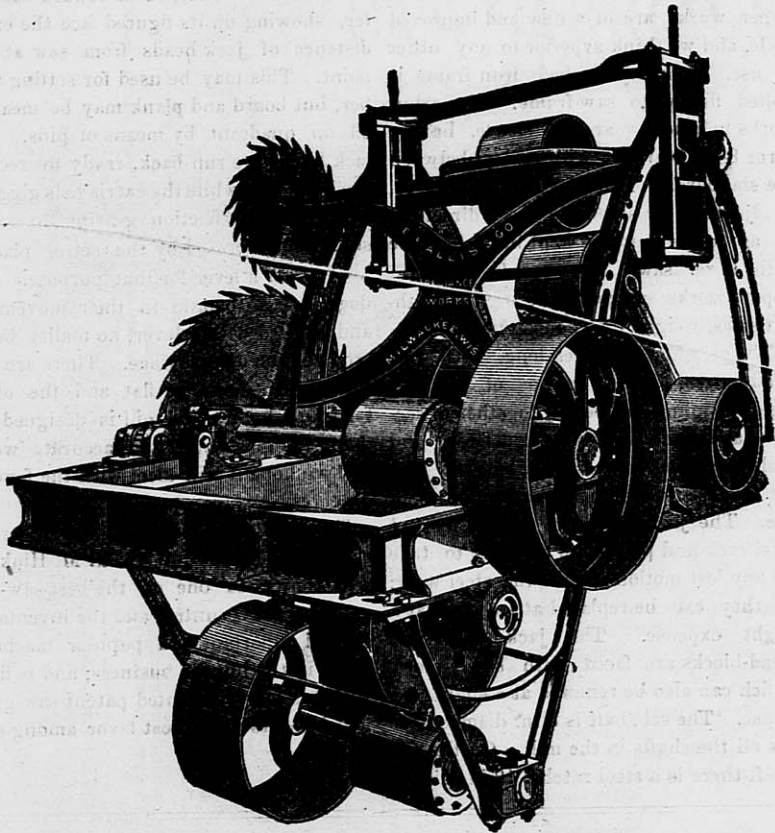


# New Iron Frame Double Circular Saw-Mill.



A Description of Interest to Practical Mill-Men—A Fine Product of the Reliance Works of E. P. Allis & Co.

We present above an illustration of a new Iron Frame Double Circular Saw Mill recently placed before the public by Messrs. E. P. Allis & Co., of the Reliance Works, in this city, with detailed description for the benefit of our readers.

This mill has iron saw frame, 10 inches deep, and heavily flanged top and bottom. The feed is belted from tail of arbor and gig, driven by the tight side of main belt, working on a 30-inch pulley. The pinion shaft is driven by a

30-inch friction pulley, with 12-inch face and solid web center, turned all over, and is worked between the feed and gig paper frictions—which are 12 in. diameter and 13 in. face—by means of an eccentric box operated through levers by the sawyer. These paper friction pulleys are so arranged as to be raised or lowered with ease, as may be necessary to secure perfect adjustment. The arbors are of steel, the lower being one in. diameter and the upper one  $2\frac{1}{2}$  in. diameter. There is a

tightner-frame and pulley hinged to frame, for tighting belt to upper arbor. The lower arbor has three 12 in. bearings, with improved self-oiling boxes. The upper works are of a new and improved style, and we think superior to any other in use. A heavy arched iron-frame is bolted firmly to saw-frame. The arbor works in a hollow arched sleeve, having three 8 in. bearings, with pulleys between the standards. The sleeve, with arbor, is adjustable by screws in every direction, so as to be put and kept in perfect line with lower saw. This saw-frame, with upper works and pulleys complete, without saws, weighs ten thousand pounds.

