

(No Model.)

O. W. ALLISON.

TOBACCO FEEDING MECHANISM FOR CIGARETTE MACHINES.

No. 424,443.

Patented Mar. 25, 1890.

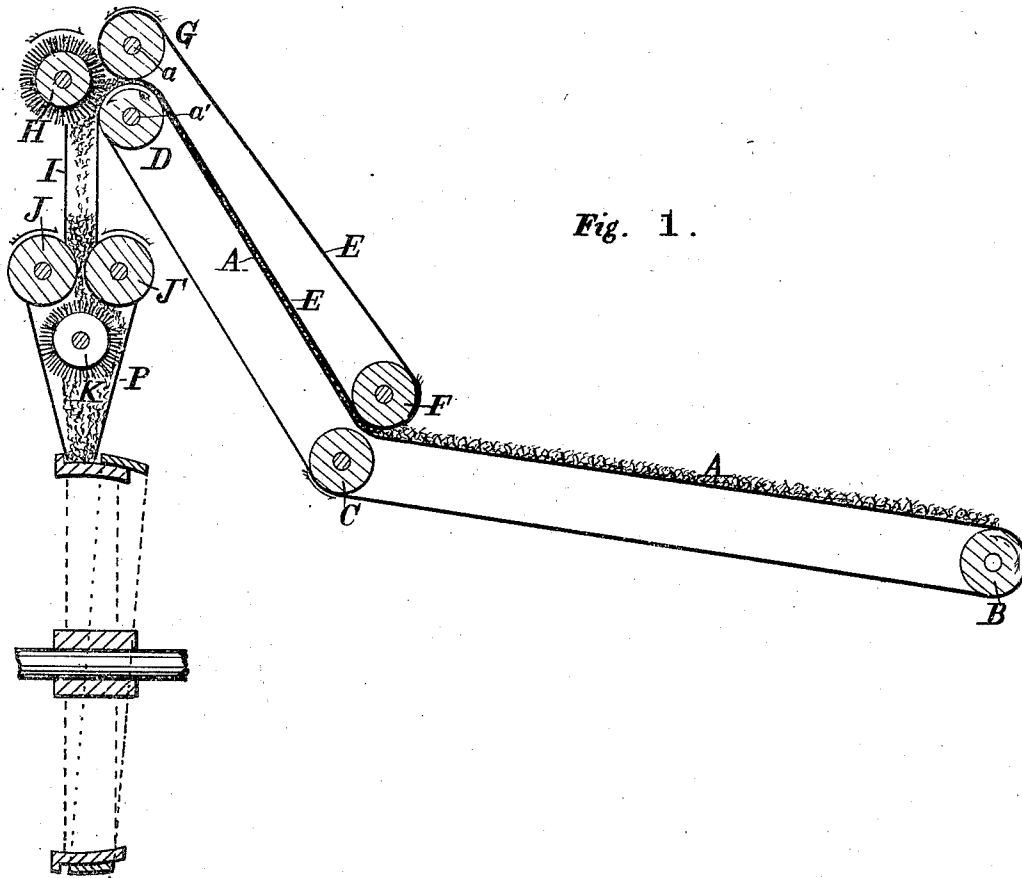


Fig. 1.

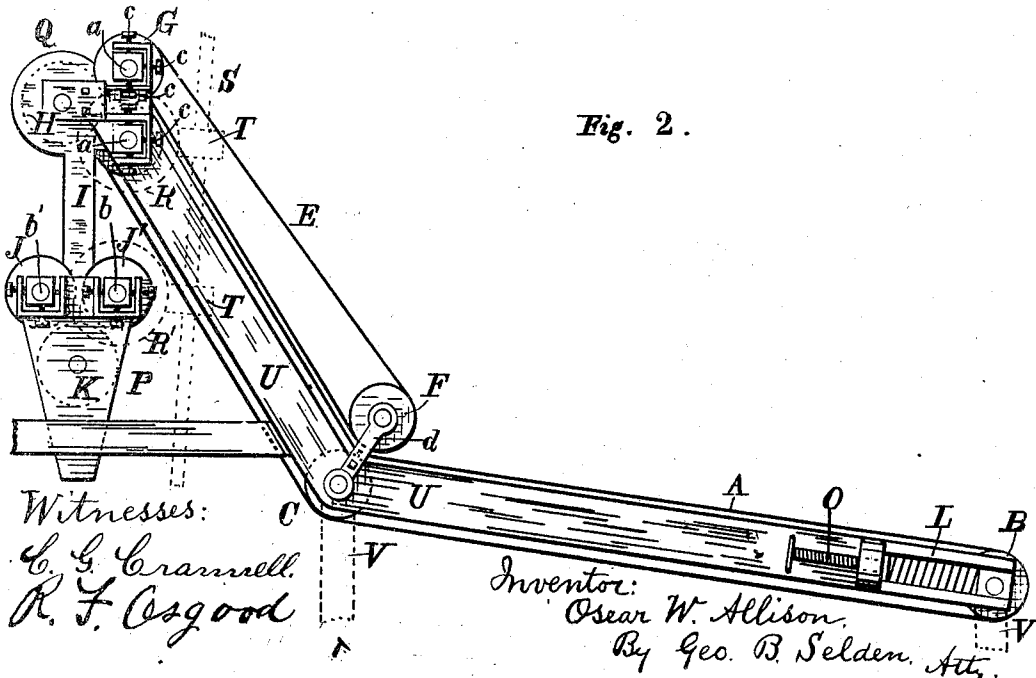


Fig. 2.

