

(No Model.)

2 Sheets—Sheet 1.

W. GOWEN.

OFFSETTING MECHANISM FOR SAW MILL CARRIAGES.

No. 383,460.

Patented May 29, 1888.

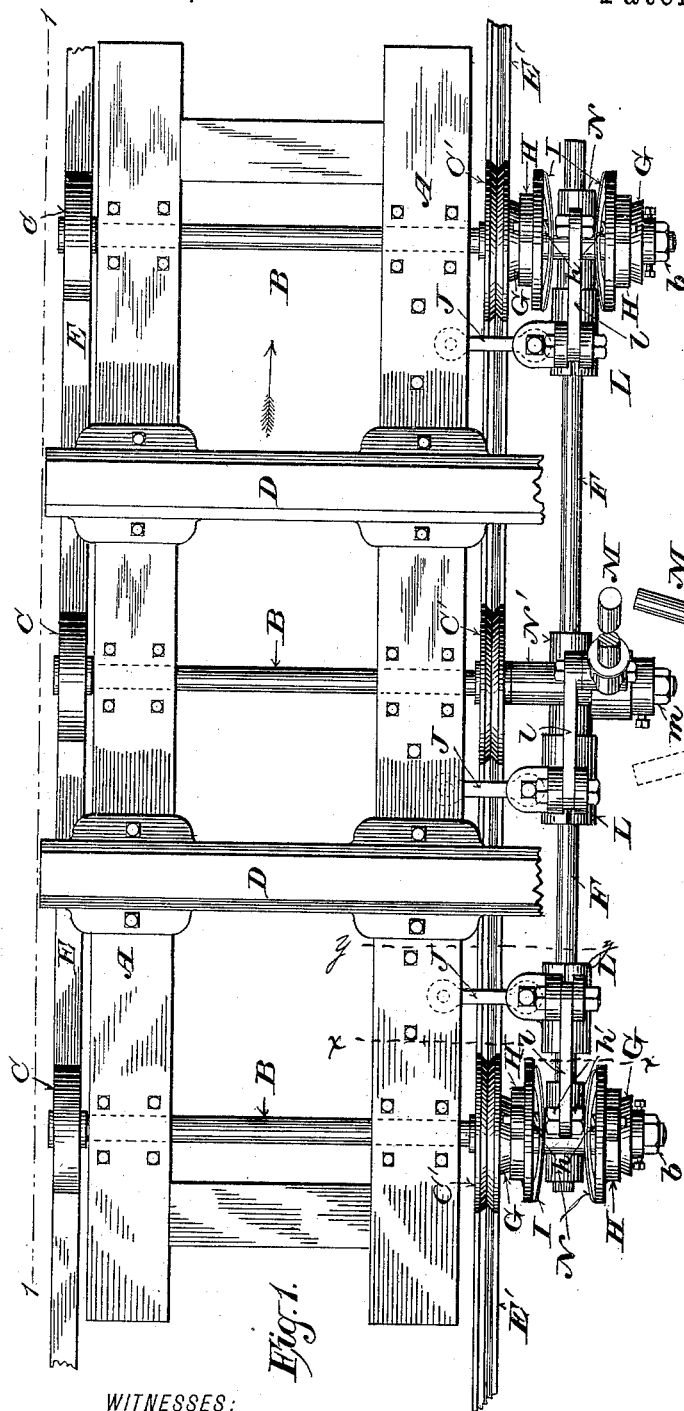


Fig. 1.

WITNESSES:

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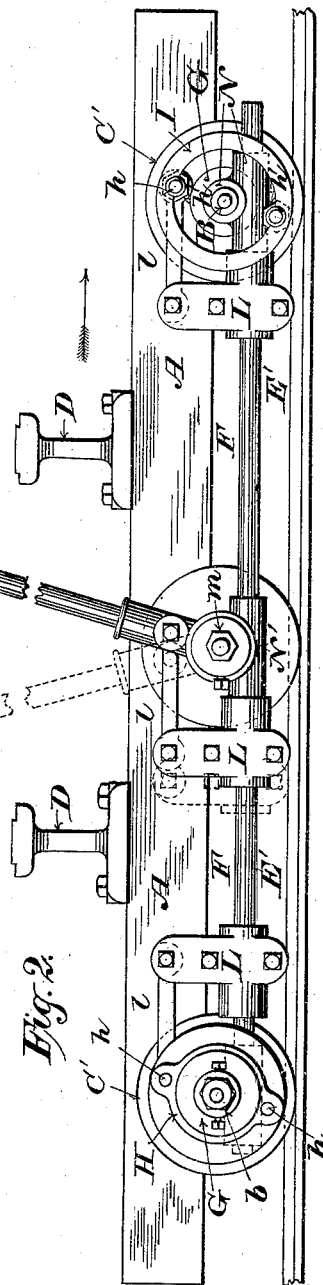


