

No. 826,800.

PATENTED JULY 24, 1906.

S. I. PRESCOTT,
METHOD OF MAKING CIGARETTES.
APPLICATION FILED NOV. 12, 1904.

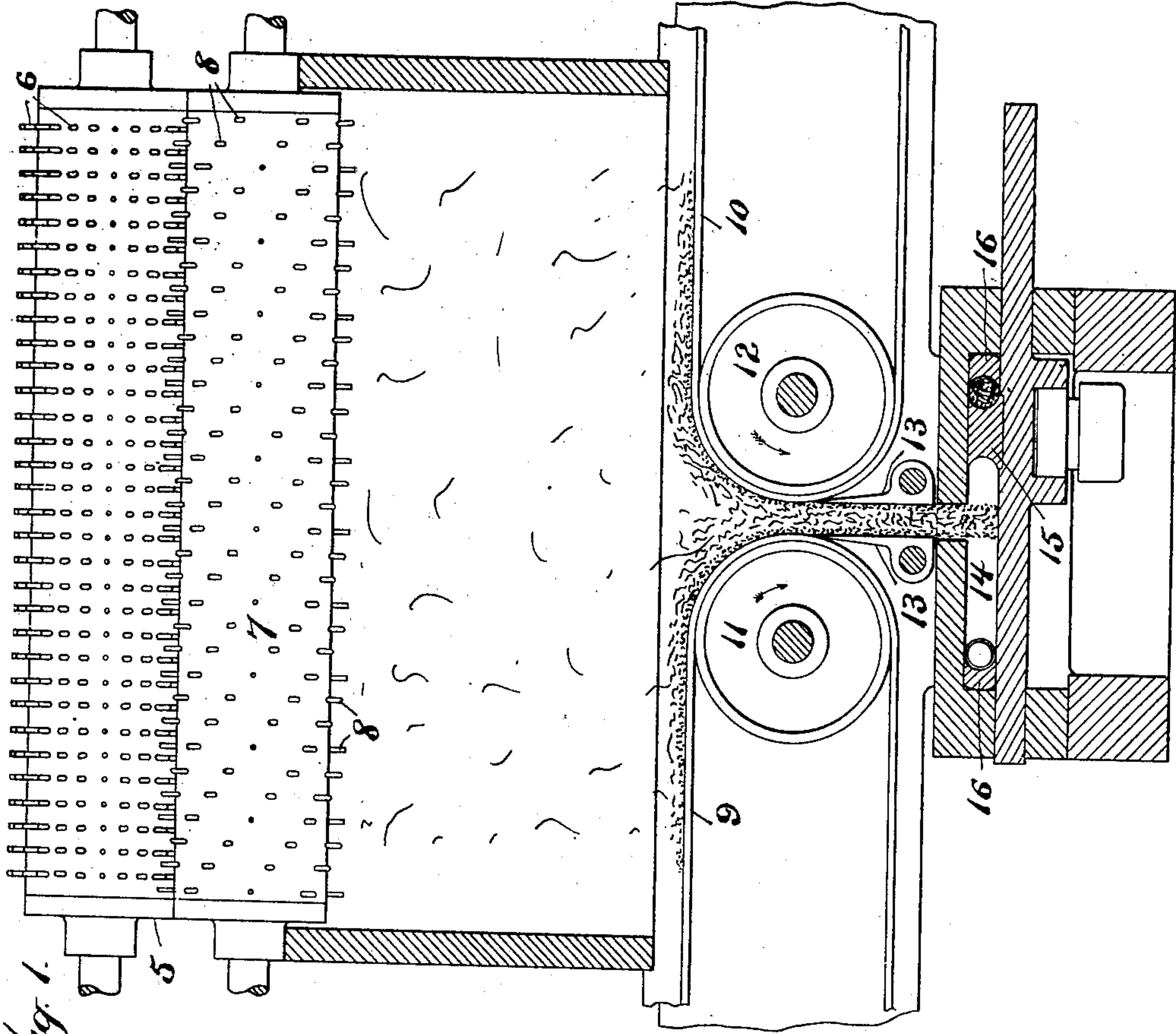


Fig. 1.

