(No Model.) 2 Sheets—Sheet 1.

W. GOWEN.

OFFSET MECHANISM FOR SAW MILL CARRIAGES.

No. 401,942. Patented Apr. 23. 1889.

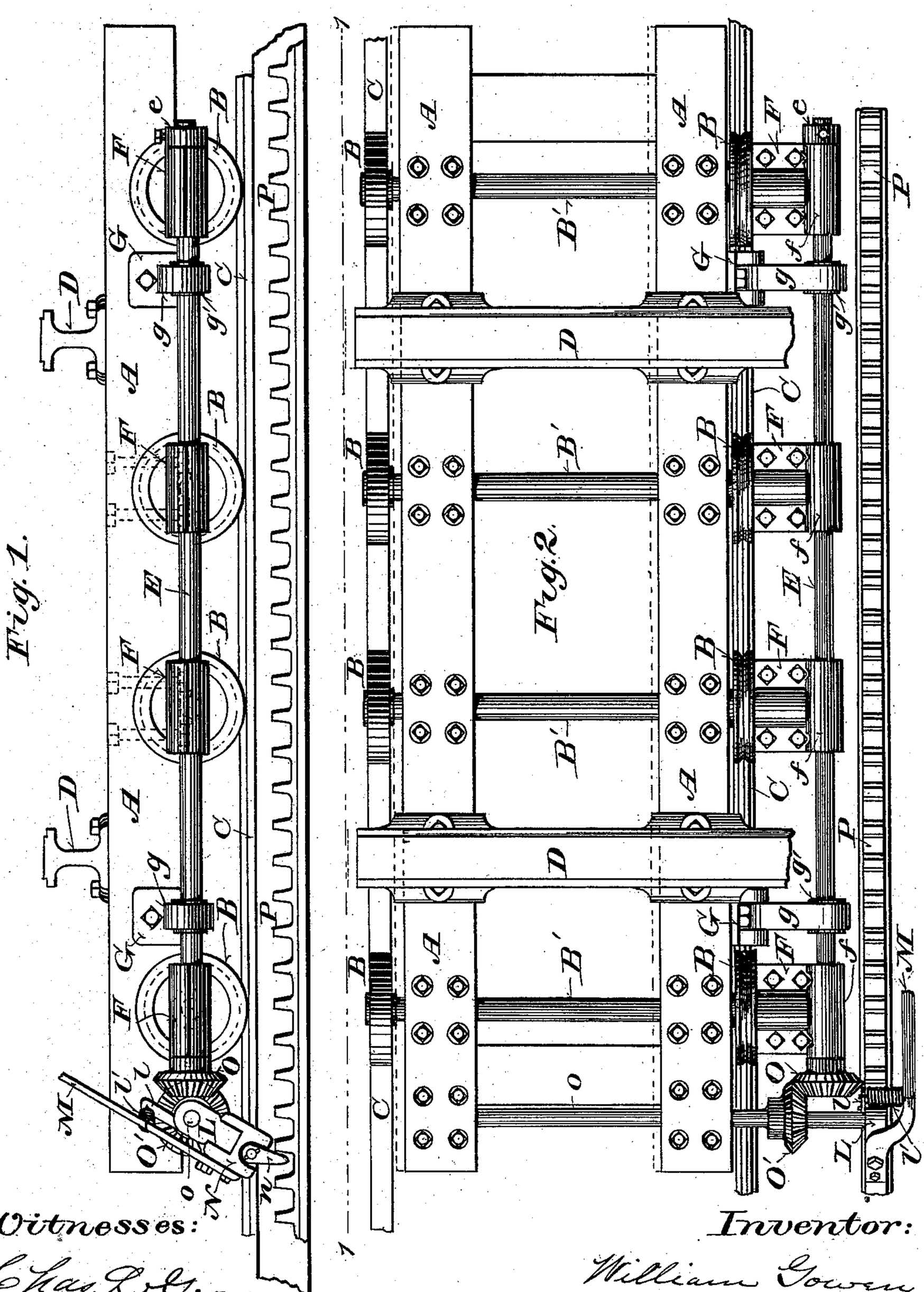


Fig. 1.

Fig. 2.

Witnesses:
Chas. L. Goss.
August Lindemann.

Inventor:
William Gowen,
By D. H. Pattison
Attorney.

