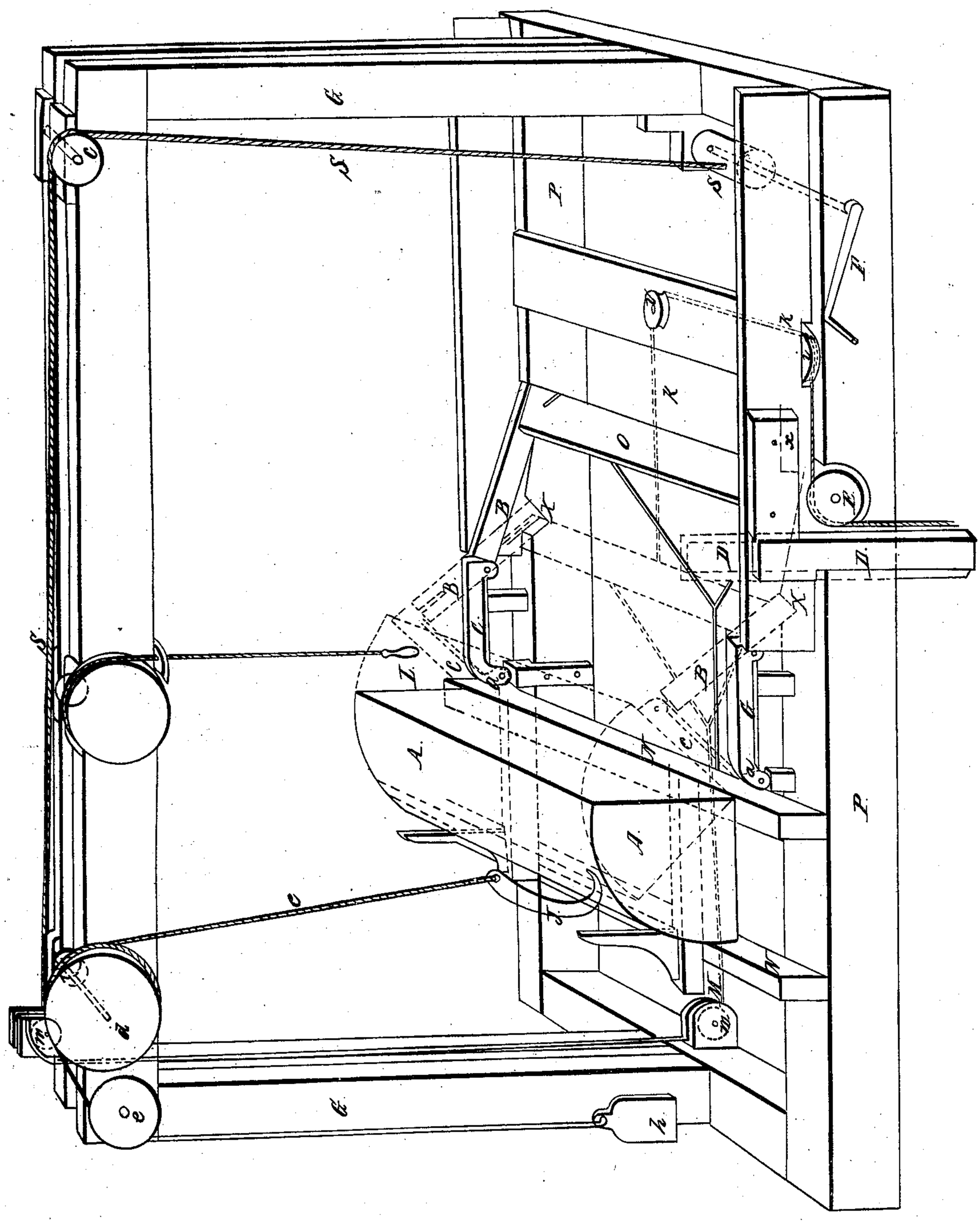
B. R. Stevens.

Log Turning.

No. 85,543 Patented Jan. 5, 1869.



United States Patent Office.

BENJAMIN R. STEVENS, OF GRAND RAPIDS, MICHIGAN.

Letters Patent No. 85,543, *dated January* 5, 1869.

