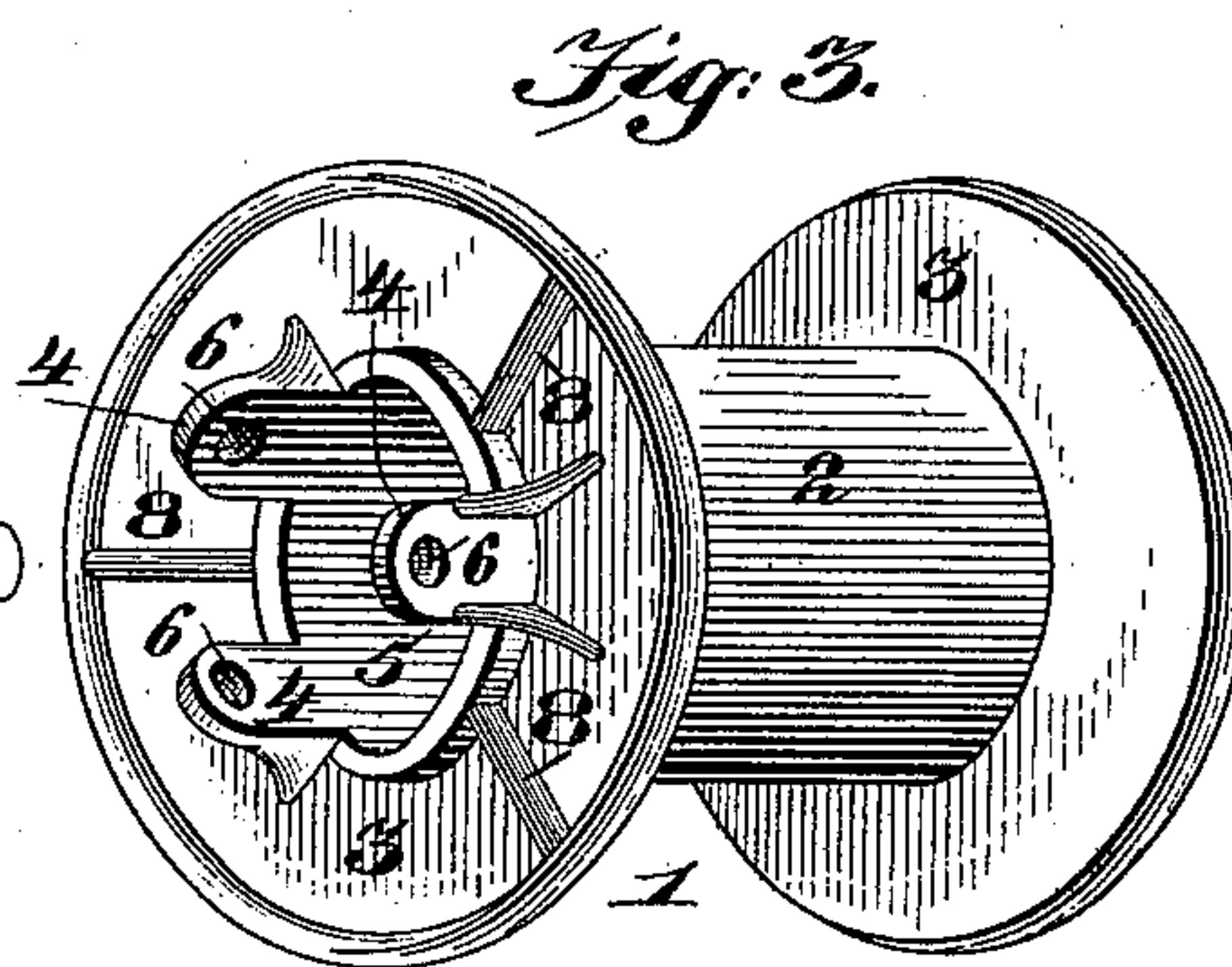
