(No Model.)

M. A. WINGET.

CIGAR BUNCHING MACHINE.

No. 369,145. Patented Aug. 30, 1887.

Fig. 1.

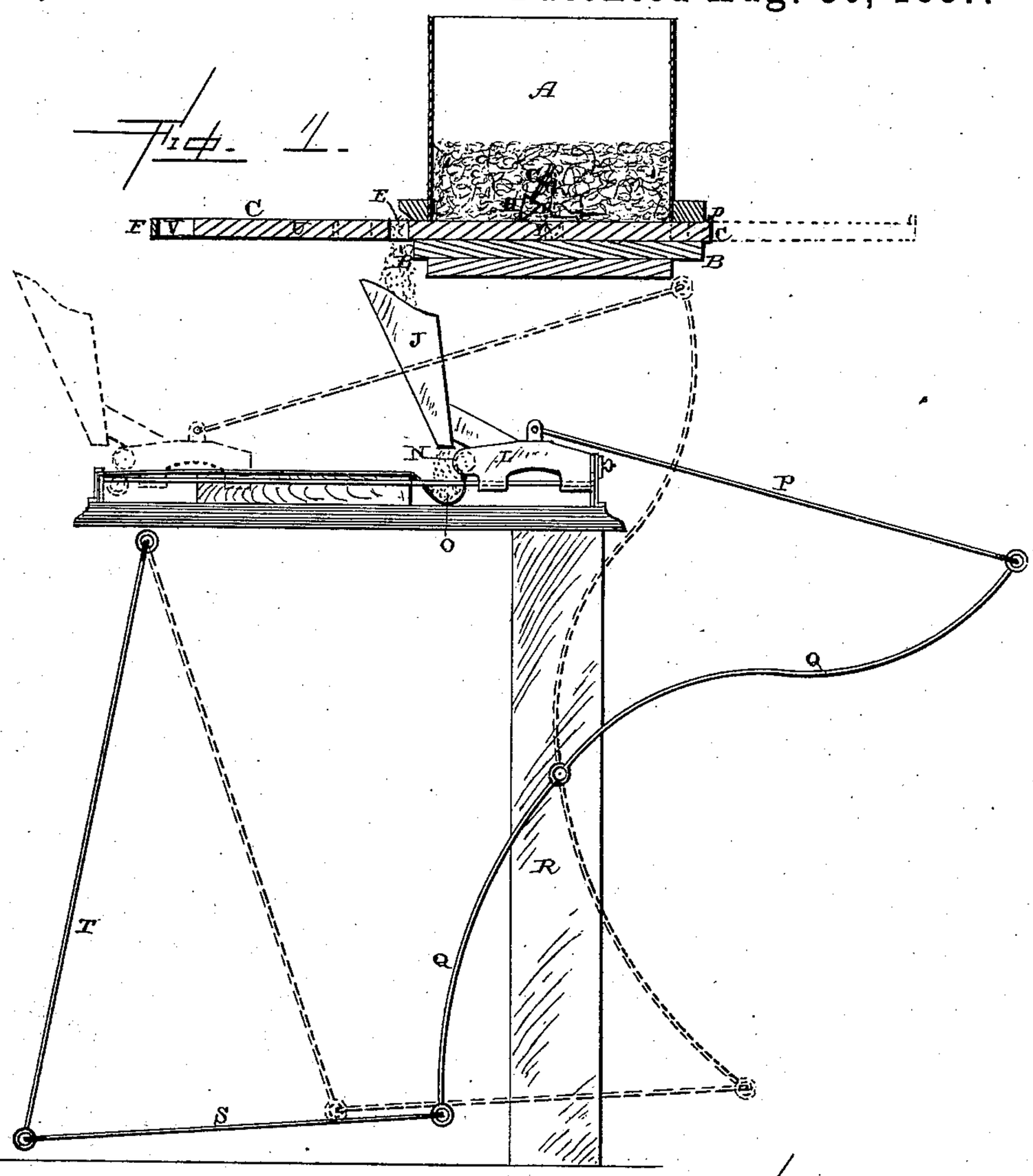


Fig. 3.

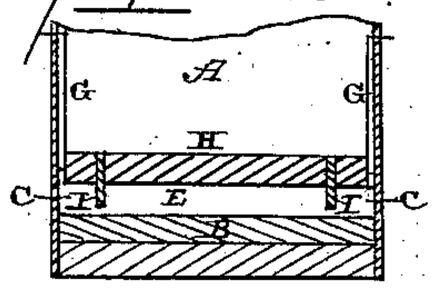


Fig. 2.

