

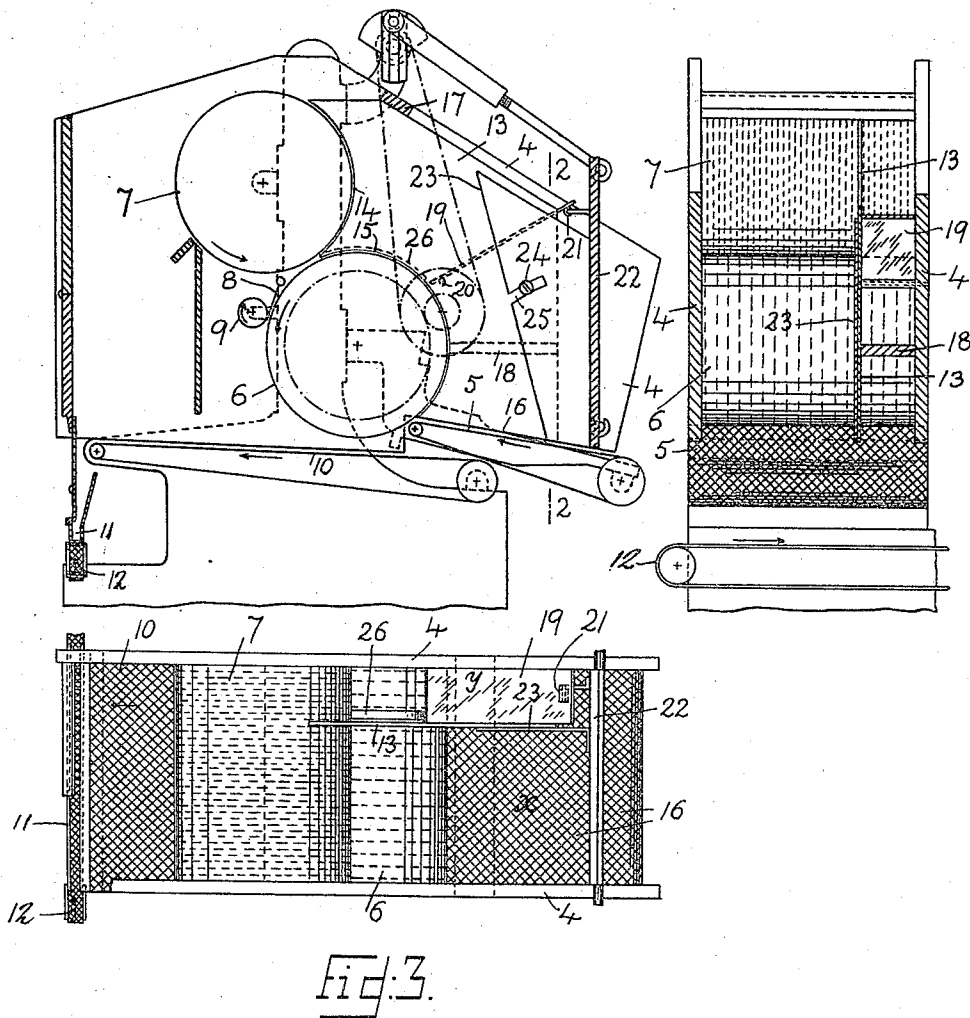
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FEEDING MECHANISM FOR CIGARETTE MACHINES.
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1,183,618.

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Fig: 1.

Fig: 2.



WITNESSES
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FEEDING MECHANISM FOR CIGARETTE-MACHINES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY JAMES AITON, a subject of the King of Great Britain and Ireland, and a resident of London, England, have invented certain new and useful Improvements in Feeding Mechanism for Cigarette-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same.

10 This invention relates to improvements in cigarette-making machines of the kind wherein cut tobacco is fed from a hopper by a rotating carding-drum, which spreads it over a wide transversely arranged traveling feed-band or the like, which delivers it
15 onto a narrow longitudinally arranged traveling tape or the like, forming the bottom of a tobacco channel, whence the rod of tobacco is passed in a straight course onto a
20 paper strip to be formed and cut into cigarettes.

The cut tobacco always contains long and short strands, and the present invention has for its object to insure an even distribution
25 of long and short tobacco along the rod of tobacco and the manufactured cigarettes.

To this end, the invention consists in dividing the tobacco hopper into a plurality of laterally disposed compartments, one for
30 containing long tobacco and another for containing short tobacco, the long and the short tobacco being positively separated by shaking in a sieve before being introduced into their respective compartments, so that
35 one section of the carding drum acts on the previously separated long tobacco and another section of the carding drum acts on the previously separated short tobacco. The carding drum thereby delivers the long tobacco along one sectional width of the transverse feed band or the like, and the short tobacco along another sectional width of the feed band, and the longitudinal tape or the like continuously receives from the feed
40 band first the long tobacco, and next the short tobacco on top of the long tobacco already on the tape, and the short tobacco works into the interstices in the long tobacco.

