

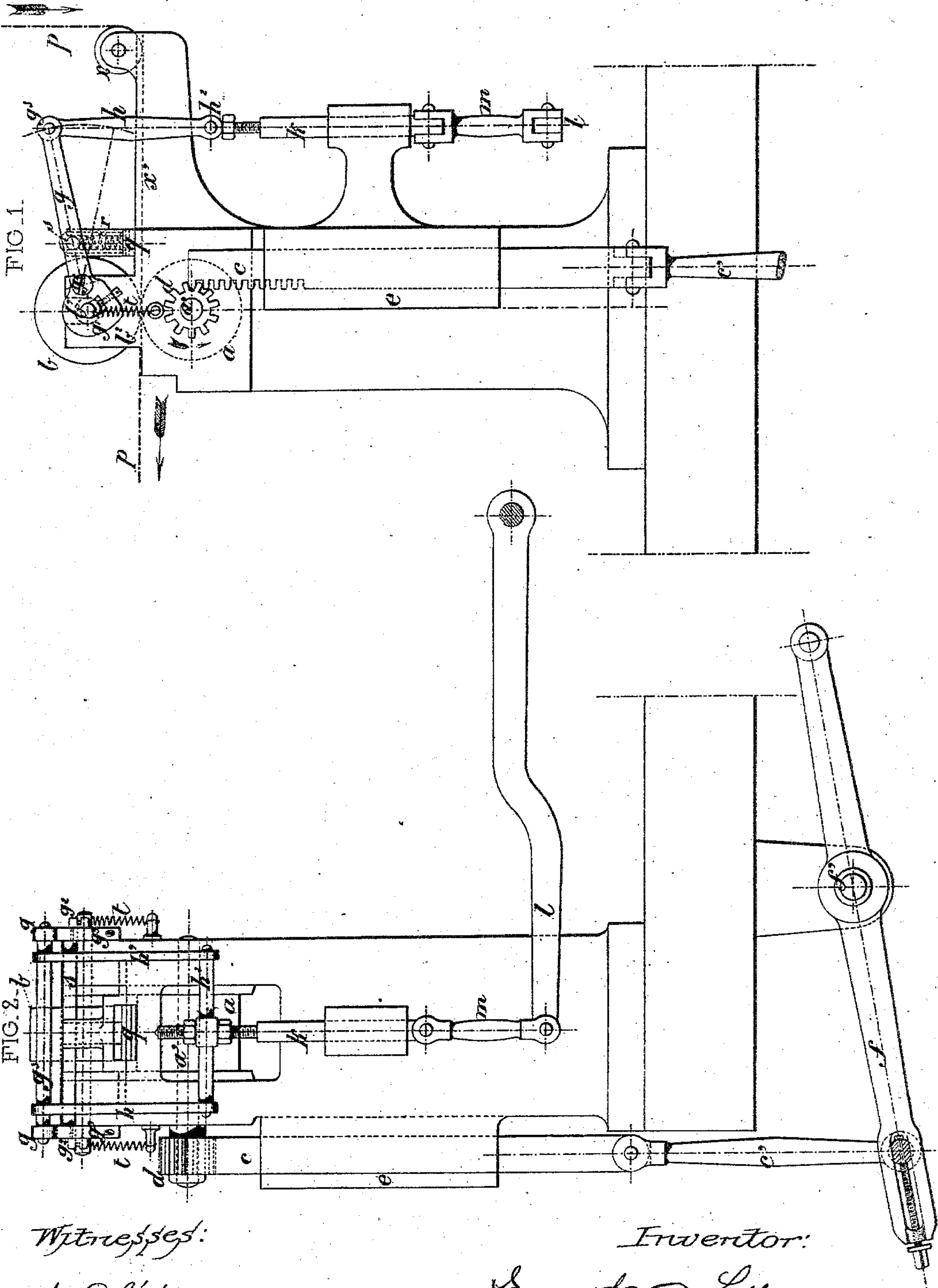
(No Model.)

E. F. LEBLOND.

APPARATUS FOR FEEDING PAPER IN CIGARETTE MACHINES.

No. 295,181.

Patented Mar. 18, 1884.



Witnesses:

A. Blérier  
P. Ruby

Inventor:

Eugène Ferdinand Leblond  
Briesen & Steele  
attorneys



# UNITED STATES PATENT OFFICE.

EUGÈNE F. LEBLOND, OF PARIS, FRANCE.

## APPARATUS FOR FEEDING PAPER IN CIGARETTE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 295,181, dated March 18, 1884.

