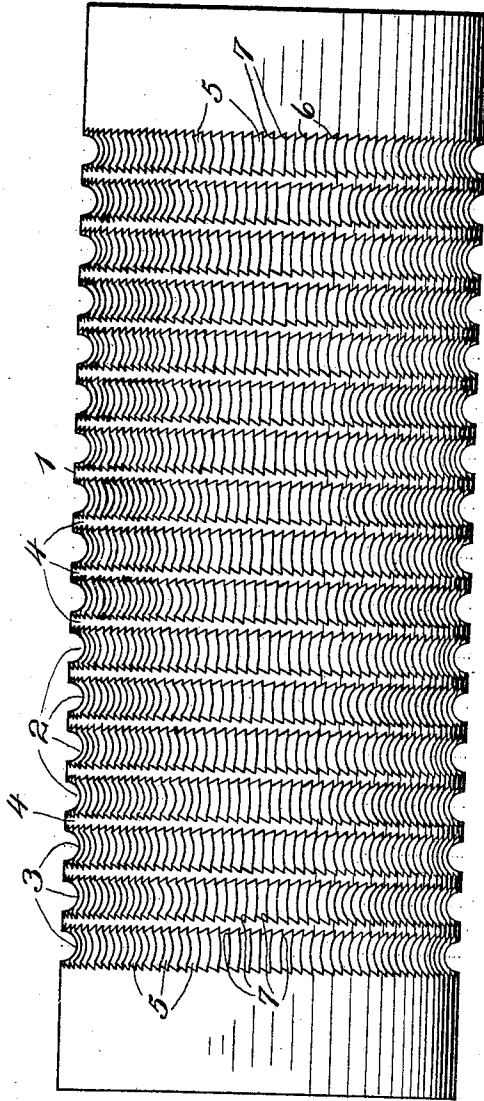


F. K. HEUPEL.  
 STEMMING ROLLER FOR TOBACCO STEMMING MACHINES.  
 APPLICATION FILED APR. 18, 1909.

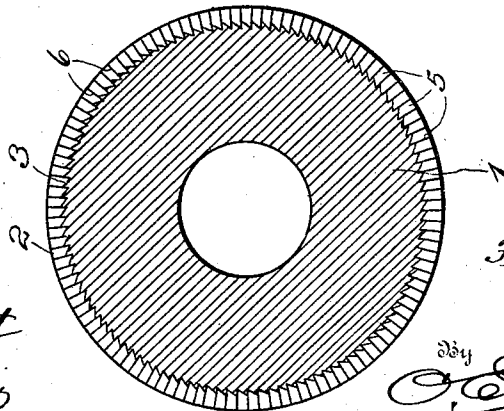
937,601.

Patented Oct. 19, 1909.

*Fig. 1.*



*Fig. 2.*



Witnesses

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# UNITED STATES PATENT OFFICE.

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STEMMING-ROLLER FOR TOBACCO-STEMMING MACHINES.

937,601.

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed April 16, 1909. Serial No. 490,345.

To all whom it may concern:

Be it known that I, FREDERICK K. HEUPEL, citizen of the District of Columbia, residing at No. 2 Sixth street, northeast, in the city of Washington and District of Columbia, have invented certain new and useful Improvements in Stemming-Rollers for Tobacco-Stemming Machines; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to tobacco stemming machines, but more particularly to the stemming or stripping rollers therefor; and my invention has for its object to provide an improved stemming or stripping roller which stems or strips the leaf cleanly without unduly macerating the leaf and crushing the stem.

With this object in view my invention consists in the novel construction of the periphery of the rollers.

Referring to the accompanying drawing: Figure 1 is a plan view of a roller constructed in accordance with my invention, and Fig. 2 is a vertical section through the same.

Like numerals of reference indicate the same parts throughout the two figures in which;

1 indicates the roller the periphery of which is provided with a series of transverse grooves 2 having rounded bottoms 3, said grooves 2 being spaced apart sufficiently to allow a smooth flat portion 4 to occur between each of the grooves 2. After the grooves 2 have been formed in the roller each groove 2 is provided with a series of longitudinal cuts 5, said cuts 5 being closely arranged extending entirely around the periphery of each groove 2. The cuts 5 as will appear from the drawing are substantially V-shaped except that the wall 6 of each of the cuts 5 is substantially at right angles to the axis of the roller. This construction causes a succession of sharp cutting points 7 to occur on each side of the flat portions 4 between the grooves 2, said points 7 and cuts 5 having a greater biting and serrating action on a tobacco leaf when the roller is turning in one direction than

they do when the roller is turning in the other direction, for the reason that the wall 6 of each cut being substantially at right angles to the axis of the roller at the bottom of each groove the said wall 6 of each cut at each point 7 is substantially parallel to the axis of the roller, and consequently a sharp cutting edge is imparted at each cut 5 at the wall 6.

Having thus described the construction of the roller its operation is as follows: The rollers are arranged in pairs, their peripheries touching and are rotated in opposite directions and in such manner that the cutting edges of the cuts 5 and points 7 meet the leaf as it is fed to the rollers, the direction of rotation of the rollers being contrary to the direction of travel of the leaf. The stem of the leaf is led to one of the grooves 2, and as the grooves 2 of each roller register a substantially circular opening or channel is provided by the registering grooves 2 through which the stem passes. As the stem is being drawn through this opening or channel and as the rollers are rotating in a direction reverse to direction of travel of the leaf cutting edges of the cuts 5 and points 7 act on the leaf and strip the same from the stem in such manner that the stem is stripped cleanly and is not mashed or broken.

I have found by experiment that unless a sharp cutting edge is provided throughout the whole of each cut 5 that the leaves are torn and a considerable portion thereof remains on the stems after they have passed between the rollers.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent of the United States is:—

1. A roller of the character described having its periphery provided with a series of transverse grooves spaced apart to form a flat portion on the periphery of the roller between each groove, each transverse groove being provided with a succession of cuts longitudinally of the roller, one wall of each cut being substantially at right angles to the axis of the roller in such manner as to form a succession of cutting edges, each longitudinal groove terminating in a biting point.

2. A roller of the character described having its periphery provided with a transverse groove, said groove being provided with a succession of cuts longitudinally of the

roller, one wall of each cut being disposed angularly to the axis of the roller to form a succession of cutting edges, each longitudinal groove terminating in a biting point.

5 3. A roller of the character described having its periphery provided with a transverse groove, said groove being provided with a succession of cuts longitudinally of the roller, one wall of each cut being disposed

angularly to the axis of the roller to form a succession of biting points at each edge of said groove. 10

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

FREDERICK K. HEUPEL.

Witnesses:

GILBERT A. CLARK,  
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