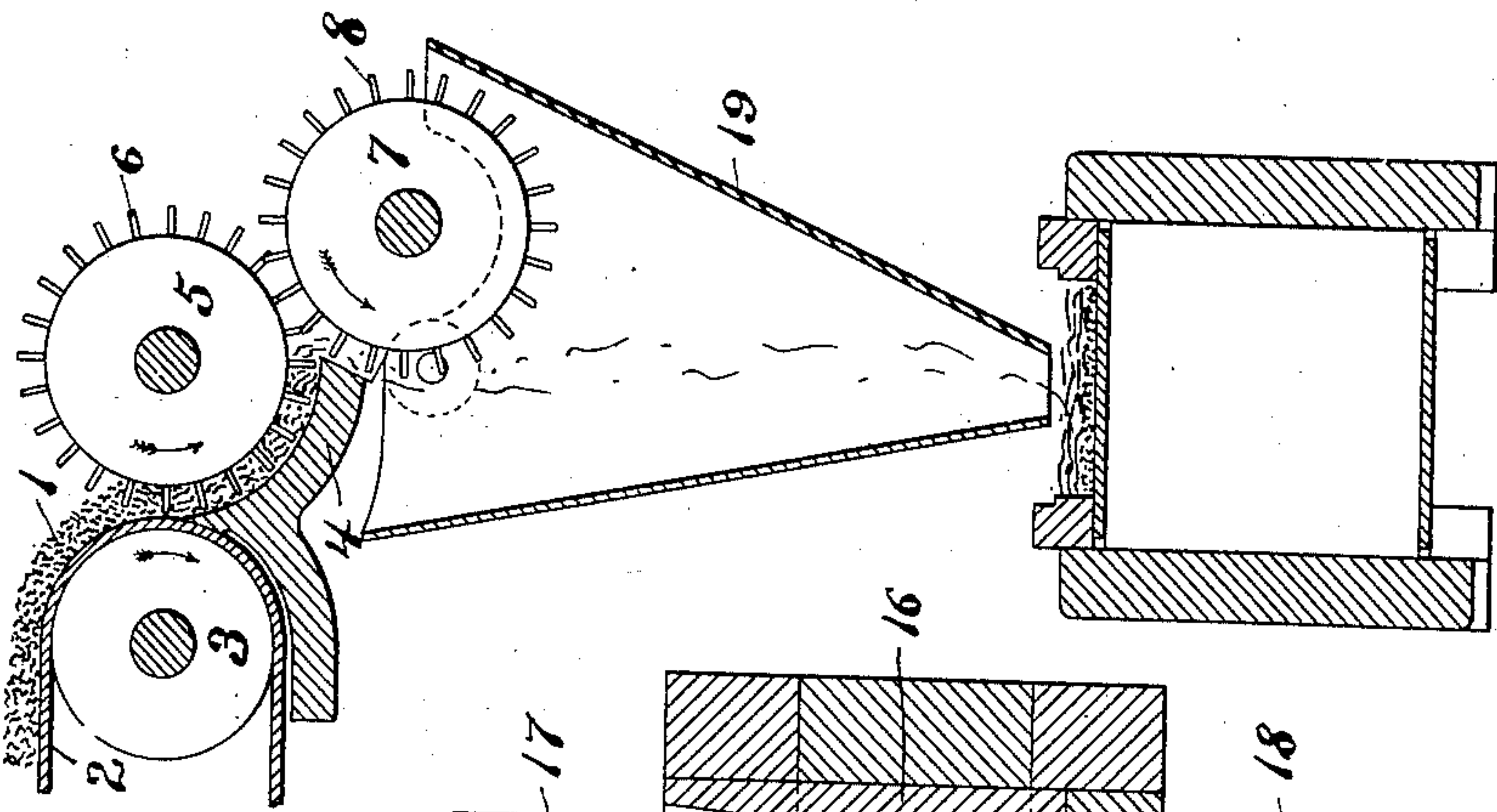


Fig. 2.

