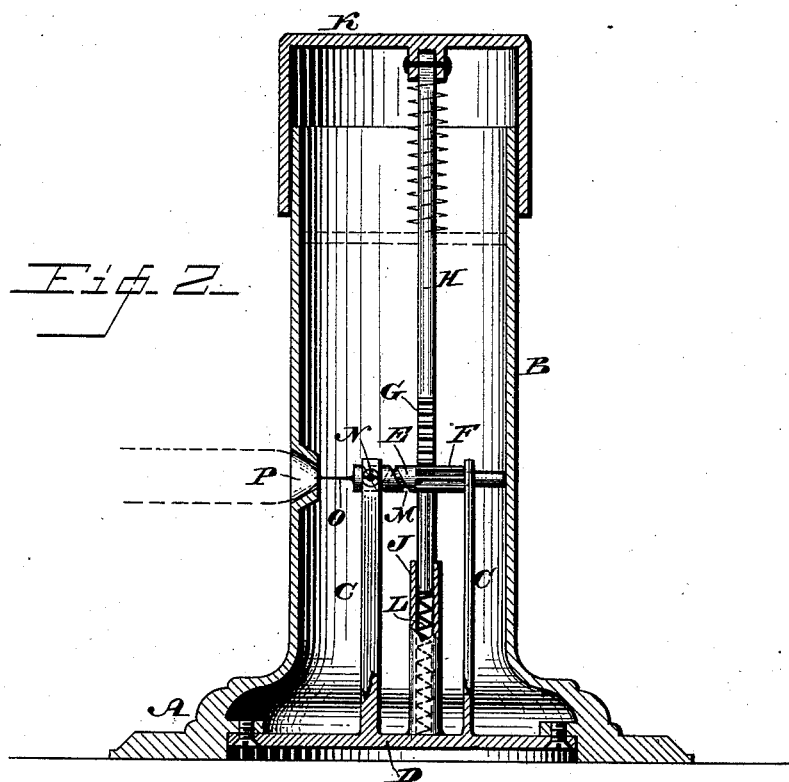
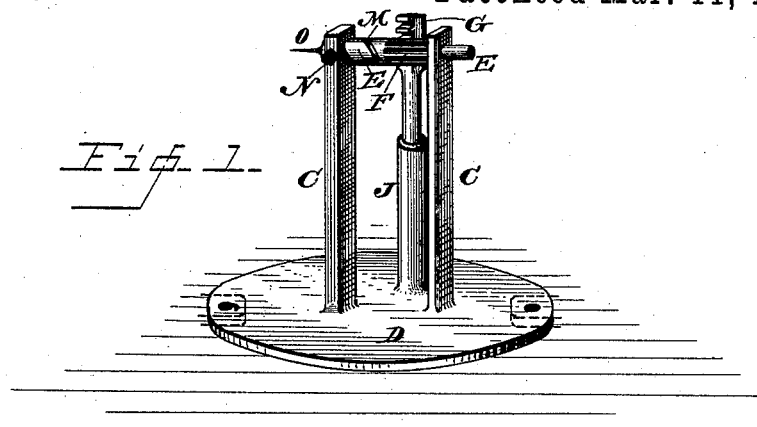


(No Model.)

L. L. DYCKMAN.
CIGAR PIERCER OR DRILL.

No. 423,138.

Patented Mar. 11, 1890.



WITNESSES:

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LOUIS L. DYCKMAN, OF PHILADELPHIA, PENNSYLVANIA.

CIGAR PIERCER OR DRILL.

SPECIFICATION forming part of Letters Patent No. 423,138, dated March 11, 1890.

Application filed November 20, 1889. Serial No. 330,973. (No model.)

To all whom it may concern:

Be it known that I, LOUIS L. DYCKMAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Cigar Piercers or Drills, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a cigar piercer or drill in which a needle is advanced toward the cigar and simultaneously rotated so as to form an opening therein in a rapid and effective manner and without liability to break or injure the cigar.

Figure 1 represents a perspective view of a portion of a cigar piercer or drill embodying my invention. Fig. 2 represents a central vertical section of the entire device.

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

Referring to the drawings, A designates a base, from which rises a casing B of cylindrical or other form. Within the casing are standards C, which are supported on the bottom or closing plate D, and forming the bearings for a shaft E, a portion of which has formed with or secured to the periphery thereof a pinion F, with which engages a rack G, the latter being carried by a bar or rod H, which is guided in a tube J, and connected with a movable head or cap K, said tube containing a spring L, which bears against said bar or rod, it being noticed that the cap K is fitted on the casing B so as to move thereon. The periphery of the shaft E has a spiral groove M, into which projects a pin N, which is secured to one of the standards C about the bearing portion of said shaft E.

O designates a pointed needle or drill, which is secured to the end of the shaft E and occupies a position in line with an opening or socket P in the side of the casing B.

The operation is as follows: The tip of a cigar is placed in the socket P and the cap K depressed, whereby the bar or rod H descends and the rack G, carried by said bar or rod, rotates the pinion F, and consequently the shaft E. Owing to the spiral groove M and pin N, sliding or longitudinal motion is imparted to the shaft E and the needle or

drill O, and as it is rotated it is carried toward and into the tip of the cigar, thus piercing the same, said operation being accomplished in a rapid and effective manner without liability to break or injure the cigar, the latter being especially due to the rotation of the advanced needle. The cap K is now let go, and the spring L, which has been compressed, bears against the rack bar or rod, thus returning the several movable parts to their normal condition, it being evident that the needle O is withdrawn from the tip of the cigar as the shaft E slides on its bearings as it receives rotation in either direction, the sliding motions being occasioned by the engagement of the pin N with the shaft in the spiral groove M thereof, as has been stated. The location of the spring may be varied. It may be so located as to press or bear against the cap K and a cross-bar on the upper part of the casing, as shown by the dotted lines, Fig. 2, it being evident that in this construction the tube J may be dispensed with.

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

1. A cigar-drill having a casing with an opening in its side, a transverse shaft suitably journaled within the casing, and having a pinion and a spiral groove, a needle on one end of the shaft, a fixed pin projecting into said groove, and a reciprocating rack engaging said pinion, said parts combined substantially as described.

2. A cigar-drill consisting of a casing, a rotary shaft suitably journaled within the casing, and having a pinion thereon and a spiral groove, a stationary pin projecting in said groove, a cap on one end of the casing and adapted to move thereon, and having connected therewith a rod with a rack, the latter engaging the said pinion, and a restoring-spring for said rod, said parts being combined substantially as described.

3. A shaft freely mounted on its bearings, and provided with a pinion, a spiral groove, and a piercing-pin, in combination with a reciprocating rack-bar, a head or cap connected with said bar, a pin on the bearings of said shaft entering the spiral groove thereof, a restoring-spring for the cap, and a casing hav-

ing a socket for receiving a cigar-tip, said parts being combined substantially as described, forming together an improved cigar piercer or drill, as stated.

5 4. A cigar-drill consisting of a casing with an opening in its side, a base with standards thereon, a rotary shaft journaled in said standards, and having a pinion thereon and a spiral groove, a pin secured to one of the
10 standards and projecting into the groove, a

needle on the end of the shaft adjacent to the opening in the side of the casing, a movable cap with rod having a rack, the latter engaging the pinion, and a restoring-spring for said rod and cap, said parts being combined substantially as described. 15

LOUIS L. DYCKMAN.

Witnesses:

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