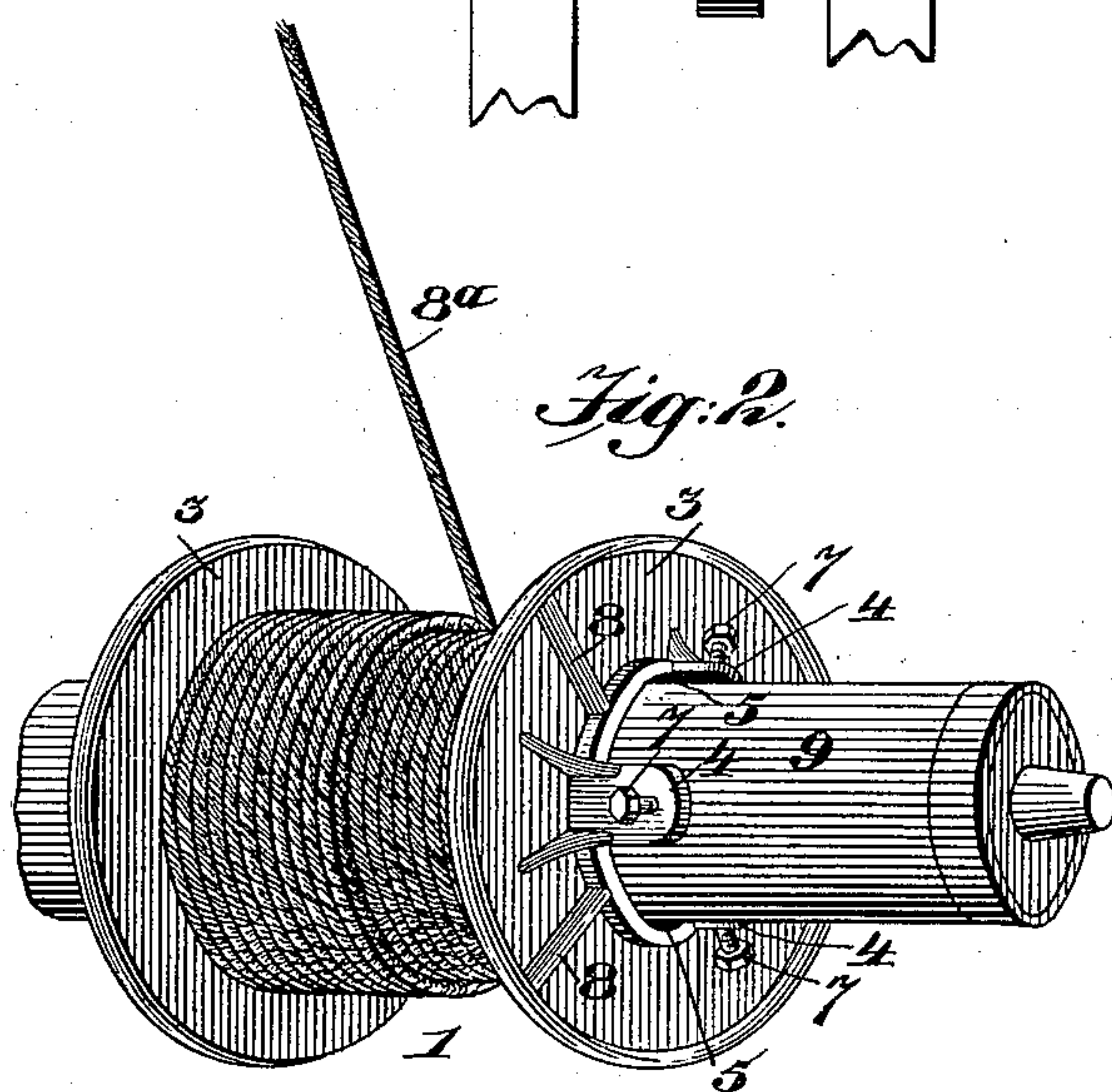
