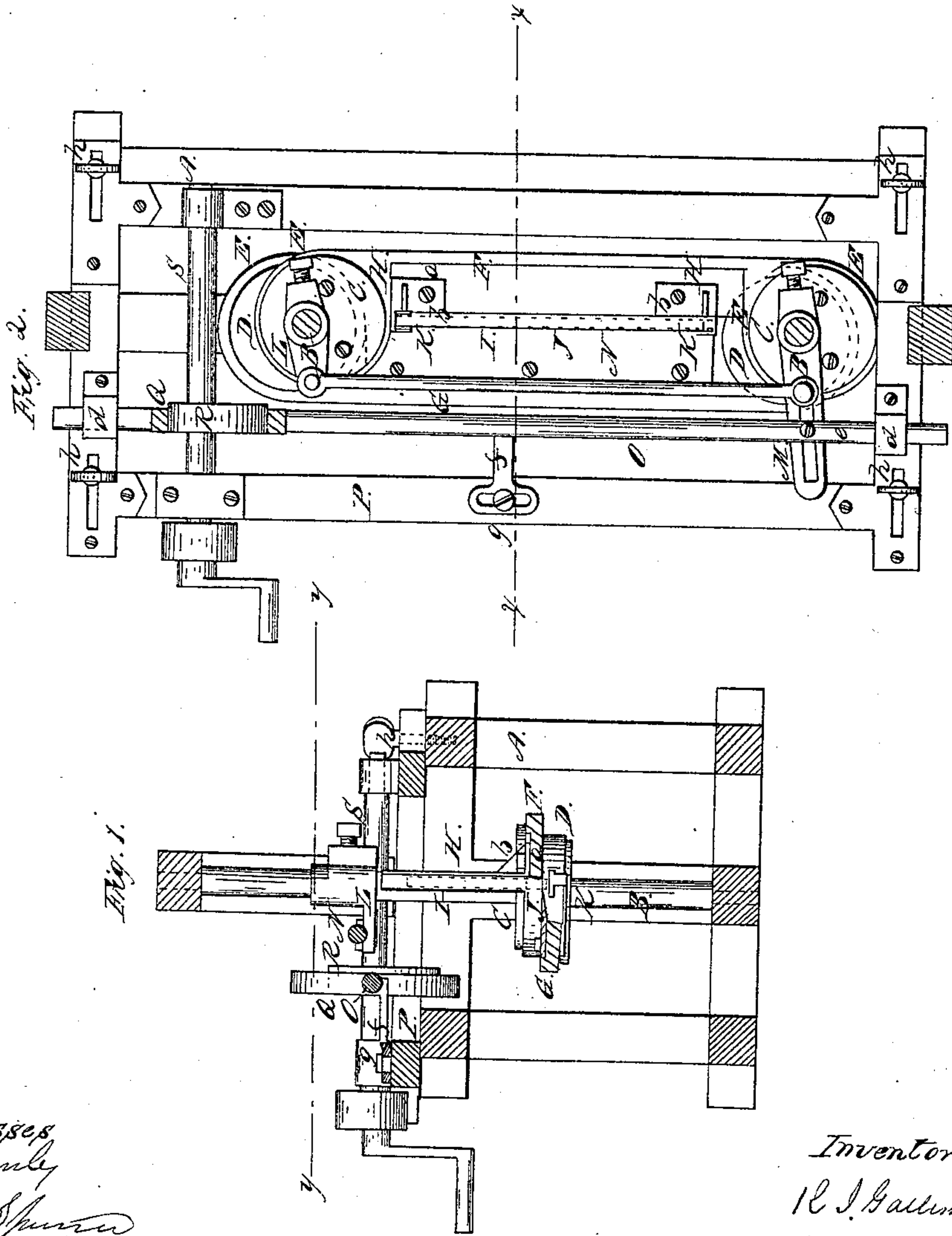


R. J. Gatling,
Making Laths,

No 29,072.

Patented July 10, 1860.



Witnesses
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UNITED STATES PATENT OFFICE.

R. J. GATLING, OF INDIANAPOLIS, INDIANA.

LATH-MACHINE.

Specification of Letters Patent No. 29,072, dated July 10, 1860.

