G. S. MYERS.

Method of Separating Tobacco-Leaves in Drying.

No. 219,647. Patented Sept. 16, 1879.

Fig. 1.

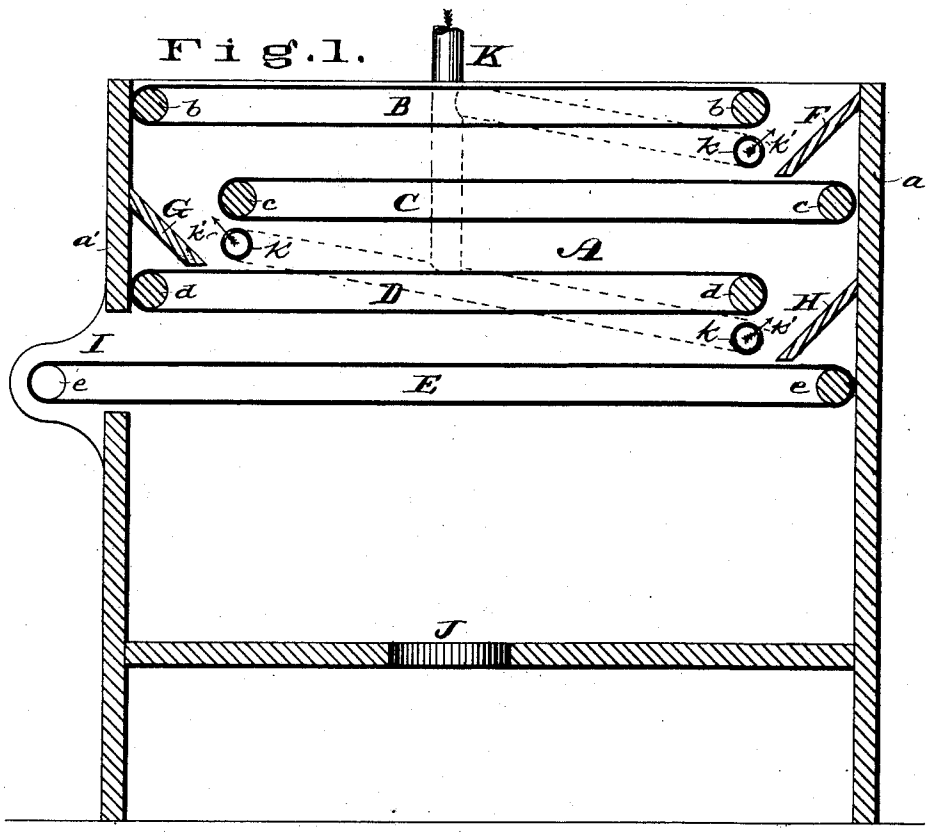
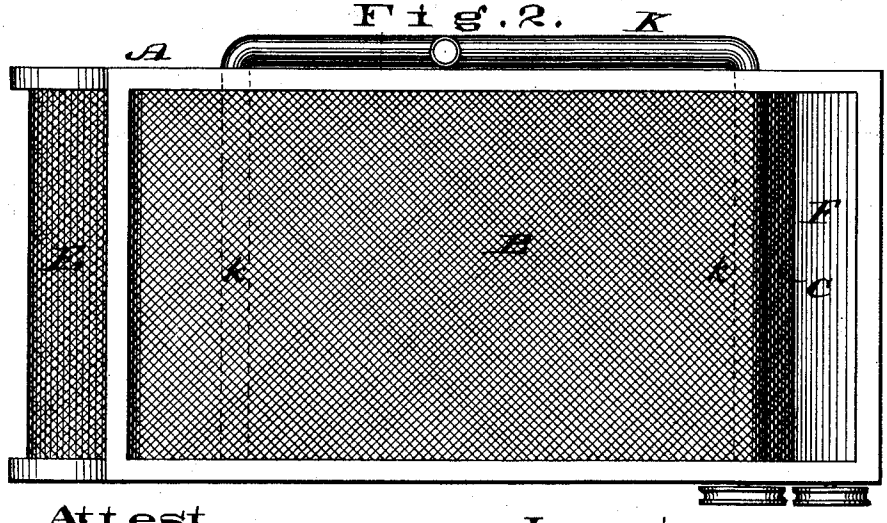


Fig. 2.



