

No. 827,527.

PATENTED JULY 31, 1906.

R. E. GRANT.
OIL WELL APPLIANCE.
APPLICATION FILED MAR. 17, 1906.

FIG. 1.

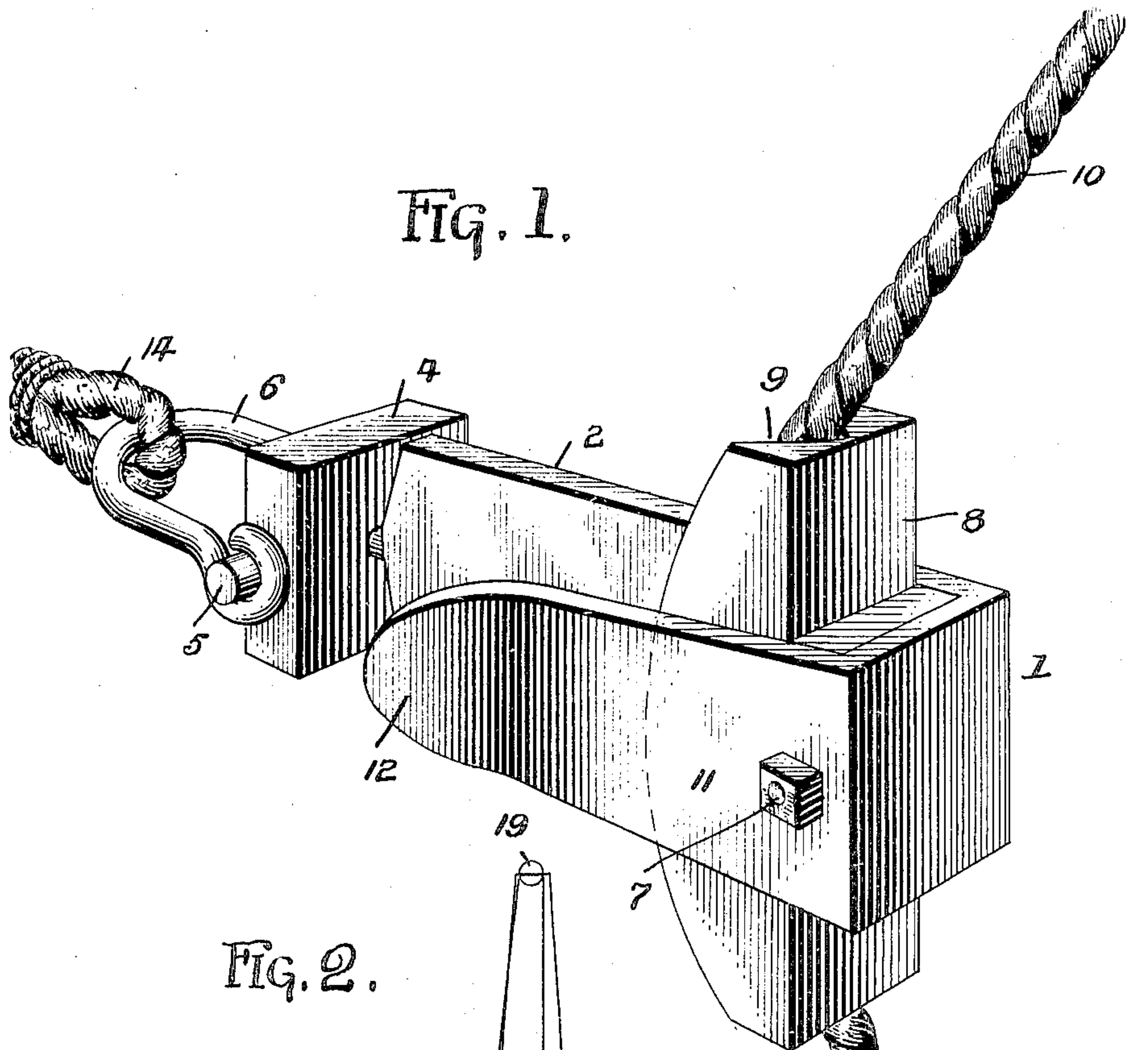


FIG. 2.

