No. 629,115. Patented July 18, 1899.

E. TURNEY.

CABLE REEL.

(Application filed July 15, 1898.)

(No Model.)

Fig. 1.

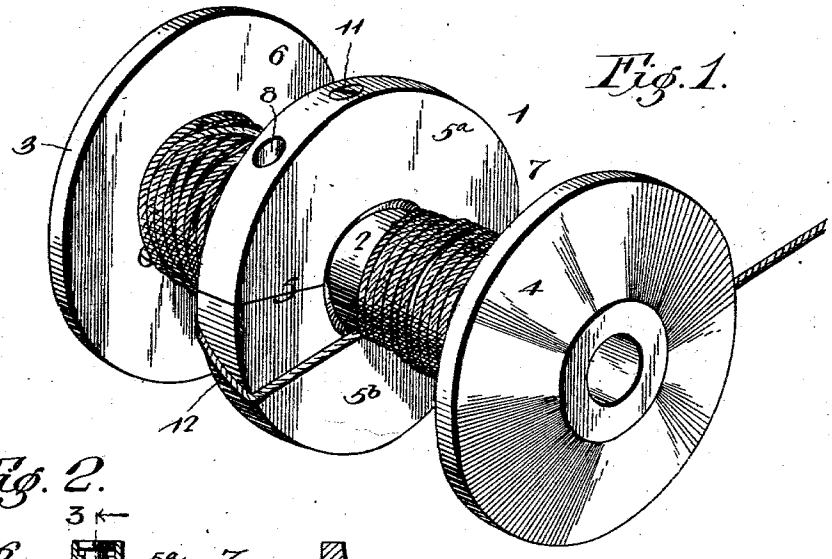


Fig. 2.

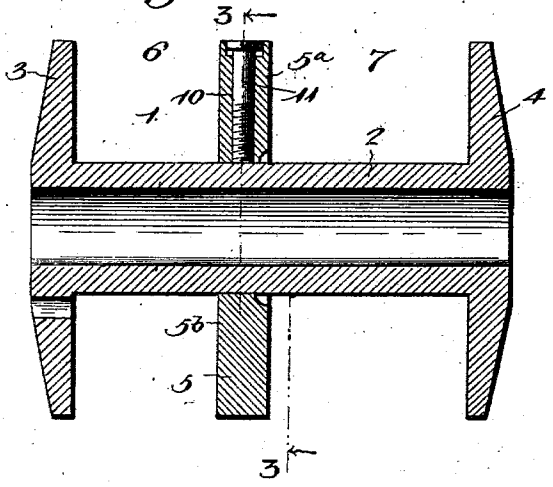


Fig. 3.

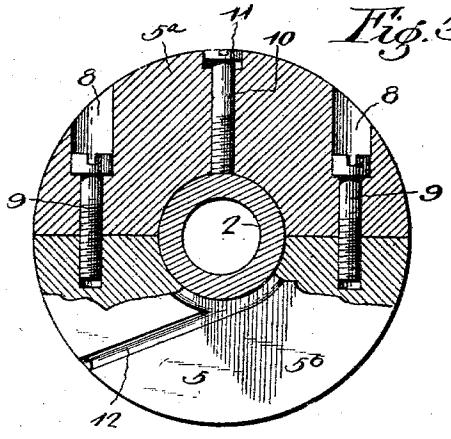


Fig. 4.

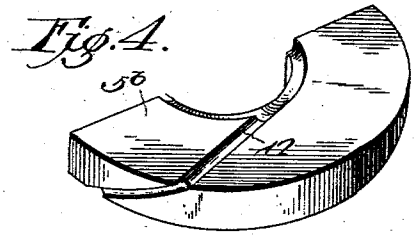
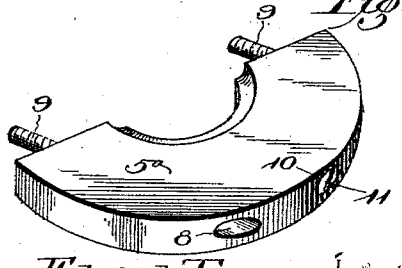


Fig. 5.



