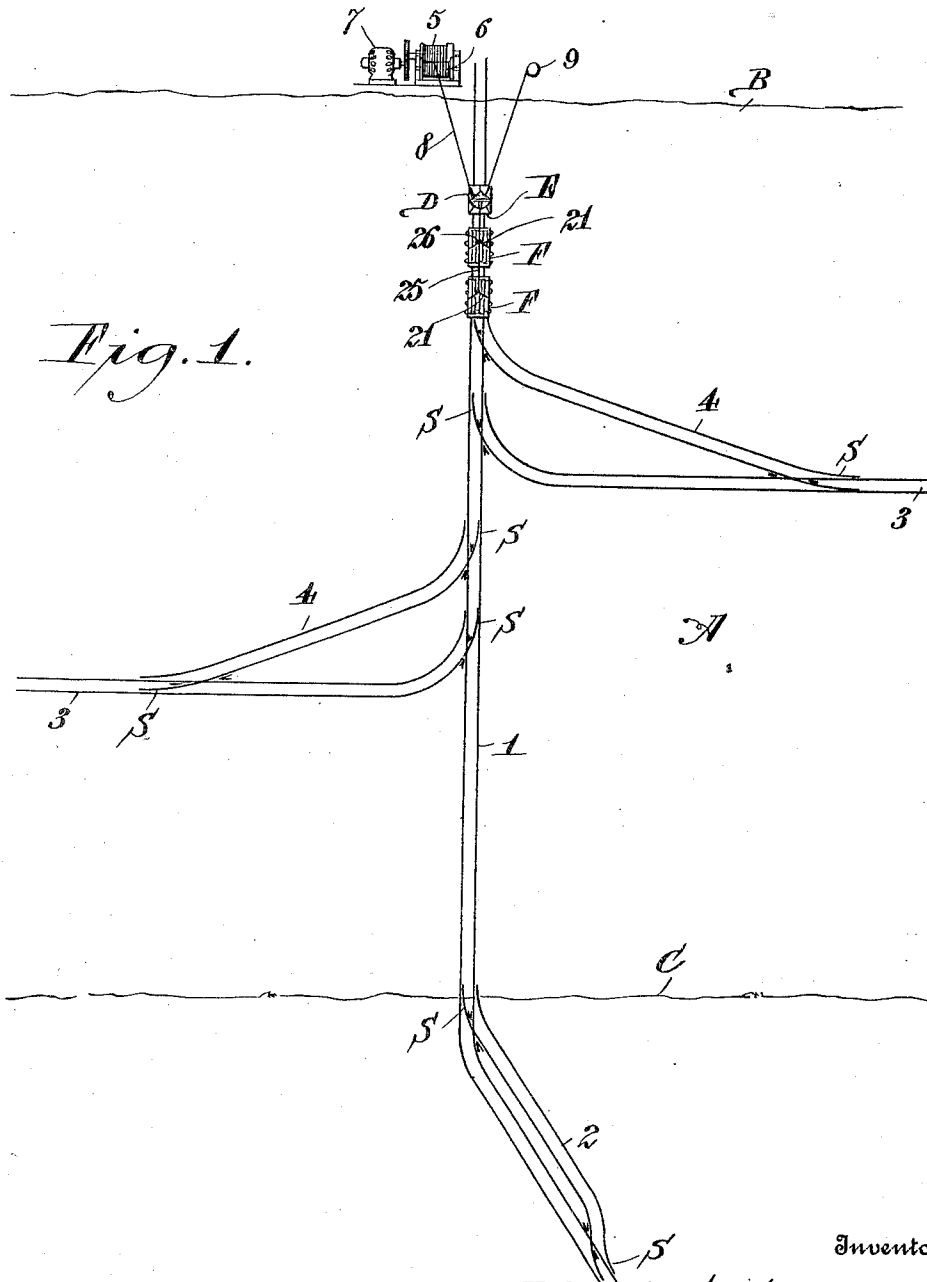


H. W. SESSOMS.
HOISTING DEVICE.
APPLICATION FILED SEPT. 20, 1912.

1,051,278.

Patented Jan. 21, 1913.

