October 17, 1913.

DRAWING

7,487

A careful search has been made this day for the original drawing or a photolithographic copy of the same, for the purpose of reproducing the said drawing to form a part of this book, but at this time nothing can be found from which a reproduction can be made.

Finis D. Morris,

Chief of Division E.

AWK

UNITED STATES PATENT OFFICE.

WILLIAM BULLOCK, OF PHILADELPHIA, PENNSYLVANIA.

LATH-CUTTING MACHINE.

Specification of Letters Patent No. 7,487, dated July 9, 1850.

To all whom it may concern:

Be it known that I, WILLIAM BULLOCK, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Lath-Cutting Machines; and I do hereby declare that the following is a full and exact description thereof.

To enable others skilled in the art to make and use my invention I will proceed to describe the construction and operation of the same.

In the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view. Fig. 2 top elevation.

A, frame; B, carriage; C, main shaft; D, driving pulley; E, bevel wheel on main shaft; F, bevel wheel on shaft; G, gearing into wheel E; H, eccentric for driving vertical knife L, which knife is arranged in the same manner as knife M, (that is having inclined planes at each end running upon rollers); M, horizontal knife having inclined planes at each end and running against rollers represented by dotted lines O; AA, rib on the upper side of M, which rib is parallel with the planes at the ends of the knife and runs against the roller N; J, crank; K, connecting rod to M; I, connecting rod to L; M^1 wheel gearing into a wheel on shaft C; L^1, eccentric on the shaft of M^1, which eccentric has a groove in the side in which a pin at the lower end of K^1 works; K^1, connecting rod from eccentric L^1 to lever N^1, which lever is loose in rod K^1 and quadrant Y; Y, quadrant working on a stud represented by dotted lines which quadrant gears into rack X; X, rack gearing into pinion Z, which pinion is loose on the shaft and fast to rachet G^1; H^1, face plate fast on shaft W, through which plate there are several stops working in the ratchet wheel G^1. These stops are arranged at such a distance that only one will catch at a time, so that if I have eight stops and the ratchet moves one eighth of the pitch of the teeth of the ratchet, one of the stops will catch. T, screw on shaft; W, gearing into the wheel P which wheel is fast to the shaft of chuck Q; U, screw on shaft W gearing into wheel represented by dotted lines V, which wheel is fast on shaft A^1; B^1, bevel wheel gearing into C^1; C^1, bevel wheel on screw D^1; E^1, box fast to frame A through which box screw D^1 passes, the hole in the box being large enough to admit the screw to slide through without turning, through the top of which box there is a thumb screw which can be screwed down into the spaces between the threads of the screw D^1, which thumb screw serves as a box to the screw D^1; F^1 hand wheel having a thread to match screw D^1, which wheel is for the purpose of hauling the carriage back; R, chuck working on the end of screw S; W^1, log represented as having had laths cut from it and turned back a short distance.

Having thus fully described the construction of my lath cutting machine, I will now proceed to describe the operation of the same. By turning back the thumb screw in box E^1 so as to clear the thread of the screw D^1, then by turning the wheel F^1 the carriage can be hauled back far enough to admit the log to be put in and clear the knives. I then place the centers of the ends of the log to be cut against the chucks Q and R and turn up the screw S until the chucks are firmly embedded in the log. I then start the machine and the knives commence cutting, the horizontal knife cutting from the periphery toward the center, and the vertical knife cutting in a spiral form around the periphery of the log. Now it will be observed that by the arrangement of the machinery connecting the chuck Q and screw D^1 that by each revolution of the log W^1 the carriage will move up a certain distance toward the knives, and by the arrangement of the lever N^1 being loose in the connecting rod K^1 and the shaft of the quadrant Y, the quadrant being connected to the carriage and the guide to rod K^1 being fast to the frame A, as the carriage moves up, the distance between the bearings of the lever N^1 being shortened, the motion of the ratchet G^1, and consequently the log W^1, is increased in proportion to the diameter of the log thereby cutting laths of an even thickness and width. To render this more clear, I will state that the center of the shaft of quadrant Y is at all times the same distance from the center of connecting rod K^1 that the center of the chucks R and Q are from the edges of the knives.

Having thus fully described the construction and operation of my lath cutting machine, what I claim therein as new and of my invention and desire to secure by Letters Patent, is—

The arrangement of the lever N^1 in combination with the quadrant Y, rack X, pin-

ion Z, ratchet G^1, screw T and wheel P, thereby moving the periphery of the log being cut, an equal distance at each stroke of the knives, (the log being moved by the chuck Q, instead of applying the power to the periphery of the log) by which arrangement I can cut laths from square logs, substantially in the manner and for the purposes set forth.

WM. BULLOCK.

Witnesses:
J. B. MURPHY,
JAMES BRANT.