

(No Model.)

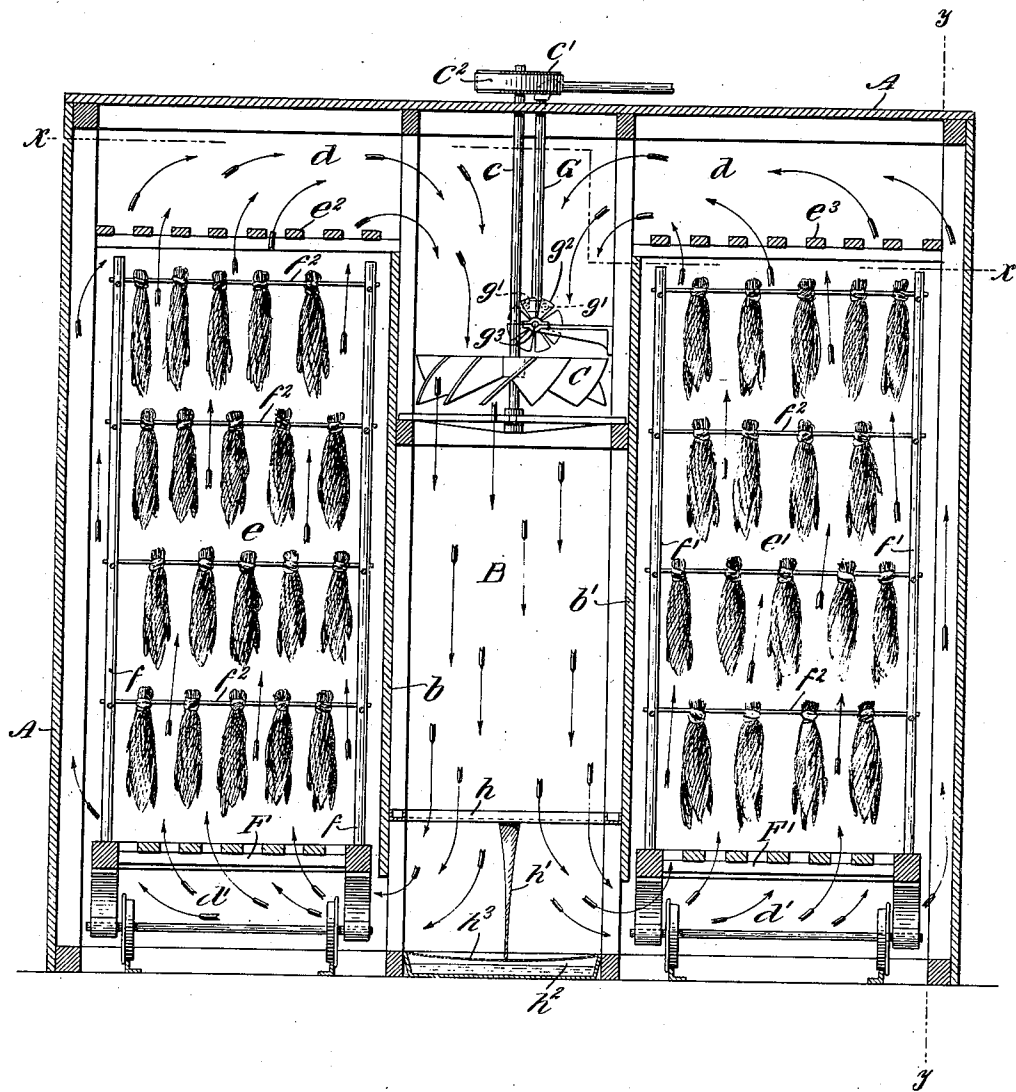
3 Sheets—Sheet 1.

J. K. PROCTOR.
APPARATUS FOR ORDERING TOBACCO.

No. 553,723.

Patented Jan. 28, 1896.

