(No Model.)

D. JACKSON.

TOBACCO CUTTING MACHINE.

No. 597,148. Patented Jan. 11, 1898.

Fig. 1.

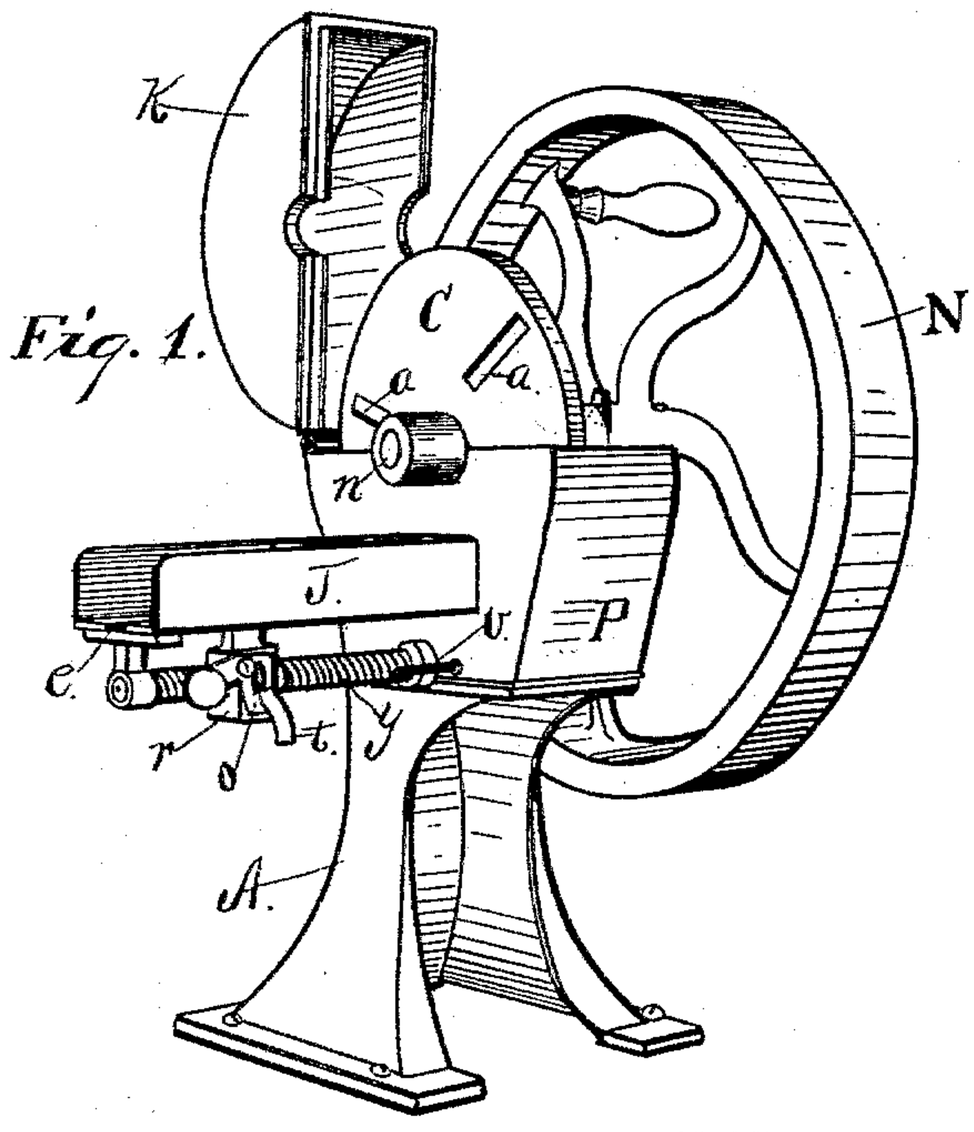


Fig. 2.

