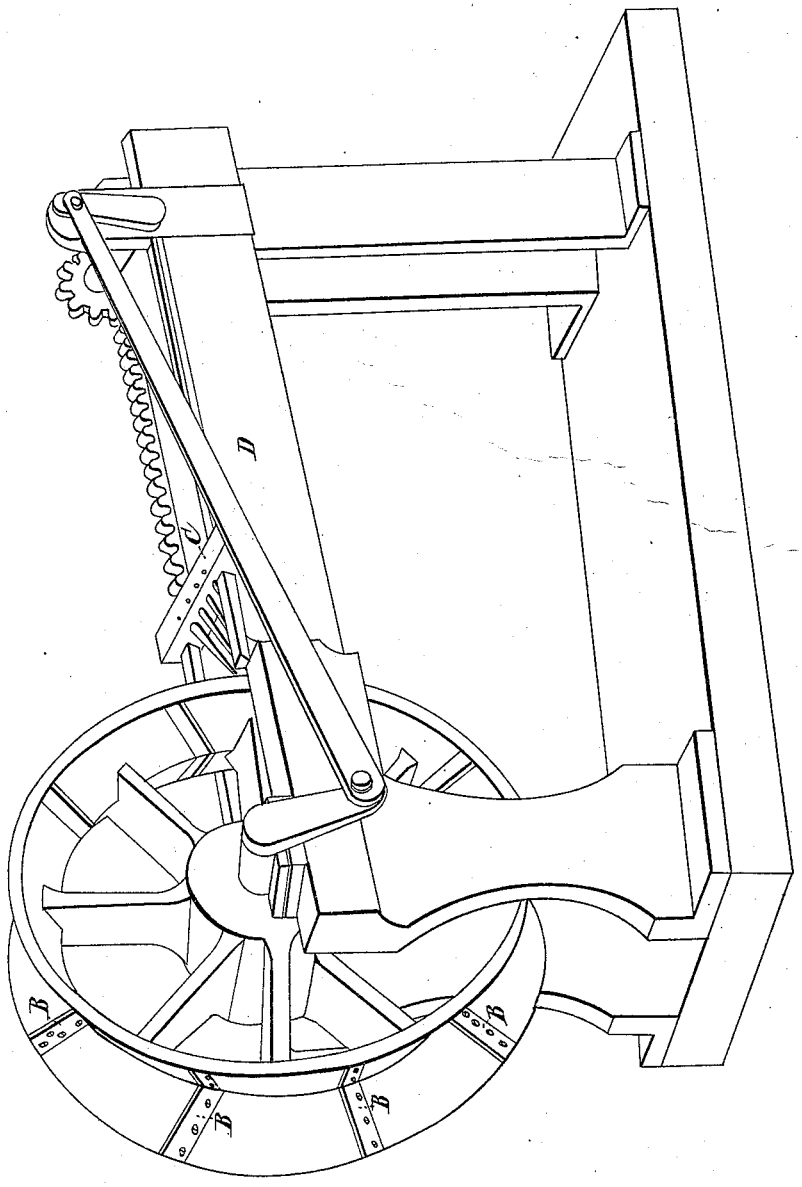
B. Swift,

Cutting Dye Wood,

Patented Aug. 10, 1836.



UNITED STATES PATENT OFFICE.

BARIAH SWIFT, OF THE UNITED STATES OF AMERICA.

DYE-WOOD AND DYESTUFF CUTTING AND SHAVING MACHINE.

Specification of Letters Patent No. 10, dated August 10, 1836.

