J. J. HERNDON.

ROPE EYE FOR WELL DRILLS.

APPLICATION FILED OCT. 12, 1910.

989,257. Patented Apr. 11, 1911.

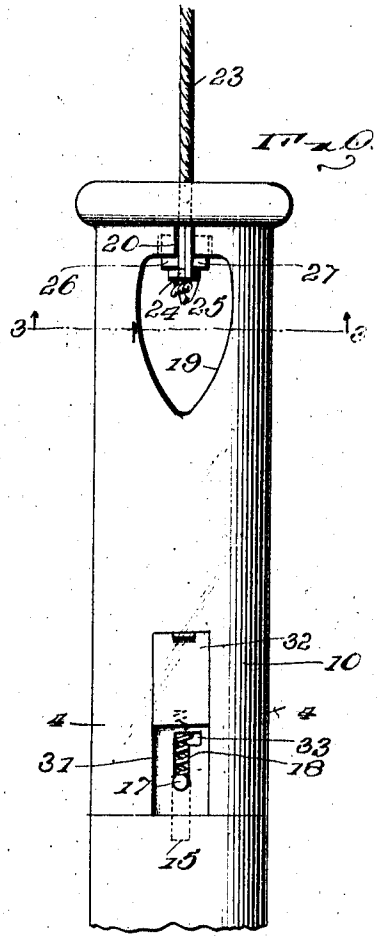

Fig. 1.

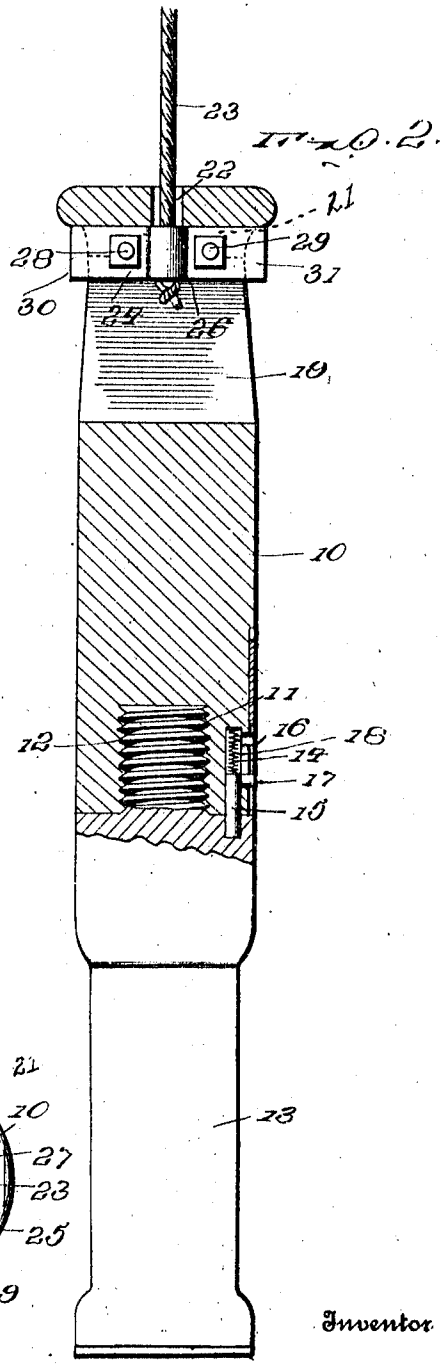

Fig. 2.

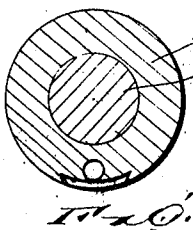

Fig. 4.

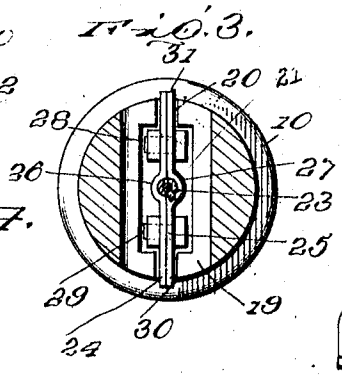

Fig. 3.

Witnesses

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ROPE-EYE FOR WELL-DRILLS.

989,257. Specification of Letters Patent. Patented Apr. 11, 1911.

