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M. H. DICKINSON

ATTACHMENT FOR HOISTING DEVICES

Filed March 15, 1923

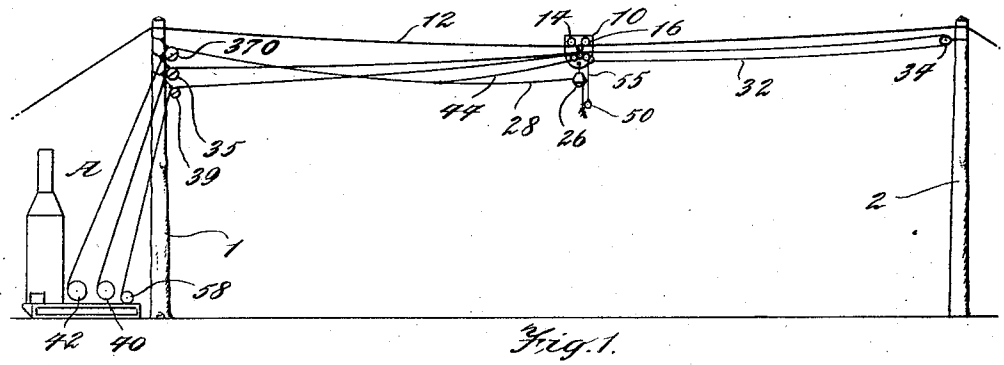


Fig. 1.

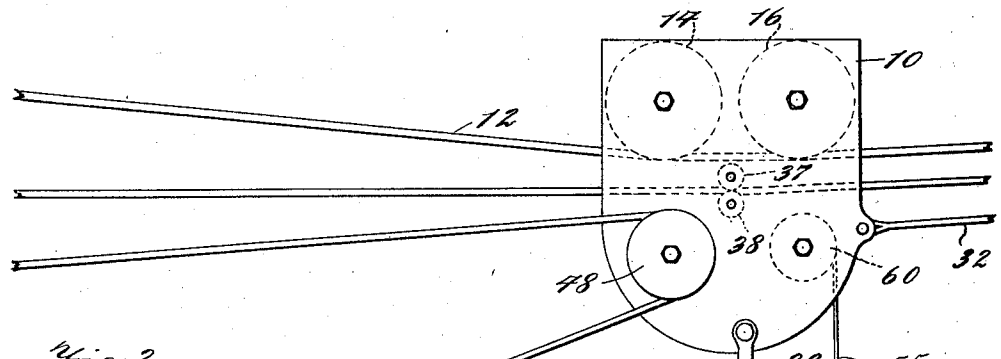


Fig. 2.

Fig. 4.

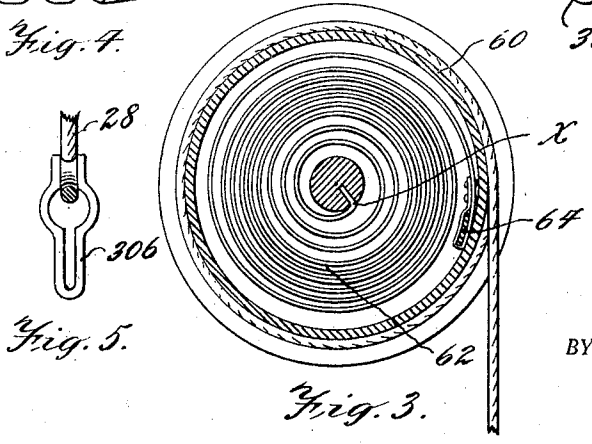


Fig. 5.

Fig. 3.

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UNITED STATES PATENT OFFICE.

MERIAN H. DICKINSON, OF SEATTLE, WASHINGTON, ASSIGNOR TO LIDGERWOOD MANUFACTURING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

ATTACHMENT FOR HOISTING DEVICES.

Application filed March 15, 1923. Serial No. 625,243.

To all whom it may concern:

Be it known that I, MERIAN H. DICKINSON, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Attachments for Hoisting Devices, of which the following is a specification.

The invention consists of certain novel parts and combinations particularly pointed out in the claims.

The following is a description of an attachment for hoisting devices embodying my invention in the form at present preferred by me, but it will be understood that various modifications and changes may be made therein without departing from the spirit of my invention without exceeding the scope of my claims.

