

No. 709,920.

Patented Sept. 30, 1902.

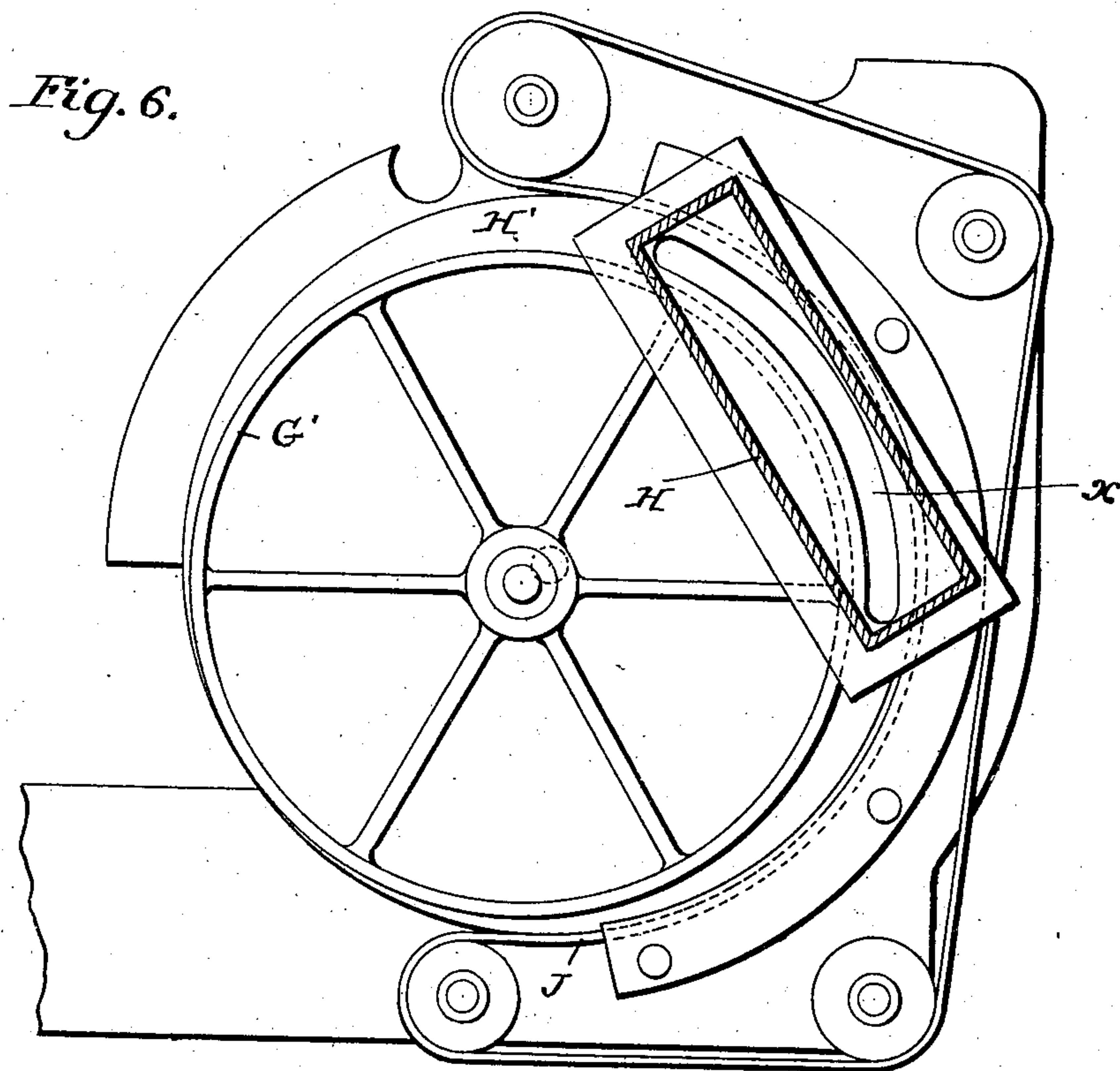
