No. 640,416. Patented Jan. 2, 1900.

C. F. RIGBY.

ROPE CLAMP.

(Application filed Mar. 2, 1899.)

(No Model.)

FIG. 3

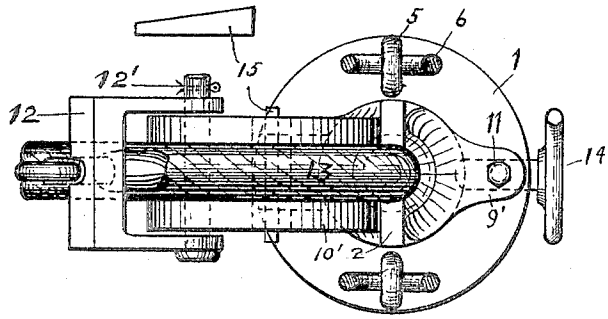
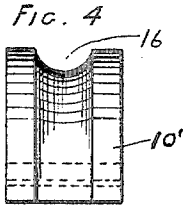


FIG. 4



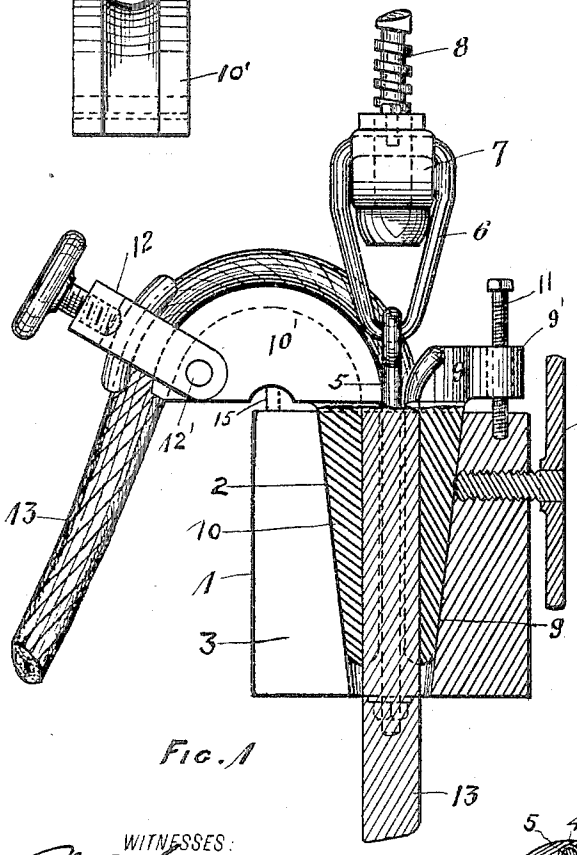


FIG. 1

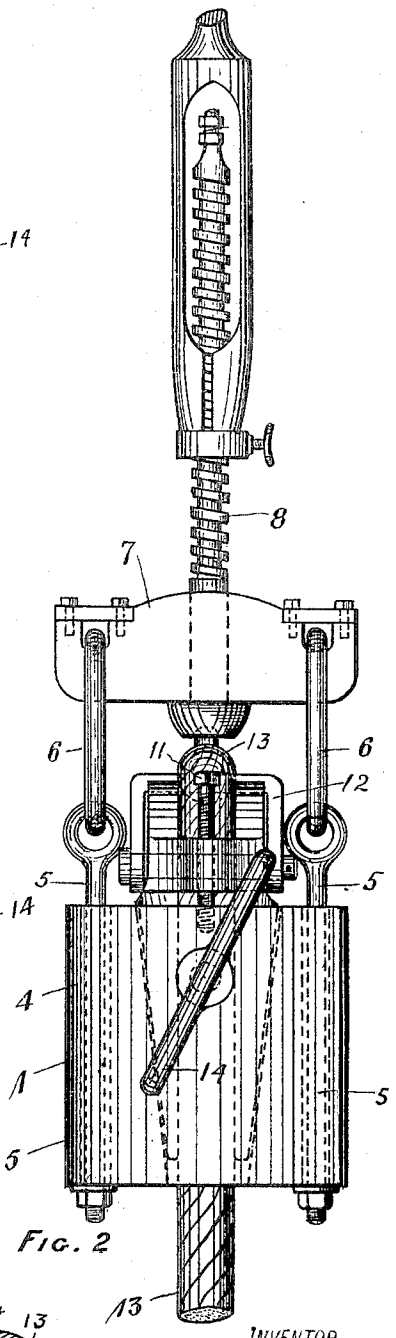


FIG. 2

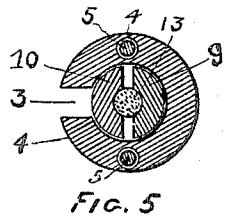


FIG. 5

WITNESSES:

INVENTOR

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BY

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UNITED STATES PATENT OFFICE.

CLARK F. RIGBY, OF MANNINGTON, WEST VIRGINIA.

ROPE-CLAMP.

SPECIFICATION forming part of Letters Patent No. 640,416, dated January 2, 1900.

Application filed March 2, 1899. Serial No. 707,537. (No model.)

