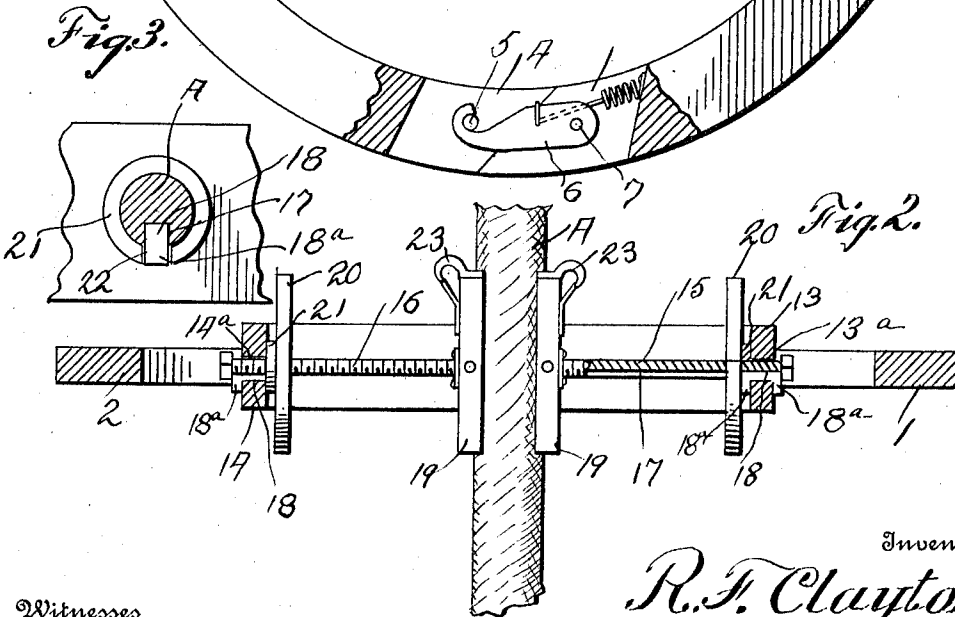
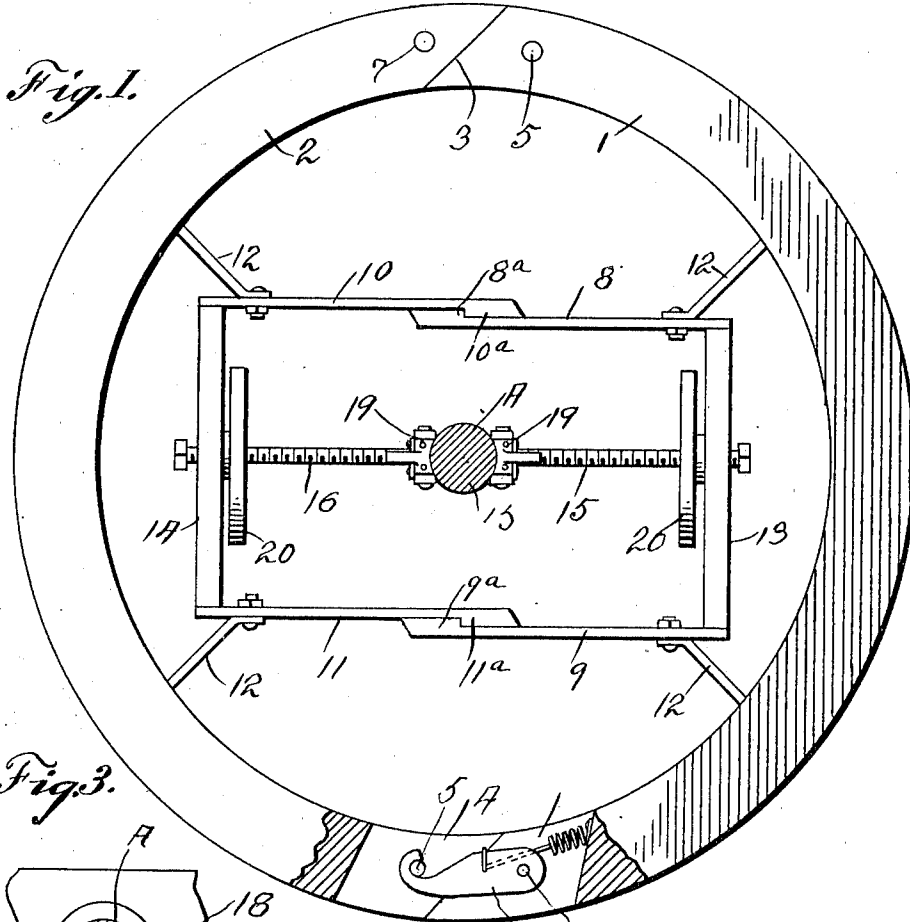


R. F. CLAYTON.
 DRILL CABLE CLAMP.
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1,061,221.

Patented May 6, 1913.



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ROBERT FENTRESS CLAYTON, OF WIMBERLY, TEXAS.

DRILL-CABLE CLAMP.

1,061,221.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROBERT FENTRESS CLAYTON, a citizen of the United States, residing at Wimberly, in the county of Hays and State of Texas, have invented certain new and useful Improvements in Drill-Cable Clamps, of which the following is a specification.