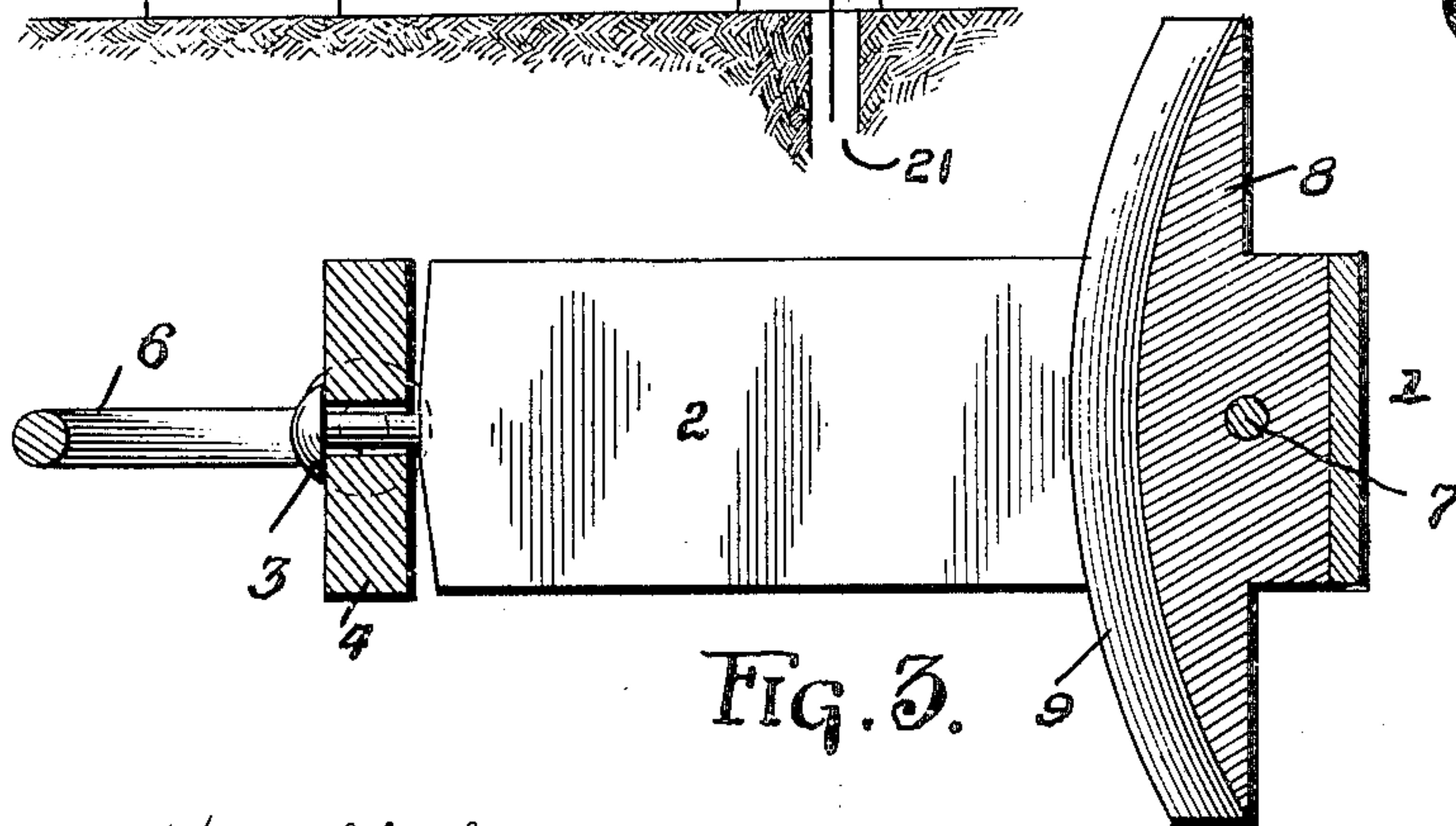
