

UNITED STATES PATENT OFFICE.

CHARLES MANLY, OF RICHMOND, VIRGINIA.

IMPROVEMENT IN PROCESSES OF BRIGHTENING TOBACCO.

Specification forming part of Letters Patent No. **154,695**, dated September 1, 1874; application filed August 22, 1874.

To all whom it may concern:

Be it known that I, CHARLES MANLY, of Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Processes of Brightening Tobacco; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to the treatment of the leaf-tobacco of commerce. In the manufacture of smoking-tobacco, and wrappers for plug chewing-tobacco, the brightest shades of such article have to be selected in order to obtain the brightest possible color to supply the demand and meet the fancy of the consumer, a rich bright color being in greater demand for the purpose stated than tobacco of a darker quality. In Virginia, especially, a high quality is produced known as "golden leaf," and which is chiefly used in the manufacture of the finest smoking-tobacco and wrappers for plug chewing-tobacco. This grade of tobacco, besides being exceedingly expensive, is not produced in sufficient quantities to meet the demands of the trade.

It is the object and purpose of my invention to so treat the darker or semi-bright and less valuable grades of the cured leaf as to give it the bright and rich cast of the "golden leaf." As this grade and color of tobacco is not used in the trade for making smoking and plug chewing tobacco, it is evident that my invention, in utilizing such grades for the purpose, must not only largely increase the manufacture of such quality of tobacco, but, while proving a great source of profit to the trade, cheapen the cost to the consumer. Nor does my invention, while accomplishing these advantages, impair the quality or merits of the tobacco, but, on the contrary, increases the value of each grade in proportion to its normal quality.

In the production of a rich bright color for leaf-tobacco, I employ a mixture or compound of sulphur and powdered charcoal, to form, when in combustion, vapor in air-tight cham-

bers or compartments, in which the tobacco is hung to receive the action of such vapor, having been previously moistened by jets of steam, or any other moistening agent, in order to render it more susceptible to the influence and action of the vapor, and facilitate at the same time the subsequent deodorizing process. The employment of sulphur in vapor produces, when brought into contact with the dampened surface of the tobacco, sulphurous acid, which acts, first, in connection with the alkali contained in the tobacco, as a bleaching agent, and as a neutralizer of the contained alkali, the combined action of which produces a rich yellow color, so much desired in the manufacture of smoking and plug wrapper chewing tobacco. The tobacco thus treated will necessarily have more or less of the odor of sulphur, which in the natural way would disappear by exposure to the air. I, however, combine with the bleaching process a subsequent method of deodorizing the tobacco to neutralize the sulphurous acid or odor thereof with which the tobacco may be impregnated. In this I employ liquid of ammonia in atoms sufficient to produce volatile vapors, the action of which is to absorb the sulphurous odor, and neutralize any possible acid trace from the previous operation. As the ammonia is very volatile, and acts instantly, it will, after performing its function, pass off and leave no trace of either sulphur or ammonia in the tobacco, while the tobacco thus treated is not deprived of any of its natural qualities or character.

In treating the tobacco it is first made damp, and hung upon sticks, commonly used in tobacco-factories for drying, in air-tight rooms or wooden boxes made air-tight. The vapor is produced in such room or compartment by igniting the mixture of sulphur and charcoal, which may be placed in any suitable vessel for the purpose, the charcoal forming the element of slow and continuous combustion, and, being an antiseptic, aids in restoring damaged tobacco to its natural condition. During this operation the room or compartment is closed to exclude the air. In the deodorizing process the vapor is produced by the atoms of the ammonia upon a hot plate or pan.

The gist of the invention claimed herein con-

sists of a process for rendering dark-colored tobacco bright by the employment of sulphurous vapor under a slow fire. I am aware, however, that leaf-tobacco has been subjected to the action of sulphur and salt in vapor to destroy the nicotine, for making medicated tobacco having soothing qualities for the throat and lungs; and that animal and vegetable substances have been preserved in vessels by fumigating them with sulphurous-acid gas, or other antiseptic gas, in closed compartments; and that such treatment of these things has been combined with soda or other alkaline substances to neutralize the acidity imparted to the vegetables by such gas to render them fit articles of food, and then sealing them in air-tight vessels; and that wheat and rye have been bleached by the action of sulphurous-acid gas, so as to whiten the grains to enhance the value of dark-colored, discolored, or damaged grains, and improve the flour of such grain; but it is obvious that the production of a bright tobacco for smoking and for plug chewing tobacco is a much needed article in

the trade, while my process, by which it is produced, not only improves the tobacco, but supplies a cheap article in the quality of a rich golden shade, the duration of the process lasting from twelve to twenty-four hours, according to the quality of the tobacco being treated.

I claim—

1. The method hereinbefore described of brightening leaf-tobacco by treating it with sulphurous vapors, and finally removing the odor of the sulphur by ammonia in vapor, or in diluted form.

2. The process of brightening tobacco by submitting the leaf to the vapors arising from the slow and continuous combustion of sulphur and charcoal in air-tight compartments.

In testimony that I claim the foregoing I affix my signature in presence of two witnesses.

CHAS. MANLY.

Witnesses:

A. E. H. JOHNSON,

J. W. HAMILTON JOHNSON.