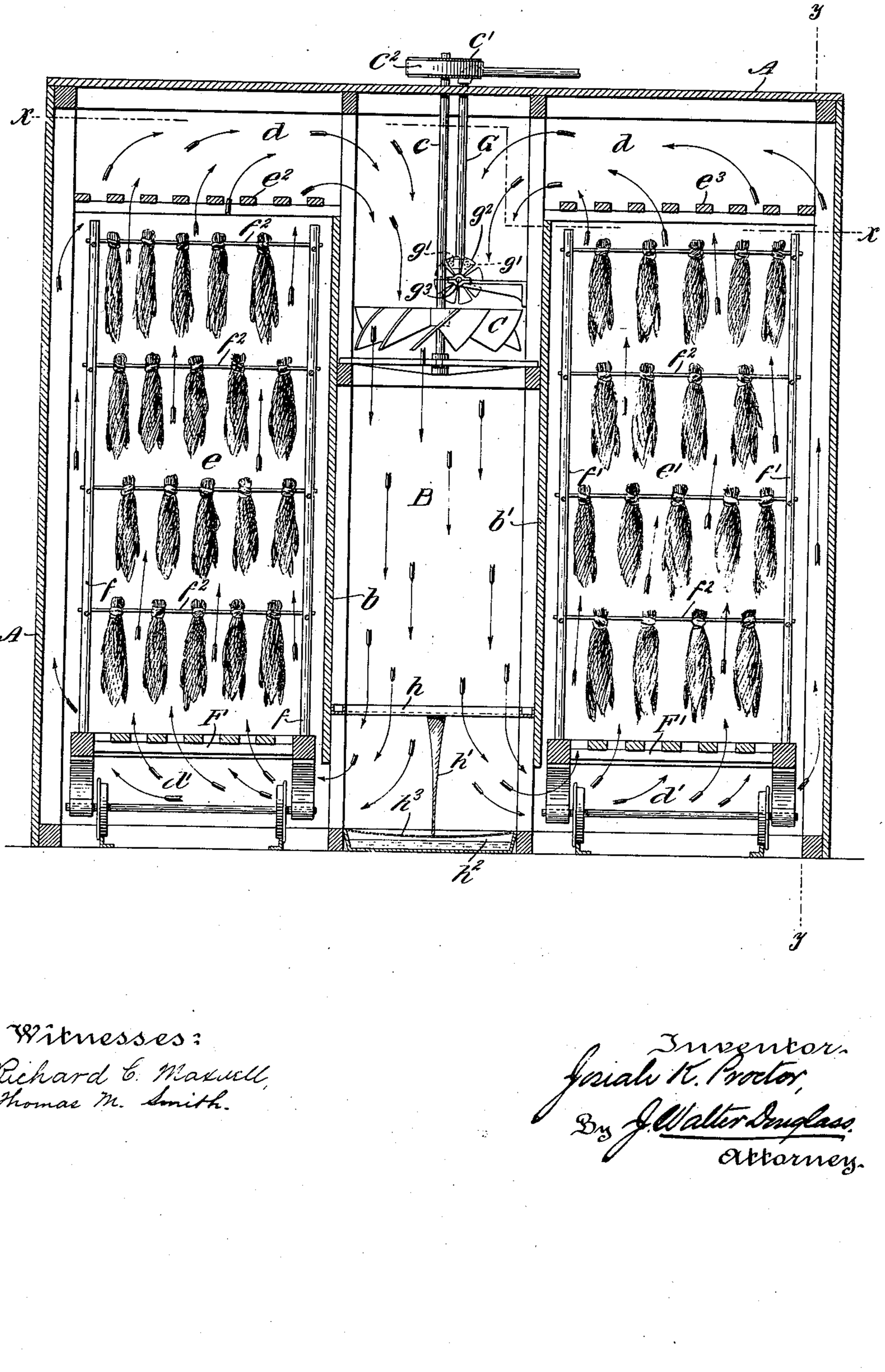
(No Model.) 3 Sheets—Sheet 1.

J. K. PROCTOR.

APPARATUS FOR ORDERING TOBACCO.

No. 553,723. Patented Jan. 28, 1896.

Fig: 1



Witnesses:
Richard E. Maxwell,
Thomas M. Smith.

