

(No Model.)

2 Sheets—Sheet 1.

J. T. DRUMMOND.

APPARATUS FOR STEMMING TOBACCO.

No. 384,566.

Patented June 12, 1888.

Fig. 1.

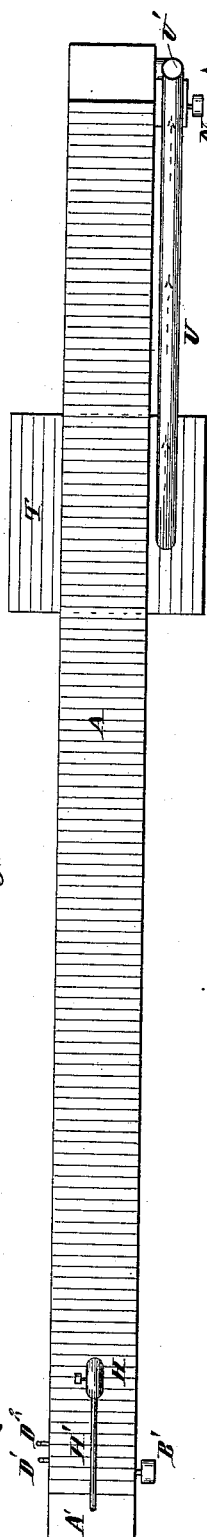
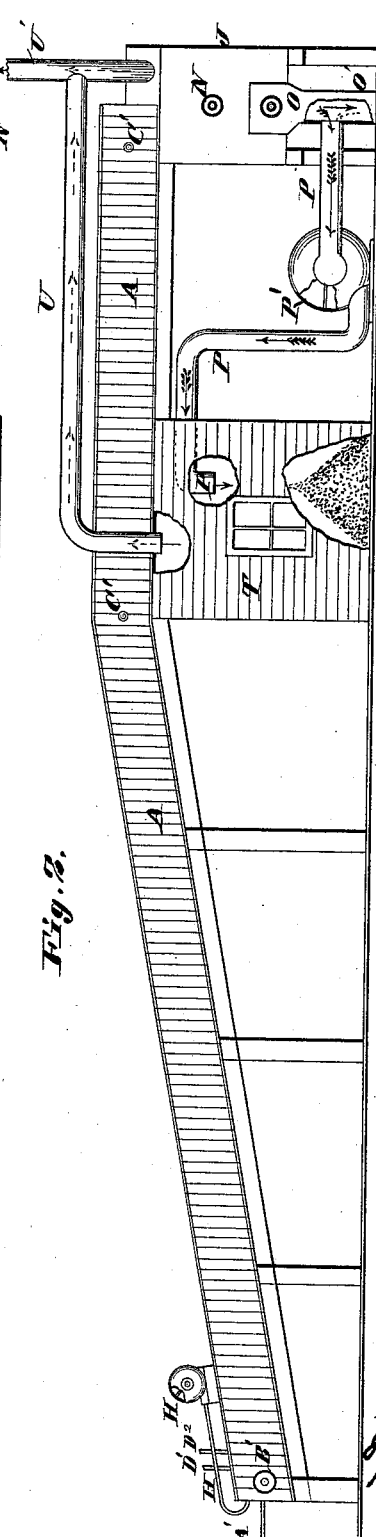


Fig. 2.



Attest:
Geo. S. Wheelock,
Victor W. Lewis

Inventor:
J. T. Drummond.
By Knight Bros
Atty.

(No Model.)

