

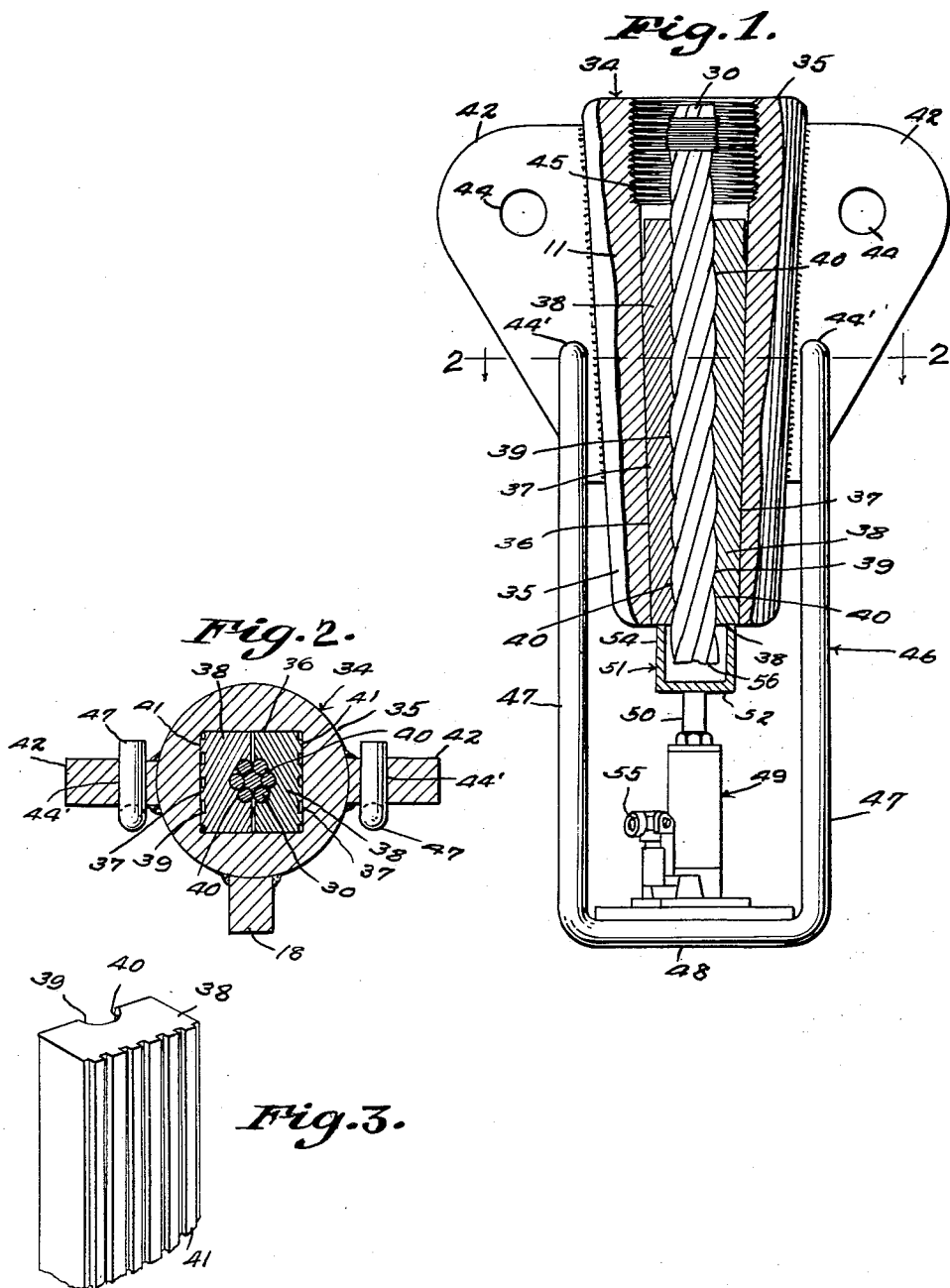
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STRAIGHT LINE WIRE ROPE ANCHOR CLAMP

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STRAIGHT LINE WIRE ROPE ANCHOR CLAMP

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1 Claim. (Cl. 24—126)

This invention relates to an anchor clamp for an end of a length of straight wire rope or the like.

It is an object of this invention to provide an improved straight line wire rope anchor clamp of the kind to be more particularly described hereinafter which is more securely clamped to the rope as the force for removing the rope from the clamp is increased.

