(No Model.)

O. W. ALLISON.

DRAWING MECHANISM FOR CIGARETTE MACHINES.

No. 459,117. Patented Sept. 8, 1891.

Fig. 1.

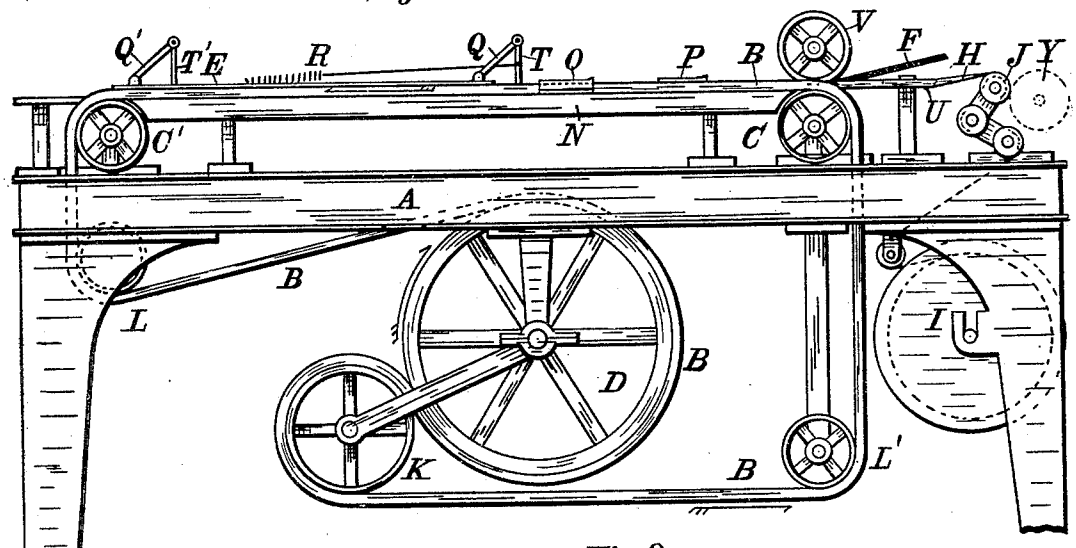


Fig. 2.

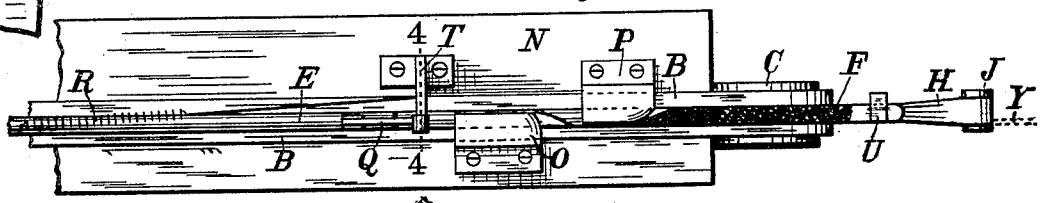


Fig. 3.

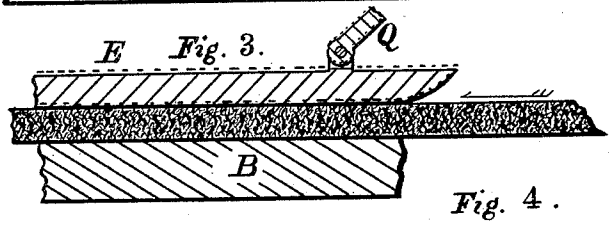
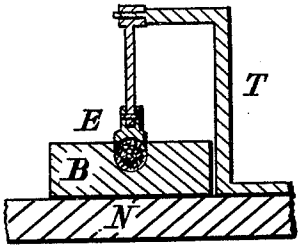


Fig. 4.



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UNITED STATES PATENT OFFICE.

OSCAR W. ALLISON, OF ROCHESTER, NEW YORK.

DRAWING MECHANISM FOR CIGARETTE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 459,117, dated September 8, 1891.

Application filed June 26, 1889. Renewed July 17, 1891. Serial No. 399,803. (No model.)