Attest.

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IMPROVEMENT IN METHODS OF SEPARATING TOBACCO-LEAVES IN DRYING.

Specification forming part of Letters Patent No. **219,647**, dated September 16, 1879; application filed June 13, 1879.

To all whom it may concern:

Be it known that I, GEORGE S. MYERS, of the city of St. Louis, Missouri, have made a new and useful Improvement in Separating Tobacco-Leaves during the Drying Process and in Tobacco-Drying Machines, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a vertical longitudinal section of a tobacco-drying machine having the present improvement, and Fig. 2 a plan of the same.

The same letters denote the same parts.

Tobacco-leaves, such as plug-fillers, after being dipped or sweetened with the usual materials, are in such condition that when subsequently subjected, either upon racks or traveling belts, to the drying process they mat and become glued closely together, requiring them, after being dried, to be cased and carefully separated—an operation carried on by hand, and one that is tedious and expensive.

The aim of this invention is to provide means for agitating, moving, and overturning the leaves during the drying process, and for effectually preventing them from adhering together, and for thoroughly separating them from each other, so that when the drying process is completed the leaves are entirely loose and in a pliable condition ready for being worked without further separation.

The improvement further relates to the means for facilitating the drying of the leaves, and for properly directing their movement as they are passed through the drying-machine.

Referring to the drawings, A represents a tobacco-drying machine having the present improvement. B C D E represent a series (of any desirable number) of endless belts, arranged horizontally and slightly lapping each other alternately, as shown. The belts pass around the shafts *b c d e*, respectively.

The tobacco is fed onto the upper belt, B, being distributed thereon as upon the ordinary rack. The movement of the belt causes it to be discharged onto a deflecting-board, F, that extends across the end *a* of the machine, and that is inclined, as shown, to keep the tobacco from falling into the space between the belt C and end *a*.

The tobacco slides from the board F onto the belt C, when it is carried to the other end, *a'*, of the machine, and there discharged onto a deflecting-board, G, and thence onto the third belt, D, and so on, to and fro, through the machine until discharged therefrom, which may be at any suitable point, say at I.

The tobacco is dried in the usual manner, by heated air or steam circulating through the machine, entering, say, at J, and discharging above the machine.

Now, if the tobacco were allowed to pass from one belt to another without any means being used to stir it up in its passage the leaves would still mat and stick together, as when the tobacco is dried upon a stationary rack.

Accordingly, the tobacco, as it falls from one belt onto another, is made to encounter an upward current of air or steam, which, meeting the tobacco, thoroughly agitates the mass, blowing the leaves apart and over and over. This agitating is repeated at each descent of the tobacco onto a lower belt. The result is that by the time the leaves arrive at the point of discharge from the machine they are completely loosened from each other, and are also sufficiently pliant to be worked.

The blast is introduced through the main pipe K, and thence into the branches *k k k*. The latter are arranged transversely in the machine just beneath the ends of the belts from which the tobacco falls, as shown, and are perforated along their length, the perforations *k' k'* being arranged to direct the blast properly against the falling tobacco. The blast may be heated, and may be used to facilitate the drying of the tobacco.

The drying is also forwarded by perforating the belts B C D E, as shown in Fig. 2. This enables the drying current to come more effectually in contact with the tobacco.

The deflectors F G H prevent the leaves from being caught between the belts and the ends of the machine, and direct the tobacco onto the belt beneath.

I claim—

1. The herein-described mode of separating and overturning tobacco-leaves during the

process of drying, by means of an air or steam blast directed against the leaves while the latter are falling.

2. The combination of the belt B and pipe K, as and for the purpose described.

3. The combination of the belts B C D E and perforated pipes *k k k*, as and for the purpose described.

4. The combination of the machine A, belts B C, deflector F, and pipe *k*, substantially as described.

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Witnesses:
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