To all whom it may concern:

Be it known that I, CLARK F. RIGBY, a citizen of the United States, residing at Mannington, in the county of Marion and State of West Virginia, have invented new and useful Improvements in Rope-Clamps, of which the following is a specification.

This invention relates to drill-rope clamps, and has reference to an improved clamp particularly adapted for wire cables.

The object of the invention is to provide a clamp which can be quickly applied and which will automatically grip the cable and proportion its hold to the weight sustained, avoiding danger of slipping.

The invention consists in the novel features of construction and combination of parts hereinafter fully described and claimed and illustrated by the accompanying drawings, in which—

Figure 1 is a vertical sectional view of the improved clamp, the parts above the top plane of the clamp-block being shown in elevation. Fig. 2 is an elevation of the clamp. Fig. 3 is a plan view. Fig. 4 is a detail view of one of the slip-heads. Fig. 5 is a sectional plan view.

1 is a block having a downwardly-tapering bore 2 and the vertical side slot or incision 3. In opposite sides of the block are vertical apertures 4 to receive eyebolts 5, and the latter are connected by links 6 to swivel-head 7 of temper-screw 8. Arranged to work in block-bore 2 are the oppositely-positioned downwardly-tapering concavo-convex slips 9 and 10. The head of slip 9 is projected laterally at 9′ over block 1 and is apertured to play vertically on bolt 11. The position of slip 9 is opposite incision 3 of the block 1. Head 10′ of slip 10 overhangs block 1 and is curved and grooved on its top edge, as shown at 16.

12 is a clamp secured by removable bolt 12′ to the outer portion of head 10′, spanning the curved edge of the latter. The clamp is applied while cable 13 hangs suspended in the derrick, first having removed slip 10 to permit the cable to enter slot 3. Slip 10 is then inserted and the cable tightly gripped between the slips by means of set-screw 14, working through block 1 behind slip 9. Clamp 12 being removed and with the depending portion of the rope sustained by the temper-screw, the rope or cable is unwound from the bull-wheel sufficiently to give working slack between the crown-pulley and clamp. The cable is then bent down into the curved and grooved edge 16 of slip-head 10′, after which clamp 12 is replaced and tightened upon the cable. Set-screw 14 is then retracted, throwing the entire weight of the suspended cable on slips 9 and 10, and the taper of the latter, in conjunction with tapering bore 2 of the block, effectually wedges and secures the cable, the greater the weight the more secure being the hold. Clamp 12 is for the purpose of binding the cable to slip 10, so that if for any reason the cable should slip between the slips 9 and 10 the cable itself will draw slip 10 farther into the tapering bore and arrest such movement.

The curved slip-head 10′ forms a convenient turn for feeding the slack of the somewhat-unwieldy cable through the clamp, and the yoke of clamp 12 retains the cable thereon. To remove the clamp, small clamp 12 is removed and the slack in the cable taken up on the bull-wheel, relieving the temper-screw of the weight, and to loosen the engagement of the slips a small wedge is driven between the top surface of block 1 and slip-head 10′, thereby readily disengaging slip 10, and upon its removal the clamp may be passed off the cable through block-incision 3.

The weight of the cable is borne by the block, which has direct swivel connection with the temper-screw. Heretofore it has been usual to sustain the weight by connecting the slips directly to the swivel, thus subjecting them to strain and danger of breaking, which in my improved clamp are avoided.

The clamp is simple and very durable and capable of quick and easy manipulation.

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

1. An improved clamp for well-drilling cables comprising a block having a vertical bore, slips operative therein to secure the cable, and a guide carried by one of the slips over which the cable passes to position between the slips, substantially as shown and described.

2. In a clamp for well-drilling cables, the combination of a temper-screw swivel, a block

suspended therefrom, said block having a tapering bore, curved and tapering slips operative in the block-bore for securing the cable, one of the slips being removable and provided at its upper end with a cable-guide, and means for limiting the movement of the other slip, substantially as shown and described.

3. An improved clamp for well-drilling cables comprising a block having a vertical bore, slips operative therein to secure the cable, a guide for the cable carried by one of the slips, and a clamp on the guide for temporarily securing the cable, for the purpose described.

4. An improved clamp for well-drilling cables comprising a block having a vertical bore, slips operative therein, one of the slips being projected outward at its upper end and apertured vertically, a bolt on the block on which the apertured slip projection is confined for limiting the longitudinal movement of said slip, and a laterally-projecting cable-guide at the upper end of the other slip, substantially as shown and described.

5. An improved rope-clamp comprising a block having a vertical bore, slips operative therein to secure the cable, one of the slips being provided with an overhanging curved head which forms a guide over which the cable passes, substantially as shown and described.

6. An improved rope-clamp comprising a block having a vertical bore, slips operative therein to secure the cable, one of the slips being provided with an overhanging curved head which forms a guide over which the cable passes, and means for confining the cable on the slip-head, substantially as shown and described.

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

CLARK F. RIGBY.

Witnesses:
GEO. T. LITTLE,
A. A. J. GASKILL.