(No Model.) 3 Sheets—Sheet 1.

C. HEMJE.

CIGAR MACHINE.

No. 250,730. Patented Dec. 13, 1881.

Fig. 1.

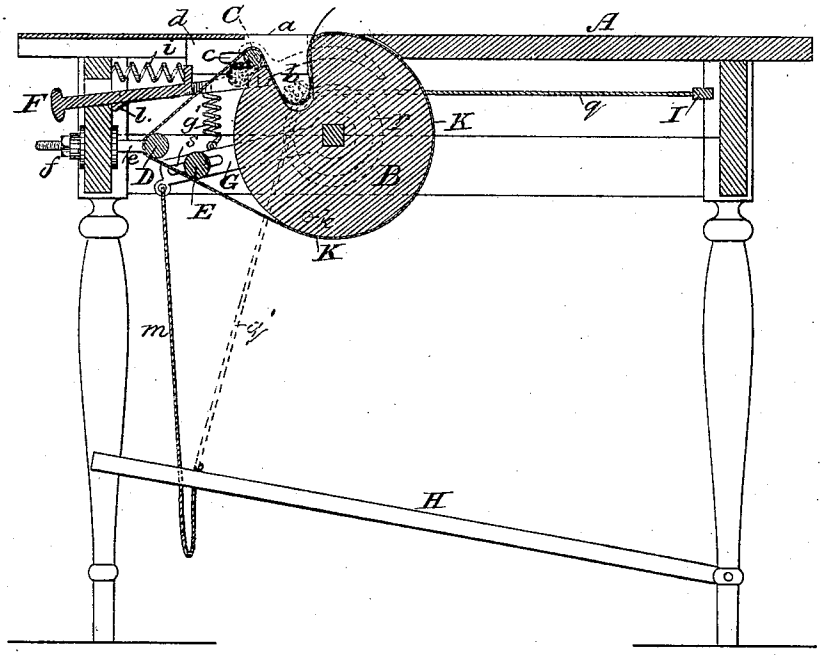
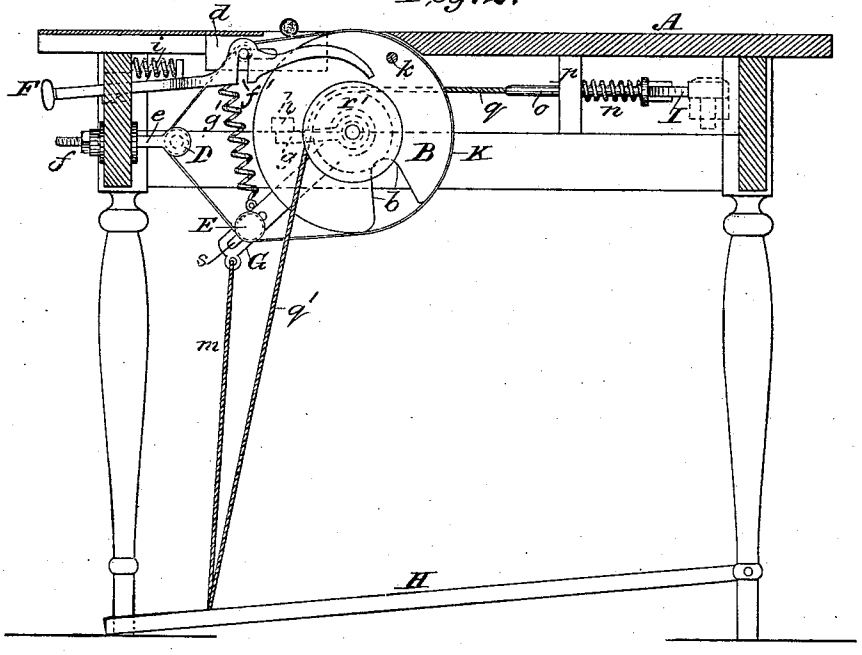


Fig. 2.



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3 Sheets—Sheet 2.

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Fig. 3.