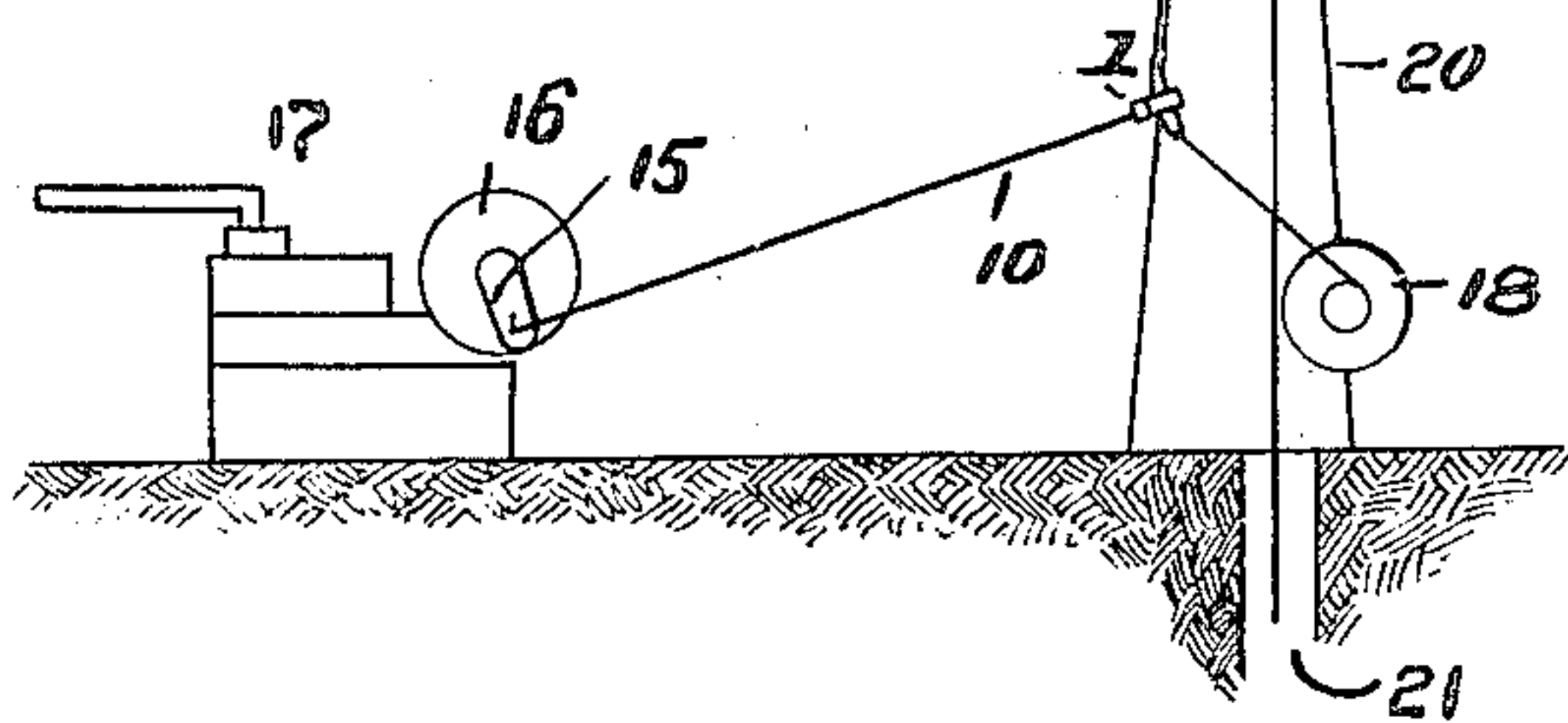