Fig. 2.

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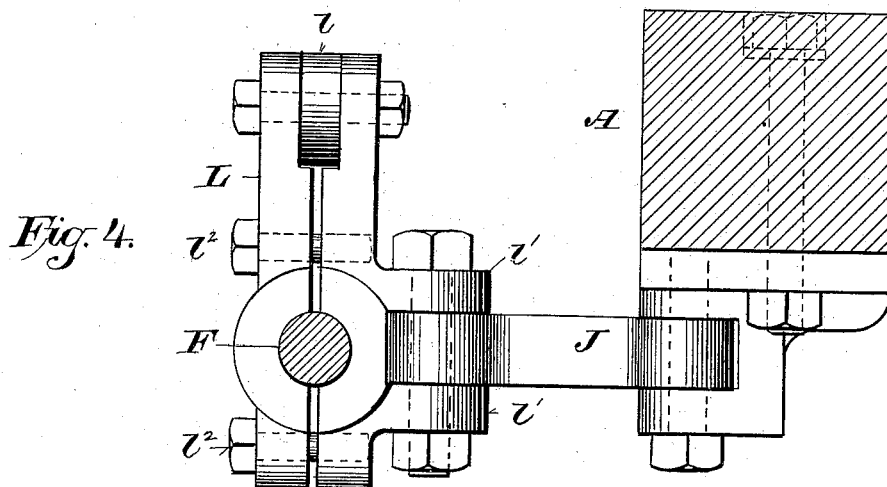
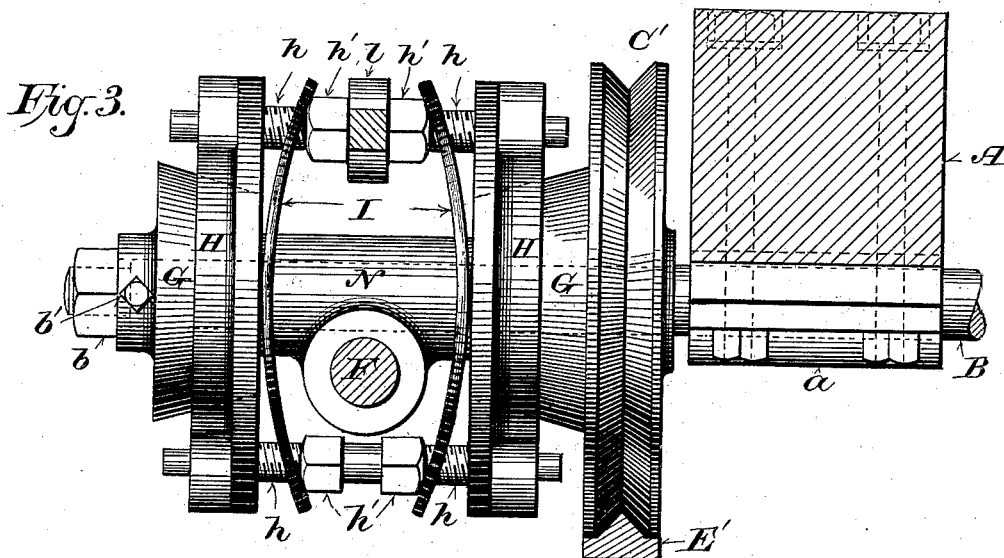
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WILLIAM GOWEN, OF WAUSAU, WISCONSIN.

OFFSETTING MECHANISM FOR SAW-MILL CARRIAGES.

SPECIFICATION forming part of Letters Patent No. 383,460, dated May 29, 1888.