Another object of this invention is to provide a straight line wire rope anchor clamp of this kind in which the force for removing the rope from the clamp is inherently applied to increase the force of the clamp in restraining the rope therein.

It is another object of this invention to provide a wire rope anchor clamp of this kind having an open ended sleeve in which a pair of interrelated rope engaging clamping jaws are slidably contained for clamping engagement with the rope to be anchored thereby and wherein a hydraulic jack is carried by the clamp for moving the rope engaging clamp elements in a direction to loosen them from the rope when and as desired.

In the drawings:

Fig. 1 is a longitudinal section through one form of the clamp with a side elevation of the jack for loosening the clamp applied thereto.

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

Fig. 3 is a partial perspective view of a clamping jaw, per se.

Referring now to the drawings there is shown a rope anchor clamp 34, which has a body 35, conical and circular on the outer side with a polygonal inner opening 36 therein. The polygonal inner opening 36 is formed with longitudinally tapered flat wedge shaped walls 37.

Longitudinally arranged tapered jaws 38 are disposed within the polygonal opening 36 each jaw having a semi-cylindrical rope receiving passage 39 in one side thereof for engagement with a rope to be anchored, there being cleats 40 or ridges for engaging the rope being thus anchored.

The outer surfaces of each of the jaw members 38 are shaped in conformity with the opening 36 but is further provided with longitudinally extending ribs 41 for engagement with the inner surface of the flat wedge shaped opening 37. The ribs 41 form channels therebetween so that a lubricant may be discharged into the channels to assist in releasing the wedges.

Outwardly extending ears 42 are provided on the outer surface of the rope anchor clamp 34, each of the opposed ears 42 being provided with an opening 44 engageable with an end of a chain.

The upper and wider end of the conical body 35 is provided with internal threads 45 for threadably receiving a plug or other threaded closure as the nut described before.

Since the movement of the clamping jaws toward the narrower end of the body of the clamp will inherently wedge the rope between the jaws, the jaws must be moved

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toward the wider end of the body before the rope is free for loosening from the body, a jack is provided for moving the jaws from the narrower end toward the wider end.

Openings 44', shown in Fig. 1, are provided in each of the ears 42, remote from the chain receiving openings 44 for engagement therein of an end of a U-shaped brace or saddle 46 for positioning a jack at the narrower end of each of the jaws 38 and shown in Fig. 1.

The U-shaped jack saddle 46 has a pair of horizontally spaced apart vertically extending side arms 47 the ends of which are engageable in said last mentioned openings 44'.

As the jack saddle 46 is U-shaped and one end of the side arms are engageable with the ears 42 the other ends of the side arms are connected together by a bight 48 which serves as a support for the jack 49 thereon.

The jack 49 has a slidable plunger shaft 50 therein with a U-shaped yoke 51 secured on an end of the shaft remote from the jack 49 which engages the end of the jaws at the more restricted end of the body within which the jaws are slidable.

A bight 52 of the last mentioned U-shaped yoke 51 is secured to or formed on the end of the shaft 50 adjacent to the jaws. Side arms 54 extend longitudinally upwardly from the bight 52 and engage, at their free ends, with the jaws 38.

As the jack 49 is actuated by hydraulic pressure a hydraulic pressure fitting 55 is supported adjacent to the jack 49 and may be engaged with a hand lever for operation of the hydraulic jack. At the time the jaws 38 are to be released from the cable 30, the cable is cut off close to the small ends of jaws 38 as indicated at 56 so that the yoke 51 may contact both jaws.

While the specific details of one embodiment of this invention have been herein shown and described, the invention is not confined thereto as changes and alterations may be made without departing from the spirit and scope thereof as defined in the appended claim.

I claim:

The combination with a straight line rope anchor clamp comprising a hollow body having a pair of laterally extended ears, said ears having openings, and rope clamping jaws slidable longitudinally of said hollow body, of a jaw releasing mechanism comprising a U-shaped saddle having right-angled ends disposed in said openings, said yoke depending below the lower ends of said clamping jaws, a jack including a plunger rod mounted on the bight of said saddle, a U-shaped member fitted between the end of said plunger rod and clamping jaws in contact with said rod and jaws adapted to apply and maintain pressure on said clamping jaws in one direction, forcing said jaws longitudinally of said hollow body releasing the cable clamped by said jaws.

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