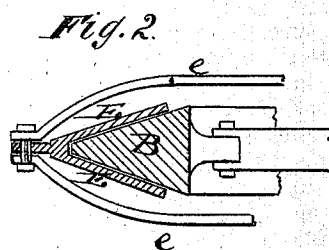
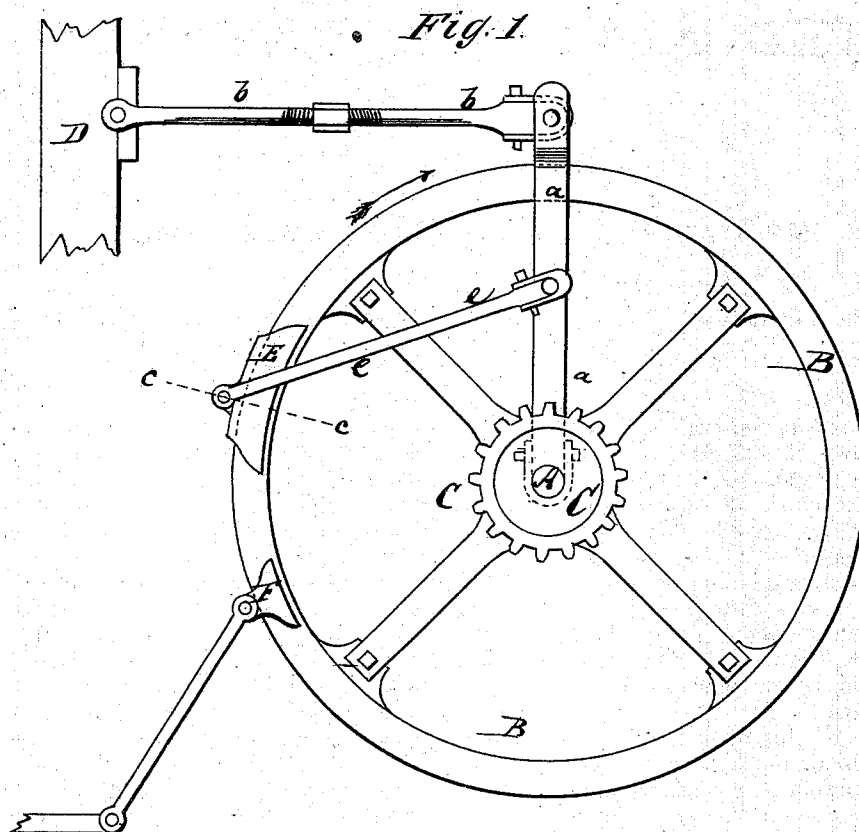


J. KERR.
Feed-Wheels for Saw-Mills.

No. 146,186.

Patented Jan. 6, 1874.



Witnesses.

E. Wolff.
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UNITED STATES PATENT OFFICE.

JOHN KERR, OF MILLTOWN, CANADA.

IMPROVEMENT IN FEED-WHEELS FOR SAW-MILLS.

Specification forming part of Letters Patent No. **146,186**, dated January 6, 1874; application filed December 1, 1873.

To all whom it may concern:

Be it known that I, JOHN KERR, of Milltown, in the parish of St. Stephen, county of Charlotte, Province of New Brunswick and Dominion of Canada, have invented a new and Improved Feed-Wheel for Saw-Mills, of which the following is a specification:

Figure 1 is a side view of my improved feed-wheel. Fig. 2 is a detail section thereof, taken on the line *cc*, Fig. 1, and on an enlarged scale.

Similar letters of reference indicate corresponding parts.

The object of this invention is to produce a feed mechanism for saw-mill, which will be absolutely regular, and equalize the movements of the saw-carriage to such an extent that each cut or stroke of the saw will be equal to every other cut or stroke. The invention consists in the application of a friction-shoe to the V-shaped rim of the feed-wheel, and in its connection with the operating mechanism in manner that will, when the shoe is drawn in one direction, cause the wheel to be turned, while the wheel will not be turned when the shoe is moved in the other direction.

A in the drawing represents the shaft of the feed-wheel B, carrying also a pinion, C, that meshes into the teeth of the carriage-rack. *a* is an arm or arms hung loosely on the shaft A, and connected at the upper end or ends by a rod, *b*, with the operating lever or bar D. The rim of the wheel B is V-shaped, as shown in Fig. 2. E is a leather or rubber lined shoe, fitting the rim of the wheel B, and connected

by a lever or rod, *e*, with the arm *a*. F is a friction-pawl, also made to fit and straddle the V-shaped rim of the wheel, with the object of preventing the return motion of the wheel. Whenever the bar or lever D is moved toward the wheel, the shoe will be drawn so as to turn the wheel in the direction of the arrow shown in Fig. 1. When the bar or lever D is moved away from the wheel, the shoe will not clamp on the rim of the same, but will slide loosely back, while the pawl prevents the wheel from turning back. Thus, by equal strokes of the lever D, the intermittent rotary movement of the wheel will be absolutely equal, noiseless, and easy, and the saw-carriage will, consequently, be fed forward after each stroke or cut of the saw or saws in an entirely equal degree.

The movement of the wheel B can be varied by lengthening or shortening the rod *b*, for which purpose the same is provided with a right-and-left-hand nut, in manner indicated in Fig. 1.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The feed-wheel B, having a V-shaped rim, and arranged in conjunction with the shoe E, arm *a*, and operating-lever D, and with the pawl F, substantially as herein shown and described.

Witnesses:

E. S. SMITH,
JAS. T. BIXLEY.

JOHN KERR.