(No Model.)

J. W. KUNTZ & C. A. ESCHENBRENER.

LOG LOADING MACHINE.

No. 429,926. Patented June 10, 1890.

Fig. 1.

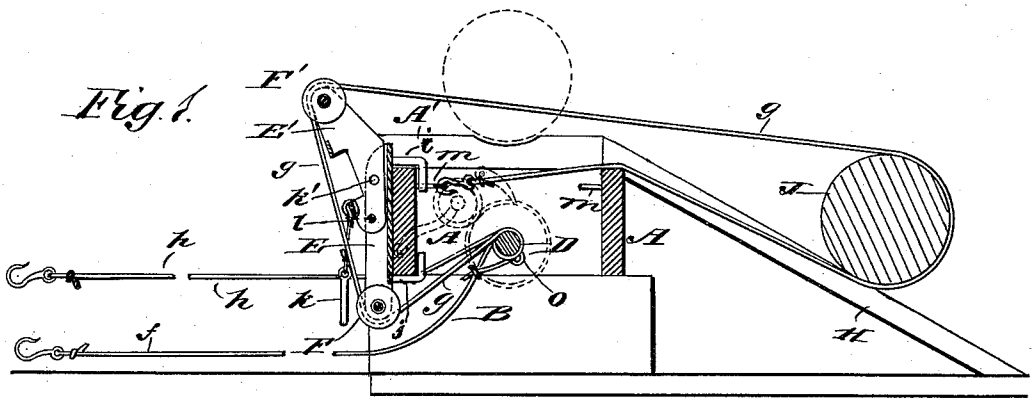


Fig. 2.

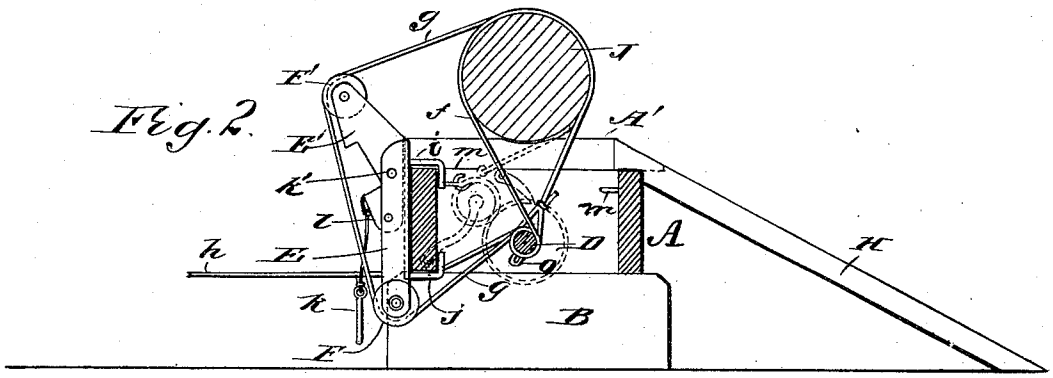
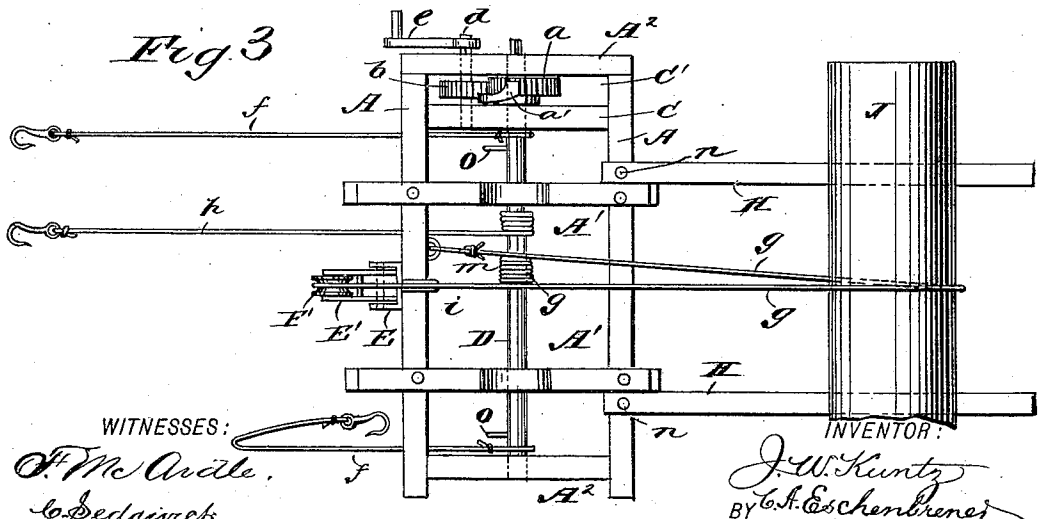


Fig. 3



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JOSEPH W. KUNTZ AND CHARLES A. ESCHENBRENER, OF REPUBLIC, OHIO.

LOG-LOADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 429,926, dated June 10, 1890.

Application filed March 20, 1890. Serial No. 344,684. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH W. KUNTZ and CHARLES A. ESCHENBRENER, both of Republic, in the county of Seneca and State of Ohio, have invented a new and Improved Log-Loading Machine, of which the following is a full, clear, and exact description.

