(No Model.)

L. SPINDLER.

MACHINE FOR COLORING AND FLAVORING CIGARS.

No. 256,065. Patented Apr. 4, 1882.

Fig. 1.

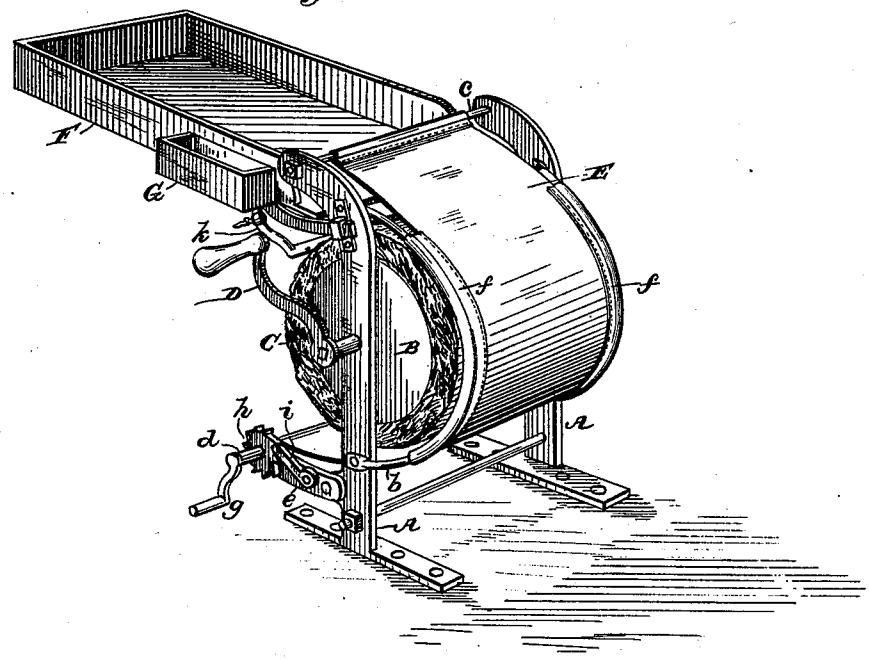
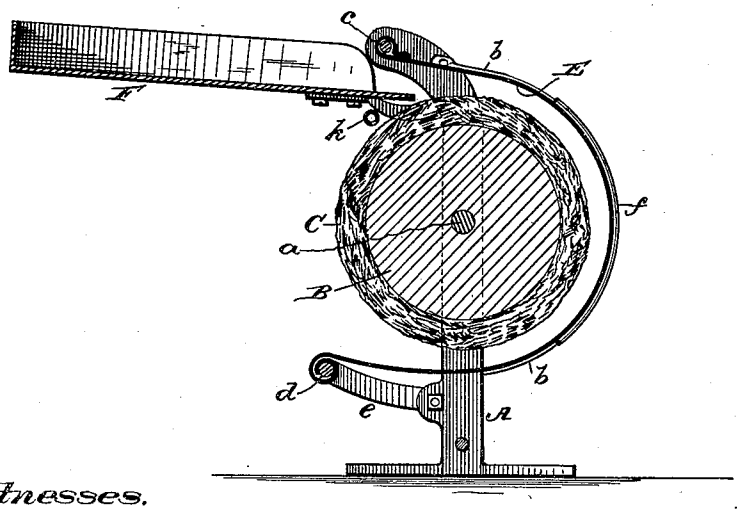


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

LEWIS SPINDLER, OF CUMBERLAND, MARYLAND.

MACHINE FOR COLORING AND FLAVORING CIGARS.

SPECIFICATION forming part of Letters Patent No. 256,065, dated April 4, 1882.

Application filed January 30, 1882. (No model.)

To all whom it may concern:

Be it known that I, LEWIS SPINDLER, a citizen of the United States, residing at Cumberland, in the county of Alleghany and State of Maryland, have invented new and useful Improvements in Machines for Coloring and Flavoring Manufactured Cigars, &c., of which the following is a specification.

My invention relates to that class of machines for coloring and flavoring cigars in which the cigars are rolled along between a movable absorbent surface containing the flavoring and coloring liquid and a stationary yielding surface.

Prior to my invention a yielding platen has been employed in connection with a movable endless belt of some bibulous material, the platen being rigid in itself, but arranged so as to rise and fall. A rigid concave has also been employed in connection with a rotary sponge-faced cylinder, but in such case the concave has been made rigid. The concave employed by me in connection with a cylinder faced with some absorbent material is made of flexible material, which can be rendered more or less yielding to the cigars as they are carried around between the roller and the concave by means of variable tension exerted upon one end of the concave.

