(No Model.)

S. HENRY.

CIGAR BUNCHING MACHINE.

No. 360,691. Patented Apr. 5, 1887.

Fig. 1.

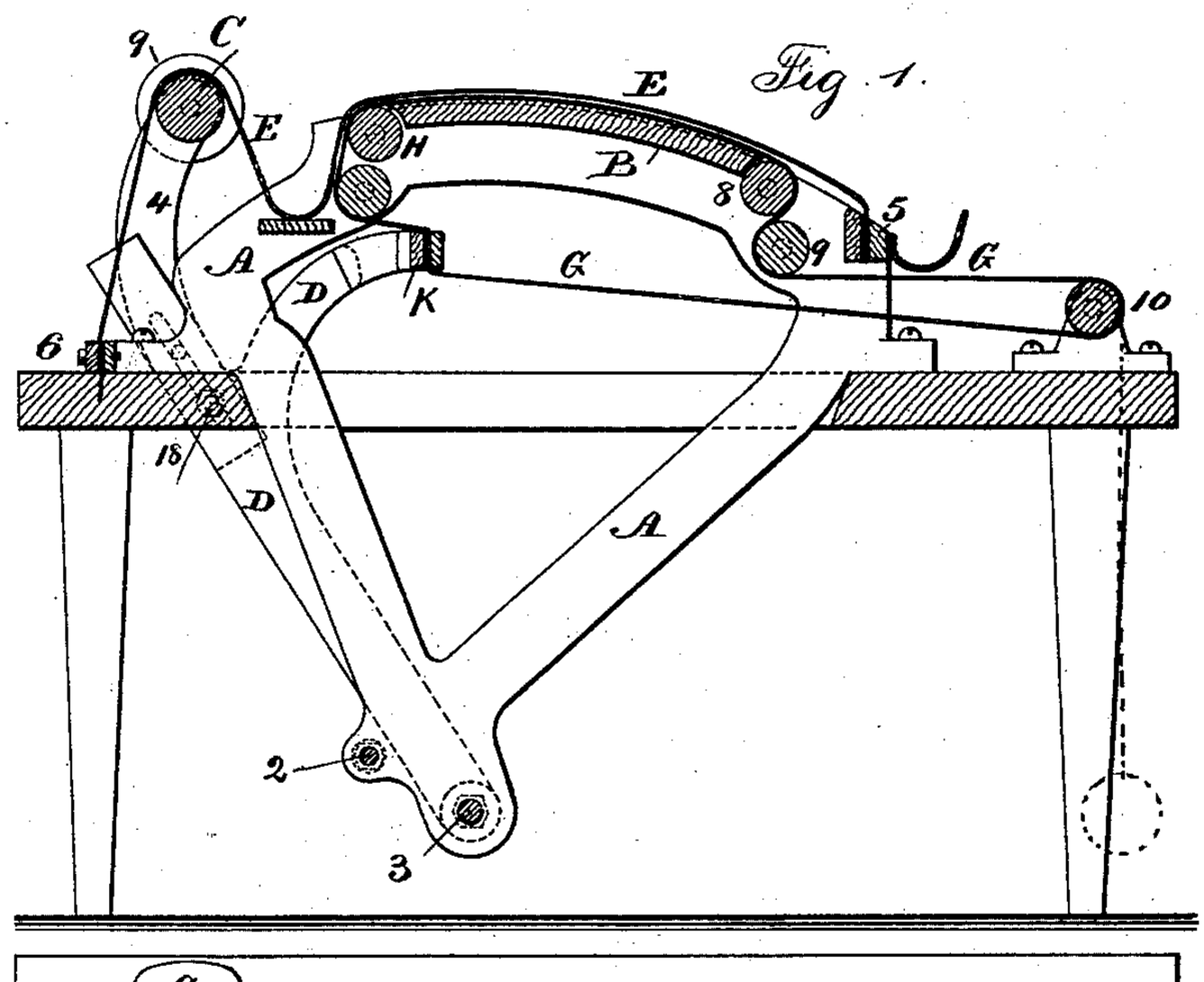


Fig. 2.

