

October 21, 1913.

DRAWING

4,787

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# UNITED STATES PATENT OFFICE.

JAMES M. WINSLOW, OF CAMPBELLS PORT, OHIO.

## LATH-CUTTING MACHINE.

Specification of Letters Patent No. 4,787, dated October 3, 1846.

*To all whom it may concern:*

Be it known that I, JAMES M. WINSLOW, of Campbells Port, Portage county, State of Ohio, have invented a new and useful  
5 Machine for Cutting Laths, which is described as follows, reference being had to the annexed drawings of the same making part of this specification.

Figure 1 is a side elevation of the machine. Fig. 2 is a front elevation of machine. Fig. 3 is a vertical longitudinal section. Fig. 4 is a top view. Fig. 5 is a sectional view showing the pointed mandrel, pinion and screw.

15 The machine in its improved form consists of the following parts namely: A substantial wooden frame (*a a b b c c d d e e*) of which the uprights *a a* contain a cast iron slide *A A*; in which slide there are  
20 placed the boxes *B B* of the gudgeons *B' B'* of the pinions *C C*, which fit into the mandrels *D D*, which mandrels have on their inner face points *D'* to afford them a hold on the log; there is a screw *E E* journaled  
25 into the outside of each gudgeon *B' B'* which works inside the center of the pinion having a shoulder pressing against the end of the pinion and by turning the winch *F F* attached to the head of the screws the points  
30 of the mandrels are forced into or drawn out of the log. The pinions *c c* gear into an eccentric rack *G G* which is so formed that every motion of the pinions the distance of one log removes it one inch and a quarter  
35 (the width of the lath) farther from the center of the said eccentric rack thus keeping the upper side of the log at one uniform height. The upper knife is formed of a steel plate *h* attached to a cast iron plate  
40 *e* Fig. 3 by set screws. The outer edge of the steel plate is of course made sharp. The perpendicular knife *k* is made to cut into the log one inch and a quarter at every stroke by means of the cranks *L L* which  
45 connect by the miter wheels *M M* with the shaft on which is the fly wheel *N* and the pulley *O* when the power is applied. One of the crank shafts terminates in a small crank *P* Fig. 4 which through the medium  
50 of the connecting rod *Q* which rod works in a ball joint at *R* and imparts in concert with the arms *S S* Figs. 3 and 4 a vibrating motion to the horizontal knife *k* which is made thereby to cut the thickness of a lath  
55 into the log. This horizontal knife is secured to a sliding plate *m* by set screws

which plate rests on the cross timbers *b b*. On the pulley shaft is a cam *T* which by means of the rod *U* and arm *Y* imparts an oscillating motion to the shaft *W* and click  
60 *X* which thus at each interval between the formation of two consecutive laths pushes around the ratchet wheel and its attached roller *V* sufficiently far to turn the log the thickness of a lath by means of the points *v*  
65 on the surface of the roller.

The foregoing parts of the machine are not claimed. That which I claim is the following and relates, 1st, to the arrangement of the bearings of the feed roller. 2d, the  
70 manner of sustaining the knives by a new arrangement of set screws, and 3d the peculiar arrangement of a revolving notched counter, all of which are described as follows.  
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The bearing plates *H* before named are made of metal of a rectangular form and are perforated with oblong slots *i* or mortises Fig. 1 to receive the gudgeons of the feed roller *V* and also with round aper-  
80 tures to admit screws or bolts by which they are fastened to the posts. The oblong mortises *i* aforesaid are made of sufficient size to allow the gudgeons of the feed roller to rise and fall freely.  
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In order to make the knife that makes the vertical cut steady in its movement I cause the knife stock *l* to move obliquely between the ends or points of screws *L'* passed through the two upper horizontal parallel  
90 central timbers of the frame and in contact therewith. As the points of the screws wear they are screwed up against the stock by simply turning them.

The screws *w* for steadying and adjusting  
95 the stock *m* of the horizontal knife *k* are passed up vertically through the cross timber *w'* of the frame having their points against the under side of the knife stock.

The revolving notched wheel *A'* for keep-  
10 ing count of the number of laths cut is placed in a vertical position on a horizontal pin *A''* inserted into the side of one of the horizontal top pieces of the frame aforesaid marked on the face 100, 1000 or any num-  
15 ber according to the number of notches in the periphery of the wheel in which notches there is made to lie a hand *A'''* which is attached to an arm *Q* connected to the wrist of one of the crank shafts *P* and the hori-  
20 zontal knife so that at every sweep of the knife the said hand is made to act against



one of the teeth of the wheel and to turn the wheel the distance of a tooth at each cut of the horizontal knife. A pointer C<sup>3</sup> Fig. 4, is fastened to the top of the frame in a horizontal position to indicate when the wheel has performed a revolution.

Operation: First fix the mandrel D firmly into the center of each end of the log Z then raise it to its place on the eccentric racks G G and having inserted the pinions fix the whole firmly in their place by means of the screws E then apply the strap to the pulley O and the machine will after a few cuts commence turning out good laths which it must be allowed to do until the log is re-

duced to about six inches in diameter when the machine must be stopped and replenished with a fresh log.

What I claim as my invention and desire to secure by Letters Patent is—

The manner of arranging the bearings of the feed roller in plates fastened to the outside of the central posts in combination with the revolving pointed feed roller, eccentric racks and revolving pinions for raising and feeding the log to the knives. 20 25

JAMES M. WINSLOW.

Witnesses:

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A. E. H. JOHNSON.