

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
5 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
10 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
15 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
25 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; M¹ wheel gearing into a wheel on shaft C; L¹, eccentric on the shaft of M¹, which eccentric has a groove in the side in which a pin at the lower end of K¹ works; K¹, connecting rod from eccentric L¹ to lever N¹, which lever is loose in rod K¹ 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
40 on the shaft and fast to ratchet G¹; H¹, face plate fast on shaft W, through which plate there are several stops working in the ratchet wheel G¹. These stops are arranged at such a distance that only one will catch at a time,
45 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
50 Q; U, screw on shaft W gearing into wheel represented by dotted lines V, which wheel is fast on shaft A¹; B¹, bevel wheel gearing into C¹; C¹, bevel wheel on screw D¹; E¹, box fast to frame A through which box
55 screw D¹ 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 D¹, which thumb screw
60 serves as a box to the screw D¹; F¹ hand wheel having a thread to match screw D¹, which wheel is for the purpose of hauling the carriage back; R, chuck working on the end of screw S; W¹, log represented as hav-
65 ing 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
70 same. By turning back the thumb screw in box E¹ so as to clear the thread of the screw D¹, then by turning the wheel F¹ the carriage can be hauled back far enough to admit the log to be put in and clear the
75 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 com-
80 mence 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
85 will be observed that by the arrangement of the machinery connecting the chuck Q and screw D¹ that by each revolution of the log W¹ the carriage will move up a certain distance toward the knives, and by the arrange-
90 ment of the lever N¹ being loose in the connecting rod K¹ and the shaft of the quadrant Y, the quadrant being connected to the carriage and the guide to rod K¹ being fast to the frame A, as the carriage moves up,
95 the distance between the bearings of the lever N¹ being shortened, the motion of the ratchet G¹, and consequently the log W¹, is increased in proportion to the diameter of the log thereby cutting laths of an even
100 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 K¹ that the center of the chucks R and Q
105 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 N¹ in combination with the quadrant Y, rack X, pin-

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ion Z, ratchet G¹, 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
5 chuck Q, instead of applying the power to the periphery of the log) by which arrangement I can cut laths from square logs, sub-

stantially in the manner and for the purposes set forth.

WM. BULLOCK.

Witnesses:

J. B. MURPHY,
JAMES BRANT.