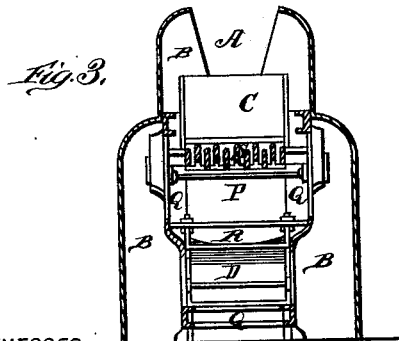
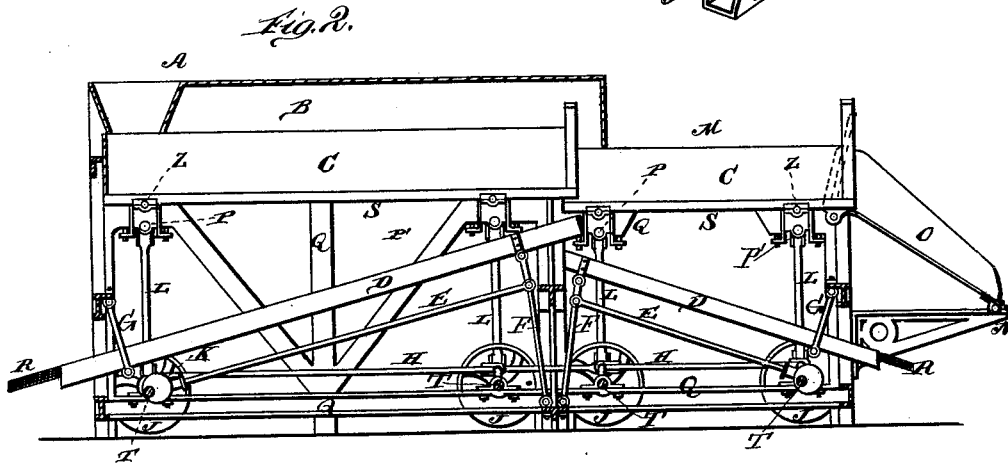
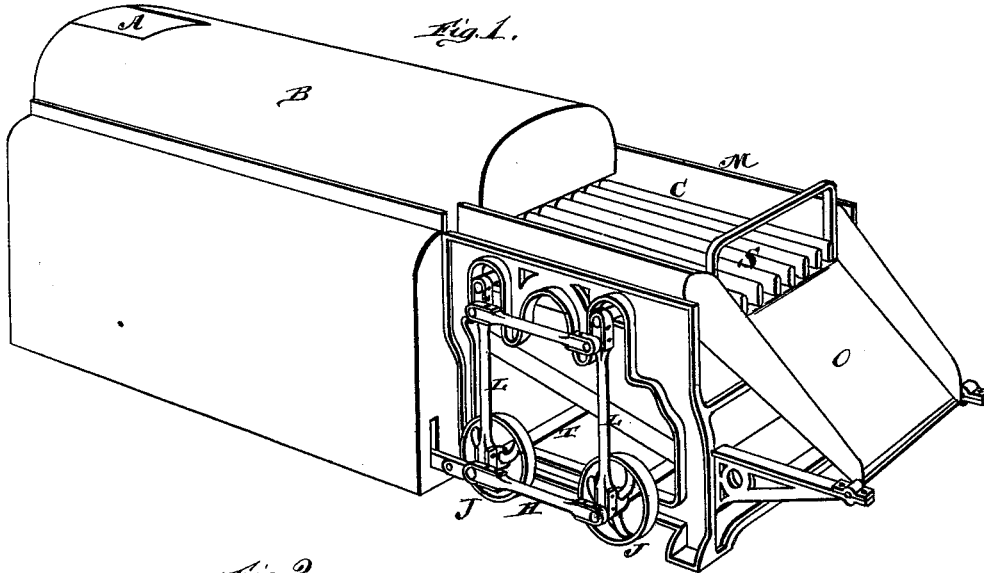


G. B. F. COOPER.  
Fine-Cut-Tobacco Machine.

No. 204,539.

Patented June 4, 1878.



WITNESSES

*Robert Emmett*  
*James J. Sheehy.*

INVENTOR.

