

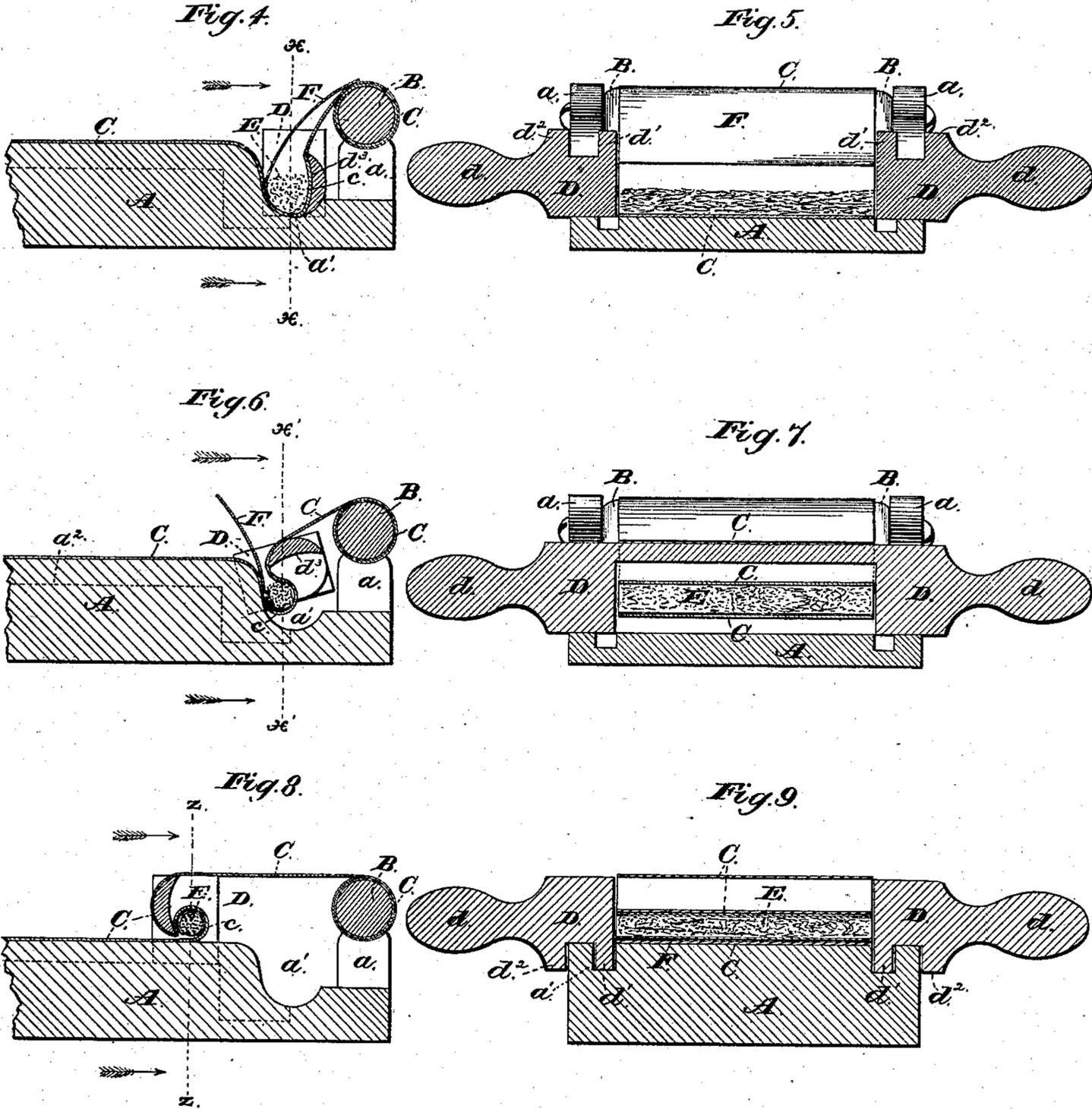
(Model.)

2 Sheets—Sheet 2.

F. S. BARTRAM.
CIGARETTE MACHINE.

No. 255,568.

Patented Mar. 28, 1882.



Witnesses.

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UNITED STATES PATENT OFFICE.

FERDINAND S. BARTRAM, OF NEWTOWN, CONNECTICUT.

CIGARETTE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 255,568, dated March 28, 1882.

Application filed April 18, 1881. (Model.)

To all whom it may concern:

Be it known that I, FERDINAND S. BARTRAM, of Newtown, in the county of Fairfield, and in the State of Connecticut, have invented certain new and useful Improvements in Cigarette-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my device arranged for use. Figs. 2 and 3 are like views from opposite sides of the combined shaper, guide, and gage. Fig. 4 is a central longitudinal section of said device after having received material for the production of a cigarette, its shaper being in the first position. Fig. 5 is a cross-section of the same upon line $x x$ of Fig. 4. Fig. 6 is a central longitudinal section of said device with said shaper in the second position. Fig. 7 is a cross-section of the same upon line $x' x'$ of Fig. 6. Fig. 8 is a central longitudinal section of said device with said shaper occupying its third and last position, and Fig. 9 is a cross-section of the same upon line $z z$ of Fig. 8.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to enable cigarettes, cigars, &c., to be easily and accurately made; and to this end it consists principally in the special construction of the operating-table and shaper and their combination with each other, substantially as and for the purpose hereinafter shown.

