

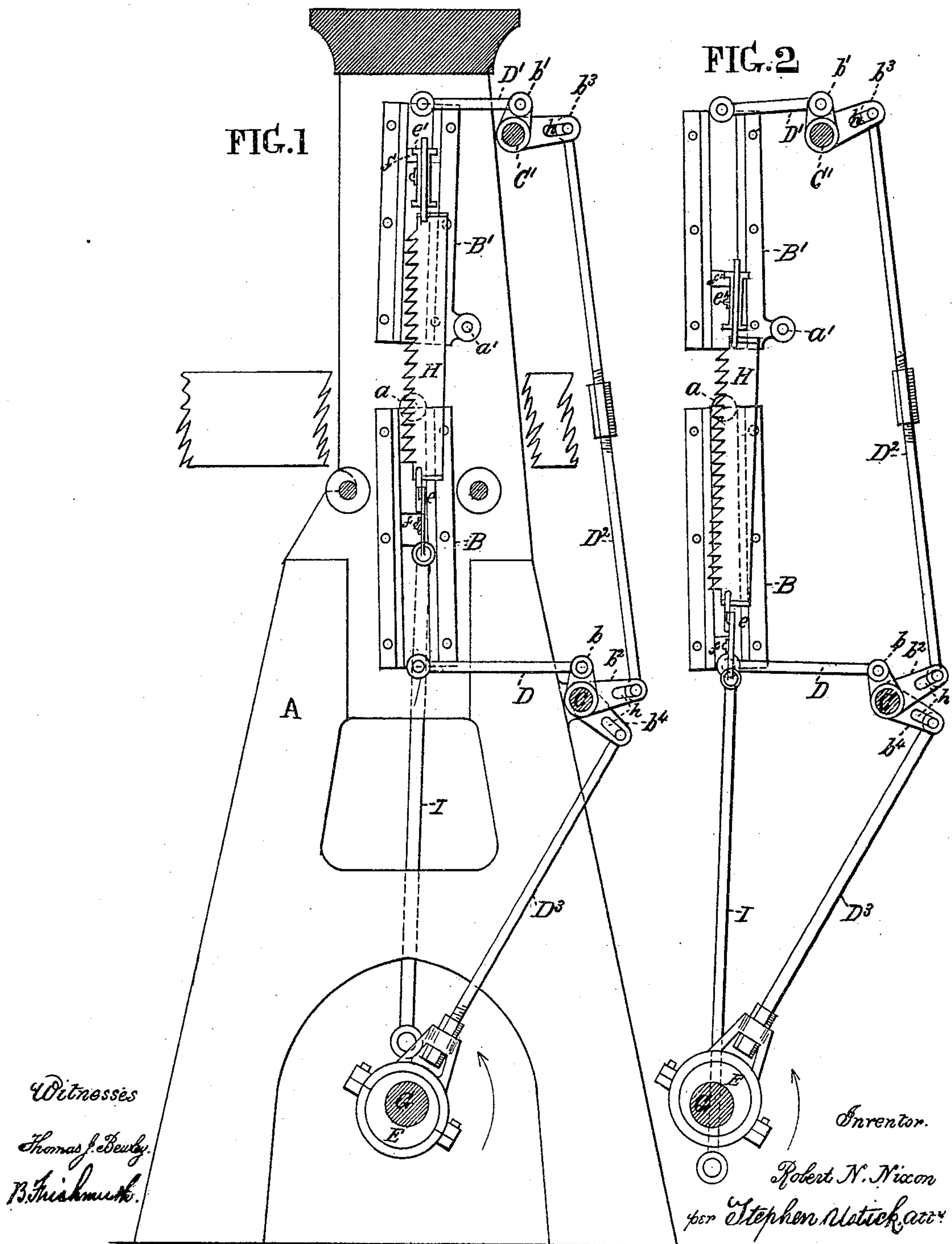
(No Model.)