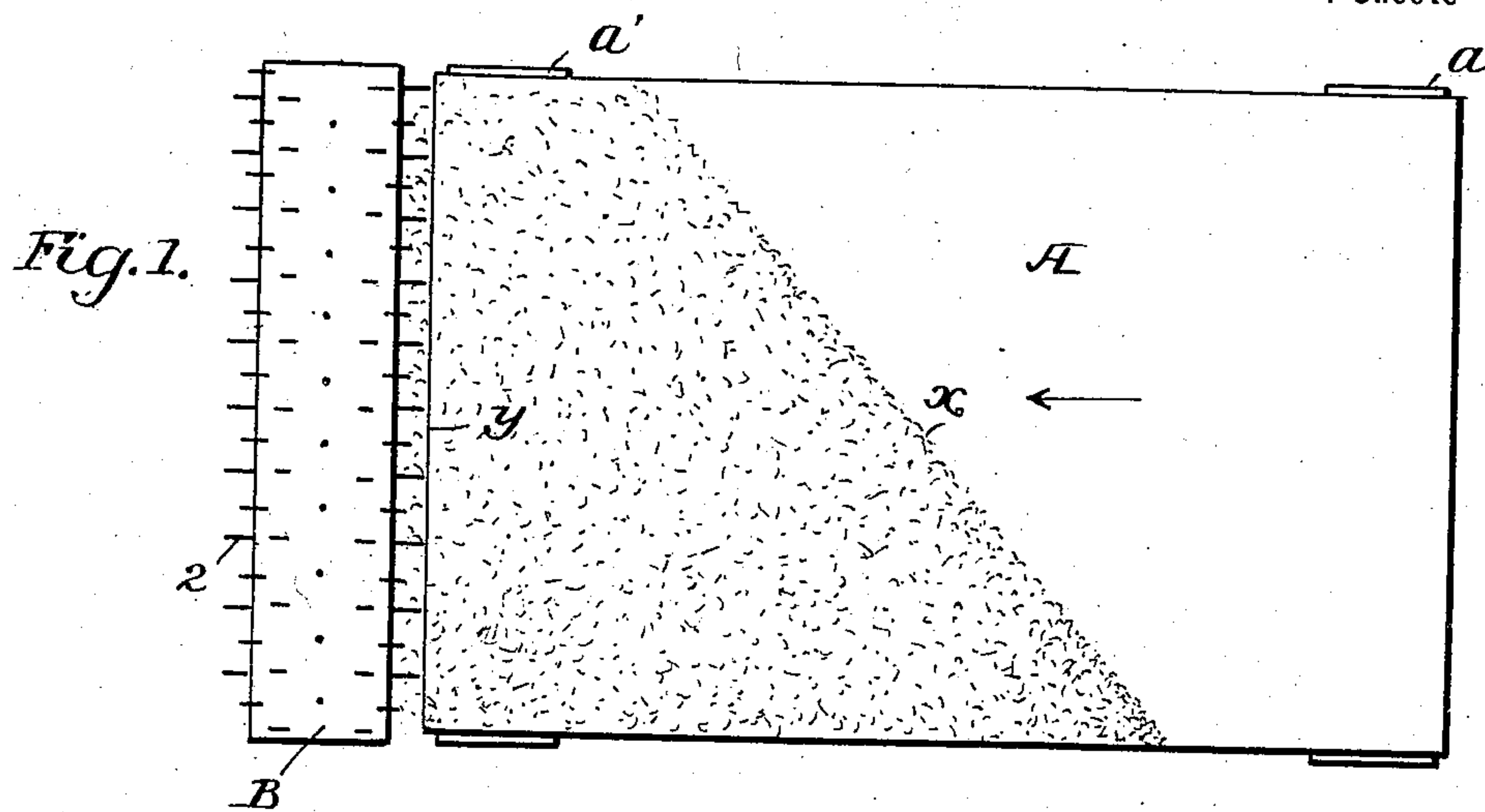
T. MOESINGER.

