(No Model.) 2 Sheets—Sheet 1.

T. W. PECK.

SAW MILL CARRIAGE.

No. 333,664. Patented Jan. 5, 1886.

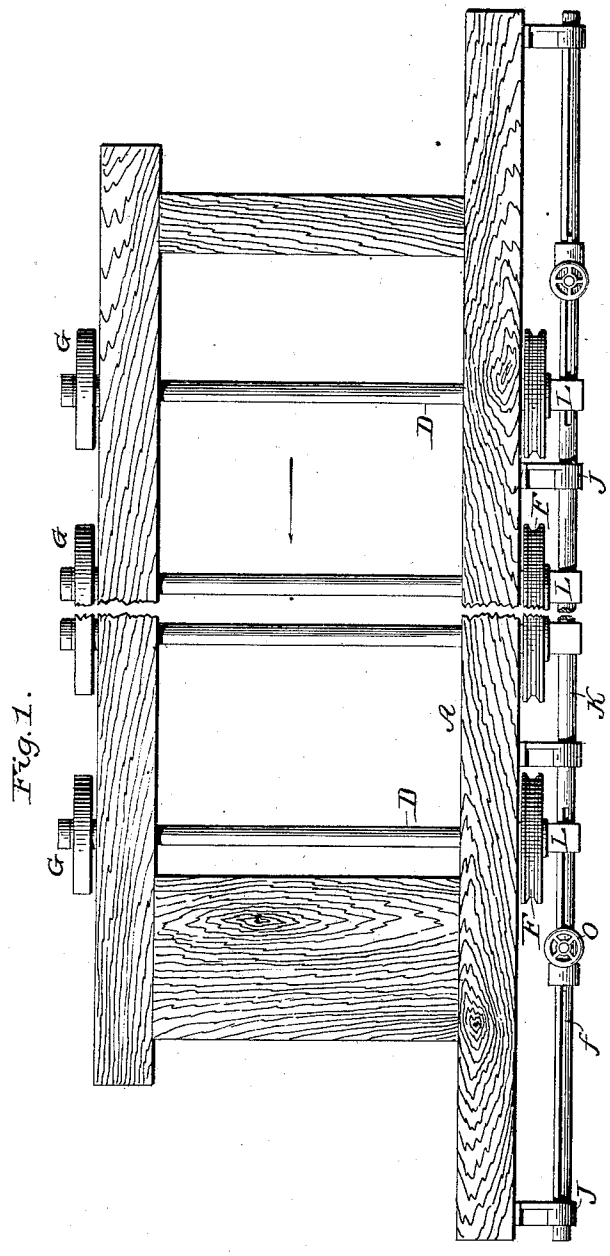


Fig. 1.

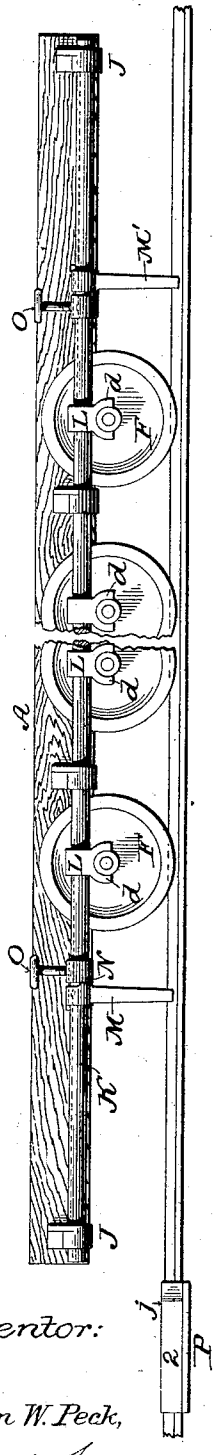
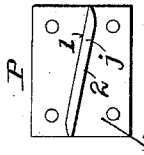


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

T. W. PECK.

SAW MILL CARRIAGE.

No. 333,664. Patented Jan. 5, 1886.

Fig. 3.

