No. 662,669. Patented Nov. 27, 1900.

A. DAVIS.

LOG LOADING DEVICE.

(Application filed Feb. 23, 1900.)

(No Model.) 2 Sheets—Sheet 1.

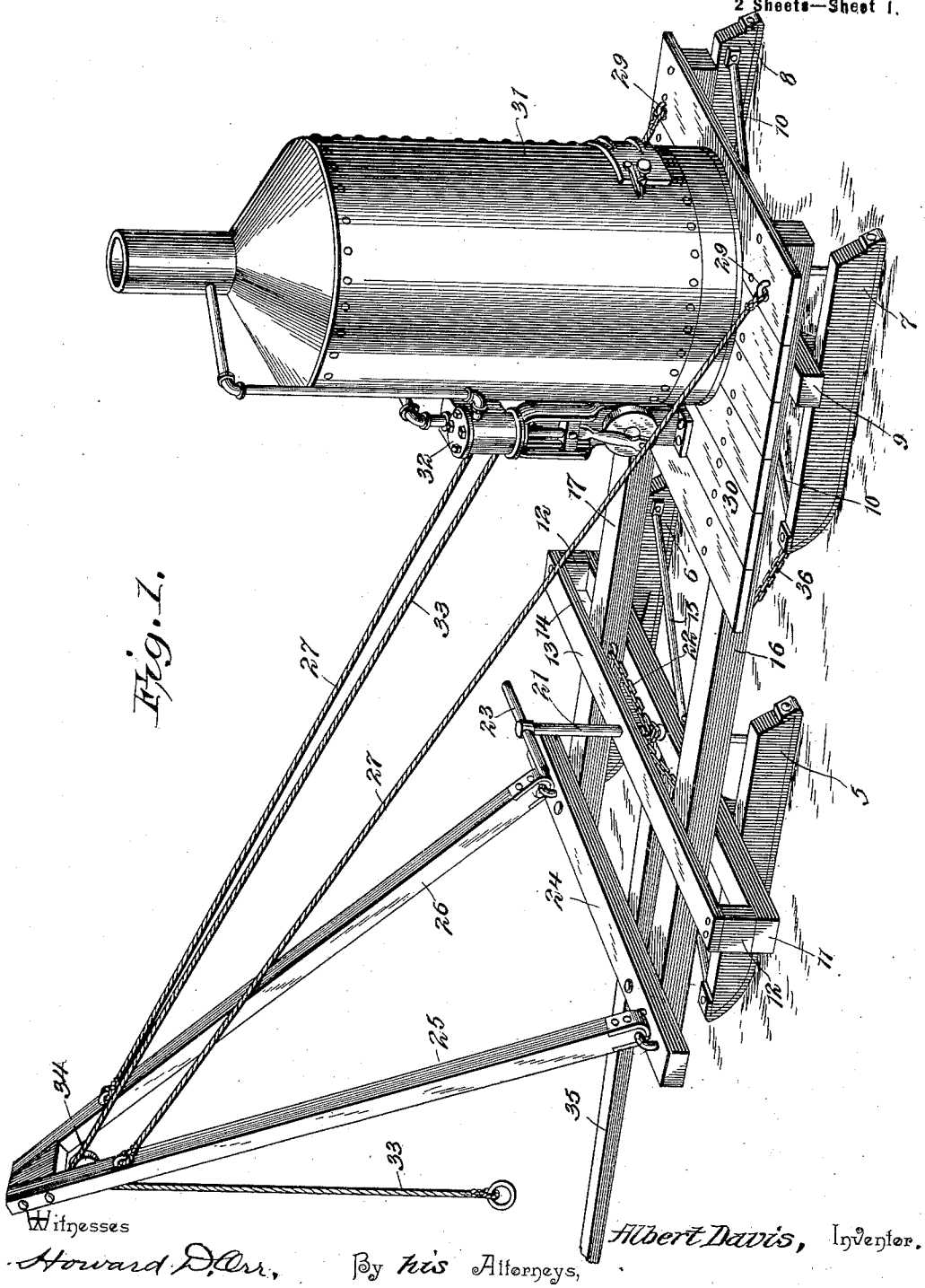


Fig. 1.

Witnesses
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Albert Davis, Inventor.
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Fig. 2.

