June 6, 1939. F. J. DOHERTY 2,161,461

CLOTHESLINE FASTENER

Filed March 17, 1938

Fig. 1

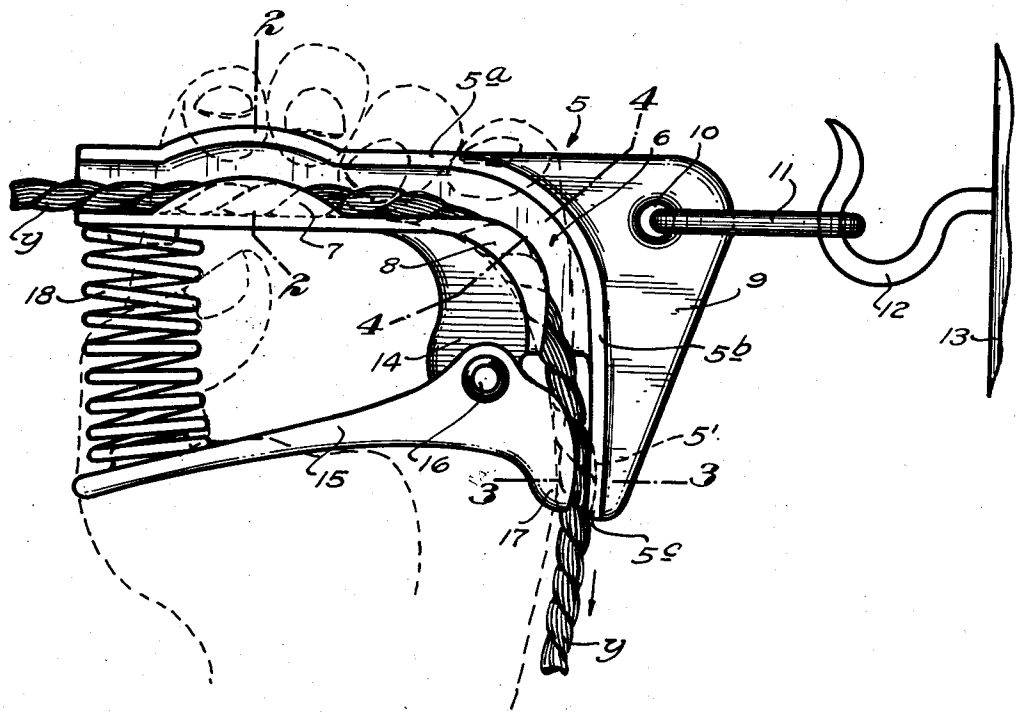


Fig. 2

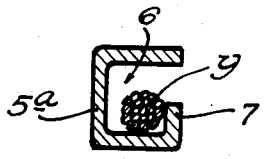


Fig. 3

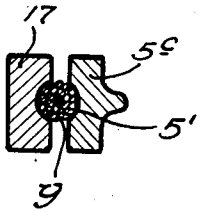
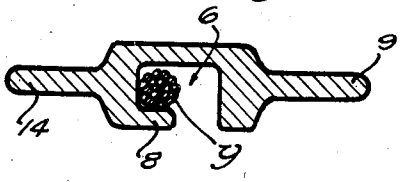


Fig. 4



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UNITED STATES PATENT OFFICE

2,161,461

CLOTHESLINE FASTENER

Frank J. Doherty, Superior, Wis., assignor of three-tenths to James J. Conroy and two-tenths to Louis G. Nagler, both of Superior, Wis.

Application March 17, 1938, Serial No. 196,382

3 Claims. (Cl. 188—65.1)

My invention provides an extremely simple and highly efficient clothesline fastener and, generally stated, the invention consists of the novel devices, combinations of devices and arrangement of parts hereinafter described and defined in the claims. The device, although primarily designed as a clothesline fastener or anchoring device, is, nevertheless, capable of general use for fastening or anchoring the end or ends of ropes, cables and the like.

The device is of such character that it will very securely anchor a rope or line against pulling strain in one direction but will yield under pulling strain in the opposite direction to tighten the line. The device includes a spring or yieldingly pressed gripping lever that automatically sets to prevent slack pulling movement on the line. The body of the device is an L-shaped structure, preferably a metal casting, provided with an approximately L-shaped guide channel that is open at one side for the application of or removal of the line from the body member. The clamping lever has an extended portion that is spaced from but in such close parallel arrangement to the main arm of the L-shaped body that the complete device may be gripped by one hand and used to release the biting action of the lever on the line.

The above and other features will appear in the description of the commercial form of the device illustrated in the accompanying drawing wherein like characters indicate like parts throughout the several views.

Referring to the drawing:

Fig. 1 is a side elevation showing the improved device applied to one end of the clothesline or the like and anchored to a suitable support;

Fig. 2 is a section taken on the line 2—2 of Fig. 1;

Fig. 3 is a section taken on the line 3—3 of Fig. 1; and

Fig. 4 is a section taken on the line 4—4 of Fig. 1.