R. N. NIXON.

MECHANISM FOR OPERATING THE OSCILLATING SLIDES OF GANG SAWS.

No. 267,449.

Patented Nov. 14, 1882.



# UNITED STATES PATENT OFFICE.

ROBERT N. NIXON, OF DUBUQUE, IOWA, ASSIGNOR OF ONE-HALF TO  
CLARENCE J. LESURE, OF SAME PLACE.

MECHANISM FOR OPERATING THE OSCILLATING SLIDES OF GANG-SAWS.

SPECIFICATION forming part of Letters Patent No. 267,449, dated November 14, 1882.

Application filed August 16, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT N. NIXON, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Operating Oscillating Slides of Gang-Saws, of which the following is a specification.

The nature of my invention consists in the pivoting of the upper ends of the lower and the lower end of the upper oscillating slides of gang-saws to the housings, and the movement of their opposite ends by means of rock-shafts and connecting-rods, and an eccentric or eccentrics, as hereinafter described. By such an arrangement the location of the pivots is brought opposite the hardest part of the work, whereby to avoid the springing of the saws, consequent upon a different arrangement.

Figure 1 in the accompanying drawings represents a side elevation of the mill with one of the housings removed. Fig. 2 is a diagram representing the saw in its downward position.

A represents one of the housings; B, a lower, and B' an upper, oscillating slide. The upper end of the lower slide, B, is connected with the housing A by means of the pivot *a*, and the lower end of the upper slide, B', is connected with it, in like manner, by means of the pivot *a'*.

C and C' are rock-shafts which are journaled to the housings, having arms *b* and *b'*, respectively. The arm *b* of the rock-shaft C is connected with the lower end of the slide B by means of the connecting-rod D, and the arm *b'* of the rock-shaft C' is connected with the upper end of the upper slide, B', by means of the connecting-rod D'. The rock-shaft C has a second arm, *b*<sup>2</sup>, and the rock-shaft C' a second arm, *b*<sup>3</sup>, and the said arms *b*<sup>2</sup> and *b*<sup>3</sup> are connected together by means of the connecting-rod D<sup>2</sup>.

E is an eccentric on the driving-shaft G, which is connected with the arm *b*<sup>4</sup> of the rock-shaft C by means of the connecting-rod D<sup>3</sup>.

H is one of the saws, connected with the lower and upper rails, *e e'*, of the saw-frame. The frame has sliding boxes *f* and *f'*, which move in the grooves of the slides B and B'.

I is the pitman, connected at its upper end with the lower rail, and at its lower end with the crank-arm *g* of the driving-shaft G, in the usual manner.

The arms *b*<sup>2</sup> *b*<sup>3</sup> *b*<sup>4</sup> of the rock-shafts C and C' have slots *h* for regulating the position of the joint-pins for the purpose of accurately adjusting the positions of the oscillating slides at the commencement of the downward stroke of the pitman.

The operation is as follows: The saws being at the commencement of the downward stroke of the pitman in the position shown, and the driving-shaft G revolving in the direction of the arrow, the eccentric E, acting through the rock-shafts and connecting-rods above described, bears the lower ends of the oscillating slides B and the upper ends of the slides B' forward, as indicated by the arrows, until the crank-arm *g* has made one-half of a revolution, and the saw and slides are brought into the position represented in the diagram, Fig. 2. In the upward stroke of the pitman a reverse movement is given by the eccentric G and the intermediates to the slides B and B', whereby at the termination of the stroke they again come into the position represented in full lines, whereby the saw is drawn backward to clear the teeth of the sawdust, and out of the way of the feed of the log.

I claim as my invention—

The combination of the oscillating slides B and B' with the connecting-rods D and D' and rock-shafts C and C', operated by suitable mechanism, the slides being pivoted at their inner ends to avoid the springing of the saws, substantially as described.

ROBERT N. NIXON.

Witnesses:

A. CAIN,  
W. H. DAY.