FIG. 3.

witnesses
Samuel T. Payne
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UNITED STATES PATENT OFFICE.

RALPH E. GRANT, OF ZELIENOPLE, PENNSYLVANIA.

OIL-WELL APPLIANCE.

No. 827,527.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed March 17, 1906. Serial No. 306,504.

To all whom it may concern:

Be it known that I, RALPH E. GRANT, a citizen of the United States of America, residing at Zelienville, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Oil-Well Appliances, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in well-drilling devices; and the invention relates more particularly to a spudding device which is employed for raising and lowering a drilling-cable when starting a well.

15 My invention aims to provide a simple and inexpensive spudding device which will relieve the drilling-cable of wear and tear heretofore incurred by spudding devices and which can be easily and quickly placed in engagement with a drilling-cable.

20 It is a well-known fact that in starting an oil or Artesian well it is impossible to use a walking-beam on account of the length of the drilling-tools employed for drilling a well, and it is therefore necessary that some other means, such as spudding devices, be employed for raising and lowering the drilling-tools within the derrick of an oil-well rigging until the hole or well within the ground has become of a sufficient depth to accommodate the drilling-tools and permit of a walking-beam being used. Spudding devices have heretofore been employed which were clamped upon the drilling-cable and actuated by a crank-arm carried by the wheel of an engine; but considerable time and labor have been lost in placing the spudding devices in engagement with the drilling-cables; said devices also wearing the cables and causing no end of trouble and expense.

25 To obviate the above defects, I have devised a spudding device which can be easily and quickly placed in engagement with a drilling-cable, the device being constructed to accommodate itself to the cable, and thus reduce the friction existing between the device and said cable.

30 With the above and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts, to be hereinafter more fully described and claimed, and referring to the drawings accompanying

this application like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a perspective view of my improved spudding device, illustrating the same engaging a drilling-cable. Fig. 2 is a diagrammatic view of an oil-drilling outfit, illustrating the location of my improved spudding device relative to the drilling-cable and the derrick, and Fig. 3 is a longitudinal sectional view of the device.

To put my invention into practice, I construct my improved spudding device of a hook-shaped member 1, the longer arm 2 of which is provided with a rearwardly-extending headed pin 3, upon which is swiveled a block 4. The block 4 is provided with outwardly-extending trunnions or pins 5, upon which a stirrup or yoke 6 is mounted.

In the hook-shaped member 1 is detachably mounted by a bolt and nut 7 a shoe 8, said shoe having a curved V-shaped groove 9 formed in its base, in which the drilling cable or rope 10 is adapted to engage. The shorter arm 11 of the hook-shaped member 1 is bent outwardly, as at 12, to facilitate the placing of a drilling cable or rope 10 in engagement with the shoe 8.

35 In Fig. 2 of the drawings I have illustrated diagrammatically the position of my improved device relative to the derrick and operating-engine thereof. By referring to said figure it will be observed that the stirrup or yoke 6 is connected by a cable or rope 14 with the crank-arm 15 of a wheel 16, said wheel being revolved by a conventional form of engine 17, employed for numerous purposes in connection with an oil-well rigging. The cable or rope 10, which engages the shoe 8, passes from the bull-wheel 18 upwardly over the pulley or sheave 19, mounted in the top of the derrick 20, from where the rope descends into the hole or well 21 and supports the drilling-tools. (Not shown.) In practice the spudding device is placed in engagement with the cable or rope 10 between the pulley or sheave 19 and the bull-wheel, and as the bull-wheel is locked and prevented from rotating the spudding device will raise and lower the drilling-tools within the hole or well 21 when the wheel 16, carrying the crank-arm 15, is rotated. The spudding device is only used until the hole or well 21 has been drilled a sufficient depth to permit of a walking-beam being employed for finishing the

hole or well; but it is essential that a spudding device be first employed when starting a hole or well.

I preferably construct my improved device of strong and durable metal, and by providing the hook-shaped member with a detachable shoe, said shoe can be removed at any desired time and replaced by a new one or by a shoe having a different-shaped groove formed therein.

Such changes as are permissible by the appended claims may be resorted to without departing from the spirit and scope of the invention.

What I claim, and desire to secure by Letters Patent, is—

1. In a spudding device, the combination with the crank-arm of an engine, and the drilling-cable of an oil-well rigging, of a hook-

shaped member, a block swiveled upon one end of said member and being connected with said crank-arm, a grooved shoe detachably mounted in the opposite end of said member and engaging said drilling-cable, substantially as described.

2. A spudding device consisting of a hook-shaped member, a block swiveled upon the longer arm of said member, a stirrup connected to said block, a grooved curved shoe detachably mounted in said hook-shaped member, substantially as described.

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

RALPH E. GRANT.

Witnesses:

J. L. GLENN,
M. G. GALLAHER.