

J. L. JONES.

Machines for Cleaning and Preparing Tobacco Leaves.

No. 141,563.

Patented August 5, 1873.

Fig. 1.

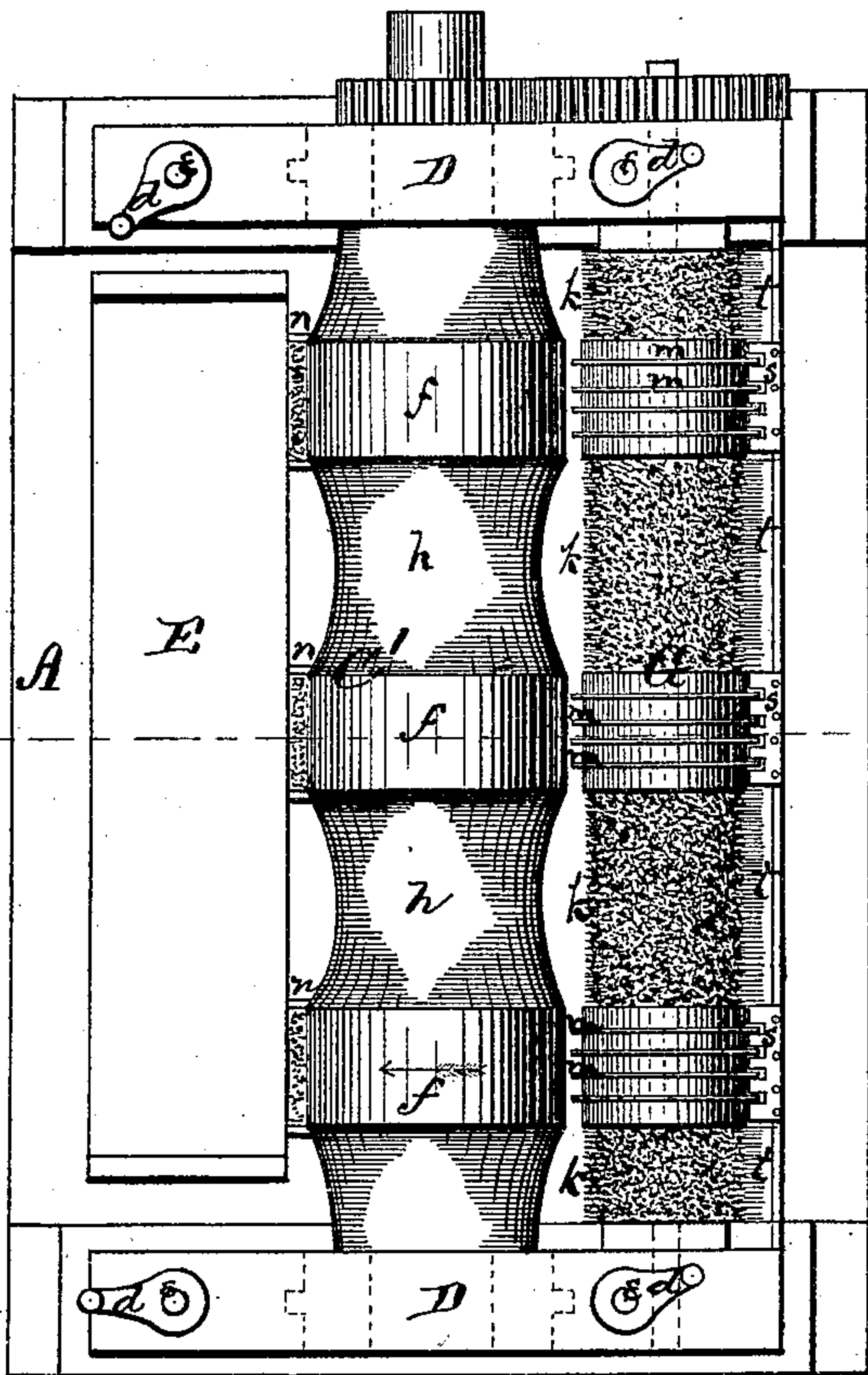
