

No. 886,221.

PATENTED APR. 28, 1908.

W. F. KLEWITTER.
LOADING DEVICE.

APPLICATION FILED MAY 28, 1907.

2 SHEETS—SHEET 2.

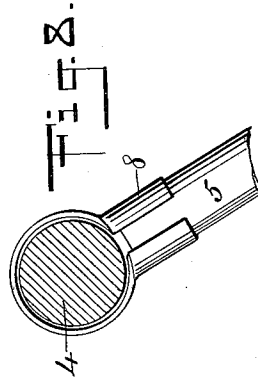
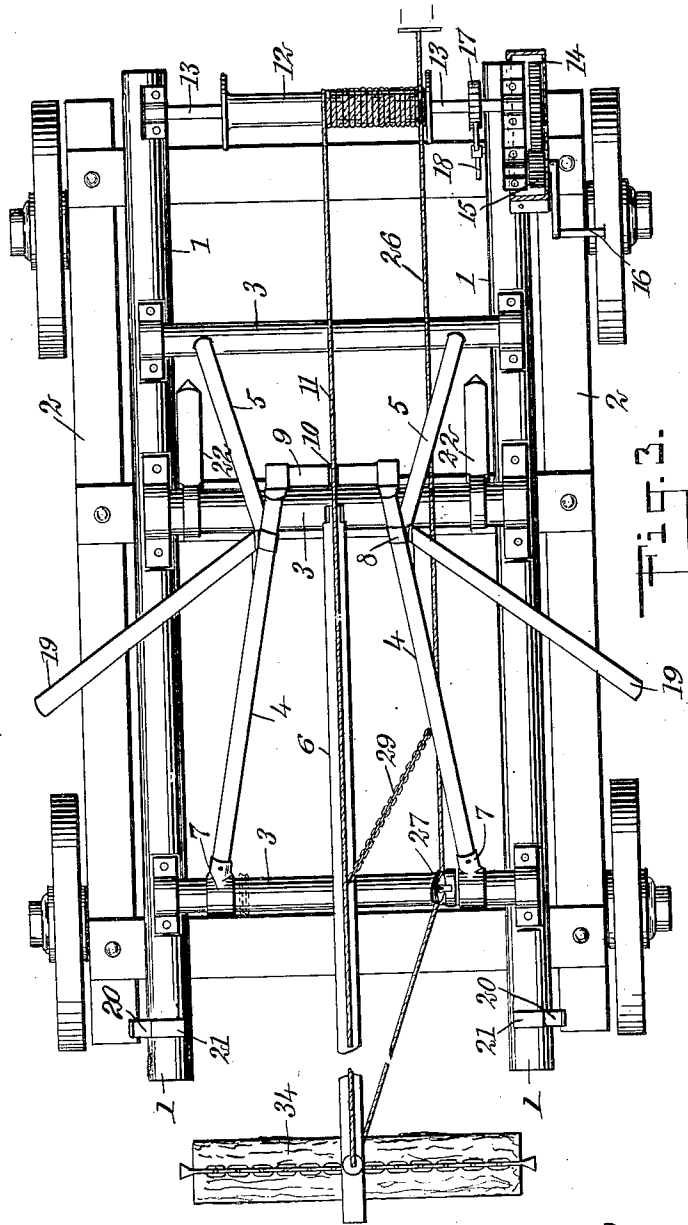


FIG. 3.

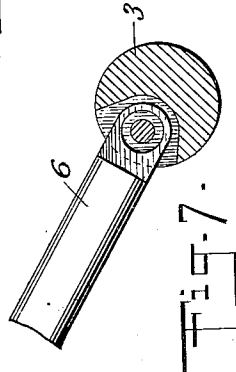


FIG. 7.

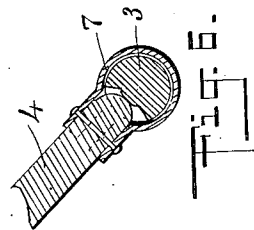


FIG. 6.

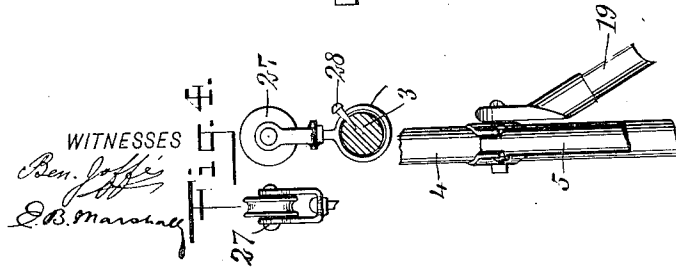


FIG. 5.

WITNESSES
Ben. Joffe
E. B. Marshall

INVENTOR
William F. Klewitter
 BY *Mum & Co*
 ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM F. KLEWITTER, OF MOSINEE, WISCONSIN.

