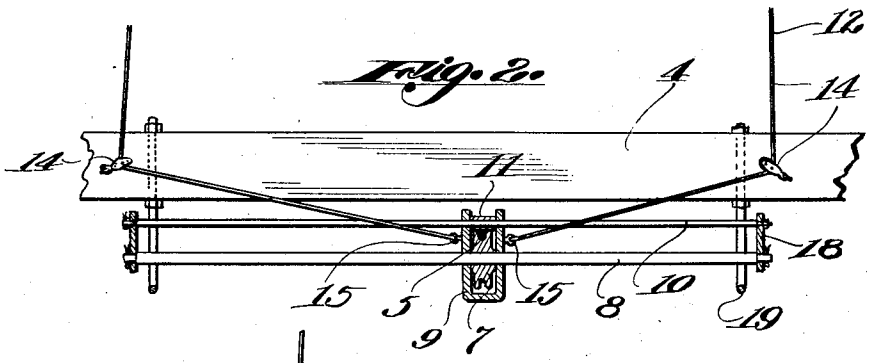
Dec. 22, 1925. 1,566,641

J. L. BELL

LINE SPOOL FOR ROTARY DRILLS AND THE LIKE

Filed Dec. 13, 1923

Fig. 2.



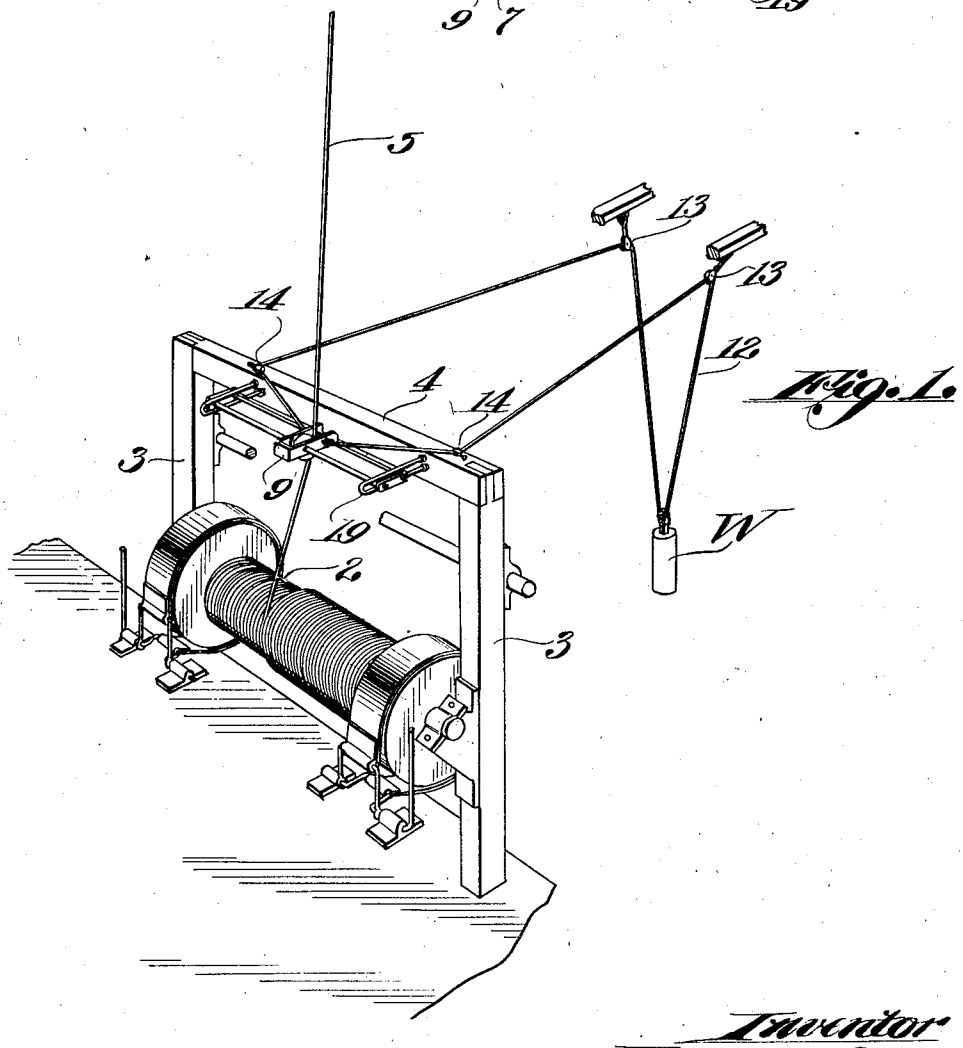


Fig. 1.

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Patented Dec. 22, 1925. 1,566,641

UNITED STATES PATENT OFFICE.

JAMES L. BELL, OF MONTEBELLO, CALIFORNIA.

LINE SPOOL FOR ROTARY DRILLS AND THE LIKE.

Application filed December 13, 1923. Serial No. 680,442.

To all whom it may concern:

Be it known that I, JAMES L. BELL, a citizen of the United States, residing at Montebello, in the county of Los Angeles and State of California, have invented new and useful Improvements in Line Spools for Rotary Drills and the like, of which the following is a specification.

This invention relates to line spools for rotary drills and the like.

An object of the invention is to provide a line spool for rotary drills and the like to prevent the whipping of the usual cable used in well drilling apparatus, and which cable is wound upon and run off of a drum.

Because of the whipping of the cable it tends to pile up on the winding drum.

The present invention consists of a sliding guide pulley arranged just above the drum and which is under a constant control so as to cause the cable to wind evenly along the drum.

Other objects and advantages will be made manifest in the following specification of an embodiment of the invention illustrated in the accompanying drawings, wherein—

Fig. 1 is a perspective of the apparatus.

Fig. 2 is a horizontal sectional and plan view.

A drum 2 is shown as arranged in the frame 3 having a cross beam 4, and from the drum extends the usual cable 5. The cable extends to the head of the derrick not shown and runs off a shifting pulley. The considerable length of the cable extending from the drum 2 to the head of the derrick allows the cable to whip and its coils pile up on each other on the drum.

