E. WENDEROTH.

Process and Apparatus for Coloring Tobacco Leaves.

**No. 206,156.** **Patented July 16, 1878.**

*Fig. 1*

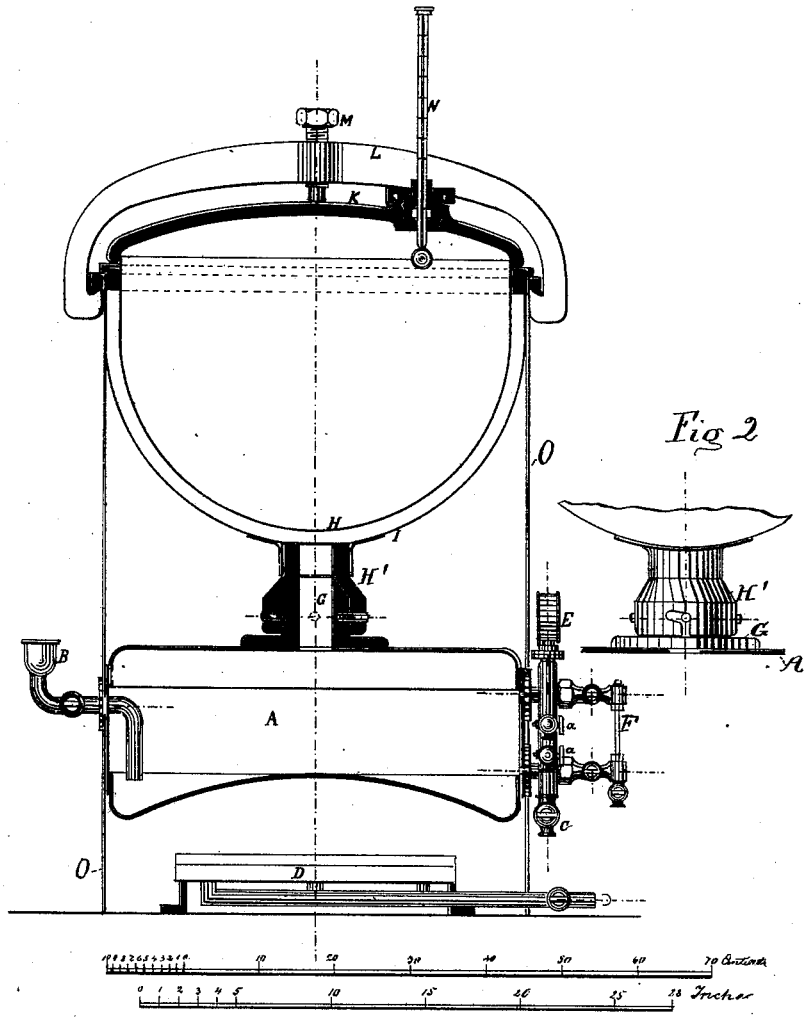


*Fig. 2*




Witnesses.

Martin Tanner

W. M. Evans.

Inventor

Ernst Wenderoth

per A. Schmeding

Attorney

# UNITED STATES PATENT OFFICE.

ERNST WENDEROTH, OF BREMEN, GERMANY.

## IMPROVEMENT IN PROCESSES AND APPARATUS FOR COLORING TOBACCO-LEAVES.

Specification forming part of Letters Patent No. **206,156**, dated July 16, 1878; application filed March 7, 1878.

*To all whom it may concern:*

Be it known that I, ERNST WENDEROTH, residing at Bremen, in the German Empire, have invented a certain Process and Apparatus for Coloring Tobacco-Leaves, of which the following is a specification:

It is a fact well known to all connected with the tobacco, or more especially the cigar, trade that, while the greatest demand exists for what may be known as "dark" cigars, but few prefer the "light" cigar, or the cigar having a light-brown wrapper. The dark cigars are thus not only much more readily sold, but invariably command a higher price.

Thus it will be seen how great a desideratum it is with the manufacturer to to be possessed of a cheap practicable means of converting the ordinary light-brown leaf into a leaf of the darkest hue, if desired. It is a common practice to color tobacco-leaves artificially by means of dyes or colors; but for obvious reasons this practice is to be condemned. It has also been proposed to color tobacco by subjecting it to the direct action of steam. This process, however, also has its disadvantages.

The present invention consists in a novel apparatus and process for coloring tobacco-leaves, as will be hereinafter fully explained, and specifically set forth in the claims.

In the accompanying drawing, forming part of this specification, Figure 1 is a vertical sectional view of the apparatus. Fig. 2 is a detail view.