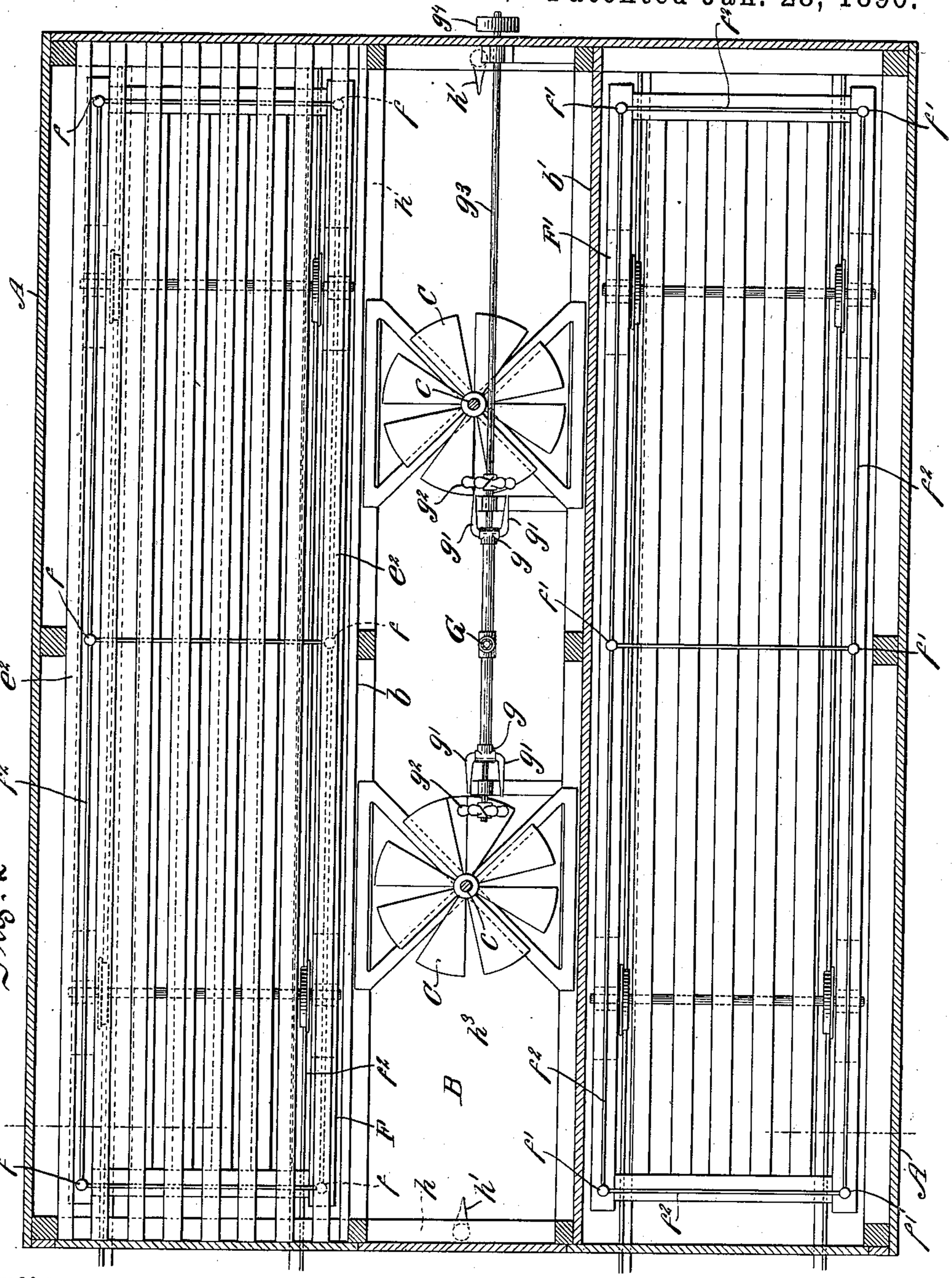
Inventor.
Josiah K. Proctor,
By J. Walter Douglass.
Attorney.

(No Model.) 3 Sheets—Sheet 2.

J. K. PROCTOR.

APPARATUS FOR ORDERING TOBACCO.

No. 553,723. Patented Jan. 28, 1896.



Witnesses:
Richard C. Maxwell.
Thomas M. Smith.