50 The accompanying drawings illustrate, more or less diagrammatically, sufficient of a cigarette-making machine of the kind aforesaid adapted with the present improvements, to enable the invention to be readily understood.

Figure 1 is a transverse sectional elevation; Fig. 2 is a longitudinal sectional elevation on 2—2, Fig. 1; Fig. 3 is a plan.

4 is a hopper for holding the cut cigarette tobacco; 5 is a traveling canvas forming the bottom of the hopper; 6 is a rotary bottom carding-drum; 7 is a top intermittent rotary carding-drum; 8 is a comb; 9 is a picker-roll; 10 is a wide transversely arranged traveling feed-band; 11 is a tobacco channel; and 12 is a narrow longitudinally arranged traveling tape forming the bottom of the channel; all of known construction and arrangement, and operated in known manner.

In the construction shown, the tobacco hopper, 4, is divided by a vertical partition, 13, into a large compartment, *x*, and a small compartment, *y*. The partition is made, as at 14, 15, 16, to conform to the carding drums, 6, 7, and to the bottom canvas, 5, and is supported in position by cross beams, 17, 18.

The canvas, 5, forms the bottom of the larger compartment, *x*, only. An inclined oscillatory piece, 19, pivoted, as at 20, and engaging a roller, 21, on the usual oscillatory back-piece, 22, forms the bottom or back of the smaller compartment, *y*.

To accommodate the oscillatory movement of the back-piece, 22, while maintaining a division of the hopper, the partition, 13, is slidably engaged with an extension, 23, by means of a pin-and-slot connection, 24, 25, and the partition-extension, 23, is made fast to the oscillatory back-piece, 22.

The amount of short tobacco in proportion to the long tobacco may be adjusted by removable gages, 26, of different widths secured to the partition, 13, or otherwise supported. When the machine is to be worked, the long tobacco is placed in the larger compartment, *x*, and the short tobacco in the smaller compartment, *y*.

When the machine is in operation, the parts move in the directions represented by the various arrows, and it will be seen that the long tobacco is continuously showered and spread over one side of the traveling feed band, 10, and the short tobacco is continually showered and spread over the other side of the feed band. As the tape, 12, passes under the long tobacco first, it will be seen the tape firstly receives a shower of long tobacco, and as the tape sub-

sequently passes under the short tobacco it receives a shower of short tobacco which falls onto the long tobacco in the channel 11, so that, as aforesaid, there is an even distribution of long and short tobacco in the rod of tobacco which is formed.

What I claim as my invention and desire to secure by Letters-Patent is:—

1. In feeding mechanism for cigarette machines, a tobacco-hopper and means dividing it into a plurality of laterally disposed compartments one for previously separated long tobacco and another for previously separated short tobacco, a wide movable feed-band, rotary means for spreading the long tobacco along one section of the width of the feed-band and for spreading the short tobacco along another section of the width of the feed-band, a channel into which the feed-band delivers the tobacco, and a narrow movable tape forming the bottom of the tobacco-channel and movable in a direction approximately at right angles to the direction of movement of the feed-band for receiving first the long tobacco and next the short tobacco on top of the long tobacco already on the tape.

2. In feeding mechanism for cigarette machines, a tobacco-hopper, means for dividing it into a plurality of laterally disposed compartments one for previously separated long tobacco and another for previously separated short tobacco, means for adjusting the effective width of the outlet of one or more of the compartments, a movable feed-band, rotary means for delivering

the long tobacco and the short tobacco respectively onto different sections of the width of the feed-band, and a tape beneath the feed-band and movable in a direction approximately at right angles to the direction of movement of the feed-band for receiving first the long tobacco from the feed-band and next the short tobacco from the feed-band on top of the long tobacco already on the tape.

3. In feeding mechanism for cigarette machines, a tobacco hopper, means for dividing it into a plurality of laterally disposed compartments one for previously separated long tobacco and another for previously separated short tobacco, a rotary carding-drum for delivering the long and the short tobacco from the hopper at different points, a movable feed-band beneath the carding-drum for receiving the long tobacco along one side and for receiving the short tobacco along the other side and for delivering the tobacco off from one of its looped ends, a channel beneath the looped delivery-end of the feed-band, a movable tape forming the bottom of the channel for receiving first the long tobacco and next the short tobacco on top of the long tobacco already on the tape to form a rod of tobacco in which the short tobacco shakes into the long tobacco, the channel and the tape being disposed approximately at right angles to the feed-band.

In witness whereof I affix my signature.

HENRY JAMES AITON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."