2 Sheets--Sheet 1.

W. E. HENNAMAN.

Cigar-Machine.

No. 167,243. Patented Aug. 31, 1875.

Fig. 1.

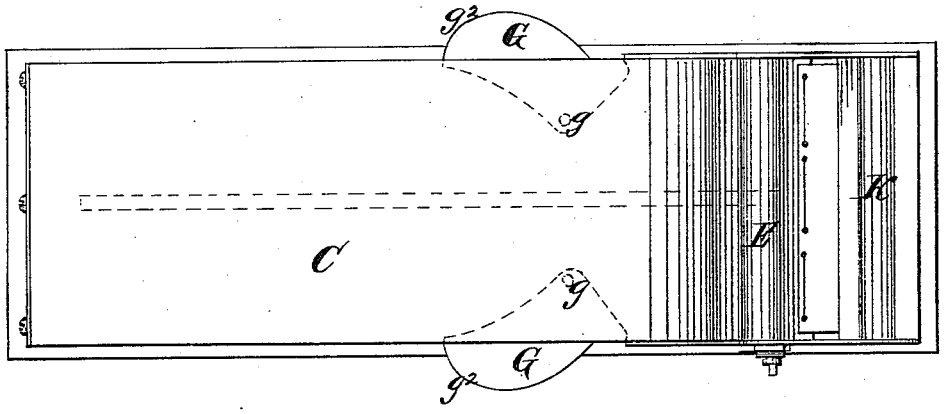
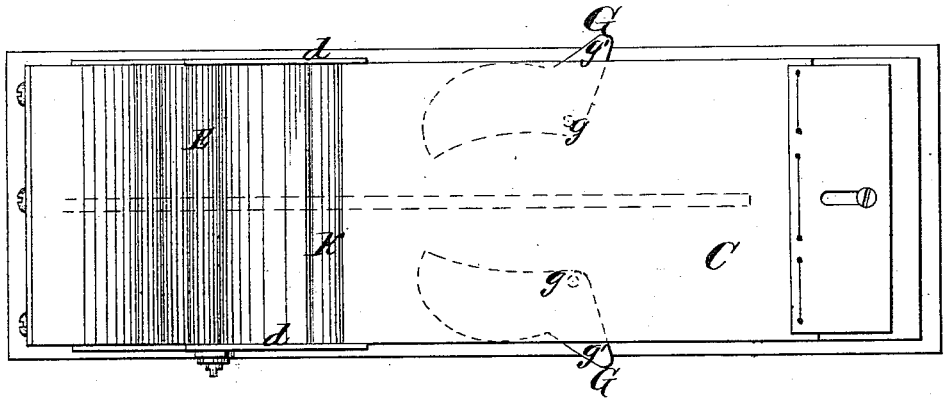


Fig. 2.



WITNESSES

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2 Sheets--Sheet 2.

W. E. HENNAMAN.
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Fig. 3.

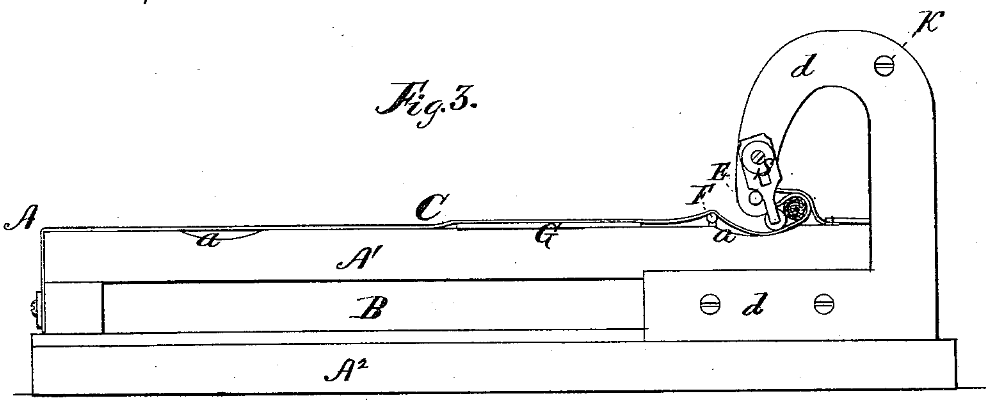


Fig. 4.