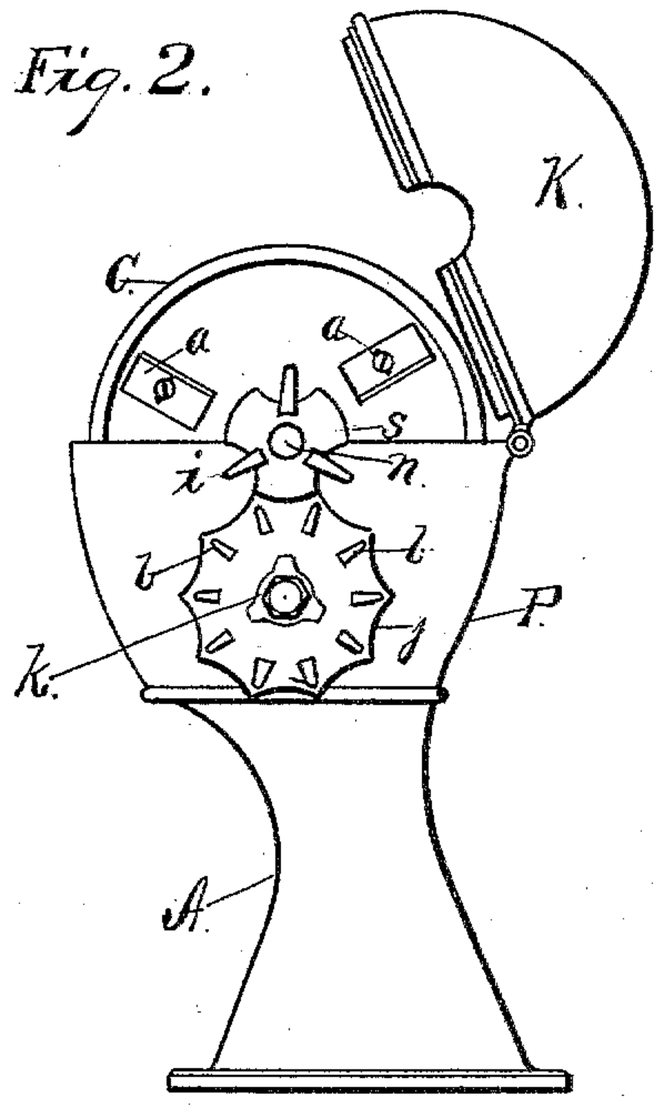


Fig. 3.

