UNITED STATES PATENT OFFICE.

CHARLES S. PHILIPS, OF BROOKLYN, NEW YORK.

PROCESS OF TREATING TOBACCO.

SPECIFICATION forming part of Letters Patent No. 246,975, dated September 13, 1881.

Application filed June 21, 1881. (No specimens.)

To all whom it may concern:

Be it known that I, CHARLES S. PHILIPS, of the city of Brooklyn, in the county of Kings and State of New York, have invented and discovered certain new and useful Improvements relating to the Treatment of Tobacco, of which the following is a full, clear, concise, and exact description, such as will enable others skilled in the art to which my invention appertains to make use of the same.

The object of my invention is to quickly and thoroughly eliminate or neutralize the bad-odor-producing elements of the leaf, and to aid the process of fermenting and sweating tobacco by subjecting it to the action of such chemicals as will accomplish the purpose.

Heretofore I have sweated tobacco and brought it to dark colors without developing objectionable odors by first subjecting the tobacco to simple or natural fermentation until the rank elements of the leaf were either eliminated or neutralized; but simple fermentation alone is a long and tedious process when so conducted as to avoid the bad odor. There is not sufficient ammonia in the tobacco itself to carry it through a quick process of fermentation without causing a bad odor arising from the empyreumatic oil which is produced by the heat; and by a long process of fermentation sufficient to eliminate or neutralize the elements which cause the empyreumatic odor the texture or fiber of the leaf is more or less injured, and it becomes tender. The heat which is necessary to color tobacco acts upon the elements contained in it, decomposing or altering them, and thus forming new compounds having no objectionable odor of an empyreumatic nature which the heat alone will not throw off, so as to leave the tobacco with a natural smell.

It is very desirable that the bad-odor-producing elements may be eliminated or neutralized without injuring the tobacco, so that it may be heated sufficiently to produce the desired colors, and the process carried through much quicker than by natural or simple fermentation.

There are many chemical substances that may be used without detriment to either the tobacco or the user of it, and I have discovered that when they are properly applied they may be used to aid in expelling the elements of the leaf which produce empyreumatic oil or bad odors, and hasten the process of fermentation, as well as improve the quality of the tobacco.

To carry my invention into effect I preferably use carbonate of ammonia. This may be used in its dry state, and its gas may be made to operate upon the tobacco during the sweating process; or it may be used in solution and be assisted by fermentation. If the tobacco being treated be of a rank nature, or it is desirable to hasten the process without injuring its odor, the atmosphere of the room or apparatus in which the tobacco is placed may be kept impregnated with ammonia-gas to such an extent as to neutralize any objectionable odors caused by and during the use of a high heat. This may be accomplished in various ways; but the simplest way is to lay the lumps of carbonate of ammonia in the apartment with the tobacco, and the heat will use it up as fast as required. Another good way is to do up about one pound (more or less) of carbonate of ammonia in a cloth or otherwise and place it in the center of a case of tobacco while it is being packed. When the tobacco becomes heated the ammonia will give up its gas and permeate the whole mass in the case, and thus have the desired effect. Enough ammonia may be used to carry the tobacco through any necessary length of time in sweating, and a heat sufficient to color the tobacco may be applied without injuring the flavor, for so long as ammonia be present the tobacco will be of good flavor. Carbonate of ammonia when heated evaporates without residue, and by the time the tobacco is finished or colored the heat will have driven nearly all the ammonia from the tobacco, and it may be wholly driven off by continuing the process at the boiling-point of ammonia, which is considered to be about 130° or 140° Fahrenheit.

In using a solution of ammonia I prefer not to use the aqua-ammonia of commerce, as it gives up its gas too quickly; but I dissolve about four pounds of the carbonate of ammonia in about forty-five gallons of water, and with this solution I wet the tobacco to be treated. Should the tobacco be extra rank or wild, I increase the strength of the ammonia

solution to meet the needs of the particular tobacco to be operated upon. The tobacco is then packed into cases and kept under heat until it is fermented, sweated, or colored, as the case may be.

Having thus described my invention or discovery, what I claim as new, and desire to secure by Letters Patent, is—

The process of preventing the formation of empyreumatic odors in tobacco during fermentation or sweating, which consists in applying ammonia to the tobacco and heating it sufficiently to ferment or sweat it, which will cause the ammonia to combine with and act upon the elements of the leaf sufficiently to eliminate or neutralize the empyreumatic odor-producing product, substantially as described.

CHARLES S. PHILIPS.

Witnesses:
CHAS. S. ENSIGN,
JOHN G. H. MEYERS.