Figure 1, shows diagrammatically a hoisting and conveying system in which my device is adapted for use; Fig. 2 is an enlarged view of the hoisting and conveying carriage with my improved device attached; Fig. 3 is a detail of an automatic drum shown in Fig. 2; Fig. 4 is a view of a "choker" commonly employed in logging operations for attaching the load to the hoisting cable; and Fig. 5 is a view of a hook attached to the inhaul line for securing the free end of the choker thereto.

Referring particularly to Fig. 1 of the drawing, head tower 1 and tail tower 2 support the system of cables by means of which the load is hoisted and conveyed. Cable 12, attached to towers 1 and 2, serves to support carriage 10 by means of running wheels 14 and 16. Carriage 10 is caused to move outward by means of outhaul cable 32, which passes over pulley 34 attached to tower 2, thence between guiding pulleys 37 and 38 in carriage 10, thence to pulley 35 attached to head tower 1, and from there, to drum 40. The load having been secured by means of a suitable device such as the choker 301, in a manner to be more fully described, is fastened to the end of inhaul and hoisting cable 28 by means of member 30. Cable 28 passes over sheave 21 attached to carriage 10, by means of link 22 and eye 24, thence over pulley 370 attached to head tower 1, to drum 42 of the winding engine which I have indicated generally at A. It will be seen that by operating drum 42, cable 28 will be wound in and the load elevated into proximity of pulley 21, since carriage 10 is held against inward travel by means of outhaul cable 32. When the load has been thus elevated, drum 40 is released and carriage 10 is hauled in, due to continued operation of drum 42.

When the load has been discharged and it is desired to move carriage 10 outward along cable 12, drum 42 is released and outhaul cable 32 is wound in by means of drum 40. In order that there may be slack enough in inhaul cable 28 to allow the end to reach the ground, it is usual to provide slack-pulling line 44, one end of which is attached to cable 28 by means of swivel connection 46, line 44 then passing over pulley 48 on carriage 10, thence over pulley 39 and from there to drum 58. Line 44 is attached to cable 28, at a point of sufficient distance from the end of the cable, to allow the end to descend into proximity of the load. It will be observed that when the cable 28 is hauled out by means of line 44, the portion of cable 28 between swivel connection 46 and pulley 21 will tend by its weight to prevent the end of cable 28 bearing member 30 from descending. I accordingly provide a means in the form of a weighted member, for example, which will act to overcome the weight of cable 28 and permit the members 30 to descend, and also means whereby the travel of the weighted member will be arrested, after it has served its purpose of decreasing the sag in cable 28, in a novel and efficient manner.

Pulley block 20 is preferably provided with the usual housing 26, between which is mounted sheave 21. A weighted member, conveniently in the form of a lead ball 50, is slidably attached to cable 28 by means of the ring 52, the latter also being adapted to contact with the housing 26, whereby jamming of the member 30 between the sheave 21 and the housing 26 will be prevented. In order that the member 50 may not be in the way, after it has caused the member 30 to descend sufficiently to remove the sag in cable 28, I limit the descent thereof by means of cable 55, one end of which is fastened to member 50 at eye 56, the other end being attached to automatic winding drum 60, contained in carriage 10. Drum 60 is provided with coil spring 62, one end of

which is connected to the drum at 64, and the other end X being held stationary. By this means, cable 55 will at all times be maintained taut, and the likelihood of it becoming tangled or caught by a surrounding object avoided.

When the system above described is in use, the load, for example, one or more logs, is firmly bound by means of a choker 301, the end 302 being secured by inserting hook 303 into a link 304. The load having been secured in this way, is attached to the end of cable 28 by inserting a free link 305 into the constricted portion 306 of a member 30. When the load has been removed and the carriage has again been hauled out, member 30 will descend by operation of member 50, as has been described.

The hook members 30, several of which may be used to accommodate as many chokers, are held on inhaul cable 28 by means of end ring 308.

What I claim and desire to secure by Letters Patent of the United States is:—

1. In a cableway, an inhaul and conveying cable, a sheave over which said cable passes, means secured to the end of the cable for attachment to the load, a weighted member for lowering said means away from the sheave, a cable attached to said weighted member, and means supported in said carriage for automatically taking up the slack in said last mentioned cable.

2. In a cableway, an inhaul and conveying cable, a sheave over which said cable passes, means secured to the end of the cable for attachment to the load, a weighted member for lowering said means away from the sheave, a cable attached to said weighted member, and means, comprising a coiled spring for automatically taking up the slack in said last mentioned cable.

MERIAN H. DICKINSON.