Fig. 3

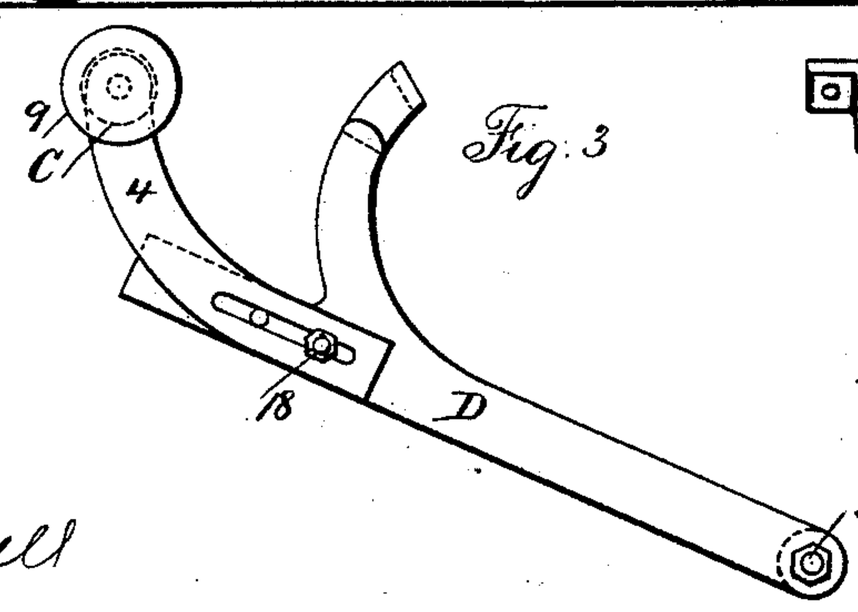
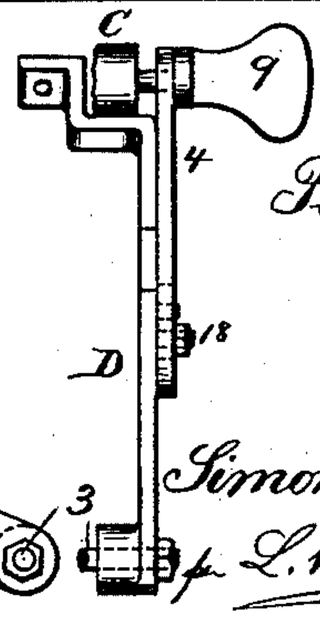


Fig. 4.



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UNITED STATES PATENT OFFICE.

SIMON HENRY, OF BROOKLYN, NEW YORK.

CIGAR-BUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 360,691, dated April 5, 1887.

Application filed July 26, 1886. Serial No. 209,103. (No model.)

To all whom it may concern:

Be it known that I, SIMON HENRY, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Cigar-Bunching Machines, of which the following is a specification.

Machines have heretofore been made in which there is an apron fastened at both ends and lying partially upon a bed or table, and provided with a roller traveling over the bed and rolling the cigar-filler and its binder along in a loop of the apron. A machine of this general character is seen in Letters Patent No. 162,674, granted April 27, 1875, to B. H. Meyer.

In some machines used for this purpose it is difficult to properly roll and bind the filler when the ends taper considerably, because when the loop of the apron in which the filler is rolled along is not distended parallel, or nearly so, the apron draws into folds and wrinkles; hence, while these machines act well with straight bunches, they do not act so well in binding fillers that taper considerably.

My present invention is made for applying beneath the apron a traction-belt, that serves to constantly straighten the apron and prevents the same becoming wrinkled or folded as the apron acts upon the cigar-filler in the loop, so as to apply to the filler the proper rolling and compressing action and shape the same and wrap the binder around the filler-tobacco and prevent the machine being clogged by the wrinkling of the apron. With this object in view I make use of a belt that is moved along beneath the apron, and by the tension resulting from the friction and motion of the belt against the loop of the apron said apron is constantly drawn out straight, so that it will not run into wrinkles or folds in rolling up and binding the cigar-filler, whether such fillers are cylindrical or tapering.

In the drawings, Figure 1 is a vertical section representing my improvement. Fig. 2 is a plan view of the same. Fig. 3 is a detached view of the support for the traveling roller, and Fig. 4 is a side view of the parts shown in Fig. 3.

