(No Model.)

T. S. WILKIN.

GANG SAW MILL.

No. 291,256. Patented Jan. 1, 1884.

Fig. 1.

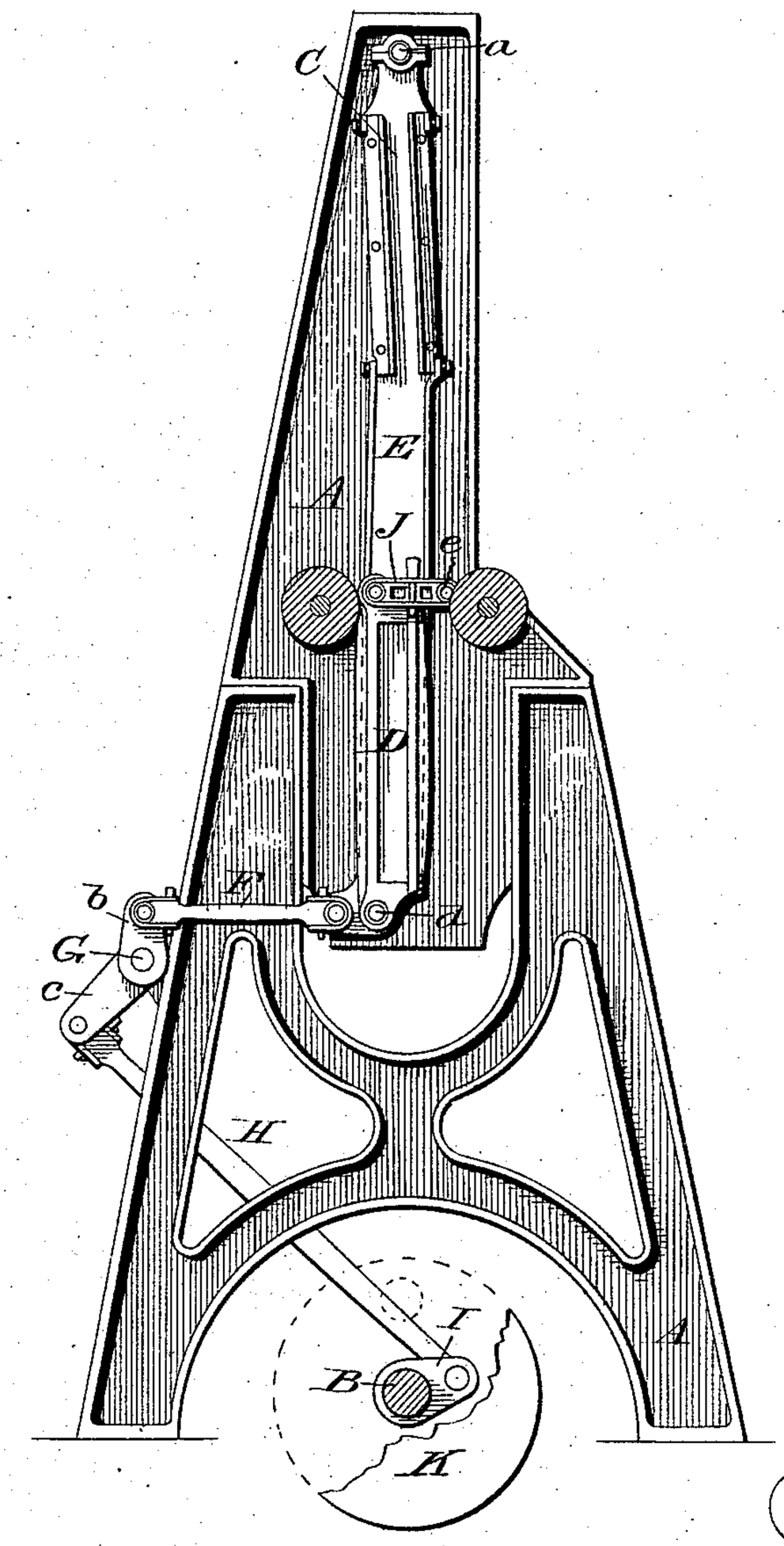
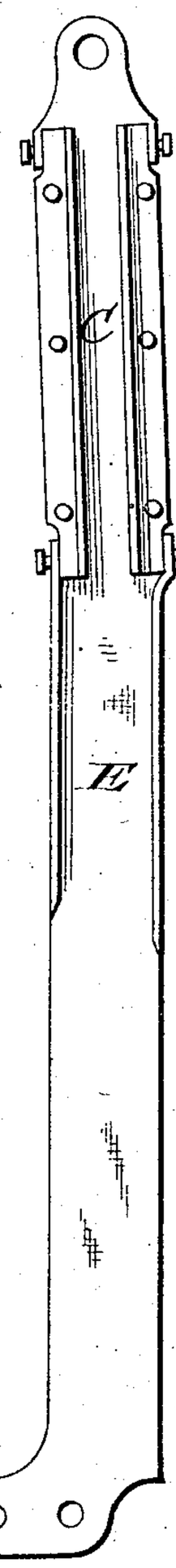


Fig. 2.