The L-shaped body is indicated as an entirety by the numeral 5. This body 5 is formed with a relatively long or main arm 5*a* and a relatively short or depending arm 5*b*, the extreme lower end of which arm 5*b*, as will presently appear, affords a clamping abutment 5*c*. The body 5 is formed with an approximately L-shaped guide channel 6 that extends through the arms 5*a* and 5*b* and is open at one side for the lateral application of the rope to the channel or the removal of the rope therefrom without requiring the rope to be threaded through the channel. On its lower or inner flange the channel 6 is formed with retaining flanges 7 and 8 which keep the rope against lateral displacement when under tension. These flanges 7 and 8 are so spaced from the outer walls of the channel that the rope when slightly kinked may be entered into or removed from the channel. The flange 8, it will be noted, is at the elbow of the channel, while the flange 7 is in the long horizontally extended portion of the channel.

To increase the grip on the rope, the jaw or abutment 5*c* is preferably formed with a pocket or depression 5'.

Projecting from the arm 5*a* is a flange 9 shown as formed with an eye 10 to which is applied a link 11 that is adapted to be detachably secured to an anchoring hook 12 or the like secured to a suitable support 13, such as a post or wall. The body member 5 in its re-entered angle is provided with a hinge flange or lug 14 to which a clamping lever 15 is pivotally connected by a pin or rivet 16. The short arm of this lever 15 terminates in a clamping jaw 17 that is opposed to and cooperates with the abutment 5*c* to grip and tightly hold the clothesline, rope or cable *y*. This jaw 17 is preferably grooved, as best shown in Fig. 3, to hold the clothesline or rope against lateral displacement and to give increased grip on the rope. The long arm of the lever 15 is extended below the long or upper arm 5*a* of the L-shaped body, in such near parallelism to the latter that the device may be gripped by one hand, preferably the left hand as shown by dotted lines in Fig. 1. A coiled spring 18 is interposed between the long arm of lever 15 and the long or upper arm 5*a* of the L-shaped body and puts the clamping lever under strain to grip and hold the rope or line.

Fig. 1 shows the device applied to hold one end of a clothesline or the like, the opposite end of which may be anchored by another device, such as shown in Fig. 1, or may be simply tied or otherwise secured to any distant support. With the device applied as shown in Fig. 1, it is evident that the operator with the right hand, by pulling down on the depending end of the line, may put the line under increased tension. By a real hard downward pull on the line this tightening of the line may be accomplishd without releasing the clamping lever. However, to make the pulling action easy, the lever should be released from the line; and this may be easily done with the left hand applied as shown by dotted lines in Fig. 1 and while the depending end of the line is being pulled downward with the right hand.

When the line is under tension and it is desired to give slack to the line, the lever, by the application of the hand as illustrated in Fig. 1, presses the long end of the lever upward, thereby entirely releasing the bite or gripping action of the jaw 17 on the line. This releasing of the line is, of course, necessary as an initial step in taking down the line.

When it is desired to take the line down, it may be quickly detached from the fastening device simply by giving the line slack and then moving the line laterally out of the channel; and, of course, the line may be applied in the channel by reverse operation.

A quite strong spring 18 is desirable between the long end of the clamping lever and the long or upper arm of the L-shaped body and to overcome this spring requires considerable pressure on the lever. This pressure is very readily and easily applied when the hand grips the body and the lever as shown.

A preferred commercial form of the device has been illustrated in the drawing, but it will be understood that the same is capable of modification as to details of construction and arrangement of parts within the scope of the invention herein disclosed and claimed.

What I claim is:

1. In a device of the kind described, an approximately L-shaped body having a relatively long upper and a relatively short depending arm, said body being formed with an approximately L-shaped guide channel that is open at one side throughout its L-shaped portion, the short arm of said body terminating in a clamping abutment, a clamping lever pivoted to said body and having a short end acting as a clamping jaw opposed to the abutment-forming portion of said body, said lever having a long arm spaced from but extending in such near parallelism to the long arm of said body that both may be gripped by one hand, to release said lever, and a spring compressed directly between reacting against said clamping lever and overlying body and normally causing said lever to grip a line.

2. A device of the kind described comprising an approximately L-shaped body formed with an approximately L-shaped line guiding channel, and a spring-pressed clamping lever pivoted to said body, with the short end thereof acting as a jaw opposed to one arm of the L-shaped body, said clamping lever having a relatively long end spaced from but extended in such near parallelism of the main arm of said body that both may be gripped by one hand to release said lever, and in which said L-shaped channel is open at one side for the lateral application of a clothesline or the like into said guide channel, the open side of said guide channel having a retaining flange for holding the line against lateral displacement when under tension.

3. In a device of the kind described, an approximately L-shaped body having a relatively long upper and a relatively short depending arm, said body being formed with an approximately L-shaped guide channel that is open at one side, the short arm of said body terminating in a clamping abutment, a clamping lever pivoted to said body and having a short end acting as a clamping jaw opposed to the abutment-forming portion of said body, said lever having a long arm spaced from but extending in such near parallelism to the long arm of said body that both may be gripped by one hand, to release said lever, and a spring, reacting against said clamping lever and body and normally causing said lever to grip a line, and in which said L-shaped channel is provided with retaining flanges, one located at the elbow bend and the other in the long upper leg of said body, said retaining flanges being spaced from the outer walls of said channel so as to permit lateral passage of the line into and out of said channel, when said line is free from tension.

FRANK J. DOHERTY.