

Cigar Machine.

Patented May 1, 1860.

Order received
for 1/2 yard
cotton

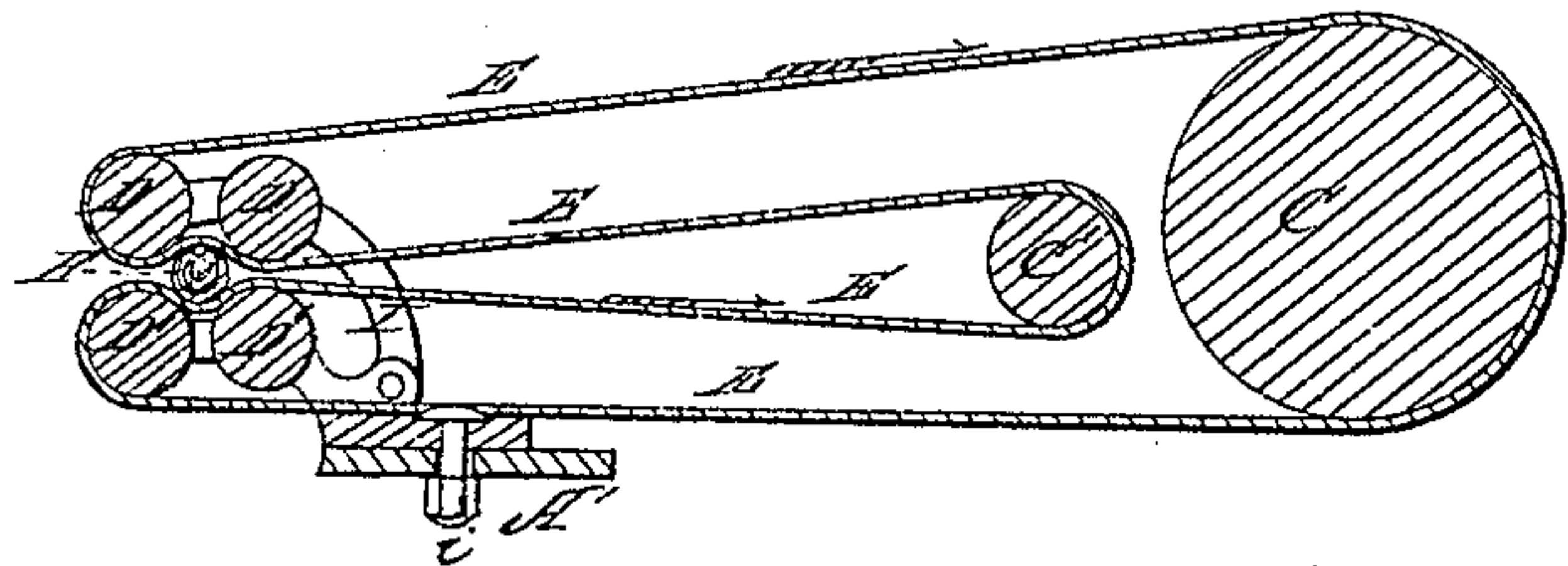


Fig. 2.



Inventor:

Thomas Sharp.

UNITED STATES PATENT OFFICE.

THOMAS THORP, OF NEW YORK, N. Y.

MACHINE FOR MAKING CIGARS.

Specification forming part of Letters Patent No. 28,115, dated May 1, 1860.

To all whom it may concern:

Be it known that I, THOMAS THORP, of New York, in the county and State of New York, have invented certain new and useful Improvements in Cigar-Making Machinery; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification.

My improvements relate more especially to the machine patented by me December 6, 1859, the object being to cause and control an endwise motion of the cigar while it is being formed, for the purpose of forcing it into the heading-socket, which gives the pointed form to the end.

The nature of my invention consists in causing the belt, between the folds of which the cigar is rolled, to run in an oblique direction to the axis of the cigar for the purpose of giving the latter an endwise motion toward the heading-socket.

The nature of my invention also consists in certain means for causing such obliquity of the belt, which means consist in the use of conical or tapering rollers and conical or tapering drums with their large ends in reverse directions and their axis inclined, in combination with a means of adjusting such inclination.

The nature of my invention also consists in a means for causing the belt to draw tighter, and consequently to exert more pressure upon the cigar immediately before the latter enters the heading-socket.

The nature of my invention also consists in reversing the angle which the belt makes to the axis of the cigar, for the purpose of making what are known in the trade as "right and left hand" cigars—that is, cigars made from the right and left sides of the tobacco-leaf.

