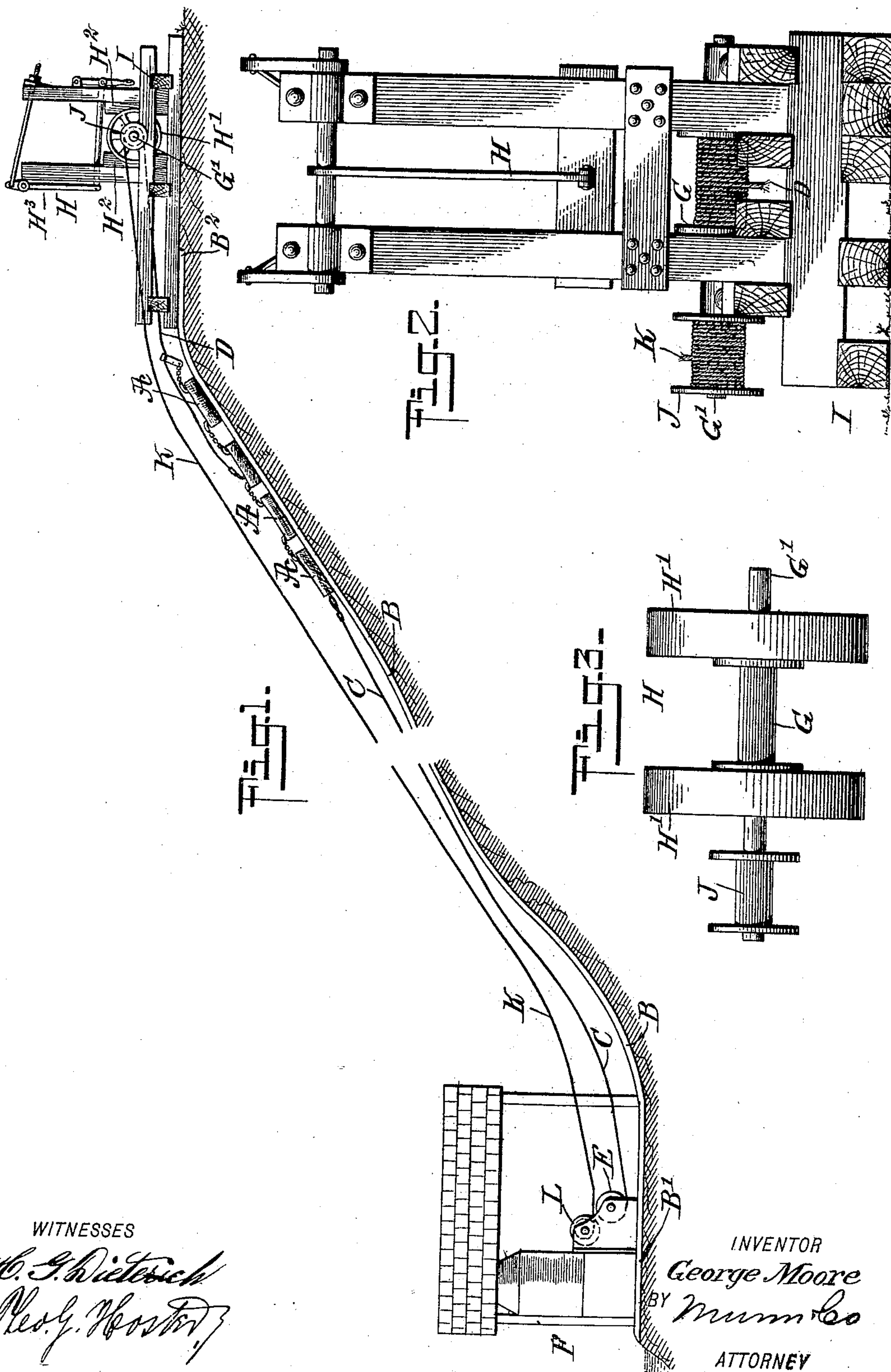


No. 841,420.

PATENTED JAN. 15, 1907.

G. MOORE.  
LOGGING DEVICE.  
APPLICATION FILED SEPT. 17, 1906.



WITNESSES

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# UNITED STATES PATENT OFFICE.

GEORGE MOORE, OF GRANITE FALLS, WASHINGTON.

## LOGGING DEVICE.

No. 841,420.

Specification of Letters Patent.

Patented Jan. 15, 1907.

Application filed September 17, 1906. Serial No. 334,856.

*To all whom it may concern:*

Be it known that I, GEORGE MOORE, a citizen of the United States, and a resident of Granite Falls, in the county of Snohomish and State of Washington, have invented a new and Improved Logging Device, of which the following is a full, clear, and exact description.

The invention relates to logging devices, such as shown and described in the Letters Patent of the United States No. 751,322, granted to me February 2, 1904.

The object of the present invention is to provide a new and improved logging device arranged to permit convenient running of the logs down steep grades under perfect control of the operator and without danger of injuring the logs or wasting time.

The invention consists of novel features and parts and combinations of the same, which will be more fully described herein-after and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement. Fig. 2 is an enlarged front elevation of the brake mechanism for the holdback-cable, and Fig. 3 is a plan view of the holdback-cable drum and connected parts.

A log or plurality of coupled logs A A, to be moved down a chute or skid-road B, are connected at the forward end with a pull-cable C and at the rear end with a holdback-cable D, and the said pull-cable C winds and unwinds on a drum E of a donkey-engine or other motor F, located at the delivery end B' of the chute or skid-road B. The holdback-cable D winds and unwinds on the gypsy-drum G of a brake mechanism H, wound on a suitable framework, shown located at the starting-point B<sup>2</sup> of the chute or skid-road B, as plainly indicated in Fig. 1. The shaft G' of the drum G is journaled in suitable bearings on the framework I, and on the said shaft G' is secured or formed an auxiliary drum J, on which winds and unwinds an operating-cable K, extending down the hill at one side of the chute or skid-road B to wind and unwind on a drum L, controlled by the donkey-engine F.