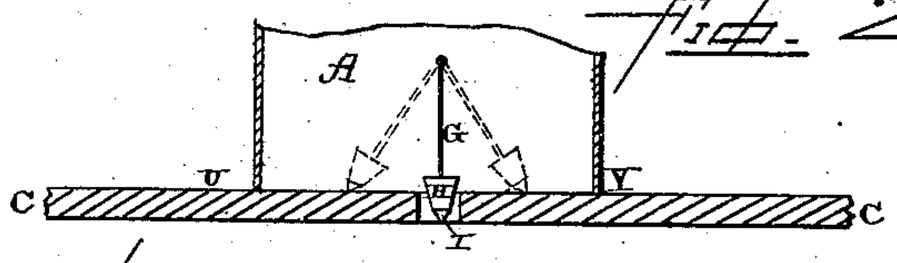
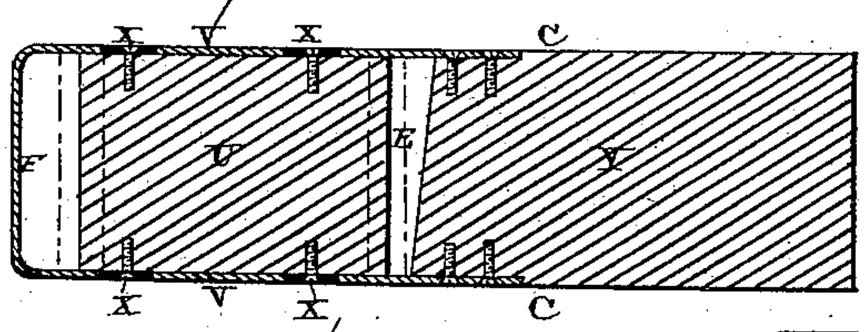
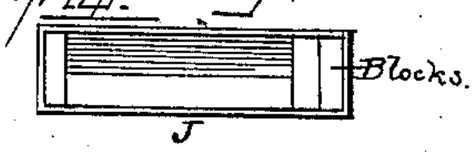


Fig. 4.



Witnesses.
C. F. Gardner
Edm. P. Ellis

Fig. 5.



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per
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UNITED STATES PATENT OFFICE.

MARION A. WINGET, OF COLUMBUS, OHIO.

CIGAR-BUNCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 369,145, dated August 30, 1887.

Application filed February 19, 1887. Serial No. 228,213. (No model.)

To all whom it may concern:

Be it known that I, MARION A. WINGET, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Cigar-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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in cigar-bunching machines; and it consists in, first, the combination of a stationary hopper, a pivoted plunger placed therein, and a movable slide provided with a slot or opening to receive the tobacco each time the slide is moved back and forth through the hopper; second, the combination of the hopper, the slotted slide, and the pivoted swinging plunger provided with guides; third, the combination of the carriage, the guides upon which it moves, the apron, the connecting-rod, the lever pivoted to the frame, the treadle and supporting-rod; fourth, the combination of the hopper, the slide provided with a slot, and the pivoted plunger, with the funnel, the carriage, the guides, the table, means for forming cigar-bunches, and the treadle mechanism; fifth, the combination of the two parts which form the slide, the frame secured to one of the parts and provided with slots, and the set-screws, as will be more fully described hereinafter.

The object of my invention is to provide a bunching-machine with a plunger which will compress the tobacco in the slot of the slide each time that the slide passes under the plunger, and thus always insure a fixed amount of tobacco, and to attach to the carriage both a treadle mechanism, by means of which it can be moved back and forth, and a funnel for receiving the tobacco from the slide and delivering it directly into the pocket.

Figure 1 is a side elevation of a machine embodying my invention, partly in section, the treadle mechanism and the carriage being shown in one position in solid lines and in another position in dotted lines. Fig. 2 is a detail view showing the positions the plunger assumes as the slide moves under it. Fig. 3 is a detail view of the plunger. Fig. 4 is a detail view of the slide. Fig. 5 is a plan view of the funnel, showing shortening-blocks placed therein.

A represents a stationary hopper which is provided with the bottom B. Suitable openings are made upon the front and rear sides of the bottom of this hopper, so that the slide C, which is provided with the stop D at its rear end and the slot E, can be moved back and forth through the hopper in the usual manner.

Upon the front end of the slide C is formed a suitable handle, F, by means of which the operator is enabled to move the slide back and forth at will. The slot E through this slide extends entirely across and is made large enough to hold the largest charge of tobacco which will be needed. If the slot should be too large for the size of the cigar which it is desired to make, the slot may be decreased by moving the set-screws in the sides of the slide, as shown.

