

(No Model.)

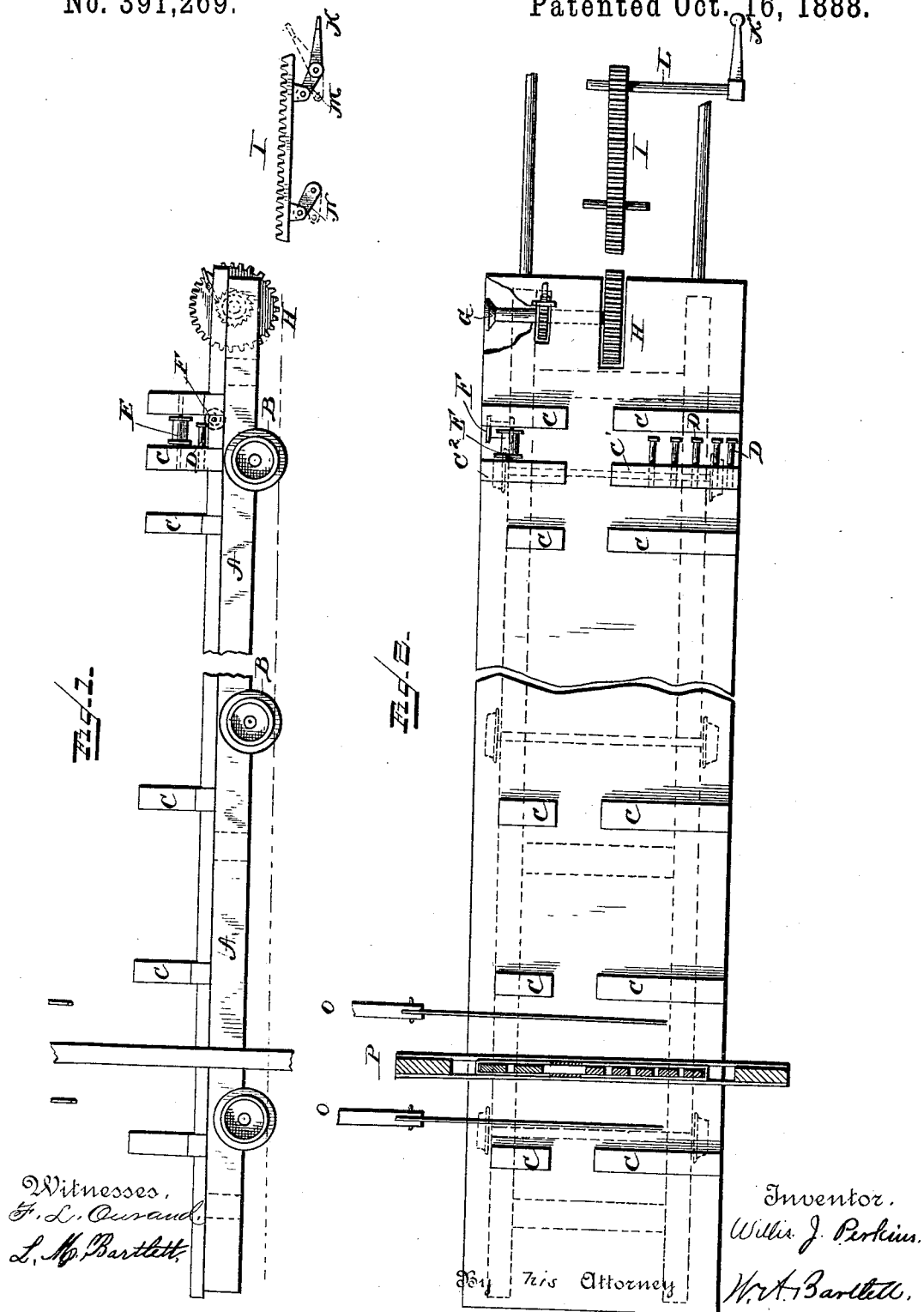
2 Sheets—Sheet 1.

