

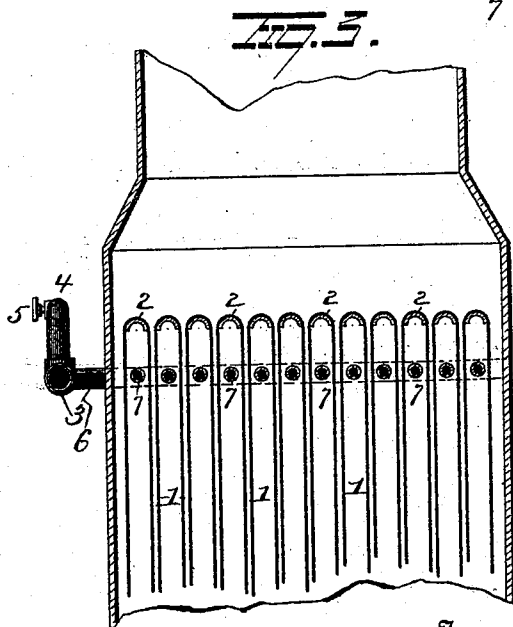
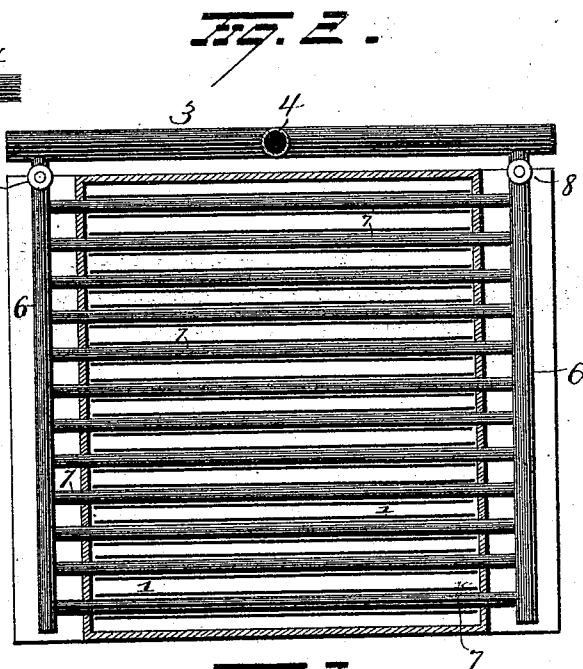
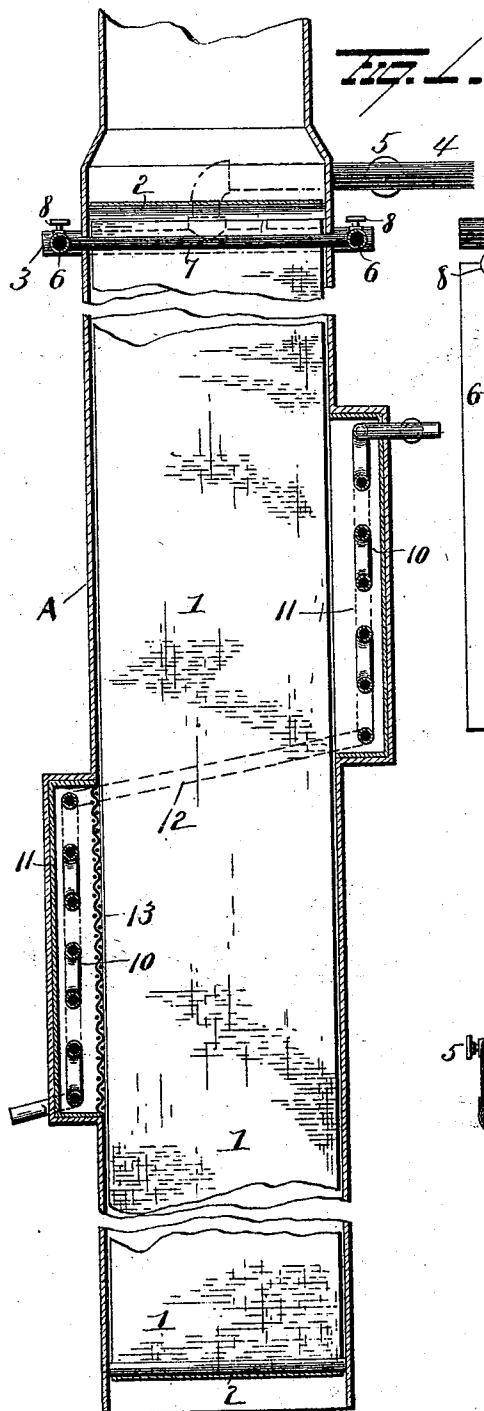
(No Model.)

G. A. & C. A. PEPLE.

MOISTENING CHAMBER FOR TOBACCO ORDERING APPARATUS.

No. 517,825.

Patented Apr. 3, 1894.



