(No Model.)

H. J. McKEOWN.

FRICTION DRUM.

No. 385,191. Patented June 26, 1888.

FIG. II.

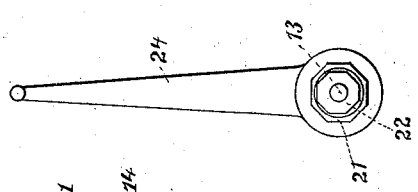
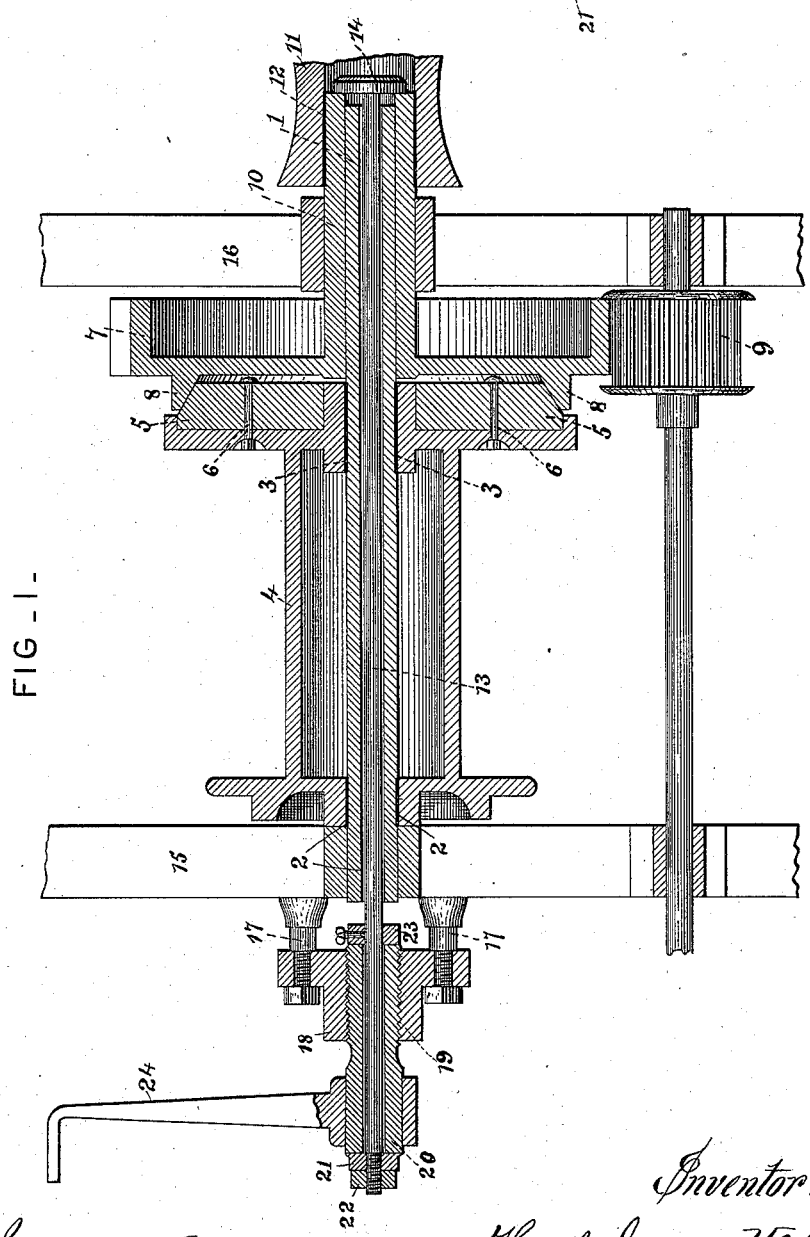


FIG. I.



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UNITED STATES PATENT OFFICE.

HUGH JAMES McKEOWN, OF NEWPORT, KENTUCKY.

FRICTION-DRUM.

SPECIFICATION forming part of Letters Patent No. 385,191, dated June 26, 1888.

Application filed February 7, 1888. Serial No. 263,210. (No model.)

To all whom it may concern:

Be it known that I, HUGH JAMES McKEOWN, a citizen of the United States, residing at Newport, in the county of Campbell, State of Kentucky, have invented certain new and useful Improvements in Friction-Drums, of which the following is a specification.

My invention relates to improvements in friction-drums for use with pile driving and hoisting machines; and it consists in features of novelty, to be hereinafter fully described, and then pointed out in the claims.

In order that my invention may be fully understood, I will proceed to describe the same with reference to the accompanying drawings, in which—

Figure I is a longitudinal section of my friction-drum, and Fig. II is a view of the handle.

Referring to the drawings, 1 is a shaft, to which is keyed by the keys 2 and 3 the drum 4. Said drum 4 has friction-surfaces 5 5 fastened to it at one end by the bolts 6 6. The gear-wheel 7, having the flange 8 and driven by and intermeshing with the gear 9, is journaled loosely on said shaft 1. To the hub 10 of said gear-wheel 7 is keyed the winch 11, usual in such machines, by the key 12. The shaft 1 is hollow and adapted to receive the rod 13. Said rod 13 passes through the entire length of shaft 1 and has affixed to its end, inside of the winch 11, a head or flange, 14. The said shaft 1 is held by the frames 15 and 16.

17 17 are studs which are attached to the face of the frame 15. Onto these studs is fitted the nut 18, having perforations to receive them. Into the central screw-threaded perforation, 19, of this nut 18 the screw-threaded tubular piece 20 is screwed. Through the tubular piece 20 the rod 13 passes loosely, and it extends beyond the same, the extension being screw-threaded to receive nuts 21 and 22. The inner end of the piece 20 bears against a slip-collar, 23, which is held in position by set-screws on rod 13.

24 is the handle, provided with an eye whereby it may be fitted onto a polygonal portion, 25, of the piece 20.

The device operates as follows: The handle 24 being turned in one direction, the wheel 7 will be drawn toward the drum 4, which carries the friction-surfaces 5. It will be seen that by thus drawing the wheel 7 toward the drum 4 the flange 8 on the wheel will be brought into working frictional contact with the friction-surfaces 5 of the drum, and the machine becomes operative for hoisting purposes. When it is desired to release the frictional contact, the reverse turn of the handle 24 will allow the wheel 7 to go back to its inoperative or original position. During this operation the wheel 7 is continuously in mesh with the driving-gear 9, along whose cogs it slides backward and forward.

The movements just described are caused by the longitudinal movement of the rod 13, with the nuts on which the screw-threaded tubular piece 20 engages.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. In combination with the engaging gear-wheel and the friction-drum mounted on a hollow shaft supported in suitable frames, a tubular screw-threaded piece, a nut fixed to one of the supporting-frames and screw-threaded to receive the said piece, and a rod passing loosely through the tubular piece and the hollow shaft and provided with an engaging device, substantially as shown and described.

2. In combination with the gear-wheel 7, drum 4, provided with friction-surfaces, hollow shaft 1, which receives the wheel and drum, and frames 15 and 16, in which shaft 1 is mounted, studs 17 on frame 15, nut 18, fitted on said studs, tubular piece 20, screwed into said nut, handle 24, fitted on the former, and rod 13, having nuts 21 and 23, wherewith piece 20 is adapted to engage and move rod 13 longitudinally, said rod being provided with an enlargement, 14, adapted to engage the hub of wheel 7 and bring the wheel 7 and friction-surfaces of the drum into contact, substantially as set forth.

HUGH JAMES McKEOWN.

Witnesses:
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