

(No Model.)

J. L. COLEMAN, Jr.

ROTARY PEG CUTTER.

No. 300,577.

Patented June 17, 1884.

Fig. 3.

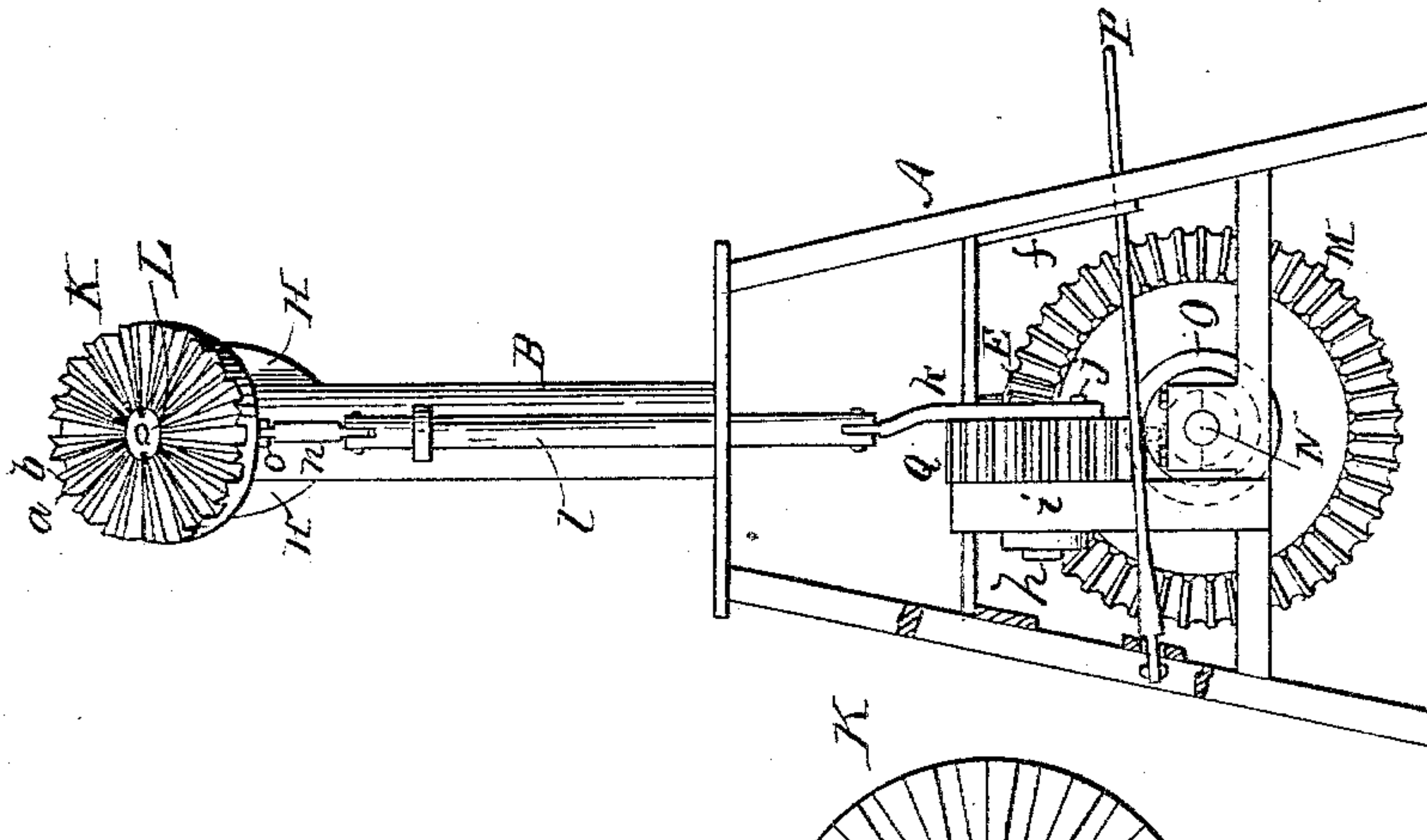


Fig. 2.

