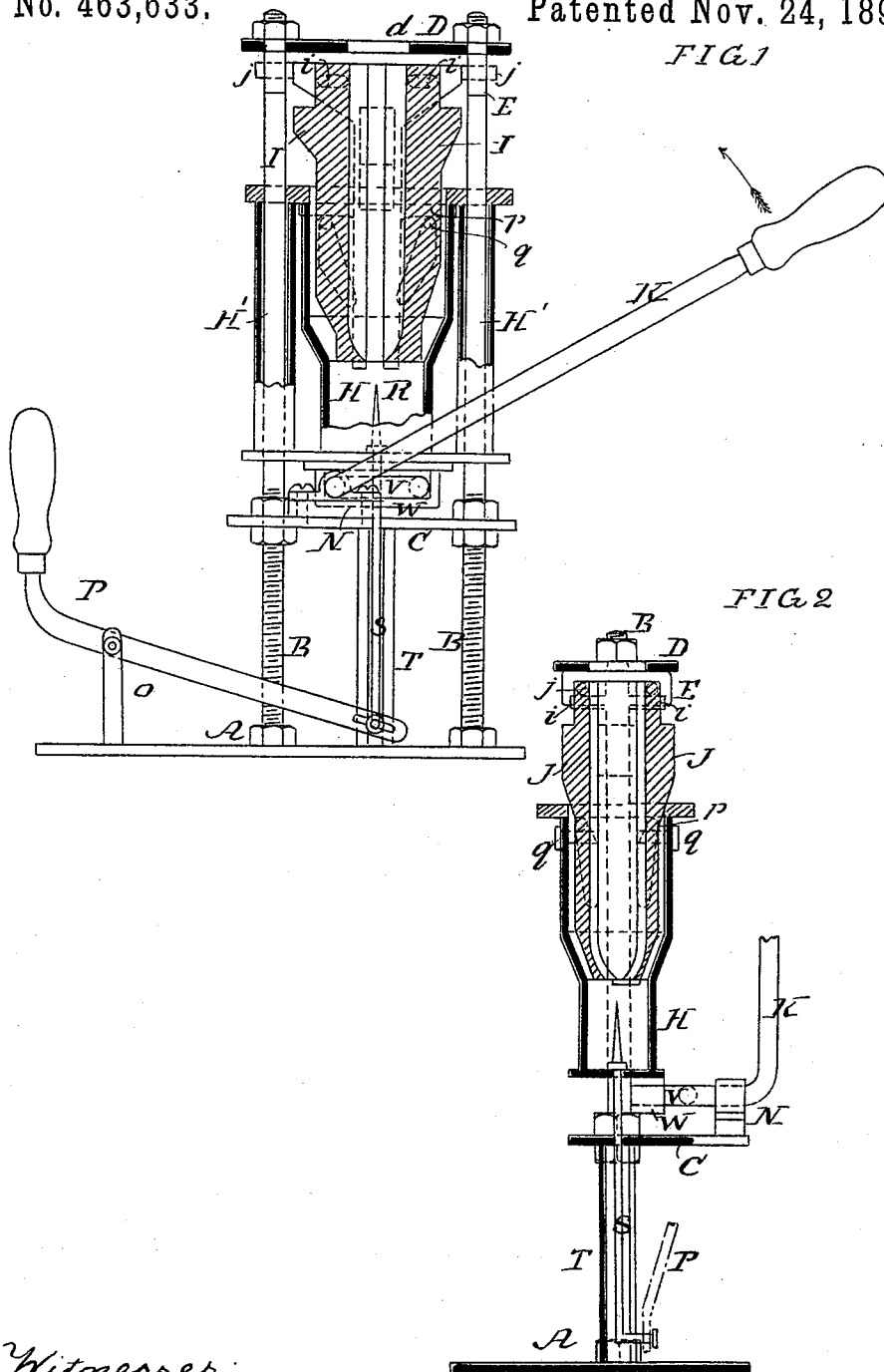


(No Model.)

I. LICHTINGER.
CIGAR TIP FORMER.

No. 463,633.