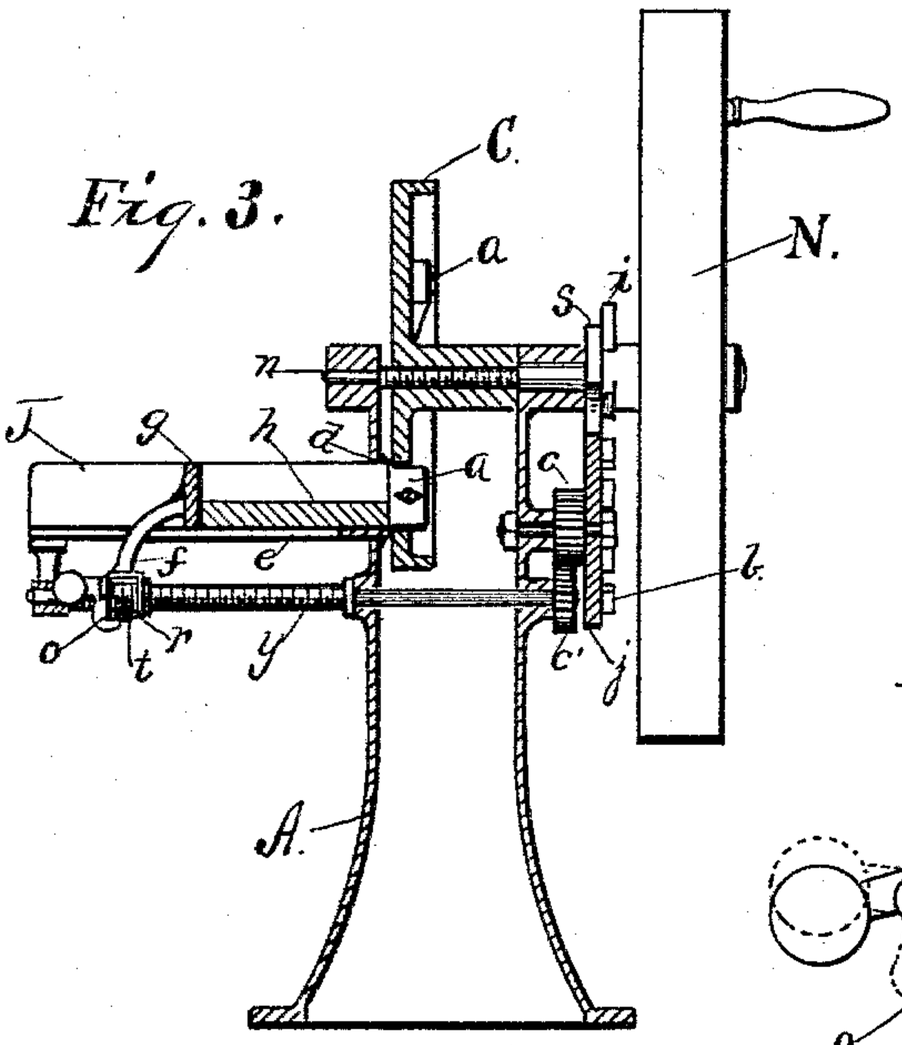


Fig. 4.

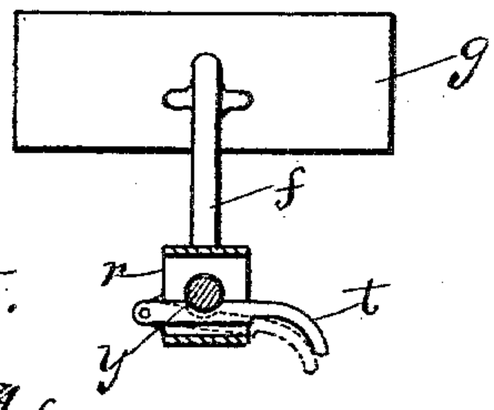
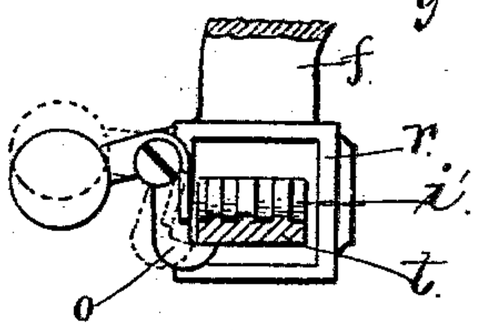


Fig. 5.



WITNESSES

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TOBACCO-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 597,148, dated January 11, 1898.

Application filed January 8, 1897. Serial No. 618,431. (No model.)

To all whom it may concern:

Be it known that I, DAVID JACKSON, of Pawtucket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Tobacco-Cutting Machines; and I 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, which form a part of this specification.

This invention relates to the class of tobacco-cutting machines used to reduce plug-tobacco to thin shavings or shreds.

It is fully explained and illustrated in this specification and the accompanying drawings.

Figure 1 shows a perspective view of the machine with the top open. Fig. 2 is a front elevation of the same without the balance-wheel. Fig. 3 shows a vertical section of the machine, taken lengthwise through the center of the machine, part in elevation. Fig. 4 shows an enlarged end view of the pressure-plate with screw and nut in section. Fig. 5 is an enlarged view of the front of the screw-nut.

The object of the invention is this: A is a pedestal or stand cast hollow and having a chamber *p* at its upper end to hold the vertical cutter-disk C. This chamber is divided through its center horizontally, and a cap K is formed of the upper part that is connected by hinges to the lower part to allow of ready access to the disk C. The disk is held fast on a horizontal shaft *n*, that turns in suitable bearings in each side of the lower part of the chamber and has a balance-wheel N, fast on its front end, provided with a handle to turn the shaft and disk C. A horizontal trough J extends out back from the chamber a little below its center, and an opening *d* is made from the trough to the inside of the case, through which the tobacco *h* passes to the knives *a a* in the cutting-disk C. A slot *e* is made through the bottom of the trough J, lengthwise of it, and a vertical pressure-plate *g*, placed across the trough, is arranged to slide in it and has arm *f* extending down through the slot *e* to connect it with the nut *r* on the screw *y* below. This screw *y* extends through the front and back of the chamber P, in which it has suitable bearings made for it. A spacing gear-wheel *s* is made fast on the shaft *n*, just in front of the chamber P, which has three teeth *i*, (though there may be more or less in number of the teeth,) which enter between studs *b* on the face of a disk *j*, held on a stud fast in the front of the case below the shaft *n*. The periphery of the disk *s*, between the teeth *i*, is made on a circle of about the diameter of the pitch-line of the teeth *i i*, and the disk *j* has the spaces on its circumference between the studs *b* cut out in a concave shape on a circle of the same diameter, so that the peripheries of the two disks will fit together, and when a tooth *i* has turned the disk *j* by one of the studs *b* one of the curved spaces between the teeth *i i* will enter one of the concave spaces between the studs *b b*, and the disk *j* will be prevented from turning until another tooth *i* shall reach the next stud *b*.

