To all whom it may concern:

Be it known that I, OSCAR HAMMERSTEIN, a citizen of the United States, and resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in the Treatment of Tobacco, of which the following is a specification.

My invention relates to improvements in the treatment of tobacco and more particularly to the treatment of the stems of tobacco leaf and has for its object to treat said stems in such a manner that the same may be utilized in the manufacture of fillers for cigars either while remaining a part of the leaf or after being separated therefrom.

My improvement will be fully described hereinafter and the features of novelty will be pointed out in the appended claims.

Reference is to be had to accompanying drawings which illustrate examples of my invention and in which—

Figure 1 represents a face view of a tobacco leaf with the stem thereof showing the treatment of the stem of the tobacco leaf so that air passages or vents will be formed when the stem is incorporated as a part of a filler and may be carried out in any suitable manner to attain this result. Thus the stem A may be corrugated in the direction of its length as shown in Figs. 1 and 2 either on one surface only or on both surfaces, and if desired may also be crushed so that the hard fibrous structure of said stem is effectually destroyed. Instead of having the corrugations extend lengthwise of the stem, the said corrugations may extend at various angles to the length thereof as shown for example in Fig. 3 and in some cases the crushing referred to above may be omitted. For instance the fibrous or hard structure of the stem may be broken by means of incisions made therein, by shredding, by puncturing or in any other manner adapted to bring about the desired result. The stem may be subjected to any of the forms of treatment adapted for the specific purpose either while it remains as part of the leaf or after it has become stripped or separated therefrom.

As an instance of how one form of my improved treatment or process may be carried out I have shown in Fig. 5 a pair of rolls B and C having corrugated peripheries and mounted on shafts b and c with said peripheries in close proximity or even in contact with each other. The said shafts b and c may be connected in any suitable manner with a source of power to bring about a rotation of the rolls B and C. If the stem A is to be treated while a part of the leaf the end thereof is simply placed between the rolls B and C and will be carried between the same as the said rolls are rotated. In this case the rolls B and C are preferably of such a width as to contact only with the stem and to leave the adjacent portions of the leaf untouched thereby. If the stem A is treated after having been stripped or separated from the leaf it is similarly fed between rolls similar to the rolls B and C excepting that in this latter case the said rolls may be of sufficient width to accommodate a number of stems A simultaneously.

In either instance the stems A, as they pass between the rolls A and B will be corrugated upon opposite surfaces so that the hard fibrous structure thereof will be effectually broken up, this action in some cases being augmented by having the rolls exert a pressure upon said stems. With this treatment the fibers of the stem are spread or divided apart preferably in a direction substantially transverse to the length of the stem, without however, being completely disconnected throughout their entirety whereby the stem is preserved as a unit and is not separated or cut into a number of individual fibrous sections or merely squashed. This treatment increases the combustibility of the stem which will now burn as freely as the remainder of the leaf and at the same time a plurality of air passages or vents will be formed when the stem is incorporated as a part of a filler or bunch. The said stems A either as part of the leaf or separate therefrom may thus be used in the manufacture of fillers and when so used will not obstruct the draft of cigars made therefrom.
in this manner, will burn with the same speed as does the leaf, will not coal and will also not taste badly.

It is well known that the stems of tobacco leaf contain substances of value in cigars, which substances have heretofore been almost universally lost owing to the fact that the stem in its initial hard fibrous state cannot be used to advantage and always has a deleterious effect upon cigars in which such stems in their original condition are utilized. This is due to many causes one of which is the hard and compact structure of said stems which obstructs the draft of a cigar and prevents the free burning of the tobacco thereof; the said stems in their initial condition burning more slowly than the leaf and tasting badly to the smoker. For this reason it has heretofore almost universally been necessary to strip or separate the said stems from the tobacco before said leaf could be used in manufacturing filters, an operation which caused great waste and which entails extra expense for labor, etc.

By breaking up the hard and fibrous structure of such stems according to the present invention so that the fibers are spread or divided and air passages or vents are formed when the stems are used all of these objections are overcome and as before stated the stem burns as freely as the remainder of the leaf and a valuable part of the tobacco leaf which heretofore has been substantially useless is made available and adds to the quality of the cigars in which it is used and by obviating the stripping operation, heretofore considered substantially indispensable reduces the cost of manufacture.

It is to be understood that the methods of carrying out my improved treatment are only examples and that the desired results may be secured in many other ways, which will be readily apparent, without departing from the spirit of my invention. For instance said stems may simply be passed between rolls having roughened peripheries or may be fluted, embossed, punctured, shredded or divided into fibers in any other suitable way. The rolls or other mechanism which may be used instead of being power driven may also be manually operated.

I claim:

1. The process of treating the stems of tobacco leaf which consists in corrugating the same whereby the fibers of said stems are divided apart without completely disconnecting said fibers throughout their entirety.

2. The process of treating the stems of tobacco leaf which consists in pressing said stems and corrugating the same whereby the fibers of said stems are divided apart without being completely disconnected throughout their entirety.

3. The process of treating the stems of tobacco leaf which consists in corrugating the said stem and crushing the fibrous structure thereof.

4. As a new article of manufacture a tobacco leaf stem provided with corrugations whereby its fibers are divided apart without being completely disconnected throughout their entirety.

5. As a new article of manufacture a tobacco leaf the stem of which is provided with corrugations whereby the fibers of said stem are divided apart without being completely disconnected throughout their entirety.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

OSCAR HAMMERSTEIN.

Witnesses:

JOHN A. KELLENREICH,
FRITZ ZIEGELER, JR.