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UNITED STATES PATENT OFFICE.

EDWARD TURNEY, OF PORTLAND, OREGON.

CABLE-REEL.

SPECIFICATION forming part of Letters Patent No. 629,115, dated July 18, 1899.

Application filed July 15, 1898. Serial No. 686,087. (No model.)

To all whom it may concern:

Be it known that I, EDWARD TURNEY, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Cable-Reel, of which the following is a specification.

My invention relates to improvements in reels whereon cables are designed to be wound, and it is especially useful on logging or hauling engines.

In lumbering and logging districts it has been the common practice to employ hauling or logging engines for the operation of cables in drawing logs from different parts of a tract of timber to a common point for sawing or otherwise treating the logs. The distance from the common point to the places from where the logs are hauled varies from one hundred feet to five thousand feet or more. The employment of an ordinary reel requires the winding of that part of the cable which is in service for a short haul over that length of the cable which is already wound on the drum or reel. This method of winding the part of the cable in service on another part of the cable is injurious to the cable on the drum, and in addition to this objection the service of the entire cable is inconvenient and a great waste of power, for a constant winding and unwinding of from one thousand to five thousand feet of cable loosens the cable not in service on the drum, lessens the power, and abraids or cuts the cable.

The primary object that I have in view is to provide an improved construction of the reel or drum by which the objections above enumerated are wholly overcome by the provision of a construction which is adapted to separate that part of the cable which is required for a short haul from the other and greater length of cable wound on the drum to be used or called in service as necessity may demand.

A further object of the invention is to provide an improved construction of the reel or drum which may be adjusted as required by the service of the cable either to permit a portion of the cable to be used in connection with the drum for a short haul or to allow the full length or any part of the cable to be used for a long haul.

A further object of the invention is to provide improved means which may be readily and securely applied to ordinary reels or drums to enable them to be used in the advantageous manner contemplated by my invention.

With these ends in view the invention consists in the novel construction and arrangement of parts, which will be hereinafter fully described and claimed.

To enable others to understand my invention, I have illustrated the preferred embodiment thereof in the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a perspective view of a reel or drum constructed in accordance with my invention. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a vertical transverse sectional view on the plane indicated by the dotted line 3 3 of Fig. 2. Figs. 4 and 5 are detail perspective views of the sectional dividing-head adapted to be applied to a reel or drum.

Like numerals of reference denote corresponding parts in all the figures of the drawings.

Referring by numerals to the drawings, 1 designates the improved reel or drum in its entirety. In the drawings I have illustrated an ordinary reel used on logging or hauling engines, and said reel consists of the tubular shaft 2 and the heads or flanges 3 4, which are rigid with the ends of said tubular shaft or integral therewith. I do not desire, however, to strictly limit myself to the particular type of reel or drum in which a tubular shaft is employed to connect heads together nor to a drum in which the heads and shaft are made integral with one another.

According to my invention I provide the reel or drum with means for dividing the same into sections of corresponding or different lengths. In this connection the division of the reel or drum is effected by the employment of a disk 5, independent of the drum or reel, adapted to be clamped rigidly thereto at any point between the end heads 3 4, for the purpose of dividing said drum or reel into sections, (indicated at 6 7,) on which the short and long lengths of a continuous haulage-cable may be wound.

