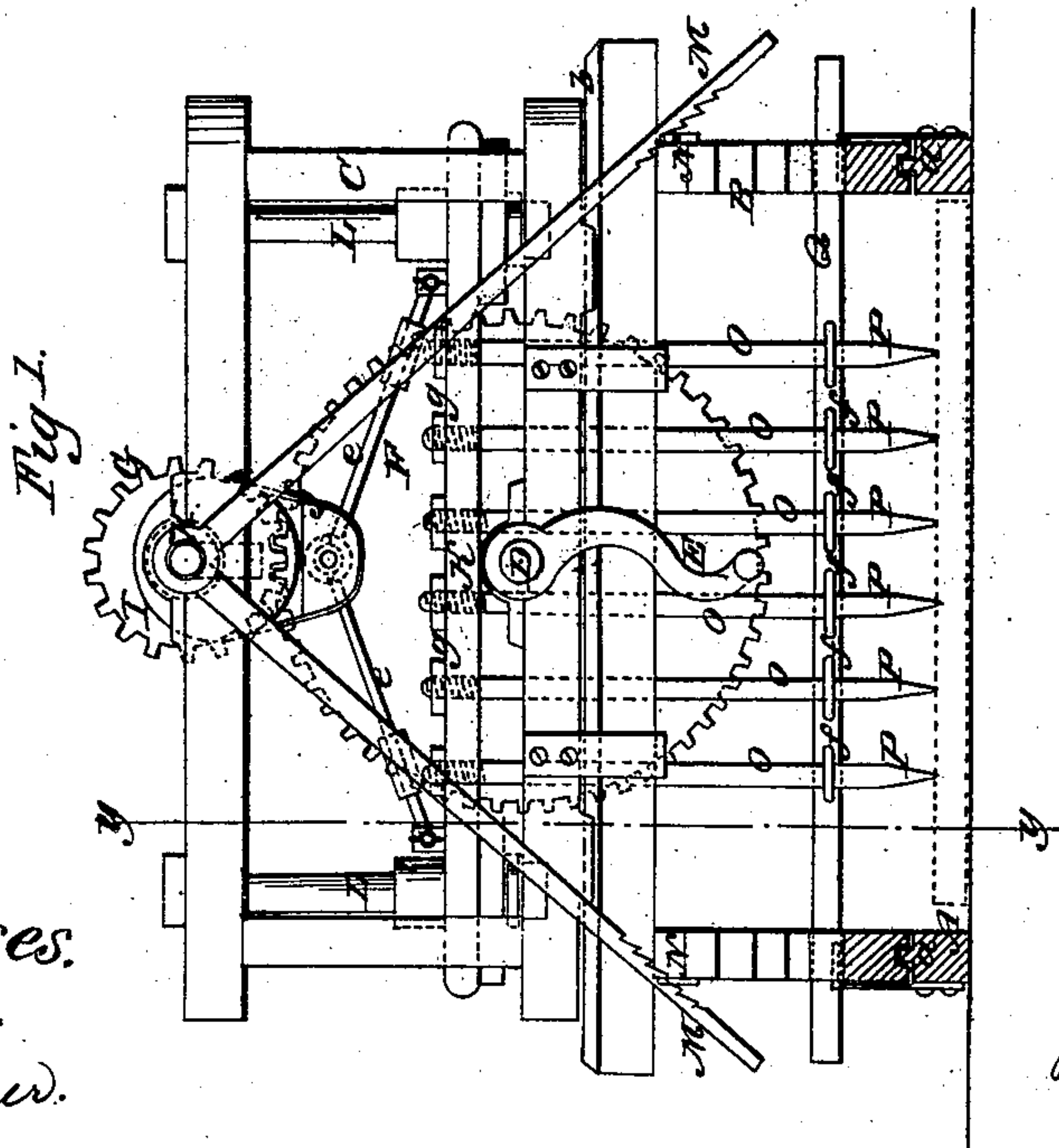
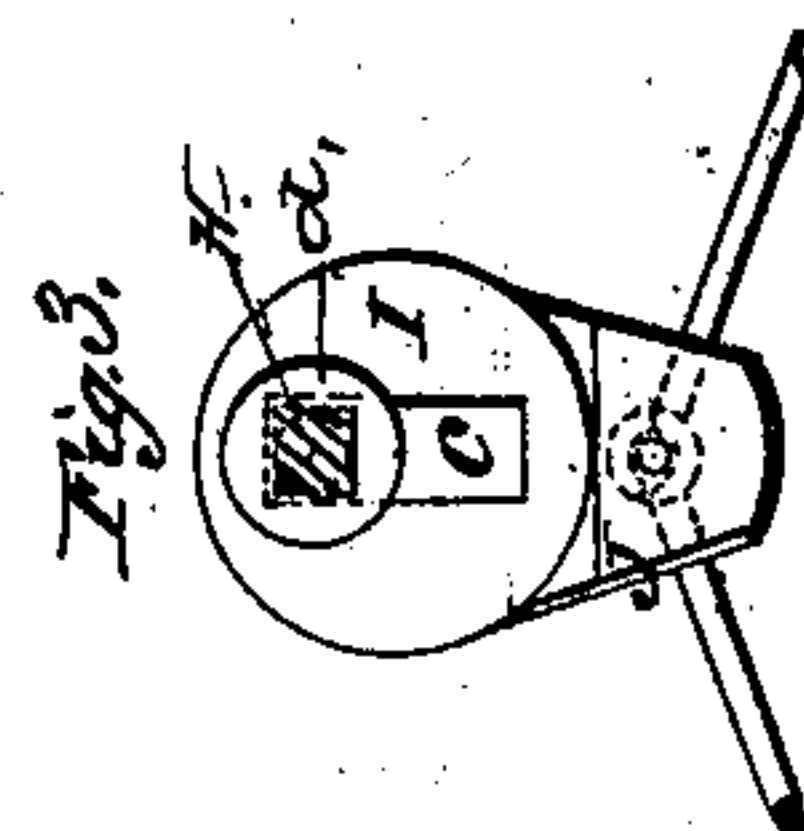