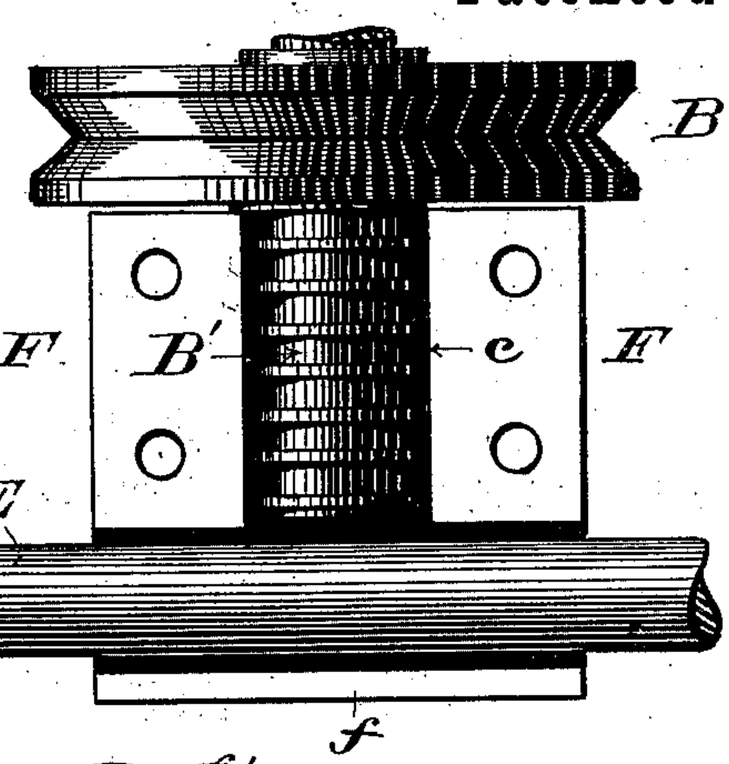
(No Model.) 2 Sheets—Sheet 2.

W. GOWEN.

OFFSET MECHANISM FOR SAW MILL CARRIAGES.

No. 401,942. Patented Apr. 23, 1889.

Fig. 3.



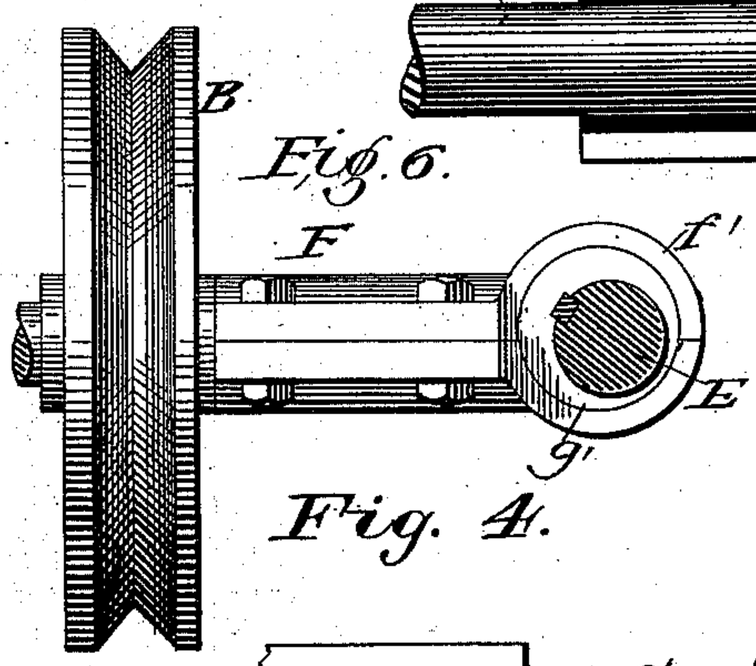


Fig. 6.

Fig. 4.