3 SHEETS—SHEET 1.



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3 SHEETS—SHEET 2.

Fig. 2.

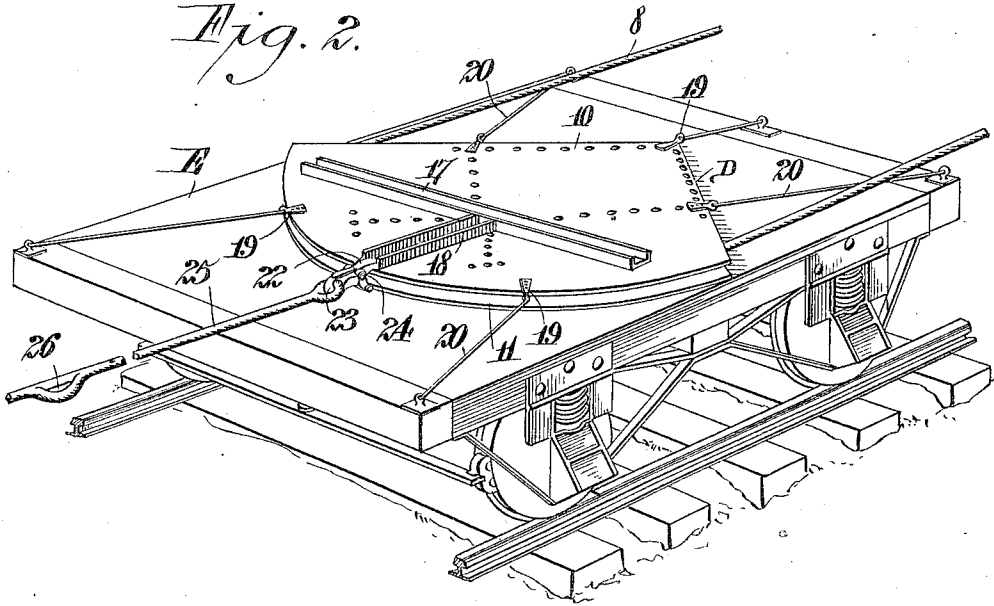
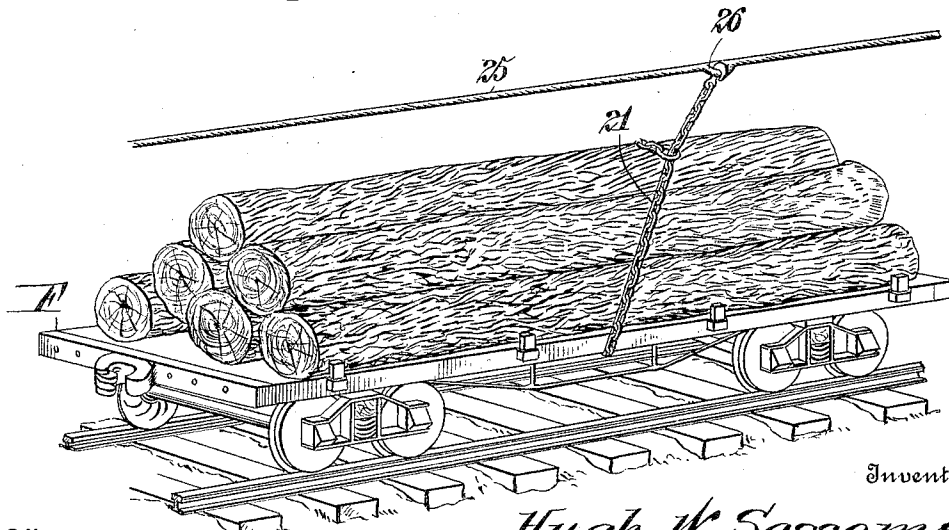


Fig. 3.



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3 SHEETS—SHEET 3.

Fig. 4.

