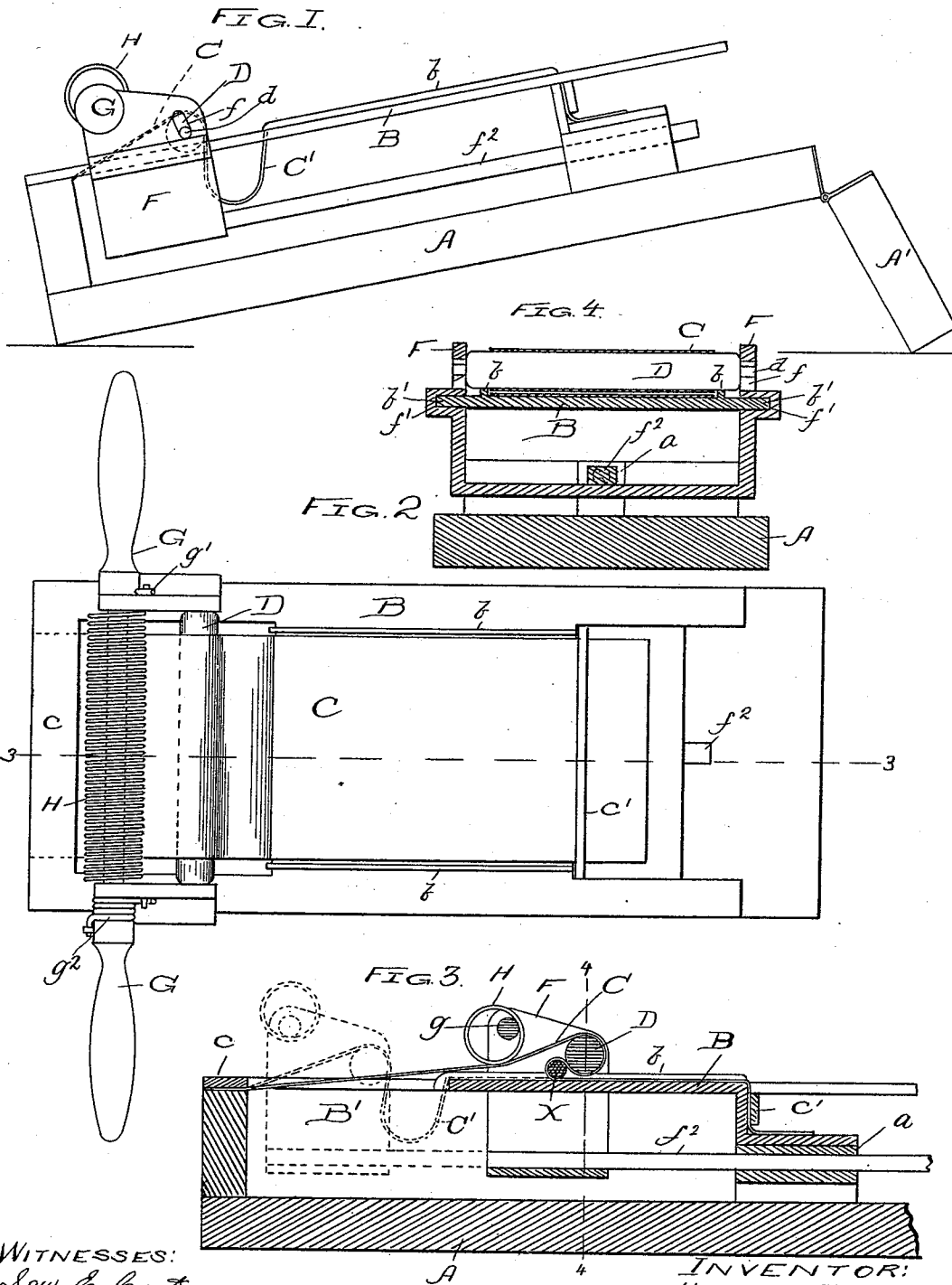


(No Model.)

H. JERSTRUM.
CIGARETTE MACHINE.

No. 536,630.

Patented Apr. 2, 1895.



WITNESSES:
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UNITED STATES PATENT OFFICE.

HERBERT JERSTRUM, OF CHICAGO, ILLINOIS.

CIGARETTE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 536,630, dated April 2, 1895.

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To all whom it may concern:

Be it known that I, HERBERT JERSTRUM, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Cigarette-Machines, of which the following is a specification.

My invention relates to improvements in machines for making cigarettes of the kind commonly known as all tobacco cigarettes and which have tobacco wrappers.

The object of my invention is to provide a machine or device of a simple and durable construction, that can be easily operated and by which the filling for these cigarettes may be properly wrapped, neither too loosely nor too tightly, notwithstanding the unavoidable variation in size or diameter, and whereby at the same time the cigarettes may be rapidly and cheaply manufactured.

It consists essentially in connection with a cigarette rolling table, apron and a roller mounted upon a slide, of a rotatable handle for pushing the slide, provided with an eccentric barrel adapted to bear against the apron and take up the slack therein more or less as may be required, according to the size of the cigarette, in order to wrap it properly, neither too tightly nor too loosely. It also consists in making this eccentric barrel of a coil spring to give a yielding pressure against the apron.

It also consists in connection with the above mentioned parts in mounting the roller in slotted bearings in the slide so that the movement of the roller in respect to the slide may increase the slack or pocket in the apron at the time the loose material or filler is being put therein, and again diminish such slack or pocket when the rolling commences.

It also consists in the novel construction of parts and devices, and in the novel combinations of parts and devices herein shown and described and specified in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is a plan view. Fig. 3 is a longitudinal section on line 3—3 of Fig. 2, and Fig. 4 is a cross section on line 4—4 of Fig. 3.

