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CAT HEAD FOR DRILLING APPARATUS

Filed May 25, 1928

Fig. 1.

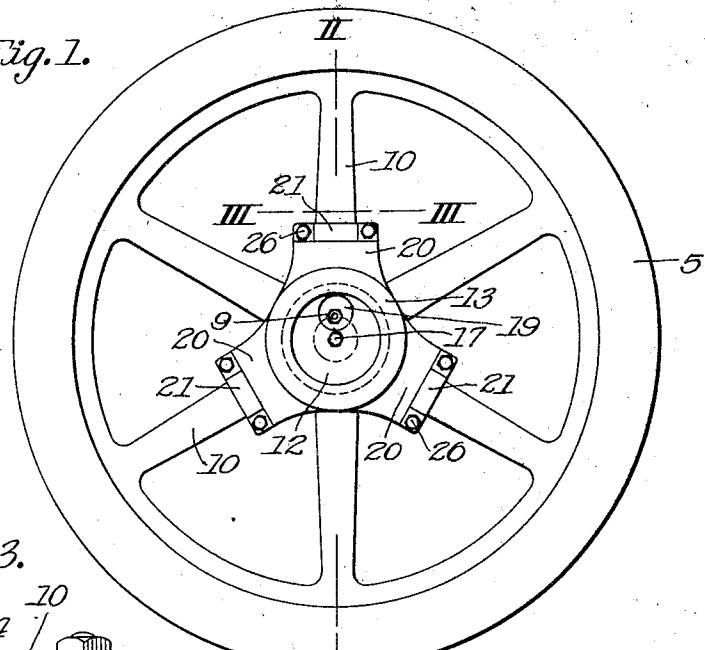
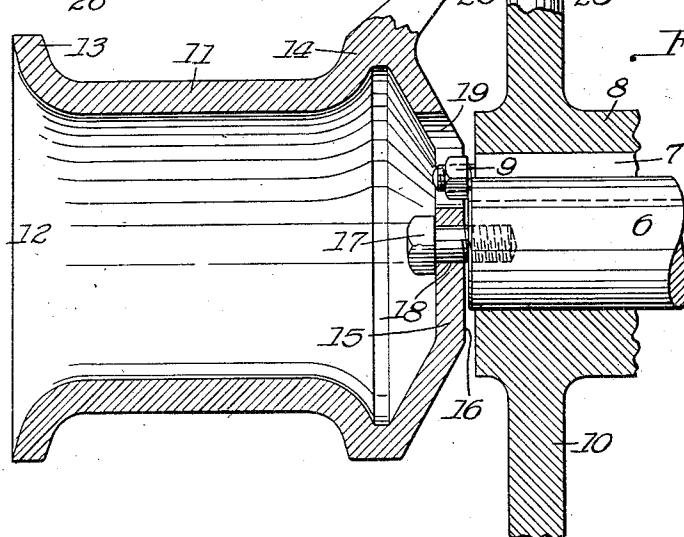
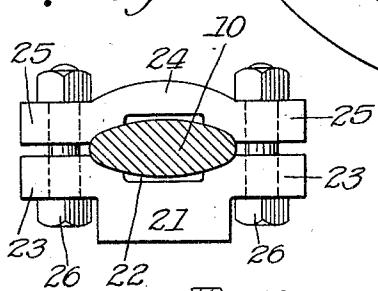


Fig. 3.



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## UNITED STATES PATENT OFFICE

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## CAT-HEAD FOR DRILLING APPARATUS

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This invention relates to improvements in cat-heads designed for use in connection with drilling apparatus employed in the oil and gas fields, and the present invention is especially directed to a cat-head that may be readily applied to and removed from a fly wheel of an engine of the character used in the oil fields.

When rigging up a well, the engine is usually the first unit installed; but, heretofore, the engine has not been equipped with a cat-head, and the handling of heavy parts of the rigging, etc. has necessitated considerable unnecessary work, due to the absence 15 of a cat-head or its equivalent on the engine.

The prime object of the present invention is to provide a simple and efficient cat-head construction that may be readily applied to and removed from the fly wheel of an engine, 20 and utilized for handling different parts of the well rigging, etc.