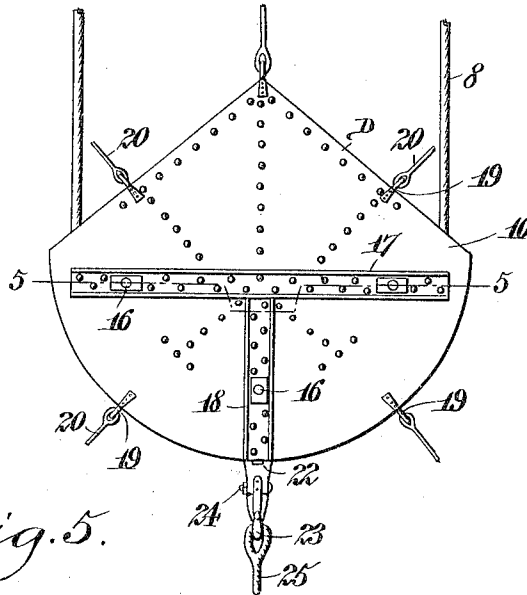


Fig. 5.

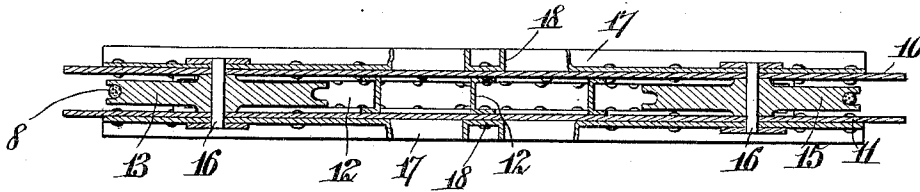
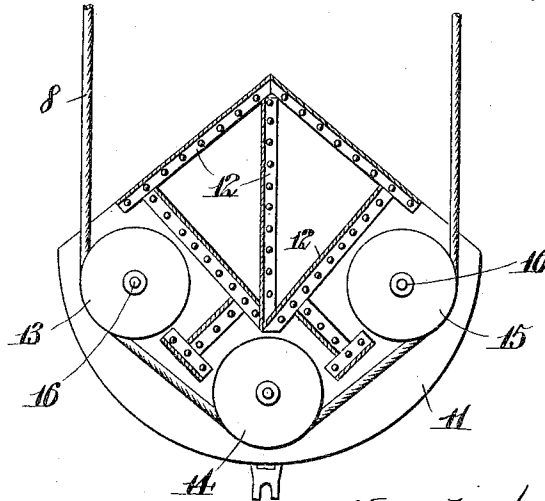


Fig. 6.



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UNITED STATES PATENT OFFICE.

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HOISTING DEVICE.

1,051,278.

Specification of Letters Patent.

Patented Jan. 21, 1913.

Application filed September 20, 1912. Serial No. 721,424.

To all whom it may concern:

Be it known that I, HUGH W. SESSOMS, a citizen of the United States, residing at Arlington, in the county of Snohomish and State of Washington, have invented new and useful Improvements in Hoisting Devices, of which the following is a specification.

This invention relates to an improved system of and apparatus for hoisting.

The invention has for its object to produce an improved hoisting device which shall be particularly applicable to be used on hillsides where logging operations are in progress for the purpose of transporting the logs to the base of the hill.

A further object is to simplify and improve the construction of the apparatus whereby the operation is carried into practice.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawings,—Figure 1 is a diagrammatic face view of a hillside on which the improved hoisting device has been installed. Fig. 2 is a perspective detail view of the hoisting car supporting the block and a portion of a tackle. Fig. 3 is a perspective detail view showing a car loaded with lumber and the sling or choker and a portion of the tag line whereby it is connected with the hoisting block. Fig. 4 is a top plan view of the hoisting block. Fig. 5 is a transverse sectional view taken on the line 5—5 in Fig. 4. Fig. 6 is a plan view of the hoisting block with the top plate detached.

Corresponding parts in the several figures are denoted by like characters of reference.

In carrying this invention into practice a straight or nearly straight railroad track 1 is constructed on the side of a hill A, said track extending from the top or crest of the hill, indicated at B, to the base C, where the

main line may be continued and where a siding 2 is provided. The track 1 communicates at intervals with spurs 3 which are constructed at various points on the hillside, substantially at right angles to the track 1, and the gradient of said spurs being approximately level, or as nearly so as possible. Each of the spurs 3 has a siding 4 which also communicates with the main line 1. Switches of well known construction are provided wherever needed, as indicated at S.