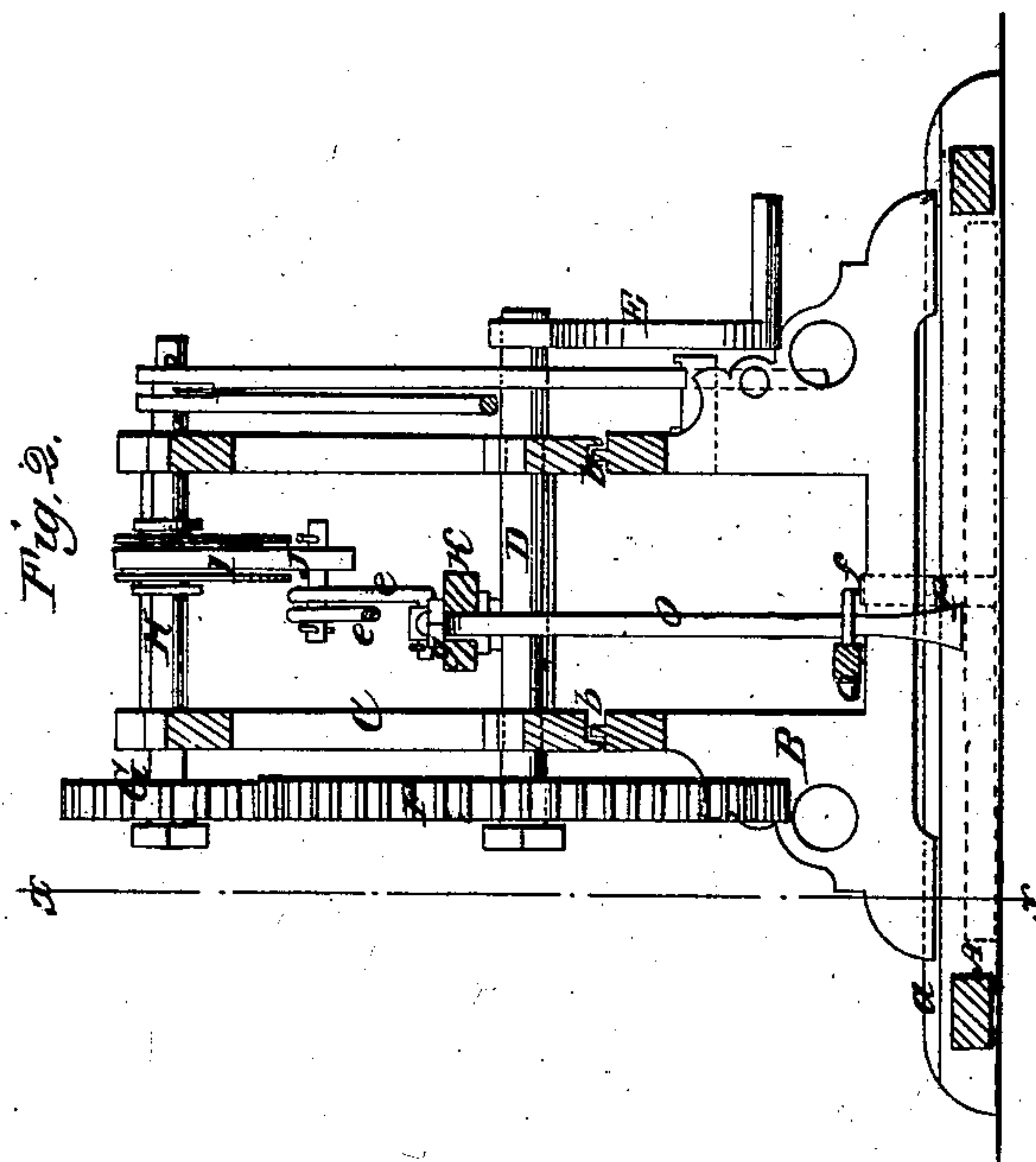


