

No. 702,123.

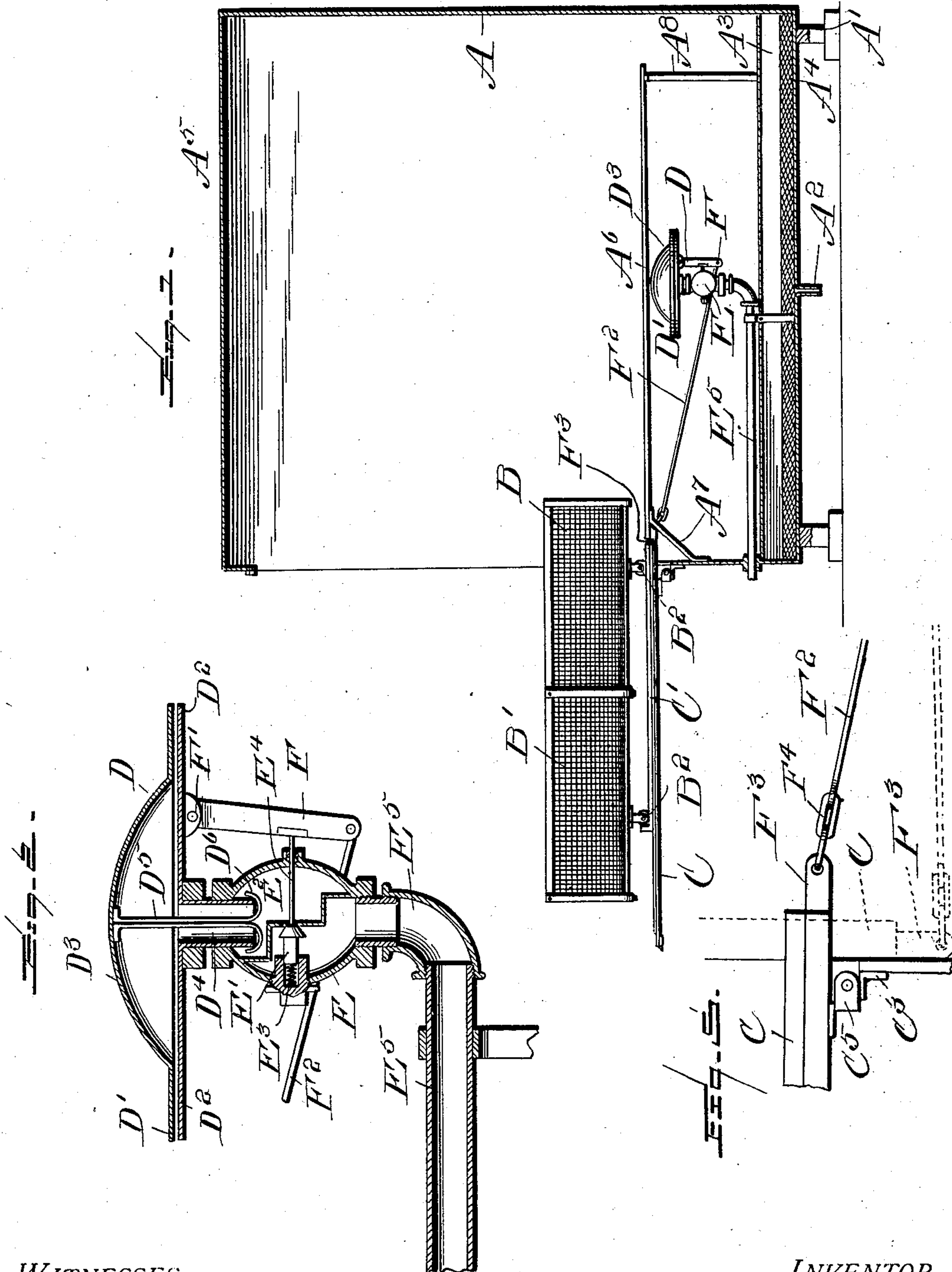
Patented June 10, 1902.

