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C. W. MÜLLER

FEEDING MECHANISM FOR CIGARETTE MACHINES

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Fig. 1

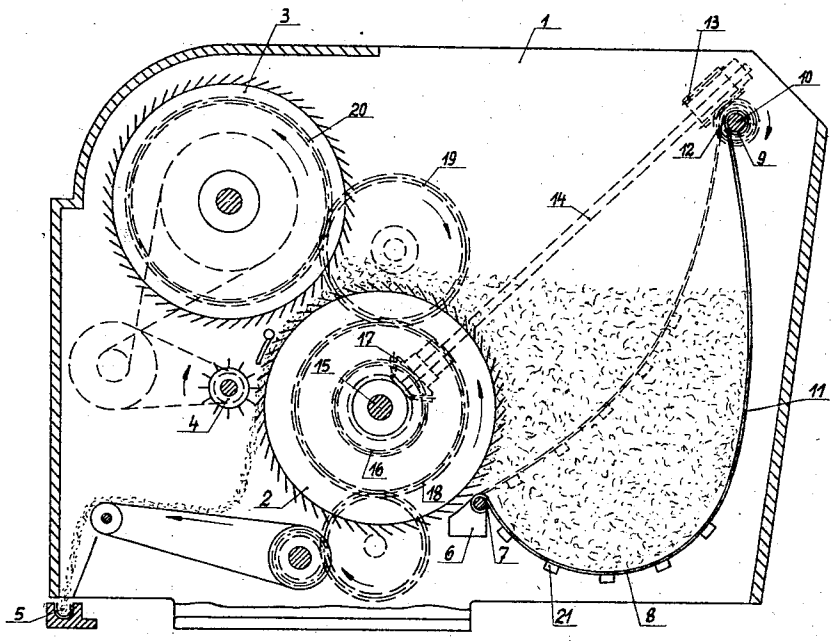
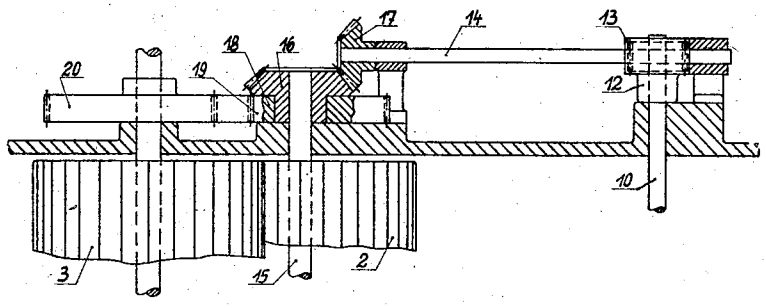


Fig. 2



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FEEDING MECHANISM FOR CIGARETTE MACHINES.

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In tobacco spreading devices it has already been suggested to feed the tobacco to the pin drums by means of a movable wall, a trough-shaped rear wall of the container being used for this purpose, which is hinged in the vicinity of the pin drums and is rocked towards the pin drums by means of a pull member and weight. In a device of such a kind the tobacco accumulates at the hinge of the trough, the upper layers of tobacco being pushed on the lower ones, so that a caking of the tobacco is unavoidable. In order to obviate this drawback it has been proposed to impart a shaking or jigging motion to the container of the trough.

The present invention consists in this that a cloth or apron is used, which hangs down in the manner of a bag, one end of the apron being fixed in the vicinity of the receiving drum close to its periphery and the other end being connected to a continuously driven rolling-up device which lies considerably higher than the axis of the receiving drum.

In this constructional form the rear wall is raised as the upper layers of tobacco slide down sideways to the drum. Through the inclined position of the cloth wall the tobacco is pressed gently against the drum, the tobacco being kept in continuous and gentle motion.

In the accompanying drawing a constructional example of the invention is shown, Fig. 1 being a vertical longitudinal section through the tobacco spreader partly in side elevation and Fig. 2 being a plan view partly in horizontal cross-section of the means for driving the rolling-up device.

In the container 1 the usual pin drum 2 is journalled so as to rotate in the direction of the arrow, which takes the tobacco from the tobacco supply in the container. The drum co-operates in the usual manner with the stripping drum 3 which rotates in the direction shown by an arrow and removes the excess of tobacco from the drum 2, so that a uniform web of tobacco is formed on the latter. From the drum 2 the tobacco is removed by means of the beater drum 4 or in any other suitable manner and passes to the conveyor band 5 travelling below the container 1.

To a bearing body 6 provided near the lower part of the periphery of the receiving drum 2, the end 7 of an apron 8 is fixed. The other end 9 of the apron is fixed to a rolling-up mechanism 10, the axis of rotation of which is parallel to the axis of rotation of the drum 2, but lies considerably higher than the latter, so that, the apron being of a considerable length, it will sag downwards like a bag and form a support for the tobacco in the container. The tobacco is pressed by the part 11 of the said apron and by the weight of the tobacco itself, when the apron is being rolled up towards the drum 2, the tobacco being continuously rolled over. The rolling-up device 10 is driven by means of a worm gear 12, 13, a shaft 14 and bevel gearing 16, 17 from the shaft 15 of the drum 2. The shaft 15 transmits its rotary motion through the spur gearing 18, 19, 20 to the pin drum 3 as well.

The apron 11 may be weighted by means of battens 21. By broken lines the position of the apron 8 is shown, into which it is brought for exhausting the supply of tobacco. The apron is thereupon returned into the initial position and the supply of tobacco made up by a fresh supply being introduced into the container.

By this means the tobacco is pressed uniformly against the receiving drum 2 without in any way damaging the fibres of the tobacco, the tobacco being kept in constant motion, so that there is no danger of a bridge being formed.

What I claim is:—

A tobacco spreading machine comprising in combination a receiving drum for the tobacco, an apron depending between its two ends, means for rolling up the apron located considerably higher than the axis of the receiving drum, one end of the apron being fixed close to the periphery of the receiving drum and the other end to the means for rolling up the apron, and means for continuously driving the said rolling-up means, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification.

CARL WILHELM MULLER.