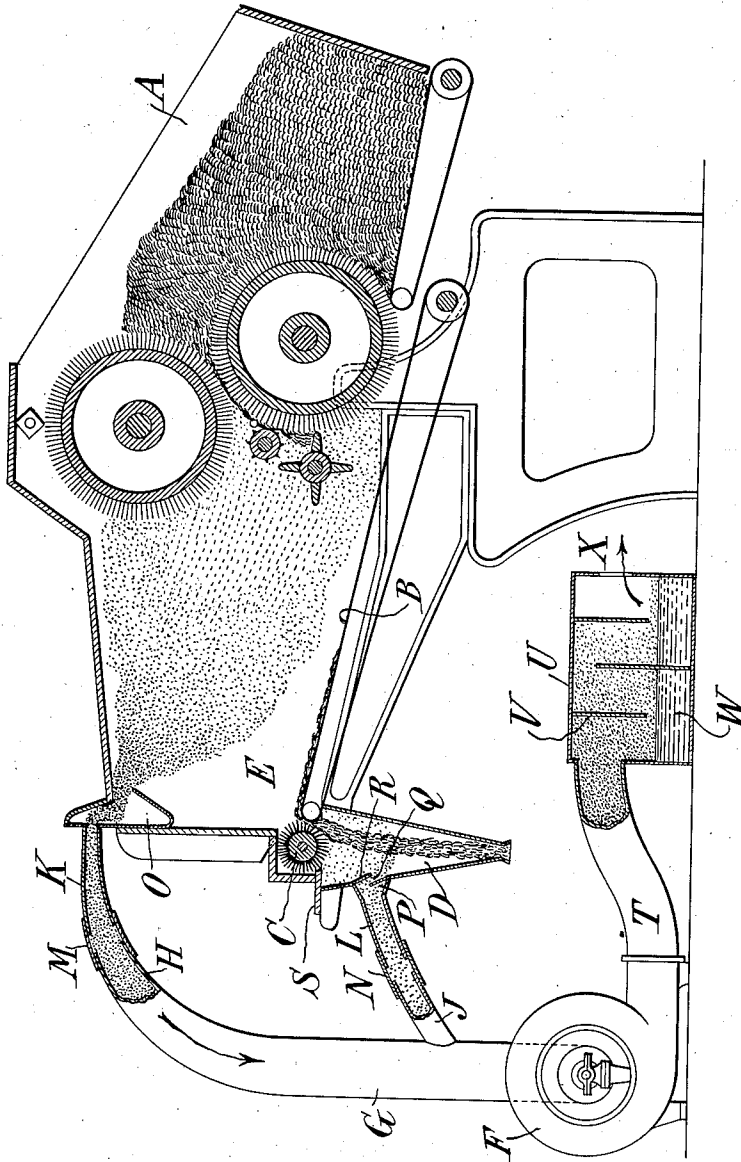


E. PUGIBET.
CIGARETTE MACHINERY.
APPLICATION FILED MAY 6, 1909.

973,698.

Patented Oct. 25, 1910.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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CIGARETTE MACHINERY.

973,698.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed May 6, 1909. Serial No. 494,480.

To all whom it may concern:

Be it known that I, ERNEST PUGIBET, a citizen of the Republic of France, residing in the city of Mexico, Federal District, Republic of Mexico, have invented certain new and useful Improvements in Cigarette Machinery, of which the following is a specification.

This invention provides an improved mechanism for extracting from cigarette machines and from the tobacco which passes therethrough the fine dust or tobacco powder which is produced in the operations of the machinery upon the tobacco.

An embodiment of the invention is illustrated in longitudinal cross-section in the accompanying drawing.

The drawing shows a machine of large production for distributing or combing or spreading the tobacco, with the improvements of this invention applied thereto.