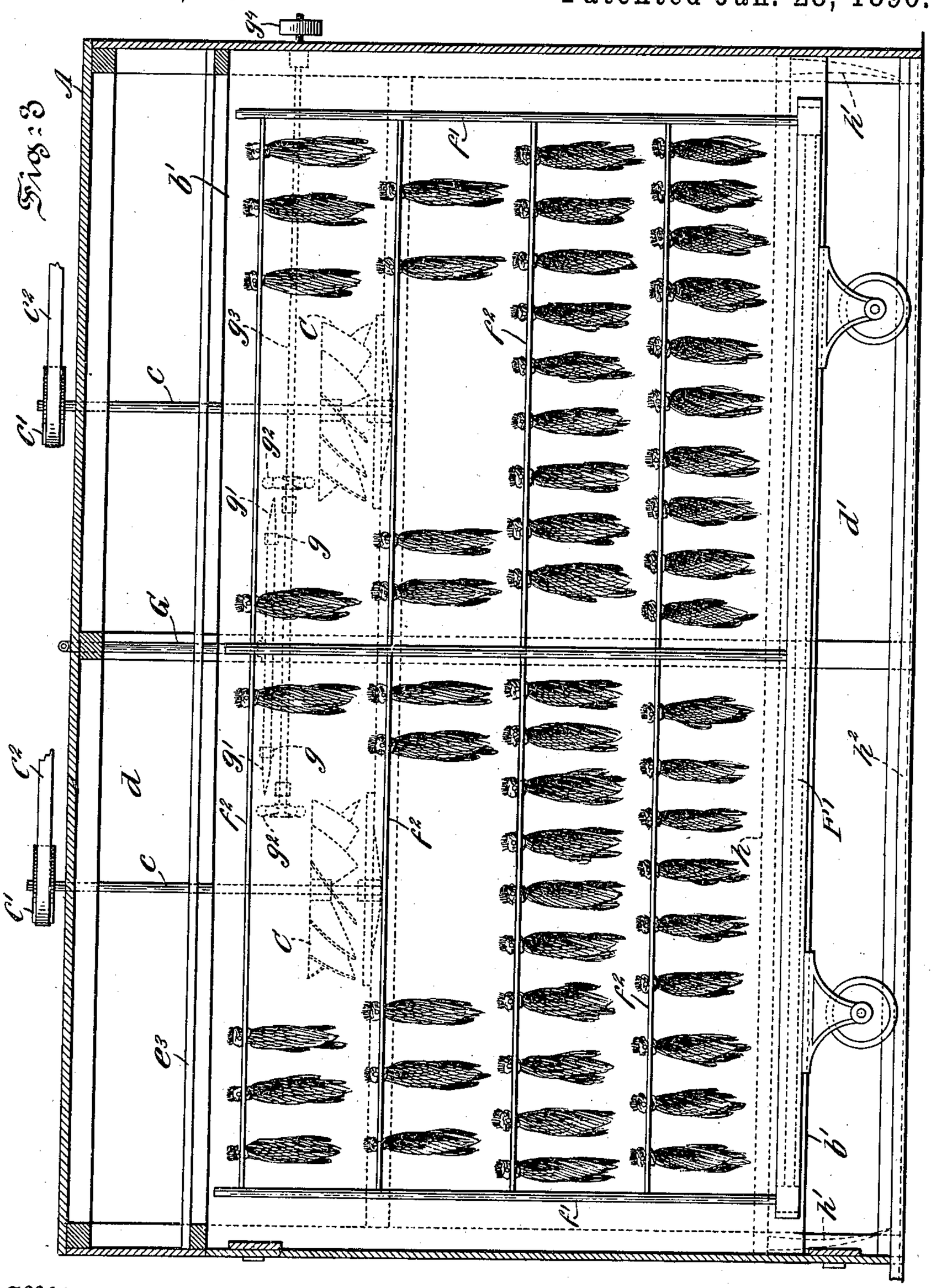
Inventor.
Josiah K. Proctor,
By J. Walter Douglass
Attorneys.

(No Model.) 3 Sheets—Sheet 3.

J. K. PROCTOR.

APPARATUS FOR ORDERING TOBACCO.

No. 553,723. Patented Jan. 28, 1896.



Witnesses:
Richard C. Maxwell,
Thomas M. Smith.

Inventor.
Josiah K. Proctor.
By J. Walter Douglass.
Attorney.

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^2, 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 consisting 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 successively liberated into the presence of the atomizing and forcing appliances in the central chamber of the apparatus, where it is revivified and again presented in a humid condition to the tobacco to completely order the same. It will be observed that the circulation of the humid air is continuous, and also that it may be made more or less vigorous, according as the speed of the fans or agitating 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 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 supported thereon through doors to be provided 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 an annular trough h in the lower part thereof, as clearly shown in Fig. 1. This trough h may be provided with a strip of burlap or other suitable material h', depending therefrom into a pan or drip-receptacle h^2, as 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 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 described for the carrying out of the invention, as hereinbefore explained, is such as to permit 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 the tobacco is very evenly accomplished throughout in the tobacco-chambers of the apparatus. This was not the case with apparatus as hitherto employed, because the air was admitted in large volume at one point and drawn off in like volume at an opposite point for being revivified, occasioning by such arrangement undue wetting of the tobacco exposed to the influence of the volume of such air with its serious consequence of the rotting of the tobacco or of the same becoming moldy, and thus unsalable or unfit for subsequent use, because when removed from the ordering-chambers it had to in bulk be "drawn" in order as nearly as possible by diffusion to bring it to a state of some uniformity, but then had to be picked before "prizing" 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 remains in uniform condition and contact with the tobacco during the entire period of ordering, 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-compartments 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 demonstrated, 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 objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An apparatus for ordering tobacco, comprising a housing provided with a central chamber within which is created a humid atmosphere 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 tobacco in said side chambers, suction means in said central chamber for causing the air deprived of its humidity to be withdrawn between 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 described.

2. An apparatus for ordering tobacco, comprising a housing provided with a central chamber having agitating and atomizing appliances 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 circulation and recirculation of humid air through said chambers, substantially as and for the purposes described.

3. An apparatus for ordering tobacco, comprising a housing provided with a central chamber, side chambers provided with slatted 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, substantially as and for the purposes described.

4. An apparatus for ordering tobacco, comprising a housing provided with a central chamber having atomizing and agitating appliances therein, side chambers adapted for

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.

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.