*George B. F. Cooper.*  
*Gilmore, Smith & Co.*

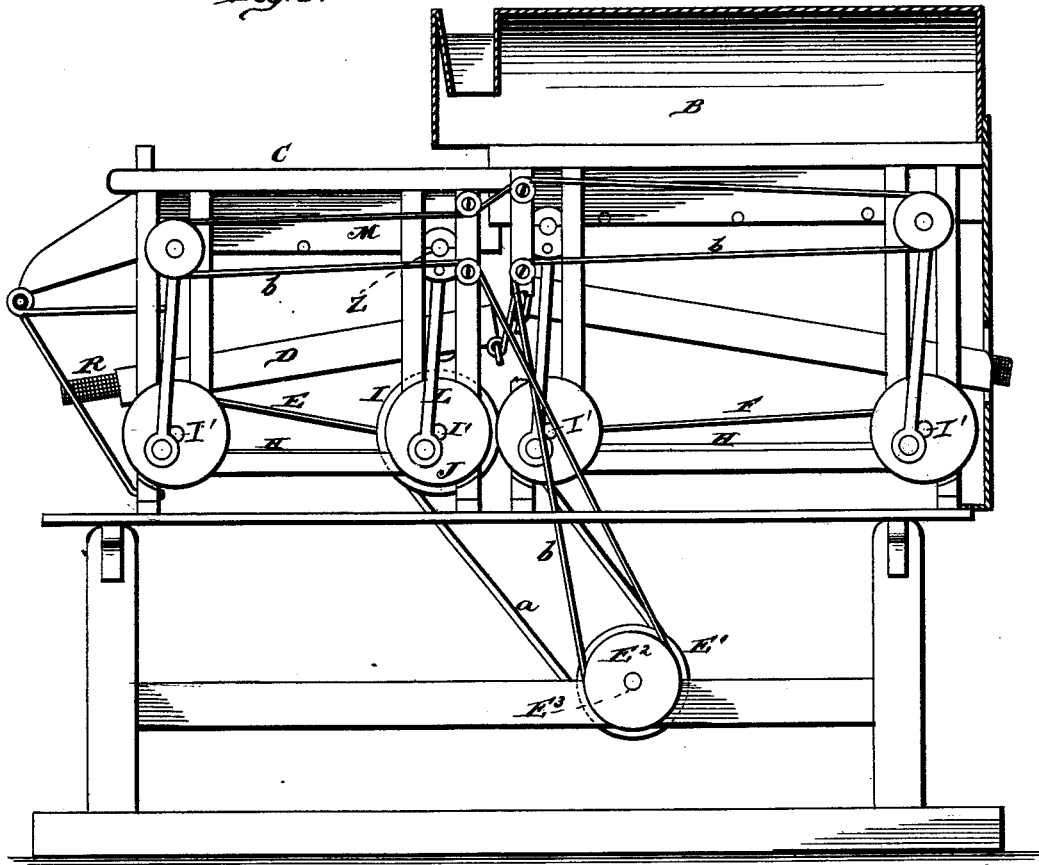
ATTORNEYS.

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*Fig. 5.*



WITNESSES

*Robert Ervath,*  
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# UNITED STATES PATENT OFFICE.

GEORGE B. F. COOPER, OF NEW ALBANY, IND., ASSIGNOR OF SIX-NINTHS HIS RIGHT TO R. LEE MANNEN, N. WASHINGTON QUEEN, AND JOSEPH PETTUS, OF LOUISVILLE, KY.

## IMPROVEMENT IN FINE-CUT-TOBACCO MACHINES.

Specification forming part of Letters Patent No. **204,539**, dated June 4, 1878; application filed April 13, 1878.

### *To all whom it may concern:*

Be it known that I, GEORGE B. F. COOPER, of New Albany, in the county of Floyd and State of Indiana, have invented a new and valuable Improvement in Fine-Cut-Tobacco Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of my fine-cut-tobacco machine. Fig. 2 is a part sectional side view, Fig. 3 is a sectional end view, Fig. 4 is a detail, and Fig. 5 is a side view thereof.

The nature of my invention consists in the construction and arrangement of a machine for dressing or separating the shorts or refuse from the long-cut fibers or merchantable tobacco, and also to dry the same while dressing, either by dry or steam heat supplied either by natural draft or fan-blast, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

C represents the frame-work of the machine, forming at the top a heating-case, B, and cooling-space M. E<sup>3</sup> is the driving-shaft, with two pulleys, E<sup>1</sup> and E<sup>2</sup>, arranged below the floor on which the frame-work is erected.

From the pulley E<sup>1</sup> motion is communicated, by a belt or chain, a, to a pulley, I, upon one of a series of shafts, I', which have each a crank, and these cranks connected by parallel rods H.

On the ends of the shafts I' are balance-wheels, which have suitable wrist-pins to receive pitmen L. These pitmen give a vertically-reciprocating motion to suitable journal-boxes, in which are placed eccentric-shafts Z Z. There are two sets or pairs of these shafts—one in the drying-machine and one in the cooling-space—and on each set or pair are placed a number of slats, S, as shown.

Under each series of slats is a "shorts-box," D, with screen R, suspended by swinging con-

nections G, and operated by vibrating connections F, rods E, and eccentrics K.

The shafts Z are rotated by a belt or chain, b, from the pulley E<sup>2</sup> on the driving-shaft.

The operation of the machine is as follows: The tobacco is fed into the machine at the opening A in the heating-case B, and is caught on slats S, which have a tossing-and-carrying motion communicated by the pitmen L and eccentric-shafts Z, and by this motion the tobacco is shaken up and opened, so that the shorts or refuse tobacco passes between the slats S, and are caught on the screen R, fastened in the shorts-box D, which is agitated by the eccentric K, thereby screening the shorts and saving any long tobacco that may pass between the slats, and shorts and good tobacco are received in boxes at the delivery of the screen and shorts-box.

The greatest part of the good tobacco passes through the drying-machine B, being tossed up, so that every fiber is subjected to heat, and can be dried thoroughly or only partially, as desired, by regulating the speed of the carriers.

The tobacco is discharged onto the cooling-space M, where it is tossed and cooled by exposure to the atmosphere; or a cooling device may be connected to the machine, and passes onto a gathering-apron, O, which is fixed stationary at N, and is connected by oscillating connections at the upper end, and has the same tossing motion as the slats, and this motion gathers the tobacco in a mass ready to pack for the market.

What I claim as new, and desire to secure by Letters Patent, is—

1. A series of slats or their equivalents, operated by means substantially as herein described, for dressing fine-cut tobacco by tossing, as set forth.

2. A drying-chamber provided with a series of slats or their equivalents, operated by eccentrics or otherwise, for tossing the tobacco and drying it at the same time, as herein set forth.

3. The combination of a drying-chamber and a cooling-space, each being provided with

a series of slats or their equivalents, operating substantially as described.

4. A vibrating shorts-box and screen arranged below the devices for tossing the tobacco, as and for the purposes set forth.

5. A tossing gathering-apron arranged at the mouth of a fine-cut-tobacco machine, and operated by means substantially as described, and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE B. F. COOPER.

Witnesses:

F. E. DISHMAN,  
JOHN F. COOPER.