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TOBACCO-FEEDING MECHANISM FOR CIGARETTE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 424,443, dated March 25, 1890.

Application filed June 27, 1889. Serial No. 315,800. (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, in the State of New York, have invented an Improved Tobacco-Feeding Mechanism for Cigarette-Machines, of which the following is a specification.

My present invention relates to an improved mechanism for feeding tobacco to cigarette-machines, which improvements are fully described and illustrated in the following specification and the accompanying drawings, and the novel features thereof specified in the claims annexed to the said specification.

In the accompanying drawings, representing my improved tobacco-feeding mechanism for cigarette-machines, Figure 1 is a longitudinal section. Fig. 2 is a side elevation.

In the accompanying drawings, A represents an endless conveying-belt, which travels around the rollers B, C, and D in the direction represented by the arrows. As represented, a portion of the belt is arranged in the horizontal or nearly horizontal position, and the other part of the belt is inclined upward, being placed opposite the belt E, which travels around the pulleys F and G.

In the operation of the machine the tobacco is placed by an operative on the horizontal portion of the belt A, being spread over the surface in as uniform a layer as it may be conveniently, and the tobacco is carried by the motion of the belt into the throat between the rollers C and F, and it is then carried upward between the belts to their upper ends, where it is subjected to the action of the revolving brush H, by which it is dis-entangled and fed downward into the hopper I, at the lower end of which it is discharged by the revolving rollers J J' onto the second revolving brush K, whence it is delivered to the filler-forming mechanism. The hopper or receptacle I is provided with vertical walls, and it serves to regulate the quantity of tobacco fed to the filler-forming devices, as any excess of tobacco fed onto the belt A will accumulate in the hopper, being gradually withdrawn therefrom and delivered to the filler-former by the rolls J J', which are made adjustable relatively to each other, so as to in-

crease or decrease the width of the throat between them. When there is no tobacco between the belts, the belt A will travel up against the roller F. The belts are made of any suitable width—say five to eight inches—adapted to carry the requisite amount of tobacco. I make the roller B movable lengthwise of the belt, so as to maintain the requisite amount of tension on it. Any suitable device may be employed for this purpose—such, for instance, as the springs L, Fig. 2, bearing at one end against a sliding box in which the shaft of the roll revolves and at the other end provided with an adjusting-screw O. The shafts of the various rolls are supported by a suitable frame U on each side of the apparatus, which frame may be provided with the legs V, by which it is sustained at a suitable height. The shaft of the roll F is carried by arms d, Fig. 2, attached to the frame U. The side pieces constituting the frame are connected together by suitable cross-bars extending across between the belts. The rolls G and D are made adjustable relatively to each other and the brush H by providing their shafts a a' with boxes, which are secured in place in openings in the frame by the adjusting-screws c c. The shafts b b' of the rolls J J' are made adjustable in a similar manner. The brush H revolves within a suitable casing Q, Fig. 2. The brush K revolves within a suitable hopper P, from which the tobacco is delivered to any suitable filler-forming mechanism—such, for instance, as the revolving compressing-rings described in my patent, No. 406,613, dated July 9, 1889. The rolls D G and J J' are caused to revolve at the same speed in any convenient manner. Thus the shafts of the rolls D and J' may be provided with the worm-gears R R'; operated by the shaft S by means of the worms T T'. Any other suitable arrangement may, however, be adopted. The shafts a a' and b b' are provided with spur-gears of equal size, so that the rolls supported by the shafts travel at the same speed. The brushes H and K are driven at a higher speed than the rolls by means of belts running over pulleys on the shafts of the brushes, or in any other suitable or preferred manner. Uniformity of the feeding operation is secured by the hopper I, in which any excess of tobacco placed on the

belt A accumulates, being gradually withdrawn by the rolls J J'. The side or sides of the hopper I are made of glass, so that the operative can see whether or not the proper amount of tobacco is being supplied to the belt A. The brushes are made of stiff bristles; but the ordinary wire picker may be employed, if preferred. In case the conveyer or feed belt be run horizontally throughout its entire length the belt E may be dispensed with; but its use enables me to allow the operative to stand on the floor.

I claim—

1. The combination, with the feed-belt A, running around the roll D at its delivery end, of the revolving brush II, regulating-hopper I, the revolving discharge-rolls J J' at

the lower end of the hopper, the revolving brush K, located below the discharge-rolls, and a suitable discharge-spout, substantially as described.

2. The combination, with the feed-belts A and E, running around the rolls D and G at their delivery ends, of the revolving brush II, regulating-hopper I, the revolving discharge-rolls J J' at the lower end of the hopper, the revolving brush K, located below the discharge-rolls, and a suitable discharge-spout, substantially as described.

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Witnesses:

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