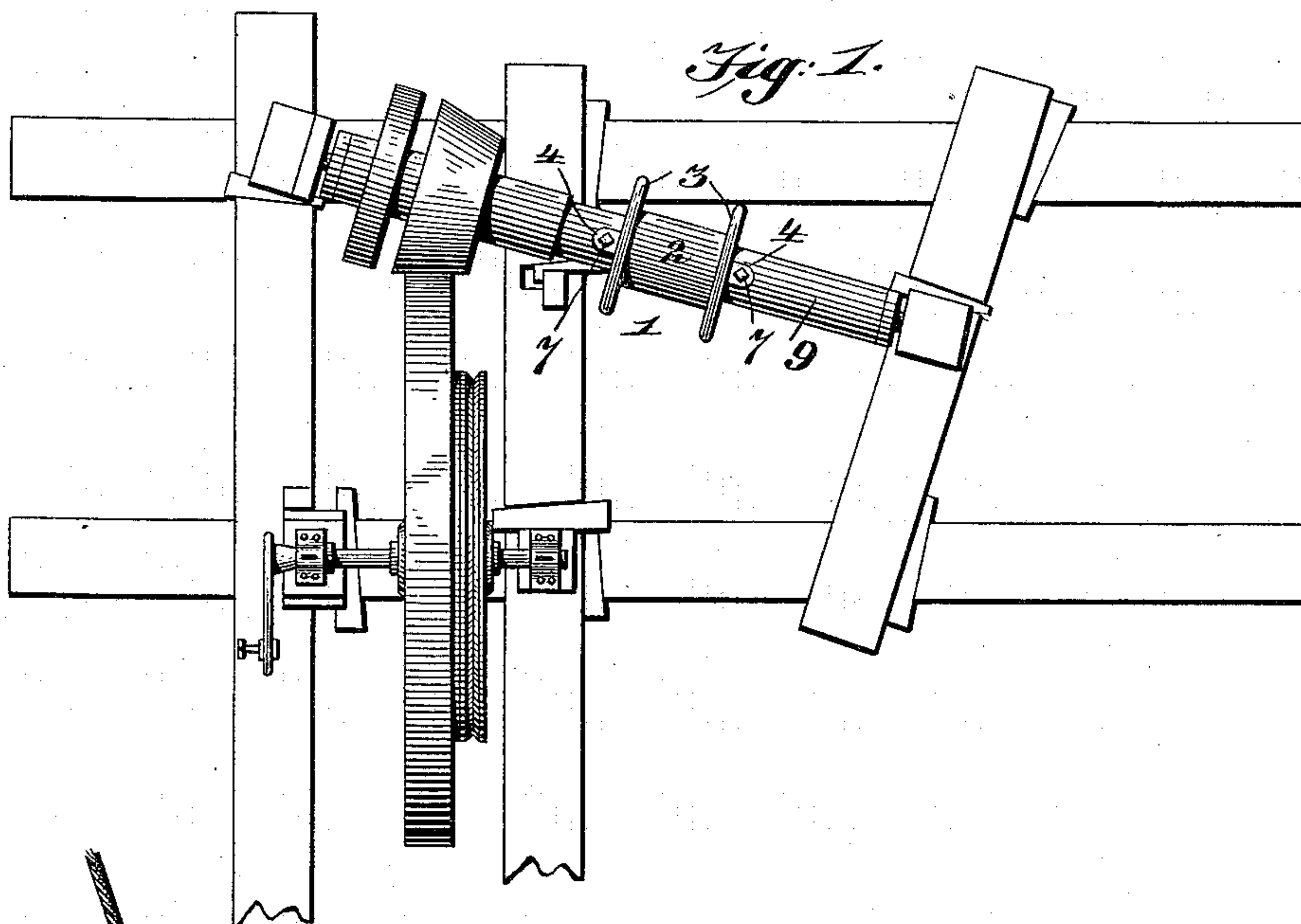