My invention relates to devices for clamping the rope on which the drill is secured in well drilling and has for its object the provision of a clamp that is easily and expeditiously secured to or removed from the drill rope and that is so constructed that the rope may be turned manually and while the drill is in operation.

My invention will be described in detail hereinafter and illustrated in the accompanying drawings, in which,

Figure 1 is a top plan view, partly broken away, of my improved drill rope and clamp; Fig. 2, a cross section of a clamp; and Fig. 3, a detail showing the means for preventing the clamp screws from rotating.

In the drawings similar reference characters will be used to designate corresponding parts through the several views.

In well drilling it is necessary to have some means for securing the jerk rope to the drilling machine to the rope carrying the drill and at the same time, it is also desirable to have means connected with the clamp by which the drill rope may be turned or rotated while in operation, and my improved invention is designed for this purpose.

In the drawings, A indicates a drill rope to which a drill (not shown) is attached.

My improved clamp consists of two semi-circular pieces indicated at 1 and 2 having their meeting ends formed with inclined surfaces as shown at 3 and slotted as shown at 4. One end of each section of the ring formed by the two portions 1 and 2 is provided with a cross pin 5 that is mounted in the slot 4, while the other end of the section is provided with a pivoted hook 6 by means of a cross pin 7, said hook being adapted to engage the pin 5 on the end of the adjacent section of the ring.

Secured to each section of the ring is a frame consisting of bars 8, 9, 10 and 11 secured to said sections of the ring by means of brace bars 12, and 13 and 14 indicate cross bars connecting the outer ends of the bars 8 and 9, 10 and 11 respectively, the

opposite terminals of said bars 8, 9, 10 and 11 being formed with laterally extending projections 8^a, 9^a, 10^a, and 11^a respectively forming shoulders that engage one another when the ring is in an assembled position as shown in Fig. 1 to form a complete rectangular frame as shown. The cross bars 13 and 14 are each provided with an opening 13^a and 14^a respectively, in which is slidably mounted a screw shaft or bolt 15 and 16, said shafts or bolts being formed with a longitudinal groove or gain 17 in which a key 18 secured in the openings 13^a and 14^a slide, said keys being prevented from longitudinal movement relatively to the cross bars 13 and 14 by means of lugs or projections 18^a engaging the sides of said cross bars. Secured to the adjacent ends of the shafts 15 and 16 are clamping members 19 that are adapted to clamp the rope A as shown in the drawings, said clamping members being provided with segmental clamping faces to securely engage the surface of the rope.

20 indicates wheels rotatably mounted on the shafts 15 and 16, said wheels having threaded apertures to engage the threads on said shafts to move the clamping members 19 relatively to the cross bars 13 and 14.

21 indicates a washer having a cut-out portion 22 that is seated on the shafts 15 and 16 adjacent to the cross bars 13 and 14, the cut-out portion 22 being adapted to seat on the projections 18^a of the U-shaped key 18.

23 indicate hooks on the upper ends of the clamping members 19 on which the jerk rope (not shown) from the drilling machine is adapted to be secured.

In operation, it will be apparent that the clamp is placed upon the rope A when the two members mounted on the portions of the ring, indicated 1 and 2, are dismembered, and after being mounted on the rope, the two portions 1 and 2 are secured together, as shown in Fig. 1. The clamping members 19 are then moved into engagement with the rope A by sliding the shafts 15 and 16 in the openings 13^a and 14^a in the cross bars 13 and 14 and the clamping members held in clamping engagement with the rope by turning the wheels 20 on the threads against the washers 21. The jerk rope may then be secured to the hooks 23 and the drill be ready for operation. During the operation of drilling, the drill may be rotated within

the boring as desired by turning the outer ring formed in sections 1 and 2. As the boring proceeds, it will be understood that the clamp may be released from the rope A at times and raised to permit the drill to descend into the boring.

Having thus described my invention what I claim is:—

1. In a drill rope clamp, a ring formed in two sections, a frame mounted on each section and having interengaging portions to engage corresponding parts of the frame on the other section and form an inclosed frame, and clamping members mounted on each frame.

2. A drill rope clamp comprising a ring formed in two sections, releasable engaging members to hold said ring sections together, bars secured to each section and having offset shoulders on one of their ends, said offset shoulders adapted to engage the offset shoulders on the bars on the corresponding section, a cross bar connecting the bars on each ring section, a screw shaft slidably mounted in each cross bar and having a clamping member thereon, means to hold said screw shafts from rotation, and a wheel having a

threaded opening mounted on each shaft and adapted to hold said clamping members in a clamping position.

3. A drill rope clamp comprising a ring formed in two sections, releasable engaging members to hold said ring sections together, bars secured to each section and having offset shoulders on one of their ends, said offset shoulders adapted to engage the offset shoulders on the bars on the corresponding section, a cross bar connecting the bars on each ring section, a screw shaft slidably mounted in each cross bar and having a clamping member thereon, said screw shafts being each formed with a longitudinal groove, a key secured to each cross bar slidably engaging said groove, and a wheel having a threaded opening mounted on each shaft and adapted to hold said clamping members in a clamping position.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT FENTRESS CLAYTON.

Witnesses:

ED. J. LEATH,

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."