C. M. ARMSTRONG.  
TOBACCO STEAMER.

(Application filed Apr. 5, 1902.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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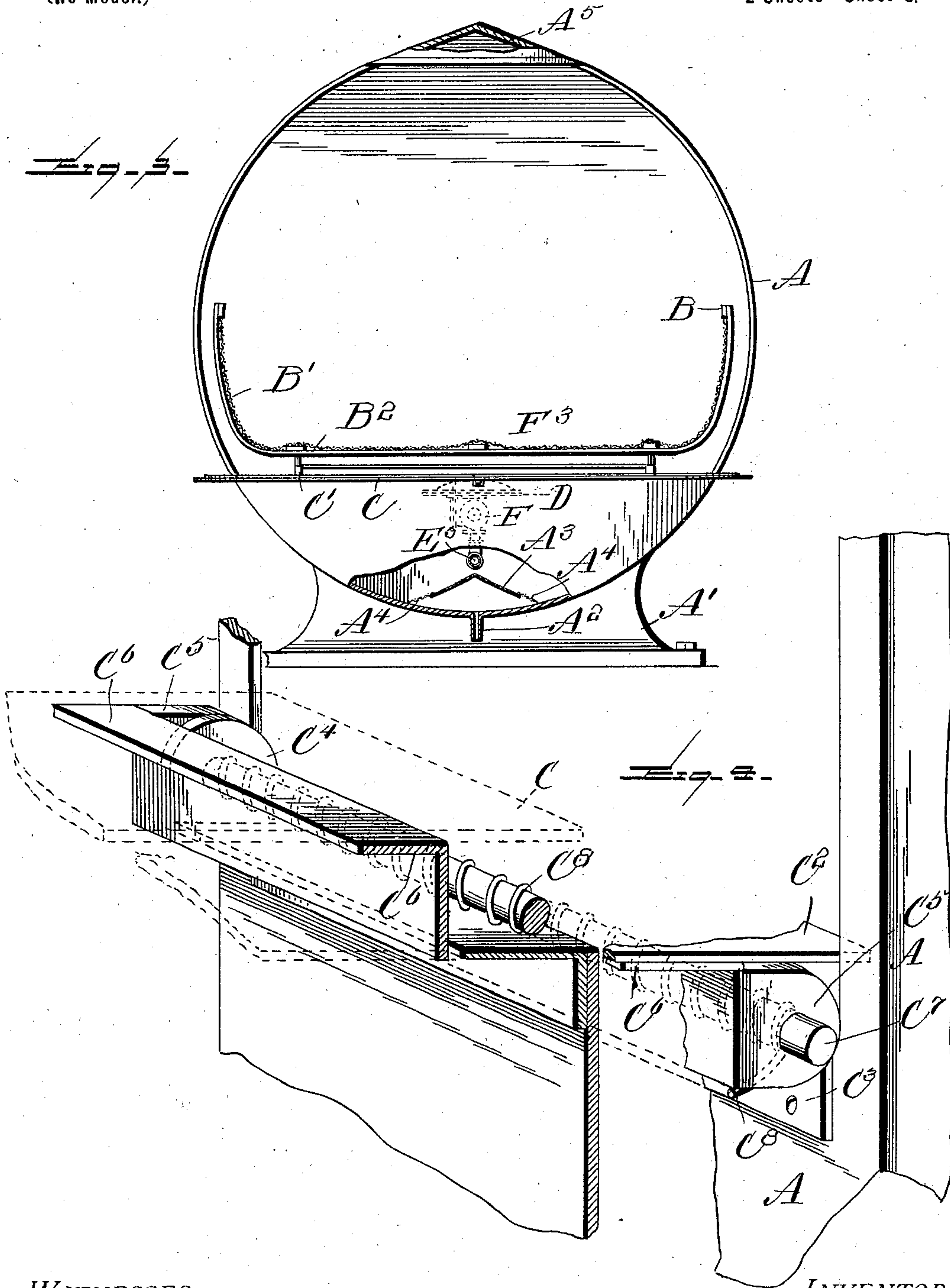
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# UNITED STATES PATENT OFFICE.

CHARLES M. ARMSTRONG, OF HOPKINSVILLE, KENTUCKY.

## TOBACCO-STEAMER.

SPECIFICATION forming part of Letters Patent No. 702,123, dated June 10, 1902.

Application filed April 5, 1902. Serial No. 101,566. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES M. ARMSTRONG, a citizen of the United States, residing at Hopkinsville, in the county of Christian, State of Kentucky, have invented certain new and useful Improvements in Tobacco-Steaming, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to a tobacco-steamer, and particularly to a structure comprising a casing, a receiving-basket therein, and a steaming device within the casing.

15 The invention has for an object to provide an improved construction of parts whereby the steaming device within the casing may be opened as the door of the casing is closed and all water from the condensation of the steam within the casing conducted from the same without contact with the tobacco in the basket.

20 A further object of the invention is to provide a new and improved construction of steaming device adapted to be operatively connected with the door of the casing and to permit the escape of the steam, so as not to come into direct contact with the contents of the basket.

