I. H. Newton,

Log Turner,

No. 57,556, Patented Aug. 28, 1866.

Fig. 1

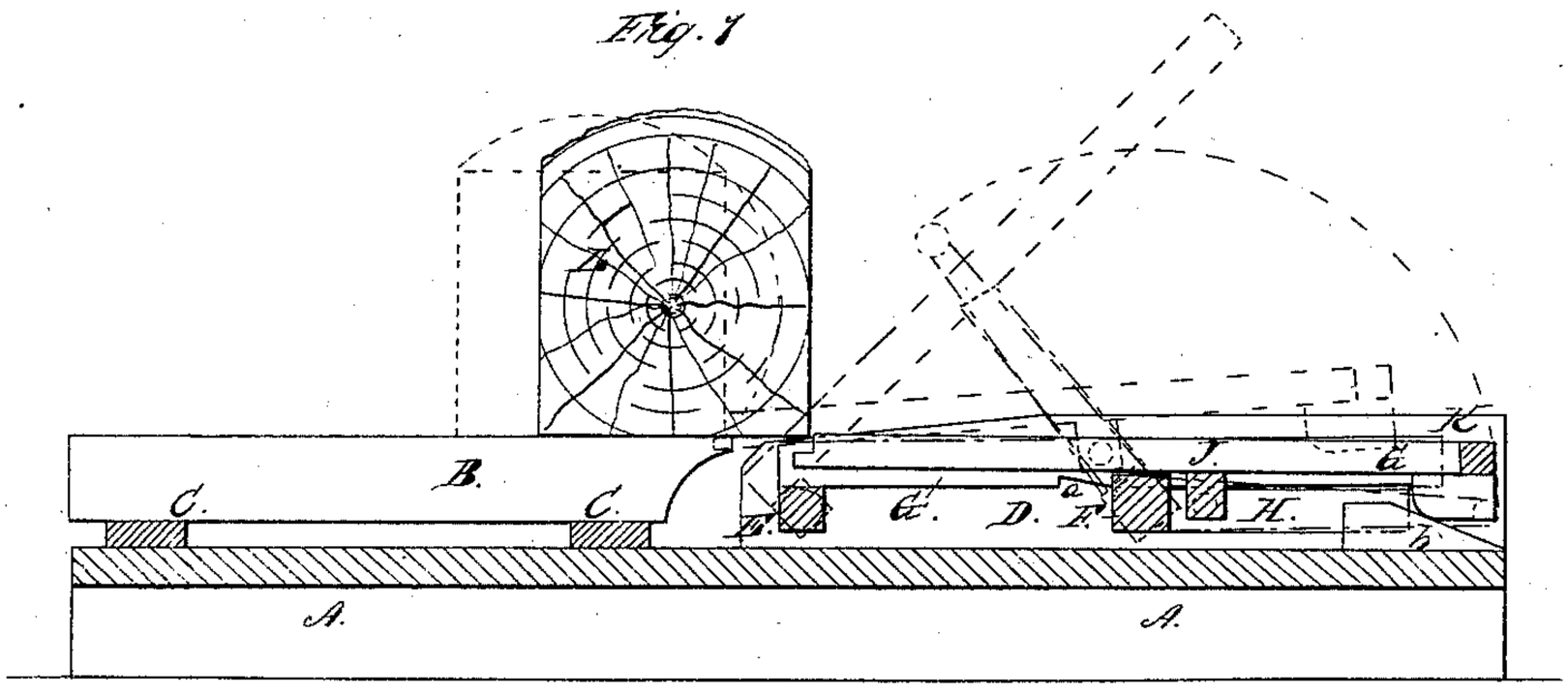
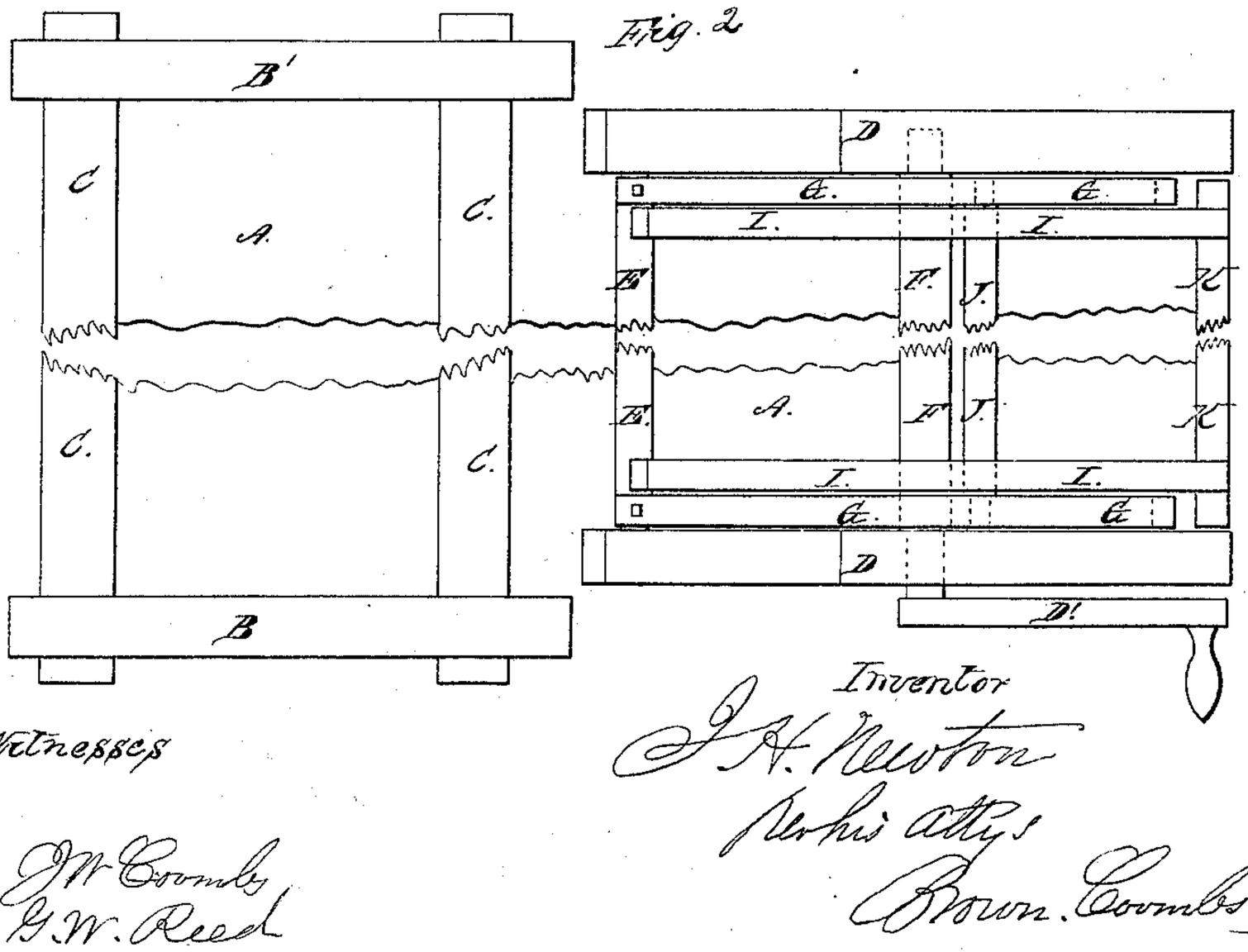


