

Patented Jan. 21, 1879.

Fig. 1. A perspective view of a mechanical device, likely a printing press component, showing a base (A) with four legs, a top plate (B) with a handle (D), and various internal mechanisms including gears (F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z) and a central shaft (C).

Fig. 2. A diagram of a mechanical system for lifting a weight. A horizontal beam is supported by two pillars. A pulley is mounted on the beam, and a rope is attached to a weight hanging from it. The rope is also attached to a pulley on the beam. The weight is labeled 'G' and the pulley is labeled 'H'. The beam is labeled 'B' and the pillars are labeled 'A'.

AB arthel
H. Stanley

J. F. Wilson
By Atty
Jas S. Sprague

UNITED STATES PATENT OFFICE

JAMES D. WILSON, OF MONTAGUE, MICHIGAN, ASSIGNOR TO HIMSELF AND
MALCOLM HENDRIE, OF SAME PLACE.

IMPROVEMENT IN ATTACHMENTS TO CIRCULAR-SAW-MILL CARRIAGES.

Specification forming part of Letters Patent No. **211,538**, dated January 21, 1879; application filed
September 21, 1878.

To all whom it may concern:

Be it known that I, JAMES D. WILSON, of Montague, in the county of Muskegon and State of Michigan, have invented an Improvement in Attachments to Circular-Saw-Mill Carriages, of which the following is a specification:

The nature of my invention relates to certain new and useful improvements in an attachment for the carriages of circular-saw mills, by means of which the carriage can be started in either direction, thereby relieving the machinery employed in driving said carriage from the sudden and severe strain to which it is subjected in reversing the motion.

The invention consists in the peculiar construction and arrangement of a weight, chain or belt, and sheaves, with a circular-saw carriage, as more fully hereinafter set forth and described.

Figure 1 is a perspective of a section of a saw-mill, showing the lower and upper floors, a circular-saw-mill carriage upon its ways, and my improvement attached. Fig. 2 is a vertical longitudinal section, showing the arrangement of the parts of the attachment.

Like letters indicate like parts in each figure.

In the accompanying drawings, which form a part of this specification, A represents the lower floor of the mill; B, the upper floor, upon which are secured the ways C, upon which the carriage D travels. Midway between the ends of the ways, and underneath the floor B, there are secured suitable pillow-blocks E, into which the journals of the sheaves F are journaled, so that the upper part of said sheaves pass through a suitable opening in the floor, between the ways. G is a weight,

preferably made of cast-iron, into the upper end of which is journaled the axis of the sheave H, between the ears of the weight. Upon the two sides of the weight is cast a lug, I, with a vertical circular orifice therein to embrace the guide-rods J, one of which is properly secured in a vertical position at each side of the weight; or, if preferred, the weight may work upon vertical slides in the manner of a cross-head. A chain, K, or its equivalent belt, is secured underneath the upper floor. Its free end is then led under the sheave H, thence upward between the sheaves F, and is secured to the longitudinal center of the carriage in such manner that when the carriage is immediately over the sheaves the weight will be free from the lower floor of the mill and suspended upon the chain.

In practice, the travel of the carriage in either direction will draw up the weight, the chain running over the sheave nearest the ends of the ways toward which the carriage is traveling. As soon as the carriage has completed its travel in the forward direction, and this direction is to be reversed, the weight materially assists the motive machinery of the carriage in changing its direction.

What I claim as my invention, and desire to secure by Letters Patent, is—

The weight G, reciprocating between guides J, chain K, sheaves F and H, arranged as described, in combination with the mill-floor B and carriage D of a circular-saw mill, substantially as and for the purposes set forth.

JAMES D. WILSON.

Witnesses:

WM. H. LOBDELL,
HENRY DOUVILLE.