Fig: 1



Witnesses:

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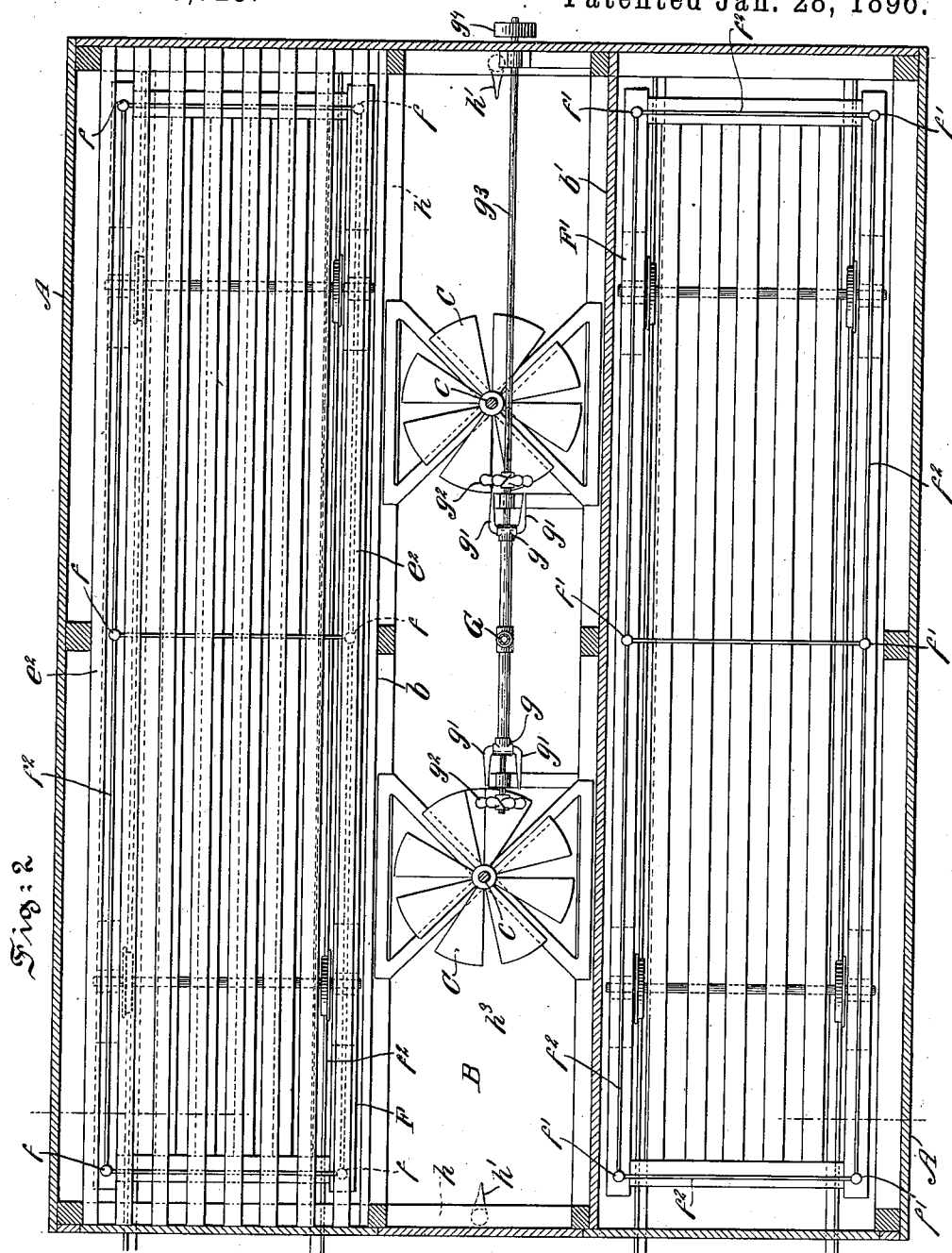
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No. 553,723.

Patented Jan. 28, 1896.



