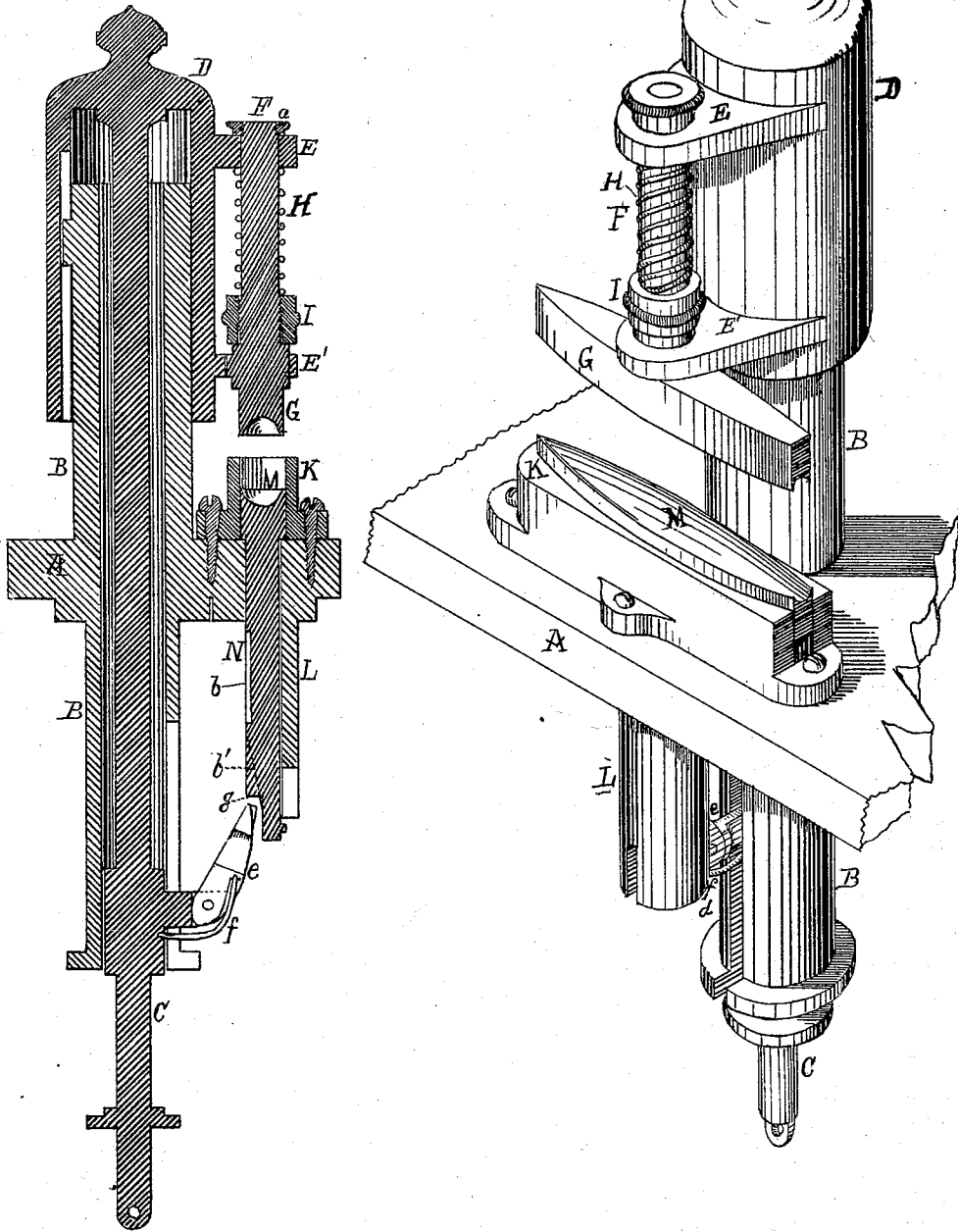


G. PIERCE.

Machines for Pressing Cigar Bunches.

No. 134,768. Patented Jan. 14, 1873.



Frank G. Parker }
 William Edison } WITNESSES.

George Pierce

INVENTOR.
 by his Atty
 Thos. W. Parker

UNITED STATES PATENT OFFICE.

GEORGE PIERCE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR PRESSING CIGAR BUNCHES.

Specification forming part of Letters Patent No. 134,768, dated January 14, 1873.