At the top of the hill, adjacent to one side of the track 1, is installed a hoisting apparatus including a hoisting drum 5, a brake drum 6 and a motor 7 for driving the hoisting drum. The hoisting rope 8, one end of which is connected with and wound on the hoisting drum is guided over a block D which is supported on a special hoisting car E, the other end of the rope being anchored at 9 to a stump or some other suitable fixed point.

The car E that supports the block D is an ordinary flat car of suitable dimensions. The block D which is supported on said car is composed of top and bottom plates 10, 11 which are spaced apart by means of channel bars 12 interposed therebetween; the top and bottom plates being bolted or otherwise secured on the flanges of said channel bars. The channel bars 12, as will be best seen in Fig. 6, are suitably arranged in such a manner as not to obstruct the sheaves 13, 14 and 15, the journals of which, 16, are supported in the top and bottom plates. Said top and bottom plates are reinforced by external channel bars 17 and 18 through which the journals 16 of the sheaves are extended, thereby materially reinforcing the bearings of said sheaves and enabling them to resist a heavy strain.

The block is provided at intervals with means, such as hooks 19, for the attachment of guy ropes 20, whereby the block is connected with the car E in such a manner that it may shift its position laterally, when necessary in order to accommodate itself to various exigencies without becoming detached from the car. The hoisting rope or element 8 is guided over the several sheaves 13, 14 and 15, as will be best seen in Fig. 6 of the drawings.

The logs are in practice loaded on ordinary flat cars F, and each load is secured by means of a link or choker 21, as best seen in Fig. 3. The block D is provided with a

bracket or arm 22 with which a strong hook 23 is pivotally connected by means of a pin or bolt 24 in such a manner that it may swing in a vertical plane. Connected with the hook 23 is one end of a tag line 25 which is provided at suitable intervals with eyes or links 26 with which the slings or chokers 21 are to be suitably connected. It will be seen that the load of the car F is connected directly with the block B which is supported by the hoisting element; the guy ropes 20 that connect the block with the hoisting car E will support only the weight of said car and are, therefore, free from excessive strain.

In the operation of this invention, let it be assumed that the cars are placed on the siding 2 at the foot of a hill. The hoisting line is now paid out from the drum 5, the weight of the hoisting car E being sufficient to take the line to the bottom of the grade. When the hoisting car E reaches the foot of the hill, the empty cars are connected therewith, and the hoisting engine is now utilized to pull said cars above the siding associated with the spur on which said empties are to be used, and after the proper switch has been thrown drops them to the siding where a locomotive operating on the spur can get them. After the cars are loaded, the locomotive takes them to the point where the spur joins the track 1. The hoisting car E is lowered, as before, and is utilized to pull the loaded cars up the grade past the switch on the track 1, and after the switch has been thrown, the cars are lowered on the track 1 to the foot of the hill. The cars on being lowered are not to be coupled together, but each individual car is connected with the tag line by means of the sling or choker, thus throwing the weight of each car on its indi-

vidual sling or choker and keeping the logs from sliding on the car.

Having thus described the invention, what is claimed as new, is:—

1. In a hoisting device, a track constructed on an inclined plane, a car traveling on the track, a block supported on the car, guy ropes connecting the block with the car, a hoisting drum at the top of the inclined plane, a flexible hoisting element connected with the drum and guided over the block, and an anchor with which the hoisting element is connected.

2. In a hoisting device, a car arranged to travel on an inclined plane, and a block supported on said car, said block comprising top and bottom plates, interposed channel bars with which said top and bottom plates are connected, channel bars secured externally on the top and bottom plates, and sheaves arranged between the top and bottom plates and having journals extending through said plates and through the external channel bars.

3. In a hoisting device, a car traveling on an inclined plane, a block supported on the car, a flexible hoisting element guided around the sheaves of the block, means for tensioning the hoisting element, a hook hingedly connected with the block, a tag line connected with the hook and provided with eyes at intervals thereof, and load carrying cars having slings or chokers connected with the eyes of the tag line.

In testimony whereof I affix my signature in presence of two witnesses.

HUGH W. SESSOMS.

Witnesses:

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LEO WELSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."