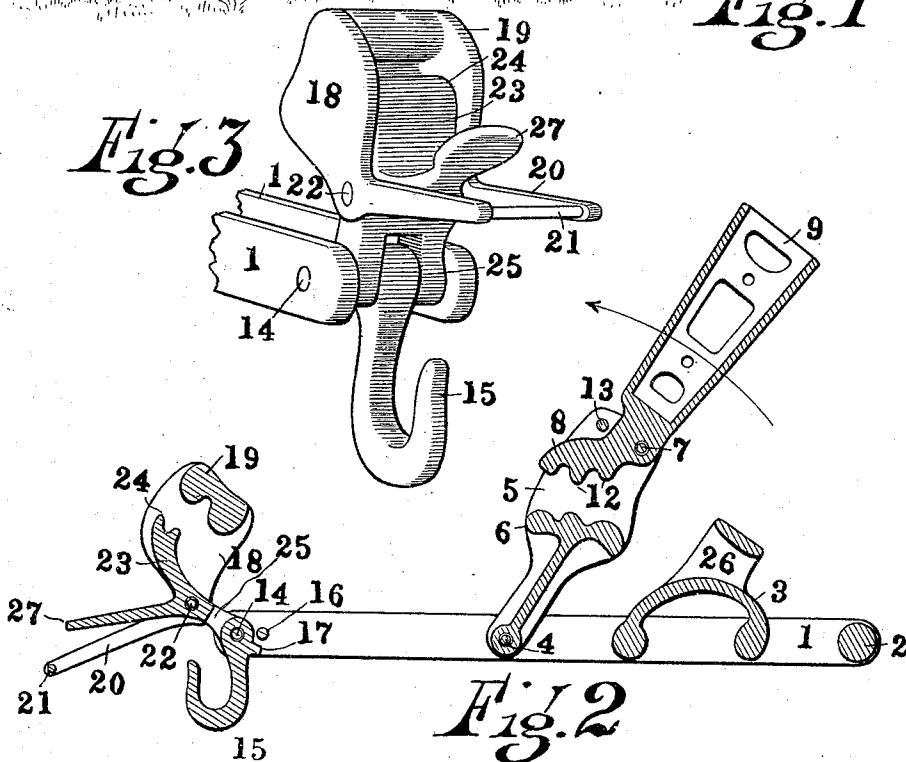
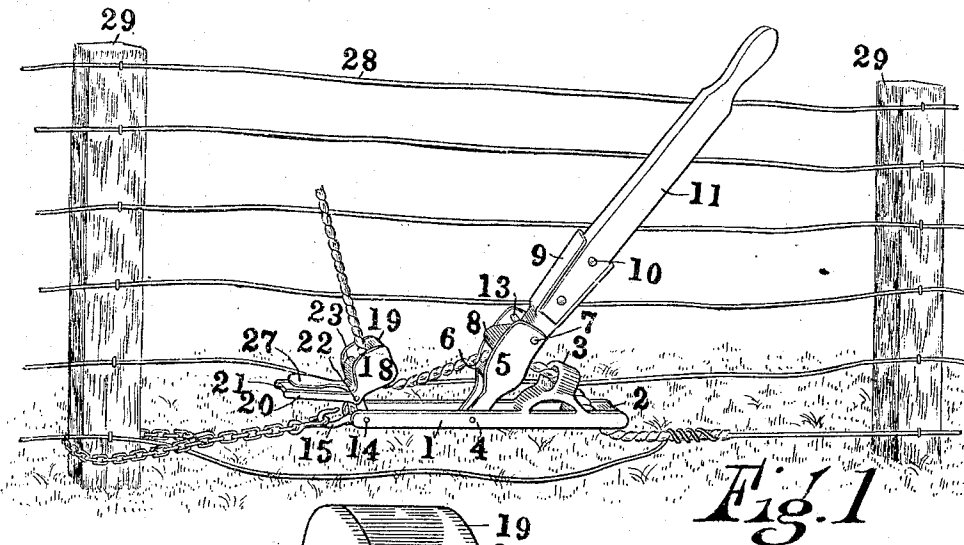
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ROPE, CHAIN, OR WIRE STRETCHER.

APPLICATION FILED OCT. 10, 1908. RENEWED MAY 27, 1910.

976,941.

Patented Nov. 29, 1910.



Witnesses:

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ROPE, CHAIN, OR WIRE STRETCHER. **REISSUED**

976,941.

Specification of Letters Patent.

Patented Nov. 29, 1910.

Application filed October 10, 1908, Serial No. 457,094. Renewed May 27, 1910. Serial No. 563,787.