To enable others skilled in the art to make and use my improvements, I will proceed to describe its construction and arrangement by the aid of the drawings, in which—

Figure 1 is a plan view of the machine with upper portion of the belt and the rollers there-to removed. Fig. 2 is a vertical section showing the operation of the belt, and Fig. 3 is an elevation of a portion.

Similar letters of reference indicate like parts in all the figures.

A is the frame of the machine, which may be made in any suitable form and of any suitable material. B is the feed-table at which the operator sits. C and C' are the drums, and D D' D' D' are the rollers around which the belt E traverses. F is the cigar. All these parts are shown in my patent above referred to, as well as some other parts not necessary to explain in connection with the present application. The sides of the frame A are slotted, as shown at *a* in Fig. 3, and a sliding block, G, is fastened thereto by means of bolts *g*, as shown. These sliding blocks G carry each a swiveling-block, H, attached thereto by a pin, *h*, and free to turn thereon. In bearings J J' in these blocks H H, I mount the drums C and C', as represented, which drums can be set to any required angle by sliding the blocks G in the slots *a*, the blocks H turning upon *h* to accommodate the bearing of C and C'. The rollers D and D' are mounted in a frame, I, which is attached to a cross-piece, A', in the main frame A by a bolt, *i*, standing in a slot in A', which allows I to be adjusted to either side of the frame at pleasure. The frame I can also be set at any required angle by turning it upon the bolt *i*. The drums C C' and rollers D D' are made slightly conical, as represented, with the larger end of C turned toward the smaller end of D. The object of this form is to take advantage of the well-known tendency of a belt to ride the highest part of a drum or pulley, and thus to cause it to run in a direction oblique to the axis of the rollers D and D'. This tendency can be governed so as to cause the belt to run more or less oblique to the rollers D by varying the angle formed by the axes of the rollers D D' and drums C C' by adjusting either the blocks G or frame I. The cigar F, lying between the four rollers D D D D its axis, is held in a position parallel thereto and oblique to the belt E, and consequently, as it rolls thereon it traverses in the direction of its axis toward the socket K in proportion to its obliquity.

Upon the drums C and C', I make ridges or beads *c* and *c'* and corresponding grooves, *d* *d'*, in the rollers D and D', which draw the belt in such a manner as to cause it to press with more force upon the cigar just before it enters the socket than it does upon the socket, which prevents the wear which would otherwise be occasioned upon the belt by the socket, and

also helps to point the cigar and direct it into the socket.

In the manufacture of cigars it is found necessary to wind one half of the leaf in the opposite direction from the other. In all machines hitherto invented for the purpose it has been necessary to employ two distinct and separate machines for this purpose, and in large manufactories where a number of machines are required this manner of working may not be seriously objectionable, but where only one machine is employed it becomes highly desirable that that machine should be capable of making both right and left handed cigars.

I will now proceed to describe the means which I employ for effecting this object. I reverse the rollers D and D' in the frame I and slide the latter toward the other side of the frame A, meaning the side on which the large ends of the rollers D are. I then reverse the drums C and C' and place them at the opposite angle of the frame A by sliding the blocks G in the slots a. I then place a left-hand socket, K, in the proper place, and the machine is arranged. It is not absolutely necessary, however, to reverse the drums C and C', as I find the same effect will be produced by setting their axes out of the parallel position. To effect this the ends J' of the axis of C' are mounted in sliding bearings J'', held in place in the block H by a screw or key, as shown in Fig. 3. By

adjusting these bearings I obtain an effect equivalent to the reversing of the drums C and C' in much less time.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. Causing the belt E to run in a line oblique to the axis of the cigar for the purpose of giving the latter a traversing motion toward the heading-socket K, substantially as and for the purpose set forth.

2. The employment of the conical rollers D and D' and conical drums C and C', in combination with the inclination of the axes of either, for the purpose of causing the belt E to retain its oblique position, substantially as herein described.

3. The projecting ridges c and c' on the drums C and C', in combination with the grooves d and d' in the rollers D and D', for the purposes herein specified.

4. Reversing the angle made by the axis of the cigar and the path of the belt E, substantially in the manner described, to enable one and the same machine to wind either right or left hand leaves at pleasure.

Witness my hand this 19th day of March, 1860.

THOMAS THORP.

Witnesses:

GEO. BARKER,
JOHN HOOPER.