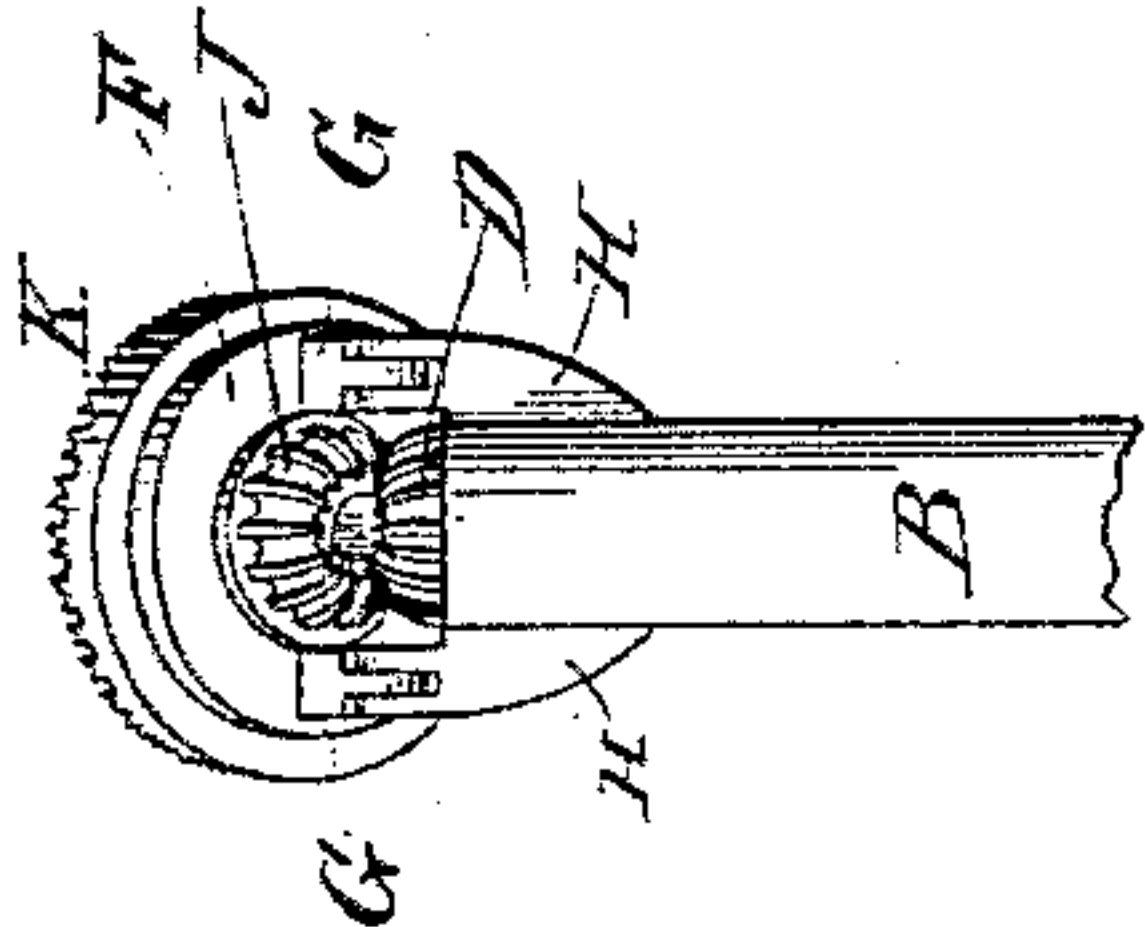


Fig. 5.

