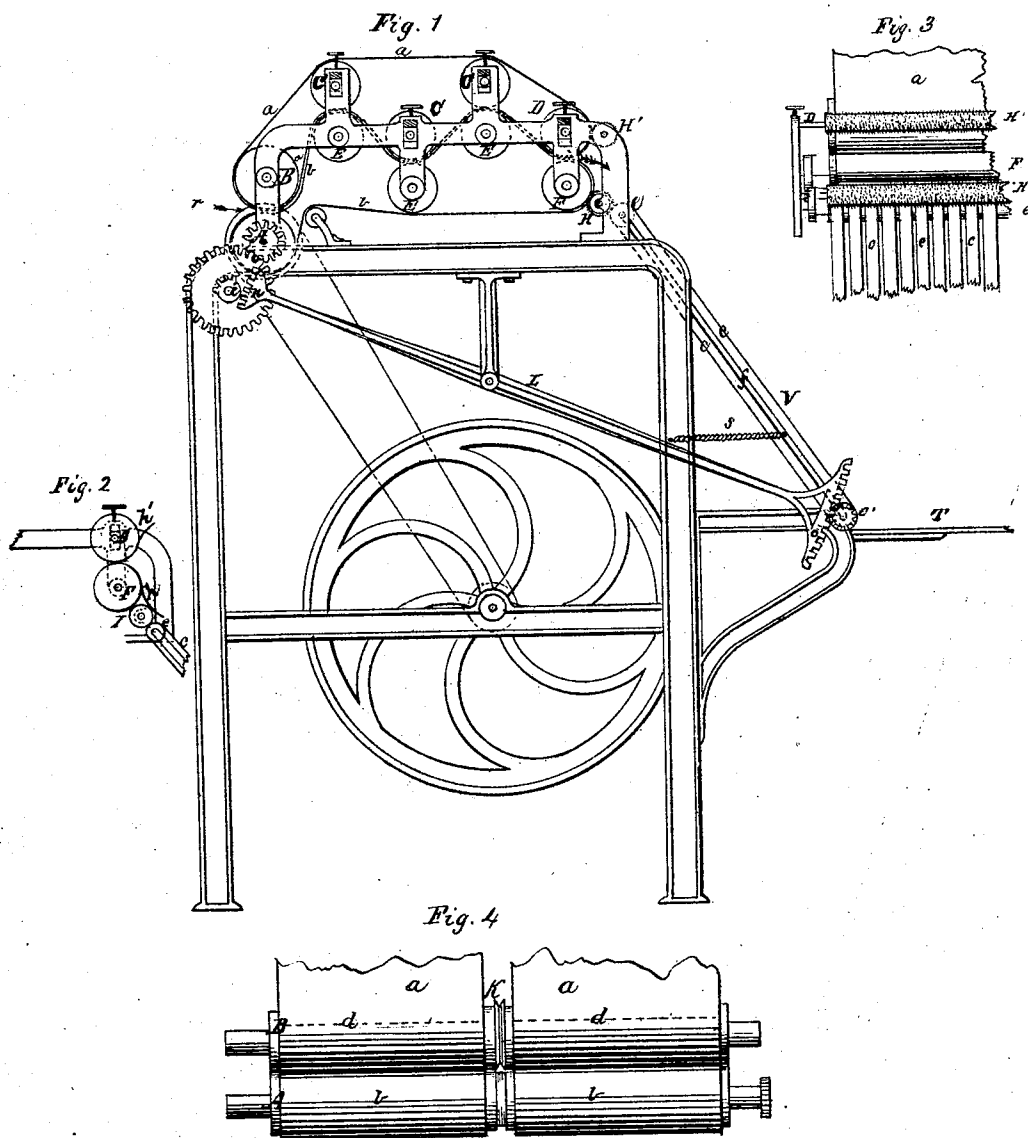


J. R. TUNNICLIFF & J. L. THOMSON.

Tobacco Stripping-Machines.

No. 145,699.

Patented Dec. 16, 1873.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN R. TUNNICLIFF, OF VAN HORNEVILLE, AND JUDSON L. THOMSON, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN TOBACCO-STRIPPING MACHINES.

Specification forming part of Letters Patent No. **145,699**, dated December 16, 1873; application filed January 2, 1873.

To all whom it may concern:

Be it known that we, JOHN R. TUNNICLIFF, of Van Hornesville, New York, and JUDSON L. THOMSON, of Syracuse, New York, have invented certain Improvements in Tobacco-Stripping Machinery, of which the following is a specification:

Our invention relates to the "stripping" of tobacco, or, in other words, the removal of the main longitudinal stem from tobacco-leaves preparatory to their manufacture, by passing the leaves, one after another, between cylinders, one of which is provided with circular knives for cutting out the stem, and otherwise fitting the leaf for further use. It has specific relation to a certain machine invented by one of the within-named petitioners, for which Letters Patent of the United States No. 114,888, and dated May 16, 1871, were issued; and has for its object the regular disposition of the stripped leaf without the reverse motion and manipulation requisite in the operation of the above-mentioned machine.

