

(No Model.)

2 Sheets—Sheet 1.

H. KUBEY.
CIGARETTE MACHINE.

No. 455,568.

Patented July 7, 1891.

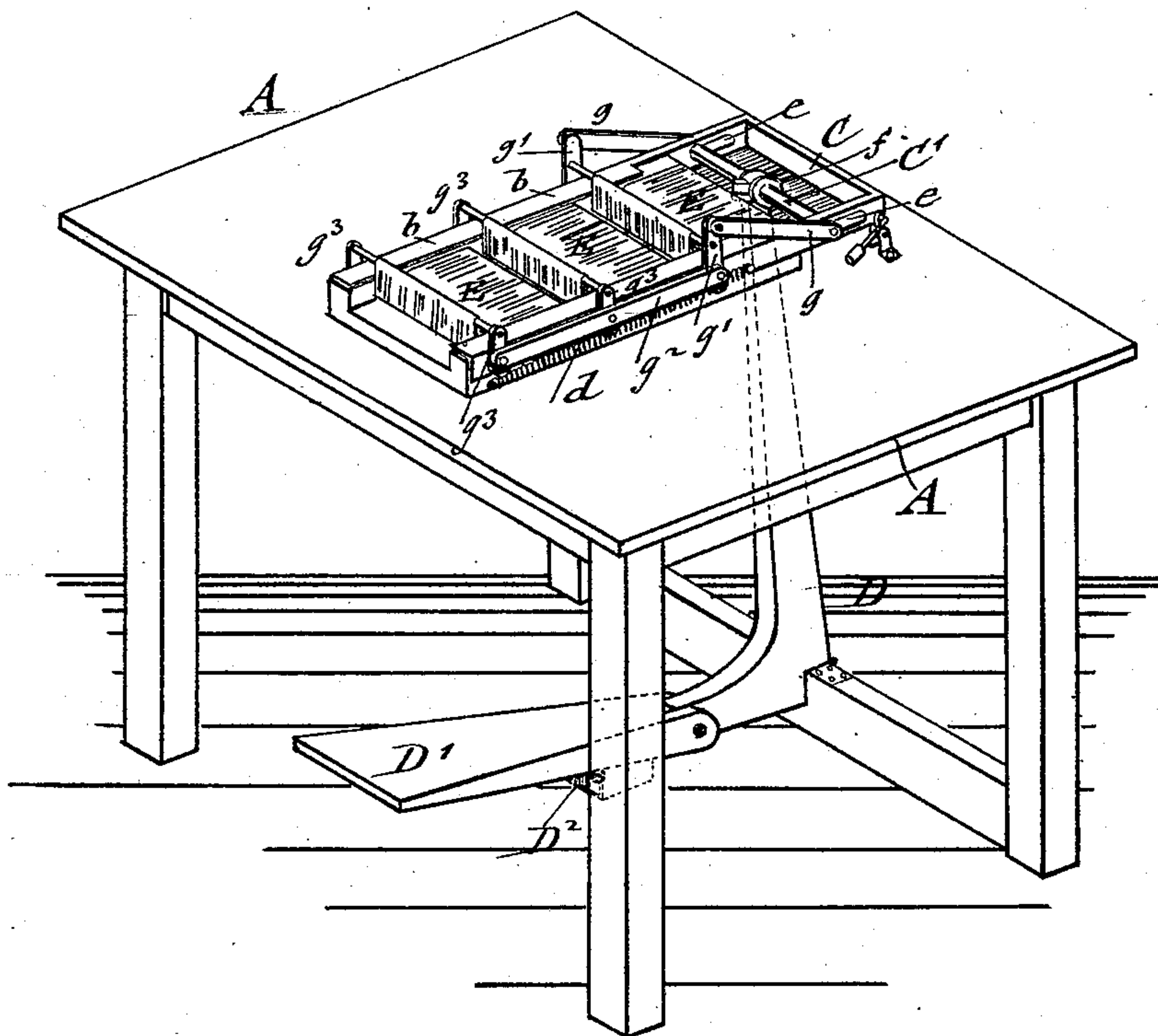


FIG 1.