Application filed May 29, 1883. (No model.) Patented in France June 22, 1881, No. 143,549; in Belgium January 9, 1882, No. 56,711, and in England April 11, 1883, No. 1,830.

*To all whom it may concern:*

Be it known that I, EUGÈNE FERDINAND LEBLOND, a citizen of France, residing at Paris, in the French Republic, have invented  
5 new and useful Improvements in Apparatus for Feeding Paper in Cigarette-Machines, (for which I have obtained a patent in France for fifteen years, No. 143,549, bearing date June 22, 1881; Great Britain, for fourteen years,  
10 No. 1,830, bearing date April 11, 1883, and Belgium, for fifteen years, No. 56,711, January 9, 1882,) of which the following is a specification.

The object of this invention is to draw variable lengths of paper, to suit the different sizes of cigarettes, by the rotary motion of the drawing-rollers in a cigarette-machine.

Figure 1 is a side view of an apparatus embodying my invention, showing the mechanism for drawing the paper. Fig. 2 is a corresponding end view of the same mechanism.

The paper *p*, on leaving the bobbin on which it is wound, passes under the guide-roller *x* along the platform *x'*, and then passes between  
25 the drawing-rollers *a* and *b*. Beyond this point a knife cuts the strip of paper in the length required. It is then delivered to the tube-making machinery. The roller *a* turns with its gudgeons *a'*, one of which has a pinion, *d*, fixed to it, which pinion is made to revolve by the reciprocating rack *c*. This rack  
30 *c*, suitably guided in the part *e* of the frame, is reciprocated by a lever, *f*, said lever being oscillated at *f'* by a cam mounted on the driving-shaft of the apparatus. This rack *c* is connected with the lever *f* by means of a rod, *c'*, whose lower end can be adjusted in the slotted end of the lever *f*, so as to increase or  
40 reduce the stroke of the rack and the movements of the cylinder *a*. The upper roller, *b*, has its gudgeons so arranged in the supports *b'* as to admit of its being raised or lowered so as to press on the roller *a*, or be raised from the same. To this end the gudgeons of the roller *b* are grasped by the heads  
45 *g'* of two levers, *g*, oscillating at *g'*. The said levers are connected with each other by a cross-bar, *g'*, on which the links *h h'* are artic-

ulated. These links, which are also united by a cross-bar, *h'*, are connected with a slide, 50 *k*, which is joined by a link, *m*, to an oscillating lever, *l*. The levers *g* are also connected at *s*, by a cross-bar, which governs the lowering of a presser, *q*, whose stem is surmounted by a spring, *r*, and whose foot, when 55 the levers *g* descend, presses on the strip of paper *p*. The levers *g* are also subjected to the action of two spiral springs, *t*, fixed to the gudgeons of the roller *b*, and to parts of the frame. 60

The following is a description of the action of the apparatus: With reference to Fig 1, it will be observed that the rack *c* is about to ascend and to communicate to the pinion *d*, and also to the cylinder *a*, rotary motion in 65 the direction of the curved arrow, which, in conjunction with the cylinder *b* and springs *t*, effects a drawing of the paper. When the rack is at the end of its upward stroke, it stops to allow the roller *b* time to rise and the 70 presser *q* to descend to keep the paper in position. The rack then descends, causing the drawing-roller *a* to turn in the opposite direction; but as the roller *b* is now raised, and the paper is firmly held by the presser *q*, the 75 reverse rotation of the roller *a* no longer affects the paper.

As the rotation of the roller *a* can be varied, different lengths of paper can be drawn by changing the position of the pin which connects the shaft *c'* with the lever *f*. 80

In place of the spiral springs *t t*, producing the downward pressure of the roller *b*, flat springs may be employed, fixed above the supports *b'*, and which would press upon the said 85 gudgeons by acting directly on them.

The invention is applicable to other than cigarette-machines.

I claim—

1. The combination of the drawing-roller 90 *a*, its pinion *d*, and drawing-roller *b*, with the rack *c*, mechanism, substantially as described, for reciprocating said rack, levers *g*, presser *q*, springs *r t*, and mechanism, substantially as described, for oscillating the le- 95 vers *g*, all as and for the purpose specified.

2. The combination of the drawing-rollers  
*a b*, and mechanism, substantially as de-  
scribed, for turning them and holding them  
together, with the presser *g*, mechanism for  
5 moving it up and down, as described, and  
platform *x'*, all arranged so that when the  
drawing-rollers are held together the presser

is lifted, and when the drawing-rollers are  
moved apart the presser is lowered upon the  
platform, substantially as specified.

EUGÈNE FERDINAND LEBLOUX.

Witnesses:

A. BLÉTRY,

ROBT. M. HOOPER.