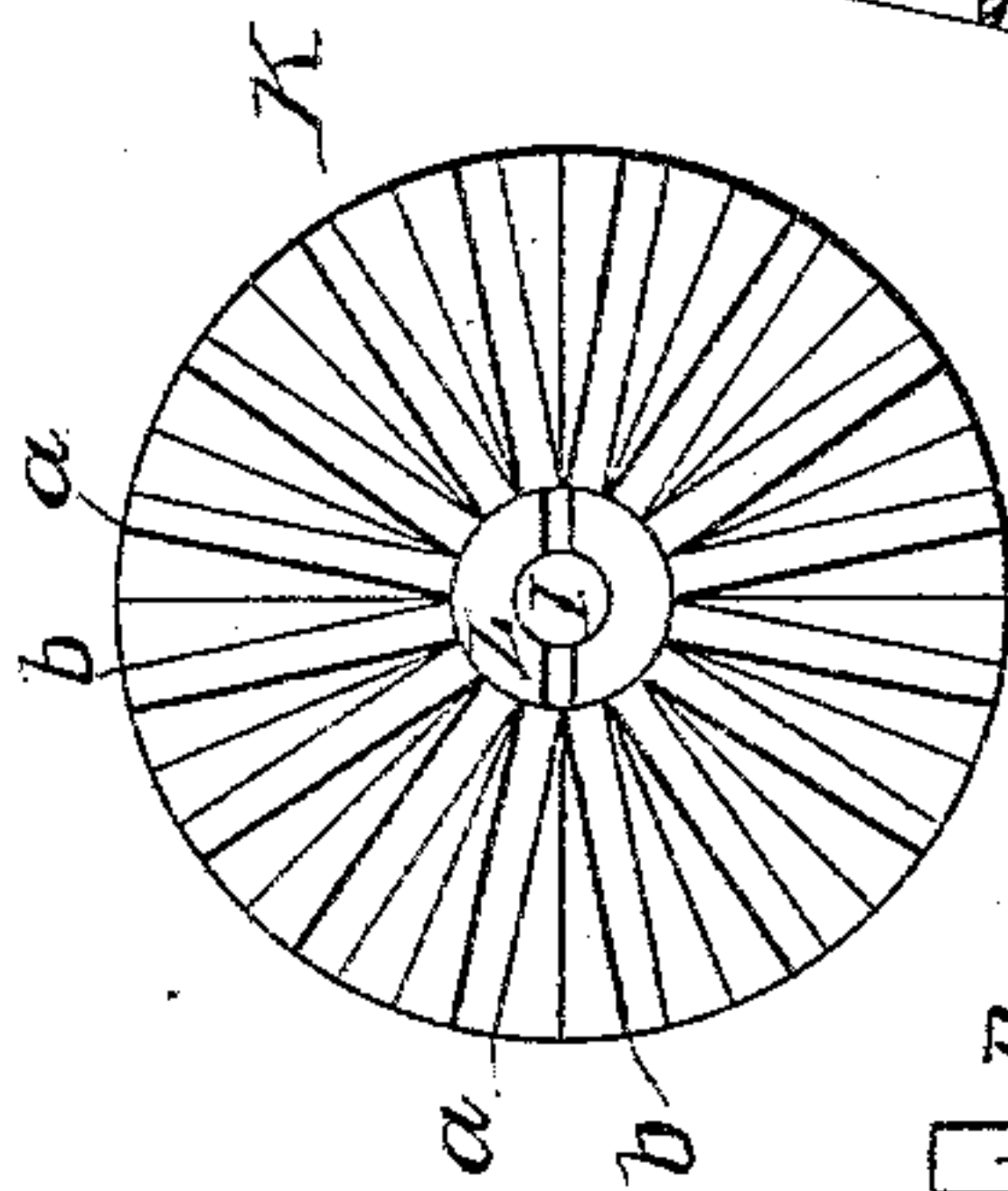


Fig. 1.