FEEDER FOR CIGARETTE MACHINES.

(Application filed Mar. 21, 1900. Renewed Mar. 6, 1902.)

(No Model.)

4 Sheets—Sheet 1.



Witnesses  
*J. G. Hinkel*  
*Wm. Gillman, Jr.*

Inventor  
*Frankott Moesinger*  
by *Frederic F. Farnham*  
Attorneys

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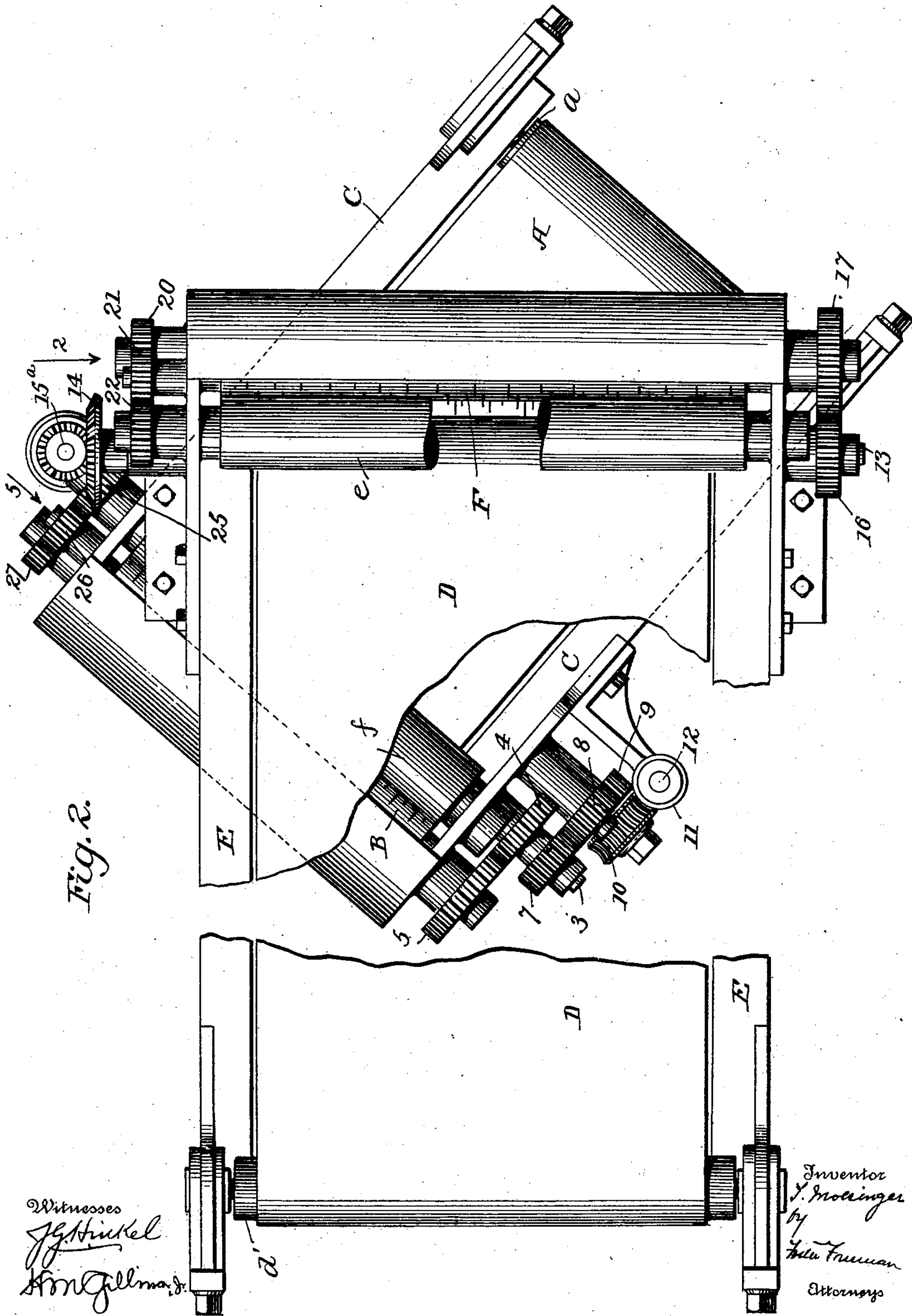
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4 Sheets.—Sheet 2.