Application filed January 18, 1887. Serial No. 234,703. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GOWEN, of Wausau, in the county of Marathon and State of Wisconsin, have invented certain new and useful Improvements in Offsetting Mechanism for Saw-Mill Carriages; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to move the log out of contact with the saw when the carriage is "gigged" or run back.

It consists, essentially, of the combination, with a log frame or support movable upon its supporting wheels and axles transversely to the line of travel of the carriage, of a sliding rod or bar parallel with the carriage and connecting said wheels and axles and said log-frame together, with means for operating said sliding bar.

In the accompanying drawings like letters designate the same parts in the several figures.

Figure 1 is a plan view of a saw-mill carriage to which my improved offsetting device is applied. Fig. 2 is a side elevation of the same, the outer friction wheel and ring being removed from the right-hand wheel. Fig. 3 is a cross-section, on a greatly enlarged scale, taken on the line *xx*, Fig. 1; and Fig. 4 is a like section taken on the line *yy*, Fig. 1.

A A is the carriage or log supporting frame, of the usual or any suitable form and construction, provided with head blocks D D and mounted upon the axles B B and wheels C C', which run upon rails E E' parallel with the plane of the saw. (Represented by the dotted line 1 1, Fig. 1.) The carriage-wheels C C' on one side of the carriage have grooved faces engaging the V-rail E', upon which they travel, thereby preventing lateral movement of the wheels and axles.

The carriage-frame A is capable of a slight lateral movement upon its supporting-axles B B, between the hubs of the wheels C C', on opposite sides thereof.

The axles B B are extended at the side of the carriage opposite the saw, and upon their extended ends are secured the bevel friction-wheels G G, the inner one of each pair of which may be formed integrally with the adjacent

carriage-wheel C', and the outer one with a collar and nut, *b*, threaded upon the reduced end of each of said axles. By means of the collars and nuts *b b* the adjacent friction-wheels G G may be adjusted to take up wear.

When properly adjusted, they are secured in place by set-bolts *b' b'*.

F is a sliding rod or bar supported parallel with the carriage-frame A in cross-boxes N N, which are mounted on the carriage-axles B B, between the friction-wheels G G. Upon the friction-wheels G G are loosely mounted friction rings H H, having beveled eyes fitted to the beveled faces of said friction-wheels.

Annular springs I I, bent as shown in Figs. 1 and 3, are placed in pairs between the friction-rings H H, so as to bear against their inner faces on opposite sides of the axles B. Pins *h h* pass loosely through the friction-rings H H, above and below the axles B, parallel therewith, and have screw-threads between said friction-rings to receive and engage the adjusting-nuts *h' h'*, which bear against the inner faces of the springs I I, thereby forcing the rings H H outwardly and producing any desired degree of friction between them and the friction-wheels G G, upon which they bear.

Links *l l*, hinged at one end upon the upper pins, *h h*, between the nuts *h' h'*, connect the friction-rings H H with upright bracket-arms L L, secured upon the sliding bar F. The sliding bar F is connected with the adjacent side rail of the carriage-frame A by means of links J J, as seen in Figs 1 and 4.

I prefer to form the bracket-arms L L in two sections, which are secured together to the sliding bar F by bolts *l' l'*. One of said sections is provided with ears *l' l'* for the attachment of the links J J. By thus constructing the bracket-arms L L they may be securely clamped and readily adjusted upon the bar F, and I prefer to set them so that the hubs thereon will strike against the cross-boxes N and thereby limit the movement of the bar F as desired.

Upon the outer end of the box N', mounted upon one of the carriage-axles B, is fulcrumed a lever, M, which, like the friction-rings H, is connected by means of a link, *l*, with an arm, L, on the sliding bar F. The lever M and cross-box N' are retained in place, and wear may be taken up by a collar and nut *m*, similar to those employed in connection with the outer friction-wheels, G G. By means of this

lever M the sliding bar F may be operated by hand, and the carriage-frame A and log supported thereon moved laterally. The action of the friction-rings H H may also be counteracted by the same means, to prevent the log from being offset in "gigging" when the log is in the midst of a cut.

