UNITED STATES PATENT OFFICE.

JOHN TRENT, OF MAYO FORGE, VIRGINIA.

IMPROVEMENT IN COMPOSITIONS FOR TREATING TOBACCO.

Specification forming part of Letters Patent No. **202,680**, dated April 23, 1878; application filed May 4, 1877.

To all whom it may concern:

Be it known that I, JOHN TRENT, of Mayo Forge, in the county of Patrick and State of Virginia, have invented certain new and useful Improvements in Composition of Matter for Treating and Curing 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 appertains to make and use the same.

My invention relates to a new and useful composition of matter for treating and curing tobacco; and it consists of the following ingredients, in about the proportions specified: One to three pounds of brimstone, one to two pounds of soda, half-pound of copperas; the whole pulverized and thoroughly mixed together, with a sufficient quantity of wheat-bran to lighten the mass up and make it burn freely.

The manner in which this composition is used for curing the tobacco-leaf is by subjecting the leaves in a tight apartment to the fumes and gases generated from this composition, which composition is caused to burn in the apartment containing the tobacco.

In order to insure success with the use of this composition, I will proceed to describe in detail the treatment tobacco should receive if it is desired to effectually cure the same, and give to it a beautiful fine yellow color, thus enabling persons to realize a larger profit than they would have realized on their crops had it been treated in the ordinary way of treating tobacco, the tobacco also being cured in a quicker and more thorough manner than ordinarily.

To treat and cure tobacco according to my invention I proceed as follows:

All bruising of the leaves should be avoided as much as possible. In hanging or suspending it in the houses the sticks upon which the tobacco is strung should be separate and distinct, not less than one foot apart. The houses should be as tight as possible and uniform in size, and each separate class or grade of tobacco should be assigned or placed in separate houses—that is to say, put yellow tobacco from the patch in a house to itself, large ripe spotted tobacco in another house, large coarse heavy green tobacco in another house, and green pigtail in another house—each to itself and distinct. The reason of thus separating the different grades is because different degrees and durations of heat are necessary for each separate grade of tobacco, as follows: For ripe yellow tobacco from the patch, the heat should be raised to 100° under it, and kept at that heat for forty-two hours; then raise to 105° for three hours; then raise to 110°, and keep it up for five hours. For large ripe spotted tobacco, raise a heat of 95° under it, and keep that heat for thirty-eight hours; then raise to 100° for ten hours; then raise to 105° for three hours; then raise to 110°, and keep it up to these figures for five hours. For large heavy green tobacco, raise a heat of 90° under it, and keep that heat for thirty hours; then raise to 95° for ten hours; then raise for ten hours to 100°; then raise to 105° for three hours; then raise to 110° for five hours. For green pigtail tobacco, raise a heat of 85° degrees, and keep that heat for twenty-four hours; then raise to 90° for six hours; then raise to 95° for ten hours; then raise to 100° for twelve hours; then raise to 105° for three hours; then raise to 110° for five hours.

During the three hours process at 105° on each grade of tobacco one pound of brimstone and one pound of soda, mixed with wheat-bran, well pulverized together, is to be burned on several fires placed beneath the tobacco—that is to say, the above quantity to be divided among the several fires, and not that quantity on each fire.

About twenty small fires to every twenty square feet of house should be made. If the house is larger than twenty feet square the amount of ingredients should be increased in proportion, and the number of fires also increased. If smaller, decrease the quantity and fires in the same ratio.

During the five hours process at 110° on each grade of tobacco one pound of brimstone and one pound of soda, mixed with wheat-bran, the same amount as used for the 105°, must be used in the same way as above. When through with the five hours' process on each grade the heat should be raised to 115° on each grade for two hours; then raise to 120° for five hours. During the five hours process

at 120° on each grade three pounds of brimstone, two pounds of soda, half pound of copperas, pulverized together, with wheat-bran, must be used on each fire in the same manner as the first two amounts were used. The whole quantity should be used at once. When through with the five hours' process at 120° raise for two hours to 125°; for two hours 130°; for two hours 140°; for two hours 150°; for two hours 165°, which heat keep until stem and stock are perfectly and thoroughly cured.

In starting the fires commence at the rear of the house, and work toward the door; then when all is ignited close up tight.

The object in using the foregoing-mentioned ingredients is to extract the sweat from the tobacco, keep it in a healthy and drying condition, and to whiten the tobacco, and give it a beautiful face, also an agreeable taste and perfume.

Instead of using wheat-bran, any other similar substance may be substituted in place thereof, this ingredient in my composition forming no vital part thereof.

The copperas is used for the purpose of preventing fermentation and consequent decay. It also improves the flavor, and for this and the purpose previously referred to it is very generally employed in solution with water. I think that it acts, in combination with the other ingredients, more efficiently, and that it more thoroughly permeates the substance of the tobacco when volatilized in this way; and being thus incorporated with the tobacco during the process of drying, any subsequent drying is rendered unnecessary.

The design of employing the soda is in part to assist the bleaching properties of the sulphurous-acid gas generated by the burning brimstone, and, further, to neutralize any free acid which might otherwise remain in the tobacco after the conclusion of the process.

The brimstone, soda, and copperas in a pulverized or comminuted state are mixed with the bran or strewed on top of the same, and equal quantities of the compound are placed on each of the fires kindled within the drying-house.

My experiments have satisfied me that the ingredients named in about the proportions above stated act more efficaciously and produce a better result when employed together in the manner described than any other combination of ingredients or composition of which I am aware.

I am aware that tobacco has before been treated or subjected while in a moist or damp state to the action of sulphurous-acid gas; also, that charcoal has been mixed and burned together with sulphur in treating tobacco; also, that liquid ammonia has been used in connection with sulphurous-acid gas to neutralize any free sulphurous-acid gas that may remain in the tobacco. I therefore lay no claim to this.

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

The composition for curing tobacco, consisting of brimstone, soda, copperas, and wheat-bran, in about the proportions specified.

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

JOHN TRENT.

Witnesses:
J. W. HAMILTON JOHNSON,
WM. H. BRERETON.