For a better understanding of the nature and scope of the improvements herein described, reference is made to the aforesaid Patent No. 114,888, wherein it will be seen that a single apron, each side of the circular knives, is unwound from the cylinder corresponding to A, and wound at the same time upon the cylinder B, rolling in with it, and accumulating upon B the stripped leaf. To remove the leaf in that case, it became necessary, after exhausting the apron from the lower cylinder, to reverse the motion and unwind the apron, lifting and depositing the leaf slowly by hand.

It is designed by the improvement herein described to pass the leaf through the machine by a continuous direct motion, and to deposit it stripped, extended, and pressed in two "right and left" regular piles or "books" upon a table or platform at the back of the machine. To accomplish these objects, two continuous aprons or belts, *a a* and *b b*, pass over the cylinders B and A, respectively, one pair on each side of the knives *k*, as seen in Fig. 4. Between these aprons the leaf to be stripped and pressed is introduced, as indicated by the arrow *r*, Fig. 1. By the motion given to the various parts the aprons *a* and *b*, inclosing the leaf, are moved

backward between a series of pressing-cylinders, C C and E E E, and the leaf, now stripped, extended, and pressed smooth, is passed out between the cylinders D and F. Here, placed in contact with these cylinders, are two cylindrical brushes, H and H', revolving in opposite directions, at a suitable speed, designed to separate the leaf from either apron to which it may cling, and to secure its further movement forward upon the "booking"-fan V. This booking-fan is composed of a continuous apron, *c c*, mounted on small rollers *e e'* and light frame *f*, and is hinged at *e'*. A pinion is fixed to the frame *f* at *e'*, worked by the rack *o* upon the lever L. At the opposite extremity of L is another rack, *n*, which receives a section of gear upon a slow-moving pinion, *i*. The latter is geared down from A, so that at suitable intervals, through the lever L, the fan V, having received the leaf, is thrown over, depositing or booking the leaf in proper position upon the table T. As the rack *n* is released from the sectional gear upon *i*, the spiral spring *s* restores the fan to its former position for the reception of another leaf. The apron *c c* is given the same motion as that of *b b* through a loose pulley, I, Fig. 2, upon one end of the brush-shaft H, in contact with both F and *e*. At regular and proper intervals upon one of the aprons *a a* or *b b* are marks *d*, Fig. 4, indicating at what points to introduce the successive leaves, to insure their proper delivery upon the fan V at the time it is thrown over. The pressing-cylinders C C and E E are placed out of line with each other, and with A B and D F, to give the in-passing aprons an indirect motion, so as to press the leaf over as great a surface as possible, and thus to smooth it out effectually. If by giving the aprons this irregular direction they are subjected to undue strain in moving the series of rolls, it is proposed to attach gear to the cylinders, whereby they will all receive their motion from A without tension upon the aprons.

As substitutes for the cylindrical brushes H and H', (shown in Fig. 1,) scrapers may be used, as shown in Fig. 2, with their edges gently pressing upon the aprons *a* and *b* as they press over the rolls D and F, to separate the leaf from either to which it may cling. If

desirable, these scrapers may be given a light alternate lateral movement.

Fig. 3 shows the apron *c* composed of narrow strips of any suitable material; or it may be a single sheet perforated. The object of this construction is to permit resistance of the air upon the leaf as the fan leaves it upon the book or table *T*, to prevent its being lifted or displaced by the uprising fan. Instead of the raked lever *L* working into pinions *i* and *e*, a simple rod connecting with frame *f*, and worked by a cam at *i*, may be used to secure the required motion of the fan *V*; or the fan may be worked independently of other parts by means of a simple foot-treadle, or a treadle and spring, the former to throw it forward, and the latter to return it to its place, as now shown.

We do not limit ourselves to the special form or construction for the fan above described.

Having thus described our invention, we claim and desire to secure by Letters Patent—

1. In combination with the stripping-rollers

A and *B*, the double belts *aa* and *bb*, and the cylinders *C C* and *E E*, arranged and operating substantially as described.

2. In combination with the continuous belts *aa* and *bb* and the fan *V*, the cylindrical brushes *H H'*, or the equivalent scrapers, placed and operating substantially as set forth.

3. In combination with the stripping and pressing devices, substantially as described, a booking-fan, *V*, as and for the purposes set forth.

4. The combination of double aprons *aa b b*, pressing-cylinders *C C* and *E E*, brushes or scrapers *H H'*, booking-fan *V*, and table *T*, all constructed, arranged, and operating substantially as described, and for the purposes set forth.

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Witnesses:

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