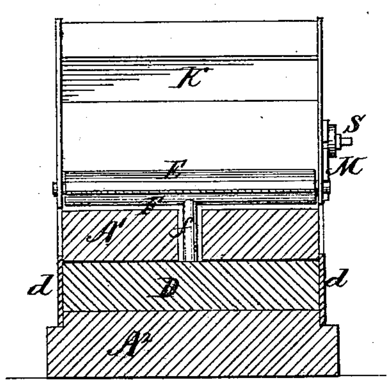


Fig. 6.

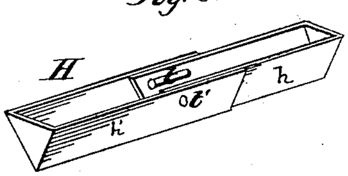
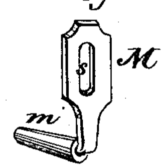


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM EDWARD HENNAMAN, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN CIGAR-MACHINES.

Specification forming part of Letters Patent No. **167,243**, dated August 31, 1875; application filed January 16, 1875.

To all whom it may concern:

Be it known that I, WILLIAM E. HENNAMAN, of the city of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Machines for the Manufacture of Cigars; and I do hereby declare the following to be a full and correct description and specification of the same, reference being had to the accompanying drawings, in which—

Figures 1 and 2 represent plan views; Fig. 3, a side elevation; Fig. 4, a vertical cross-section; Fig. 5, the device for taking up the slack of the apron, and Fig. 6 the adjustable scrap-filler box.

Similar letters of reference indicate the same parts.

My invention relates to that class of machine in which the cigar is formed and the wrapper applied by rolling them in the bight of an apron by means of suitable mechanism; and the invention consists in certain improvements which I have made upon the machines patented by J. T. Hennaman, August 13, 1872, No. 130,496, and July 1, 1873, No. 140,501, for the following purposes, viz: First, to enable the head of the cigar to be formed on either side of the machine without reversing the movement of the apparatus; secondly, to enable the machine to "iron" out or smooth out the wrinkles from the wrapper in front of the cigar; thirdly, to enable the scrap-filler box to be adjusted to the varying lengths required. These various objects are accomplished substantially as I will now proceed to describe.

In the drawings, A represents the frame of the machine, having the base A^2, the platform A^1, the transverse opening B, and the pockets or recess *a a*, and provided with the loose apron C, and the sliding block D, all constructed and operating substantially as shown and described in the patents of J. T. Hennaman, above referred to. To each side of the block D I attach a vertical plate, *d*, the upper end of which extends forward and downward to support the roll E, around which the apron passes to form the bight in which the cigar is rolled. Thus supported, the ends of the roll E are held above the platform, and beneath and behind them both there is an open and entirely unobstructed space, so that, whether the head of the cigar be formed on either side of the machine, the operator can manipulate it with equal facility. In connection with this improved construction I employ a paste and gage plate, G, on each side of the machine. If the head of the cigar be formed on the right-hand side of the machine the opposite end of the wrapper will be gaged, supported, and pasted upon the gage and paste plate on the left-hand side of the machine, and, if the head of the cigar be formed on the left-hand side, the opposite end of the wrapper will be gaged, supported, and pasted on the right-hand gage and paste plate, and in either case a forward movement of the slide will form the cigar. The machine is thus rendered much more perfect, convenient, and easy to operate than heretofore; but if I used simply two projecting gage and paste plates, one on each side of the machine, they might be in the way of the operator, and they certainly would be in the way of the moving plates *d d* which support the roll E. It is necessary that the cigar pass forward beyond the gage and paste plates in order to enter the front pocket *a* and be released from the apron, and provision must, therefore, be made to allow the supports *d d* to pass the projecting gage and paste plates.

This I accomplish by pivoting both of said plates so that, while they project beyond the sides of the machine as long as their services are needed, they automatically withdraw out of the way of the plates *d d*, and let the cigar pass along as soon as they have performed their appropriate function. That part of the plates on which the wrapper is gaged, supported, and pasted, is represented in Fig. 1, at g^2, as projecting beyond the side of the machine ready for use. As the upright supporting-plates *d* move forward in wrapping a cigar, they come in contact with the inclined rear edge of the projection g^2, force the projecting part of the two plates inward, and pass along; but as they thus turn the plates on the pivots *g g* they throw out the projecting rear end g^1 of said plates, as shown in Fig. 2, so that when the handle K and supports *d d* are moved back to take position for a new cigar, they strike against the inclined front edges of the parts g^1, force them in-

ward, and set the parts g^2 g^2 out again ready for use. The operation of the gage and paste plates is therefore entirely automatic, requiring no care or skill on the part of the attendant.