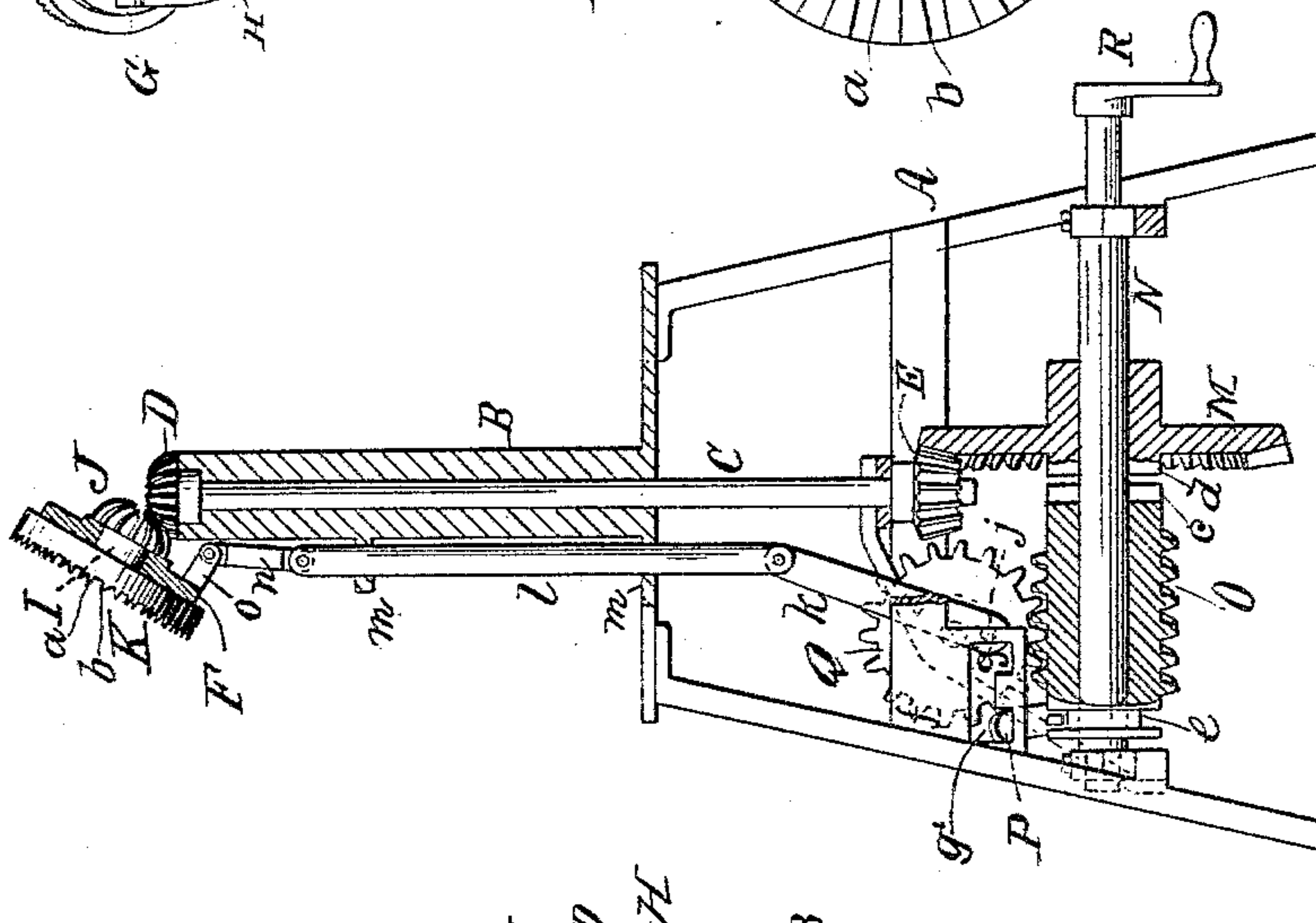