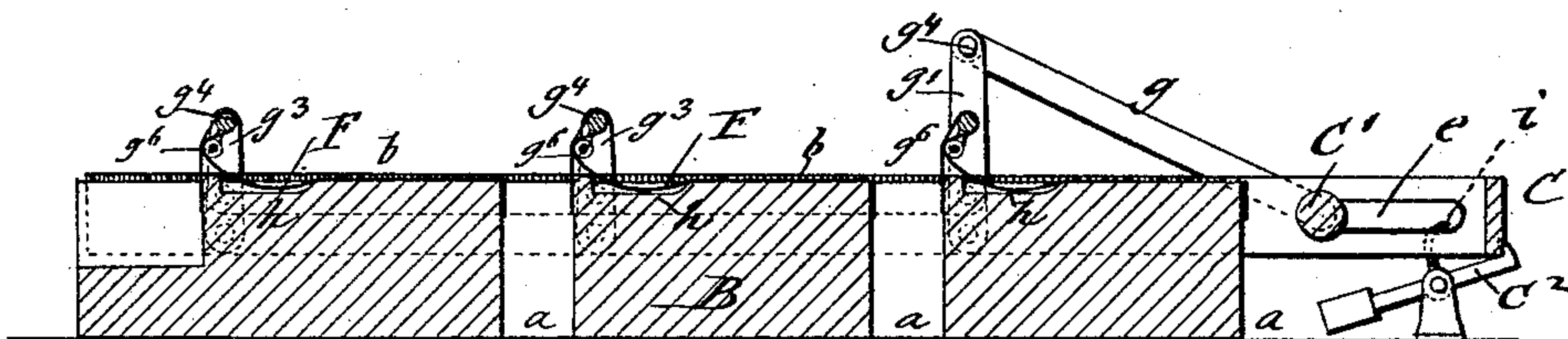


FIG 2.

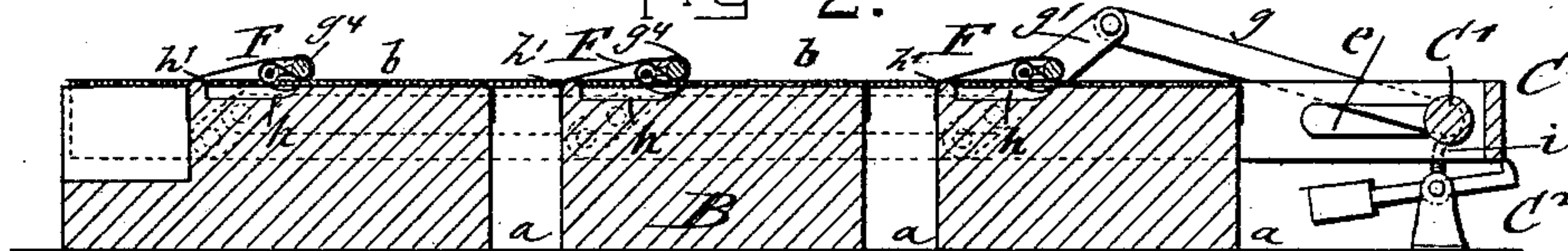


FIG 3.

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HENRY KUBEY, OF BROOKLYN, NEW YORK.

CIGARETTE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 455,568, dated July 7, 1891.

Application filed February 10, 1891. Serial No. 380,958. (No model.)

To all whom it may concern:

Be it known that I, HENRY KUBEY, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Cigarette-Machines, of which the following is a specification.

This invention has reference to certain improvements in cigarette-machines in which by one stroke of the operating-treadle a number of cigarettes are made, the machine being especially adapted for that class of cigarettes in which a wrapper of tobacco is used; and the invention consists of a cigarette-machine the table of which is provided with raised blocks and transverse openings adjacent to and at the rear of said blocks. A spring-actuated reciprocating frame is guided in ways of the said blocks and operated by means of a treadle and intermediate fulcrumed elbow-lever, the upper end of which is pivoted to a transverse shaft of the reciprocating frame, which is guided in slots of said frame and connected by pivot-arms at both ends with levers pivoted to the frame, said levers being connected by longitudinal rods with additional levers pivoted to the remaining blocks. Aprons are attached to opposite ends of the blocks and guided over transverse rods at the upper ends of the pivoted bars and over guide-rollers supported on bracket-pivots of said rods. The blocks are provided with depressions at one end for placing the wrappers and fillers in position for being rolled by the aprons and the forward action of the reciprocating frame. A latch device serves to lock the reciprocating frame until the same is released by the forward motion of the transverse shaft, the release of the latch permitting the forward moving of the frame for completing the rolling operation and dropping the finished cigarettes through the slots in the table into a hopper at the under side of the table, from which they are conducted off to a suitable receptacle.