The brake mechanism H for the gypsy-drum G is preferably of the same construction as the one shown and described in the Letters Patent of the United States above

referred to, so that further detailed description of the same is not deemed necessary, it being sufficient to state that the shaft G' is provided with brake-wheels H', adapted to be engaged by brake-blocks H<sup>2</sup> under the control of an operator manipulating a suitable lever mechanism H<sup>3</sup> to move the brake-blocks H<sup>2</sup> with more or less force in contact with the brake-wheels H' to brake the drum G correspondingly.

The operation is as follows: At the starting-point B<sup>2</sup> of the chute or skid-road B the ends of the cables C and D are connected with the logs A, as previously described, and then a signal is given in any suitable manner to the engineer in charge of the donkey-engine F to start the drum E for winding up the pull-cable C and for allowing the cable D to unwind from the drum G. When this takes place, the pull-cable C pulls the logs onto the skid-road B from the starting-point B<sup>2</sup>, and when the logs pass down the steep portion of the chute or skid-road B then the operator in charge of the brake mechanism H manipulates the latter to brake the drum G, so that the holdback-cable D prevents the logs from traveling too fast down the steep portion of the skid-road—that is, the holdback-cable holds the logs back for the latter to travel at a desired rate of speed when traveling down the steepest portion of the skid-road. When the logs again come to a level portion or even an upgrade in the skid-road, then the operator in charge of the brake mechanism H releases the grip on the brake-wheels H' to permit the pull-cable C to easily pull the logs along the level or upgrade portion until the logs again pass to a steep portion in the road, at which time the brake mechanism again is set in action and the above operation is repeated until the logs have safely reached the lower end B' of the skid-road adjacent to the donkey-engine F, located near a watercourse. During the time the pull-cable C winds up on the drum E and the holdback-cable D unwinds from the drum G the operating-cable K winds up on the auxiliary drum J and unwinds from the drum L. Now when the pull-cable C and the holdback-cable D have been disconnected from the logs A at the delivery end B' of the skid-road B then the adjacent ends of the said cables C and D are coupled together, after which the drum L is rotated from the donkey-engine F to wind up the operating-cable K. Now when this takes place the op-



erating-cable K turns the drums J and G for the latter to wind up the holdback-cable D, thus returning the holdback-cable D, and with it the pull-cable C, coupled to the holdback-cable D. Thus by the arrangement described the holdback-cable D, as well as the pull-cable C, are returned with their ends to the starting-point B<sup>2</sup> to permit of connecting the pull-cable C and the holdback-cable D to another log or a plurality of coupled logs, the same as previously described.

From the foregoing it will be seen that by the arrangement described the winding up of the holdback-cable D is controlled from the landing or delivery end B' of the skid-road B, and consequently very little time is lost in the logging operations to permit of hauling a large number of logs in a given time.

The device can also be readily used in railroad-logging for hauling a loaded train up a steep hill and letting it down to the landing. In this case the device is located on top of the hill.

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

1. A logging device, comprising drums at the starting-point and delivery-point of the logs, respectively, a pull-cable winding on the drum at the delivery-point, a holdback-cable winding on the drum at the starting-point, and means controlled from the delivery-point for operating both drums.

2. A logging device provided with a holdback-cable for connection with a log to hold the latter back, a drum for the holdback-cable to wind on and to unwind, a brake mechanism for the said drum, the latter and the said brake mechanism being located at the starting-point of the log, and means located at the delivery end of the log and connected with the said drum for actuating the same to rewind the holdback-cable.

3. A logging device provided with a pull-cable for connection with a log for pulling the latter, a holdback-cable arranged for connection with the log and for holding the log back, means for winding the said pull-cable at the delivery end of the log, a brake mechanism, a drum for the said holdback-cable and adapt-

ed to be controlled by the said brake mechanism when unwinding the holdback-cable, and an actuating device for the said drum to rotate the drum for winding up the holdback-cable to return the pull-cable coupled to the holdback-cable.

4. A logging device provided with a pull-cable for pulling a log, a holdback-cable for holding back the log, a drum for the holdback-cable to wind on and to unwind and located at the starting-point of the log, means at the delivery end of the log for winding up the pull-cable, and an actuating device for the said holdback-cable drum to rotate the latter for rewinding the holdback-cable, the said actuating device being actuated at the delivery end of the log.

5. A logging device provided with a pull-cable for pulling a log, a holdback-cable for holding back the log, a drum for the holdback-cable to wind on and to unwind and located at the starting-point of the log, an auxiliary drum rotating with the said holdback-cable drum, an operating-cable winding and unwinding on the said auxiliary drum and in a direction opposite to that of the holdback-cable on its drum, and means located at the delivery-point of the log for winding up the said operating-cable.

6. A logging device provided with a pull-cable for pulling a log, a holdback-cable for holding back the log, a drum for the holdback-cable to wind on and to unwind and located at the starting-point of the log, an auxiliary drum rotating with the said holdback-cable drum, an operating-cable winding and unwinding on the said auxiliary drum and in a direction opposite to that of the holdback-cable on its drum, and a donkey-engine located at the delivery-point of the log, and having drums for the said pull-cable and the said operating-cable.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE MOORE.

Witnesses:

CHAS. T. SMITH,  
GEORGE W. McKEAN.