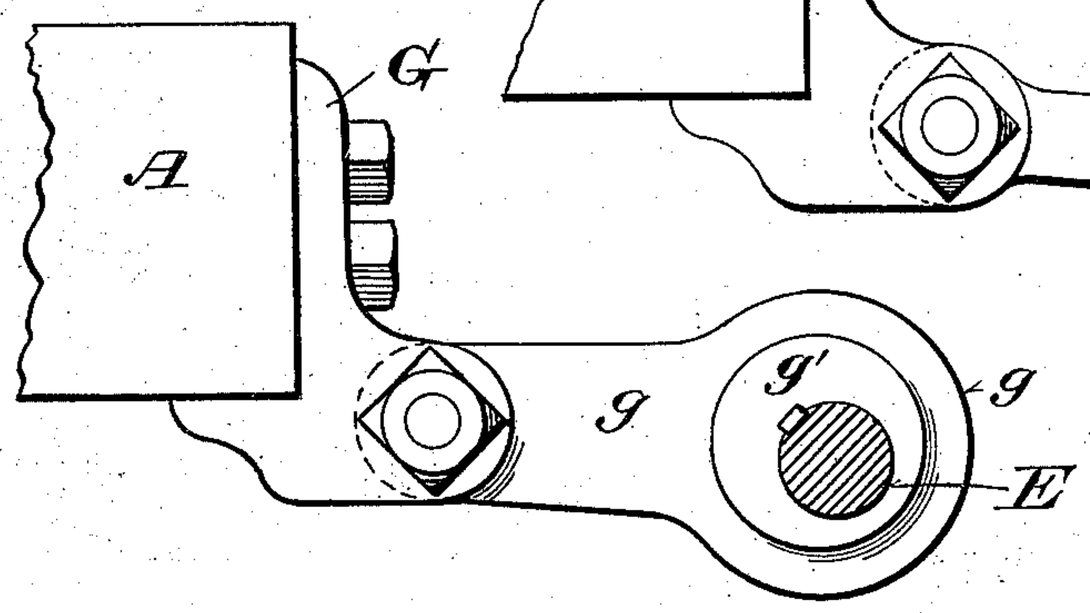


Fig. 7.

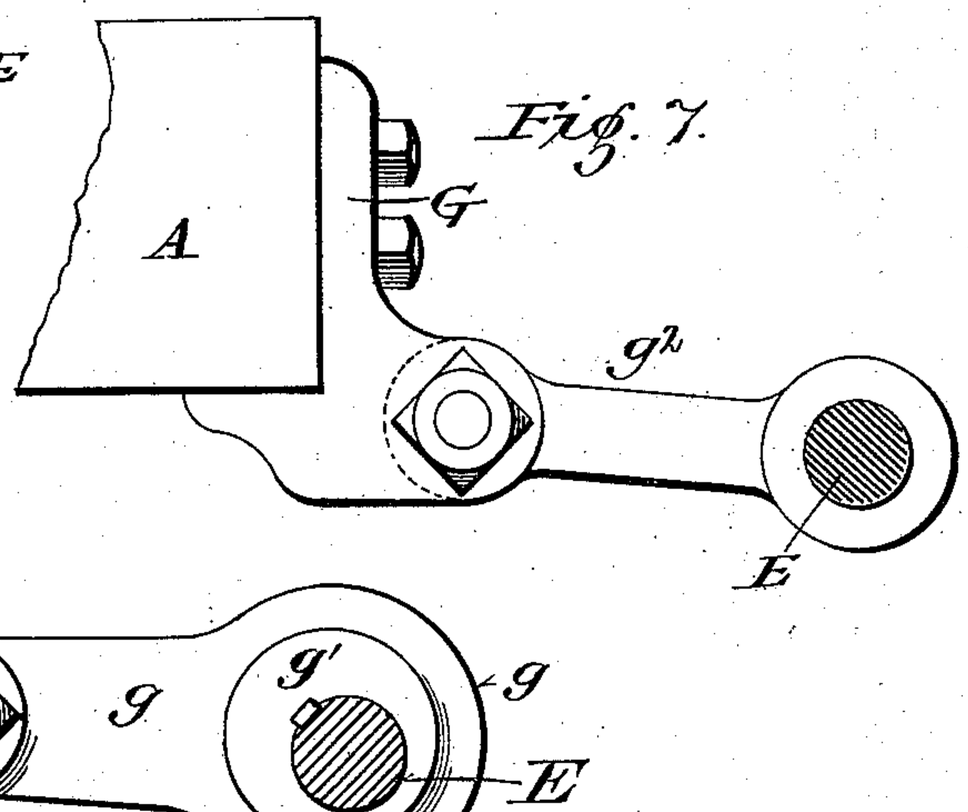
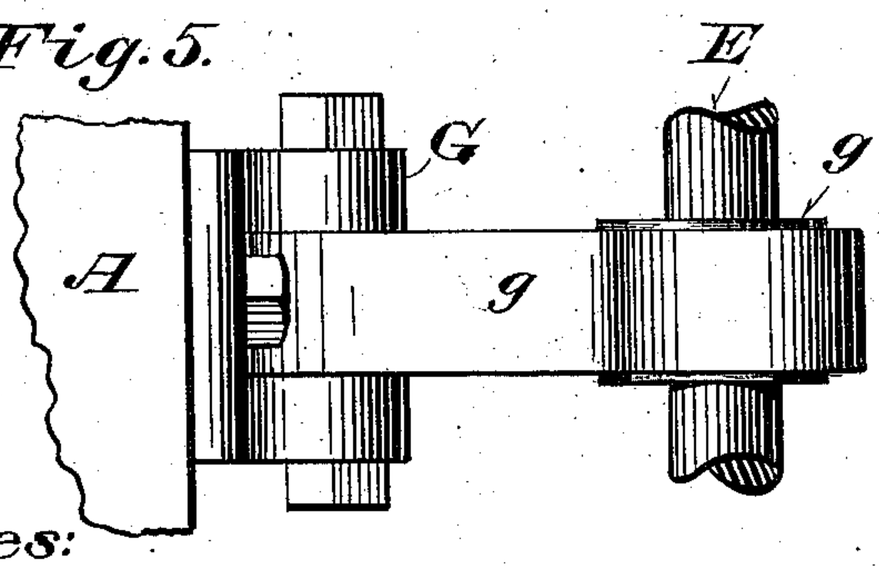


