UNITED STATES PATENT OFFICE.

CHARLES HORNBOSTEL, OF BROOKLYN, NEW YORK, ASSIGNOR TO IDA HORNBOSTEL, OF SAME PLACE.

IMPROVEMENT IN TREATING AND CURING TOBACCO.

Specification forming part of Letters Patent No. **214,391**, dated April 15, 1879; application filed September 18, 1878.

To all whom it may concern:

Be it known that I, CHARLES HORNBOSTEL, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Method of Treating and Curing Tobacco, of which the following is a specification.

This invention relates to a new process of treating, preparing, and curing tobacco for the purpose of improving its quality, and rendering it more palatable and less injurious to the user, and to simplify the process and reduce the expense of manufacture.

This object has been heretofore only partly accomplished by usual process of sweating and fermenting, and many attempts have been made to improve upon such process without effect.

Of the constituent parts of the tobacco some have to undergo great changes before they are in a proper condition for use. The nicotine in the new tobacco is found in combination with a variety of nitrogenous bodies, (termed "gum,") which are the source of a bitter and harsh taste and of a raw and rank flavor, and which interfere with the ready combustion of the tobacco when used for smoking. On the thorough elimination of the nitrogenous bodies from the tobacco depends its good quality and fitness for use. Age will more or less bring this effect about. However, it is mainly effected by allowing the tobacco to ferment during the summer season, and also by artificially stimulating and prolonging fermentation. In various branches of its manufacture the tobacco is subjected to the influence of heat for destroying its vegetable vitality, and for removing the gummy substances from it, and so to insure its keeping.

The disadvantages of these proceedings are manifold. They necessarily retard the use of new tobacco until it has passed one or more summer seasons; they endanger the quality of the tobacco, and cause its loss from overheating, and, finally, do not effect all that should be effected.

My invention is designed to overcome these disadvantages, and also to improve the quality of tobacco by eliminating therefrom, by means of direct oxidation, the nitrogenous bodies, and leaving the nicotine in the tobacco in a refined state.

I have discovered that by the action of an atmosphere of oxygen or oxygen and common air the oxidizable bodies in the tobacco become readily eliminated, and that in consequence of such oxidizing action on the tobacco it becomes much improved in taste and flavor, and burns readily when smoked. I have also discovered that the oxidizing action of an atmosphere as described heretofore ripens tobacco.

In carrying out my invention, I make use of a compartment of any desired construction for holding the tobacco to be treated, into which I force, by means of an air-pump, blower, or any other air forcing apparatus from the place of its manufacture or storage, pure oxygen, or a mixture of oxygen and air. I place the tobacco in the compartment in such a manner that the current of oxygen or oxygen and air on being forced in penetrates all parts of the tobacco alike, and for this purpose I place the tobacco in a loose condition on perforated shelves, and hang it up on strings or otherwise. However, I do not limit myself to this mode of placing the tobacco for subjecting it to the action of the oxygen or oxygenated air, but I resort to any method of placing and distributing the tobacco which will give access of the current of oxygenated air to all parts of the tobacco.

The atmospheric oxygen does not exert sufficient oxidizing power for bringing about the needed effect; but any excess of oxygen over that of the air, no matter how little, produces a beneficial effect, which is enhanced continuously as the proportion of oxygen is increased. Hence I do not limit myself to any precise proportions of oxygen and air. However, I prefer the following method for imparting to a volume of atmospheric air the needed oxidizing power, and which is necessary for rapidly eliminating from the tobacco its gummy compounds, viz: by conducting a current of atmospheric air under pressure, such as is thrown out by an air-pump or by blowers, into contact with or through a mixture of black oxide of manganese and sulphuric acid, and when thus oxygenated into contact with the

tobacco. However I do not limit myself to the use of a current of air on a mixture of black oxide of manganese and sulphuric acid for obtaining and imparting the oxygen to the volume of atmospheric air utilized in the process, but resort to other well-known methods for obtaining the needed oxygen effect.

I am thus enabled, by means of my improved process of treating tobacco, to render it fit for use when comparatively new, and improve its quality further than present methods of treating it will accomplish, also to simplify and shorten the manipulation of the tobacco for manufacturing it.

What I claim, and desire to secure by Letters Patent, is—

The process herein described of treating and curing tobacco, through direct oxidation, by exposing it to the action of pure oxygen or oxygenated air, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

CHARLES HORNBOSTEL.

Witnesses:
JOHN H. BRITTON,
ED. MÜLLER.