To all whom it may concern:

Be it known that I, R. J. GATLING, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and
5 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
10 which—

Figure 1, is a transverse vertical section of my invention taken in the line x, x , Fig. 2. Fig. 2, a horizontal section of the same taken in the line y, y , Fig. 1.

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

The object of this invention is to obtain a simple and efficient machine for cutting or riving laths from a bolt. One that may
20 be operated with a small expenditure of power and require no manipulation except the applying of the bolt to the machine.

The invention consists in the employment or use of a cutter or knife-bar and a bolt-
25 bar attached to eccentrics so arranged relatively with each other that the two bars will have oblique reciprocating movements toward and from each other and the desired end attained.

30 The invention also consists in a peculiar means of applying the power of the knife, and bolt bars, whereby the stroke or length of movement of the same may be varied as occasion may require.

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

A, represents a rectangular frame in which two vertical shafts B, B, are placed. These
40 shafts have each two eccentrics C, D, placed on them one directly above the other, the eccentrics of each shaft being placed in opposite positions with each other as shown in Fig. 2. Each eccentric is encompassed by
45 a yoke E, and the yokes of the eccentrics C, of the two shafts B, B, are attached to a bar F, the yokes of the eccentrics D, being attached to a bar G. The two bars F, G, are parallel with each other and to the bar F,
50 which is connected with the upper eccentrics C, two vertical guides H, H, are attached to receive the ends of the bolt I, which is shown in red. These guides are simply grooved bars provided with flanches or plates a , at
55 their lower ends through which bolts or

screws b , pass, to secure the guides to the bar F, as shown in Fig. 2, which is connected to the lower eccentrics D, a knife J, is secured. This knife extends the whole length of the bar G, and is set in flush with the
60 upper surface of said bar and has its basil or bevel at its under side as shown in Fig. 1. The under surface of the bar F, is on a level with the upper surface of the knife J, and the guides H, H, project over or beyond the
65 edge of the bar F, so that the bolt I, may rest on arms K, K, which are attached to the under side of bar G, and project forward of the knife J, but somewhat below it, the distance between the upper surfaces of the
70 arms K, and the edge of knife J, determining the thickness of the laths to be cut.

To one of the shafts B, an arm L, is secured horizontally by a set screw c , and a longer slotted arm M, is secured horizontally
75 in a similar manner to the other shaft B. The two arms L, M, are connected by a rod N, and the long arm M, passes through a mortise in a rod O, which is fitted in guides d, d , on an adjustable frame P. The rod O,
80 has a yoke Q, attached to it in which an eccentric R, on a shaft S, is fitted. In the rod O, a vertical pin e , is fitted, said pin passing through the slot in the arm M. The rod O, also has a guide f , attached which
85 works on a pin g , in the frame P.

The frame P, is placed on the upper part of the frame A, and may be adjusted laterally thereon and secured at any desired point
90 within the range of its movement by means of set screws h .

The operation is as follows: The bolt I, is fitted between the guides H, H, and the shaft S, is rotated by any convenient power. The eccentric R, in the yoke Q, communicates a
95 reciprocating motion to the rod O, and the latter through the medium of arm M, communicates a rocking motion to the shaft B, to which arm M, is attached and consequently the two bars F, G, will be moved
100 obliquely toward and from each other said motion being produced by the arrangement of the cams C, D. As the two bars F, G, approach each other the knife J, cuts a lath from the bottom of bolt I, and as the bars re-
105 ceede from each other the bolt drops by its own gravity from the knife down on the arms K, and is in a position to receive the knife J, as the two bars again approach each other. The laths are cut from the bolt with
110

an oblique or drawing cut and the cut will consequently be made smooth and with but a small expenditure of power.

5 The length of the stroke of the bars F, G, may be varied to suit the thickness of the bolt I, by adjusting the frame P, the position of the pin e, rod O, in the arm M, determining the length of the stroke of said bars F, G.

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

1. The employment or use of the two

obliquely reciprocating bars F, G, provided respectively with the bolt I, and knife J, and 15 operated substantially as and for the purpose set forth.

2. The arrangement of the slotted arm M, rod O, and adjustable frame P, substantially as shown to vary the length of stroke or 20 movement of the bars F, G, for the purpose specified.

R. J. GATLING.

Witnesses:

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