

No. 686,055.

Patented Nov. 5, 1901.

H. E. GRABAU.

FEEDING MECHANISM FOR CIGARETTE MACHINES.

(Application filed Nov. 17, 1900.)

(No Model.)

Fig. 1.

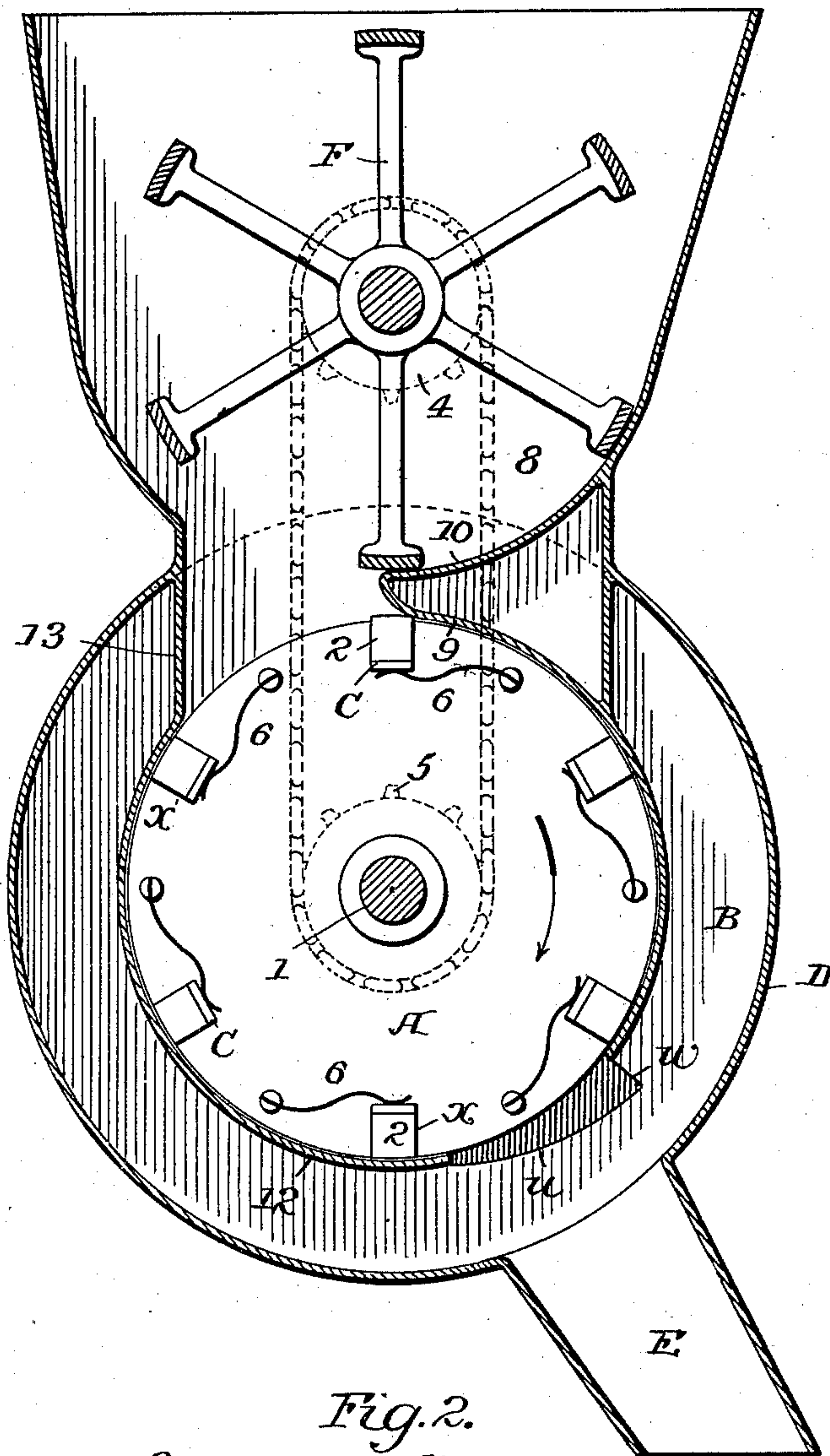
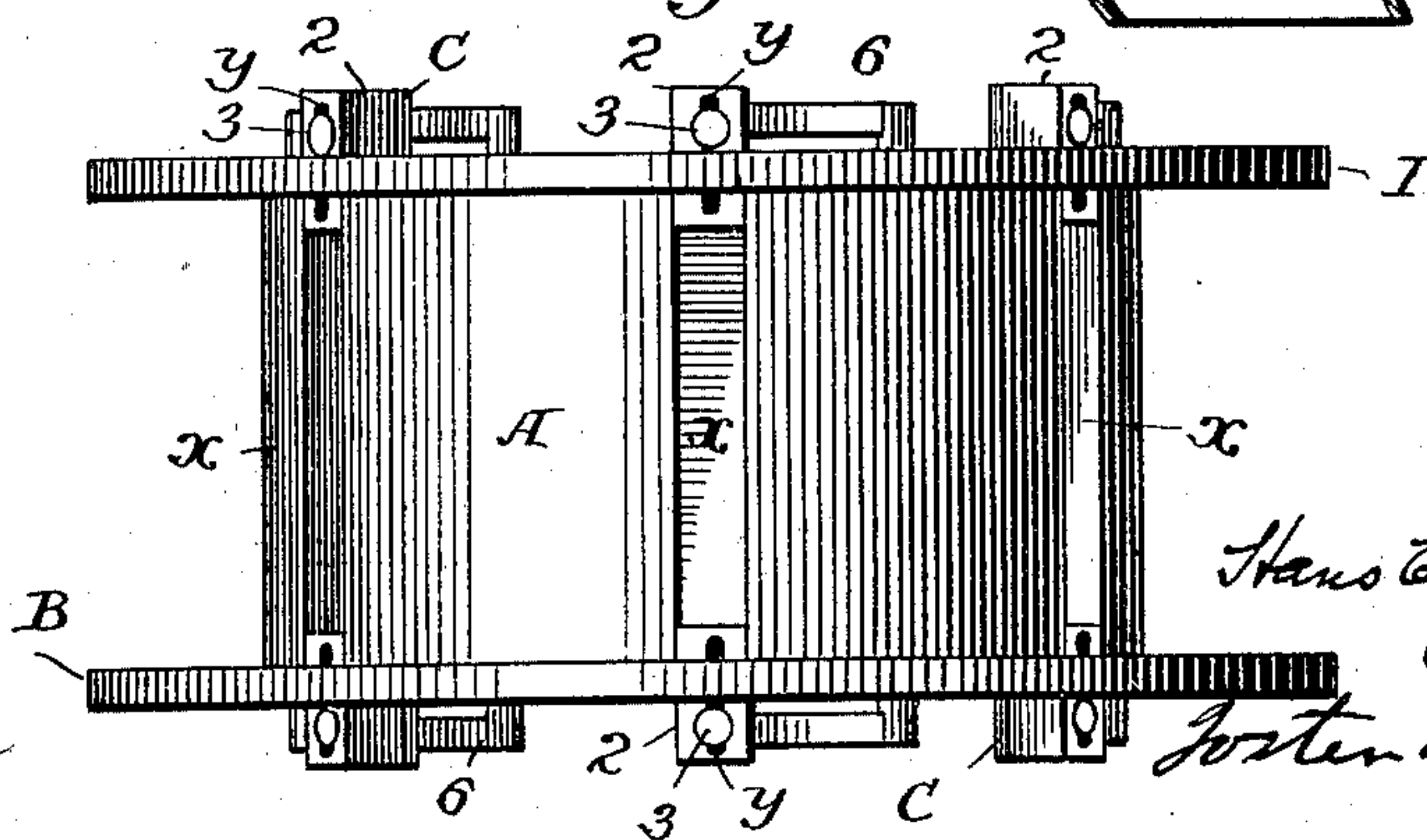