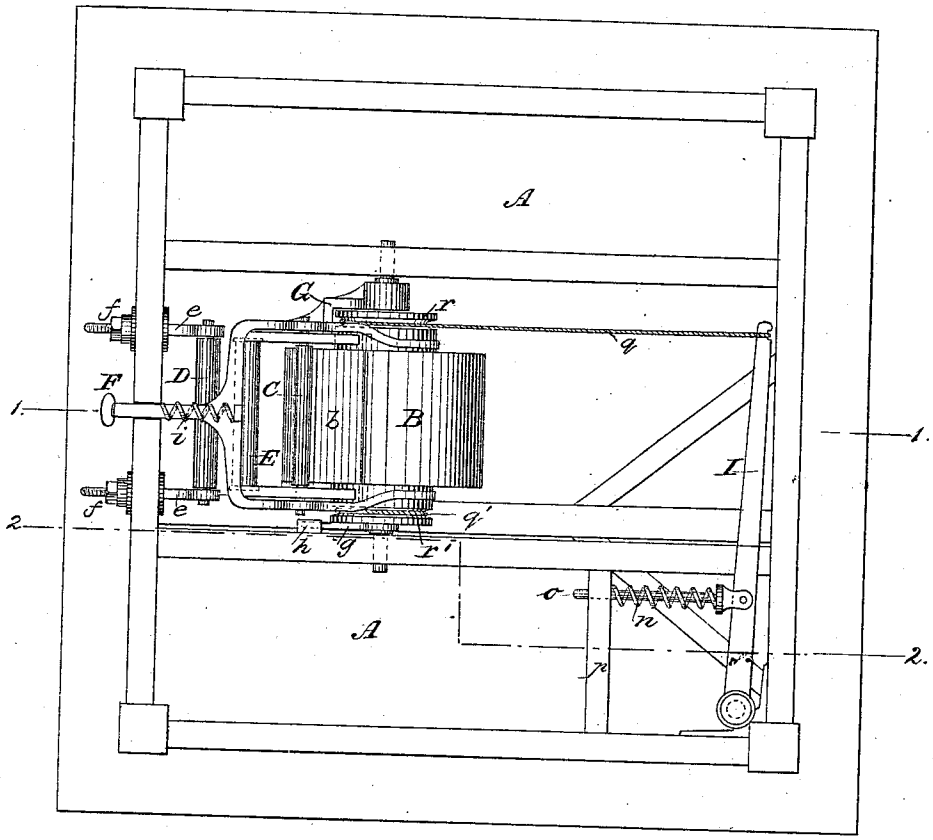


Fig. 4.

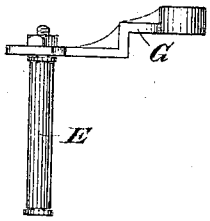


Fig. 5.

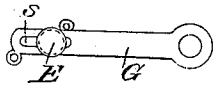
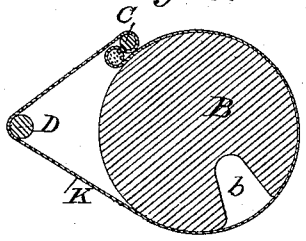


Fig. 6.



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(No Model.) 3 Sheets—Sheet 3.

C. HEMJE.

CIGAR MACHINE.

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Fig. 7.

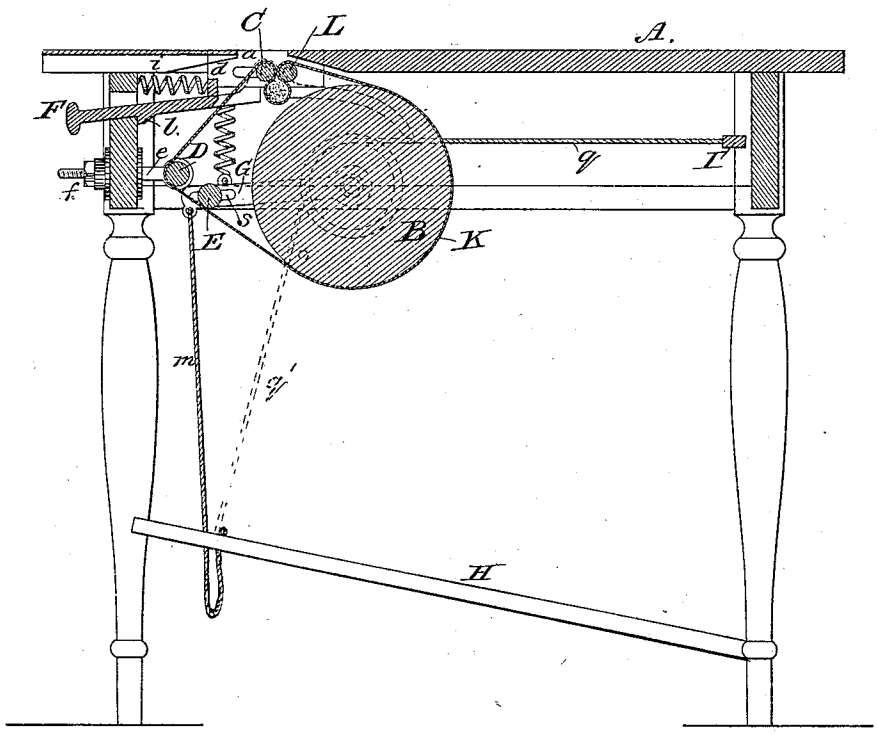
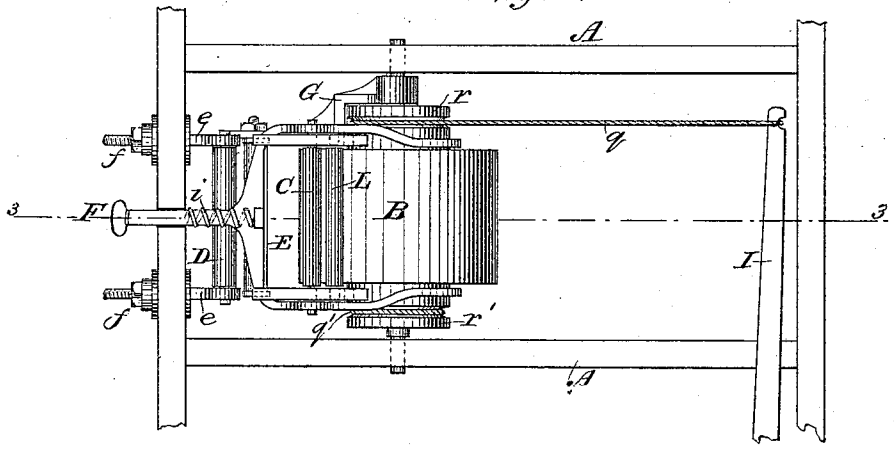