To prevent this I provide a guide pulley 7 mounted on horizontal rod 8 and disposed between a U-shaped slide 9. The slide is mounted on the rod 8 and the rear ends of the member 9 are slidably mounted on a supporting rod 10. The pulley is freely rotatable and the cable runs between the rear edge of the pulley and a pin 11, which prevents the cable from jumping out of the pulley groove.

Means are provided for preventing the pulley from vibrating with its carriage as the rope or cable whips. Such means includes a suitable weight W suspended in a bight of a rope or bridle 12 which passes over spaced pulleys 13 suitably supported and from which the bridle runs forwardly to guide pulleys 14 and thus converges towards the slide 9 to the sides of which the ends of the bridle 12 are attached at 15.

It will be seen therefore that as the cable 5 winds along the drum 2 the slide 9 with the guide pulley 7 will be gradually shifted along its supporting rods 8—10 without the natural tendency of the winding rope to pile up. The slide 9 is constrained in moving in either direction by the bridle which is controlled by the weight W. The rods 8 and 10 are connected at their ends by transverse bars 18, which are arranged outside of slotted supporting brackets 19, in which the rods 8 and 10 are laterally slidable so that the rods 8 and 10 form substantially a frame which shifts back and forth in the slotted brackets 19. These brackets may consists of U-bolts provided in the cross-beam 4; thus the frame carrying the slide is adapted to move forwardly as the layers of cable wind on the drum.

Further embodiments, modifications and variations may be resorted to within the principle of the invention.

What is claimed is:

A line spool for rotary drills and the like comprising slotted brackets, a frame mounted in the brackets for lateral movement, a slide shiftable along with the said frame and provided with a guide pulley engageable by a cable running to a drum, whereby to prevent the piling up of the cable on a drum by a whipping action of the cable.

In testimony whereof I have signed my name to this specification.

JAMES L. BELL.