(No Model.)

R. A. DAYTON.
SAND LINE SPOOL.

No. 601,638.

Patented Apr. 5, 1898.



Witnesses

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UNITED STATES PATENT OFFICE.

RUSELL A. DAYTON, OF BURTON STATION, OHIO.

SAND-LINE SPOOL.

SPECIFICATION forming part of Letters Patent No. 601,638, dated April 5, 1898.

Application filed April 30, 1897. Serial No. 634,599. (No model.)

To all whom it may concern:

Be it known that I, RUSELL A. DAYTON, a citizen of the United States, residing at Burton Station, in the county of Geauga and State of Ohio, have invented a new and useful Portable Sand-Line Spool, of which the following is a specification.

This invention relates to a portable sand-line spool for spooling the steel sand-lines used in connection with ordinary oil-well rigs.

To this end the main and primary object of the present invention is to provide a spool that can be readily fitted to and detached from the sand-reel shaft of an ordinary well-rig or drilling apparatus, and to provide simple and efficient means for the quick and convenient handling of the steel sand-line without a twisting or kinking thereof.

The form of spool contemplated by this invention admits of the same sand-line being moved from one location to another, as steel sand-lines must necessarily be spooled in order to keep them from twisting, while in apparatus employing rope sand-lines such lines need not necessarily be spooled to permit of the ready handling thereof.

By the use of the present invention the steel sand-line is spooled all the time, excepting when the same is in the well for operating the sand pump or bailer, and by being reeled on a spool that is independent of the ordinary sand-reel or shaft of the apparatus the sand-line can be spooled evenly by adjusting the spool to the best spooling position on the sand-reel or reel-shaft.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is a plan view of that portion of an ordinary oil-well rig having the sand-reel or sand-reel shaft, showing the spool in its proper applied position on a shaft. Fig. 2 is a perspective view of a sand-line spool constructed in accordance with this invention and shown in its applied position on a sand-reel shaft. Fig. 3 is a perspective view of the spool detached from the reel or reel-shaft.

Referring to the accompanying drawings,

1 designates a portable spool constructed in accordance with this invention and essentially comprising a cylindrical spool-body 2 and circular guard-flanges 3, formed integrally with the body 2, at opposite ends thereof, the oppositely-located guard-flanges 3 being disposed in parallel planes. At its opposite ends, exterior to its guard-flanges 3, the cylindrical spool-body 2 is provided with a plurality of offstanding lugs 4, disposed at right angles to the guard-flanges 3, in line with the spool-body 2 and adjacent to the longitudinal opening or bore 5 through such body. The plurality or circular series of offstanding lugs 4 at opposite ends of the spool-body 2 have formed therein threaded openings 6, adapted to receive therein the set-screws 7, the inner ends of which screws are designed to impinge on the reel or reel-shaft on which the spool is arranged, to provide for making the spool fast to the reel or reel-shaft, so that it will turn therewith and provide for the spooling and unspooling of the steel sand-line 8^a, carried thereby.

The essential features of the spool have been enumerated; but it will of course be understood that the provision of the guard-flanges 3 with exterior radial strengthening-ribs 8 and similar details of construction may be resorted to for the purpose of making a spool of sufficient stability to withstand the use to which it is applied, and at this point it is to be understood that the longitudinal opening or bore 5 of the spool is of a greater diameter than the largest sizes of sand-reel shafts commonly employed in oil-well rigs and apparatus, so that the spool can be readily slipped onto the sand-reel shaft of any stationary rig.

The spool is especially intended for use with stationary rigs of that character which are left standing to be used for pumping the wells and to permit the latter being drilled deeper, if necessary; but it will of course be understood that the spool may be employed wherever it would be useful to accomplish the ends for which it is constructed.

When no further use of the sand-line is required in connection with a stationary well rig or apparatus, the line is spooled up on the spool 1, and by reason of the spool being of a materially larger diameter than the ordinary

sizes of sand-line reel or reel-shafts it will be obvious that the sand-line may be spooled up or reeled very rapidly, and after having been spooled up the set-screws 7 are loosened and the spool slipped off of the reel or reel-shaft ready to be moved with the line thereon to another location. In most oil-well rigs or apparatus the sand-line reel or reel-shaft 9 is disposed at an angle and is commonly known in the art as the "side-draft" reel, in connection with which reels it is very difficult to spool the sand-lines evenly; but in the present invention the spool 1 can be moved on the reel or reel-shaft to a position where the line will always evenly spool and unspool.

Many other advantages of the herein-described invention will readily suggest themselves to those skilled in the art, and I would have it understood that various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In combination with the reel-shaft of a drilling-rig, of a portable sand-line spool comprising a spool-body having a large-sized longitudinal bore and provided at each end with a series of regularly-spaced offset exteriorly-arranged fastening means adapted to engage with the shaft, said spool being separate and independent of the shaft and adapted to be secured thereon at different points, substantially as set forth.

2. A portable sand-line spool for well-rigs comprising a cylindrical spool-body with a large longitudinal opening or bore and provided with circular end guard-flanges, and a circular series or plurality of offstanding lugs exterior to said flanges, and set-screws mounted in said lugs and adapted to impinge on the shaft receiving the spool, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

RUSELL A. DAYTON.

Witnesses:

D. W. GOOLD,
C. H. MERIMAN.