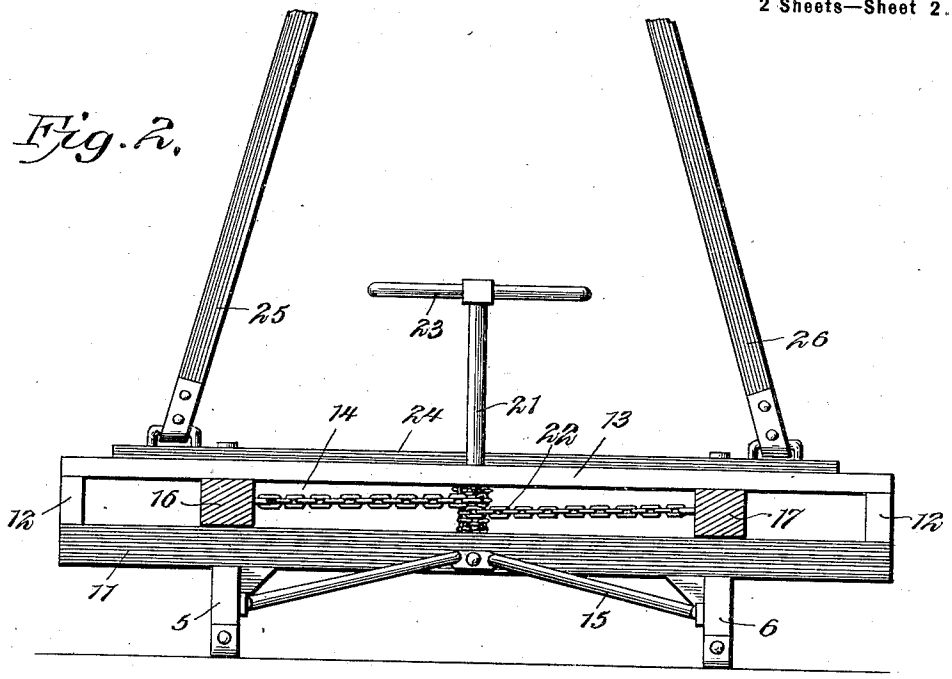
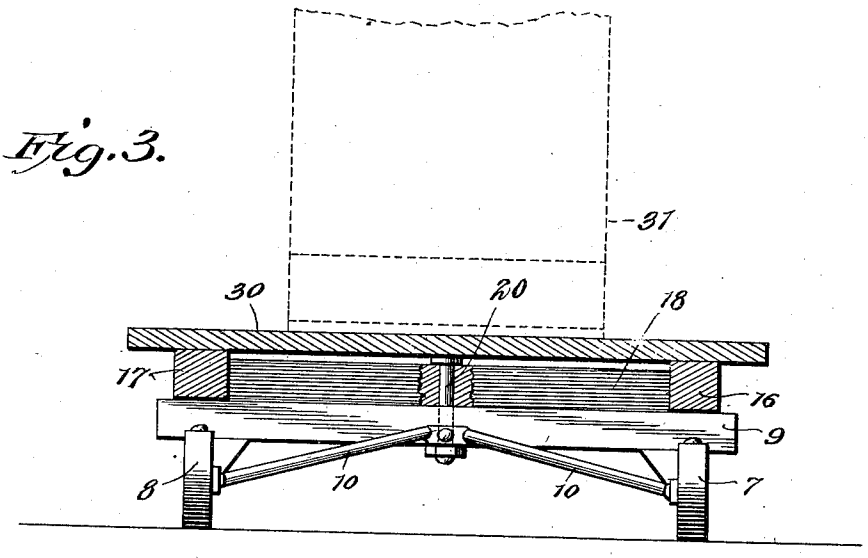


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALBERT DAVIS, OF DULUTH, MINNESOTA.

LOG-LOADING DEVICE.

SPECIFICATION forming part of Letters Patent No. 662,669, dated November 27, 1900.

Application filed February 23, 1900. Serial No. 6,225. (No model.)

To all whom it may concern:

Be it known that I, ALBERT DAVIS, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented a new and useful Log-Loading Device, of which the following is a specification.

This invention relates to log-loading devices, and particularly to that class employed in lumber-camps for loading logs upon sleds or wagons and in which the loaders are adapted to be hauled from place to place and adjusted to satisfy various conditions.

The object of the invention is to provide a simple construction for the purpose above mentioned and in which the derrick may be moved from side to side to most effectively raise and deposit logs and in which, moreover, the weight of the derrick and logs will be counterbalanced by the engine and boiler by which the lifting-windlass is operated.

In the drawings forming a portion of this specification, and in which similar numerals of reference designate like and corresponding parts in the several views, Figure 1 is a perspective view showing the complete device with the derrick adjusted to a central position. Fig. 2 is a transverse section taken through the sills between the platform and the bolster and illustrating the means for adjusting the sills with respect to the bolster of the forward runners. Fig. 3 is a transverse section taken through the platform and at one side of the rear bolster, the cross-beam connecting the rear ends of the sills being shown partially in section and illustrating the position of the pivot-bolt.

The device of the present invention comprises a form of bob-sled including front runners 5 and 6 and rear runners 7 and 8, the rear runners being mutually connected by a rigid bolster 9 of usual construction and having braces 10 extending from the central portion thereof to the inner faces of the rear runners.