Witnesses:
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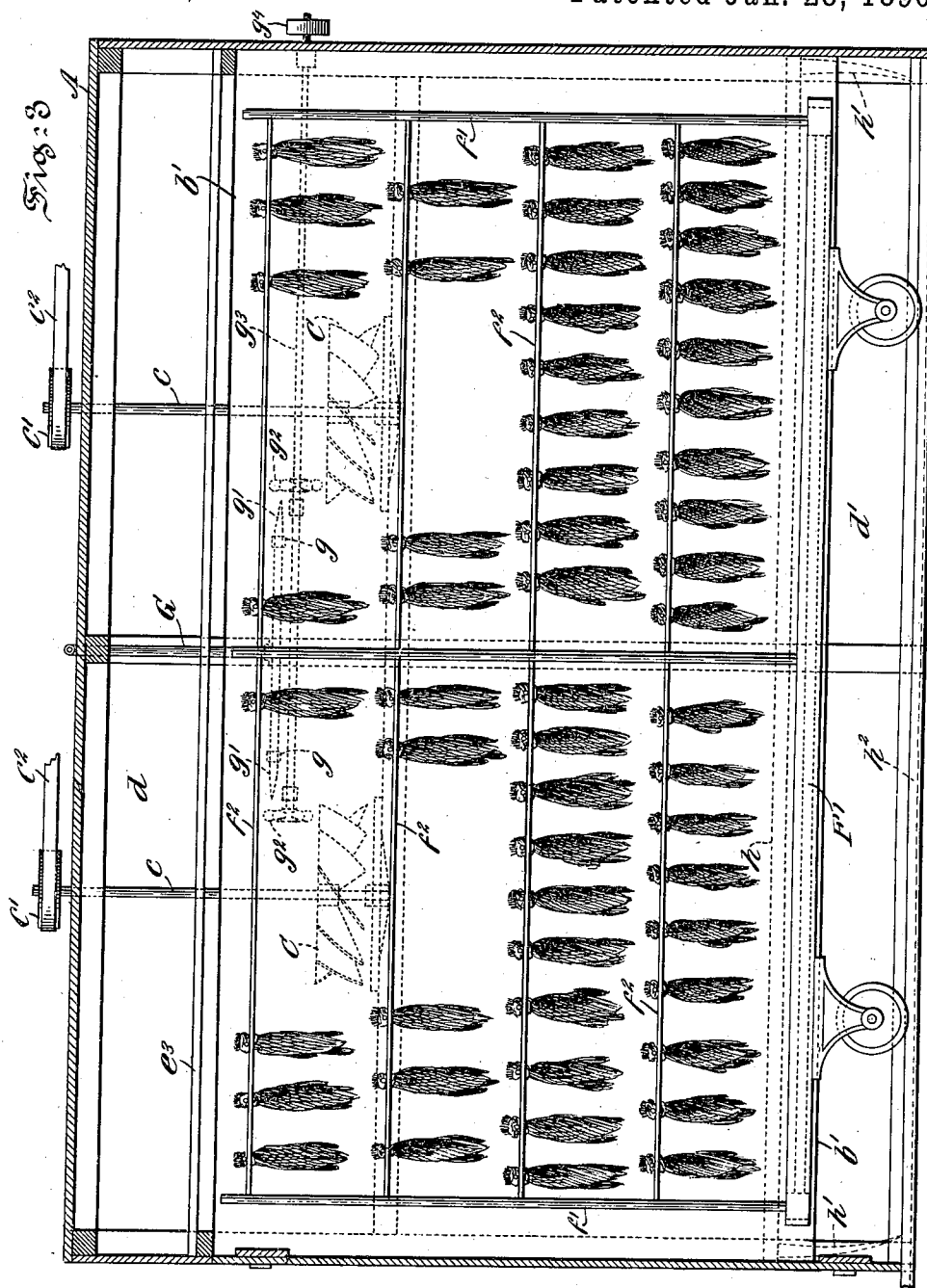
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No. 553,723.

Patented Jan. 28, 1896.



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UNITED STATES PATENT OFFICE.

JOSIAH K. PROCTOR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE PHILADELPHIA TEXTILE MACHINERY COMPANY, OF SAME PLACE.

APPARATUS FOR ORDERING TOBACCO.

SPECIFICATION forming part of Letters Patent No. 553,723, dated January 28, 1896.

Application filed September 6, 1894. Serial No. 522,241. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH K. PROCTOR, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Apparatus for Ordering Tobacco, of which the following is a specification.

My invention has relation to apparatus for ordering tobacco.

The principal object of my invention is to provide an apparatus for hastening the ordering of tobacco by preventing any tendency to scorching or scalding thereof, and thereby to render the tobacco sweet in taste, and so conducting the ordering as to permit of the subsequent handling of the same with perfect safety and without fear of crushing the leaf.