LOADING DEVICE.

No. 886,221.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed May 28, 1907. Serial No. 376,046.

To all whom it may concern:

Be it known that I, WILLIAM F. KLEWITTER, a citizen of the United States, and a resident of Mosinee, in the county of Marathon and State of Wisconsin, have invented a new and Improved Loading Device, of which the following is a full, clear, and exact description.

My invention relates to a loading device and has for its principal object to provide a loading device in which the strain is evenly distributed through the frame:

Still another object of the invention is to provide adjustable side braces which may be disposed from the top of the frame to the ground.

Further objects of the invention are to provide a strong and durable loading device, which can be economically constructed and which can be moved and operated under varying and difficult conditions.

In this specification I will describe one form of my invention, but I do not limit myself thereto as I consider myself entitled to all forms and embodiments which may fall within the scope of the appended claims.

Reference is to be had to 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 invention; Fig. 2 shows on an enlarged scale the construction of the chains which are to be secured to the load; Fig. 3 is a plan view of the invention shown in Fig. 1; Fig. 4 is an enlarged view showing the pulley secured to the frame of the loading device, through which the hoist rope passes; Fig. 5 shows the method by which the adjustable braces are secured to the frame; Fig. 6 shows the method by which the forward braces of the frame of the loading device is secured to the transverse member of the frame; Fig. 7 shows the method by which the boom is secured pivotally to the frame; and Fig. 8 shows the fastening by which the rear brace is secured to the forward brace.

The longitudinal members 1, of the derrick body are supported in any suitable manner on the wagon frame 2. These longitudinal members 1, are on opposite sides of the wagon frame and are connected by transverse members 3, which serve as supports for the forward and rear braces 4 and 5, respectively and also for the boom 6. The forward braces

4 are secured to the forward transverse member 3 of the derrick body by fasteners 7, which permit the braces to move upward or downward, so that the frame may be lowered or folded on the body of the machine. The rear braces 5, are inserted at one end into sleeves 8, on the forward braces 4 and at the other end into holes in the rear transverse member 3 of the derrick body. By this arrangement, the rear braces 5 may be removed from the rear transverse member 3 and the forward braces 4, which will permit the forward braces to hold on the frame. The said braces 4 and 5 form with the transverse members, obtuse angles looking from the sides of the frame. This construction is adopted in order to secure additional strength.

The boom 6 is pivoted as shown in Fig. 7, to the middle transverse member 3, will permit the boom to assume any angularity with the body of the frame. The forward braces 4, are connected at their upper ends by a crossbar 9, which has a groove 10, therein. A guy rope 11, is secured to the outer terminal of the boom 6, the guy rope passing through the groove 10, to the rear of the machine where it is wound on a drum 12, which is secured to a shaft 13, having thereon a gear wheel 14, which meshes with a pinion 15, a crank 16 being supplied to operate the drum by means of the pinion 15 and the gear wheel 14. A ratchet wheel 17, is secured on the shaft of the drum and operates with the pawl 18, to hold the drum securely when desired. Near the top of the forward braces 4 are secured adjustable braces 19, which are fastened as indicated in Fig. 5, so that they may swing forward when the frame is lowered and be made to rest on the brackets 20, on the standards 21. I also provide anchors 22, which are pivotally secured on the middle transverse member 3. At the outer terminal of the boom is secured a block 23, to which a hoist rope 26, is secured, passing downward through a block 24, secured to chains 25, the hoist rope then passing upward through a sheave in the block 23, thence to a block 27 on the forward transverse member 3, and through the frame of the machine to the rear where it may be operated by any power, although it is my plan to attach a whiffletree to this hoist rope and harness horses thereto, and utilize this power for the hoisting of the load.