It consists, further, in the combination of the shaper, constructed as described, with the flexible apron, substantially as and for the purpose hereinafter set forth.

It consists, finally, in the machine for making cigarettes, its several parts being constructed and combined in the manner and for the purpose substantially as shown and described.

In the annexed drawings is shown a table, A, having preferably a rectangular form in plan view, and provided at one end with two lugs or ears, $a a$, between which is journaled a roller, B. Immediately in front of said roller is provided a transverse recess, a' , which has a semicircular form in cross-section, while from

said recess a right-angled groove, a^2 , is formed within the upper surface of said table, parallel with and near each edge of the same.

Secured at one end to or upon the roller B is an apron, C, constructed of or from india-rubber or other like material, which from thence extends to the opposite end of the table A, and is secured to or upon the same. The width of the apron C just equals the space between the grooves a^2 , while its length is sufficient to permit it to cover the surface of said table longitudinally, and to extend downward into the recess a' .

In connection with the table A and apron C, constructed as described, is used a shaper, D, which consists of a wooden bar having a length equal to about twice the width of said table, provided at each end with a handle, d , and having upon its lower side, at suitable points near each handle, two lugs, d' and d^2 , the first of which corresponds to and fits within one of the grooves a^2 , while the second of said lugs, d^2 , bears against the side edge of said table, as shown in Figs. 1, 7, and 8. Said lugs d' have straight lower edges, which bear upon the bottom of the grooves a^2 , and have such length from front to rear as to give to said bar a firm bearing when moved lengthwise of said table.

If desired, the grooves a^2 may be omitted, and in place thereof right-angled rabbets provided, in which event the outer lugs, d^2 , of the shaper D will not be needed. The upper side of the shaper D, inside of the line of the inner edges of the lugs d^2 , is rounded, as shown in Fig. 2, while within its rear side, between the lugs d' , said shaper is cut away about two-thirds its thickness, and the back of the recess d^3 thus formed is made concave.

The table A is placed horizontally upon a suitable support, with the roller end farthest from the operator, and the shaper D then placed within the recess a' , beneath the apron C, with its upper rounded side downward and the concave back of the recess d^3 toward the operator, and the said apron extending downward into said recess, as seen in Fig. 1. It will now be seen that the apron C forms a pocket, c , within the recess a' , of which the ends of the recess d^3 form the ends, into which pocket is placed the necessary quantity of tobacco E and the same evenly distributed

throughout its length. The wrapper F is next placed upon the inclined surface of the apron C, its gummed edge being at or near the point where said apron passes over the roller B, and its opposite edge within the pocket *c* over the tobacco, as shown in Figs. 4 and 5, after which the shaper D is turned forward and downward one-fourth of a revolution, so as to cause said apron to entirely inclose said tobacco, as seen in Figs. 6 and 7, and to grasp the lower edge of said wrapper. The shaper D is next moved with a sliding motion upward and forward until the lugs d' rest within the grooves a^2 and said shaper occupies its normal position, as seen in Figs. 8 and 9, when it will be found that the filling E has been rolled within the wrapper F, completing the cigarette, which may be released by raising said shaper.

The diameter of the cigarette is determined by the amount of slack given to the apron C and the quantity of tobacco furnished, while the length of the same is governed by the distance between the ends of the recess d^3 , said ends operating as gages for and against which is pressed the filling.

If desired, the apparatus may have such width as to permit two cigarettes to be made at one time, they being formed in one roll and afterward cut apart.

Where a binder and wrapper are each employed the binder may be placed in the position before described and the wrapper placed upon the apron C at such point as to enable said binder to be wrapped around the filling before said wrapper is reached.

When a mouth-piece is to be secured to the cigarette the binder or wrapper should be shortened at one end and the mouth-piece placed within one end of the pocket *c* at the same time with the filling E. When two cig-

arettes are made at one time a mouth-piece must be placed within each end of said pocket and each end of the binder or wrapper shortened.

If desired, the wrapper F may be wound spirally around the filling E, in which event said wrapper must have the form shown by dotted lines of Fig. 1, and must be placed upon the apron C in front of the pocket *c*.

While this apparatus is intended for use in the manufacture of cigars or cigarettes, it will be seen that it is equally applicable to the enveloping of any article which may be required to be put up in a similar form.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. The combination of the table A, provided with the grooves a^2 , with the shaper D, having the lugs d' and d^2 , substantially as and for the purpose shown.

2. In combination with the flexible apron C, the shaper D, provided within one side with a recess, d^3 , substantially as and for the purpose set forth.

3. The hereinbefore-described apparatus for making cigarettes, consisting of the table A, provided with the recess a' , grooves a^2 , and roller B, the apron C, secured upon said table and roller, and the combined shaper and gage D, having the lugs d' and d^2 and recess d^3 , said parts being combined to operate in the manner and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of April, 1881.

F. S. BARTRAM.

Witnesses:

DE WITT B. BOGARDUS,
E. T. HART.