

W. A. GREER & D. L. TURNER.
 CALF WHEEL FOR OIL WELLS.
 APPLICATION FILED DEC. 10, 1910.

1,013,012.

Patented Dec. 26, 1911

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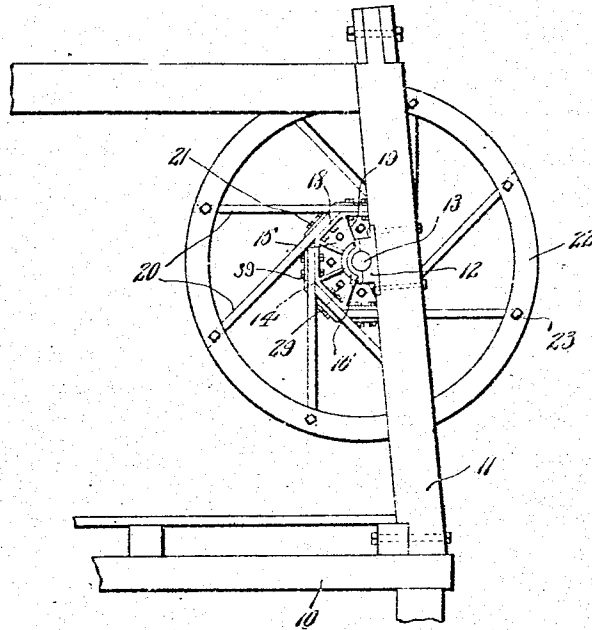


Fig. 1.

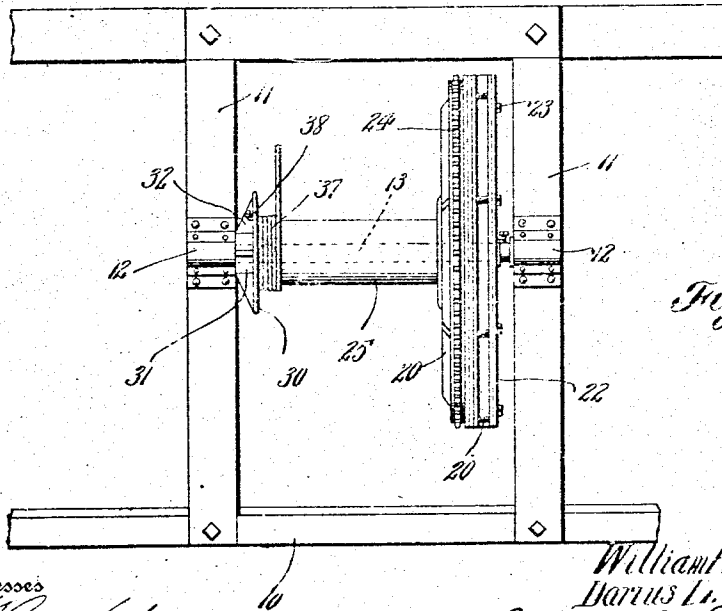


Fig. 2.