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LOG HOLDING CAR AND CLAMP FOR SAW MILLS.

No. 391,269.

Patented Oct. 16, 1888.



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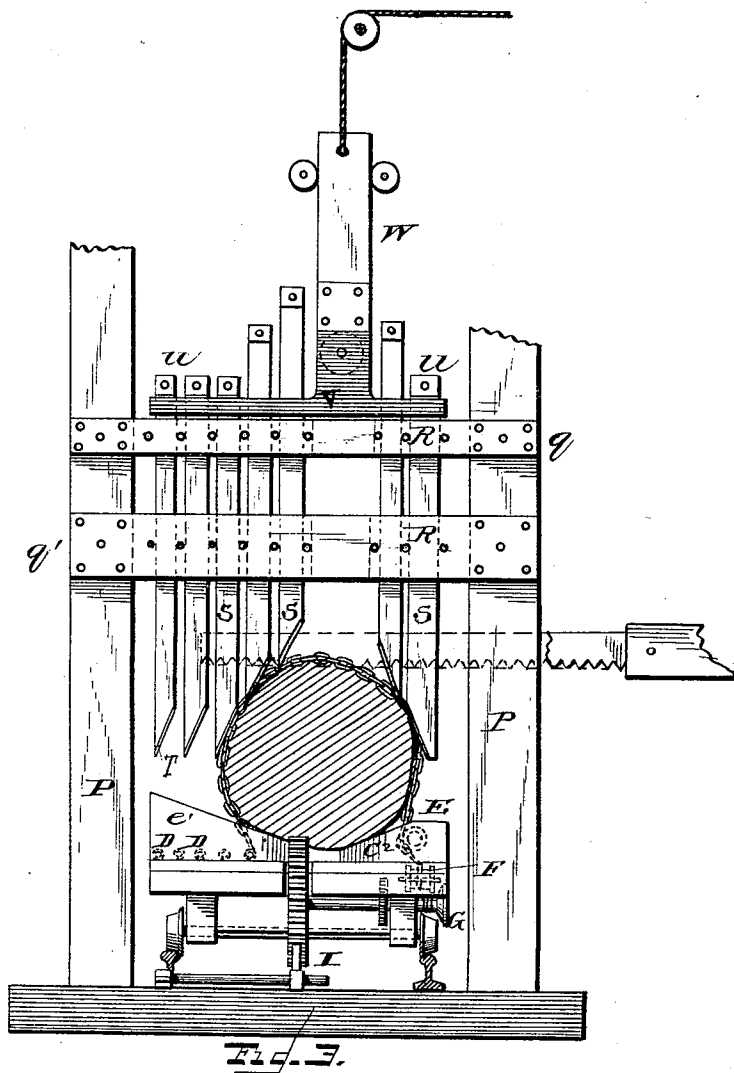
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WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIS J. PERKINS, OF GRAND RAPIDS, MICHIGAN.

LOG-HOLDING CAR AND CLAMP FOR SAW-MILLS.

SPECIFICATION forming part of Letters Patent No. 391,269, dated October 16, 1888.

Application filed February 27, 1888. Serial No. 265,378. (No model.)

To all whom it may concern:

Be it known that I, WILLIS J. PERKINS, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Log-Holding Cars and Clamps for Saw-Mills, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to log-carriages for holding logs while they are sawed up by a crosscut or drag saw into blocks or shingle-bolts and to the mechanism for holding the log firmly in position on the carriage.

The object of the invention is to produce a saw-carriage on which a log can be firmly secured while sawing. It is desirable that the log shall be held firmly in position on the carriage or car and not change position when blocks are sawed from one end even though the log be somewhat crooked. It frequently happens that if the log be not firmly secured it will turn on the car after a few cuts have been taken from one end and the next cut will not be parallel with the preceding, thus producing shingle-bolts with slanting or oblique ends. Again, oftentimes when the bolt is nearly or quite severed from the log it will catch in the saw, following its motion back and forth, pitching and binding and possibly breaking the saw. Logs of ordinary length—sixteen to eighteen feet long—being bound at the end farthest from the cut of saw, the leverage the saw has over the binding-clamp is so great that the log has a tendency to spring and follow the motion of the saw. To obviate this is the object of my invention.