Witnesses  
J. G. Hinkel  
Hon. J. L. Linn, Jr.

Inventor  
J. Mollinger  
by  
Edith Freeman  
Attorneys

Attorneys



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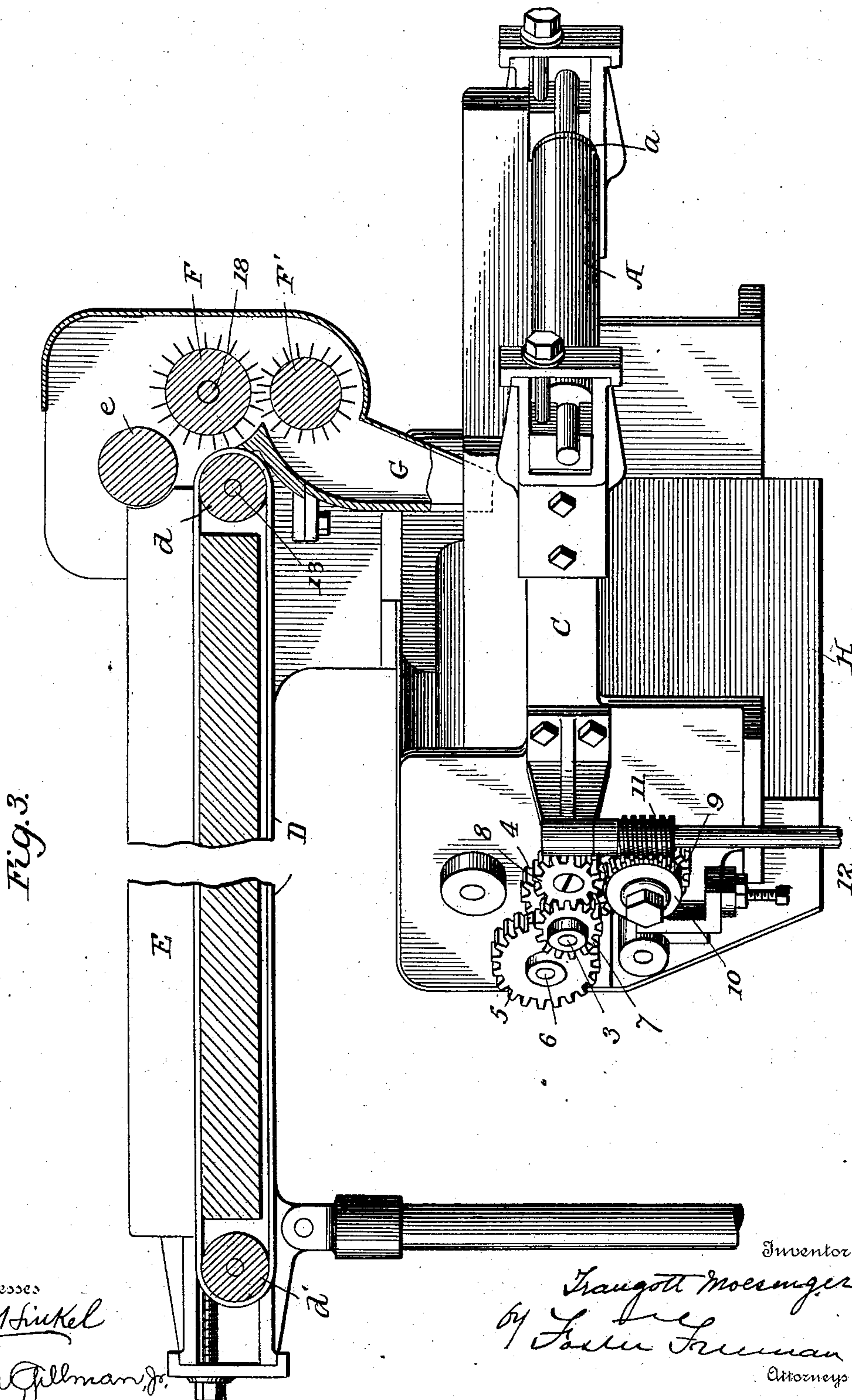
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**4 Sheets—Sheet 3.**



