

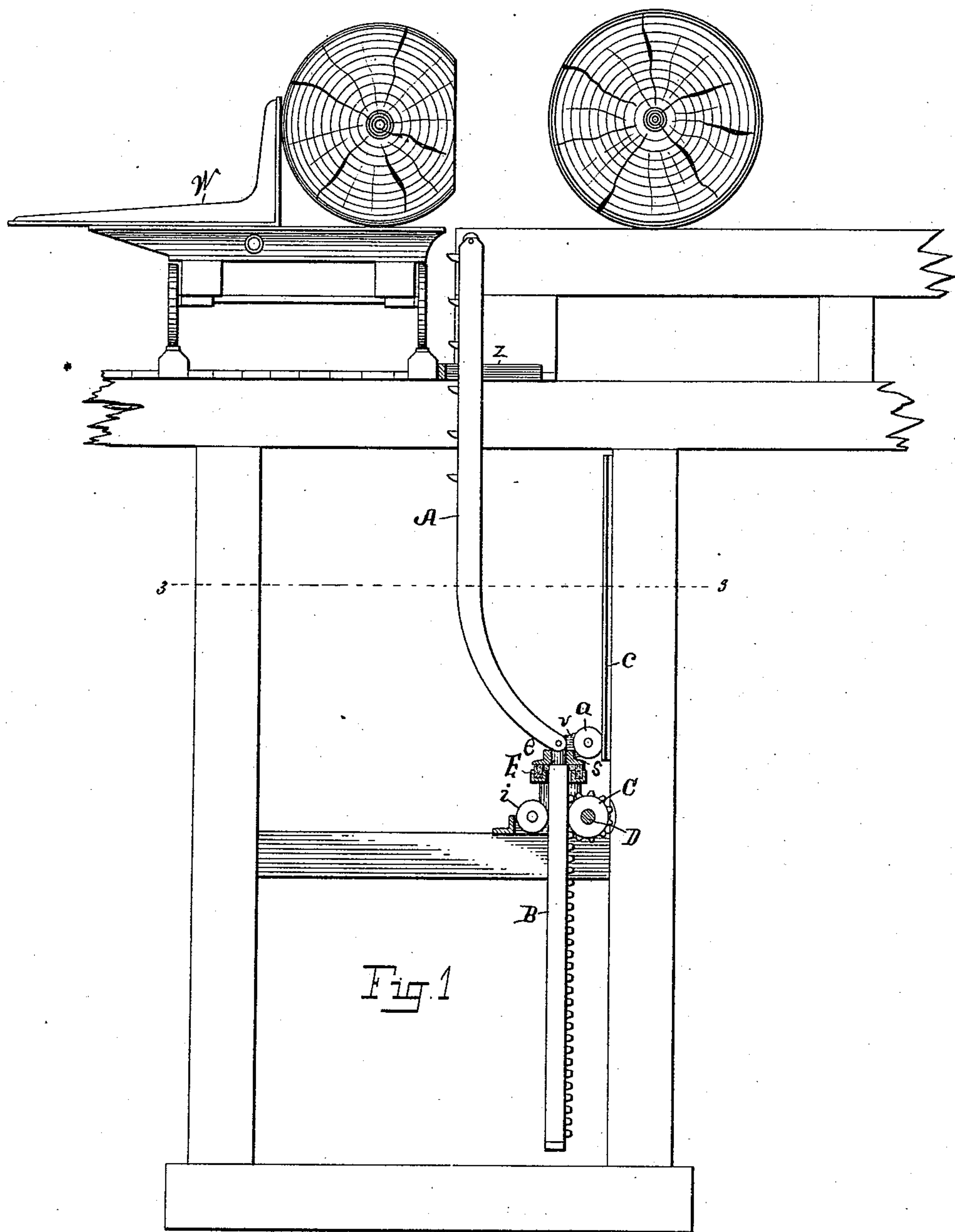
(No Model.)

2 Sheets—Sheet 1.

W. E. HILL.
LOG TURNER.

No. 485,696.

Patented Nov. 8, 1892.



Witnesses:

Walter S. Wood
Marian S. Lygier

Inventor.

William E. Hill
By *Lucius C. Mesh*
Att'y.