Fig. 5.



Witnesses:
Chas. L. Goss
August Lindemann.

Inventor,
William Gowen
By E. H. Bottum
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM GOWEN, OF WAUSAU, WISCONSIN.

OFFSET MECHANISM FOR SAW-MILL CARRIAGES.

SPECIFICATION forming part of Letters Patent No. 401,942, dated April 23, 1889.

Application filed October 5, 1886. Serial No. 215,461. (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 Offset Mechanisms 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 prevent contact of the log with the saw in "gigging back."

It consists, essentially, of an eccentric or eccentrics applied to the carriage in such manner as to move the carriage-frame alternately upon its supporting trucks or axles toward and from the saw, and of certain other features hereinafter specifically set forth.

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

Figure 1 is a side elevation of a saw-mill carriage embodying my improvements. Fig. 2 is a plan view of the same, and Figs. 3, 4, and 5 are views on an enlarged scale of details, Fig. 3 showing an interior plan view of the T-box by which the eccentric-shaft is connected with the carriage-axles; Fig. 4, a side elevation of one of the eccentrics and its immediate connections; Fig. 5, a plan view of the same; and Figs. 6 and 7 are detail views of modifications.

A A represents the carriage-frame, of the ordinary construction, provided in the usual manner with head-blocks D D, and supported by axles B′ B′ and wheels B B, which are guided and travel upon the usual track or ways, C C, provided therefor. The axles B′ B′ are of sufficient length to permit of the lateral movement of the carriage-frame A required to cause the log to clear the saw in gigging back.

Two or more of the axles B′ B′ are extended at the side of the carriage opposite the saw and formed with annular ribs, as shown in Fig. 3, to engage with and prevent the endwise movement of said axles in the internally-grooved boxes F F.

The boxes F F are formed with transverse boxes *f f*, in which the shaft E is supported at right angles to the axles B′ B′ and parallel to the carriage-frame A.

Upon the shaft E are mounted the eccentrics *g′ g′*, which work in straps or boxes *g g*. The straps or boxes *g g*, in which said eccentrics bear, are formed with arms and hinged to the brackets G G, attached to the carriage-frame A. *o* is a shaft supported in bearings in the carriage-frame parallel with the axles B′ and at right angles to the eccentric-shaft E.

On the side of the carriage adjacent to the shaft E the shaft *o* is extended, and provided at the end with an arm, L, at right angles thereto, and between said arm and the carriage-frame A with a small bevel-gear, O′, arranged to work with a similar gear, O, on the adjacent end of shaft E. To the arm L is hinged the block N, which is recessed to receive and permit of a limited movement of the gravitating tooth *n*, pivoted thereto, the block L swinging in a plane transverse to the travel of the carriage and the tooth *n* in a plane parallel therewith.