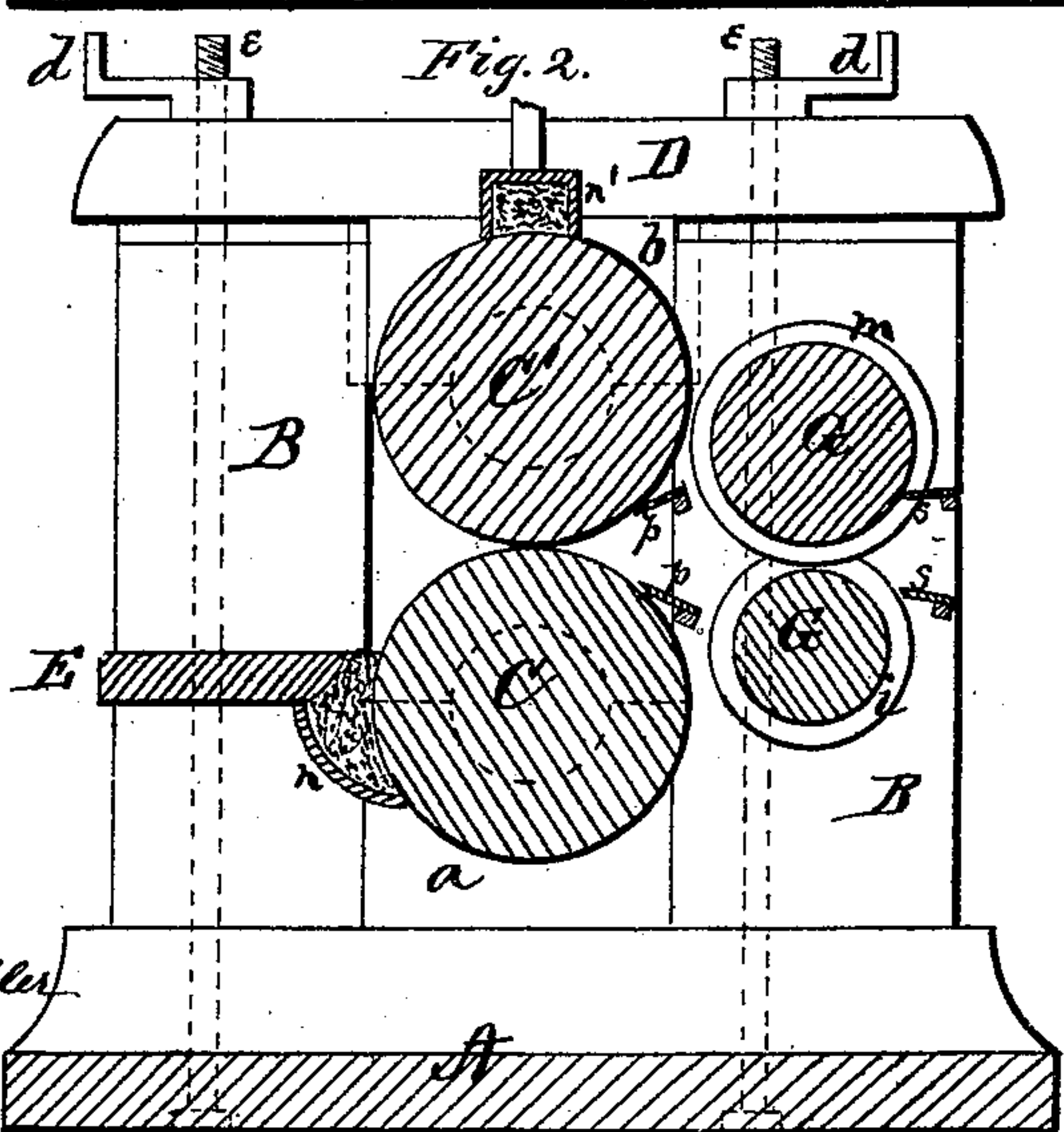


Fig. 2.



Witness:

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UNITED STATES PATENT OFFICE.

JOHN L. JONES, OF OXFORD, NORTH CAROLINA.