I prefer to employ a sectional division-head,

which is constructed for application to the reel-shaft in a manner to securely clamp itself in position thereon, and in the embodiment illustrated by Figs. 3, 4, and 5 of the drawings this sectional division-head 5 is represented as consisting of two semicircular members 5^a and 5^b. The division-head has its members constructed at their inner edges to lap or bear firmly against one another and to properly fit to the reel-shaft, and said members of the division-head are designed to be fastened rigidly together and to be clamped firmly on the reel-shaft in order to present a substantial and rigid structure. I prefer to provide the head with sockets 8 in the member 5^a to receive the bolts or screws 9, which work in threaded openings provided in the other member 5^b to hold the two members of the head in rigid relation to each other, and one member of the head is also provided with a long radial socket 10, in which is housed a long clamping-screw 11, that is adapted to bind upon the reel-shaft for the purpose of clamping the head 5 rigidly to said shaft. The sockets or openings in the members of the division-head are of such length and the fastening and clamping bolts and screws are so proportioned that when the parts are screwed home the heads of the bolts and screws are entirely contained within the periphery of the division-head, thus arranging the parts so that the bolts and screws are not in the way in the practical service of the drum.

In practice it is preferable to apply and clamp the sectional head to the reel-shaft at a point thereon closer to one head 3 than to the other head 4, and thus divide the reel or drum into sections of unequal length. On the section of the reel of large capacity, or that part between the head 4 and the division head or disk 5, is designed to be coiled or wound the long length of the haulage-cable, as indicated by Fig. 1; but on the short length or section of the drum, or that part between the head 3 and the division-head 5, is adapted to be coiled the short length of the cable, also as shown by Fig. 1. It will be understood that this cable is continuous; but it is arranged to have the length for the short and long hauls coiled on the sections of greater and smaller capacity in order that the length of the cable used for the short hauls may be wound on a part of the drum or reel entirely independent of and separate from that part of the reel or drum on which the major portion of the cable is wound, whereby the short length of cable may be used to good advantage on a single drum without the necessity for coiling and uncoiling the short length of cable on the long length carried by the drum for use in emergencies and long hauls.

In order to prevent the cable from chafing and wearing along that portion or short length thereof which passes from one section to the other of the reel or drum, I provide the division-head with a recess or groove 12, which is formed in the edge of the member 5^b and in that face thereof opposite to the inner face of the head 4 of said reel or drum. This groove or channel 12 is continuous from one side of the drum across the edge thereof and along the face opposed to the head 4, and through this groove or channel is led or carried a part of the cable, whereby the cable is housed within said groove or channel to be protected from wear and chafing in the service of the drum and cable.

From the foregoing description, taken in connection with the drawings, it will be observed that I have provided a simple and efficient means for dividing a spool, reel, or drum into sections of different lengths to accommodate different lengths of a haulage-cable, and that the dividing head or disk may be easily and quickly applied to the drum, and that it may be adjusted thereon as required.

I am aware that changes in the form and proportion of parts and in the details of construction of the device herein shown and described as the preferred embodiment of the invention may be made by a skilled mechanic without departing from the spirit or sacrificing the advantages of the invention.

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

1. A reel or drum, consisting of a shaft provided with rigid end pieces, a dividing-head slidable on said shaft longitudinally between the end pieces, and consisting of two sections, a pair of fastening devices for uniting the two sections of the dividing-head and disposed respectively at opposite sides of the shaft, and a clamping device for securing the dividing-head to the shaft at any point between the end pieces, and said fastening devices and clamping devices all disposed in one section with their bodies within the space bounded by the outer surface of the dividing-head, and the other section having a groove in two parts formed respectively in the periphery and face thereof, as and for the purpose set forth.

2. A reel or drum, consisting of a shaft provided with rigid end pieces, a dividing-head slidable on said shaft longitudinally thereof between said end pieces and consisting of two sections, one of which has a groove in two parts formed respectively in the periphery and face thereof, two screws located respectively at opposite sides of the shaft for detachably uniting the two sections of the dividing-head, and a third screw for clamping said dividing-head to the shaft, and the heads of the screws being disposed in the space bounded by the outer surface of the dividing-head.

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

EDWARD TURNEY.

Witnesses:
J. FRANK WATSON,
E. S. MEARS.