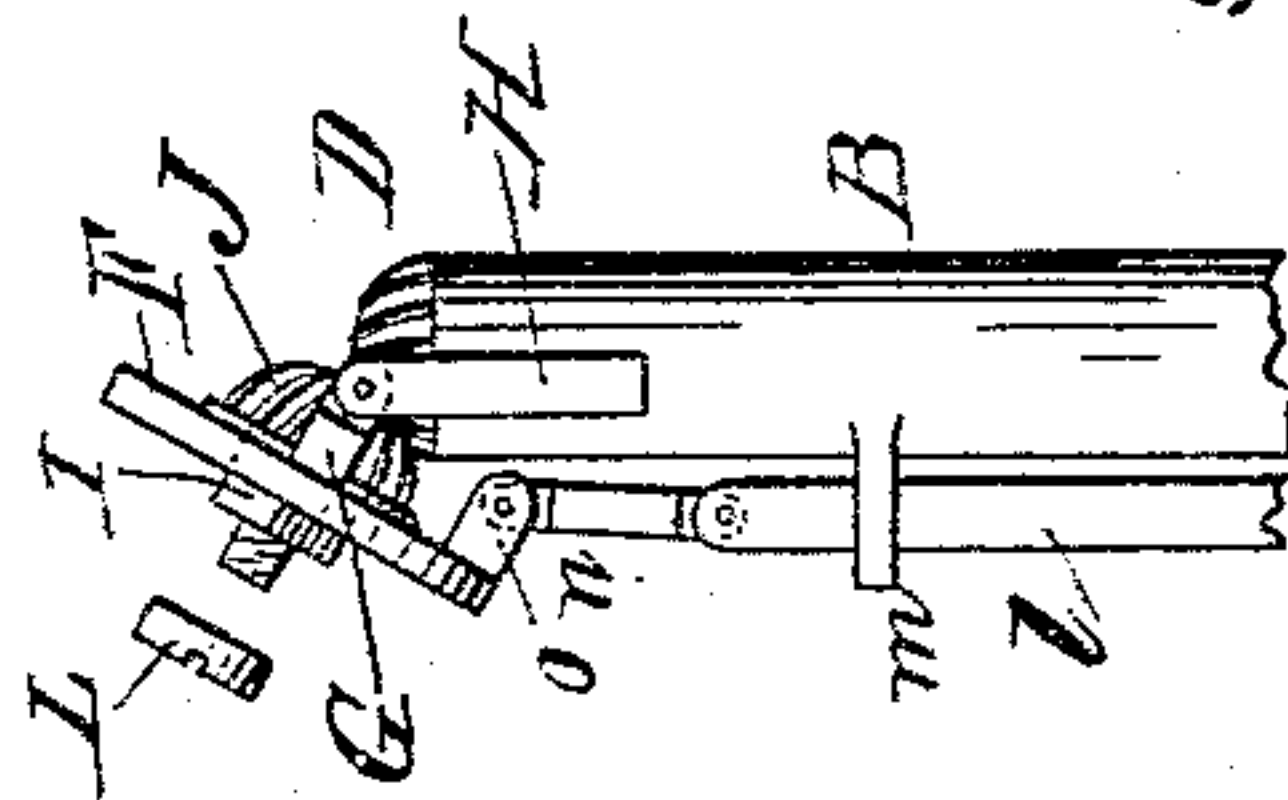