A further object of the present invention is to provide a cat-head construction including integral brackets or arms having means 25 particularly designed for applying and securing the cat-head structure to the spokes of a fly wheel.

In the accompanying drawings, which illustrate an application of my invention:

30 Fig. 1 is an elevational view of a fly wheel of an engine, showing my invention applied thereto;

Fig. 2, a detail sectional view of a portion 35 of an engine fly wheel and the cat-head embodying my invention applied thereto, the section being taken on line II—II of Fig. 1; and

Fig. 3, a detail view particularly showing 40 the manner of connecting the cat-head construction to the spokes of the fly wheel, the view being taken on line III—III of Fig. 1.

Referring to the drawings, 5 designates a fly wheel of the character employed on single 45 cylinder steam engines of the type employed in the oil and gas fields. This wheel 5 is designed to be mounted on an end of the engine drive shaft 6 and secured thereto by a key 7 entered in the grooves of the shaft and the hub portion 8 of the wheel, respectively. 9

designates a nut on the threaded end of the key, and 10 the spokes of the wheel.

The cat-head embodying my invention, and as illustrated and as preferred, comprises a hollow body portion 11 open at the end 12, 55 and is formed with flange portions 13 and 14 located at the opposite ends of the rope-receiving portion of the head. At one end, the head is provided with an outwardly bulged portion 15, the latter having a flat 60 face 16 which is adapted to be centered on the end of the engine drive shaft by means of a headed screw bolt 17 passed through an opening 18 of the portion 15 or the face 16 thereof, and entered in a threaded recess 65 formed in the shaft 6. In addition to the opening 18, portion 15 is formed with an opening 19 for the purpose of permitting access to an end of the key 7.

The cat-head structure is further provided 70 with radially extending arms or brackets 20, three of the said brackets being shown, designed to provide simple and efficient means for mounting the cat-head on the flywheel. As illustrated, each bracket at its outer end is 75 formed with a head 21 having a recess 22 therein, adapting the head 21 to be fitted upon a spoke of the fly wheel. Head 21 is also formed with a pair of apertured lugs 23 located adjacent the spoke-receiving recess 22. 80

24 designates a clamp member. This member is designed to cooperate with the head 21 for locking the cat-head structure to the wheel and, for this purpose, is formed with bolt-receiving lugs 25 having the openings 85 thereof, when the clamp is applied, adapted to register with the openings of the apertured lugs 23 in order to receive the headed clamping bolts 26.

It will be noted that the cat-head may be 90 applied to the fly wheel with slight labor by simply positioning it on the end of the shaft and clamping the heads of the brackets to the spokes by means of the clamp members 24 and the cooperating bolts 26, and turning the bolt 17 into locking engagement; and, of course, it may be easily removed from the wheel.

I claim:

1. A cat-head comprising a hollow, gener-

ally cylindrical body having outwardly extending rope-confining flanges at the ends thereof, a rearwardly bulged end wall integral with one of said flanges, said wall being centrally apertured for coaction with a centering member, and brackets integral with the body extending from the junction of the wall therewith and to a point beyond the same for attachment to a fly-wheel.

10. 2. The combination with driving means having a central element and spokes, said central element having a central opening, of a cat-head provided with a projection for engaging said central opening in said central element for centering the cat-head, a bracket formed with a spoke receiving recess and means for clamping the bracket and a spoke together.

20. 3. The combination with driving means having a central element and spokes, of a cat-head provided with arms, each formed with a spoke receiving recess, clamping means cooperating with each arm for clamping a spoke in said recess, and a securing device engaging the cat-head and said central element for centering the cat-head.

25. 4. A cat-head comprising a hollow generally cylindrical body portion open at one end and having a transverse wall at the other end, and brackets adapted to be attached to the spokes of a flywheel, said brackets being formed integral with the body portion and extending a greater radial distance from the axis of the cat-head than the periphery of the cylindrical body portion thereof.

30. 5. The combination with driving means having a central element and spokes, said central element having a central threaded opening, of a cat-head provided with a threaded projection for engaging said threaded opening in said central element for centering the cat-head, a bracket formed with a spoke receiving recess and means for clamping the bracket and a spoke together.

40. In testimony whereof I affix my signature.  
EDGAR E. GREVE.