In the drawings A represents the frame, the same being preferably furnished with a hinged leg A', so that the frame may be tilted

up at any angle desired for the convenient working of the machine.

B is the table upon which the cigarette is rolled.

C is the rolling apron; D, the roller; F, the slide upon which the roller is journaled; G, the rotatable handle for pushing the slide back and forth, and H the eccentric barrel with which the handle is provided, the same consisting, preferably, of a coiled spring soldered or otherwise secured at its inner periphery to the shaft *g* of the handle.

At the rear end of the rolling table B is a cavity or open space B' to receive the pocket or slack C' of the apron C; into which the material or filler for the cigarette is placed by the workman when the slide F is retracted, as shown in Figs. 1 and 2 and in the dotted lines in Fig. 3. The apron C is secured at one end to the frame by a clamp plate *c* and at the opposite end to the frame by a clamp plate *c'*.

The roller D is mounted or journaled movably in the slide F, this being done preferably by providing the slide with slots *f* to receive the shaft *d* of the roller, so that the roller may move up and down in respect to the slide to diminish or increase the slack in the apron C and the size of the pocket C'. By reason of this movability of the roller D on the slide F, the roller, when the slide F is retracted as shown in Figs. 1 and 2, can drop down below the surface of the table B and thus increase the slack in the apron and the size of the pocket C' while the material is being put therein by the operator. When the slide is again moved forward so that the roller strikes the end of the table B the roller will be again raised by striking the table to the limit permitted by the slotted bearings *f*, thus again diminishing the amount of slack and size of pocket to cause the apron to exert pressure upon the cigarette X.

To enable the operator to regulate at will the amount of slack in the apron as the rolling proceeds and thus roll or wrap the cigarette properly, neither too tight so that it will not draw, nor too loose so that the filler will drop out of the wrapper, or the cigarette come apart, I make the pushing handle G rotatable or capable of rocking, and provide it with an eccentric, projection, or barrel H, adapted to bear against the apron. In this way the op-

erator, by simply turning the handle, as he pushes the slide forward, so as to cause the eccentric barrel to press more or less against the apron, as indicated in Fig. 3, can either increase or diminish the slack or tension of the apron on the cigarette, so as to wrap the same with the proper degree of tightness, just as if done by hand.

To prevent the surface of the apron, which extends around the roller, as illustrated in Fig. 3, coming directly in contact with the upper pasted surface of the wrapper lying on that portion of the apron which is flat upon the table, and thus interfering with the proper operation, I provide the table B with longitudinal rails *b b*, one on each side, raised slightly above the surface of the table.

The slide F is provided with suitable guides *f'f'* which engage suitable guide ways *b' b'* at the edges of the table B. To give a steady and easy movement to the slide F, I further provide it with a guide *f²*, the same consisting, preferably, of a rod secured to the slide, and which works back and forth in a suitable bearing *a* on the frame A.

In operation, the operator places the filler in the pocket C' and the tobacco wrapper, with its upper surface properly pasted, on the apron C with its edge projecting into the pocket C'. The operator then, by the handle G, pushes the slide forward, causing the apron to properly wrap and form the cigarette, the operator rocking the handle G as may be necessary to cause the eccentric H to properly take up the slack in the apron and properly regulate the tension or pressure of the apron upon the cigarette being rolled or wrapped.

The handle G is provided with a spring *g²* to hold it in its retracted position, as shown in Fig. 1, while the material is being put into the pocket C' of the apron C. A stop *g'* limits the throw of the spring *g²*.

By making the eccentric H in the form of a coiled spring it gives an elastic pressure upon the apron and greatly improves the quality of the work done by the operator with the machine.

I claim—

1. In a cigarette machine, the combination with a rolling table, rolling apron, roller and a slide upon which the roller is mounted, of

a rotatable or rocking handle for moving the slide, furnished with an eccentric or projection adapted to bear against the apron to regulate the slack or tension of the apron as the cigarette is rolled, substantially as specified. 55

2. In a cigarette machine, the combination with a rolling table, rolling apron, roller and a slide upon which the roller is mounted, of a rotatable or rocking handle for moving the slide, furnished with an eccentric or projection adapted to bear against the apron to regulate the slack or tension of the apron as the cigarette is rolled, said eccentric or projection consisting of a coil spring eccentrically surrounding the shaft of the rotatable handle, substantially as specified. 60

3. The combination with rolling table B furnished with raised rails *b* of apron C, roller D, and slide F having slotted bearings *f* for the shaft of said roller, and rotatable handle G, provided with eccentric spring barrel H, substantially as specified. 70

4. The combination with rolling table B, of rolling apron C, roller D, slide F having slotted bearings *f* for the shaft of said roller, and rotatable handle G, provided with coil spring eccentric barrel H, substantially as specified. 75

5. The combination with rolling table B of rolling apron C, roller D, slide F furnished with guides *f'f'* and with guide rod *f²*, said table B having guide ways *b' b'*, said frame A having bearing *a* for said guide rod *f²* rotatable handle G having eccentric device H, and a spring *g²* to hold the rotatable handle retracted while the pocket of the apron is being filled with material, substantially as specified. 80

6. In a cigarette machine, the combination with a rolling table, rolling apron, roller and a slide upon which the roller is mounted, of a rotatable or rocking handle for moving the slide, furnished with an eccentric or projection adapted to bear against the apron to regulate the slack or tension of the apron as the cigarette is rolled, and a spring *g* to hold the rotatable eccentric carrying handle retracted while the filler is being put in the pocket of the apron, substantially as specified. 85

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Witnesses:

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