The two paste and gage plates would be practically useless for the purpose intended without the overhanging roll E, with a clear space under and behind both ends; and the latter would be equally useless without the former. In combination with each other they accomplish the object perfectly. Two rigid paste and gage plates might be employed by making the machine considerably longer, and supporting the roll E far in advance of the vertical portion of the side standards *d d*; but such construction would be cumbersome, awkward, unhandy, and liable to get out of order. The pivoted plates, on the contrary, enable me to make my machine compact, strong, durable, and perfectly convenient of operation.

In machines of the class to which my invention belongs some difficulty is occasionally experienced from the wrinkling of the wrapper in front of the roll E. I therefore provide means for smoothing out the wrapper in advance of said roll, such means consisting of a smoothing bar or roll, moving immediately in advance of the roll E, and operating either above the wrapper or beneath the apron, in such manner as to smooth or iron out the wrapper, and cause it to be applied smoothly and uniformly to the cigar.

This device in the drawings is shown as applied under the apron, and, as there used, consists of a straight bar or roller, F, supported upon a stem, *f*, which is attached to the block D, and operates in a longitudinal slot in the table or platform of the machine, shown by the dotted lines in Figs. 1 and 2. The roll or bar F distends the apron, and the wrapper which lies upon it, and, moving along in advance of the roll E, effectually takes out all the wrinkles that may have formed in the wrapper, and causes the latter to be presented to the filling in a perfectly smooth and uniform condition. When the bar or roll F is used above the wrapper it is to be supported by projections from the front end of the plates *d d*, and may be provided with adjustable springs to give it a gentle pressure upon the wrapper for the purpose required.

In making cigars that taper from the head to the opposite end, with the machine heretofore in use, the apron runs tightly over the head of the cigar, but loosely, and with considerable slack, over the tapering opposite end. As a consequence of this, the wrapper is applied smoothly and firmly to the head, but is liable to be very imperfectly applied to the tapering end of the cigar, and sometimes even fails to be pasted at all at that end. To obviate this difficulty, I employ in my improved machine a device for taking up the slack of the apron, and drawing the wrapper as tightly around the tapering end of the cigar as around the head, thus enabling me to make cigars of any form and taper, as may be required.

The essential principle of this improvement consists in introducing means for stretching or tightening the apron between the roll E and the cigar on the side opposite to the head of the cigar. As here shown, such means consists of an arm or bar, *m*, supported and adjusted from either plate *d* by means of a slotted plate, M, and set-screw *s*. The arm *m* should taper to correspond to the required taper of the cigar, and operates better when covered with an anti-friction sleeve than when made rigid.

The whole device is represented in Fig. 5, and the mode of its attachment and adjustment will be understood from Fig. 3.

I also employ, in connection with this machine, an improved scrap-filler box, H, represented in Fig. 6, consisting of two parts, *h h'*, the open ends of which fit together, as shown, and are connected by slots and set-screws or headed rivets *t t'*. It is obvious that the length of this box can be adjusted and varied at will, according to the length of the filling required.

I claim as my invention—

1. In a cigar-machine, the combination of the apron C, the traveling roll or bar E, suspended with an open space beneath and behind both ends, and two projecting paste-plates, one on each side of the machine, substantially as and for the purposes set forth.

2. In a cigar-machine, the combination of the apron C, the traveling frame and roll or bar E, and the traveling smoothing bar or roll F, substantially as and for the purposes described.

3. In a cigar-machine, the combination of the apron C, the traveling frame and roll or bar E, and the automatically-adjustable paste or gage plates G G, substantially as and for the purposes described.

4. The telescopic or longitudinally-adjustable scrap-filler box H, adapted to be used in connection with the cigar-machine herein described, substantially in the manner and for the purposes set forth.

WILLIAM EDWARD HENNAMAN.

Witnesses:
M. H. N. KENDIG,
M. CHURCH.