P is a rack secured to the floor or framework of the mill parallel with the carriage and in the proper position to engage the gravitating tooth *n*. To the block L is secured a lever or handle, M, by means of which said tooth *n* may be thrown out of engagement with said rack and the offsetting mechanism operated when desired. A spring, *l′*, connecting said handle M with a projection, *l*, formed on the block N, retains the tooth *n* in its normal or working position.

I prefer to form the interior of the boxes F F of Babbitt metal, *c*, which accurately conforms to the ribs and grooves of axles B′ B′, which bear therein. The eccentrics *g′ g′* may be arranged to work in boxes *f′*, formed therefor, in connection with boxes F F, as shown in Fig. 6, and the shaft E connected, by links g^2, with the carriage-frame A, as shown in Fig. 7, in which case any suitable form of reversing and actuating mechanism may be employed to operate the eccentrics in place of the gravitating tooth, rack, and their connections. In short, the details of my invention may be variously modified without departure from its spirit.

My improved device operates as follows:

When the carriage is started forward, the tooth *n* engages with the adjacent tooth in rack P, which turns the shaft *o* and the eccentric-shaft E through gears O and O′, till the arm L passes its perpendicular and said tooth *n* is liberated and is drawn loosely over the teeth of said rack. The eccentrics *g′ g′*, operating through the straps *g g* upon the carriage-frame A, carry it upon its axles B′ B′ toward the saw (the plane of which is represented by the line 1 1) into the position indicated by dotted lines in Fig. 2. When the movement of the carriage is reversed, the tooth *n*, dropping between the adjacent teeth of rack C, swings the arm L and turns the shafts *o* and E in the reverse direction, withdrawing the carriage-frame A to its first position and carrying the log away out of contact with the saw while the carriage is run or "gigged" back.

I do not claim herein the combination, with a guiding-track, of a log-supporting frame, its supporting-axles and wheels, and a hand-lever connecting said log-supporting frame and axles and adapted to move said log-supporting frame independently of the carriage-feeding mechanism lengthwise of said axles; nor do I claim herein the combination of a log-supporting frame and its wheels and axles with a guiding-track with reference to which said wheels are transversely immovable, and a rock-shaft connecting said log-supporting frame and said wheels and axles, but make said combinations the subject-matter of an application for United States Letters Patent filed December 27, 1886, Serial No. 222,607; and I do not make claim in this application to the combination, with a log-frame movable laterally upon its supporting-axles, of offsetting mechanism connecting said frame and axles, and a vibrating arm working in the direction of the travel of the carriage, with a rack or rail to actuate said offsetting mechanism when the travel of the carriage is reversed.

I claim—

1. The combination, in a saw-mill carriage, of a log-frame movable laterally upon its supporting-axles, one set of boxes connected with said log-frame, another set of boxes connected with its axles, a shaft supported lengthwise of said carriage in one set of boxes, eccentrics fixed upon said shaft and working in the other set of boxes, and means for turning the eccentric shaft, whereby said frame is moved lengthwise of said axles, substantially as and for the purposes set forth.

2. The combination, in a saw-mill carriage, of a log-frame movable laterally upon its supporting-axles, a shaft journaled lengthwise of said carriage in cross-boxes mounted upon said axles, eccentrics fixed upon said shaft, straps or links hinged to said log-frame and working with the peripheries of said eccentrics, and means for turning said eccentric-shaft, substantially as and for the purposes set forth.

3. The combination, in a saw-mill carriage, of a log-frame movable laterally upon its supporting-axles, of a shaft supported in suitable bearings lengthwise of the carriage, eccentrics fixed upon said shaft and working in bearings attached to said frame, a shaft journaled transversely to the carriage and geared with the eccentric-shaft, and an arm or lever attached to said transverse shaft, substantially as and for the purposes set forth.

4. The combination, in a saw-mill carriage, of a log-frame movable laterally upon its supporting-axles, eccentrics mounted upon a shaft set lengthwise of said carriage and working in bearings attached to said frame, a transverse shaft geared with said eccentric-shaft, and an arm mounted upon said transverse shaft and working in the direction of the travel of the carriage, and a rack or rail to actuate said eccentrics and move said log-frame lengthwise of its axles, 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.