The carriage is 24 feet long, with two head-blocks; but by means of our new rigid coupling can be put together in sections and made any length desired, and with any number of head-blocks. The set works are the most perfect now in use. The jack-heads are worked by cast steel rack and pinion, so made as to take up any lost motion should the steel wear; or they can be replaced at any time at a slight expense. The jack-heads and head-blocks are faced with steel plate, which can also be renewed at a slight expense. The set-shaft is 8 in. diameter, as are all the shafts in the mill. On the set-shaft there is a steel ratchet 18 in. diame-

ter. The index wheel is geared to set-shaft with fine, cut wrought iron gears, and as the jack-heads move toward the saw the index wheel turns toward the setter, showing on its figured face the exact distance of jack-heads from saw at any point. This may be used for setting timber, but board and plank may be measured on quadrant by means of pins. The jack heads are run back, ready to receive the next log, while the carriage is giggering, by means of friction gearing to truck shaft, and operated by the setter placing his foot on a lever for that purpose. The dogs are automatic in their movement, and worked with a lever, no mallet being required on the carriage. There are two sets of dogs—one for flat and the other for round logs. The mill is designed for doing the most rapid and accurate work, and we hope it will meet with the favor it deserves.

This mill has been got up under the careful supervision of Mr. G. M. Hinkley, well-known as one of the best saw-mill men in the country, and the inventor of several important and popular machines used in the lumber business; and is fitted with his newly invented patent saw-guide which meets with great favor among saw-mill men.

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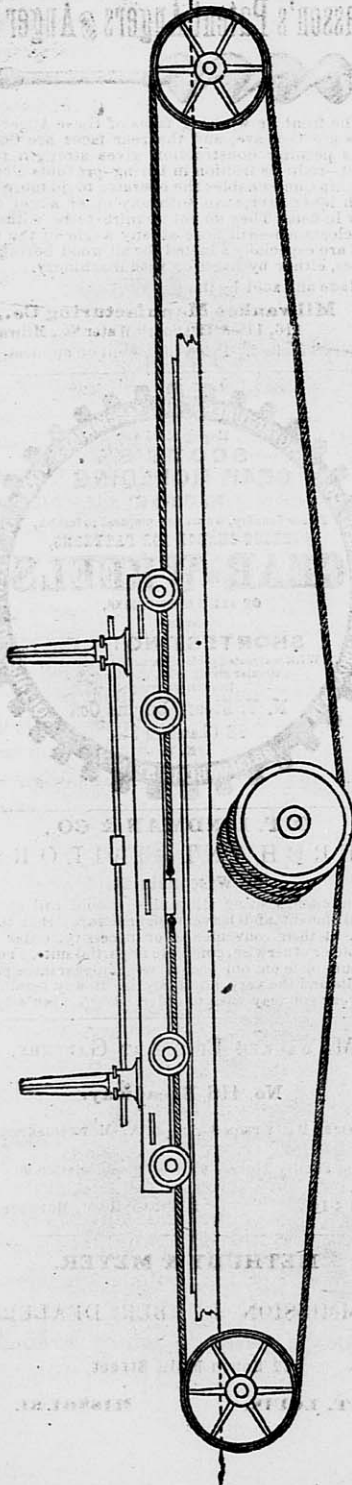
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# WILLARD LAMB'S PATENT Wire Rope SAW CARRIAGE MOVEMENT.

Issued October 8th, 1874.



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For necessary information apply to Wm. H. Hiner & Co., Fond du Lac, Wis.; Geo. Ghaloner, Omro, Wis.; Fletcher & Everett and C. C. Paige, Oshkosh, Wis.; Filer, Stowell & Co. and E. P. Allis & Co., Milwaukee; D. Clint Prescott & Co., Marinette, Wis.; Frank G. Noyes, Clinton, Ia.; Cumming Brothers, Lyons, Ia.; C. & G. Cooper, Mt. Vernon, O.; Rochester Manufacturing Co., Chicago, Ill.; Phoenix Iron Works, Port Huron, Mich.; Wm. M. Ferry & Co., Ferrysburg, Mich.

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Green Bay

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