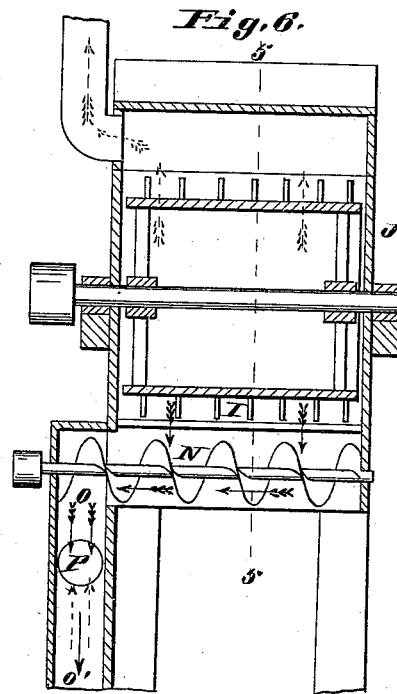
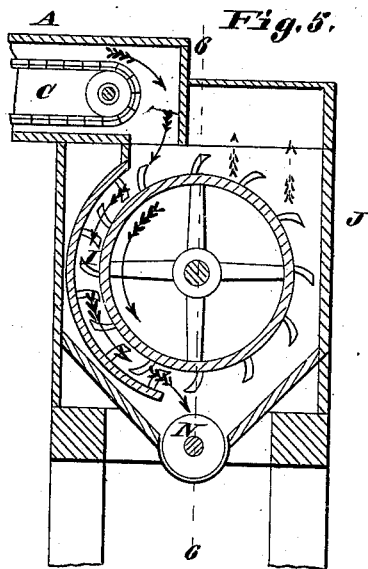
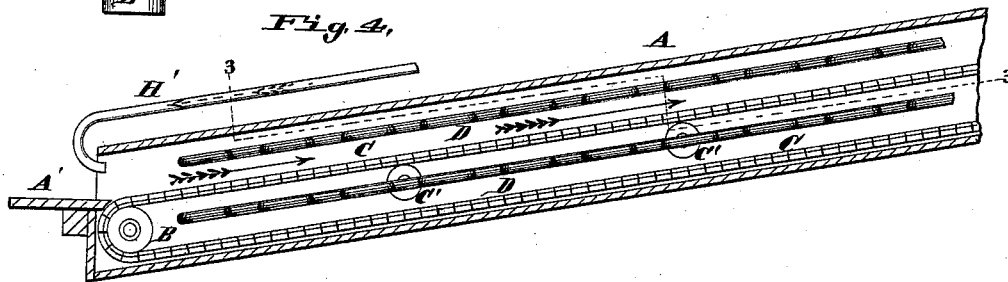
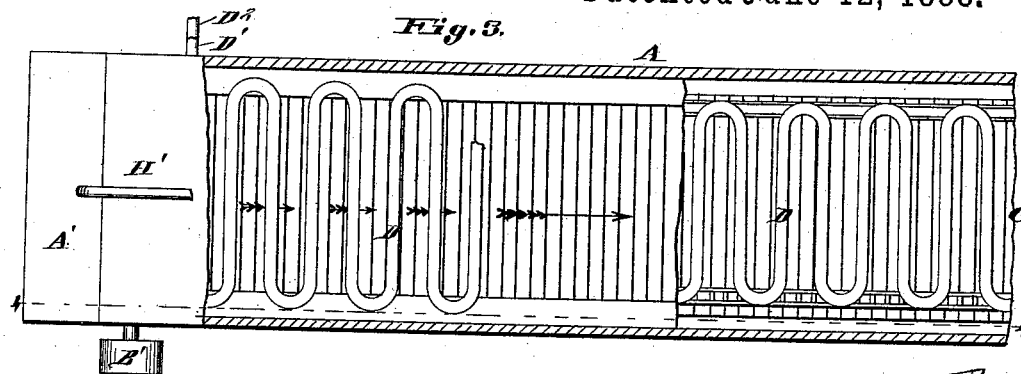
2 Sheets—Sheet 2.

J. T. DRUMMOND.

APPARATUS FOR STEMMING TOBACCO.

No. 384,566.

Patented June 12, 1888.



Attest:
Geo. L. Wheelock
Victor A. Lewis.

Inventor:
Jas T. Drummond.
By Knight Bros.
Atty's.

UNITED STATES PATENT OFFICE.

JAMES T. DRUMMOND, OF ST. LOUIS, MISSOURI.

APPARATUS FOR STEMMING TOBACCO.

SPECIFICATION forming part of Letters Patent No. 384,566, dated June 12, 1888.

Application filed August 8, 1884. Serial No. 139,973. - (No model.)

To all whom it may concern:

Be it known that I, JAMES T. DRUMMOND, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful
5 Improvement in Apparatus for Stemming Tobacco, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

10 Figure 1 is a top view. Fig. 2 is a side elevation, part broken away. Fig. 3 is an enlarged detail top view, part in section on line 3 3, Fig. 4. Fig. 4 is a vertical longitudinal section taken on line 4 4, Fig. 3. Fig. 5 is a
15 section taken on line 5 5, Fig. 6; and Fig. 6 is a section taken on line 6 6, Fig. 5.

My invention relates to an apparatus for removing the leaves from the stems of tobacco in the manufacture of smoking-tobacco, and is
20 particularly useful for removing the parts of the leaves that are usually thrown away or burned with the stems. Under the ordinary process of stemming tobacco there is a certain amount of the leaves that remains upon the
25 stems and is thrown away or burned with the stems, and my invention is particularly useful in removing this portion of the leaves, so that the stems or "wastes" of tobacco, as ordinarily thrown away or burned, can be passed
30 through my apparatus with very satisfactory results.

