6287X

2 Sheets-Sheet 1.

D. Stem.

Reciprocating Saw Mill.

Patented Dec. 14, 1830.

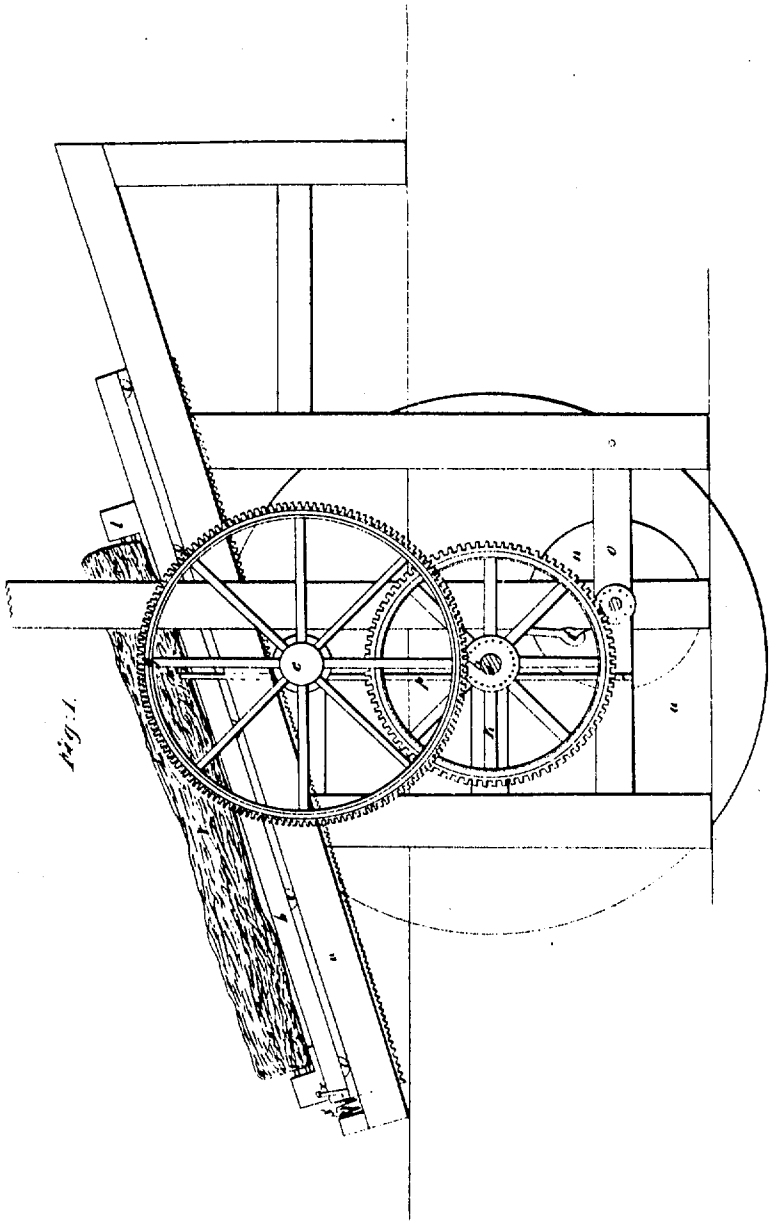


Fig. 1.

2 Sheets Sheet 2.

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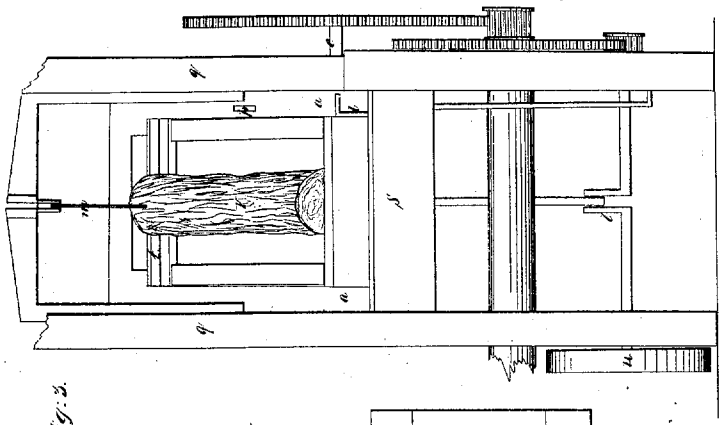


Fig. 3.