My invention consists of an apparatus adapted for ordering tobacco, substantially as hereinafter described and claimed.

The nature and general features of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a vertical sectional view through an apparatus embodying features of my invention and such as in practice have been found well adapted for the ordering of tobacco according to my invention. Fig. 2 is a top view on the line $x x$ of Fig. 1 with the top of the housing removed; and Fig. 3 is a vertical cross-sectional view on the line $y y$ of Fig. 1, showing the internal arrangement of certain of the compartments or communicating chambers of the apparatus of my invention.

Referring to the drawings, A is a housing of any suitable shape or form.

b and b' are partitions forming the walls of a vertical central open top and bottom chamber B, provided with fans or agitating devices C, mounted on shaft c therein, which shafts extend through the top of the housing A and are provided with pulleys c' engaged by belts c'' , which are actuated from any suitable source of power. (Not shown.)

d and d' are top and bottom cross-chambers partially separated from the vertical side chambers e and e' by means of barriers con-

sisting of slats or strips e^2 and e^3 at the top, and by movable barriers such as slatted frames or trucks F and F' at the bottom. These frames or trucks are provided with uprights or supports f and f' and with a series of cross-rods f^2 for suspending therefrom bundles of tobacco in the chambers e and e' . These chambers e and e' are arranged so that a direct communication is established with the cross-chambers d and d' through the openings or slits in the top and bottom of said chambers e and e' , as clearly illustrated in Fig. 1 of the drawings.

G is a water-supply extending downward through the top of the housing A and provided with a T-branch g , having tapering ends or nozzles g' , arranged in the path of rotatable agitators or fans g^2 , which are supported on a shaft g^3 , rotated through a pulley g^4 by means of a belt from any suitable source of power, (not shown,) whereby the water in its passage through the branch pipe g of the supply G is discharged in the form of a fine spray into the presence of the air in the central chamber B and caused thereby to circulate, under the vigorous agitation of the fans C, continuously through the series of internal chambers of the housing A, induced by suction, so as to give off the humidity created in the air to the tobacco, which is absorbed thereby on all sides or surfaces thereof, not only to dampen the same, but also to completely effect the uniform ordering thereof.

It may be here remarked that tobacco has an affinity for humid air, and the conditions and arrangements of the internal parts of the apparatus as above explained are such that most satisfactory results are obtained in the ordering, and in consequence subsequent working of the tobacco can be readily effected without fear of the crushing or crumbling of the same. It may be further remarked that the slatted roof and bottom of each of the chambers e and e' afford the means whereby in the passage of the volume of humid air into the presence of the suspended leaf-tobacco it is enabled to momentarily expand and thus thoroughly, as practice has demonstrated, order the tobacco, and the air deprived of its humidity given off to the tobacco and absorbed thereby to a greater or less extent,

under the influence of suction, is success-
 5 ively liberated into the presence of the atom-
 izing and forcing appliances in the central
 chamber of the apparatus, where it is revivi-
 fied and again presented in a humid condi-
 10 tion to the tobacco to completely order the
 same. It will be observed that the circula-
 tion of the humid air is continuous, and also
 that it may be made more or less vigorous,
 15 according as the speed of the fans or agitat-
 ing devices C are increased or decreased.
 Again these devices are the means for forcing
 the humid air continuously by circulation and
 recirculation through the apparatus into the
 20 presence of the tobacco suspended in certain
 of the chambers of the apparatus, aided by
 suction.

The slatted bottom frames or trucks of the
 apparatus can be removed with the tobacco
 25 supported thereon through doors to be pro-
 vided in the walls of the housing A.

Any water in bead or drop form carried by
 the air in the central chamber B and thrown
 against the partitions *b* and *b'* will drip into
 30 an annular trough *h* in the lower part there-
 of, as clearly shown in Fig. 1. This trough
h may be provided with a strip of burlap or
 other suitable material *h'*, depending there-
 from into a pan or drip-receptacle *h*², as
 35 clearly illustrated in Fig. 1 of the drawings,
 and provided with a loose cover or strip of
 burlap or other absorbent material *h*³, spread
 over the said pan, whereby through capillary
 attraction beads or drops of water liberated
 40 from the air and falling in the mixing and
 agitating chamber B will ultimately find their
 way into the pan or drip-receptacle *h*², and
 may be removed therefrom through an outlet
 in the bottom of the pan. (Not shown.)