Fig. 2



Witnesses

J. W. Coombs,
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Inventor

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per his atty's

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UNITED STATES PATENT OFFICE.

ISAAC H. NEWTON, OF OAKFIELD, MICHIGAN.

IMPROVEMENT IN SAW-MILLS.

Specification forming part of Letters Patent No. **57,556,** dated August 28, 1866.

To all whom it may concern:

Be it known that I, ISAAC H. NEWTON, of Oakfield, in the county of Kent and State of Michigan, have invented a new and Improved Apparatus for Facilitating the Turning of Logs in Saw-Mills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical transverse section, and Fig. 2 a plan or top view.

Similar letters of reference indicate corresponding parts in both figures.

This invention is designed to facilitate the turning over of saw-logs, as required in sawing them into boards or timbers, and is more especially applicable to saw-mills in which circular saws are used.

The invention consists in a novel arrangement of parts whereby the logs may be turned over to rest upon any desired side with a much less loss of time and expenditure of labor than in turning them in the usual manner.

To enable others to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawings.

A represents the floor of the saw-mill, and B is the head-block and B′ the tail-block thereof, the said blocks being secured upon a sliding or reciprocating carriage, C, of any ordinary or suitable construction.

D are solid transverse timbers, which are situated at one side of the carriage C, the inner end of each timber D being close to the outer side of the said carriage.

E and F are longitudinal bars or shafts, which are placed parallel with each other and with the carriage C, and have their ends fitted and working in suitable bearings in the transverse timbers D, one end of the shaft F projecting entirely through the bearing thereof, and being furnished with a crank-lever, D′.

Fixed upon each end of the shaft E, inside of the timbers D, is a transverse bar, G, and formed in the under side of each of these bars G, about the middle of the length thereof, is a notch, *a*.

Projecting outward from the outer side of the bar F, at each end thereof, and placed at right angles thereto, is an arm, H. These arms H act upon the under side of the bars G to tilt or elevate the same, as more clearly shown in Fig. 1, and as will be hereinafter fully set forth.

I represents two transverse bars, which are placed just within the bars G and arms H, and are united by two longitudinal bars, J K, thus constituting a kind of frame.

The ends of the bar J project outward, and, being made of cylindrical form, are fitted into suitable bearings formed near the inner ends of the bars or arms H, so that when the said bars are turned upward, by turning the shaft F, as will be presently set forth, the frame I J K will be moved inward and have its inner portion raised or tilted upward, while its outer edge or portion, being the heaviest, is depressed. The said outer portion may rest upon the floor A of the saw-mill, or upon the inclined or sloping blocks *b*, as shown in the drawings.

The several parts being first brought into the position represented in the drawings, the operation of the invention is as follows: The saw-log L is placed upon the head and tail blocks B B′ with its outer side even with the outer ends of the said blocks, and consequently behind and nearly over the inner ends of the bars I. This being the position of the log upon the carriage while being sawed, the lever D′ is then turned upward and around about three-eighths (more or less) of a revolution, which turns the bars H upward around the axis of the shaft F, and consequently raises the inner ends of the bars I, constituting a part of the frame I J K, as hereinbefore explained, and then moves the said frame inward, so that the inner ends of the bars I push or shove the log sidewise toward the opposite ends of the head and tail blocks. At the same time the outer ends of the arms H, acting upon the under side of the bars G, raise the said bars G into an inclined position, as shown in red lines in Fig. 1, the ends of the said arms H striking the shoulders or stops formed by the inner sides of the notches *a*, in order to determine the proper stroke or movement of the lever D′. The person operating the apparatus then holds the lever D′ in a stationary position, while another person standing back of the carriage turns the log with a cant-hook over against the inclined bars G. The inclined position of the said bars G then causes the log to slide back to its place on the carriage; and in case

the log should fail to slide on striking the said inclined bars, an additional lifting or tilting action is applied thereto with the cant-hook, which insures the proper sliding of the log and its falling upon the desired side thereof. The lever D′ is then turned back into its horizontal position, which, of course, brings the bars G and arms H, together with the frame I J K, back to their places. In case the log, as thus turned over, rests partially upon the timbers D, it will be necessary to push it back or inward, so that its outer side or edge will be flush or even with the outer ends of the head and tail blocks B B′, which is done by again operating the lever D′ to again raise the bars G to their inclined position, the bars I pushing the log back as far as desired by acting upon the outer lower edge of the log and forcing or pushing it inward, the said bars also operating to prevent the corners of the log from striking the ends of the head and tail blocks as it is turned over. By this means much less time is required in turning the log than by the usual method, and the severity of the labor is also greatly reduced.

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

The bars G, arms H, and frame I J K, combined with each other, and arranged, in relation to the head and tail blocks B B′, substantially as herein set forth, for the purpose specified.

ISAAC H. NEWTON.

Witnesses:
T. J. W. PORTER,
JOHN DAVIS.