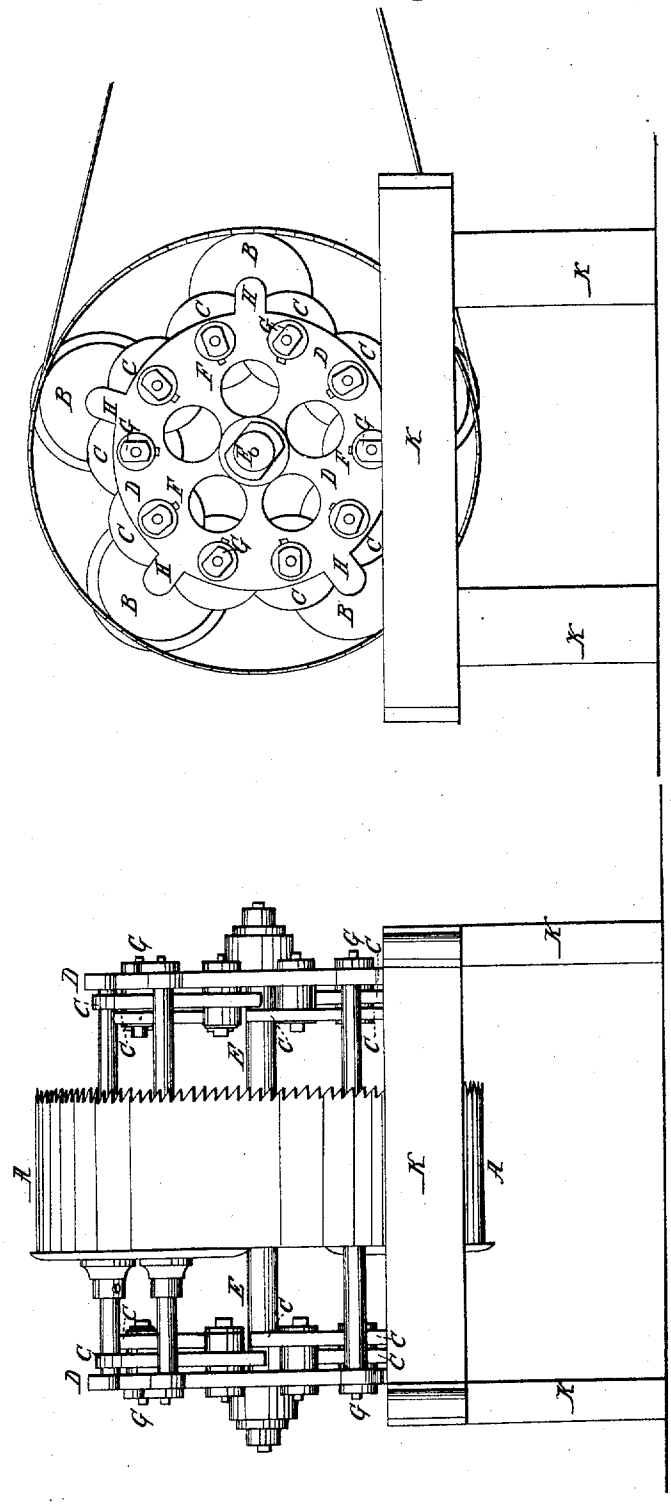
8611X

H. Holmes,

Making Staves.

Patented Jan. 21, 1835.



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

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Jan 21, 1835

Harvey Holmes of New Marlborough, Massachusetts,

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 Harvey Holmes, himself of his improvement in the Stave saw for sawing staves and other cylindrical work,

To all to whom these presents shall come

Be it known that I. Harvey Holmes of New Marlborough in the county of Berkshire, and State of Massachusetts have invented a new and useful improvement in the cylindrical stave saw for sawing staves and other cylindrical work, and that the following is a full and exact description of the construction & operation of the said machine as invented or improved by me.

The saw to be in a cylindrical form, the surface of the saw to be concave convex or flat for the purpose of forming the bilge or swell in the staves or for giving a longitudinal curve to the work, or sawing it straight as the case may require, the saw to be supported and move upon a set of friction rollers or wheels which are to be supported and revolve upon a second set of friction rollers or wheels in the following manner, to wit

Two cylinders or rims made of cast iron or any kind of metal or wood placed perpendicular, to be fastened by a bar or cross piece through the centre of each at sufficient distances apart to admit the said friction rollers or wheels to play or revolve between them, Flanges or projections are to be made on the outside of the rims below their centre sufficient and for the purpose of screwing and bolting it upon the frame on which it is to be used. The rims also are to have oblong square holes through them at equal distances except where the saw is to be engaged

where the space must be wide enough for the timber to pass between - said square hole to receive a box or bearing for the journals or axles for the said second set of friction rollers or wheels to run or revolve in which are held and regulated as a close by a set or pinch screw, at the out and inside of said rims to or to move out and in to enlarge or reduce the circle of the first named set of friction rollers in such manner as to tighten or regulate the saw as the case may require

The said set of friction rollers may also run or revolve upon pivots or studs fastened through said rims instead of said boxes or bearings so that the rollers may run separate or detached from each other in either way; the rims of said second set of friction rollers, or wheels must pass by each other as close as may be and not interfere or produce friction and in so passing by to form an angle or curve upon the surface where they pass each other so as to receive the journals or axles of the first mentioned set of friction rollers to run or revolve upon their surface; Screws or bolts are to be fastened to said rims and project over the bearings or axles of said first set of friction rollers in such manner as to prevent them from disengaging or falling off from said second set of friction rollers when the band and saw are taken off and which confine them to the surface when on; One or more of said first set of friction rollers to be set a little diagonal or askew from the others to make a small angle with the other rollers so as to run towards the teeth of the saw, to incline the saw back against flanges which are to be fixed and made on the back end of three or more of the same first set of rollers on which the saw is placed to prevent the saw from running off from the rollers, the saw being set upon the first set of rollers a band or strap passes round it as round a drum, except a sufficient space to admit the timber that is to be sawed to pass through between the two ends of the band, Friction pulleys

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are placed one above, and one below the carriage that carries the timber to be sawed to keep the band close to the saw, — the top or upper pulley to be held by an arm attached to one of the rims, the other to the frame below, The timber to be sawed to be carried between the sides of the band where they have the saw, on a carriage, The band passing around the saw, also passes over the drum separate from the machine and propelled by any revolving power, all of the above mentioned wheels or rollers to be made of any kind of metal or wood it will require about nine of the first named set of friction rollers or wheels and about twenty of the second set for a saw two feet in diameter which is the proper size for a barrel and for other saws in proportion

What I claim as my invention in the above described machine is an improvement in the application of the second set of friction rollers or wheels for the journal or axles of the first named set of friction rollers or wheels to run or revolve upon their surface to prevent friction and thereby to accelerate the speed or motion of the saw so as to enable more work or business to be performed in the same time than of any other machine

For further illustration of the same I refer to the model and drawing of same deposited in the Patent Office

In witness whereof I have this fifteenth day of September in the year of our Lord one thousand eight hundred and thirty four, subscribed my name —

Witnesses

M. T. Wilson
& McFarland

Harvey Holmes

Recvd
Exd

(1023 words)