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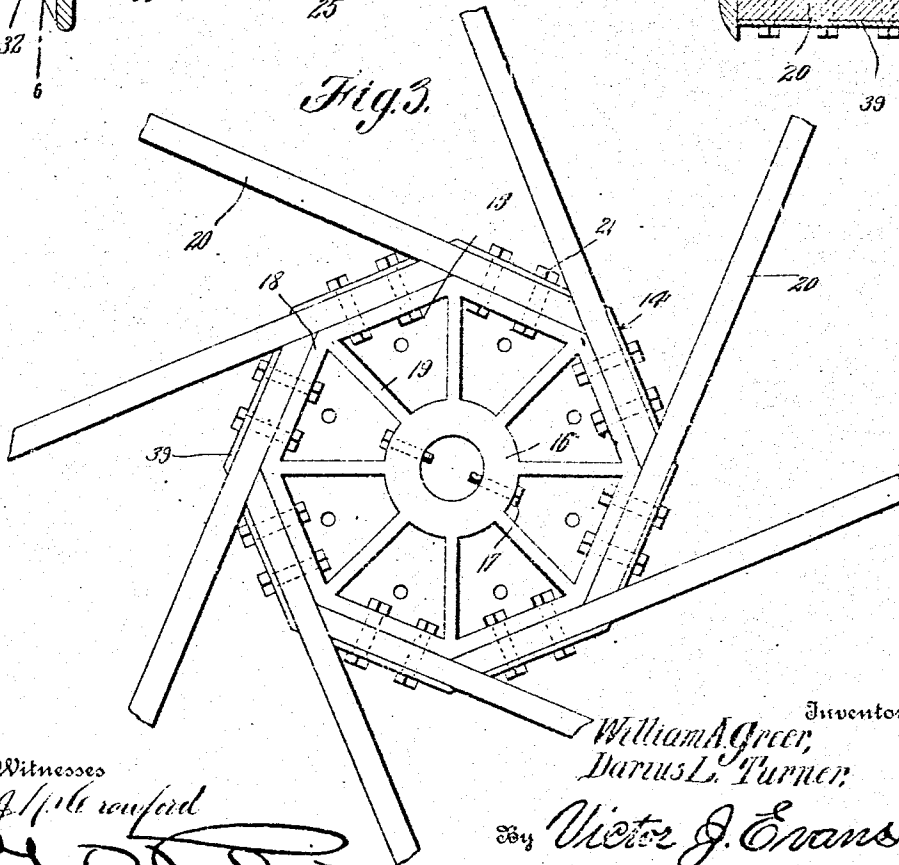
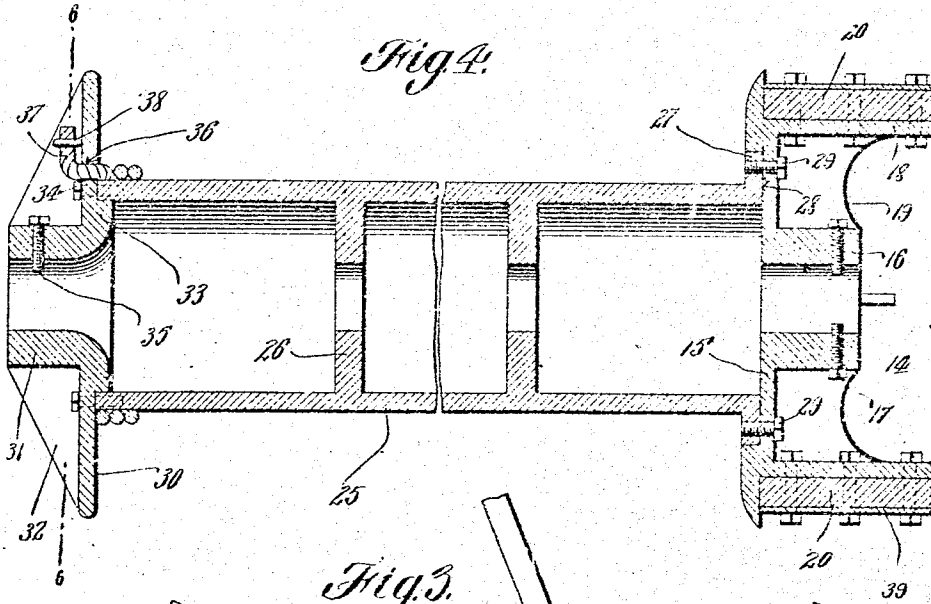
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UNITED STATES PATENT OFFICE.

WILLIAM A. GREER AND DARIUS L. TURNER, OF COALINGA, CALIFORNIA.

CALF-WHEEL FOR OIL-WELLS.

1,013,012.

Specification of Letters Patent.

Patented Dec. 26, 1911.

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To all whom it may concern:

Be it known that we, WILLIAM A. GREER and DARIUS L. TURNER, citizens of the United States, residing at Coalinga, in the county of Fresno and State of California, have invented new and useful Improvements in Calf-Wheels for Oil-Wells, of which the following is a specification.

The invention relates to calf wheels for water or oil wells.

The primary object of the invention is the provision of a wheel in which the hub thereof is constructed from metal, the spokes and rim being constructed from wood and are securely bolted or otherwise fastened together, whereby the same may be easily and readily assembled by an inexperienced workman, and also disassembled, so that the necessary repairs may be made to such wheel, should the occasion require.

Another object of the invention is the provision of a wheel structure that will be non-destructible, and that may be subjected to the maximum amount of wear, without injuring or weakening the same, and that may be set up or taken apart when desired.

A further object of the invention is the provision of a wheel of this character which is simple in construction, strong, durable, reliable and efficient in operation, and inexpensive in manufacture.

With these and other objects in view, the invention consists in the construction, combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claim hereunto appended.

In the drawings: Figure 1 is a fragmentary side elevation of a frame rigging showing the wheel constructed in accordance with the invention mounted therein. Fig. 2 is a front elevation thereof. Fig. 3 is an enlarged fragmentary side elevation of the wheel. Fig. 4 is an enlarged vertical longitudinal sectional view through the wheel and the drum.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to the drawings by numerals, 10 designates a frame rigging which is of the ordinary well-known construction, for use in boring or drilling water or oil wells, and includes standards 11, to which are suitably bolted split guiding bearings 12, in which is journaled a supporting shaft 13,

the latter extending horizontally between the said standards 11 and is adapted to support the calf wheel and drum, as will be hereinafter more fully described.