In the accompanying drawings, Figure 1 represents a perspective view of my improved cigarette-machine. Figs. 2, 3, and 4 are vertical longitudinal sections of the cigarette-rolling mechanism, drawn on a larger scale and showing the rolling-aprons and their actuating mechanism in different states, respectively,

before the beginning of the rolling operation, during the rolling operation, and after the completion of the same. Fig. 5 is a perspective view of the transverse rods and rollers for guiding the aprons, and Figs. 6 and 7 are details of one of the rolling blocks and the ways for guiding the reciprocating frame thereon.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the table of my improved cigarette-machine. On the table are supported a number of blocks B, which are separated from each other, the spaces between the blocks communicating with slots that are arranged back of each block in the table A. In ways at the sides of the blocks is guided an oblong reciprocating frame C, which is open at the rear end next to the operator and provided with an inwardly-bent flange *b* at each side as far as it extends over the blocks B, the vertical part of the frame being provided with screw-studs *b'*, that enter into longitudinal grooves *b²* of the side walls of the blocks, so as to prevent the detaching of the frame from the blocks, as shown in Figs. 6 and 7. Spiral springs *d* connect the reciprocating frame C with the block next to the operator, said springs serving to return the frame C into its normal or initial position after the same is actuated. The outermost end of the frame C is provided at its sides with slots *e e*, in which is guided a transverse shaft *C'*, that is loosely connected at its middle part to the upper end of an elbow-lever D, that is hinged at the apex of its angular portion to a transverse brace-piece connecting the hind legs of the table A, as shown in Fig. 1. The end of the lower arm of the elbow-lever D is pivoted to a treadle *D'*, that is fulcrumed to a block *D²*, attached to the floor, so that when the front part of the treadle is depressed by the foot the lower arm of the elbow-lever D is raised, while the upper arm of the elbow-lever D is oscillated in outward direction, so as to move thereby the transverse shaft *C'* forward in the slots *e e* until it arrives at the rear ends of said slots, after which the frame C itself is carried along and moved in forward direction for the full stroke of the upper arm of the elbow-lever. The upper arm of the elbow-lever D is guided

in a slot f of the table A and connected by a spring f' with the under side of the table A, as shown in Fig. 4, said spring serving to return the elbow-lever D to its normal position 5 as soon as the pressure on the treadle D' is released. The outer ends of the transverse shaft C' are connected by pivot-arms g with levers g' , which are pivoted at their lower ends to the sides of the frame C, said levers 10 being connected by longitudinal rods or straps g^2 with the lower ends of additional levers g^3 , that are also fulcrumed to the sides of the frame C, said levers carrying, like the levers g' , transverse rods g^4 , over which the aprons 15 F, by which the cigarettes are rolled, are passed. The aprons F are attached at their opposite ends to the ends of the blocks B, as shown clearly in Figs. 2, 3, and 4, they being formed of leather or other suitable material, 20 as customary in cigar or cigarette rolling machines. The blocks B B are provided near their rear ends with depressions h , into which the aprons sag slightly, so as to form a kind of bight for the wrappers and fillers of the 25 cigarettes. At the rear end of each block is arranged a transverse arm h' , that limits the depression h . The wrapper and filler are placed into the bight formed by each apron and rolled into a cigarette by the action of 30 the rolling mechanism, as will be hereinafter described.

To the table A is applied, near the outer end of the reciprocating frame C, a fulcrumed and weighted latch C², which serves to engage 35 the outer end of the frame C and lock the same in position until released by the transverse shaft C'. The latch C² is provided with a curved upwardly-extending portion i , against which the transverse shaft C' strikes when it 40 is moved forward by the elbow-lever D, so as to lower the latch and release it from the frame C, as shown in Figs. 3 and 4. As soon as the latch is released the reciprocating frame C is permitted to move in forward direction, so as to follow the motion imparted 45 to it by its oscillating elbow-lever D. The transverse rods g^4 , on which are journaled apron-guides, which preferably consist of pin-carrying brackets g^5 , are provided with anti-friction rollers g^6 , over which the rolling-aprons 50 F are guided, as is shown clearly in Fig. 5. These rollers g^6 also serve as gages for the cigarettes rolled by the aprons and facilitate the formation of the bights in the aprons in 55 which the fillers are rolled in the wrappers, so as to form the cigarettes, as shown in Figs. 3 and 4.