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To all whom it may concern:

Be it known that I, JOSEPH J. HERNDON, citizen of the United States, residing at Sharon, in the county of Barber and State of Kansas, have invented certain new and useful Improvements in Rope-Eyes for Well-Drills, of which the following is a specification.

This invention relates to improvements in devices for coupling the operating rope or cable to a well drill and for like purposes, and has for one of its objects to improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a device of this character whereby the operating cable or rope may be readily coupled to and disconnected from the drill, and without breaking or discarding any of the parts.

Another object of the invention is to provide a simply constructed locking means between the cable coupling device and the drill rod.

With these and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that I shall hereinafter more fully describe and then point out the novel features in the appended claim.

For a full understanding of the invention and the merits thereof, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a view of the improved device from one side; Fig. 2 is an elevation in section on the line 2—2 of Fig. 1; Fig. 3 is a transverse section on the line 3—3 of Fig. 1, looking in the direction of the arrow. Fig. 4 is a transverse section on the line 4—4 of Fig. 1.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

The improved device comprises a stock or head 10 having an internally threaded socket 11 at one end to receive the threaded stud 12 of the drill bit 13. Formed within the stock 10 alongside of the threaded socket 11 is a cavity 14 to receive a bolt 15, the bolt being arranged to enter sockets or cavities in the adjacent face of the drill bit 13. Formed through the side of the stock 10 opposite the recess 14 is a slot 16, and a pin 17 is connected to the bolt 15 and extends through the slot, to provide a convenient means for elevating the bolt and uncoupling it from the drill bit 13. A spring 18 operates upon the pin or bolt 15 and maintains the same yieldably in its downward position and coupled to the drill bit 13. By this means the drill bit is locked from retrograde movement after having been once turned "home." By this means no danger exists of the accidental separation of the members 10—11 when in use. Extending through the stock from its upper end is a relatively large transverse opening 19, and likewise extending through the stock and communicating with the opening is a recess 20, while an upwardly directed cavity 21 is formed within the stock and extending upwardly from the opening 19 and communicating therewith. A vertical opening 22 leads through the upper end of the stock and communicates with the recess 21, as shown in Fig. 2, the pull rope or cable 23 passing downwardly through this opening 22, as hereafter explained.

A rope clamp forms an essential part of the improved device and is formed of two plates 24—25 having intermediate enlargements 26—27 intermediate their ends to receive the rope or cable 23, the two parts 24—25 being united by transverse clamp bolts 28—29. The terminals 30—31 of the rope clamp are extended and fit within the recesses 20, as shown, while the heads of the bolts enter the relatively large recess 21 and thus serve as stops to prevent the lateral displacement of the rope clamp. By this means all lateral movement of the clamp is prevented and the rope thereby protected from abrasion. By this simple means, the rope clamp is held from rotative movement, and thus firmly locked in position relative to the stock 10, while at the same time readily removable when the table is to be disconnected. The recess 21 provides ample room for the free operation of the cable, and effectually prevents any danger of the cable coming in contact with the stock.

The stock 10 is constructed of metal, preferably cast steel, may be of any required size to adapt it to the size of the drill bit with which it is employed, while the clamp members 24—25 are also formed of relatively heavy metal, preferably steel. The relatively large opening 19 provides ample space for the reception of the rope clamp, so that the latter may be readily released

when desired. Formed in the side of the stock 10 is a longitudinal recess 31 opposite the slot 18, and slidably engaged in this recess is a cover member 32, which forms a guard when in depressed position to the slot and the pin locked therein. At its upper end the slot 18 is provided with a lateral offset 33 into which the terminal 17 of the pin 15 may be turned to hold the pin in withdrawn position when the members 10—13 are to be connected or disconnected.

Having thus described the invention, what is claimed as new is:

A device of the class described comprising a stock having a transverse opening and a longitudinal bore and with recesses communicating with the opening and with the bore, said recesses being enlarged at their inner ends, a rope extending through said bore and into the opening, a rope clamp within said stock opening and comprising two plates for bearing upon opposite sides of the rope and extended at the ends for engaging the outer portions of said recesses, and bolts uniting said clamp plates and including enlarged heads at one end for engaging in the enlargements of the recesses and preventing lateral movement of the clamp plates and protecting the rope from abrasion.

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

JOSEPH J. HERNDON. [L. S.]

Witnesses:

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