

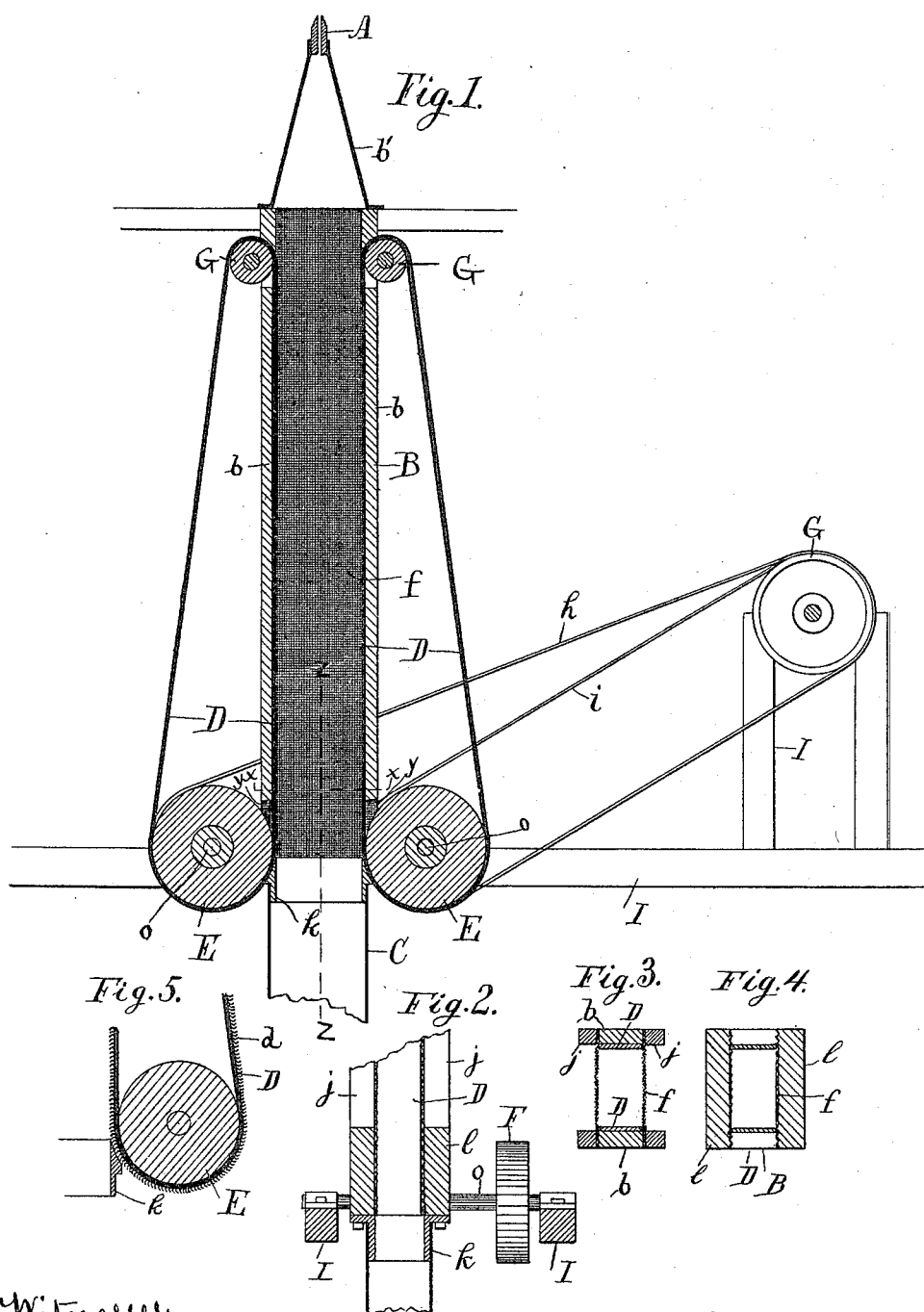
(No Model.)

C. F. SCAMMAN.

APPARATUS FOR HANDLING AND PACKING TOOTHPICKS.

No. 585,289.

Patented June 29, 1897.



Witnesses:  
*James E. McDowell*  
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# UNITED STATES PATENT OFFICE.

CHARLES F. SCAMMAN, OF DEERING, MAINE.

## APPARATUS FOR HANDLING AND PACKING TOOTHPICKS.

SPECIFICATION forming part of Letters Patent No. 585,289, dated June 29, 1897.