The tobacco is placed in the vessel A, whence it is carried by the combing devices indicated on to a leather belt B which feeds it to the brush C which rotates very rapidly and carries the tobacco in the desired condition into the feeder D. There is a considerable quantity of dust formed always in the distributing or spreading chamber E upon and above the belt B and again in the chamber or feeder D. This dust if carried forward with the tobacco goes partly into the cigarettes and partly into the atmosphere surrounding the machine. In either case it has only a harmful effect. So much of it as goes into the cigarette is largely inhaled by the smoker, its fineness permitting it to be drawn into the mouth and throat, where it is both unpleasant and injurious to health. The powder which escapes into the atmosphere about the machine is breathed by the employees in the factory and is injurious to their health. It is a serious matter, the quantity of powder amounting to ten or twelve pounds per day per machine, and being so fine as to noticeably befog the air in the factory. By my present invention I have succeeded in extracting all or nearly all of the fine dust so as to produce a clear atmosphere in the factory and to produce cigarettes having little or no dust in them. At the same time the dust extracted can be utilized as a by-product, either as a fertilizer or as an insect terminator for plants or as a source of nico-

tin for medicines and insecticides. Even if the dust were thrown away its extraction is important to the health of both employees and smokers.

In order to effect a complete extraction of the dust I provide a suction apparatus with inlet mouths opening out of the chambers in which the dust is formed and inclosed, and at the points where the dust can be most effectively drawn out. For example, the points E and D at which the dust accumulates are inclosed so as to prevent the escape of dust into the surrounding atmosphere, and an inlet pipe to the suction apparatus is connected to each of the chambers E and D thus formed. A suction fan F driven by any suitable motor has an inlet main G provided with branches leading to the desired points of the machine. These two branches H and J are connected to the mouth-pieces K and L respectively leading from the chambers of the machine by means of sleeves of rubber or other flexible tubing M and N. The branch H is connected to the upper part of the chamber E, at which point the dust tends to accumulate. At the entrance to the mouth-piece K is arranged a collecting box or trough, O, which is simply a tin or other sheet-metal box connected to the mouth-piece K and extending the full width of the top of the chamber E and having its lower opening not more than four or five centimeters wide. The mouth-piece L is provided also with a collecting box P placed in the upper part of the feeder D and embracing the full width thereof. In order that only the dust and not the regular particles of tobacco produced in the feeder D shall be sucked out, the suction mouth is formed in the upper part of the feeder D. The collecting box P is likewise extended the full width of the feeder, and is provided with a narrow mouth leading into it from the feeder. This narrow mouth Q is protected from the larger particles of tobacco by a shield R which overlies it. The feeder is closed at the top substantially hermetically by means of a board S running across the top.

The discharge tube T from the fan F empties into a receiving box U provided with diaphragms V extending alternately from the top and from the bottom nearly to the opposite side of the box, so as to compel the dust to pass downward and upward and

close to the surface of the water W which is carried in the box; any desired number of diaphragms being used so as to bring the dust into contact with the water often enough to cause the latter to absorb substantially all the dust. Thus the air escaping at the outlet X is substantially free from dust, and the latter is collected in the water and removed as occasion requires.

10 What I claim is:

1. A machine of the class described including in combination a machine having a chamber E, means for sucking the dust out of said chamber through a mouth at the upper part thereof, and a collecting box O adjacent to such mouth.

2. A machine of the class described including in combination a machine having a feeder D in which dust is formed, means for sucking the dust out of said feeder through a mouth at the upper part thereof, and a collecting box P adjacent to such mouth.

3. In a machine of the class described a chamber in which dust is liberated, and means for extracting the dust therefrom including a mouth-piece and a box communicating with said mouth-piece, extending substantially the full width of said chamber and provided with a narrow mouth communicating with said chamber.

4. A machine of the class described including in combination a chamber in which dust is liberated, and having a mouth through which the dust is withdrawn, and a shield R over said mouth for preventing the larger particles from being withdrawn through said mouth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ERNEST PUGIBET.

Witnesses:

Y. I. ARROYO,
N. ARCOS.