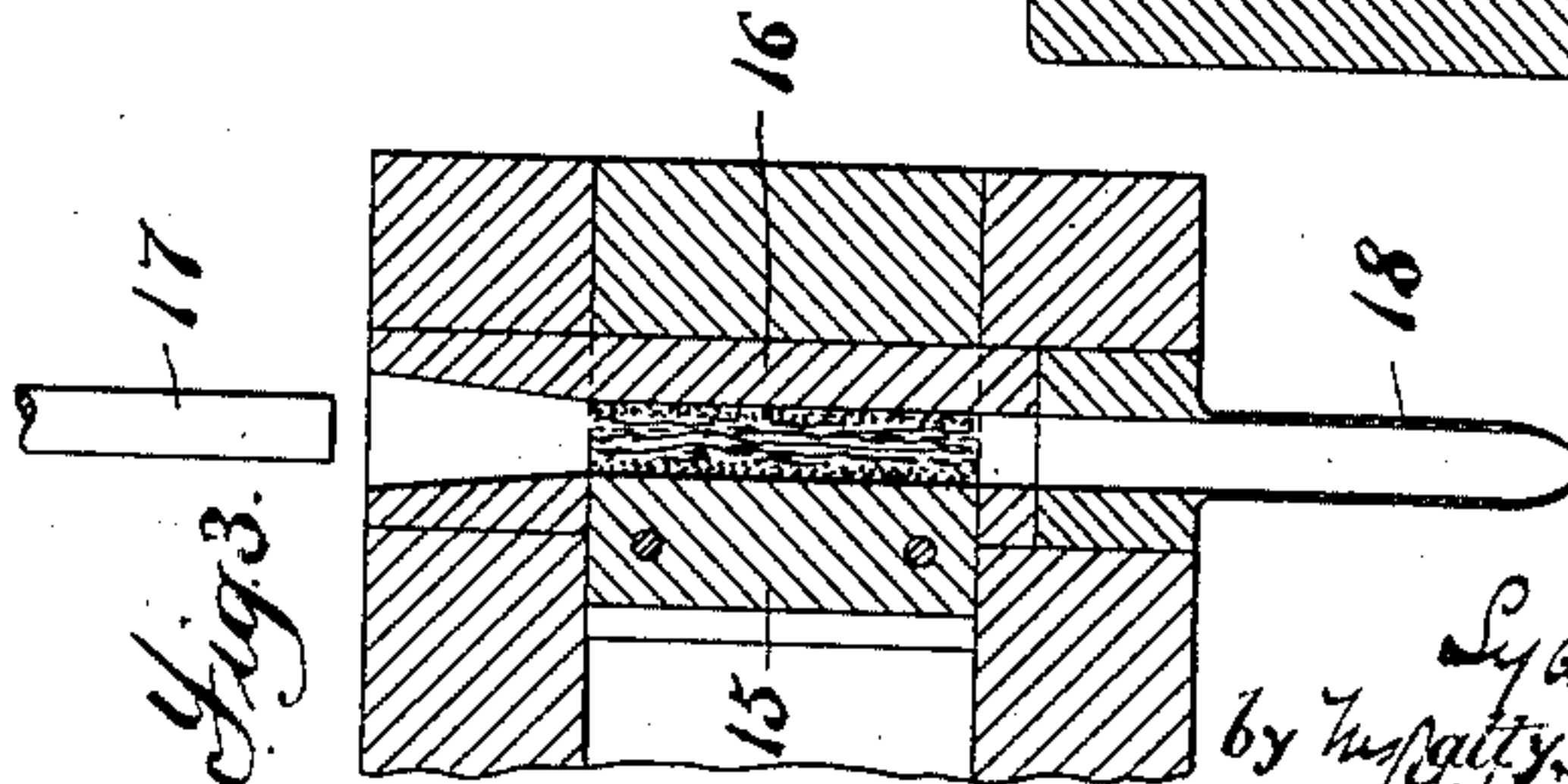


Fig. 3.

Attest
G. White
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Inventor
S. I. Prescott
by *[Signature]*
Attorneys
Messrs. Sawyer, Rice & Kennedy

UNITED STATES PATENT OFFICE.

SYDNEY I. PRESCOTT, OF NEW YORK, N. Y., ASSIGNOR TO THE AMERICAN TOBACCO COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

METHOD OF MAKING CIGARETTES.

No. 826,800.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed November 12, 1904. Serial No. 232,479.

To all whom it may concern:

Be it known that I, SYDNEY I. PRESCOTT, a citizen of the United States, residing at New York, county of New York, and State of New York, have invented certain new and useful Improvements in Methods of Making Cigarettes, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to certain improvements in a method or a process of making cigarettes.

In making certain kinds of cigarettes it is customary to form filler charges, shape these charges, and introduce them into previously-made tubes or casings. The tobacco from which the filler charges are formed is usually subjected to the action of a separating mechanism which loosens up the fibers of the tobacco, and the loosened fibers are allowed to drop onto a support, which is usually a conveyer. As the tobacco fibers drop onto the support or conveyer the longer fibers fall in such a way as to leave interstices between them and the shorter-fibered tobacco or "shorts," as it is termed, falls through these interstices to a considerable extent and lies next the support or conveyer. The result of this is that a sheet or mass of tobacco is formed on the conveyer which has the shorter-fibered tobacco arranged on one side of the mass to a very considerable extent and the longer fibers on the other side of the mass, though of course some of the shorter-fibered tobacco or shorts will be intermingled with the longer-fibered tobacco. The charges separated from this mass present the same characteristics, and the result is that when these charges are cased cigarettes are formed in which the shorts lie principally upon one side of the cigarette, the longer-fibered tobacco lying on the other side. Such cigarettes do not have an even draft, and consequently are liable to burn unevenly.

The object of the present invention is to improve the method of making cigarettes by so disposing the shorts in the filler as to produce a cigarette which shall have a free draft and which shall burn evenly in smoking.