IMPROVEMENT IN LOG-CANTING APPARATUS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, BENJAMIN R. STEVENS, of the city of Grand Rapids, county of Kent, and State of Michigan, have invented certain new and useful Improvements in Canting-Apparatus; and I do declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon, and the same are made a part of these specifications.

The nature of my invention consists in the construction and arrangement of inclined skids or planes in a log-canting apparatus in saw-mills, held, when moved to assume different positions, by means of notches in the frame on which they slide.

The posts G G, beam H, and bed-pieces P P, shown in the drawing, are designed to represent the framework of the saw-mill, in which the particular machinery used in my invention may be placed.

A represents a saw-log, as it lies upon the head-blocks of the mill, in a position to be turned.

J is the hook used in canting or turning, and is supported and operated by a rope or chain, which is attached to a shaft turned by the pulley *d*.

This shaft should be placed in such a position, with reference to the log to be turned, as to make the rope *e* form an angle backward, from the point where the hook J is attached to the log, of about ten or fifteen degrees.

The object of having the hook operate upon such angle is, that the log may begin to slide back upon the head-block from the time that it strikes the inclined plane C C, instead of being held up by the hook until the log is nearly turned, which would be the case if the power were applied to the hook from a perpendicular or from an angle forward.

The pulley *d* is operated by power, either of hand, or the motive-power of the mill, applied to the shaft S, and communicated to it by means of the rope or chain S′, which passes over the pulley *c*, and is attached to a groove in the pulley *d*.

The reacting weight *h* is attached to the pulley *d* by means of a rope, as shown, and serves to draw the hook down to its natural position ready for use.

The part represented by C B O B C is a movable and adjustable frame, which may be erected, as shown in the drawing by the representation in red ink, marked with the same letters.

The parts C C of this frame, when erected, form an inclined plane, the angle of which is about forty-five degrees, and its use is to receive and sustain the log as it is canted over.

This frame is erected by power, either of hand, steam, or water, applied to the rope M, as represented in the drawing. By depressing the handle L, the pulley *l*, which is attached to a shaft, is turned, and the rope M being attached to such shaft, and also to the part O of the adjustable frame, the frame is erected, and held to its place by the lower ends of the parts B B falling into the notches *x x*, they then acting as supporters to the parts C C.

The frame is reduced to its natural position by depressing the treadle D, which acts upon a rope, *k*, in such a manner as to draw the adjustable frame back to its position, and, when thus lowered, the parts C C are used as skids, over which to roll the logs.

The lower ends of the parts C C are of a rounded form, as shown by *a a*, and are attached to the body of the mill at a point considerably below (usually about six inches) the centre of the skids C C.

The purpose and effect of this particular form and manner of attachment is to have the parts *a a* act as an eccentric, thereby forcing the log A backward from the ends of the head-blocks as the adjustable frame is erected.

The size and dimensions of the various parts of the apparatus above described may be varied to suit the various kinds and sizes of mills, and the work to be done.

The particular form of the machinery used in operating the working-parts of the apparatus may also be changed to suit the arrangement or plan of the mill where it is to be used.

When using my invention in a mill, I first erect the adjustable frame by applying power to the rope M, until the lower ends of the supporters B B fall into the notches *x x*; then, having placed the point of the hook J beneath the log, raise the hook by turning the shaft S until the log is so far turned as to fall upon the inclined plane C C, when it slides back to its place upon the head-blocks, the log having been forced backward by the parts *a a*, when the adjustable frame was erected, so as not to catch upon the ends of the head-blocks while being canted or turned. When the log is turned, the frame is lowered to its natural position by depressing the treadle D.

By the use of the above-described apparatus, the labor of turning or canting logs is very much lessened, and may all be done by one person, however large the log may be.

What I claim to have invented, and desire to secure by Letters Patent of the United States, is—

The skids or inclined plane C C, being rounded, as shown at *a a*, the supporters B B, pivoted to planes C C, and the notches *x x*, all constructed, arranged, and operating as described.

In testimony that I claim the foregoing, I have hereunto set my hand and seal, this 25th day of August, A. D. 1868.

BENJAMIN R. STEVENS. [L. S.]

Witnesses:

OMAR H. SIMANDS,
EDWARD TAGGART.