The disk *j* is connected with the screw *y* by a gear-wheel *c*, fast on the back of the disk, the teeth of which engage with a gear-wheel *c'*, fast on the front end of the screw *y*, so that the screw will only turn when a tooth *i* in disk *s* moves a stud *b* in disk *j* and cannot move but so far, however fast the machine may be run. This intermittent motion of the screw is intended to avoid a serious difficulty met with in machines using a steady screw-feed which presses the tobacco continuously on the disk C between the knives, and from the nature of the plug-tobacco makes the face of the disk become sticky and cause great friction that makes it very laborious to turn the machine; but with the intermittent feed the tobacco is fed forward just as the knife reaches it and is clear of the disk C at all other times. Another advantage of this feed is that the thickness of the shaving cut off is gaged exactly by the motion of the screw and not, as in the other case, by the distance the knife *a* is set out of the disk C.

The presser-plate *g*, that pushes the tobacco *h* into position to be cut by the knives *a*, is operated by the screw *y* through the nut *r*, which consists of a case attached to the plate *g* and surrounding the screw and having a lever *t*, pivoted to the back of the nut and ex-

tending under the screw out in front, with a handle by which it can be raised, so as to bring the screw-threads *i'* on it into engagement with the threads of the screw, and a hook *o*, pivoted on the front of the nut at the top, catches under the lever *t* and holds it in engagement with the screw until the nut reaches the end of its motion toward the case, when a wire stud *v* in the side of the case strikes the hook *o* and pushes it out from under the lever, as shown by dotted lines in Fig. 5, so as to allow it to drop out of engagement with the screw *y*, and the motion of the presser-plate ceases. Then it can be drawn back and another plug put in the trough in front of it and the lever *t* again raised and secured by the hook, and the cutting can be resumed.

A friction-washer *k* is put in front of disk *j* to prevent any looseness of the disk on the stud that would stop a backward motion of the shaft if such motion was made.

Having thus described my improvements, I claim as my invention and desire to secure by Letters Patent—

1. In a tobacco-cutter the combination of a case containing a vertical disk having knives set radially therein, a trough having a slot made lengthwise through its bottom, a pressure-plate placed across said trough and adapted to slide therein, a screw held in bearings in the case and extending out under the trough, a nut on said screw attached to the pressure-plate and having a lever pivoted at its back end to the back of said nut and extending under the nut out in front with a handle to raise it by, and having a section of screw-threads on it fitting in the threads in said screw, with a hook also pivoted to the nut and catching under the lever, to hold it against the screw, with means for releasing said lever when the presser-plate is near the case, substantially as described.

2. In a tobacco-cutter the combination of a case containing a vertical disk having knives set radially therein, a trough having a slot made lengthwise through its bottom, a pressure-plate placed across said trough and adapted to slide therein, a positive intermittent feed consisting of a screw held in bearings in the case and extending out under the trough, a disk fast on the outer end of the shaft having teeth on it with convex circular spaces between them, a disk held on a stud below, and having studs on its face engaging with the teeth of the upper disk and having concave-shaped spaces in its periphery between said studs, and gear-wheels, connecting said lower disk with the screw, substantially as described.

In testimony whereof I have hereunto set my hand this 4th day of January, A. D. 1897.

DAVID JACKSON.

Witnesses:
BENJ. ARNOLD,
MATTIE E. LAWTON.