The machine is represented as with a convex bed. The side frames, A, are segmental, having between them the connecting cross-bar 2 and the convex bed B. The traveling roller C is sustained by and moves with the side arms or supports, D, that extend upwardly from the cross-shaft 3, and the shaft of the traveling roller C is by preference received into the bearing-pieces 4 at the upper ends of the side arms, D, the parts being connected by screws 18, passing through slots, so that the traveling roller C can be adjusted to swing nearer to or farther from the convex bed B, and there are handles 9 at the ends of the roller-shaft or upon the arms D.

There is an apron, E, connected permanently at one end to the clamp 5, that is near one end of the convex bed B, and this apron passes along upon the bed B and over the roller C, and the other end of the apron E passes between the clamp-bars 6, which, when loosened, allow the apron to be tightened or slackened, as required, and then it is firmly clamped. This apron E is sufficiently loose for it to pass over the traveling roller C, and also to hang down as a loop or pocket between said roller C and the front end of the convex bed B.

The binder for the cigar-filler is laid over the bed upon the apron E, and the tobacco to form the filler is placed in the loop of the apron, and the attendant, by grasping the knobs 9, at the ends of the traveling roller C, swings the arms D upon the cross-shaft 3 and carries the traveling roller C bodily along over and above the convex bed B, rolling the tobacco within the loop into the proper shape for the filler, and rolling up the binder around the filler-tobacco in the manner now usual in manufacturing cigars.

I have found that when only the devices before mentioned are used the machine is more especially adapted to fillers that are cylindrical, or nearly so, and of the same size at the ends, because with tapering cigars the apron is drawn tightest in the middle and the side portions are liable to run into folds and wrinkles, or to act unequally upon the different parts of the cigar-filler. To avoid this difficulty, I make use of a moving belt, G, that passes around a roller, H, below and at the front end of the convex bed B, and at the front

end this moving belt G is connected to a cross-bar, K, upon the side arms, D, that carry the traveling roller C, the object of this belt being to constantly move beneath the apron E and draw the same out flat and smooth during the time that the roller C is traveling toward the back of the machine, for while this roller C is being carried toward the back of the machine the belt G is being moved toward the front of the machine, and the pressure of the apron E upon the belt G causes a sufficient friction between the respective surfaces to accomplish the desired object of spreading out the apron E smoothly and preventing folds and wrinkles in the same in consequence of the varying tensions on the different parts as the cigar-bunch is rolled up.

It is to be understood that when the cigar-bunch is parallel, or nearly so, throughout its length the different parts of the apron will be subjected to a nearly uniform strain in rolling it up, so that when the cigar-bunch tapers toward the tuck, as well as toward the small end or head, the apron E is exposed to the greatest tension in the middle, where the quantity of the tobacco is the greatest, and at the same time the tobacco will be consolidated and rolled up with uniformity if the apron is properly distended. The moving belt maintains this distention, and the binder is rolled tightly around the filler-tobacco, and the operation can be performed with my improvements by a comparatively inexperienced workman, and cigar-bunches that heretofore could only be made by hand can be more perfectly rolled up by my machines.

After the bunch is formed it is taken out of the machine, as usual, and the parts returned to their normal position, and with this object in view the belt G may pass around the rollers 8, 9, and 10 and be provided with a counter-weight, as shown by dotted lines, Fig. 1, to draw the belt back as the traveling roller and its arms are swung toward the operator; but it is usually preferable to pass such belt around the rollers 8, 9, and 10 and bring the same back to the cross-bar K, and attach it so that the belt will be moved first in one direction and then in the other as the traveling roller and its arms are swung backward and forward.

This improvement is available with any character of bunching-machine having a traveling roller and apron.

I claim as my invention—

1. The combination, with the traveling roller and apron and the stationary bed to which the apron is attached at its ends in a cigar-bunch-making machine, of a moving belt resting upon the bed and passing around the roller below and at the front end of the bed, and connected to the cross-bar upon the side arms that carry the traveling roller, for the purposes and substantially as set forth.

2. The combination, in a cigar-bunch-making machine, of a bed, an apron attached at its respective ends, a traveling roller, and arms for the same, the moving belt arranged between the apron and the bed and resting on the bed, rollers around which the belt passes, and a cross-bar on the arms for connecting the ends of the belt to the moving arms, substantially as set forth.

Signed by me this 19th day of July, A. D. 1886.

SIMON HENRY.

Witnesses:
GEO. T. PINCKNEY,
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