To all whom it may concern:

Be it known that I, OSCAR W. ALLISON, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain Improvements in Drawing Mechanisms for Cigarette-Machines, of which the following is a specification, reference being had to the accompanying drawings.

My present invention relates to certain improvements in the drawing mechanism for cigarette-machines, which improvements are fully described and illustrated in the following specification and accompanying drawings, and the novel features thereof specified in the claim annexed to the said specification.

My present improvements are represented in the accompanying drawings, in which—

Figure 1 is a side elevation. Fig. 2 is a partial plan view. Fig. 3 is a longitudinal section through the drawing-band and the presser-bar. Fig. 4 is a transverse section on the line 4 4, Fig. 2.

In the accompanying drawings, A represents the base or bed of the machine; B, the endless traveling grooved band; C C′, the carrying-pulleys; D, the driving-pulley, and E the presser-bar.

F is the continuous cigarette filler, H the paper, and I the paper-supply roll.

The band travels continuously in the direction indicated by the arrows along the table or support N, being provided with corner-pulleys L L′ and a tension-pulley K. The band is made of a thick strip of any suitable flexible material, such as india-rubber, and is provided on its outer face with a continuous longitudinal groove of dimensions corresponding with those of the cigarette which is designed to be made.

A heavy endless flexible band of a character adapted for use in my present invention is shown in the accompanying drawings, particular reference being made to Figs. 3 and 4, the rectangular form being preferred and the dimensions being such that while it possesses sufficient flexibility to bend around the pulleys over which it runs the portions of the band which support the cigarette possess sufficient rigidity to sustain its pressure and maintain their form.

The continuous filler is delivered to the endless traveling grooved band from any suitable filler-forming mechanism, and the paper is supplied from the roll I, passing around the guide-rolls J and under the paper-former U. Above the carrying-pulley C the filler and paper are pressed down into the groove in the endless band by the wheel V, which is made of a thickness slightly less than the width of the groove, being sustained in the proper position by a standard or other support attached to the bed or table. Y is the paster-wheel of any suitable paste-supplying apparatus, by which paste is applied to one edge of the paper.

Any suitable devices may be used for folding the edges of the paper down on each other, such as the folders P and O, which are attached to the table N and extend over the band from opposite sides, being made of a suitable shape adapted to turning over the edges of the paper as it passes under them.

In order to cause sufficient friction between the groove and the cigarette to enable the band to draw the cigarette along with it, I use the presser-bar E, which is made of a width corresponding with the groove and is concave on its lower surface to produce an uniform pressure on the cigarette. It extends along the groove for a sufficient distance to cause the requisite amount of friction, being supported from the bed or table in any suitable manner. I connect it to the table or frame by some form of supporting mechanism, which permits it to yield slightly up and down, so as to adapt itself to any irregularities in the thickness of the cigarette passing under it without producing undue resistance.

One mode of supporting the presser-bar so that it is movable or self-adjusting, which I have found to work satisfactorily in practical use, is represented in the accompanying drawings, the presser-bar being provided with one or more pivoted links Q Q′, attached to one or more standards T T′, and the spring R, which forces the presser-bar downward against the cigarette with a gentle pressure. It will be observed that the spring is so arranged as to tend to move the presser-bar lengthwise of the groove in the band occupied by the cigarette and in a direction opposite to that in which the cigarette travels, the angular arrangement of the link or links causing the bar to enter deeper into the groove

as it moves lengthwise. The standards T T′ are secured to the bed or frame. One advantage of this construction is that it permits the presser-bar to be readily moved upward out of the groove to afford access to the cigarette therein. The spring R is attached at one end to the presser-bar and at the other to the standard T or other convenient part of the machine. It is obvious, however, that any other suitable kind of spring may be employed.

I claim—

The combination, with the thick endless traveling band made of suitable flexible material and provided on its outer surface with a continuous longitudinal groove, of the table or support N, and the presser-bar E, supported on one or more angularly-arranged pivoted links, with its lower surface in the groove and pressed against the cigarette by a spring which tends to move it lengthwise of the band in a direction opposite to that in which the band travels, substantially as described.

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