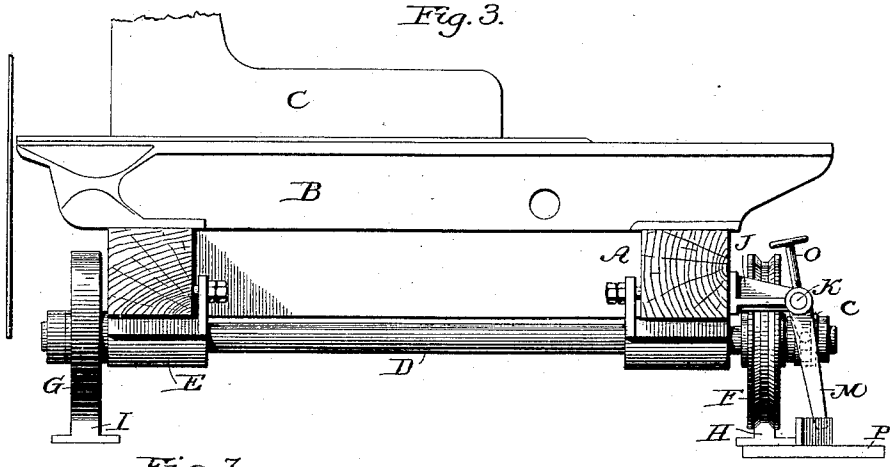


Fig. 7.

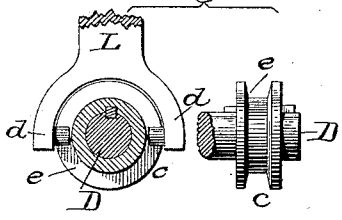


Fig. 4.

Fig. 5.

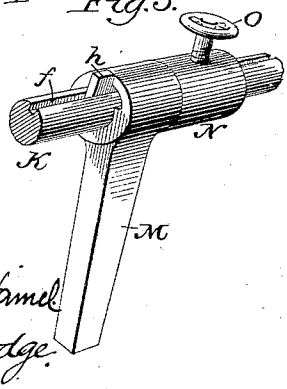
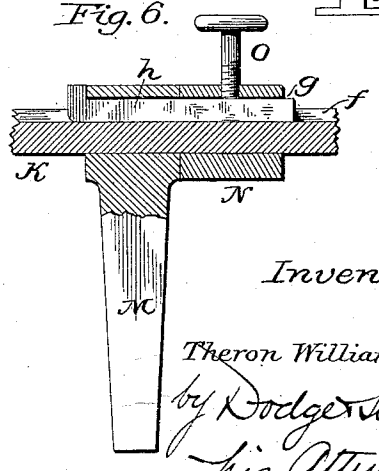


Fig. 6.



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UNITED STATES PATENT OFFICE.

THERON WILLIAM PECK, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO EDWARD P. ALLIS & CO., OF SAME PLACE.

SAW-MILL CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 333,664, dated January 5, 1886.

Application filed October 27, 1885. Serial No. 181,062. (No model.)

To all whom it may concern:

Be it known that I, THERON WILLIAM PECK, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Saw-Mill Set-Works, of which the following is a specification.

My invention relates to that class of saw-mill carriages in which the log-frame and the operating mechanism carried thereby are automatically shifted bodily in a line at right angles to the line of travel of the carriage preparatory to "gigging back;" and it consists in various features and details hereinafter set forth.

In the drawings, Figure 1 is a top plan view of a carriage with my improvements applied thereto; Fig. 2, a side view; Figs. 3 and 4, end views showing the carriage in different positions; and Figs. 5, 6, and 7, views illustrating certain details.

The letters A A indicate the timbers which go to make up the carriage-frame, which frame is adapted to receive and support the head-blocks B, with their movable knees C, in the usual manner. The axles D are carried by wheels F G, fixed thereon, the former grooved, as shown, and adapted to run on the correspondingly-shaped rails H, and the latter adapted to run on the flat rail I. Each axle is preferably extended out beyond its wheel F, as shown in Figs. 3 and 4, and is provided with a fixed grooved collar, *c*, as shown in Fig. 7. The axles D are an inch (more or less) longer between the hubs of the wheels F G than the width of the carriage, or than the distance between the outer ends of the boxes E, which support the carriage on the axles, to provide the necessary room for the movement of the carriage thereon.

J J indicate brackets secured to the side of the carriage-frame, and in which is journaled a shaft, K, extending parallel with the side of the carriage, as shown in Figs. 1 and 2. Immediately over each axle D the shaft K has secured upon it bifurcated arms or yokes L, the arms *d d* of which enter grooves or recesses *e* in the collar *c*, as more clearly shown in Fig. 7. Secured upon the shaft K, near each end of the carriage, are depending arms M M', which are adjustable upon the shaft K to any desired point, and held there by means of a collar, N, and set-screw O, as shown in Figs. 2, 5, and 6. The shaft K is provided with a longitudinal groove, *f*, while the collar N is provided with a similar groove, *g*, as shown in Figs. 5 and 6, a key, *h*, being inserted in said grooves and held in place by the set-screw O. The hub of the arm M is cut out to form a recess, through which the key passes, and which is made wide enough to allow the arm to swing or rock upon the shaft K a limited distance from its normal position in one direction only. The end of the key *h* is bent upward, as shown, so as to prevent the arms from moving lengthwise of the shaft K. The arms M M' are so constructed that one swings in one direction and the other in the reverse direction.