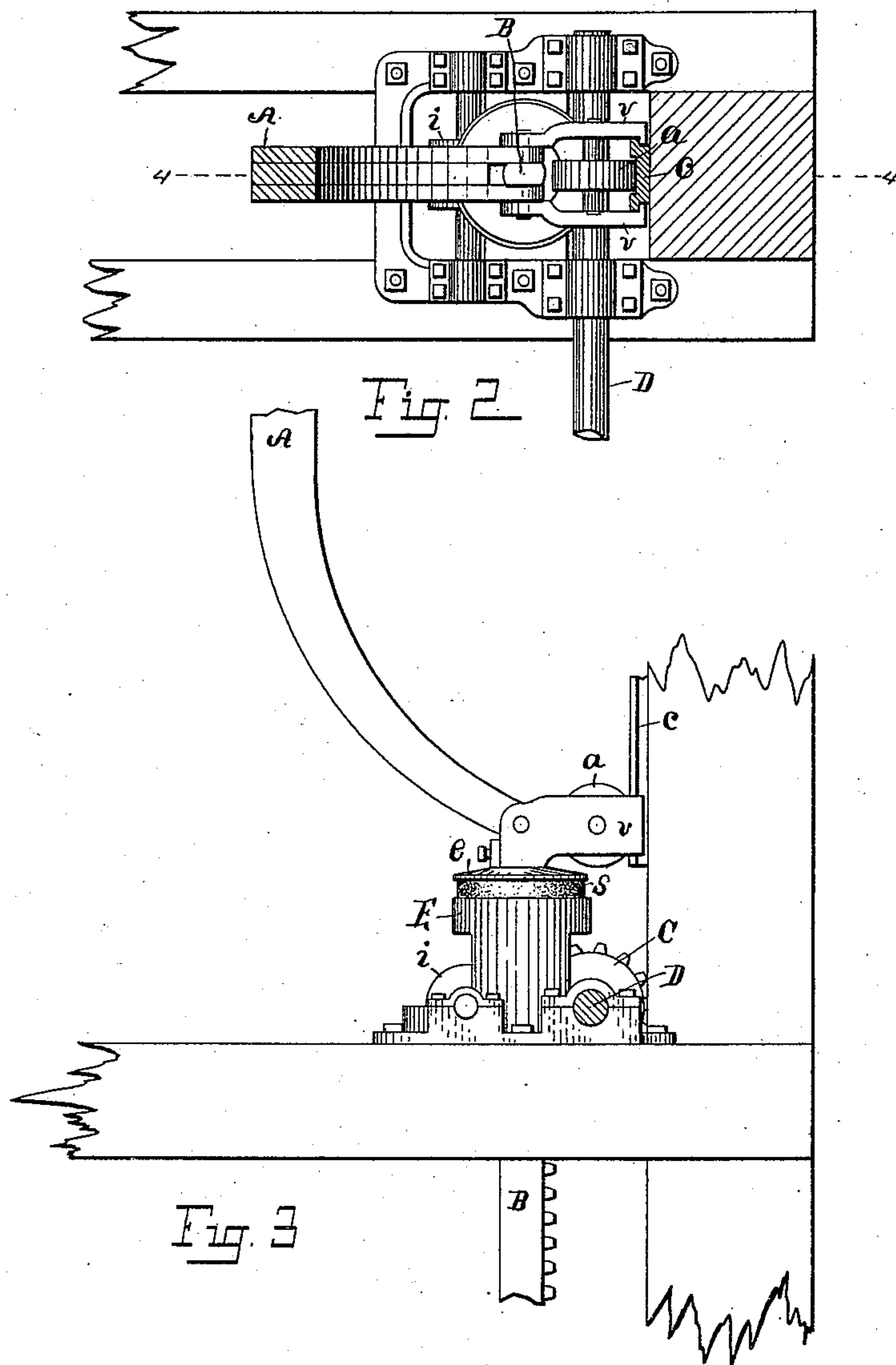
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2 Sheets—Sheet 2.

W. E. HILL.
LOG TURNER.

No. 485,696.

Patented Nov. 8, 1892.



Witnesses:

Walter S. Wood
Marian Longyear

Inventor.

William E. Hill
By *Lucius C. Wash*
Att'y.

UNITED STATES PATENT OFFICE.

WILLIAM E. HILL, OF KALAMAZOO, MICHIGAN.

LOG-TURNER.

SPECIFICATION forming part of Letters Patent No. 485,696, dated November 8, 1892.

Application filed February 15, 1892. Serial No. 421,663. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. HILL, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented a new and useful Log-Turner, of which the following is a specification.

This invention consists in a construction in which a vertically-playing tooth-bar is operated by a rack and pinion and performs simply the office of turning the log on the carriage instead of turning as well.

In the drawings forming a part of this specification, Figure 1 is a sectional elevation on line 4 4 in Fig. 2. Fig. 2 is a section on line 3 3 in Fig. 1, looking from a point above; and Fig. 3 shows enlarged lettered details from Fig. 1.

Referring to the lettered parts of the drawings, D is a power-shaft mounted in bearings in the frame of the mill, said power-shaft bearing a pinion C. At B is a rack arranged to reciprocate and mesh with said pinion. At *i* is a friction-roller arranged in relation to the pinion, so that the rack B will play between said roller and pinion and be thus kept in place. The tooth-bar A is pivoted at its lower end to the upper end of the rack B. Attached to the upper end of the rack is a guide-bracket *v*, which has a sliding connection with a guide-plate *c*, attached to one of the posts of the mill-frame. Said bracket is provided with a friction-roller *a*, which comes in contact with the guide-plate *c*; but this bracket may be modified, if desired, so long as it steadies and guides the rack with as little friction as possible. The upper end of the rack B is provided with a cap *e*. The rack B plays through a pillar or cushion-support E, projecting upwardly from the casting which supports the bearings for the power-shaft D and friction-roller *i*. Between the

cap *e* and the upper end of the cushion-support is a rubber cushion S, the object of which is to cushion the shock when the tooth-bar assumes its down position after operating upon the log. In some instances this cushion may not be needed. While rubber for the cushion is preferable, it of course may be a metal spring or a dash-pot or otherwise.

In the operation power is applied to the shaft D, which moves the rack B and tooth-bar A upward, during which action the teeth of the tooth-bar engage the side of the log on the carriage *w* and turn said log. The tooth-bar in its reciprocating movements of course plays through a guide-plate *z*, Fig. 1, to keep it in approximately an upright position. This simple construction will be found very useful by millmen who simply want a device for turning the log, thus not necessitating the need of purchasing a more expensive machine, which would also load the log.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent or the United States, is—

The combination of a power-shaft bearing a pinion, a reciprocating rack meshing with said pinion, friction-rollers, and guideways for steadying and keeping the rack in place, said rack being provided with a cap at the upper end, a cushion-support, a cushion between said cap and support, and a tooth-bar attached to the end of said rack, substantially as set forth.

In testimony to the foregoing I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM E. HILL.

Witnesses:

WILLIAM CROTY,
MARIAN LONGYEAR.