Witnesses

J. G. Linkel

Wm Gillman, Jr.

Inventor

Frankfort Moesinger

09 Foster Freeman

Attorneys





# UNITED STATES PATENT OFFICE.

TRAUGOTT MOESINGER, OF BROOKLYN, NEW YORK.

## FEEDER FOR CIGARETTE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 709,920, dated September 30, 1902.

Application filed March 21, 1900. Renewed March 6, 1902. Serial No. 96,970. (No model.)

*To all whom it may concern:*

Be it known that I, TRAUGOTT MOESINGER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Feeders for Cigarette-Machines, of which the following is a specification.

My invention relates to feed devices for feeding tobacco, more especially for use in connection with cigarette-machines; and my invention consists of certain means whereby to secure a more regular and uniform delivery of the particles of tobacco than heretofore, as fully set forth hereinafter and as illustrated in the accompanying drawings, in which—

Figure 1 is a diagrammatic plan illustrating the manner of feeding tobacco to the delivery-belt. Fig. 2 is a plan illustrating the arrangement of the feed and delivery belts and connected parts of my improved machine. Fig. 3 is a longitudinal vertical section. Fig. 4 is a detail side view looking in the direction of the arrow 2, Fig. 2. Fig. 5 is a detail side view in part section looking in the direction of the arrow 5, Fig. 2; and Fig. 6 is a plan illustrating the form of chute employed in delivering the tobacco to a curved molding-channel.

In the feeding devices most commonly employed in the endeavor to convey to the molding or wrapping devices of cigarette-machines a regular and uniform supply of cut tobacco it is common to make use of means for picking and distributing the tobacco and to deposit as regularly as possible the material thus picked and distributed upon a traveling belt or belts, from which the tobacco passes to the traveling wrapper or molding devices. In such cases the tobacco is deposited upon a traveling belt in a line practically parallel to the axis of the rollers around which the belt passes, and as a result the tobacco tends to fall from the end of the belt in masses rather than in particles, so that the feed or supply to the belt or molding devices is not of the desired regularity or uniformity.

I have found that I can secure a uniform delivery of the particles of tobacco from the traveling belt by first depositing the tobacco

upon the belt in lines diagonal to the belt or at an angle to the axes of the rollers around which the belt passes. Thus, referring to Fig. 1, assuming that A is an endless traveling belt, the tobacco is picked and fed as uniformly as possible onto the surface of the belt upon a line  $x$  at an angle to the ends of the belt, and when it is carried to the edge  $y$ , from which it is delivered to the molding and wrapping devices, there is no tendency to fall from this edge in masses extending across the belt; but, on the contrary, the separate particles are thus delivered regularly and uniformly at a speed proportioned to the speed of travel of the belt. In order to facilitate the delivery of the particles and to separate and prevent them from clinging together to any extent whatever, I prefer to combine with the delivery end of the belt a picking-roller B, having teeth 2 and driven at a speed slightly in excess of the belt. This picking-roller, however, while desirable, is not absolutely necessary, as a much more uniform delivery than usual can be effected by delivering the material at an angle to the ends of the belt and then discharging it from one of these ends, as described. In carrying out this mode of distribution I may combine the traveling belt with various appliances for operating it and for delivering the material thereto.