P indicates a plate secured to the floor at a point nearly opposite the saw, the said plate being provided with a raised web or flange, *j*, inclined or at an angle to the line of travel of the carriage, as shown in Figs. 1, 2, 3, and 4.

The apparatus, being thus constructed, operates as follows: In Fig. 1 the carriage is shown as moving to the left preparatory to making a cut, and when the arm M strikes against the front side, 1, of the flange *j*, it rides along the same and turns or rocks upon the shaft K, the arm M being allowed a limited movement in that direction independently of the shaft K. When the cut is completed, the arm M' comes into contact with the same face, 1, of the flange *j*, and, not having any movement in that direction independent of the shaft K, rocks the latter in its bearings, and, through the arms or yokes L offsets the carriage away from the saw. When the motion of the carriage is reversed preparatory to gigging back, the arm M' first strikes the flange *j*, but on the side 2 away from the saw, and, having a limited movement upon the shaft K in that direction, rocks upon the latter and does not affect the carriage, the carriage in the meanwhile remaining offset. At or about the time that the carriage has completed its reverse movement the arm M strikes against the side 2 of the flange *j*, and, having no movement in that direction independent of its shaft, rocks the latter and sets the carriage over toward the saw. The arm M'

offsets the carriage away from the saw, while the arm M sets it to the proper cutting-line. It will thus be seen that the action is effected automatically, but not until the carriage is entirely past the saw. It will also be noticed that the direction of travel of the carriage may be reversed at any time during its travel past the saw, as the arms M M′ do not come into operation until the log is past the saw.

The arms M M′ are made adjustable upon the shaft K, in order to adapt the shifting action to logs of varying lengths.

It is apparent that the arms M M′ may project horizontally from the shaft K, instead of vertically, and that the plate P and its flange *j* may be at the side of instead of below the shaft.

The peculiar manner of hanging the arms M M′ permits a single incline to operate both arms and to move them in reverse directions.

The longitudinal adjustment of the arms upon the shaft K enables me to set the shifting mechanism to act as soon as the travel of the carriage is completed, whether that travel be longer or shorter, a result which has never before been attained, so far as I am aware. This is of course important, because if it were necessary to move the carriage the full length of the track each time, regardless of the log being sawed, a great waste of time would result.

I am aware that it is not broadly new to shift a log-carriage by means of inclined guards, and I do not broadly claim that idea.

Having thus described my invention, what I claim is—

1. In combination with a saw, a track by the side thereof, a carriage movable upon said track past the saw, a rock-shaft mounted in bearings upon the carriage and connected with the axles thereof, an arm at each end of said shaft, and a cam-plate adapted to be struck by said arms alternately, whereby the carriage is shifted bodily to and from the saw.

2. In combination with a saw, a track by the side thereof, a carriage movable upon said track past the saw and laterally movable upon its axles, a rock-shaft mounted in bearings upon the carriage and connected with the axles thereof, an arm at each end of said shaft, each having a limited movement upon and independent of the latter, and a cam-plate in the path of said arms adapted to operate them alternately.

3. In combination with a saw, a track by the side thereof, a carriage movable past the saw upon said track, an offsetting device for said carriage carried by the latter, arms carried by the carriage at each end and adjustable longitudially thereupon, and a cam plate in the path of the arm for operating the shifting or offsetting device.

4. In combination with a saw, a track by the side thereof, a carriage movable past the saw upon said track, an offsetting device for said carriage carried by the latter, arms at each end of said carriage adjustable longitudinally thereupon and having a limited rocking motion in different directions, and a cam-plate in the path of the arms for operating the latter alternately.

5. In combination with a saw, a carriage, axles D, boxes E therefor, wheels F G, attached to said axles, recessed collar *c* on the axle, brackets J upon the carriage, rock-shaft K, mounted therein, yokes L, rigidly secured to shaft K and engaging the collars *c*, arms M, carried at opposite ends of shaft K, and cam-plate P in the path of the arms M, as shown.

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Witnesses:
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D. B. HANSON.