To all whom it may concern:

Be it known that I, JOSEPH S. SOUREK, a citizen of the United States, residing at Bath township, in the county of Summit and State of Ohio, have invented new and useful Improvements in Rope, Chain, or Wire Stretchers, of which the following is a specification.

This invention relates to devices for stretching rope, chains, cables, wire and the like and the object thereof is to provide a simple and effective device for tightening or taking up an unlimited amount of slack in rope, chain, wire or similar device embodying a bar adapted to be suitably anchored provided with a clamp to prevent backward movement of the rope and a gripping lever mounted for oscillatory motion on said bar arranged to stretch a rope or similar device and advance the slack therein to said clamp, whereby the same is held during the rearward or inoperative movement of said lever.

A still further object of this invention is to produce a device for the purpose described, which will be strong, safe, durable, easily constructed, readily applied and capable of performing in an efficient manner all the necessary functions of a device of this character.

With the foregoing and other objects in view, the invention consists in the novel construction, combination and arrangement of parts constituting the invention to be hereinafter specifically described and illustrated in the accompanying drawings which form a part hereof wherein is shown the preferred embodiment of the invention, illustrated by way of example in connection with a rope having attached thereto a wire to be tightened, with the device anchored to a suitable support, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claims hereunto appended.

In the drawings, in which similar reference numerals indicate like parts in the different figures: Figure 1 is a perspective view of a device embodying this invention, shown in operative relation with respect to a rope adapted to tighten a wire. Fig. 2 is a vertical, central, longitudinal, sectional view of the device shown in Fig. 1; and, Fig. 3 is a perspective view of the end of the device looking from the left in Fig. 1.

Before entering upon a detailed descrip-

tion of this invention, it will be stated that in the specification and claims, the word "rope" will be used generically to designate any type of similar device such as a chain, hawser, cable, wire or wire rope in order to save unnecessary repetition.

Referring specifically to the drawings, the reference numerals 1, 1, denote spaced companion bars adapted to support the mechanism to be hereinafter described. Extending between the bars 1, 1, at one end of the device is a cylindrical member 2 constituting a rope guide. Adjacent this rope guide 2 and preferably formed integral with the bars 1, 1, is an upwardly-extending frame 3 provided with an aperture 26, preferably inclined, through which the rope may be passed and constituting an auxiliary guide therefor. Adjacent the guide 3 and extending between the spacing members 1, 1, is a pin 4, mounted on which is the lower end of a gripping lever consisting of a lower portion provided with a suitable aperture to receive the pin 4 and having integral, lateral members, 5, 5, between which extends an integral, preferably serrated, jaw 6 shown best in Fig. 2. Positioned above the jaw 6 and extending between the members 5, 5, is a pin 7, pivotally-mounted on which is the lower end of a lever 8 having a socket 9 in which is secured, by means of bolts or pins 10, the lower end of an operating handle 11. The jaw 8 has its lower face preferably provided with a plurality of serrations 12 adapted to cooperate with the serrated jaw 6 for engaging a rope, chain or similar device and to grip the same when the handle is moved in the direction of the arrow in Fig. 2 and to release its gripping action on the rope when the handle is moved in a reverse direction. Extending between the members 5, 5, above the lever 8 is a pin 13 constituting a stop for arresting the outward movement of the lower end of the lever 8 when it is on its return stroke and free from gripping relation with the rope. Extending between the spaced members 1, 1, and in advance of the pin 4 is a pin 14 mounted on which is a hook 15 designed to constitute means for securing the device to a suitable anchorage, as clearly shown in Fig. 1, but it will be apparent that other means such as a loop or other similar or equivalent device may be employed in place of the hook 14. Extending between the companion members 1, 1, in the rear of the

pin 14 is a pin 16 to constitute a stop for preventing rearward movement of the hook when not in use, the latter preferably provided with a shoulder 17 for engaging said pin for the foregoing purpose. The pin 14 also constitutes a pivot for a rope clamp which is mounted thereon consisting of a skeleton frame 18 provided interiorly with an integral, serrated jaw 19 to constitute one member of a rope clamp. The lower portion of the frame 18 is formed with a pair of parallel, forwardly-projecting arms 20 united at their outer ends by an integral cross bar 21. Extending between the side members of the frame 18 is a pin 22 on which is mounted a movable jaw member 23 having the upper portion thereof preferably formed with serrated teeth 24, cooperating with the jaw 19 in clamping a rope. The lower portion of the member 23 is provided with a pair of spaced lugs 25 properly apertured to receive the pin 14 on which the member 23 is pivoted. The lugs 25 are spaced apart so that in setting up the device the hook 15 can be positioned between them on the pin 14. The member 23 is also provided with an outwardly-extending finger or trip 27 adapted to move in the space inclosed by the parallel arms 20 and the cross bar 21 and to normally lie in transverse, parallel relation therewith.