The arrangement of the apparatus de-
 45 scribed for the carrying out of the invention,
 as hereinbefore explained, is such as to per-
 mit of great uniformity of action of the moist
 air among and upon the confined tobacco, so
 that absorption of the moisture of the air by
 50 the tobacco is very evenly accomplished
 throughout in the tobacco-chambers of the
 apparatus. This was not the case with ap-
 paratus as hitherto employed, because the
 55 air was admitted in large volume at one point
 and drawn off in like volume at an opposite
 point for being revived, occasioning by such
 arrangement undue wetting of the tobacco
 exposed to the influence of the volume of
 60 such air with its serious consequence of the
 rotting of the tobacco or of the same becom-
 ing moldy, and thus unsalable or unfit for
 subsequent use, because when removed from
 the ordering-chambers it had to in bulk be
 65 "drawn" in order as nearly as possible by
 diffusion to bring it to a state of some uniform-
 ity, but then had to be picked before "priz-
 ing" or pressing for the storage thereof.
 Again in removing it has been found to be
 either too wet to be stored or else too dry.

In the practice of the present invention

perfect uniformity of ordering is insured for
 the reason that all the tobacco is subjected
 to like currents of humidified air, which re-
 mains in uniform condition and contact with
 the tobacco during the entire period of or-
 dering, and the affinity of the tobacco for
 such an atmosphere is fully carried out, so
 that prizing of the same for storage can be
 effected upon removal from the ordering-com-
 partments without "bulking" or "picking"
 or the expense incident thereto.

It will be manifestly obvious to those skilled
 in the art to which my invention appertains,
 as extended practice thereof has demon-
 strated, that modifications as to details of
 construction of the apparatus for carrying out
 my invention can be made without departing
 from the spirit or scope of the same.

Having thus described the nature and ob-
 jects of my invention, what I claim as new,
 and desire to secure by Letters Patent, is—

1. An apparatus for ordering tobacco, com-
 prising a housing provided with a central
 chamber within which is created a humid at-
 mosphere by the spraying of water into air,
 side chambers provided with top and bottom
 barriers connected with said central chamber
 so that the humid air conveyed from said
 central chamber may be absorbed by the to-
 bacco in said side chambers, suction means
 in said central chamber for causing the air
 deprived of its humidity to be withdrawn be-
 10 tween the top barriers of said chambers and
 to be presented to an atmosphere adapted to
 revivify the same in said central chamber and
 to be conveyed again into the tobacco side
 chambers to effect uniform ordering thereof,
 substantially as and for the purposes de-
 scribed.

2. An apparatus for ordering tobacco, com-
 prising a housing provided with a central
 chamber having agitating and atomizing ap-
 pliances therein, top and bottom chambers in
 communication with said central chamber
 and with side chambers having the roof and
 bottom of each of them provided with slats,
 and means for actuating said agitating and
 atomizing appliances so as to cause a circula-
 15 tion and recirculation of humid air through
 said chambers, substantially as and for the
 purposes described.

3. An apparatus for ordering tobacco, com-
 prising a housing provided with a central
 chamber, side chambers provided with slat-
 ted roofs, top and bottom chambers, means
 in said central chamber for creating and
 maintaining a humid atmosphere therein for
 presenting continuously to tobacco in said
 side chambers to dampen and order the same,
 and a movable frame or truck having slatted
 bottoms mounted in said side chambers, sub-
 20 stantially as and for the purposes described.

4. An apparatus for ordering tobacco, com-
 prising a housing provided with a central
 chamber having atomizing and agitating ap-
 pliances therein, side chambers adapted for

5 suspending tobacco therein, top and bottom chambers connected with said central chamber and in communication with said side chambers, provided with slatted bottoms and roofs for momentarily confining moist air in said chambers, a trough having absorbent material, a pan or drip receptacle in said central chamber and provided with a cover of absorbent material, and means for actuating

said atomizing and agitating appliances, substantially as and for the purposes described. 10.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

JOSIAH K. PROCTOR.

Witnesses:

THOMAS M. SMITH,
RICHARD C. MAXWELL.