

(No Model.)

2 Sheets—Sheet 1.

M. GARLAND & C. M. PRESCOTT.
SAWING MACHINE.

No. 515,734.

Patented Feb. 27, 1894

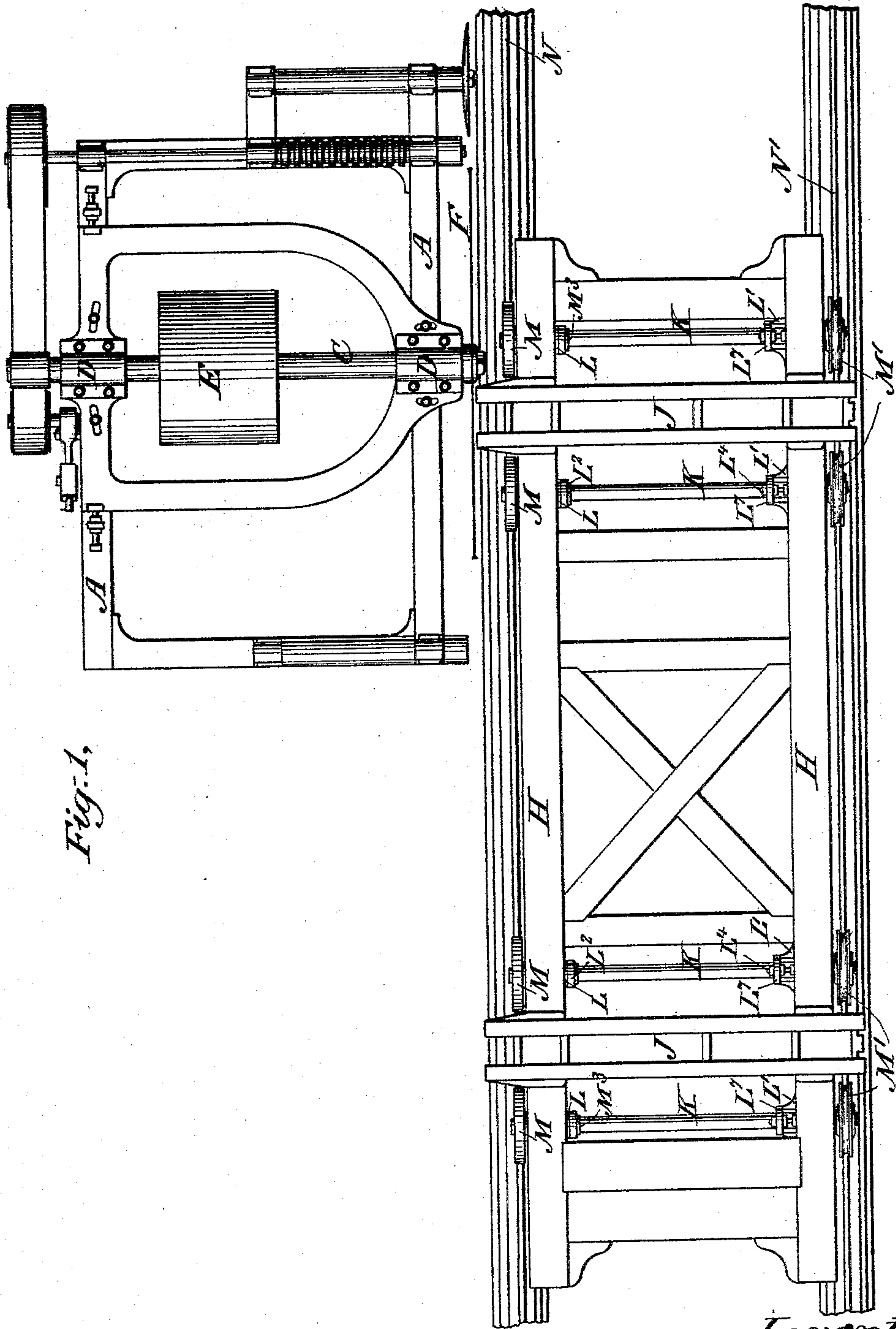


Fig. 1.

Witnesses:-

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UNITED STATES PATENT OFFICE.

MICHAEL GARLAND AND CHARLES M. PRESCOTT, OF BAY CITY, MICHIGAN;
SAID PRESCOTT ASSIGNOR TO SAID GARLAND.

SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 515,734, dated February 27, 1894.

Application filed November 27, 1893. Serial No. 492,033. (No model.)

To all whom it may concern:

Be it known that we, MICHAEL GARLAND and CHARLES M. PRESCOTT, both of Bay City, in the county of Bay and State of Michigan, have invented a certain new and useful Improvement in Sawing-Machines; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

Our invention relates to that type of sawing machines, in which the logs are mounted on a traveling carriage, or truck, which carries the log along in the proper relationship to the saw, to have the latter cut it, in the usual manner. In this type of sawing machine, it is important to have the wheels of the trucks adjustable, laterally of the trucks, so as to set and maintain the carriage in line with the saw, and heretofore the construction of the truck has been such that such adjustment could be effected; but by means defective, or undesirable in construction and mode of action.

Our invention consists mainly in a novel construction whereby, while the carriage can be perfectly adjusted to set and maintain it in perfect alignment, so to speak, with the saw, the means of adjustment are of a novel and improved character; as will be fully explained hereinafter, and as will be particularly pointed out in the claims of this specification.