25 Other and further objects and advantages of the invention will be hereinafter set forth, and the novel features thereof defined by the appended claims.

30 In the drawings, Figure 1 is a longitudinal section through the casing with the door and basket in full lines. Fig. 2 is a detail vertical section of the steaming device. Fig. 3 is an end view of the invention with the door open and the parts broken away and in section. Fig. 4 is a detail perspective of the door-hinge, with a portion of the same broken away to show the closing-spring, the door being indicated by dotted lines; and Fig. 5 is a detail of the valve-lever carried by the door.

35 Like letters of reference refer to like parts in the several figures of the drawings.

40 The letter A designates a casing of any desired material adapted to be supported upon a base A' of any configuration. This casing is circular at its lower portion, so as to conduct downward the condensed steam which may settle thereon and discharge the same through a drain connection A<sup>2</sup> at the bottom

of the casing. Above this drain connection an inclined guard-plate A<sup>3</sup> is placed, having at its lower ends screened outlet-passages A<sup>4</sup>. 55 The upper portion of the casing is merged from a circular line into an angular apex A<sup>5</sup>, so as to present inclined surfaces extending in opposite directions from the apex and adapted to convey any moisture which may be deposited thereon downward over the curved faces of the casing, and thereby prevent the dripping thereof into the basket B, which contains the tobacco to be steamed. This basket may be of any desired material or construction, although preferably reticulated, as shown at B', and provided with bearing-wheels B<sup>2</sup>, adapted to travel upon a track A<sup>6</sup>, supported within the casing A by means of a bracket A<sup>7</sup> at one end and a supporting-bracket A<sup>8</sup> at the opposite end. Coöperating 60 with the track A<sup>6</sup> is a corresponding track C', located upon the hinged door C, which track and door are extended beyond the pivot, as shown at C<sup>2</sup>, so as to bring the tracks adjacent to each other when the door is opened and to form an overlapping portion when the door is closed into a vertical position. This door is pivotally mounted in any desired manner—for instance, by means of a plate C<sup>3</sup>, secured to the casing A and provided with upwardly-extending lugs C<sup>4</sup>, to which similar lugs C<sup>5</sup>, carried by the hinged plate C<sup>6</sup>, secured to the door, are pivoted by means of a rod C<sup>7</sup>. Surrounding this rod and suitably 65 secured at its opposite ends is a coiled spring C<sup>8</sup>, which is placed under tension as the door is opened and immediately closes the door when the basket is removed therefrom.

70 The steaming device D is shown in detail by Fig. 2 and consists of a disk D', normally resting upon a plate D<sup>2</sup> and provided with a central chamber D<sup>3</sup>, into which the steam from the pipe D<sup>4</sup> passes to raise the disk and permit the escape of steam in a horizontal direction beneath the basket. The extent of 75 movement of this disk is limited by means of the depending arms D<sup>5</sup>, provided with hooks D<sup>6</sup> to engage the lower end of the pipe D<sup>4</sup> in the upward movement of the disk when under steam-pressure. The pipe D<sup>4</sup> is connected to any suitable form of valve—for instance, a casing E, provided with a valve E', normally seated in a partition E<sup>2</sup> by means of the 80 85 90 95 100



coiled spring  $E^3$ , said valve being provided with a stem  $E^4$ , extending through a packing and beyond the casing. The valve is connected with any suitable source of steam-supply by means of a piping  $E^5$ , suitably supported within the casing and extending through the same. For the purpose of opening the valve  $E^1$  to permit the discharge of steam a lever  $F$  is pivotally secured at one end, as at  $F'$ , to the under face of the plate  $D^2$ , and from the opposite end thereof a rod  $F^2$  extends to the lever-arm  $F^3$ , carried by the door, and is flexibly connected therewith by any suitable means—for instance, a link connection  $F^4$ . This lever bears upon the end of the stem  $E^4$  when the door is closed, thus opening the valve, but as soon as the door is opened the pressure of the lever is relieved and the spring  $E^3$  closes the valve. In Fig. 2 the parts are shown with the lever holding the valve open for the escape of steam within the casing.