Witnesses
E. Nottingham
G. F. Downing

Inventors
G. A. & C. A. Peple
By H. A. Seymour
Attorney

UNITED STATES PATENT OFFICE.

GUSTAVUS A. PEPLE AND CHARLES A. PEPLE, OF RICHMOND, VIRGINIA, ASSIGNORS TO THE MAYO-TOBACCO DRYING AND ORDERING COMPANY, OF SAME PLACE.

MOISTENING-CHAMBER FOR TOBACCO-ORDERING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 517,825, dated April 3, 1894.

Application filed January 14, 1893. Serial No. 458,409. (No model.)

To all whom it may concern:

Be it known that we, GUSTAVUS A. PEPLE and CHARLES A. PEPLE, of Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Moistening-Chambers for Tobacco-Ordering Apparatus; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to an improvement in moistening chambers for tobacco ordering apparatus, and it has reference to a portion of the invention disclosed but not claimed in application, Serial No. 443,294, filed August 17, 1892.

In the accompanying drawings, Figure 1 is a view in side elevation of our improved apparatus and Fig. 2 is a plan view, partly in section, and Fig. 3 is a detail.

A represents the moistening chamber. This may be made in any shape and of any material desired but preferably it is rectangular in cross section. The chamber is open at the top and bottom for the passage of air through it. In order to moisten the air as it passes up through the chamber, the usual moistening cloths 1, 1, are extended side by side from the upper to the lower end of chamber, where they are passed over rods 2, 2, or other supports which keep them in position. In placing these cloths in position sufficient space is left between them to allow the air to freely circulate and at the same time they are near enough together to thoroughly moisten the air as it passes. The cloths are kept saturated by a constant sprinkling which takes place at their upper ends. This is conveniently done by means of a system of pipes such as we have illustrated in Fig. 2. In this view a water main 3 is shown located at one side of the chamber. This main is supplied constantly with water from a supply pipe 4, the head of water being regulated by a valve 5. From the main 3, branch pipes 6, 6, extend on opposite sides of the chamber A and perforated sprinkling pipes 7, 7, extend from one of these pipes 6 to the other, passing through the

chamber, and one between the two folds of each cloth 1. Valves 8, 8, are usually placed in each of the pipes 6, 6, so that the water supply may be regulated or confined to either of the pipes 6 if desired. Heretofore this feed has generally been confined to one side only but we find that the results are more satisfactory, if the perforated or sprinkling pipes are supplied from both ends.

For various reasons, such as increasing evaporation and restoring the lost heat of the air in its upward passage through the moistening chamber, we provide heating coils or steam radiators at suitable points in the chamber. There may be one or more sets of coils as at 10, 10, as the case may be and to have them out of the way they are located in the off-sets or lateral chambers 11, 11, as shown in Fig. 1. When two or more of these sets of coils are used they may be connected outside by means of pipes 12, 12, and in order to prevent radiation from the off-sets or lateral chambers they may be lined in the usual way with asbestos or any other suitable material. Also to prevent water from dripping or splashing onto the coils, the wire gauze 13 may be stretched across between the coils and the cloths.

It is sometimes desirable to utilize the device as a cooling chamber. For this reason we provide the radiator or radiators with a valve or valves for shutting off the steam supply. By so doing all heat is excluded from the chamber and the air is merely cooled and moistened. The air is fed or forced into the lower end of the chamber by means of fans not shown or it may be sucked through by means of suction fans located at the upper end or in any other convenient manner. In conclusion it may be explained that the air which enters the lower end of the moistening chamber at a certain temperature becomes reduced in temperature by virtue of its contact with the wet cloths and its absorption of moisture. To restore the lost heat and thus increase the capacity of the air for absorbing still more moisture, and becoming saturated as far as possible, the steam coils are employed, this being their main function; secondarily, the

coils heat the cloths at these points and increase evaporation and the moisture thus created is absorbed by the passing air and by the time it is discharged from the chamber is in condition for effecting the best results.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of our invention and hence we would have it understood that we do not limit ourselves to the exact construction herein set forth, but,

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a chamber through which air is circulated, and cloths extending longitudinally through said chamber with spaces between them for the circulation of air, of a main, branch pipes leading from the main on each side of the chamber, valves in the branch pipes, and sprinkling pipes having perforations therein, said sprinkling pipes extending across through the chamber and

cloths from one branch pipe to the other, substantially as set forth.

2. The combination with a chamber having radiators at the sides thereof for supplying heat to the chamber, of cloths extending through the chamber, and perforated sprinkling pipes for supplying water to the cloths, substantially as set forth.

3. The combination with a chamber having lateral recesses, radiators in these recesses, and wire gauze extending across the mouths of the recesses, of moistening cloths, and sprinkling pipes located at the upper ends of the cloths for supplying moisture to them, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

GUSTAVUS A. PEPLE.
CHARLES A. PEPLE.

Witnesses:

DEANE MAURY,
WM. H. CHRISTIAN.