WITNESSES

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THEODORE S. WILKIN, OF MILWAUKEE, WINCONSIN.

GANG-SAW MILL.

SPECIFICATION forming part of Letters Patent No. 291,256, dated January 1, 1884.

Application filed August 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, THEODORE S. WILKIN, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain Improvements in Gang-Saw Mills, of which the following is a specification.

My invention relates to gang-saw mills; and it consists in a novel manner of mounting and oscillating the guides in which the sash or gate travels, as hereinafter more fully explained.

In the accompanying drawings, Figure 1 represents a vertical section taken through the gang-frame from front to rear, with the sash or gate removed; Fig. 2, a face view of the upper guide-bearing plate or bar.

The present invention is designed as an improvement upon that for which Letters Patent were issued to me bearing date January 25, 1881, and numbered 236,968, and is intended to give essentially the same result or effect. With this end in view I construct the apparatus as represented in the accompanying drawings, in which—

A represents the usual gang-frame; B, the main driving-shaft; C, the upper guide, and D the lower guide, at one side of the sash or gate, there being, of course, an upper and lower guide at both sides. The upper guides C are secured each to a long pendulous plate or bar, E, sustained at the upper end by a pin, *a*, upon which the arm swings or oscillates, as presently explained. The lower end of the plate or bar E, which extends to or slightly below the lower extremity of lower guide, D, is connected by a link or pitman, F, to a crank-arm, *b*, upon a shaft, G, carrying a second crank-arm, *c*, at an angle to the first, and connected by a pitman, H, to a crank, I, on the main shaft B, as is common in this class of saw-mill machinery. Any equivalent intermediate connections may obviously be used between the plate or bar E and crank I. The lower guide, D, is pivoted at its lower end to the plate or bar E by a pivot-pin, *d*, and is jointed at its upper end to a link, J, pivoted to the frame A at *e*. Under this construction it follows that the upper and lower guides will oscillate in unison when motion is imparted to the plate or bar E by crank I through the intermediate connections above described—that is to say, the lower end of both will swing forward or backward at the same time, though the lower guide, D, will have a larger range of movement than the upper guide, owing to the fact the actuating devices connect with it much nearer its pivot than they do with upper guide, C.

The sash or gate is of ordinary construction, and is furnished with blocks at its sides to run in the guide-plates, as usual; but as such parts are perfectly well known it is unnecessary to show or describe them here.

K represents the crank-wheel, by which motion is given to the sash or gate.

The crank I, for effecting the oscillation, may be set at any desired angular distance around the shaft B relatively to the main or sash-crank pin to cause the oscillation to occur at proper times relatively to the stroke of the saws, the purpose being to cause the saws to press gradually into the log on the downward stroke, and to recede on the upward stroke to prevent dragging.

The above-described construction is simple and efficient, avoiding the intermediate connections commonly required between the oscillating mechanism of the upper and lower guides, and avoiding the play due to a greater number of joints.

The oscillation of the bar E may manifestly be effected in any other convenient or usual manner instead of by crank I, though that is considered most convenient.

Having thus described my invention, what I claim is—

1. In a gang-saw mill, the combination of a frame and oscillating mechanism, consisting of a pendulous bar carrying the upper guide, a lower guide pivoted at its lower end to said bar, and supported at its upper end by a link pivoted to the frame, a driving-shaft, a crank upon said shaft, and intermediate mechanism, substantially such as described and shown, connecting the pendulous bar and the crank, and adapted to impart a swinging motion thereto.

2. In a gang-saw mill, the combination of a pendulous bar, an upper guide carried thereby, a lower guide pivoted to the pendulous bar, and connected by a link to the frame of the machine, and means, substantially such as shown and described, for imparting a swing-

ing motion to the pendulous bar, for the purpose set forth.

3. In a gang-saw mill, oscillating mechanism consisting of pendulous bar E, carrying guide C, lower guide, D, pivoted to said bar, and connected by a link, J, with the main frame, pitman F, crank-arms *b c*, pitman H, and crank I, all constructed and arranged to operate substantially as shown and described.

THEODORE S. WILKIN.

Witnesses:
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