

(No Model.)

2 Sheets—Sheet 1.

B. D. WHITNEY.
STAVE SAWING MACHINE.

No. 489,772.

Patented Jan. 10, 1893.

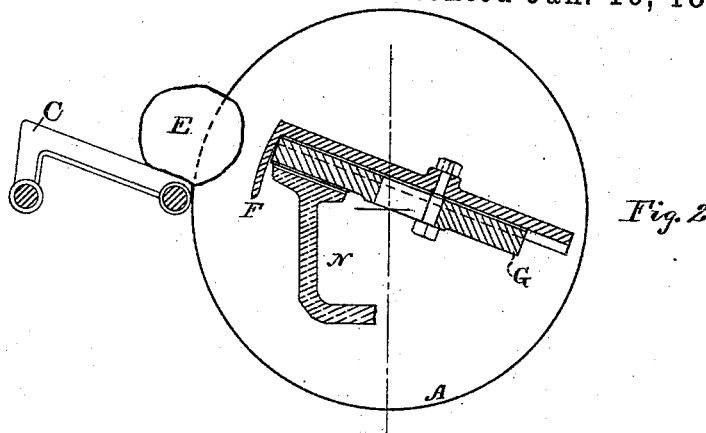


Fig. 2

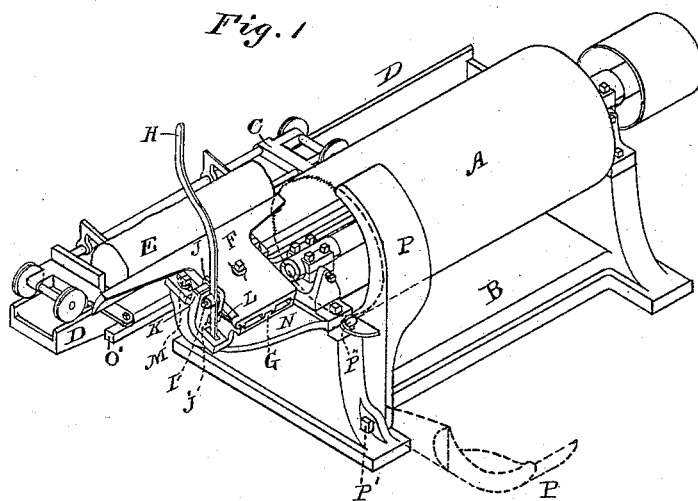


Fig. 1

Witnesses

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Edw. S. Duwall Jr.

Inventor

Baxter S. Whitney
per Fred Wacker, Atty.

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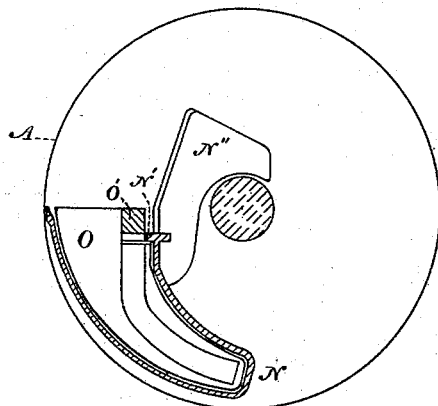


Fig. 3.

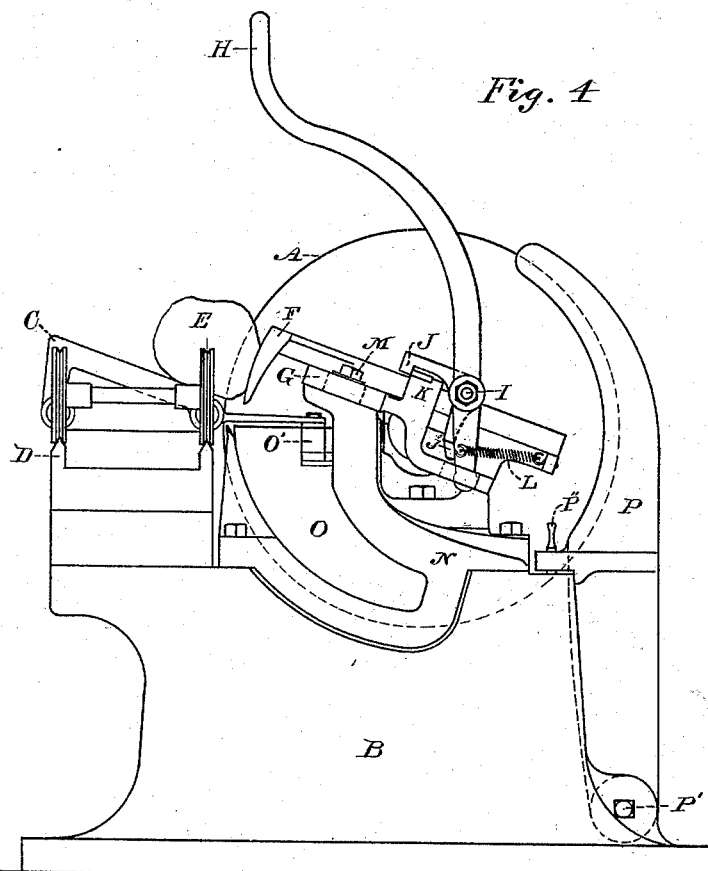


Fig. 4.

Witnesses
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Inventor
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Att'y.

UNITED STATES PATENT OFFICE.

BAXTER D. WHITNEY, OF WINCHENDON, MASSACHUSETTS.

STAVE-SAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 489,772, dated January 10, 1893.

Application filed March 22, 1892. Serial No. 426,911. (No model.)