To enable those skilled in the art to which our invention relates, to make and use machines containing (either in part, or in whole), our invention, in either the precise form in which we show the same carried into effect, or made under some modified construction, we will now proceed to more fully describe our improvements, referring by letters to the accompanying drawings which form part of this specification, and in which we have shown our invention carried out in that precise form, of machine in which we have, so far, practiced it.

In the drawings, Figure 1 is a top, or plan, view of a circular sawing machine, with a traveling log carriage, and embracing our invention. Fig. 2 is an elevation of the same, looking at the machine in line with the direc-

tion of travel of the carriage. Fig. 3, is a vertical cross-section of one of the trucks, passing through the axis of wheel shaft, or axle; drawn on an enlarged scale; and having the middle portion of the head-block and shaft, or axle of the truck broken out, and the wheels moved toward each other, to get the figure within the requisite space, on the sheet of drawings.

In the several figures, the same part will be found always designated by the same letter of reference.

A represents the main frame properly mounted, on the supporting beams B; and C the saw mandrel running in journal boxes D, on the main frame A; E, the driving pulley; and F the circular saw of a circular sawing machine; all made and operating in the usual and well understood manner.

N and N' are the track rails on which travel, respectively, the plain-faced truck wheels M, and the peripherally grooved guide-wheels M' of the trucks.

J are the head-blocks of the carriage, mounted, as usual, on the longitudinal beams H, to the under sides of which beams are secured (by the bolts I passing vertically through them) the truck boxes L and L' in each pair of which is mounted an axle, or shaft K; all as plainly shown.

The guide-wheel M' is shrunk onto, or is otherwise made fast to, the axle, or shaft, K; and the box L' is held in place longitudinally, on said shaft, by the clamped-on collar L³; between which and the inner end of the hub of wheel M' said box L' is confined. The other wheel M, which has a plain periphery and is, hence, adapted to move some, as occasion may require, sidewise, on the track N, is mounted to turn freely on shaft K, and it is made, as shown (see Fig. 3) with a long hub, or sleeve-like portion M³, which surrounds the shaft K, and serves as a sort of bushing thereon that turns within the journal box L; said sleeve-like part M³ of wheel M being provided, at its inner end, or portion, with a clamping collar L² that serves to hold it in place endwise within the journal box L; all as clearly shown in the drawings.

From what is shown in the drawings, and from what we have, so far explained, it will

be understood that while the relationship of the fast guide-wheel M' (with its axle or shaft K and box L') to the rail N' are unchangeable, the wheel M, together with its box L, may be made so as to shift the tread, or periphery, of the wheel sidewise of the rail N, provided the head-block J and the beam H bolted to the other journal box L' be adjusted; and we will now describe the means by which, and the manner in which, the said head-block J, together with its two beams, the journal box L, and the loose wheels M are adjusted. The bolt L⁴, which has a broad flat head α , is provided with a nut at L⁵, that bears home against the plate L⁸ of beam H, and this bolt has its threaded extension passed through a hole in the upwardly projecting plate, or ear-piece, L⁷ of the box L', and has said threaded extension provided with two nuts L⁶, L⁶, which, as shown, are screwed, or turned home against the said ear-piece L⁷. Now, it will be seen that by loosening one of these two nuts and turning up the other (in one way, or the other) the head-block J with its attached journal-box L, and the loose wheel M (the sleeve M³ of which is free to slide on the shaft K) will be moved, or adjusted, in one direction, or the other, to throw the said head-block either nearer to, or farther from, the saw F, as and for purposes well understood. In this manner a perfect alignment of the trucks with the plane in which the saw is designed to cut, may be easily made and maintained.

By having the loose wheel M made with the long hub M³, that turns on shaft K, and on which the journal-box L is held in place between the inner side of the wheel and the clamped-on or set-collar L², we are enabled not only to dispense with the usual clamping collar located at the end of the shaft K, and often in the way of the log-turner; but we also give to the wheel M such a long bearing on the shaft K, that the journal bearing at this locality is vastly more durable than in the construction of trucks heretofore known and used.

Of course, variations in the details of construction may be made, without changing the principle of construction, or mode of operation of our improved machine, and, hence, without departing from our invention.

In practice we make the bearing surface of the shaft K in the sleeve M³ about twelve inches long, whereas in the old construction of truck, this loose wheel has a bearing only about two and a half inches long. These necessarily short bearings soon wear and the carriage is then allowed to move, or play, sidewise, rendering the operations of the machine defective and objectionable.

Having now so fully explained our improvement that those skilled in the art can make and use our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a sawing machine of the type referred to, the combination, with the usual truck axle and a guide-wheel fast on one end thereof, of a loose wheel on the other end of said axle formed, or provided, with a sleeve-like part, within which the axle has its bearing, and which turns within the journal-box of the truck; substantially as and for the purposes set forth.

2. In a sawing machine of the type referred to, the combination with the axle; the head-block mounted on suitable beams; the loose wheel and its journal box, immovably connected to the head-block; and the journal-box arranged near that end of the axle that carries the fast wheel, of means for adjusting and holding in place the head-block and its attachments, in the direction of the length of the axle; all substantially as and for the purposes hereinbefore set forth.

In witness whereof we have hereunto set our hands this 11th day of September, 1893.

MICHAEL GARLAND.
CHARLES M. PRESCOTT.

In presence of—
MORRIS L. COURTRIGHT,
ALFRED B. LENNOX.