Fig. 8.



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UNITED STATES PATENT OFFICE.

CHARLES HEMJE, OF WASHINGTON, DISTRICT OF COLUMBIA.

CIGAR-MACHINE.

SPECIFICATION forming part of Letters Patent No. 250,730, dated December 13, 1881.

Application filed October 24, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HEMJE, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Tobacco-Bunching Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to that class of machines used in the manufacture of cigars for making the bunches; and the object is to improve the construction of such machines.

The invention consists in the construction and arrangement of certain parts of a bunching-machine, as will be hereinafter described, and especially pointed out in the claims.

In the accompanying drawings, Figure 1 represents a vertical cross-section on the line 1 1 of Fig. 3. Fig. 2 is a cross-section on the line 2 2 of Fig. 3. Fig. 3 is a plan view of my machine. Figs. 4, 5, and 6 are detail views of the discharging-lever and rollers shown in Fig. 6. Fig. 7 is a cross-section on line 3 3 of Fig. 8, and Fig. 8 is a plan view of a modification of my machine.

In the drawings, on Sheets 1 and 2, A is a suitable frame or table, having an opening, *a*, in the top, through which the large roller B partly projects.

The working part of the machine consists, principally, of the roller B, small rollers C, D, and E, forked lever F, discharging-lever G, treadle H, return-lever I, and apron or belt K.

The roller B is cylindrical, and is provided with one longitudinal cavity, *b*, into which the apron or belt to contain the tobacco for the bunch is placed. The roller B is arranged in such a manner at the under side of the table A that, as above stated, it projects partially through the opening *a* in the top. The small roller C is also arranged close to the top of the table and near the large roller B. Its ends rest in the elongated or slotted opening *c* of the vertical plates *d*, one on each side. An apron or belt, K, passes around the rollers B C D E, and is fastened to the lower side of the roller B; or it can be made an endless loose apron, if desired. The small roller D is hung in adjustable bearings *e*, and by means of the nuts *f* this roller can be adjusted to loosen or tighten the belt or apron, for the purpose of producing either a thicker or thinner cigar. The roller E, on the discharging-lever G, is arranged in such a manner that it can be adjusted to stretch the belt, when lever G is depressed, more or less, as may be desired, by being moved backward or forward in the slot *s* of the lever G. A spring, *g'*, is attached to the lever G, and in its contracted state holds and returns the lever up to its normal position. By means of the forked lever F and spring *i* the small roller C is thrown back when the bunch is finished. The lever F is provided with a slot, *f'*, which fits over the outer ends of the shaft of the roller C. The lever F is provided with the lug *l*, which bears against the end of the table, when in its normal position, until released by the action of the pins *k* on the roller B, which pins strike against the forked ends of the lever F. On one end of the shaft of the roller B is a projecting lever, *g*, which bears against a chock, *h*, holding the machine in a position for filling.

A lever, I, which I call the "return-lever," is pivoted to one side of the frame, and has attached to it a pivoted arm, *o*, having a coiled spring, *n*, around it, which bears against a cross-bar, *p*.

To the outer end of the lever I a cord or strap, *q*, is attached, passing over a grooved pulley, *r*, to which it is secured. By this lever and the spring the roller B is returned to its normal position when the treadle is released. Another grooved pulley, *r'*, on the opposite side of the roller B, with a cord, *q'*, secured thereto, extends and is attached to the treadle H and operates the roller B.