IMPROVEMENT IN MACHINES FOR CLEANING AND PREPARING TOBACCO-LEAVES.

Specification forming part of Letters Patent No. 141,563, dated August 5, 1873; application filed January 27, 1873.

To all whom it may concern:

Be it known that I, JOHN L. JONES, of Oxford, in the county of Granville and in the State of North Carolina, have invented certain new and useful Improvements in Machine for Cleaning and Preparing Tobacco-Leaves; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a machine for crushing and splitting tobacco-stems in the leaf and brushing the leaf all at one operation, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view, and Fig. 2 a transverse vertical section, of my machine.

A represents the bed of my machine, at each end of which are two standards, B B. Between the lower ends of these standards, at each end, is a stationary box, *a*, to form the journal-bearings for the lower crushing or flattening roller C. The corresponding upper roller C' rests upon the roller C, and its journals are placed in boxes *b*, which slide in grooves on the standards B B, and are held down by a cap-piece, D, fastened by means of bolts *e e* and crank-nuts *d d*. By turning these nuts the pressure of the upper roller C' on the lower roller C is readily regulated. The rollers C and C' are constructed in the manner shown in Fig. 1, having alternate flat surfaces *f* and concave surfaces *h*. E represents the table upon which the tobacco is laid to be fed into the rollers. The tobacco is fed between them in such a manner that the stems will pass lengthwise between the flat surfaces *f f* of the two rollers, while the leaf extends on both sides of said flat surfaces and passes through between the concave surfaces *h* of the two rollers. This part of the operation crushes or flattens the stem of the tobacco in the leaf just as thin, or even thinner, than the leaf it-

self. In rear of the rollers C C' are two other rollers, G G, running parallel with the former, and having stationary journal-bearings. The rollers G G are, opposite the concave surfaces *h h* of the crushing-rollers, provided with brushes *k k*, of any suitable material, for the purpose of brushing and cleaning the leaf as it passes between them. Opposite the flat surfaces *f f* of the crushing-rollers one of the rollers G is provided with circular knives *m m*, while the other roller is provided with corresponding circumferential grooves *i i*, in which the knives work.

As the leaf passes out from between the rollers C C' it is caught by the brushes *k k* and carried between the rollers G G, the knives *m m* splitting the crushed or flattened stem lengthwise. Thus, at one operation, or while passing through the machine once, the stem is crushed or flattened and split, and the leaf brushed clean, when it is ready to be manufactured into plug-tobacco. At the inner edge of the table E, and below the same, is formed a pocket, *n*, opposite each flat surface *f* of the lower roller C. These pockets are to be filled with sponge or other suitable material saturated with oil for the purpose of cleaning and oiling said flat surfaces, to prevent the crushed tobacco from adhering to the same. Similar pockets or boxes *n'* are to be arranged above the flat surfaces of the upper roller C' for the same purpose. *p p* are metal plates arranged, as shown in Fig. 2, opposite to and in rear of the surfaces *f f* of the rollers C C', to guide or carry the tobacco off from the same after it has passed through. *s s* are scrapers arranged in rear of the rollers G G, to clean the spaces on the same where the knives and grooves are. Between these scrapers combs *t t* are situated, to clean the brushes *k k*. The rollers are connected by suitable gearing, and operated by any suitable machinery or power.

Having thus fully described my invention, what I claim as new, and desire to by Letters Patent, is—

1. The rollers C C', constructed, as described, with alternate flat surfaces *f f* and concave surfaces *h h*, for the purposes herein set forth.
2. The rollers G G, constructed, as described,

with brushes *k k*, knives *m m*, and grooves *i i*, substantially as and for the purposes herein set forth.

3. A machine for preparing tobacco-leaves in which the stem is crushed or flattened in the leaf and split, and the leaf brushed, all in one operation, substantially as herein set forth.

4. The combination of the rollers *C C'*, pockets or boxes *n n'*, rollers *G G* with brushes and

knives, guides *p p*, scrapers *s s*, and combs *t t*, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of January, 1873.

JOHN L. JONES.

Witnesses:

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