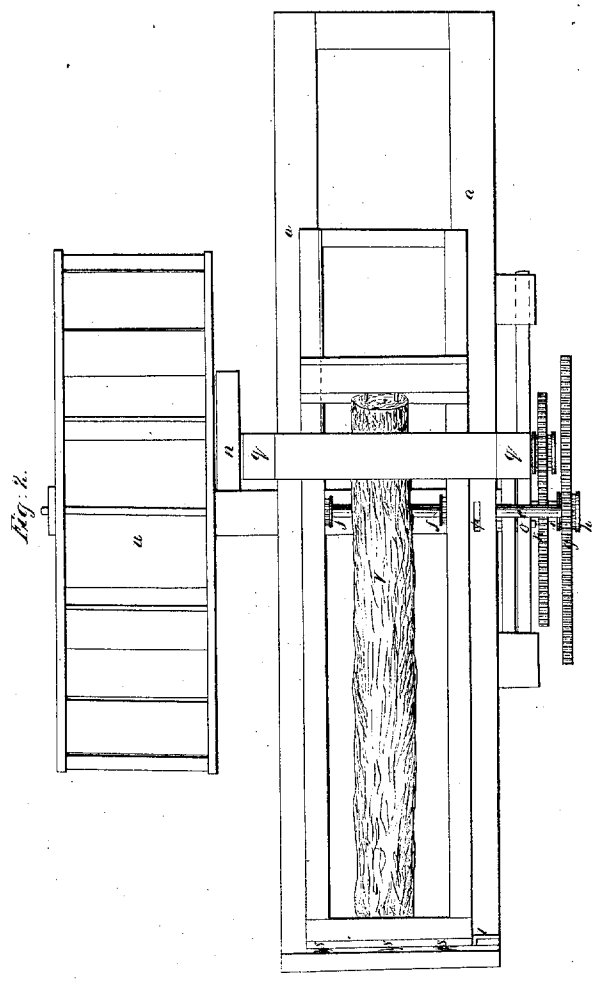


Fig. 2.

A.M. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

X6287 Dec. 14. 1830 463

David Stem. of Indiana.

Letters Patent.

The Schedule referred to in these Letters Patent and making part of the same, containing a description in the words of the said David Stem, himself, of his improvement in the art of sawing timber.

To all to whom these presents shall come.
Be it known that I David Stem of the County of Vanderburgh, and State of Indiana, have invented a new and useful improvement in the art of sawing Timber, and that the following is a full and exact description of the construction and operation of the said improvement (or machine) as invented or improved by me. There are two large beams placed permanent on an inclined position of seven feet to twenty from in length, on which the carriage runs. There are two small wheels in the carriage, which wheels run on these permanent beams. There is a rag or straight timber with cogs on each side of the carriage, which are placed under the carriage so as to lap on each side of those timbers to guide her up and down straight. The rag or cog'd part of the carriage, as she moves, runs over the shaft of the wheel called the stop wheel, which shaft has two wallowers on, and extends across under those permanent timbers so that the wallowers meet the rag or cogs of the carriage on both sides, inclining to turn the stop wheel, but have those wallowers, so that the rung of one, hangs with the space of the other. If this shaft be casting the rungs are cast on, if wood, they are cut on, or should be iron rungs, framed to the shaft; those wallowers have eleven rungs in each one, and the stop wheel has 178 Cogs; this wheel runs into a Wallower of twenty two rungs; which is on the shaft of the

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of the wheel, called the drift wheel, which has 18 cogs, which runs into a wallower of eleven rungs on a shaft, that has a crank to drive the saw. There is also a small fly wheel on this shaft to cause the crank to pass her centre, and on the end of the shaft opposite to the crank, the gudgeon rests on a horizontal timber, that has a joint on a post at one end and will raise and fall at the other end, to threaden or catches in a post to keep it out of gearing; and in gearing which is done by a lever drawn between the fender posts when desired out of gearing, the carriage is run back by the drift wheel; the lever when raised is hooked fast to the permanent timbers, and there is a catch on the carriage to unhook it just at the time the saw has run her cut. There is a post set in the permanent beams, with a spring on it for the carriage to stop against. The moveable head blocks be at the back of the saw, that her stopping place will suit all lengths of timber; all the cogs of wheels and rungs of wallowers must be two inches cog and space which regulates her feed to one fourth of an inch. To give her lift feed the wallower on the shaft of the drift wheel must be lessened, which is necessary to suit all timbers; A short crank, with quick motion and lift feed is preferred in the above plan. The plan of applying the power to number, is to the drift wheel; when horse power which is the principal intention of his construction, is applied, the gearing must be attached by a wallower to her cogs, if by water, by putting a Water wheel on her shaft.

Witnesses

Boyd
Hall

J. Bradley
John Hopkins

David Stow