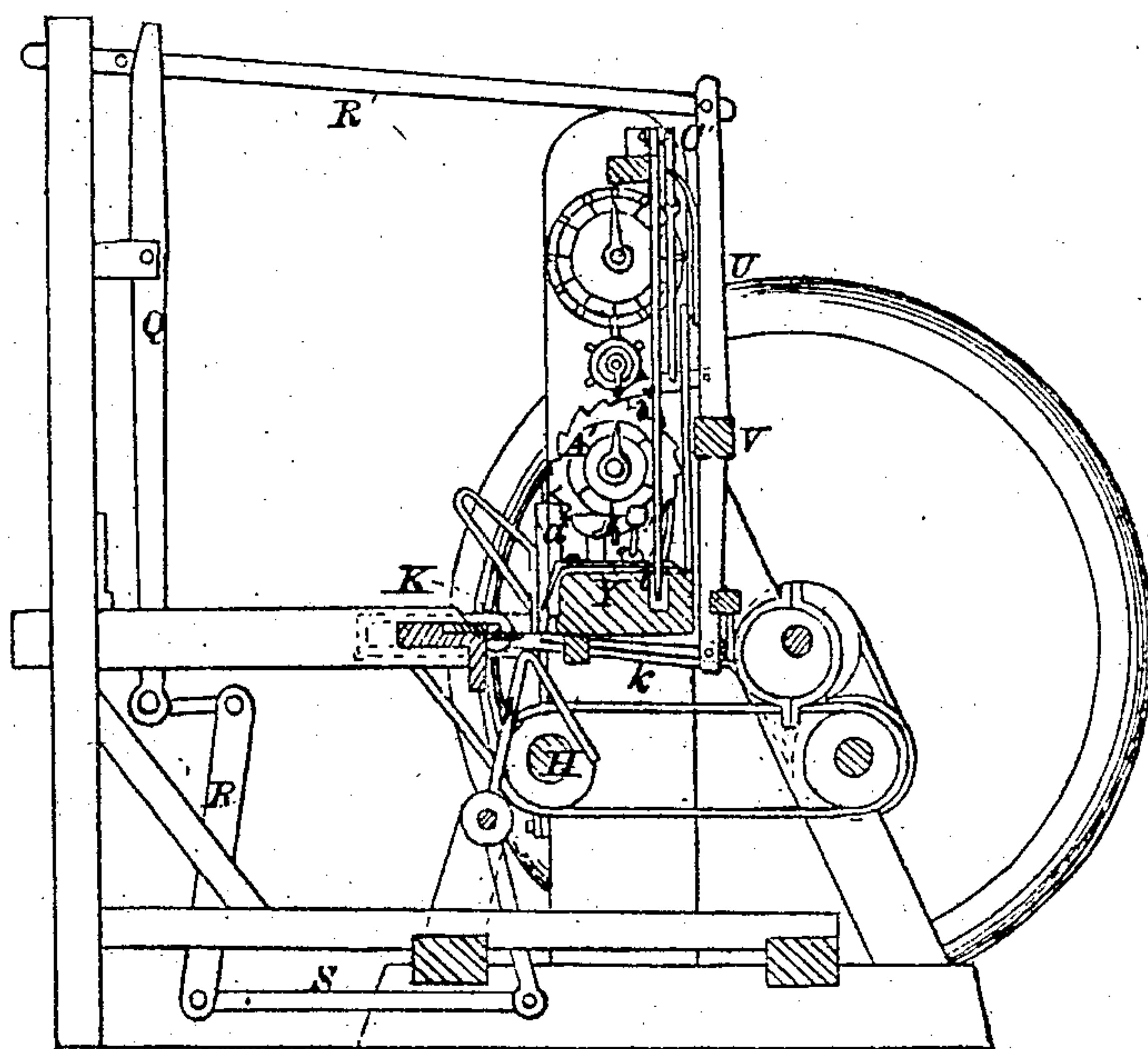


No. 22,449.

J. PEFLEY.
LATH MACHINE.

PATENTED DEC. 28, 1858.



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TAKEN FROM PATENT OFFICE REPORT
1858-VOL. III.

UNITED STATES PATENT OFFICE.

JACOB PEFFLEY, OF BAINBRIDGE, INDIANA.

