(No Model.)

J. H. DICKINSON.

CONVEYING APPARATUS.

No. 564,186. Patented July 21, 1896.

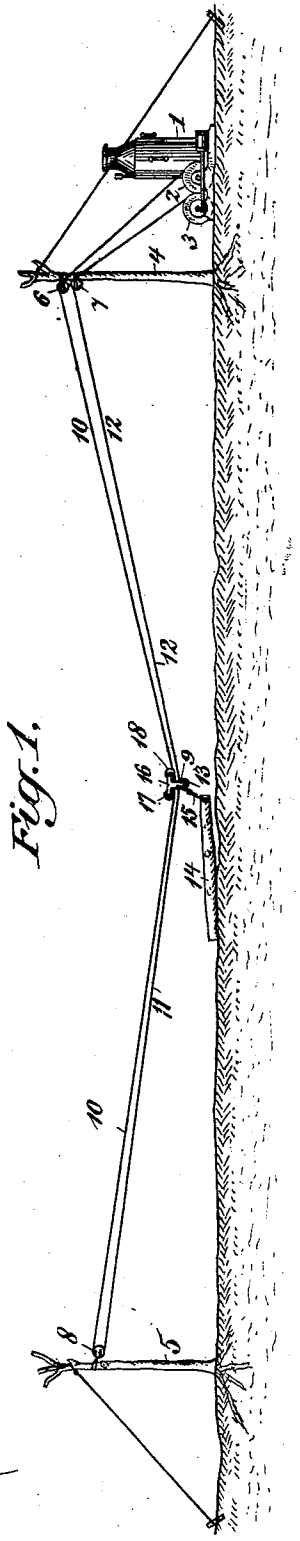

Fig. 1.

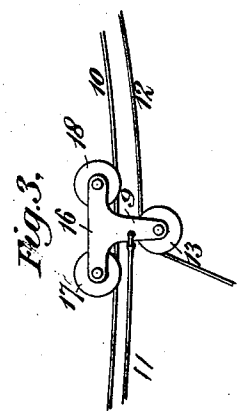

Fig. 3.

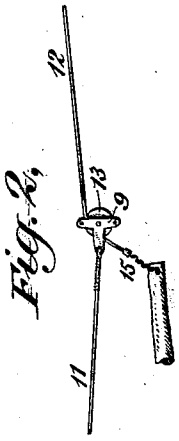

Fig. 2.

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UNITED STATES PATENT OFFICE.

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CONVEYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 564,186, dated July 21, 1896.

Application filed May 17, 1895. Serial No. 549,643. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. DICKINSON, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Conveying Apparatus, of which the following is a specification.

My present invention is particularly useful for the purpose of conveying logs in logging and enables me to dispense with much of the apparatus heretofore deemed indispensable, and thus to simplify the apparatus and reduce its cost.

In the accompanying drawings, Figure 1 represents a side view of the apparatus in use. Fig. 2 is a detail showing a construction wherein the upper portion of the carriage is omitted. Fig. 3 is a detail showing the form of carriage of Fig. 1 enlarged.

1 is a rope-drum engine containing the drums 2 and 3.

4 and 5 are head and tail supports, which may be trees, masts, or towers.

6 and 7 are sheaves secured at a sufficient elevation to the head-support.

8 is a sheave secured at a sufficient elevation to the tail-support.

9 is a carriage.

10 11 is a rope extending from the drum 2 over the head-support sheave 6 around the tail-support sheave 8 and back to the carriage 9, to which its end is made fast.

12 is a rope extending from the drum 3, over the head-support sheave 7 and the sheave 13 of the carriage 9, and thence to the log 14, to which its end is made fast by the chain 15.

By the use of the parts already described, a log may be conveyed from almost any point between the head and tail supports to the head-support, as follows: By paying out on the rope 12 and hauling in on the rope 10 the carriage 9 can be carried out the requisite distance toward the tail-support 5 to enable the chain 15 to be made fast to a log, as, for instance, to the point shown in Fig. 1. Thereupon the chain is made fast to the log and the drum 3 is turned so as to haul in on rope 12, and the drum 2 is either held stationary or turned so as to haul in on the rope 10 11, until the carriage 9 has been lifted a proper distance from the ground to avoid obstructions. Then the rope 12 is hauled in and the rope 10 11 is paid out at such a relative speed as to carry the carriage and the trailing log toward the head-support while maintaining the carriage at substantially a constant elevation. If an obstruction is met higher than ordinary, the end of the log can be lifted over it either by stopping drum 2 and continuing to run drum 3, or by stopping drum 3 and running drum 2 backward, so as to haul in instead of pay out on rope 10 11. The drums 2 and 3 constitute a form of two inversely-moving hauling devices for giving the ropes the mode of operation above described.

I prefer that the carriage should be in the form shown in Figs. 1 and 3, being extended upwardly above the sheave 13 into the member 16, which carries the sheaves 17 and 18. The rope 10 is so guided as to run under these sheaves 17 and 18, so that the ropes 10, 11, and 12 are all connected by the member 16 at the point where the log is suspended. This gives a better control and throws a portion of the vertical support upon the rope 10.

I claim—

1. In a conveying apparatus, in combination, two inversely-moving hauling devices, as the drums 2 and 3, head and tail supports, a carriage, as 9, a sheave on the same, a rope connected at one end with one of said hauling devices and extending over said tail-support and back again to said carriage with which its other end is connected, and another rope extending from the other of said hauling devices over said head-support at an elevation and over said carriage-sheave, substantially as described; whereby the carriage is raised and conveyed by the conjoint action of said hauling devices, as set forth.

2. In a conveying apparatus, in combination, two inversely-moving hauling devices, as the drums 2 and 3, head and tail supports, a carriage as 9, a sheave on the same, a rope connected at one end with one of said hauling devices and extending over said head-support and over said tail-support and back again to said carriage with which its other end is

connected, another rope extending from the other of said hauling devices over the head-support at substantially the same elevation as the first-named rope and over said carriage-sheave and means, as the sheave 17, connected with the carriage and resting on the body of said first-named rope, substantially as described; whereby the carriage is raised and conveyed by the conjoint action of said hauling devices, as set forth.

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