May 1, 1923.

1,453,417

J. M. STONE

DETACHABLE HUB FOR ECCENTRICS

Filed April 17, 1922

Fig. 1.

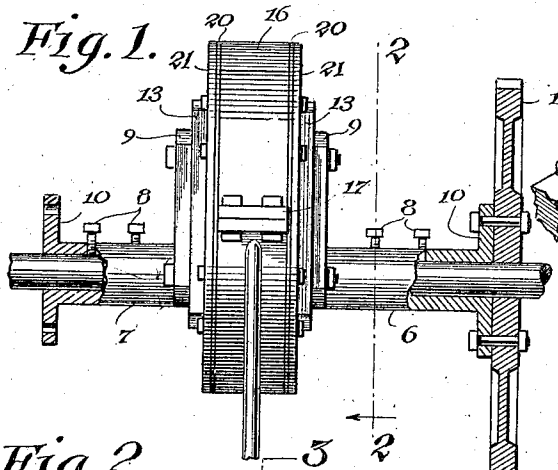


Fig. 5.

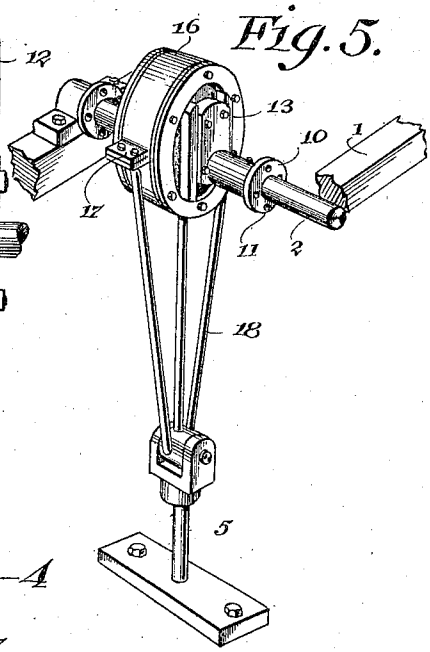


Fig. 2.

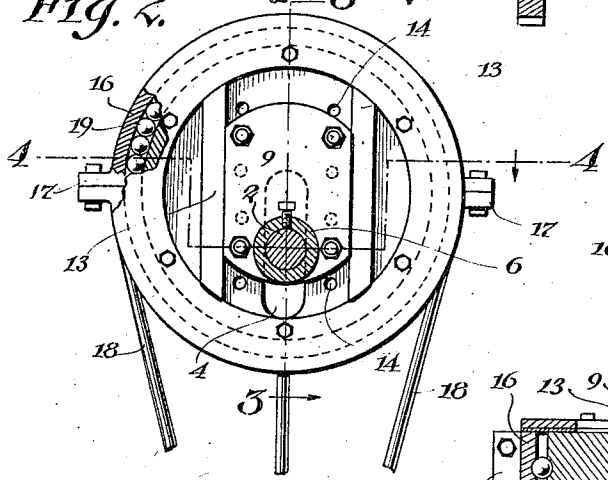
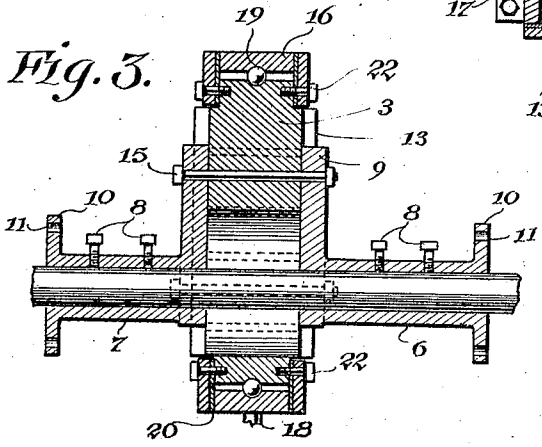


Fig. 3.



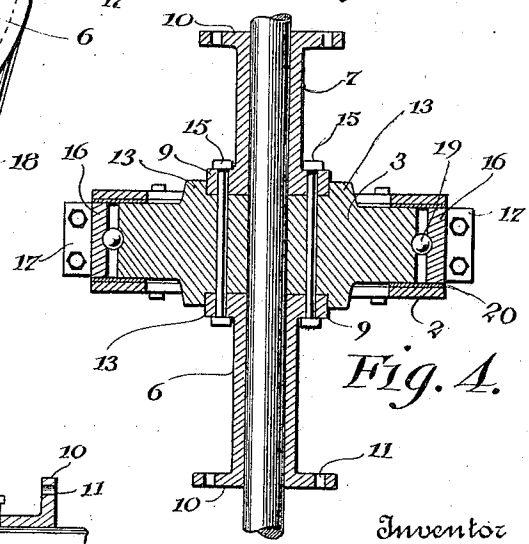


Fig. 4.