Figure 1 is a side elevation of a log-car, (partly broken away,) showing the relative position of the windlass-chain and rack for tightening the windlass. Fig. 2 is a plan of the same, showing log-clamp in section. Fig. 3 is an end view with log-clamp in elevation.

A indicates the frame-work of a car; B, the wheels thereof. CC are wedge-shaped checks, which constitute the cribs for the support of the logs. The check-block C' at one end of the car has a number of strong pins, D, extending parallel with the floor of the car. A chain may be attached to any of these pins and passed over the log and round the idlers F F to the windlass G. It is desirable to have the chain

secured as close as possible to the log, so that a better grip can be had on the log; hence a series of pins is of advantage, and the chain is attached to whichever pin is most convenient, according to the size of the log.

A pinion, H, on the windlass-shaft is in line with a movable rack, I. The rack I may be lifted by pressing on lever K, which is attached to shaft L, bearing an arm, M, connected to said rack. A similar arm, N, supports the other end of said rack. When the rack is lifted, the pinion H will engage therewith as the car is drawn lengthwise of the rack, and by this means the chain attached to the windlass will be tightened and held tight by a common ratchet and pawl. The pinion H will preferably be attached to its shaft by a friction-clutch, so that when the chain is sufficiently tight there will be no breakage; or the car may be moved on the track by the usual friction-driver, so there will be no danger of breakage. By means of this windlass log-clamp near one end of the car the log may be drawn closely to and held from turning in the chocks.

One or two drag-saws may be used, as at O O. Upright posts P P form supports for cross-bars $q q q$, extending across the track above the top of the car. These bars are divided by pins or partitions R R into rectangular passages, through which drop-bars S S extend. The drop-bars S, preferably, have beveled ends, T, as shown. Each bar has a head, U. A cross-head, V, extends under all these heads U, and this cross-head may be lifted by drawing up the beam W, to which the cross-head is attached. The raising of cross-head V thus serves to lift all the bars S. When the beam W is lowered, the bars S drop down on the log, their beveled ends forming a wedging-clamp at each side of the log. As the bars S cannot escape from their perpendicular position, they form a very serviceable clamp for the log, and they can be readily lifted and replaced by lifting on the beam W. After the length of one or two shingle-bolts have been sawed from the log the clamp-bars are lifted and the car moved along far enough to bring the log in position to cut one or two more shingle-bolts therefrom, accordingly as one or two cross-cut-saws are used. The log resting in its crib

and being held from rolling by the chain and windlass, the shingle-bolts will necessarily be cut with square ends.

What I claim is—

- 5 1. The combination, with a log-car provided with a log-rest and a windlass driving-wheel and holding-chain connected thereto, of a track-section in position to engage or disengage said windlass driving-wheel as the parts are thrown
10 into or out of engaging position, so as to tighten the chain on the log, substantially as described.
2. The combination, with a log-holding car and a way therefor, of a framing permanently fixed in proximity to and extending above said
15 carway and a clamp in the framing in position to bear on the log when supported on the car, substantially as described.

3. The combination, with a log-car and carway, of a frame permanently fixed near and extending over the carway and a series of movable upright bars in said frame in position to bear on the log. 20

4. The combination, in a log-holding clamp, of a framing, and a series of independently-moving upright bars guided vertically in said
25 frame, the cross-bar having a bearing against all the upright bars, by which all the upright bars may be lifted, substantially as described.

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

WILLIS J. PERKINS.

Witnesses:

FRANCES W. PERKINS,
C. W. GEO. EVERHART.