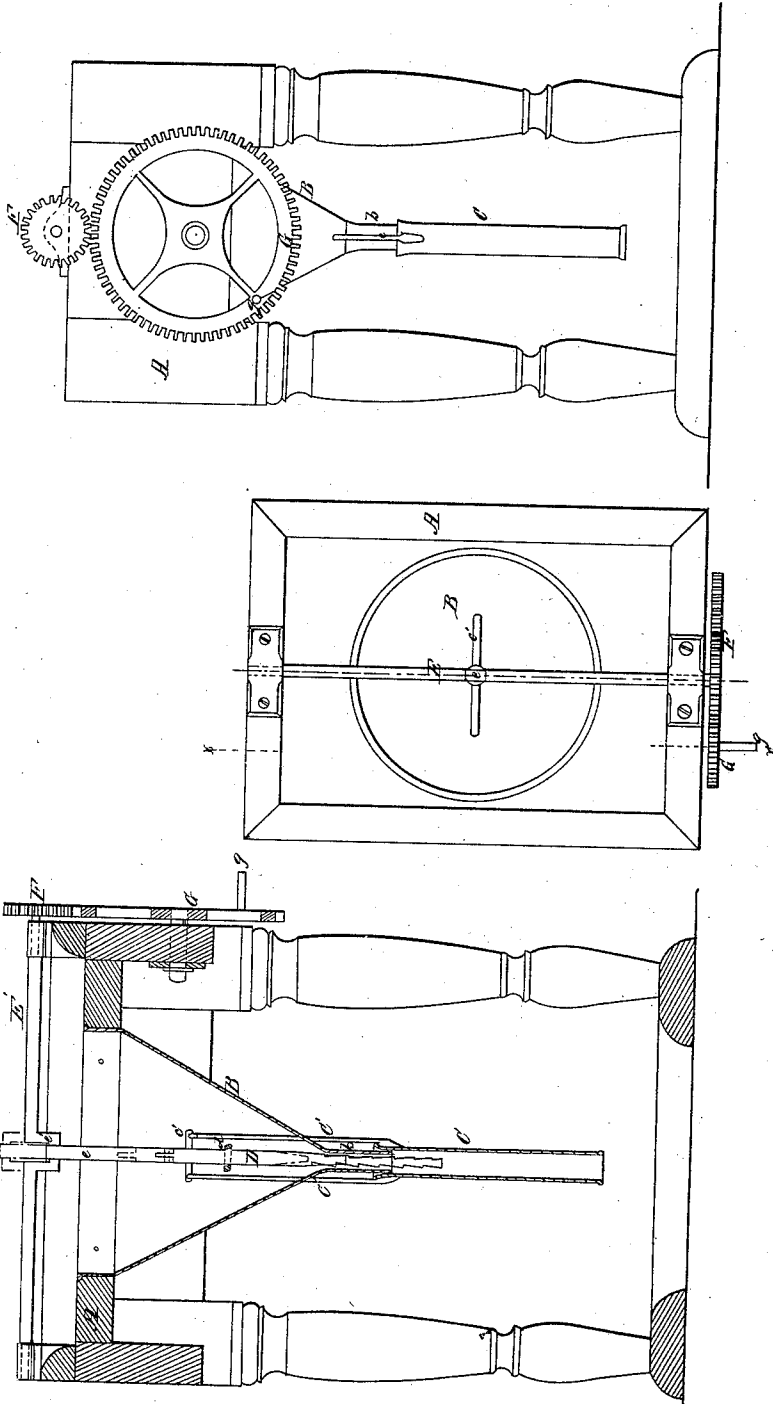


J. HAFFER & J. A. HENDERSON.  
CIGAR MAKING MACHINE.

No. 65,805.

Patented June 18, 1867.



*Witnesses*  
*Walter DeLong*  
*John Maiter*

*by their Attys*  
*Baldwin & Son*

*Inventor*  
*John Hafer*  
*J. A. Henderson*

# United States Patent Office.

JOHN HAFFER AND JAMES A. HENDERSON, OF BEDFORD, PENNSYLVANIA.

Letters Patent No. 65,805, dated June 18, 1867.

## CIGAR-MAKING MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN :

Be it known that we, JOHN HAFFER and JAMES A. HENDERSON, both of Bedford, in the county of Bedford, and State of Pennsylvania, have invented certain new and useful improvements in Cigar-Making Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 is a plan or top view of a machine embracing our improvements.

Figure 2 is a view in elevation of one end of the same; and

Figure 3, a vertical section through the same at the line  $x x$  of fig. 1.

It is the object of our invention automatically to fill a properly-prepared wrapper with fine-cut or ground tobacco.

To carry out our invention we construct a stout frame or bench, A, of suitable form, and mount therein a hopper, B, having a filling-tube or feed pipe,  $b$ , at its bottom. A packing-tube, C, fits over the feed pipe, and is suspended by rods  $C'$  and a cross-head,  $c'$ , from a vertically reciprocating plunger or packer, D, working in a guide,  $d$ , in the hopper, and jointed at its upper end to a pitman,  $e$ , worked by a crank,  $e'$ , on a horizontal shaft, E, mounted in suitable bearings on the frame, and driven by a spur-pinion, F, on one end, which meshes into a spur-wheel, G, driven by a crank,  $y$ , or in some other well-known way.

The operation of the machine is as follows: The hopper is filled with fine-cut tobacco, and a wrapper or casing of tobacco, or paper closed at one end, slipped over the tube C. The shaft E is rotated through its gearing, which rotation imparts a vertical reciprocation to the packing-tube C and plunger. It will be observed that the plunger and lower tube are connected by the parallel rods  $c$  which pass through openings in the hopper, and that while, in their reciprocations, constantly varying their relations to the hopper-tube  $b$ , they always maintain the same relation to each other. When the crank  $e$  is raised, and the plunger makes its down stroke, the tobacco below it is pushed into the packing-tube C, which is likewise descending at the same time, and thus draws away from the feed pipe  $b$  the tobacco which has passed through it. The ratchet-teeth on the plunger assist the packing. On the upward stroke of the plunger and packing-tube C, the now expanded tobacco contained in it is pressed up against the mouth of the feed pipe  $b$ , which thus acts as a piston to force it into the wrapper or the packing-tube, and this process is repeated until the wrapper is filled, when it is removed and replaced by another.

Our invention thus enables us smoothly and rapidly to fill the wrappings of cigarettes with fine-cut tobacco.

The wrappers may be made in any of the usual well-known ways.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The packing-tube, C, arranged and operating as described.
2. The combination, as described, of a fixed hopper-tube or feed pipe with a reciprocating packing-tube, for the purpose set forth.
3. The combination, substantially as described, of a fixed hopper-tube or feed pipe with a plunger reciprocating inside and a packing-tube reciprocating outside the feed pipe, for the purpose of filling a wrapper with fine-cut tobacco.

In testimony whereof we have hereunto subscribed our names.

JOHN HAFFER,  
JAMES A. HENDERSON.

Witnesses:

A. J. SANSOM,  
JOHN C. KISER.