The operation of my improved cigarette-machine is as follows: The wrappers are placed 60 on the aprons at those parts above the depressions in the blocks B B, the filler being then placed into the bights formed by the aprons while the levers g' and g^3 are in vertical or nearly vertical positions, as shown in 65 Fig. 2. The treadle is then depressed by the foot of the operator, by which the elbow-le-

ver D is oscillated, and thereby the shaft C', connected to the upper end of the elbow-lever, is moved forward in slots d of the frame C, whereby the fulcrumed levers g' g^3 are carried along, so as to close the bights in the aprons, as shown in Fig. 3. As soon as this 70 is accomplished the shaft strikes the curved arm of the latch C² and releases the latter from the frame C, so that it is permitted to 75 be moved in forward direction until the elbow-lever arrives at the limit of its motion. During the forward motion of the frame C the fillers are rolled into the wrappers by the action of the aprons until the finished cigarettes 80 arrive at the open spaces between the blocks and are dropped from the aprons and through said spaces and the slots in the table back of said blocks into a hopper H, attached to the 85 under side of the table, as shown in Fig. 4. The cigarettes are then conveyed from the hopper H to a suitable receptacle. When the pressure on the treadle is relaxed, the parts are returned into their normal position by 90 the spring connected to the upper end of the elbow-lever and the springs connected to the reciprocating frame C, so that the aprons are returned into their normal position on the blocks and are ready to receive the next set 95 of wrappers and fillers, which are rolled into cigarettes when the treadle is again depressed, and so on.

The advantages of my improved machine are, first, that as many cigarettes can be rolled by one operation of the treadle as there are 100 rolling blocks and rolling devices arranged on the table; secondly, that the cigarettes are automatically dropped from the aprons and collected, and that the locking-latch is automatically released from the reciprocating 105 frame and reapplied to the same after the latter is returned into its normal position, whereby considerable time is saved in operating the machine.

Having thus described my invention, I 110 claim as new and desire to secure by Letters Patent—

1. The combination of a table having transverse slots, blocks supported on said table adjacent said slots, a frame guided in ways of 115 the blocks, rolling-aprons attached to said blocks, oscillating levers having transverse rods and guides over which the rolling-aprons pass, and pivot-rods connecting said oscillating levers with the actuating mechanism of 120 the reciprocating frame, so as to produce the rolling of the fillers and wrappers into cigarettes in the bights of the aprons, substantially as set forth.

2. The combination of a table having transverse slots, blocks supported in said table adjacent to said slots, rolling-aprons attached to the said blocks, a reciprocating frame guided in ways of said blocks, a latch device for locking said frame, levers pivoted to the reciprocating frame and provided with transverse 130 rods for said aprons, and pivot-rods connect-

ing said levers with the actuating mechanism of the reciprocating frame, substantially as set forth.

3. The combination of a table having transverse slots, blocks supported adjacent said slots, rolling-aprons attached to said blocks, a reciprocating frame guided in ways of said blocks, a transverse shaft guided in slots of the frame, an elbow-lever engaging said shaft, a treadle for oscillating said elbow-lever, levers pivoted to the reciprocating frame, pivot-rods connecting said levers with each other and with the transverse shaft, transverse rods connecting said levers in pairs, guide-rollers on said levers, and a latch device for releasing the frame when the shaft arrives at the rear ends of its guide-slots, so as to produce the operation of the rolling device, substantially as set forth.

4. The combination of a supporting-table having transverse slots, blocks supported adjacent to said slots, rolling-aprons attached to said blocks, a reciprocating frame guided in ways of said blocks, a transverse shaft operated by suitable lever mechanism and guided in slots of the frame, levers pivoted to said frame and carrying transverse rods for said aprons,

and a fulcrumed and weighted latch having a curved arm projecting in the path of the transverse shaft, so as to release the latch by the action of the levers, substantially as set forth.

5. The combination of a supporting-table, blocks on said table, loose rolling-aprons attached to the front and rear sides of said blocks, a reciprocating frame guided in ways, levers pivoted to said frame and carrying transverse rods, brackets on said levers provided with guides, the aprons passing over said rods and guides, bracket-pins depending from said transverse rods, inwardly-projecting rollers journaled on said pins under which the apron passes, and mechanism for reciprocating said frame and oscillating the levers and rods, so as to produce the rolling operation, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

HENRY KUBEY.

Witnesses:

PAUL GOEPEL,
CHARLES SCHROEDER.