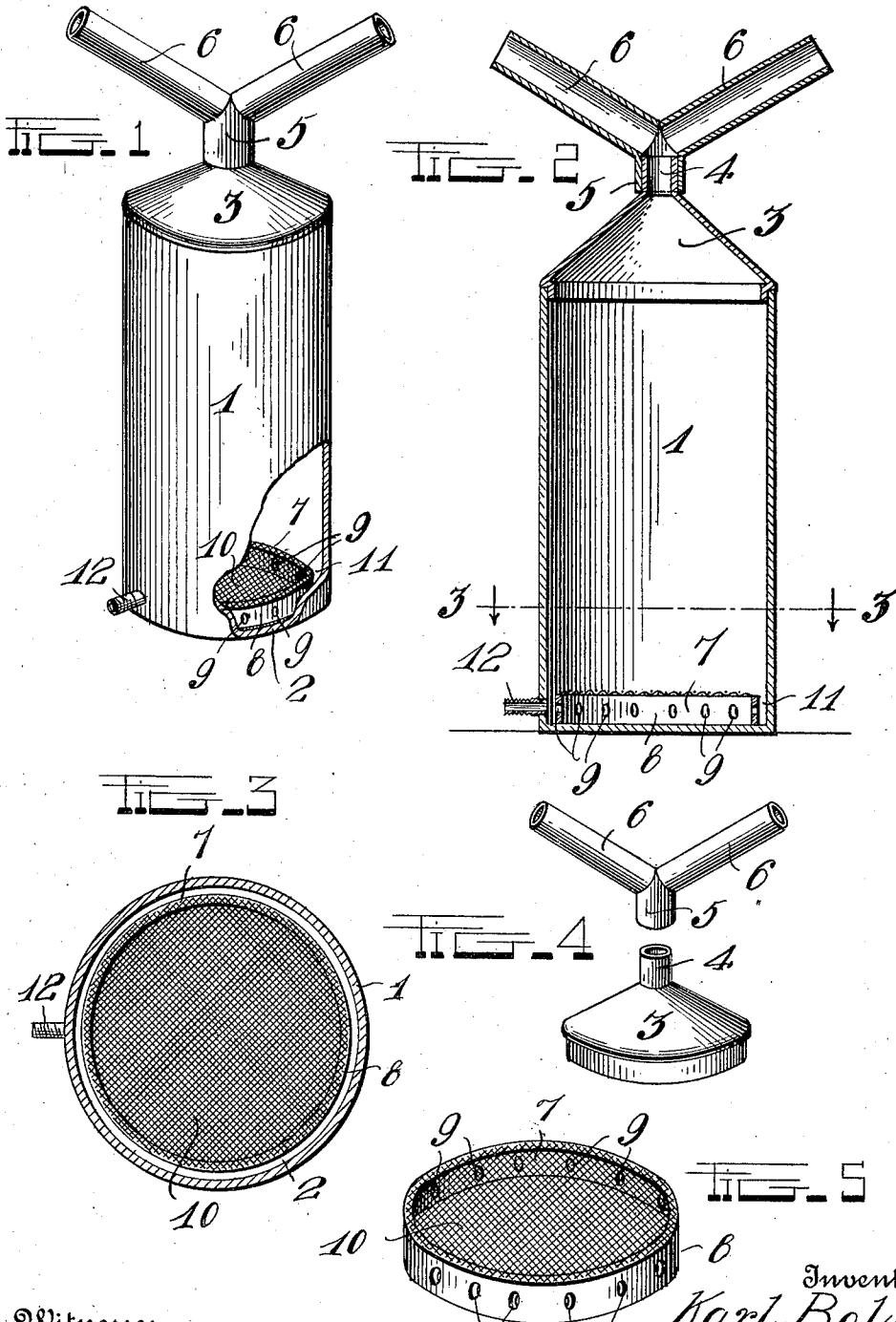


K. BOLL.
 APPARATUS FOR EXTRACTING AND DISTRIBUTING NICOTIN.
 APPLICATION FILED APR. 13, 1911.

1,002,123.

Patented Aug. 29, 1911.



Witnesses
W. P. Lardel
G. B. Hopkins

Inventor
Karl Boll
 by *A. B. Wilson & Co.*
 Attorneys

UNITED STATES PATENT OFFICE.