To all whom it may concern:

Be it known that I, BAXTER D. WHITNEY, a citizen of the United States, residing at Winchendon, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Stave-Sawing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to mechanism for sawing small logs, or suitably prepared blocks, into staves of proper curvature, for making barrels, kegs, &c.

It consists essentially of an improved set gage, or fence, for gaging the thickness of the staves; of an improved stave receiver, or clearance trough, which facilitates the discharge of the sawed staves, and also serves to support the set gage, and of an improved fender, or guard, to prevent accidental contact with the edge of the saw.

It also consists in the construction, arrangement and combination of parts, substantially as will be hereinafter described and claimed.

The nature and use of the invention will be shown by the following description and the accompanying drawings, of which:

Figure 1 is a perspective view of a stave machine combining these improvements. Fig. 2 is a vertical section central to the set gage at a right angle to its face, as retreated for slabbing a log, also showing part of the stave receiver, which supports the gage. Fig. 3 is a transverse sectional view of the stave receiver within the saw. Fig. 4 is a view showing lever for moving the set gage with locking device to hold it in position for use.

Similar letters of reference designate corresponding parts throughout the several figures of the drawings.

The chief elements of the machine aside from those embraced in my invention, consist of a tubular or cylindrical saw A, which is suitably mounted upon a frame B, with a log carriage C, which moves upon ways or track D, to carry the log or block E to the saw.

These being common and well known devices no detailed description is needed.

The set gage represented by the reference

letter F consists essentially of a bar or plate (sometimes technically termed a "fence") which is adapted to serve as a stop or rest, and as a guide, or director, for the log or block, which as it lies upon the carriage is forced by gravity and hand pressure against the fence to gage or determine the thickness of the stave to be cut therefrom by the saw.

The fence as set to gage the thickness of the stave does not afford proper space for "slabbing," or making the first cut from a log, especially if irregular in form or with protruding knots, &c. To provide for this, which is an object of my invention, the fence is made to retreat or move upon a base-plate G, from its position as a gage, by means of a hand lever H, which is pivotally connected to F by a fulcrum pin I and to plate G by its installation in a slot or mortise therefor. The parts F and G are fitted with a tongue and groove or other suitable guide ways to keep the fence in proper line of motion. To hold it in position for use, a hook or latch J is made to drop over and engage with a catch bar K by a spring L applied to a downwardly extending arm of the part J. This latch is pivotally hung upon the fulcrum pin I, with the lever H, and has a horn or projection J' to contact with the lever so that by a slight movement thereof (provided for by sufficient elongation of the mortise in part G, for that purpose) the hook J becomes disengaged from catch bar K and the gage is allowed to retreat by a single movement of the lever. While by a reverse movement thereof it is readily brought to its correct position for use, and securely locked therein, thus affording ready and reliable means for the removal of the gage while slabbing the log, and returning the same to its normal position, and thereby materially increasing the efficiency of the machine. The gage is adjustably fixed to its support by means of tap-bolts M M, which pass through slots in its base plate G, and may thereby be set to cut staves of any required thickness.

The stave receiver or the clearance trough, represented by letter N is curved to conform in general to the circle of the saw for the purpose of admitting extra wide staves and extends nearly the whole length of its interior.

The upper and outer edge of the trough is fitted closely to the saw, so that the staves when severed from the log will drop directly into the trough and from which they are withdrawn by a hoe, or plate O, attached to the rod or bar O' and is thereby connected to the log carriage C from which it receives motion. This curved form of the trough allows staves of the greatest width the saw will cut, to drop entirely clear from the lower edge of the set gage so that they can be withdrawn under the gage and the log be set against it for another cut without any obstruction. The dropping of the stave in this manner before it is withdrawn from the saw, adds greatly to the working capacity of the machine.

The piece N is bolted to the main frame of the machine at the front end of the saw and that part of it which projects outwardly therefrom forms a seat or support for the set gage, and counter balances in part the weight of the part within the saw and makes a very convenient and advantageous arrangement for both purposes. For convenience in placing it within the saw, one or more hook shaped projections N'' are provided to hang upon the arbor of the saw, to aid in sliding it into its position, and to avoid accident or injury to the same. These projections N'' also serve as guards to guide the extremely wide staves into the trough which might otherwise fall over the mandrel of the saw and do great damage to the saw.

To avoid accidental contact with the teeth of the saw a guard or fender P is pivotally attached to the frame by a stud, or bolt P' and it is secured in its upright or normal position by a pin P'', which passes through an attached lug of the fender into a hole fitted therefor in a part of the frame. By withdrawal of this pin, the guard may readily be

turned down to the position indicated by the dotted lines in Fig. 1, for the examination or sharpening of the teeth of the saw.

Having thus described my invention, what I claim as new and desire to secure by Letters-Patent, is:

1. A set gage consisting of an adjustably secured base plate G with a retreating fence F adapted to slide thereon, a latch J holding the same in position for use and a lever H adapted to disengage said latch and move the fence F, substantially as and for the purpose set forth.

2. A stave receiver or clearance trough extending downwardly or in the general course of the interior of the saw barrel a sufficient distance to permit staves of the greatest width the saw can cut, to drop laterally and downwardly in an edgewise position entirely clear of the set gage before they are withdrawn from the saw, the same being constructed and applied substantially as shown and described.

3. The combination with a tubular saw, of a stave receiver or clearance trough extending downwardly or in the general course of the interior of the saw barrel a sufficient distance to permit staves of the greatest width to drop laterally and downwardly in an edgewise position entirely clear of the set gage and the guard or fender P for avoiding accidental contact with the teeth of the saw, together with a bolt P' and a pin P'', by means of which said guard or fender is pivotally attached to the frame, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

BAXTER D. WHITNEY.

Witnesses:

WM. MURDOCK,
GEO. M. WHITNEY.