Our invention relates to improvements in log-loading machines; and the object of our invention is to provide a device by which logs may be quickly, easily, and safely loaded upon a vehicle or rolled to the saw in a mill-yard.

To this end our invention consists in certain features of construction and combinations of parts, that will be hereinafter fully described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical cross-section of the device, showing a log partially loaded; Fig. 2, the same view, but with the log loaded and bound in position; and Fig. 3, a plan view of the device with a log partially loaded.

A rectangular frame A is mounted upon suitable supports B of a vehicle, (not shown,) said frame having cross-pieces A′ extending across the top, upon which the logs may rest, and having near one end a vertical partition C, forming a recess C′ between said partition and one of the end pieces A^2 of the frame A. A shaft D extends longitudinally through the frame A, and has suitable bearings in the end pieces A^2 of the frame. Fixed to the shaft, near one end thereof, so as to turn in the recess C′, is a gear-wheel *a*, which meshes with and is turned by a gear-wheel *b*, which is fixed to the shaft *d* in the recess C′. A dog *a′* is pivoted to the partition C, above the gear-wheel *a*, so as to engage the teeth of the gear-wheel and prevent the wheel and shaft D from turning back. One end of the shaft *d* is mounted in the partition C, and the other end projects through the end piece A^2 of the frame A and is provided with a crank *e*, by which the shaft may be turned.

Loosely fixed to the shaft D, near the ends, are the binding ropes or chains *f*, and near the center are fixed the loading rope or chain *g* and the unloading rope or chain *h*. The ropes are all provided at their ends with suitable hooks in the usual manner.

A bracket E is attached to one side of the frame A by the clasps *i* and *j*, which are attached to the bracket and fit upon the top and bottom of the frame, respectively, so that the bracket may slide upon the frame, the upper clasp *i* being pivoted to the bracket E, so that it may be turned above the frame when the bracket is to be removed or attached, and may be turned upon the frame to hold the bracket in position. A grooved pulley F is pivoted in the lower end of the bracket E, which extends below the frame A and a similar pulley F′ is pivoted in the upper end of the arm E′, which is attached to the bracket E and extends upwardly therefrom. The arm E′ is attached to the bracket E by two pins *k* and *l*, which project through the sides of the bracket and through the arm E′, so that when a log is to be rolled from the frame A the upper pin *k* may be removed from the hole *k′* in the bracket and arm, and the arm being thereby pivoted on the pin *l* may be tipped downwardly out of the way of the log. Attached to opposite inner sides of the frame A is a staple *m*, to which the chains or ropes may be hooked when necessary.

When a log is to be rolled upon the frame A, a pair of skids H are placed against the frame, the upper ends of the skids resting upon the top of the frame and the lower ends upon the ground. The upper ends of the skids may be fastened to the frame by pins *n*, which project through the ends of the skids and into the frame.

To roll the log J upon the frame A, the rope *g* is carried up over the frame, so that it will run in the pulleys F and F′. The rope is then passed around the log and the free end hooked to the staple *m*. The operator then turns the crank *e*, which will turn the shaft D by means of the gear-wheels *a* and *b*, and the rope *g* will be wound upon the shaft. As the rope is wound upon the shaft it is shortened and the log J is rolled up the skids H till it rests upon the cross-pieces A′ of the frame A, when it is bound in position by the ropes *f*, which are passed up over the log, and their free ends are hooked to hooks *o* on the shaft D.

To unload the log, the bracket E is moved

upon the frame A to bring the pulleys F F′ in line with the rope *h*, the rope is passed up over the pulleys and attached to the log, the pin *k* is removed from the bracket E and arm E′, the shaft D turned, and the rope will be wound upon the shaft and the log rolled from the frame. When the log strikes the arm E′ it will swing upon the pin *l* and drop down out of the way of the log.

From the foregoing description it will be seen that with this device heavy logs may be loaded by a single person and a great deal of labor saved.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A log-loading device comprising a frame having cross-pieces upon its upper side, a shaft mounted in the frame, a crank and gear mechanism for turning the shaft, a bracket removably attached to the side of the frame, said bracket having a pulley mounted in the lower end thereof and having an upwardly-extending arm with a pulley mounted thereon, and ropes having one end fixed to the shaft, said ropes being adapted to pass over the pulleys and connect with a log, substantially as described.

2. The combination, with the frame A, shaft D, and ropes *g* and *h*, of the bracket E, fixed to the frame by the clasps *i* and *j*, and having the pulley F mounted in the lower part thereof, and having the arm E′, carrying pulley F′, attached to the upper part thereof, substantially as described.

3. The combination, with the bracket E, fixed to the frame A, as shown, of the arm E′, having pulley F′ mounted thereon, and means, as pins *k* and *l*, for attaching the bracket and arm.

4. The combination, with the frame A and shaft D, having ropes *g* and *h* attached thereto, of the slidable bracket E, mounted upon the frame and having pulleys F F′, pivoted above and below the same for the passage of the ropes, substantially as described.

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