LATH-MACHINE.

Specification of Letters Patent No. 22,449, dated December 28, 1858.

To all whom it may concern:

Be it known that I, JACOB PEFFLEY, of Bainbridge, in the county of Putnam and State of Indiana, have invented a new and Improved Machine for Cutting Laths; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a vertical section of my invention taken in the line *x, x*, Fig. 2. Fig. 2, is also a vertical sectional view of do. taken in the line *y, y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in a novel arrangement of a reciprocating cutter or knife with a stationary bed and reciprocating supports for sustaining the bolt; and also in a registering device applied to the machine and used in connection with a bell, the whole being arranged as hereinafter fully shown and described whereby a self-feeding or automatic machine is obtained, and one that performs its work very expeditiously and in a perfect manner.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, A, are two sill pieces to each of which an upright B, is attached, the upper ends of the uprights being connected by a traverse bar C, and the sills connected by traverse bars D, D. Each upright B, is supported by a brace E.

F, is a driving shaft the bearings of which are on the braces E, E, and G, is a shaft which also has its bearings on the braces E, E, below the bearings of the driving shaft F. A shaft H, which is in the same horizontal plane with the shaft G, has its bearings on the front sides of the uprights B, B, and endless belts *a*, pass around the two shafts G, H, as shown plainly in Fig. 1. Motion is communicated to the shaft G, from the driving shaft F, by a belt *b*. On one end of the driving shaft F, a fly or balance wheel I, is placed, and a driving pulley J, is placed on the opposite end.

K, is a knife or cutter which is attached to a bar or stock L, the ends of which are fitted in horizontal guides *c, c*, attached one to each upright B. The knife or cutter is nearly equal in length to the bar or stock L, and to each end of the bar or stock a con-

necting rod M, is attached, said rods being connected by straps *d*, to eccentrics N N, on the driving shaft F.

To the center of the cutter bar or stock L, a horizontal bar M', is attached. The outer part of this bar is slotted longitudinally and it is fitted in a vertical bar O, the lower part of which is attached to a bar P, secured to the traverse bars D, D. The bar M', is allowed to work freely back and forth in the upright bar O. To the inner side of the bar O, a lever Q, is attached. The lower part of this lever passes through the slot in the bar M, and is attached by a link *e*, to the upper end of a lever R, which has its fulcrum pin in the bar P. To the lower end of the lever R, one end of a bar S, is attached and the opposite end of said bar is attached to an arm *f*, the upper end of which is secured to a shaft T, the bearings of which are in stanchions *g, g*, attached to one of the traverse bars D. To the shaft T, two bent rods *h, h*, are attached. The form of these rods is plainly shown in Fig. 1. The upper end of the lever Q, is slotted or notched longitudinally to receive one end of a bar R', which works freely in the upper part of the upright bar O, a pin *i*, passes transversely through the bar R, just in front of the lever Q, and the back end of the bar R, is attached to the upper end of an arm U, the lower end of which is attached to a rock shaft V, having its bearings on the upper parts of the braces E, E.

W, is a spring which bears against the arm U, and bar C.

J, J, are two pendants attached to the shaft V, said pendants having a bar X, secured to their lower ends, the bar X, being parallel with the shaft V. To the lower end of each pendant *j, j*, a bar *k* is attached by a joint. These bars are fitted and work in guides *l*, attached to the under side of a horizontal bar Y, which is placed between the two uprights B, B. To each connecting rod M, a pin *m*, is attached, said pins acting at certain times against pendants *n*, attached to the ends of the bar *x*.

A', is a ratchet which is attached to the inner side of one of the uprights B. This ratchet is placed loosely on a stationary axis *a'*, the outer end of which is provided with an index *b'*. The ratchet A', has a drum *c'*, attached and this drum has a pin or tooth *d'*, on its periphery. Directly above the drum *c'*, a drum *d''*, is placed, provided

with pins or teeth entirely around it. The periphery of the drum d'' , is provided with a tooth e' . Above the drum d'' , a drum f' , is placed. The drums d'' , f' , are both placed
 5 on stationary axes which are provided at their outer ends with indexes. The face of the ratchet A' , and also the faces of the drums d'' , f' , are graduated, the former being graduated in units and tens, the drum
 10 d'' , in hundreds and the drum f' , in thousands.