The lever G is operated by means of a cord, *m*, secured to the treadle H, and said cord is slack in its normal position, and taut as soon as the treadle H is depressed and the forked lever F is thrown back.

The operation is as follows: The roller B, as shown in Fig. 1, is with the apron in the position for filling, and is held in said position by the action of the return-lever I and spring *n*, and is prevented from passing past this position by the stopping-lever *g* and chock *h*. The necessary tobacco and binder for a bunch are then placed on the belt in the cavity of the

roller B. The treadle H is then forced downward, causing the roller B to revolve. The tobacco in the cavity *b* is now carried into position on the outside of the roller B and under the small roller C, as shown in Fig. 6, and as shown in dotted lines in Fig. 1, where the binder is rapidly wound around it. The pins *k* in the ends of the roller B now come in contact with the outer ends of the forked lever F and disengage the lever from lug or projection *l*, bearing against the end of table, when it is carried back by the action of the spring *i*, and carries the small roller C back with it. As soon as the forked lever F and roller C have moved back, thus making an opening for the bunch to escape, the rope *m*, attached to the discharging-lever G, begins to act by means of the treadle, and as the belt is pulled downward it is drawn out in a straight or horizontal plane on the upper side of the roller, thereby throwing the bunch out of pocket *b*, as shown in Fig. 2. As soon as the bunch has been removed, the treadle H is allowed to move upward, and the machine is returned to its normal position, ready for another filling operation, by the action of the return-lever I and spring *n*. When the cavity *b* arrives in the proper position, the stopping-lever *g* brings up against the chock *h*, preventing the return-lever from revolving the roller B too far. The forked lever is then pushed inward by the hand, placing the small roller C again in close proximity to the roller B, and the spring *g'* relieves the belt K from the pressure of the roller in the discharging-lever G.

A modification of the arrangement above described, by which the same movement and action as with the roller B, having cavity *b*, can be obtained, is by means of a plain cylindrical roller, B', with an additional small roller, L, added to the machine, as shown in Figs. 6 and 7, all the other working parts of the machine remaining the same. In this instance the pocket for the bunch is formed between the upper side of the plain roller B' and small rollers L and C, both of which have their bearings in the plates *d*, the one roller, C, being movable in the slotted openings, while the other roller, L, is stationary.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a tobacco-bunching machine, a roller, B, having a single cavity, *b*, into which an apron or belt extends, and passes over adjustable or movable rollers C D E, substantially as shown, and for the purpose described.

2. In a tobacco-bunching machine, the discharging-lever G and spring *g'*, with adjustable roller E, belt K, treadle H, and cord *m*, arranged substantially as and for the purpose described.

3. In a tobacco-bunching machine, the roller B, having a cavity, *b*, in combination with the forked lever F, roller C, and belt K, all arranged substantially as and for the purpose setforth.

4. In a tobacco-bunching machine, the roller B, having cavity *b*, in combination with the forked lever F, roller C, belt K, adjustable roller D, discharging-lever G, and the roller E, arranged substantially as shown, and for the purpose described.

5. In a tobacco-bunching machine, the roller B, having cavity *b*, in combination with the forked lever F, roller C, belt K, adjustable roller D, discharging-lever G, the roller E, return-lever I, and treadle H, stopping-lever *g*, and chock *h*, all arranged substantially as and for the purpose described.

6. In a tobacco-bunching machine, the roller C, the forked lever F, having a lug, *l*, and spring *i*, and operated by means of pins *k* on the large roller, substantially as and for the purpose set forth.

7. In a tobacco-bunching machine, a large roller having pins *k*, rotated by means of a treadle, a belt which passes over said roller, and suitable small rollers, in combination with a discharging-lever, G, roller E, a forked spring-lever, F, operated by the pins *k* on the large roller, and a return-lever, I, all substantially as shown, and for the purpose set forth.

8. In a tobacco-bunching machine, a large roller provided with pins *k*, for operating a forked spring-lever, an endless belt, suitable small rollers, C D E, a discharging-lever, a return-lever, and suitable connections to a treadle, all arranged for operation substantially as specified.

9. In a tobacco-bunching machine, a roller for adjusting an endless belt passing over a large roller, and suitable small rollers, in combination with a forked lever, a discharging-lever, roller E, a return-lever, and a treadle, all arranged substantially as shown and described.

10. In a tobacco-bunching machine, a large roller and suitable small rollers, C D, over which a belt passes, by which, when rotated, the tobacco placed on the belt is bunched, in combination with a forked lever, a discharging-lever, roller E, a return-lever, a treadle, and a stop-lever, all arranged substantially as and for the purpose set forth.

In testimony whereof I hereby affix my signature in presence of two witnesses.

CHARLES HEMJE.

Witnesses:
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ALEX. H. BETZ.