KARL BOLL, OF FORT MADISON, IOWA.

APPARATUS FOR EXTRACTING AND DISTRIBUTING NICOTIN.

1,002,123.

Specification of Letters Patent. Patented Aug. 29, 1911.

Application filed April 13, 1911. Serial No. 620,809.

To all whom it may concern:

Be it known that I, KARL BOLL, a citizen of the United States, residing at Fort Madison, in the county of Lee and State of Iowa, have invented certain new and useful Improvements in Apparatus for Extracting and Distributing Nicotin; and I do 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.

This invention relates to an improved apparatus for extracting nicotin from tobacco leaf stems and distributing the nicotin within a limited radius.

One object of the invention is to provide an apparatus of this character in which tobacco stems are placed and subjected to an application of steam under suitable pressure whereby the nicotin will be extracted or liberated and a portion of the same will be vaporized and discharged from the receptacle with the steam and will thus be distributed within a limited radius.

Another object is to provide an apparatus of the character described which will be simple, strong, durable and inexpensive in construction, efficient in operation and well adapted to the purpose for which it is designed.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings: Figure 1 is a perspective view of the invention, parts of the same being broken away and in section; Fig. 2 is a central vertical sectional view thereof; Fig. 3 is a horizontal sectional view of the same; Fig. 4 is a perspective view of the cap and discharge tubes of the apparatus showing the same separated; Fig. 5 is a similar view of the false screen bottom of the receptacle.

My improved extracting and distributing device comprises a hollow cylindrical body portion or receptacle 1 having a main bottom 2 on its lower end and a removable conically shaped cap 3 on its upper end. In the center of the cap is arranged a discharge opening 4 with which is connected a short discharge pipe 5. To the upper end of the discharge pipe 5 are connected the inner ends of distributing pipes 6, which are

branched or project in opposite directions as shown.

In the receptacle 1 and resting on the main bottom 2 is a false bottom 7, said bottom comprising an annular band or ring 8 of suitable width and having formed therein an annular series of steam passages 9. On the upper edge of the ring is secured a wire netting screen 10, said screen forming the false bottom of the receptacle upon which will rest the stems placed in the tank, said stems being thus supported above the main bottom of the receptacle. The false bottom 7 is of less diameter than the receptacle and between the inner side of the receptacle and the apertured ring 8 of the false bottom is formed an annular steam space 11.

In one side of the receptacle is arranged a tube 12 the inner end of which communicates with the steam space 11 while to the outer end is adapted to be connected a steam supply pipe whereby steam under the desired pressure is admitted to the steam space 11 and from thence passes through the apertures in the ring 8 to the space below the false bottom 7. From said space the steam passes up through the screen and is evenly distributed through the tobacco stems with which the receptacle is filled. The steam thus passing up through the stems extracts or liberates the nicotin therefrom, whereupon the greater part of the nicotin thus liberated commingles with the steam and is discharged therewith through the discharge pipes. When in the commingled state it disseminates in every direction and the nicotin precipitates and settles on all surfaces within a certain distance from the apparatus. The remainder of the nicotin so extracted from the stems which is not discharged from the receptacle settles with the condensed steam into the bottom of the receptacle below the false perforated bottom in the form of a fluid extract, and may be removed in any suitable manner and utilized as an insecticide which may be sprayed or otherwise applied to the plants.

From the foregoing description taken in connection with the accompanying drawings the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advan-

tages of the invention as defined in the appended claim.

Having thus described my invention what I claim is:

5 An apparatus for extracting nicotin from tobacco leaf stems and discharging said nicotin by means of steam, said apparatus comprising a receptacle adapted to contain said stems, a cap engaged with the upper
10 end of said receptacle, discharge pipes arranged on said cap, a false bottom arranged on the main bottom of the receptacle, said false bottom comprising an apertured ring of less diameter than and spaced from the
15 sides of the receptacle, a wire netting screen arranged on said ring, and a steam inlet

tube arranged in one side of the lower end of the receptacle whereby steam is discharged into the latter and passes through said apertured ring, and up through the
20 screen forming said false bottom and through the stems in said receptacle whereby the nicotin will be extracted from the latter and discharged with the steam
25 through the discharge pipes on said cap.

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

KARL BOLL.

Witnesses:

O. C. HERMINGHAUSEN,
FRED BOLL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."