Inventor

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Patented May 1, 1923. 1,453,417

UNITED STATES PATENT OFFICE.

JOHN M. STONE, OF CARRIZO SPRINGS, TEXAS.

DETACHABLE HUB FOR ECCENTRICS.

Application filed April 17, 1922. Serial No. 553,316.

To all whom it may concern:

Be it known that I, JOHN M. STONE, a citizen of the United States, residing at Carrizo Springs, in the county of Dimmit and State of Texas, have invented certain new and useful Improvements in Detachable Hubs for Eccentrics, of which the following is a full, clear, and exact description.

My invention relates to pump jacks and the like, and has for its object to provide in connection with the shaft thereof a sleeve or sleeves provided with flanges for strengthening purposes and also for the purpose of attachment to an eccentric and to the driving gear.

Another object of the invention is the provision of an adjustable eccentric whereby its throw may be varied and likewise the stroke of the pump rod.

Other objects and advantages of the invention will be apparent from the following description when taken in connection with the accompanying drawing, in which:

Figure 1 is an elevation of the eccentric and detachable hubs, parts being broken away.

Figure 2 is a section taken on line 2—2 of Figure 1, looking in the direction of the arrow.

Figure 3 is a section taken on line 3—3 of Figure 2.

Figure 4 is a horizontal section taken on line 4—4 of Figure 2, and

Figure 5 is a fragmentary perspective view of the pump jack.

Referring to the drawing more in detail, the numeral 1 designates the frame of a pump jack on which is rotatably mounted a shaft 2. An eccentric 3 is mounted on the shaft 2 and is provided with a slot 4 in order that the same may be adjusted to vary the throw of the eccentric and the movement of the pump rod 5.

Tightly fitted to the shaft 2 at each side of the eccentric 3 are sleeves 6 and 7. These sleeves are locked against movement by means of the set-screws 8. Each of the sleeves 6 and 7 is provided with a flange 9 at its inner end and a flange 10 at its outer end. The flange 10 at the right of Figure 1 is provided with bolt holes 11, by means of which the same may be bolted to a gear wheel, pulley or the like 12.

On each face of the eccentric 3 is a pair of guide and strengthening members 13, between which the flanges 9 are positioned. Each face of the eccentric is further provided with a series of bolt holes 14 adapted to receive bolts 15 which also extend through apertures in the flanges 9, thereby securely locking the flanges to the eccentric 3.

The eccentric strap is formed of two semicircular sections 16 which are bolted together and to the pitman 18 by means of the laterally extending flanges 17. The coacting faces of the eccentric 3 and strap 16 are grooved to provide a runway for the bearings 19. Dust, etc., may be excluded from the bearings by means of the washers 20 which are clamped over the space between the eccentric and strap by means of the rings 21 and bolts 22.

To adjust the eccentric 3 the bolts 15 are removed and the eccentric moved laterally of the shaft 2 to the desired position and the bolts replaced. In the movement of the eccentric the flanges 9 slide between the guide bars 13. The bars 13 not only act as guides for the flanges 9, but also form a reinforcing means for the connection between flanges and eccentric. Furthermore, the flanges 9 and 10 form a reinforcing means for the sleeves 6 and 7.

By means of the foregoing construction it will be seen that I have provided very simple means by which the throw of the eccentric may be varied, and also means for detachably connecting the driving gear to the eccentric.

In accordance with the patent statutes, I have described what I now believe to be the best embodiment of the invention, but I do not wish to be understood thereby as limiting myself or the scope of the invention, as many changes and modifications may be made without departing from the spirit of the invention; all such I aim to include in the scope of the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. A pump jack including a shaft, a

slotted eccentric on said shaft, a plurality of sleeves locked to said shaft on opposite sides of the eccentric, flanges on the opposite ends of said sleeves, certain of the flanges being adjustably connected to the eccentric, and a driving wheel secured to another of the flanges.

2. A pump jack including a shaft, a slotted eccentric on said shaft, ribs on opposite faces of said eccentric, a plurality of sleeves on said shaft, flanges on the ends of said sleeves, certain of the flanges being positioned between the ribs and adjustably connected to the eccentric.

JOHN M. STONE.