B' , is a bell which is attached to the bar Y , near the ratchet A' and g' , is a spring hammer which is actuated at every revolution of the ratchet A' , by a projection g'' ,
 15 on the ratchet A' . A holding pawl h' , catches into the ratchet A' , and i' , is a pawl which actuates the ratchet A' . The pawl i' , is connected by a rod j' , with a lever C' ,
 20 attached to the traverse bar C , and to the end of a lever C' , a vertical rod k' , is attached. The lower end of this rod is connected to a bent lever l' , which is attached to the bar Y , by a fulcrum pin m' . To the
 25 face side of the bar Y , two guides n' , n' , are attached, and to the upper end of each guide an inclined bar o' , is attached. The form of these guides is plainly shown in Fig. 1.

30 The operation of the machine is as follows: The bolt, shown in red, and designated by a^* , is got out of proper dimensions and its ends placed in the guides n' , n' . Power is applied to the shaft F in any proper way
 35 and a reciprocating motion is given the knife K , by means of the rods M , and eccentrics N , N . The bars k , k , also have a reciprocating motion given them by means of the pins m , on the connecting rods M
 40 acting against the pendants n , of the bar X , in connection with the spring W . The knife K , works in line with the lower edge or surface of the bar Y , and when the knife K , moves outward from the bar Y , the bars k ,
 45 k , follow it and project a certain distance from the bar to hold the bolt, and the bars k , remain out from the bar Y , until the knife returns and nearly reaches the bolt. The knife at each forward movement cuts a lath
 50 from the lower edge of the bolt, the thickness of the lath being equal of course to the space between the cutting edge of the knife and the upper surfaces of the bars k , k . The laths fall of course as they are cut and are
 55 conducted down the outer sides of the rods h , which are merely inclined conductors or guides and are discharged by the endless belts a , at the back end of the machine. The bolt a^* , feeds itself down by its own gravity,
 60 and when one bolt is nearly cut up into laths another may be laid on the inclined bars o' , to follow it between the guides n' , n' . In order to prevent any imperfect laths being

cut the bolt a^* , is put in the guides with the best or straight edge down and the instant
 65 the good wood is all cut off, the operator moves the lower end of the lever Q , as the knife K , withdraws and by this movement the bars k , k , withdraw and at the same time
 70 the shaft T , turns so that the rods h , will be in the position shown in red, Fig. 1, and the worthless piece conducted down to the floor or ground at the front end of the machine,
 the bars k , passing back to their original position, when the lever Q , is released by
 75 the operator. The bolt while being operated upon presses onward toward the bar Y , the outer part of the lever l' , and the pawl i' , will consequently be kept in contact with the ratchet A' , the pawl moving the ratchet
 80 the distance of one tooth at each forward movement of the knife K . The index b' , therefore it will be seen register the laths as they are cut, and at every revolution of the ratchet A' , a hundred laths, (which form
 85 a bundle) are cut and the completion of this number is signalized by the bell B' , which is struck by the hammer g' , actuated by the projection g'' , the index of the drum d'' , denotes hundreds and the index of the
 90 drum f' , denotes thousands. Every time the bell strikes, the attendant who bundles the laths grasps them up and removes them from beneath the machine.

It will be seen that when the lever Q , is
 95 actuated to prevent an imperfect lath from passing down with the good ones that the registering device is out of gear or rendered inoperative so that no false counts can be made by the registering device.
 100

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

1. The combination of the reciprocating knife K , the bolt supports or bars k , and
 105 the stationary bar or bed Y , arranged to operate substantially as and for the purpose set forth.

2. I also claim the shaft H , provided with the bent rods h , and connected or arranged
 110 with the rock shaft V , of the bars k , k , through the medium of the levers Q , R , bars S , R' , and the arm U , substantially as and for the purpose set forth.

3. I further claim in connection with the
 115 knife K , bars k , k , and bed Y , the registering device operated from the rock shaft V , through the medium of the pawl i' , connected with the lever C' , rod k' , and bent lever l' , so as to be thrown in contact with
 120 the ratchet A' , by the bolt a^* , as set forth.

JACOB PEFLEY.

Witnesses:

JOSEPH SIDDENS,
 JOHN S. JENNINGS.