Patented Nov. 24, 1891.



Witnesses:
Samuel Nielsen
Page Runge.

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UNITED STATES PATENT OFFICE.

ISRAEL LICHTINGER, OF COPENHAGEN, DENMARK.

CIGAR-TIP FORMER.

SPECIFICATION forming part of Letters Patent No. 463,633, dated November 24, 1891.

Application filed March 25, 1891. Serial No. 386,358. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL LICHTINGER, a subject of the King of Denmark, residing at Copenhagen, in the Kingdom of Denmark, have invented certain new and useful Improvements in Cigar-Tip Formers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a machine for the manufacture of the ends to hand-rolled cigars. As is well-known, the so-called "hand-made" cigars are rolled in such a way that the operator must roll the cigar, which is then put in paper and placed aside for a short time, in order to be rolled in an outside leaf later on. In putting on this outside leaf the operator is himself obliged to form the end of the cigar, which occupies a comparatively long time, and since in forming the end several leaves may be torn this system of manufacture causes a somewhat considerable loss in hand-rolled cigars. By the use of the under-mentioned machine which forms the end before the outside leaf is put on, and also on account of the saving of outside leaves since they are thus not torn, hand-made cigars can be manufactured by this machine at a saving of about thirty-three per cent. in wages, and its application has at the same time the advantage of turning out a good and symmetrically-shaped cigar.

The machine is shown in the accompanying drawings, wherein Figure 1 represents a front view of the machine, partly in vertical section; and Fig. 2 shows the machine side view and partly, also, in perpendicular section.

A foot-plate A bears two uprights B, which are furnished with horizontal caps E at the top, upon which there is a covering-plate D, with a central opening *d*. Below the uprights have screw-threads cut upon them and bear a plate C—the table—which is held fast by bolts, so that it can be placed at any suitable elevation. The cylinder H, which is fixed between the plates C and D, can be moved

upward and downward upon the uprights B, which movement is brought about by the lever K, which can be turned on the rest N, fastened to the plate C. This lever at its end near the rest has a crank-arm V, which engages in a depression W on the lower part of the cylinder H in such a way that on turning the lever in the direction of the arrow, Fig. 1, the cylinder H rises.

In the cylinder H two pairs of matrices I and J are arranged. The matrices J are suspended by the aid of pins *j* in holes in the caps E, while the matrices I are suspended by the aid of pins *i* in holes in the matrices J. The matrices can thus be neither moved upward nor downward, but only pushed in pairs side by side. If the cylinder H is moved upward, it will first press the matrices J against each other and then the matrices I against each other. If the cylinder is pushed downward, the guiding-bolts *p* and *q*, fixed in the matrices, will be pushed toward each other, and thus the matrices will be separated from each other. If the cylinder H is moved upward, it carries with it a rod S, which slides in a sheath T, and the point R of this rod pierces the cigar in such a way that one can always be sure that no air will penetrate into pointed end of a cigar, which otherwise often causes difficulties. When the end is formed to the cigar and the cylinder is again pushed downward, the rod S can be lifted by means of the lever P, which turns on the upright O, and thus shoot out the manufactured cigars.

In the application of this machine it should be remarked that the matrices J are first closed around the matrices I in such a way that they next serve to guide the two matrices I, forming two half-molds when the latter are directed toward each other, thus avoid the uneven edge of the leaf lengthwise.

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

1. The combination of the uprights B B, having caps E and a perforated plate D at their upper ends, and a lower vertically-adjustable plate C, the sliding cylinder H be-

tween plates C and D having laterally-movable cigar-shaped matrices I J and carrying a cigar-perforator, as set forth.

2. The cigar-perforator described and shown,
5 consisting, essentially, of suitable uprights carrying laterally-movable matrices I J of cigar shape, a vertically-movable device connected to the matrices for operating them,

and a cigar-perforator carried by the vertically-moving device, as set forth. 15

In testimony whereof I affix my signature in presence of two witnesses.

ISRAEL LICHTINGER.

Witnesses:

LAURITZ NILSEN,
AAGE RUNGE.