The letter A denotes a water-receiver or boiler, which is provided with a water-inlet tube, B, on one side, and with a water-outlet tube, C, on the opposite side, of the boiler. The inlet-tube is provided with a suitable stop-cock to open or close the communication with the boiler.

The boiler or steam-generator A is heated by means of a gas-stove, D, located thereunder; or, when gas is not available, a petroleum stove or burner may be resorted to for furnishing the necessary heat. Suitable means may be employed for furnishing a regular flame at all times. The boiler is provided with a manometer, E, and with a glass gage-pipe, F, also with air-cocks *a*. These parts are necessary appendages of a complete steam-boiler, and the uses thereof are well known.

To the top plate of the boiler is secured a neck, G, which serves to form the connection with a double-walled or jacketed kettle, the latter also having a bottom neck, H′, which is connected with the neck of the boiler by means of a bayonet-fastening, as is more fully shown in Fig. 2 of the drawing. The steam generated in the boiler passes through the hollow necks G H and enters the space between the inner shell H and outer shell I, forming the double-walled kettle. The latter receives the tobacco to be treated or prepared, and it is closed steam-tight by means of a cover, K, which is secured by means of a yoke, L, and screw M. An opening is made in the cover for the introduction of a thermometer, N, so that the degree of heat existing inside of the kettle can be properly observed.

The entire apparatus heretofore described is inclosed by a sheet-metal shell, O, forming the support or stand of the various devices.

The manner of carrying out my process is as follows, viz: The tobacco-leaves are first moistened and the ribs or stems removed; then the leaves are piled or laid upon each other, and saturated with a decoction of fennel, to which is added a suitable quantity of Spanish or Greek wine. The object of this treatment is to expedite the fermentation or coloring of the leaves, and to impart an agreeable flavor to the tobacco. The leaves, after having been treated in this manner, are placed in the double-walled kettle, between moist tobacco-stems, and then the cover of the kettle is applied, so as to press down the contents of the kettle. The thermometer, together with the cover, are packed steam-tight by means of gaskets.

The kettle having been filled with tobacco and the cover secured in place, the gas-stove is set at work, in order to generate steam in the boiler. This steam serves to heat the contents of the kettle, and, as no vapors can escape therefrom, the tobacco is thoroughly permeated by said vapors, and thus caused to undergo a second fermentation, or what may be properly termed the "coloring process." The duration of the process is determined by the character or quality of the tobacco and the

degree of color to be given to the same; but generally the process takes seven or eight hours.

The leaves are removed from the kettle in a moist state, and can be worked up at once or at some future time.

Tobacco treated according to my process possesses the desired hue for cigar-wrappers, and has a superior flavor to tobacco otherwise treated.

As a resumé of my invention, I may state that it has never been proposed to treat tobacco in a hermetically-closed vessel to the action of vapors which are generated by moistening the tobacco with a flavoring compound or mixture, and then applying steam-heat to the vessel containing the tobacco. I desire it to be distinctly understood that I do not subject leaf-tobacco to the direct action of steam derived from a boiler. The steam-boiler shown in the presence instance is simply used for heating the contents of the kettle or tobacco-receiver.

I am also aware of the existence of a process for improving the quality of leaf-tobacco, in which certain chemical constituents of perfect tobacco are vaporized and forced into the tobacco by means of steam-pressure, the steam being generated in a boiler detachably connected with the tobacco-receiver. In this case the tobacco-receiver has a perforated bottom for the diffusion of the steam, and it is further provided with interior hooks for suspending the tobacco-leaves, and with a door for inserting and removing them.

The kettle used by me is jacketed, or provided with double walls, so as to be heated by steam, and it is detachably connected with the boiler by a simple bayonet-fastening, so that it can be readily removed from its supporting stand or casing for filling the kettle and discharging the contents thereof.

The kettle or tobacco-receiver is provided with a tightly-fitting cover, and the latter is secured in position and the kettle held in its supporting stand or casing by a single clamp and screw, said clamp engaging for this purpose with a top flange of the supporting-stand.

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

1. The process of treating leaf-tobacco herein described, consisting of moistening the same with a flavoring compound or mixture, and subjecting the moistened tobacco in a hermetically-closed vessel to the action of external heat for generating vapors within said vessels, as and for the purpose set forth.

2. The tobacco-moistening compound, consisting of a decoction of fennel and wine, as and for the purpose set forth.

3. The apparatus herein shown for carrying out my process, consisting essentially of the removable double-walled kettle H I, having a neck, H′, the supporting-stand O, stationary boiler A, having the neck G, the cover K, yoke L, and screw M, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ERNST WENDEROTH.

Witnesses:
GERARD V. NAWROCKE,
BERTHOLD ROI.