Upon the forward runners 5 and 6 is fixed a front bolster 11, upon the upper faces of which and at the ends thereof are blocks 12, having a connecting cross-piece 13, which lies above and parallel with the bolster to form an interspace 14. A bracing-spider 15 is fixed to the under side of the bolster 11 and has its extremities attached to the inner faces of the forward runners.

Upon the bolster 9 are mounted two sills 16 and 17, mutually parallel and having a connecting-beam 18, the lower face of which lies flush with the lower faces of the sills, and through this beam 18 and the sill 9 is passed a pivot-bolt 20 for a purpose which will be presently explained. The lower faces of the sills and cross-beam are adapted to rest upon the bolster 9. The forward ends of the sills 16 and 17 are passed through the interspace 14, which forms a guideway therefor, and these sills are adapted for transverse movement longitudinally of the interspace, this movement being given to the sills by means of a shaft 21, which is journaled in the sill 11 and the cross-piece 13 and has a chain 22 wound upon its central portion, the extremities of this chain being connected with the sills, as illustrated in Figs. 1 and 2. The upper end of the shaft 21 is provided with a cross-bar 23, through the medium of which the shaft may be rotated in either direction to correspondingly move the sills through the guideway.

Upon the forward ends of the sills 16 and 17 is fixed a cross-beam 24, which is movable with the sills and with which is pivotally connected the legs 25 and 26 of a derrick, the guy-ropes 27 of which extend rearwardly and are attached to the rear ends of the sills through the medium of irons 29, passed through the platform 30, connected with the sills. Upon the platform 30 is mounted a boiler 31 and the engine 32, which is driven therefrom, this engine being arranged to drive an ordinary winding-drum, to which is attached one end of a lifting rope or tackle 33, which is passed over a pulley 34, rotatably mounted between the upper ends of the members 25 and 26 of the derrick, the free end of the tackle being disposed to hang down for engagement with the log or other body to be raised.

A tongue 35 is connected with the bolster 11 and through the medium of which the loader may be drawn from place to place, it being seen that as the tongue is turned one way or the other the forward runners will be correspondingly moved, the shaft 21 acting as a king-bolt.

During the transportation of the loader

from one place to another it will of course be understood that the rear runners are held from pivotal movement with respect to the platform 30 by means of chains 36, attached to the runners and the sills.

With the above construction it will be seen that after the apparatus has been moved to the proper location the shaft 21 may be operated to throw the derrick to one side and position the free end of the tackle for attachment to a log. The engine may then be operated to raise the log; after which the shaft 21 may be moved to swing the derrick, and therewith the log, to the proper position over the transporting-vehicle, after which the log may be lowered into its place. It will of course be understood, however, that the derrick may be manipulated in whatever manner may be best suited to the work in hand, and it will of course be understood that in practice wheels may be substituted for the runners and that various other modifications may be made and any suitable materials and proportions may be used without departing from the spirit of the invention.

What is claimed is—

1. A log-loader including a running-gear comprising front and rear bolsters provided with runners, sills pivotally mounted upon the rear bolster and having slidable connection with the front bolster, a rotatable king-bolt mounted in the front bolster, a flexible connection wound around the king-bolt and attached thereto, the ends of the connection being attached to the sills, a derrick mounted upon the sills and movable therewith with respect to the front bolster, a tackle connected with the derrick, and means connected with the king-bolt to rotate it alternately in opposite directions to shift the sills with respect to the front bolster.

2. A log-loader comprising a running-gear including front and rear bolsters, the front bolster having a guideway disposed longitudinally thereof, sills rigidly connected and pivotally mounted upon the rear bolster, said sills lying in the guideway of the front bolster and adapted for movement therein, means for moving the sills in the guideway, a cross-beam mounted upon the sills and movable therewith, a derrick mounted upon the cross-beam, and operating mechanism for the derrick carried by the sills.

3. A log-loader comprising a running-gear including bolsters, one of which is provided with a guideway, sills slidably disposed in the guideway and pivotally connected with the opposite bolster, a shaft having flexible connections with the sills and adapted for rotation to shift them in the guideway, a derrick mounted upon the sills and movable therewith, and operating mechanism for the derrick carried by the sills.

4. A log-loader comprising a running-gear including a front and rear bolster, a cross-piece mounted upon the front bolster and separated therefrom by an interspace to form a guideway, sills pivotally mounted upon the rear bolster and passed through the guideway for movement therein, a shaft journaled in the front bolster and the cross-piece mounted thereon, a flexible connection wound upon the shaft and attached at its ends to the sill, means for operating said shaft to move the sills in the guideway, a derrick mounted upon the sills and movable therewith, and operating mechanism for the derrick carried by the sills.

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

ALBERT DAVIS.

Witnesses:
WILLIAM E. HAILY,
ELMER E. CASPER.