Application filed March 16, 1896. Serial No. 583,360. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES F. SCAMMAN, a citizen of the United States, residing at Deering, in the county of Cumberland and State of Maine, have invented a certain new and useful Improvement in Apparatus for Handling and Packing Toothpicks; and I hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an apparatus for handling and packing toothpicks and for drying in which they are formed or cut from the veneer; and it relates particularly to an improvement on the apparatus shown and described in Letters Patent No. 521,736, issued to me June 19, 1894.

In the apparatus mentioned the picks were received from the cutting-knives in the upper end of a vertical spout, which was kept full of picks when the machine was in operation. The lower end of this spout was provided with a telescoping section to permit of the lengthening of the spout as the picks fed in at the upper end, and the telescoping section was provided with a trap or valve by which the picks could be removed from the bottom a box at a time. The spout was inclosed in a hot-air flue and the sides were left with openings for the passage of air, by which the picks were dried during their progress downward.

I have found from experience that in operating the machine as set out in my former patent the picks have a tendency to lodge in the spout as they pass down, caused by the formation of natural arches in the body of the picks. It is to overcome this tendency and to make the machine work more positively and certainly that I have devised my present improvement, which consists in placing an endless or longitudinally-movable band on opposite sides of the spout, forming the inner surface of the same, and imparting to these bands a positive downward movement just equal to the downward movement of the body of picks. The picks are thus carried positively downward by the movable sides of the spout, and since there is no friction there is no tendency to stick.

In the accompanying drawings I have shown enough of the apparatus of my former patent to clearly illustrate the present invention.

In the drawings, Figure 1 is a vertical section showing the cutting-knives of the toothpick-machine and the connecting-spout, the section being taken on the longest dimension of the spout and across the picks as they lie in the spout. Fig. 2 is a section on the line  $z z$  of Fig. 1. Fig. 3 is a section on the line  $x x$  of Fig. 1, and Fig. 4 is a section on the line  $y y$  of Fig. 1. Fig. 5 shows a modified construction of the band.

The cutting-knives of the toothpick-machine are represented at A, B being the vertical spout, into which the picks drop as they fall from the knives, and  $b$  being the tapering top of said spout where it connects with the knives.

On the lower end of the spout is shown the top C of the telescoping section. The spout B is composed of two solid sides  $b b$  and two open or porous sides  $f f$ , composed of wiregauze or some other suitable material which will allow the passage of the air. The wiregauze is fastened to the side pieces  $b b$  by strips  $j$ , and below the strips  $j$  on the lower end of the spout is a cleat  $l$ , to the under edge of which is fastened the casting  $k$ , which supports the section C.

An endless band D is mounted on suitable pulleys G and E on each side of the spout and each band runs inside of the side piece  $b$  the whole length of the spout, forming the inner surface of the same in place of the side  $b$ . The pulleys E E are journaled on a suitable frame I, and means are provided for imparting movement to the endless band D. As here shown, I place on the shaft  $o$ , on which is mounted the pulley E, a second pulley F, and I connect these pulleys with the driving-pulley G, the motion of which is so regulated that the bands have the same motion as the downward movement of the body of picks in the spout.

The casting  $k$  is fitted closely to the outer surface of the band D, where it leaves the spout, and if the belt wears away materially, or if for any reason the casting does not conform to the surface of the belt, the picks are liable to catch between the casting and the

belt. In cases where this is liable to happen I make use of a band, such as is shown in Fig. 5, having numerous small projections *d* on its outer surface, so that as they pass between the casting *k* and the pulley they will bend or give slightly and effectually prevent the picks from entering the space and clogging. A band made of plush or other pile fabric will answer the purpose very well, but I prefer to use a band having a surface of card-clothing.

It will be seen that the downward motion of the band inside of the spout carries the body of picks without friction and prevents the clogging of the spout. In other respects the machine operates the same as described in my former patent.

I have shown the bands *D* as being endless bands, and I consider this the best and most-easily-operated form, but any sort of band arranged to form the inner surface of the spout and made to have a continual downward motion while the machine is in operation will answer the purpose of the invention.

I claim—

1. In a toothpick-machine, the combination of a vertical spout for receiving the picks as they drop from the cutting-knives, an endless band on each of the two opposite sides of said spout and forming the inner surface of the same and means for positively moving said bands downward at the same rate as the picks are dropped into said spout.

2. In a toothpick-machine, the combination of a vertical spout for receiving the picks as they drop from the cutting-knives, an upper and a lower opening through the side of said spout, an endless band passing through said openings and forming an inner surface for the side of said spout, pulleys over which said band runs, said band being provided with a pile-like surface of card-clothing or other like material capable of yielding as it passes through said lower opening for excluding the picks therefrom.

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Witnesses:

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