Inasmuch as the process can best be understood by reference to illustrative drawings, the invention will be described in connection with such drawings, the drawings including a

diagrammatic illustration of a simple mechanism which may be used in carrying the invention into effect. It is to be understood, however, that the invention does not depend upon the particular mechanism illustrated or upon any mechanism.

Referring to the drawings, Figure 1 illustrates diagrammatically a sectional elevation of certain parts of a machine for making cigarettes. Fig. 2 is a sectional view, the plane of section being at right angles to the plane in which the section of Fig. 1 is taken. Fig. 3 is a detail view.

In carrying out the invention the tobacco from which the fillers are to be separated will be arranged in a mass or sheet, which mass or sheet consists of a layer of long-fibered tobacco lying between two layers of shorter-fibered tobacco. While this mass may be produced in various ways, it may be conveniently produced by first thoroughly separating or loosening up the tobacco fibers. This can be done by subjecting a mass of tobacco to the action of a picker mechanism. The drawings illustrate such a mechanism. In the drawings the mass of tobacco (marked 1) is shown as being forwarded by a suitable belt, (marked 2,) said belt running over a roll 3. As the tobacco leaves the belt it is forwarded along a curved guide 4 by means of a roll 5, having suitable forwarding-pins 6. As the tobacco leaves the curved guide it is subjected to the action of a rapidly-running roll 7, which is studded with pins 8. This roll acts to thoroughly separate and loosen up the fibers of the mass, so that they fall in a shower on a suitable supporting-surface, which may conveniently consist of two belts 9 10, these belts running over rolls 11 12, which are spaced apart from each other. As the shower of tobacco falls on the belts the longer fibers arrange themselves so as to leave interstices between them and the shorter fibers fall through these interstices to a considerable extent, their movement therethrough being assisted by the movement of the belts, so that each belt has upon it what may be termed a "sheet" of tobacco, the shorter fibers lying next the belt and the longer fibers on the top of the shorter ones. When the tobacco is gotten into this condition, the two sheets are assembled into a single sheet or mass, the two lay-

ers of long fiber being combined into a single layer, which lies between the two outer layers of "shorts."

The operation will be appreciated from an inspection of Fig. 1 of the drawings, in which the two sheets of tobacco are shown as being assembled by the movement of the belts. The belts run toward each other and bring the sheets of tobacco together in the space between the belts, forming a vertical mass or column of tobacco, the center of which is composed of long fibers and the outer sides of which are formed by the short fibers. After this mass of tobacco has been formed the charges are separated therefrom, this being conveniently effected by causing the belts to discharge into a channel formed by plates 13, which in turn discharges into a charge-compressing box 14. A reciprocating charge former 15 is mounted in this box, which coöperates with two stationary charge-forming blocks 16, there being shaping recesses in the former and in the blocks 16. It will be seen that the charges will be separated by a movement in each direction of the charge former, and it will also be noted that in this separating and charge-forming operation the layers of tobacco are practically undisturbed, so that the formed cigarette-filler will consist of a central portion of long fibers, the shorts being distributed on the outer circumference of the formed filler. After the formation of the filler is completed it is ready to be incased in a tube. This may be done by causing a suitable plunger, as 17, to force out the formed filler through a spout 18, upon which a tube or case is placed.

When a mechanism similar to that illustrated in the drawings, the novel features of which are claimed in an application, Serial No. 232,480, filed at even date herewith, is used for carrying out the process, the falling shower of tobacco fibers will be protected from drafts by a guide, such as indicated at

19. This guide should be mounted so that it may be reciprocated from side to side in order to evenly lay the tobacco on the belts.

What is claimed is—

1. The method of making cigarettes which consists in arranging the filler-tobacco in a mass consisting of two layers of short fiber with a layer of longer fiber between them, separating the filler charges from the mass and forming and incasing the charges, substantially as described.

2. The method of making cigarettes which consists in arranging the filler-tobacco in two sheets each consisting of a layer of short-fibered tobacco and a layer of longer-fibered tobacco, assembling the two sheets into a single sheet or mass with the longer-fibered layers forming a single layer between the layers of shorter fibers, separating the filler charges from the mass and forming and incasing the charges, substantially as described.

3. The method of making cigarettes which consists in showering separated tobacco fiber on two supports whereby the shorter-fibered tobacco falls through the interstices between the longer-fibered tobacco, so that sheets are formed consisting of a layer of shorter-fibered tobacco lying next the support and a layer of longer-fibered tobacco on top of it, assembling the two sheets into a single sheet or mass with the longer-fibered layers forming a single layer between the layers of shorter fibers, separating the filler charges from the mass and forming and incasing the charges, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses

SYDNEY I. PRESCOTT.

Witnesses:

A. WHITE,
T. F. KEHOE.