# *F. Schwalbe,* *Dressing Stone.*

*N<sup>o</sup> 29,106.*

*Patented July 10, 1860.*



*Witnesses:*  
*J. W. Combs,*  
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*per Munyfg.*  
*attorneys.*



# UNITED STATES PATENT OFFICE.

FRANCIS SCHWALM, OF JOLIET, ILLINOIS.

## STONE-DRESSING MACHINE.

Specification of Letters Patent No. 29,106, dated July 10, 1860.

*To all whom it may concern:*

Be it known that I, FRANCIS SCHWALM, of Joliet, in the county of Will and State of Illinois, have invented a new and Improved Machine for Cutting or Dressing Stone; 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 side sectional view of my invention, taken in the line *x, x*, Fig. 2. Fig. 2 is a vertical section of the same taken in the line *y, y*, Fig. 1. Fig. 3 is a detached view of the means by which the chisels are operated.

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

This invention consists in the employment or use of a sliding eccentric connected with a bar, in which a series of chisels are fitted, the chisels being provided with a rack, and all the working parts being fitted in sliding frames so arranged as to admit of the perfect adjustment of the chisels, and a proper adaptation to their work under all circumstances.

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

A represents a horizontal frame or base on which the parallel ways *a, a*, are placed one at each side. On the ways *a, a*, there is a frame B, which is allowed to slide freely back and forth on the ways; and on the upper part of the frame B, there are placed two ways *b, b*, which are at right angles to the ways *a, a*, on the frame or base A. On the ways *b, b*, there is placed a frame C, which is allowed to slide freely back and forth thereon.

In the lower part of the frame C, there is placed a shaft D, on one end of which there is a crank E, and on the other end a spur wheel F. The spur wheel E, gears into a pinion G, on one end of a shaft H, which is placed on the upper part of the frame C.

On the shaft H, there is placed an eccentric I; this eccentric is formed of a wheel provided with an oblong slot *c*, in which a square *d*, on the shaft H, is fitted, as shown clearly in Fig. 3. The eccentric I, is fitted within a yoke J, the lower ends of which has two rods *e, e*, attached. The lower ends of the rods *e, e*, are connected to the ends of a bar K, which is fitted on uprights L, L, in

the frame C, the bar being allowed to slide freely up and down on said uprights L, which serve as guides for the bar.

On the end of the shaft H, there are placed two rods M, M, the lower parts of which are serrated at their inner sides, and catch on plates N, N, attached to the frame B. These rods M, prevent the casual movement of the frame C, on its ways *b, b*, as will be fully understood by referring to Fig. 1.

The bar K, is perforated with holes at a suitable distance apart, and in these holes rods O, are placed and fitted loosely. The lower end of each rod O, is made in the form of a chisel P, and the latter are fitted in guides *f*, attached to a bar Q, placed in the lower part of frame B. The upper end of each rod O, has a screw thread cut on it and a nut *g*, fitted thereon.

The operation is as follows: The machine is placed in proper position to admit of the chisels operating at the desired spot, and the shaft D, is rotated by any convenient power; the shaft H, is rotated from the shaft D, through the medium of gearing F, G, and the eccentric I, as the shaft H, rotates has two movements, a rotating and a sliding one, the latter movement being caused by the oblong slot *c*. As the eccentric I, rotates the bar K, and chisels P, are elevated and depressed, the bar and chisels falling by their own gravity when the eccentric reaches its culminating point. The stroke of the chisels P, is equal to the length of the slot *a*, and this may be varied as desired by the employment of eccentrics provided with slots of different lengths. The chisels P, descend on their work by their own gravity, each chisel acting independently, as they are fitted loosely in the bar K. The chisels are allowed therefore to act efficiently on stones of irregular surfaces; but the chisels are all raised by the bar K, the nuts *g*, serving as stops to sustain the rods O, and chisel P. By adjusting the guide bar Q, the chisels P, may be made to cut either in vertical or oblique planes, as the nature of the work may require, the bar Q, being secured by pins or any suitable means, and by adjusting the frames B, C, on their respective ways *a, b*, the chisels may be adjusted properly to their work, and the chisels moved over the stone during the progress of the work with the greatest facility.

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

1. The employment or use of the sliding  
5 eccentric I, connected with the chisel-bar K,  
and arranged to operate as and for the purpose set forth.

2. In connection with the eccentric I, and chisel-bar K, the adjustable guide bar Q, for the purpose specified.

FRANCIS SCHWALM.

Witnesses:

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