To all whom it may concern:

Be it known that I, GEORGE PIERCE, of Boston, county of Suffolk and State of Massachusetts, have invented a new and useful Machine for Pressing Cigar Bunches, of which the following is a sufficient specification:

This invention consists of a new machine for pressing and molding cigar bunches or the bound fillings of cigars before they receive the wrappers. Its nature consists in making the lower die movable in the same plane of motion as the upper die, and following it at an interval in its rise, the two dies, upper and lower, both working and pressing within a frame or guard, out of which the pressed bunch is thrown by the action of the lower die; also, in providing the upper die with a spring, so interposed between it and the actuating mechanism as to regulate the pressure on the bunches when in the dies and make it uniform at all times; also, in arranging the actuating mechanism of the lower die and the actuating mechanism of the upper die together, so that the upper die shall rise free of the guard, the lower die then follow and throw out the pressed bunch, and then automatically drop to its place in the guard ready for the next bunch.

This machine is an improvement on that class of cigar-machines which mold by dies and pressure the bunches to exact form ready for the wrapper, and is designed to be self-adjusting to some extent, so as not to cut the leaves or press the bunches too hard when a little too much tobacco is placed in them.

In the drawing, Figure 1 is a vertical section. Fig. 2 is an isometric perspective.

Like letters represent like parts.

A is a table placed at suitable height for the operator. From this extends each way the hollow post B. Through this post runs a rod, C, connected with a treadle below and sliding cap D above. On the front of this cap D are brackets E E', through which runs the upper die-rod F. This rod is fast at its lower extremity to the upper die G, and is provided with a spring, H, abutting against the bracket, and also against an adjusting-nut, I, which may be screwed up and down on the plunger F, so regulating the pressure upon the bunches. A suitable guide is provided to this plunger, so as to secure its vertical play. By removing

cap-screw *a* and screwing up the nut I the die may be taken out and another adjusted to place, or the die may be unfastened from the lower end of the rod F. Upon the table A is fixed a guard, K, shaped like a longitudinal section of a cigar in its interior and with vertical sides. Below the center of this mold is a hollow post, L, cut away on its inner side, so as to expose the hollow and form by the edges of the post *b b'* tripping-slides. Cap D is suitably guided in a vertical direction by a pin upon post B and groove in the interior of cap D, or other suitable means. The lower part of post B is slotted, as shown at *d*. The spring-pawl *e f* is fastened to rod C, and its extremities rest against the tripping-ways *b b'*. The lower die M is fast to a vertical plunger, N, having a slight projection, I, to the inner side, to engage with the spring-pawl *e f*. The dies G and M are exactly shaped on their exterior to the guard K, and suitably concaved to cigar shape. I prefer to make the cavity between them rather oval than circular, the shortest diameter being vertical, because, by this means, the edges of the dies are not quite so liable to cut the tobacco.

The upper die being raised to its full extent and the lower die down to its place, a cigar bunch is laid in the mold, and rod C pulled down. The spring H regulates the pressure on the bunch to a nicety. As rod C descends it carries with it the spring-pawl *e f*, dragging its extremities over the tripping-ways *b b'* and over the projection *g* of rod or plunger N. The bunch being pressed rod C is allowed to rise. It carries up the upper die clear of the guard K, when the spring-pawl engages with projection *g* on plunger N, and the two dies now rise together, the lower die lifting the bunch out of the guard, so that it is presented loose for the operator to take it. As the dies still move upward, the pawl *e f* is relieved by the tripping-ways *b b'* from its engagement with the projection *g* of plunger N, and the die M drops back to its first position. All is now ready to repeat the operation.

The actuation, it will be seen, can all be referred ultimately to the reciprocating vertical motion of rod C.

I claim as my invention—

1. The pressing device, consisting of guard K and the two movable dies M and G, arranged

and operating together substantially as and for the purpose described.

2. In a cigar-machine, the combination, substantially as and for the purpose described, of the following elements, viz: a pair of dies, M and G, a spring, H, adjustable in its pressure, interposed between the actuating mechanism and one of the dies, a reciprocating actuating mechanism, C, to move the dies to and from each other, adjusting-nut I to regulate

the pressure of spring H, and a guiding device applied between the die G and reciprocating mechanism C to secure a reciprocation of said die in the same plane independent of the action of the spring H.

GEORGE PIERCE.

Witnesses:

THOS. WM. CLARKE,
FRANK G. PARKER.