The block 27, as shown in Fig. 4 may be slipped along on the forward transverse member 3, and be held in any position in this manner by a pin 28. Attached to the boom 6 is a chain 29, which may be secured to the hook on one of the braces 4. By hooking any one of the different links of the chain 29 to the hook on one of the said braces 4, the operative length of the chain is adjusted to permit the boom 6 to have the desired limitation to its swing. The chains 25, which are secured to the block 24 have rings at their free terminals and hooks 30, the eyes of which inclose the chain but are not large enough to permit the rings at the terminals of the chain to pass therethrough. Near the upper portion of each of the chains 25 is a hook 31, secured to a ring which forms part of the chain. I also provide a chain 32, having rings 33, at its terminals. By my construction of the frame, I am able to evenly distribute the strain throughout the body of the machine, as the boom pivots in the transverse member 3 which is slightly nearer the rear of the frame than to its forward end. In addition the guy rope 11, assists to counterbalance the load 34. This keeps the center of gravity of the machine with the load applied, well under the base of the frame and low down. The adjustable braces 19, which are designed to be inserted into the ground, afford further means to keep the machine upright under heavy strains and when working in difficult positions. These adjustable braces 19 may have enlarged lower ends if need be, to rest on the ground and prevent the braces from sinking therein. The chains which are provided to be secured to the load, are constructed in the manner set forth above in order that they may be secured to loads of various dimensions. In handling ordinary logs or similar loads, the hooks 30 may be inserted one at either end of the log and a firm hold may be obtained in this way and the hoist rope brought in motion to lift the log to any desired height. However, if a shorter log is to be secured by the hooks on the chains, it is necessary to use shorter chains and I therefore provide the hooks 31 to which may be secured the rings on the outer terminals of the chains 25, the rings on the hooks 30, slipping upward to adjust themselves to the new position necessary by the doubling of the lower portions of the chains 25. In this way short logs may be readily and firmly secured. When a number of logs are to be lifted and the chains 25, are not long enough to encircle them, the auxiliary chain 32 is made use of, which may be applied in many different ways such as by fastening one ring 33 to the hook 31, and bringing the other end of the auxiliary chain 32 with its ring 33, around under the logs, securing the ring to the hook 30, on the other chain 25. When the chains are secured in this way the logs

may be released by slight movements of the chains 25, which will release the hook 30 from the ring 33.

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

1. A loading device consisting of a frame, a boom pivoted near the center of the frame and extending outwardly toward its edge, a guy rope secured to the free terminal of the boom and to a drum on the opposite side of the frame, and means for rotating the drum.

2. A loading device consisting of a frame, a boom pivoted near the center of the frame and extending outwardly toward its edge, a guide supported on the frame, a guy rope secured to the free terminal of the boom, said guy rope passing through the guide and to a drum opposite the free terminal of the boom, means for rotating the drum, and means for preventing the drum from rotating.

3. A derrick frame consisting of longitudinal members, a transverse member disposed approximately nearer one of the terminals of the frame than to the opposite one, a boom pivoted to said transverse member and projecting toward the most distant terminal of the frame, transverse members supporting forward and rear braces, a member supported by the said braces, the said member having a guide adapted to receive a guy rope, and adjustable side braces secured to the upper portions of the braces and adapted to be planted in the ground at either side of the frame.

4. A derrick frame consisting of longitudinal members, a transverse member approximately nearer one of the terminals than to the opposite one, a boom pivoted to said transverse member and projecting toward the most distant terminal of the frame, transverse members supporting forward and rear braces, the said braces projecting inwardly toward the center line of the frame, a member supported by the said braces, said member having a guide adapted to receive a guy rope, and adjustable side braces secured to the upper portions of the braces and adapted to be planted in the ground at either side of the frame.

5. A derrick frame consisting of longitudinal members, a transverse member approximately nearer one of the terminals of the frame than to the opposite one, a boom pivoted to said transverse member and projecting toward the most distant terminal of the frame, transverse members supporting forward and rear braces, a member supported by the braces, the said member having a guide adapted to receive a guy rope, adjustable side braces secured to the upper portions of the braces and adapted to be planted in the ground at either side of the frame,

anchors secured to the frame, and a chain connecting the boom and frame body, by which the swing of the boom is limited.

6. A loading device consisting of a frame, a boom pivoted near the center of the frame and extending outwardly toward one of its edges, and a guy rope secured to the free terminal of the boom and to the frame approximately in alignment with the boom, said frame having adjustable braces adapted to be planted in the ground on either side of the frame.

7. A derrick frame consisting of longitudinal members, a transverse member approximately nearer one of the terminals of the frame than to the opposite one, a boom pivoted to said transverse member and projecting toward the most distant terminal of the frame, transverse members supporting the forward and rear braces, one set of said braces being adapted to be removed to permit the upper structure to close on the principal body of the frame, and a member supported by the said braces, and having a guide adapted to receive a guy rope.

8. A derrick frame consisting of longitudinal members, a transverse member approximately nearer one of the terminals of

the frame than to the opposite one, a boom pivoted to said transverse member and projecting toward the most distant terminal of the frame, transverse members supporting forward and rear braces, a member supported by the said braces, said member having a guide attached to receive a guy rope, adjustable side braces secured to the upper portions of the braces and adapted to be planted in the ground at either side of the frame, and standards on the frame, said standards having hooks adapted to support the adjustable side braces when they are removed from the ground.

9. A derrick, consisting of a frame, a boom pivoted to the said frame and projecting toward one of its ends, forward and rear braces supported by the said frame, and a member supported by the said braces, the said member having a guide adapted to receive a guy rope.

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

WILLIAM F. KLEWITTER.

Witnesses:

W. A. VON BERG,
LOUIS L. LA MERE.