In the accompanying drawings, Figure 1 is a perspective view of a machine embodying my improvements. Fig. 2 is a vertical longitudinal section of the same.

The frame of the machine is provided with standards A A, in which is journaled a cylinder, B, having a covering, C, of sponge or other suitable yielding and absorbent material. This cylinder is adapted to be rotated in the usual manner by means of a crank, D, attached to one end of the shaft *a*, to which the drum or cylinder is attached.

Heretofore the cylinder B has been arranged to rotate within a rigid concave, the cigars being carried by the revolution of the cylinder into the space between it and said concave, whereby they are caused to roll in contact with the yielding covering placed on the cylinder, and thus become colored and flavored by absorbing therefrom the compounds with which said covering may be saturated. When a rigid concave is thus employed it is necessary to provide a means of adjusting the cylinder so as to regulate the space between it and the concave according to the size or thickness of the cigars to be treated, for the purpose of preventing them from becoming broken or otherwise injured by too great pressure.

By my present invention, instead of adjusting the cylinder with relation to a fixed and rigid concave, I provide a means for rolling the cigars in contact with the yielding covering of the cylinder on one hand and an elastic and flexible surface on the other. This is accomplished in the following manner: To each standard A is attached a curved rod, *b*, which forms a side support for flexible or elastic concave, composed of a strip of deer-skin, soft leather, cloth, or other suitable material. This strip E is secured at one end to a fixed rod, *c*, extending between the upper backwardly-curved ends of the standards A, while its lower end is attached to a shaft, *d*, that is adapted to be rotated in bearings formed in the ends of arms *e e*, which project backward from near the lower ends of the standards.

The yielding or elastic strip E is attached on each side to the rods *b b* by means of wings *f f*, composed of any suitable elastic material, passed around the curved rods or braces *b b* and sewed or otherwise secured to the strip E, which is thus held in a concavo-convex form.

The shaft *d*, to which the lower end of the yielding strip or concave E is attached, is provided with a crank, *g*, by means of which it may be rotated to regulate the tension of the concave; and it also has a ratchet-wheel, *h*, that engages with a pawl, *i*, for the purpose of holding the concave in the position to which it may have been adjusted.

The tray F, for holding the cigars on tobacco to be treated, is detachably connected to the standards as shown, so that the cigars or tobacco may be readily fed to the cylinder and carried by its rotation into the narrow curved space between it and the yielding concave. On one or both sides of the tray F is a trough, G, for containing the coloring or flavoring compound, which is fed to the cylinder through a conduit, *k*, arranged above the same and having perforations adapted to permit its flow upon

the absorbent material with which the cylinder is covered.

It will be observed that the tray F is slightly inclined toward the rear upper portion of the cylinder and terminates just beneath the upper edge of the concave, thus enabling the cigars or tobacco to be readily fed by hand. The rotation of the cylinder carries the cigars forward within the flexible or yielding concave E, and during this passage between the cylinder and concave they are rotated by frictional contact, so as to bring their wrappers or coverings in close contact with the coloring or flavoring compounds with which the covering of the cylinder is saturated. The yielding character of the concave E, as well as of the covering C on the cylinder, is such that the cigars are enabled to roll or rotate freely during their passage downward, and thus all liability of their becoming broken or otherwise spoiled, as by blotting or smearing of the coloring compounds, is avoided.

The cylinder B may be operated by a crank, as shown, or by belt-power applied to a pulley on the cylinder-shaft. After the cigars have been thus rolled between the yielding surface of the cylinder and inner face of the yielding concave their movement is continued along the latter until they pass over its lower end, and are received into any suitable receptacle placed beneath the tray.

It will thus be seen that the concave is rendered more or less yielding by means of the variable tension exerted on one end of it to the cigars as they are carried around by the cylinder under the concave.

What I claim is—

1. In a machine for coloring and flavoring cigars and tobacco, the combination of the rotary cylinder having a facing of yielding and absorbent material, the concave composed of flexible material and rendered more or less yielding to the cigars as they are carried around by the cylinder, and means for increasing and diminishing the tension of the concave, substantially as described.

2. In a machine for coloring and flavoring cigars, the combination of the rotary cylinder having a facing of absorbent material with the flexible concave E, having a sliding connection with the curved rods *b*, and secured at one end to a roller-shaft, *d*, adapted to be turned so as to wind the material forming the concave upon it, so as to render the concave less yielding or to be turned so as to unwind the said material, and thereby render the concave more yielding to the cigars carried around by the cylinder, and suitable devices for checking the rotation of said roller-shaft, substantially as described.

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

LEWIS SPINDLER.

Witnesses:
JAMES L. NORRIS,
J. A. RUTHERFORD.