The slide C is formed of two parts, the outer one, U, of which is made adjustable back and forth in the iron frame V. (Shown in Fig. 4.) This frame V is provided with slots in its sides, and through these slots are passed set-screws X, which hold the piece U rigidly in position. When these screws are loosened, the piece U can be adjusted back and forth in the frame V, so as to increase or decrease the size of the slot E. One of the pieces which form the slide will have its end cut at a slight angle, as shown in Fig. 4, so as to make the slot larger at one end than at the other. The metallic frame V is rigidly secured to the other part, Y, of the slide, so that there is no relative movement between these two parts. The slot being wider at one end than the other, a greater proportion of tobacco is deposited at one end of the pocket than the other, and as the carriage is moved forward the bite of the apron first catches upon the smaller end of the filler and gradually increases its hold toward the larger end. The slot E is made larger at one end than at the other, so that when the filler is put in the pocket the binder catches its small end first and rolls it up as it fell; but the revolution of the filler causes it to be distributed farther along the tobacco before the binder reaches the other end. The result is, the cigar comes out the same size at each end, where there is

more filler deposited at what is called the "tuck."

Pivoted inside of the hopper at any desired point by means of two cranks or bent rods, G, is the plunger H, which is provided with triangular-shaped guides I on its under side. The cranks or bent rods G are made sufficiently long to allow the plunger H to follow the movement of the slide C by catching in the slot E, as shown in Fig. 2, as the slide is moved back and forth through the hopper. When the slide is drawn outward, the plunger remains inclined in the direction in which the slide has just moved, and when the slide is forced backward the guides I catch in the slot E and cause the plunger H to assume the position shown in solid lines in Fig. 2, thereby compressing the tobacco in the slot both as the slide is moved inward and again as it is drawn outward. By thus entering the top portion of the slot the loose tobacco is compressed in the slot, and thus a uniform amount is always insured as long as there is any tobacco left in the hopper. The guides I, attached to the under side of the plunger, are made V-shaped, as shown, so as to cause the plunger to catch in the slot in whichever direction the slide may be moved.

The lower edges of the guides I never leave the surface of the slide, no matter in which direction it is moved. When the slot moves beyond the guides, they rest upon the top of the slide until the slide is drawn backward, when the points of the guides not only drop into the slot again from their own gravity, but from the weight of the tobacco above. The points of the guides being turned downward the slot cannot be moved backward without the guides catch in it.

As the slide is drawn outward, the charge of tobacco contained in the slot E drops into the funnel J, which is attached directly to the carriage L, and which has its lower end extend down in front of the roller N, journaled in the front end of the carriage, and thus over the pocket O. Blocks or other similar devices are placed in this funnel for the purpose of decreasing the length of the opening through it, and thus regulate the size of the bunch which is to be made.

The apron, carriage, the guides, and the frame-work are the same as those now in use, and hence need not be more fully described in this connection. Connected to the carriage is the rod P, which has its outer end connected to the lever Q, which is pivoted upon the frame-work R, as shown. To the lower end of the lever Q is connected the treadle S, which is supported at its front end by the swinging rod T. When the treadle S is moved forward, the carriage is forced forward to the front of the frame, and the lever and connecting-rod assume the position shown in dotted lines. When the treadle is drawn backward, the carriage is again moved into position to receive another charge of tobacco.

Having thus described my invention, I claim—

1. The combination of the hopper, the slotted slide which is moved back and forth through it, and the pivoted swinging plunger which is automatically operated by the slide for the purpose of compressing the tobacco in the slot, substantially as shown.

2. The combination of the hopper, the slotted slide, and the pivoted swinging plunger arranged in the hopper and provided with guides so as to direct its lower ends into the slot in the slide, substantially as described.

3. The combination of the carriage, the guides upon which it moves, and the apron, with the connecting-rod P, lever Q, pivoted to the frame R, treadle S, and supporting-rod T, substantially as set forth.

4. The combination of the hopper, the slide, provided with a slot, and a pivoted swinging plunger arranged in the hopper, with the funnel, the carriage, the guides, the table, means for forming cigar-bunches, and a treadle mechanism for moving the carriage back and forth, substantially as specified.

5. The combination, in a slide for a cigar-bunching machine, of the two parts U Y, the metallic frame V, which is rigidly secured to the part Y and provided with slots, and the set-screws X, which are passed through the slots into the part U for the purpose of adjusting the size of the slot, substantially as shown.

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

MARION A. WINGET.

Witnesses:
H. F. GUERIN,
F. R. WINGET.