As shown in the remaining figures of the drawings, the belt A is carried by rollers  $a$   $a'$ , arranged with their shafts turning in a frame C, and upon the shaft 3 of the roller  $a'$  is a gear-wheel 4, the teeth of which engage those of a gear 5 upon the shaft 6 of the roller B. The shaft 3 is driven through the medium of gears 7 8 9 from a worm 11 upon a shaft 12, the said worm engaging the worm-wheel 10, which is secured to turn with the gear 9.

The material is fed to the belt A from an endless traveling belt D, supported by rollers  $d$   $d'$ , turning in a frame E, the shaft 13 of the roller  $d$  being driven by a bevel-gear 14 from a driving-shaft 15<sup>a</sup>, and at the opposite end of the shaft 13 is a spur-gear 16, which engages a like gear 17 on a shaft 18 of a picker-roll F, having radial teeth so arranged as nearly to make contact with the delivery end of the belt D, and below the picker-roll F is a second picker-roll F', so that the particles of the



tobacco picked from the end of the belt D and partially separated by the act of the picker-roll F, which moves more rapidly than the belt, are still further separated by the act of the picker-roll F', and from the latter they pass through a chute G onto the belt A, the said chute, the delivery end of which is parallel to the axes of the roller  $d$ , being at an angle to the axes or axis of the roller  $a$ , as shown in Fig. 2.

The shaft of the roller F' is driven by a pulley 19, Figs. 4 and 5, which may be connected by a belt with another pulley at any suitable place on the machine.

The shaft 15<sup>a</sup> is driven by means of bevel-gears from the shaft 3, Figs. 4 and 5.

Above the roller  $d$  is a presser-roll  $e$ , which is driven from the shaft of the roll F through the medium of gears 20 21 22, Fig. 4. There is also a presser-roll  $f$  above the roll  $a'$ , and this roll  $f$  is driven through the medium of gears 25 26 27, Figs. 2 and 5, from the shaft 6 of the picker-roll B.

Below the delivery end of the belt A—that is, below the rollers  $a'$  B—is a chute H, the mouth of which may be straight in some instances, but which as shown is curved, (see Figs. 5 and 6,) so that the material delivered from the belt A will pass through the curved mouth  $x$  of the chute onto a disk H', and between the edge of a disk G', eccentric to the disk H', and the side of an endless traveling belt J, which bears on the edge of the disk H', so that the tobacco is gradually carried on between the converging approaching sides of the disk G' and the belt J and compressed. I do not, however, here make any claim to the features of this device for receiving and

compressing the tobacco, as it forms the subject of a separate application, Serial No. 8,494.

Without limiting myself to the precise construction and arrangement of parts shown, I claim as my invention—

1. In a tobacco-feeder, the combination of an endless conveying-belt and means for feeding particles of tobacco thereto upon a line at an angle to the delivery end of the belt, substantially as set forth.

2. The combination in a tobacco-feeder, of an endless traveling belt, means for feeding tobacco thereto, at an angle to the delivery end of the belt, and a picker-roll arranged opposite said end, substantially as set forth.

3. The combination in a tobacco-feeder, of an endless traveling belt, means for feeding tobacco thereto, at an angle to the delivery end of the belt, a picker-roll arranged opposite said end, and a chute arranged below the delivery end of the belt and provided with a curved mouth, substantially as described.

4. The combination in a tobacco-feeding machine, of an endless traveling delivery-belt, and a feed-belt arranged above the delivery-belt at an angle thereto, and an intermediate chute, substantially as described.

5. The combination of a delivery-belt and a feed-belt at an angle thereto, and a picker-roll opposite the end of the feed-belt, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

TRAUGOTT MOESINGER.

Witnesses:

CHARLES E. FOSTER,  
J. J. MCCARTHY.