To all whom it may concern:

The schedule referred to in these Letters Patent and making part of the same, containing the description in the words of BARIAH SWIFT himself of his Improvement in Machines for Cutting and Shaving Dye-Woods and Dyestuffs:

This applicant describes in the first place his said machine so as to enable others skilled in such constructions to make the same, the operative part consists of a wheel of about four feet in diameter having cutters or plane-irons set in the periphery as herein after described, and a regulated driver which drives, or forces the wood to be cut against the periphery as herein after described but the periphery of this wheel is of peculiar form, suppose two cake pans of the same size having their sides rising from the bottom with an angle with it of 45 degrees, attached to each other the under sides of the bottoms in contact then their sides would be at right angles with each other, and their bottoms parallel. Then suppose there be a hub through these bottoms of a convenient length, and diameter, and the form of this wheel is perceived but the hub should be about twenty inches in length, and large enough to receive an arbor of eight or nine inches in diameter which is fixed therein, and its ends turn in boxes at convenient distances from the hub, that is as near as may be for the sake of greater solidity in operation. This wheel it is contemplated should be made of cast iron and weigh about twenty five hundred pounds. The diameter of the spoke, and hub part thereof being about thirty inches, and the flaring periphery extending twenty to twenty four inches more of diameter. In these peripheries are set the plane irons. The spoke part of this wheel should be three inches or more thick, and the flaring peripheries should each be two inches thick, having mortises cast therein for the plane irons, which can be adjusted therein in like manner as in planes, but fixed in their places with screws. These plane-irons must be set in these flaring peripheries in a line with the axis of the arbor, but parallel with the faces of the flaring peripheries respectively. They must be strong, and of the best temper. The frame in which this wheel is set should be massive and firm. It should be long enough to contain in the trough hereinafter described, the longest piece of wood contemplated to be cut or shaved. The frame being of this length, and as wide as is necessary to contain the wheel, a trough is constructed therein, as wide as the extent of the flaring of the peripheries, or the extent from the outer edges of the plane irons so that as these descend downward across the end of the trough as the wheel turns over toward the trough, these plane-irons will cut across all the wood that can be laid in the trough, and whose ends can be driven, or borne against the faces of the peripheries in which these plane irons are fixed. To this effect the trough is shaped on its sides sloping inwards to the bottom and its bottom as well as these sides terminate against the wheel in precise conformity with the flaring flanges or peripheries, but the wheel must revolve free of this end of the trough so that the cutters which project beyond their faces shall not touch the said end of the trough, but yet revolve as closely as may be without touching it.

The wood being placed in the trough for operation it is forced against the wheel, and subjected to the action of the plane irons by a strong bar, or bars—running in a groove formed on the top edge of the trough by bars of iron projecting over each edge respectively, and thus guiding this bar which are set at several points to stick into the wood, and keep it steady, this bar is connected with a piece of iron extending the whole length of the trough having ratchet teeth into which a pinion is made to take the pinion being turned by any convenient common mechanism taking its motion from the arbor of the wheel, and regulated so as to turn up the wood as fast as wanted, or the wood may be forced up by a spring, or a weight acting on said bar. The frame should be about three and a half, or four feet high. It is obvious that the frame, and wheel, and trough may be so constructed that the trough may stand perpendicular to the wheel, as well as horizontally, and yet the principle of the construction of this machine may be the same. The frame may be constructed of wood, but this applicant recommends cast iron in preference.

This applicant describes in the next place the principle of this invention. It consists in the combination of wheel having plane irons, or cutters set therein substantially as above, and hereinafter is described, with a trough, and regulated driver, or feeder sub-

stantially as above described, and it is for this combination, however it may be varied, that this applicant claims a patent upon this specification.

This applicant contemplates the application of the principle of his invention to the shaving or cutting up of all kinds dye-wood, and dye-stuffs that can be placed in a trough shaped as aforesaid and forced, or driven against the faces of the flaring peripheries aforesaid and substantially in the mode aforesaid

This applicant does not claim the invention of a wheel with cutting, or plane irons set therein, but

The invention of wheel with faces inclined to each other, wherein the plane-irons are set, in combination as aforesaid, the cutters taking the wood not at right angles with the grain of the wood, but diagonally as a penknife when used in cutting toward the person's wrist who uses it. This bottom of the trough therefore should be below the center of the wheel so that all the wood be below it, when the cutters take it in order, that the cutting or shaving may be diagonally as aforesaid.

BARIAH SWIFT.

Witnesses:
GEORGE SULLIVAN,
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