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

HANS EDGAR GRABAU, OF HOBOKEN, NEW JERSEY, ASSIGNOR TO LOPEZ TRADING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

FEEDING MECHANISM FOR CIGARETTE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 686,055, dated November 5, 1901.

Application filed November 17, 1900. Serial No. 36,919. (No model.)

To all whom it may concern:

Be it known that I, HANS EDGAR GRABAU, a subject of the Emperor of Germany, residing at Hoboken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Feeding Mechanism for Cigarette-Machines, of which the following is a specification.

My invention relates to apparatus for molding the fillers of individual cigarettes; and it consists of a revolving head with pockets and means of filling and discharging them, as fully set forth hereinafter and as illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation of a feeding apparatus embodying my invention, and Fig. 2 is a plan of the cylinder-head and control-rings.

Upon a shaft 1 is mounted a cylinder A, having a series of transverse slots or pockets α , uniformly spaced around the periphery. In each pocket there is a plate C, which may be carried to the bottom of the pocket to permit the latter to be filled with tobacco or may be moved regularly outward to discharge the tobacco, and with these plates I combine any suitable appliances for effecting these movements. It is also desirable to vary the length of the pockets according to the length of the cigarettes, and I therefore provide blocks 2 2, one secured at each end of the plates C, preferably adjustable to vary the distance between these blocks. As shown, each block has a slot γ , receiving a screw 3, which serves to bolt the block to the plate C after the block is adjusted to any desired position thereon. The blocks 2 fit and project beyond the ends of the pockets α , as shown in Fig. 2, and against the under side of each block or against the under side of the plate C bears a spring 6, which tends to project the plate outward to discharge the contents of the pocket. The plates C, however, are maintained at the bottoms of the pockets, except when the contents are to be discharged, by means of two rings B B, encircling the cylinder A, with their inner edges bearing upon the outer faces of the blocks 2 and holding the latter and the plates depressed until the blocks pass a shoulder w , formed by cutting

away each ring, when the blocks and plate will be suddenly projected outward and discharge the contents of the pocket into the receptacle formed by a surrounding casing D, from which the tobacco passes to a chute E. As the cylinder further revolves the faces of the blocks are brought against inclined edges u , which gradually force the blocks and plate inward, so that the pocket can then receive a new supply of tobacco. The upper part of the casing D receives the tobacco, constituting a hopper therefor, and an agitator F, provided with radial arms, aids in introducing the tobacco into the pockets of the cylinder A. Preferably the agitator has arms corresponding in number to the number of pockets arranged at equal distances apart and geared to sprockets 4 5 and a chain 8, so that each arm will tend to force a portion of the tobacco into the pocket which is brought beneath it as the cylinder and agitator rotate.

To insure that each pocket is filled without any surplus, so as to discharge equal quantities of tobacco, I provide a guard 9 in the form of a plate which extends around the cylinder from the shoulder w nearly to the top of the cylinder, when the said guard is bent upward to form a mouth for the entrance of tobacco, as shown in Fig. 1, and from the top of this guard I extend another curved guard 10, which corresponds to a cylindrical casing slightly larger in diameter than the agitator F. Another guard 12, close to the periphery of the cylinder A, extends from the end of the inclined edges u to the side 13 of the casing, and together therewith prevents the tobacco from reaching the pockets until the latter are brought nearly to the top of the cylinder.

While I have shown the springs 6 and shoulders w u as means for controlling the action of the plates C, it will be evident that different devices may be used for this purpose.

Without limiting myself to the precise construction and arrangement of parts described, I claim—

1. The combination of the cylinder having transverse pockets, plates C, blocks 2 carried by the plates and adjustable lengthwise thereof, and means for moving the plates and

blocks radially in respect to the cylinder, substantially as set forth.

2. The combination with the recessed cylinder, plates and blocks, of rings B, B having shoulders *w* and inclined edges *u*, and springs for pressing the plates and blocks outward, substantially as set forth.

3. The combination with the cylinder having pockets, and means for discharging the contents of the pockets, of the hopper, the agitator located therein and having arms arranged to force the material contained in the hopper into the pockets as the cylinder and agitator rotate, the intermediate guard 9 bent upward at its forward end, and the curved guard 10 above the guard 9, and extending

partly around the agitator, substantially as set forth.

4. The combination of the recessed cylinder, the plates, the blocks carried by the plates, the inclined guard 9 extending around and above the cylinder, the hopper, the agitator therein, and the guard 10 extending around below the agitator and above the guard 9, substantially as set forth.

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

HANS EDGAR GRABAU.

Witnesses:

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