Various modifications may be made in the construction and mode of application of my improved offsetting device to a saw-mill carriage without departure from the spirit of the invention or the principle of its operation, which may be described as follows: The springs I I having been strained sufficiently, by means of the adjusting nuts *h' h'* on the pins *h h*, to produce the friction between the rings H H and friction-wheels G G, required to operate the sliding bar F and shift the carriage-frame upon the axles B B, when the carriage is started forward in the direction indicated by arrows on the drawings, the rings H H are rotated with the friction-wheels G G, and, acting through the links *l l* and arms L L on the sliding bar F, move the latter endwise in the boxes N N till the hub of the forward arm L strikes the adjacent box N, thereby swinging the links J J into a position at right angles to said bar F and moving the carriage-frame A toward the saw, as seen in Fig. 1. The friction-wheels G G, which should be well lubricated, then slip in the rings H H till the movement of the carriage is reversed, when the bar F is moved in like manner in the opposite direction, and the carriage-frame shifted upon its axles away from the saw by the swinging of the links J J out of a position perpendicular to said sliding bar and carriage-frame. If at any time it becomes necessary to run the carriage back before the saw has finished its cut, the action of the friction-wheels G and rings H may be counteracted, and the lateral movement of the log, carrying the board against the saw, prevented by the operator holding the lever M. The lever M may be also employed to operate the offsetting mechanism, and the friction-rings H disconnected from the bar F, if desired.

I do not claim herein, broadly, the combination, in a saw-mill carriage with a laterally movable carriage-frame, of offsetting mechanism and a friction wheel or wheels connected therewith and arranged to move said carriage-frame laterally upon its supporting axles, but make that the subject-matter of another application filed by me October 5, 1886, and numbered 215,460.

I claim—

1. The combination, in a saw-mill carriage, of a log-supporting frame laterally movable upon its axles, a friction-wheel mounted upon one of said axles, a bar supported in bearings upon and movable lengthwise of said carriage and connecting said frame and axles, and a friction shoe or ring working with said friction-wheel and connected with said sliding bar, substantially as and for the purposes set forth.

2. The combination, in a saw-mill carriage, of a log-supporting frame movable laterally upon its axles, a bar linked to said frame and supported and movable endwise in cross-boxes mounted upon said axles, and a lever fulcrumed upon a carriage-axle and connected with said sliding bar, substantially as and for the purposes set forth.

3. The combination, in a saw-mill carriage, of a log-supporting frame movable laterally upon its axles, a sliding bar linked to said frame and supported in boxes mounted upon said axles, and a friction wheel or wheels fixed upon one or more of said axles and connected with said sliding bar, substantially as and for the purposes set forth.

4. The combination, in a saw-mill carriage, of a log-supporting frame laterally movable upon its axles, beveled friction-wheels mounted upon one or more of said axles, friction-rings working with said friction-wheels and connected with said log-supporting frame, and a spring or springs holding said friction-rings in engagement with said friction-wheels, substantially as and for the purposes set forth.

5. The combination, in a saw-mill carriage, of a log-supporting frame laterally movable upon its axles, friction-wheels mounted upon one or more of said axles, friction-rings working with said friction-wheels, and a sliding bar linked to said frame and friction-rings, substantially as and for the purposes set forth.

6. The combination, in a saw-mill carriage, of a log-supporting frame movable laterally upon its axles, a sliding bar connecting said frame and axles, an arm formed in sections bolted upon said sliding bar, and a crank mounted upon one of said axles and connected with said arm, substantially as and for the purposes set forth.

7. The combination, in a saw-mill carriage, of a log-supporting frame laterally movable upon its axles, a sliding bar connecting said frame and axles, and a crank mounted upon one of said axles and connected with said sliding bar, substantially as and for the purposes set forth.

8. The combination, in a saw-mill carriage, of a log-supporting frame laterally movable upon its axles, friction-wheels mounted upon one or more of said axles, friction-rings engaging said friction-wheels, curved annular springs bearing against said friction-rings, threaded pins passing through said rings and provided with adjusting-nuts bearing against said springs, and a sliding bar connecting said frame and axles and connected with one of said pins, substantially as and for the purposes set forth.

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

WILLIAM GOWEN.

Witnesses:

CHAS. L. GOSS,
GEORGE M. GOLL.