One of the means for employing this device is as follows and is illustrated in Fig. 1 in which the device is used in drawing up the slack or tightening the wires 28 of a fence, provided with ordinary supporting posts 29. In using this device experience has demonstrated that it is preferable to use a short piece of rope in immediate relation with the device and to secure the wire to be stretched to the rope and thereby avoid any crimping or abrading of the surface of the wire by the gripping elements carried by the device. The rope is preferably passed, although not necessarily, under the cylindrical member 2 and upward through the opening 26 in the guide 3 between the jaws 6 and 8 of the gripping lever and from thence outwardly between the serrated portions of the jaws 19 and 23. After this, a wire to be stretched, is suitably connected with the rear end of the rope, as clearly shown in Fig. 1 and a suitable instrumentality connects the hook 15 with a suitable anchorage such as the post shown in the same figure. The operator then grasps the rope in advance of the clamp mounted on the pin 14 and draws up all possible slack. He then moves the handle 11 rearwardly until the lower jaw 6 encounters the guide 3. The handle 11 is then moved in the direction of the arrow in Fig. 2 which causes the serrated faces of the jaws 6 and 8 to tightly grip the rope and advance it toward the clamp carried by the pin 14. As fast as the rope is advanced by means

of the lever carried on the handle 11, it is drawn freely through the clamp on the pin 14 by the other hand of the operator, thereby keeping the rope between the lever and the clamp taut at all times. As soon as the handle 11 has been advanced toward the clamp as far as possible, the operator reverses the movement of the handle, which movement separates the jaws 6 and 8, releasing their hold upon the rope which causes, simultaneously therewith, a gripping action of the serrated faces 19 and 24 on the same, due to the tension of the rope, which by this time will exert a required pull on the rope clamp to cause it to engage operatively the rope placed therein. This movement of the handle 11 is kept up until sufficient tension has been imposed upon the wire, after which the wire is secured fixedly in position by suitable holdfast means to a post and the handle 11 moved to inoperative position, releasing its grip on the rope. In order to release the rope from tension to permit the removal of the device, a slight pressure downwardly upon the trip 27 will separate the members of the clamp carried by the pin 14 sufficiently to relieve all tension thereon. The upper member 8 of the lever is held in position, when thrown backward, by means of the stop or pin 13 constituting an abutment therefor.

What I claim and desire to secure by Letters Patent, is:—

1. A device for stretching ropes and the like comprising a pair of spaced companion bars, a plurality of pins extending between said bars, one of said pins positioned near the front ends of said bars, a rope clamp provided with a manually-operable releasing mechanism pivotally-mounted on said latter pin, a member also mounted on said pin constituting an anchorage for said device, a gripping lever mounted on one of said pins between said bars consisting of a lower portion provided with means to receive said pin having a fixed jaw and with a lateral member integral therewith, a pin carried by said lateral member, a lever provided with a rope-gripping jaw adapted to cooperate with said fixed jaw pivotally-mounted on the pin on said lateral member, said jaws, adapted when moved in one direction, to grip and advance a rope toward said clamp and inoperative when the movement of said lever is reversed, a pin constituting an abutment carried by said lateral member adapted to limit the inoperative movement of said lever and a rope guide positioned rearwardly of said gripping lever for directing the passage of a rope or the like to the jaws carried by said lever.

2. A device for stretching ropes and the like comprising a pair of spaced companion bars, a plurality of pins extending between said bars, one of said pins positioned near

the front ends of said bars, a rope-clamp provided with a manually-operable releasing mechanism pivotally-mounted on said latter pin, a member also mounted on said
5 pin constituting an anchorage for said device, a gripping lever also mounted on one of said pins between said bars consisting of a lower portion provided with means to receive said pin having a fixed jaw and with
10 a lateral member integral therewith, a pin carried by said lateral member, a lever provided with a rope-gripping jaw adapted to cooperate with said fixed jaw pivotally-mounted on the pin on said lateral member,

said jaws adapted when moved in one direction to grip and advance a rope toward said clamp and inoperative when the movement of said lever is reversed and a pin constituting an abutment carried by said lateral member adapted to limit the inoperative
15 movement of said lever. 20

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

JOSEPH S. SOUREK.

Witnesses:

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GLENARA FOX.