Fig. 4.



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JOHN LEWIS COLEMAN, JR., OF WATTSBOROUGH, VIRGINIA.

ROTARY PEG-CUTTER.

SPECIFICATION forming part of Letters Patent No. 300,577, dated June 17, 1884.

Application filed April 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN LEWIS COLEMAN, Jr., of Wattsborough, in the county of Lunenburg and State of Virginia, have invented a new and Improved Rotary Peg-Cutter, of which the following is a full, clear, and exact description.

The object of my invention is to furnish for shoe manufacturers and dealers a rotary peg-cutter which may be operated by hand, foot, or other power, and may be run rapidly in either direction, and which will automatically adjust itself to the various angles in which it is used.

My invention consists of a disk provided with two sets of oppositely-disposed cutters, arranged alternately with respect to each other, the said disk being journaled in a pivoted support and receiving a rapid rotary and slow oscillating motion.

It also consists in the combination, with the said disk, of mechanism for imparting to it a rapid rotary and a slow oscillating motion.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation, partly in section, of my improved rotary peg-cutter. Fig. 2 is a detail view of the rotary cutter. Fig. 3 is a front elevation with the parts broken away. Fig. 4 is a side elevation of the cutter-operating gear, and Fig. 5 is a detail view of the face of the cutter.

Upon a frame, A, is mounted the hollow standard B, in which is journaled a shaft, C, carrying at its upper end a universal bevel-wheel, D, and at its lower end a beveled pinion, E. A plate, F, is provided with arms G, which are jointed to arms H, projecting upward from the sides of the standard B, and in the plate F is journaled an arbor, I, carrying a universal bevel-wheel, J, which meshes with the bevel-wheel D. The outer end of the arbor I is adapted to receive a cutter, K, which is secured thereon by a nut, L. The arbor I is squared and fitted to a square mortise in the center of the cutter K, and the nut L is let into the surface of the cutter, so as not to interfere with its operation. The cutter K is provided with two sets of radial cutting-edges,

a b, which are inclined in opposite direction with respect to each other, and alternate with each other, so that in whichever direction the cutter K is revolved one or the other of the sets of cutting-edges *a b* will be brought into action.

Rotary motion is imparted to the shaft C by a beveled wheel, M, secured to the horizontal shaft N and engaging the beveled pinion E. Upon the shaft N is loosely placed a worm, O, provided with clutch-teeth *c*, capable of engaging clutch-teeth *d*, formed on the boss of the beveled wheel M. A circumferential groove, *e*, formed in the opposite end of the worm O, receives a pin projecting from the shifting-lever P. The shifting-lever P is pivoted to one side of the frame A, and extends through a slot in a plate, *f*, secured to the opposite side of the frame and provided with notches *g g'*, into either of which the said lever may be dropped, to hold the clutch-teeth *c d* into or out of engagement with each other.

A worm-wheel, Q, turning on a stud, *h*, projecting from a support, *i*, on the frame A, is provided with a crank-pin, *j*, connected by a connecting-rod, *k*, with a vertically-sliding bar, *l*, supported by guides *m m*, parallel with the shaft C. The bar *l* is connected by a link, *n*, with an arm, *o*, projecting from the back of the plate F.

By turning the shaft N, by means of the crank R or otherwise, rotary motion is imparted to the cutter K through the beveled wheel M, beveled pinion E, shaft C, universal bevel-wheels D J, and the arbor I.

By throwing the worm O into engagement with the clutch-teeth *d* the worm O is made to revolve with the shaft N, and a slow rotary motion is imparted to the worm-wheel Q, which, through the connecting-rod *k*, sliding bar *l*, and link *n*, imparts a slow oscillating movement to the plate F and cutter K, which adjusts the latter to any desired angle, and the oscillating movement may be arrested at any time by the withdrawal of the clutch-teeth *c* from the clutch-teeth *d* by means of the lever P.

The universal bevel-wheels D J will engage with each other properly at any angle within the scope of the machine.

My improved rotary cutter will not only adapt itself automatically to the heel and toe

of a boot or shoe and all intermediate points between the heel and toe, and rapidly remove the projecting ends of the pegs therefrom, but will also dress the entire surface of the insole.

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

1. In a peg-cutter, a rotary cutter provided with two sets of oppositely-arranged cutting-
10 edges, alternating with each other, as described.

2. The combination, with the rotary cutter K, of the arbor I, plate F, and the mechanism for rotating and oscillating the said rotary cutter, as specified.

15 3. The combination, with the rotary cutter K, arbor I, and mechanism for rotating the same, of the worm O, worm-wheel Q, crank-

pin j, pivoted plate F, and connective devices, as specified.

4. The combination, with the rotary cutter 20 K, of the arbor I, universal bevel-wheels D J, shaft C, pinion E, beveled wheel M, worm O, worm-wheel Q, connecting-rod k, sliding rod l, and link n, as described.

5. In a rotary peg-cutter, the combination, 25 with the support of the rotary cutter, of the worm-wheel Q and connective devices, worm O, provided with clutch-teeth c, clutch-teeth d, formed on the wheel M, and the shifting-lever P, as herein described.

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Witnesses:

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