I do not claim in this application the process of thus stemming tobacco, for the reason that I claim it in an application now before
35 the Office, No. 121,821, filed February 23, 1884.

Referring to the drawings, A represents a suitable frame or box, at each end of which is a roller or drum, B, one of which is provided with a driving-pulley, B'.

40 C represents an endless apron or belt supported and operated by the drums B and prevented from sagging by rollers C' properly supported by the frame or box. The box forms a drying-chamber, which is heated by hot-air or
45 steam pipes D traversing the box, preferably one above and one between the two parts of the belt, as shown in Figs. 3 and 4. Steam or hot air enters the pipes through a pipe, D', and escapes through a pipe, D². A draft is
50 preferably formed through the chamber or box A by means of a fan, H, and pipe H'.

The tobacco to be stemmed is placed upon the apron and conveyed through the drying-chamber. For convenience in placing the tobacco on the belt, I locate a table, A', at the
55 forward end of the apparatus, upon which the tobacco may be placed and spread out before being shoved onto the traveling apron. (See Fig. 4.) The tobacco is discharged from the apron into the separating apparatus having a
60 cylinder and concave, I, (see Figs. 5 and 6,) provided with teeth similar to those of a thrashing-machine, and located in a casing, J, at the bottom of which is a screw-conveyer, N. As the tobacco passes between the cylinder and
65 concave the leaves, or what remains of them, upon the stems are stripped off and the stems more or less broken up into small pieces. The mass is conveyed from the casing J by the conveyer N and discharged into a shaft or cham-
70 ber, O, where a separation of the stems and valuable part takes place, the former dropping by gravity into the boot or lower part, O', of the shaft, as shown by the featherless arrow, Fig. 6, and the latter being carried by means
75 of a fan, P', through a pipe or passage, P, to a collecting room or chamber, T. The fan is supplied with air through the boot of the shaft O, as shown by dotted featherless arrows, Fig. 6. The stems may be removed or taken away
80 by any suitable means, and owing to their being broken up and thoroughly stripped of the leaves they are compact and make good fuel.

The tobacco can be removed from the room through a suitable door or window. To per-
85 mit the escape of air and dust discharged into the room by the fan P', I connect a pipe, U, to the upper part of the room, which communicates with a pipe, U', extending upward from the separator-chamber. (See Figs. 2 and 6 for
90 the escape of dust therefrom.)

I do not desire to confine myself to the details of construction of the apparatus, as the same may be varied without changing the essential features of my invention.

I am aware of United States Letters Patent No. 5,659, Hathaway, July 5, 1848; No. 38,779, Woodward, June 2, 1863, and No. 250,444, Jones, December 6, 1881, and do not claim
100 anything therein shown and described.

I claim as my invention—

1. In an apparatus for saving the fragments

of tobacco, the combination of a drier having means for automatically carrying stems of tobacco having particles of leaves attached there-through, a breaker or separator arranged to receive the discharge of material from the drier, and means for collecting the leaf-fragments from the stem portion, substantially as set forth.

2. The combination, with a case having heating pipes, of an endless apron passing through the case and supported by drums or rollers and a separator.

3. The combination, with a traveling apron and casing, of a separator located at the end of the traveling apron, a flue which receives the material from the separator, and a fan for inducing air currents in said flue.

4. The combination of the traveling apron, the case, the heating-pipes therein, the cylinder and concave located at the end of the apron, the conveyer, the flue into which the conveyer discharges, and a fan for inducing air-currents in said flue.

5. The combination, with the drying apparatus consisting of a box or case, of an endless apron supported by drums or rollers within the box or case, power being applied to one of the drums to move the said apron, pipes lo-

ated within the box through which hot air or steam is circulated, and a separator, substantially as and for the purpose set forth.

6. In combination with a drier, a carrier, and mechanism for creating a draft, the separator consisting of a cylinder and concave, a screw conveyer, and a chamber or shaft through which air is circulated to separate the valuable part from the stems and discharge it into a room, substantially as set forth.

7. The combination of a suitable box, drums located within the box, endless apron supported and operated by the drums, heating or drying pipes located within the box, a feed-table at one end of the box, the cylinder and concave located within a suitable chamber, the screw conveyer at the bottom of said chamber, the shaft into which the conveyer discharges, the collecting-room, the pipe connecting the room with said shaft, fan located in the pipe to separate the valuable part from the stems, and pipes forming vents to the room and cylinder-chamber, substantially as and for the purpose set forth.

JAMES T. DRUMMOND.

In presence of—

GEO. H. KNIGHT,

SAML. KNIGHT.