From the foregoing description it will be seen that the reticulated basket for receiving the tobacco may be readily rolled outward from the casing and upon the door-section  $C$  for the purpose of placing material therein or removing the steamed tobacco therefrom. When the door is closed, a tight joint is effected, as the portion  $C^2$  overlaps at the hinge end, while at the outer end of the door a suitable packing may be provided at the point of contact. When the door is closed, the rod  $F^2$  is drawn toward the door and the valve opened to permit the escape of steam between the plate  $D^2$  and the disk  $D'$ , thus providing a spray beneath the basket and out of direct contact therewith, by which a thorough and even steaming of the tobacco may be effected without depositing any undue moisture. The construction of casing with the angular upper portion and curved side walls is especially adapted to prevent any dripping into the basket. It will also be seen that the small particles or trash tobacco which fall downward from the basket will be supported upon the guard-plate  $A^3$ , so that the water from the condensed steam will come into contact therewith, and by passing therethrough extracts the strength from the tobacco, so that when caught from the drain-pipe it may be used for any of the various purposes to which this water is applied. As soon as the door is opened the tension of the rod  $F^2$  is immediately relieved, permitting the valve to close and the basket to be removed for supplying new material for a subsequent operation.

It will be obvious that changes may be made in the details of construction and configuration without departing from the spirit of the invention as defined by the appended claims.

Having described and set forth the merits of the invention, what I claim, and desire to secure by Letters Patent, is—

1. In a tobacco-steamer, a casing provided

with a door, a basket therein, a steaming device within said casing provided with a valve, and a connection between said valve and door for operating the former; substantially as specified. 70

2. In a tobacco-steamer, a casing provided with a door, a basket therein, a steaming device within said casing provided with a valve, a connection between said valve and door for operating the former, a track within said casing above said steaming device, and a track-section upon said door in alinement with the track of the casing; substantially as specified. 80

3. In a tobacco-steamer, a casing provided with a door, a basket therein, a steaming device within said casing provided with a valve, a connection between said valve and door for operating the former, a track within said casing above said steaming device, a track-section upon said door in alinement with the track of the casing, an angular apex to said casing, and a guarded drain connection at the lower portion of said casing; substantially as specified. 90

4. In a tobacco-steamer, a casing having a circular outline at its lower portion merged into an angular apex, at the upper central portion thereof, a door to said casing, a basket within the casing, and a steaming device therein; substantially as specified. 95

5. In a tobacco-steamer, a casing having a circular outline at its lower portion merged into an angular apex, a door to said casing, a basket within the casing, a steaming device therein, a drain connection at the base of said casing, an inclined guard-plate above said drain, and a screened outlet at the edges of said guard-plate; substantially as specified. 105

6. In a tobacco-steamer, the combination with a casing, of the tobacco-receptacle supported therein, a steaming device comprising a valve, a steam connection communicating therewith, a plate at the outlet side of said valve, and a disk vertically movable toward and from said plate; substantially as specified. 110

7. In a tobacco-steamer, the combination with a casing, of the tobacco-receptacle supported therein, a steaming device comprising a valve, a steam connection communicating therewith, a plate at the outlet side of said valve, a disk resting on said plate, a steam-chamber formed centrally of said disk, and hangers to limit the vertical movement of the disk; substantially as specified. 115

8. In a tobacco-steamer, the combination with a casing, of a tobacco-receptacle supported therein, a steaming device comprising a valve, a steam connection communicating therewith, a plate at the outlet side of said valve, a disk resting on said plate, a steam-chamber formed centrally of said disk, hangers to limit the vertical movement of the disk, a pivoted door for said casing provided with a lever-arm, and a connection therefrom to said valve; substantially as specified. 125

9. In a tobacco-steamer, the combination 130



with a casing, of a receptacle supported there-  
in, a steaming device comprising a valve, a  
steam connection communicating therewith,  
a plate at the outlet side of said valve, a disk  
5 resting on said plate, a steam-chamber formed  
centrally of said disk, hangers to limit the  
vertical movement of the disk, a pivoted door  
for said casing provided with a lever-arm, a  
lever pivoted to the under face of said plate  
10 and bearing upon a stem from said valve, and  
a pivotal connection between the free end of  
said lever and the lever-arm from said door;  
substantially as specified.

10. In a tobacco-steamer, a casing provided

with a door-opening, a door for said opening, 15  
having an end portion extending within said  
casing, lugs secured to the outside of said  
casing, pivoting-lugs secured to said door, a  
pivoting-rod extending through said lugs, and  
a coiled spring disposed upon said rod for au- 20  
tomatically closing said door into a vertical  
position; substantially as specified.

In testimony whereof I affix my signature  
in presence of two witnesses.

CHARLES M. ARMSTRONG.

Witnesses:

JNO. P. PROWSE, Jr.,

WILLIAM R. WICKS.