This calf wheel comprises a hub 14 formed preferably from cast iron, including a circular disk 15 formed with a central boss 16 projecting from one face of the disk, the boss being provided with a central opening receiving the shaft 13 and has threaded therein diametrically opposed binding or set screws 17 which bite into the shaft 13 for locking the hub thereon. Spaced from the periphery of the disk 15 and formed integral therewith is an octagonal-shaped bearing flange 18, the same projecting from the outer face of the said disk and is connected with the boss 14 by means of radially extending webs 19 integral therewith and with the disk and the said flange for materially strengthening the latter. Connected with the flange 18 is a plurality of outwardly projecting spokes or arms 20, the inner end of each being beveled and abutting against the adjacent arm or spoke. These spokes or arms 20 are secured to the flange by means of a plurality of bolt members 21 which are passed through the said arms or spokes 20 and the flange 18 on the hub, thus it will be seen that any one of the said spokes or arms 20 may be detached from the hub, should the occasion require, without disturbing the other spoke or arm, thereby enabling the wheel to be repaired when the same has been damaged by the breaking thereof or otherwise.

It is evident that each arm or spoke 20 when secured to the flange 18 of the hub projects at an acute angle with respect to the adjacent spoke or arm and secured to the outer end of the said arm or spoke 20 is an annular rim 22 which is preferably constructed from wood, the same being secured to the spokes by means of bolt members 23, whereby it may be readily and easily detached at will. This rim 22 is mounted at the outer ends of the spokes or arms 20 against the outer side edges thereof. Engaged by the bolt members 23 and secured against the opposite or inner side edges of the spokes or arms 20 at their outer end is a sprocket wheel 24, over which is trained a driven sprocket chain (not shown), which is driven from a band wheel shaft, the same being also not shown, as it is of the ordinary well-known construction.

The drum comprises a cylindrical body 25, which loosely surrounds the shaft 13 and is formed with inwardly extending annular centering webs 26 spaced from each other and also from the ends of the cylindrical body, one end of the body 25 being formed with an annular outturned flange 27, the same snugly fitted within a correspondingly-shaped counter seat 28 formed in the inner face of the disk 15 of the hub, the flange 27 being secured to the disk 15 by means of tap bolts 29 passed through the latter and the said flange, thus securing the drum to the hub of the calf wheel. At the opposite end of the cylindrical body 25 is arranged a circular guide head comprising a disk 30, the same being formed with an outwardly extending central boss 31, from which radiate at intervals brace webs 32 which are integral with the boss 31 and disk 30 for strengthening the same. Formed on the inner face of the disk 30 concentrically with respect to the arms 20 is an annular shoulder 33 which snugly fits within the end of the cylindrical body 25, the body 25 being connected to the disk 30 by means of tap bolts 34 which are passed through the disk 30 and engage in the body 25. The boss 31 of the guide head is formed with a suitable central opening for receiving the shaft 13 and threaded in the said boss is a binding or set screw 35 which engages the shaft 13 for locking the guide disk thereto.

Provided in the disk 30 of the guide head is an opening 36 which is contiguous one of the brace webs 32 and through this aperture 36 is passed one end of a rope or cable 37 which is adapted to be wound or unwound upon the cylindrical body 25 forming the drum. The end of the cable 37 passed through the opening 36 is clamped by means of a hook-like bolt member 38 which is engaged in the brace web 32 adjacent the aperture 36 in the disk 30 of the

guide head, and in this manner the cable or rope 37 is held secured thereto for the winding and unwinding of the same onto and from the drum.

Overlying the inner ends of the spokes 20 against their outer faces beneath the heads of the bolt members 21 are bearing plates 39, thus preventing the said heads of the bolt members from cutting into the spokes when such members have been tightened, the plates 39 being of a size to receive all of the bolt members 21 that go through the spokes 20 for connecting the same to the hub of the wheel.

What is claimed is:

The combination with a hollow cylindrical drum having an outturned annular flange at one end thereof, of a hub comprising a circular-shaped disk formed with a central boss projecting from the outer face thereof, an octagonal shaped flange formed integral with and projecting from the outer face of the said disk, circumferentially with respect to the said boss, radial webs joining the boss with the flange, the said disk being provided with a recess on its inner face for receiving the outturned flange on the drum, screw members passed through the disk and the outturned flange on the drum for connecting the same, spokes detachably connected to the octagonal shaped flange, the inner ends of the spokes being beveled, whereby the same will abut with each other at their inner ends, a rim detachably connected to the free ends of the spokes, and a guide head detachably connected to the opposite end of the drum.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM A. GREER.
DARIUS L. TURNER.

Witnesses:

KARL R. LEWIS,
STANLEY PEDDER.