J. W. CROSSLEY.

Tobacco Cutter.

No. 64,498. Patented May 7, 1867.

Fig. 1.

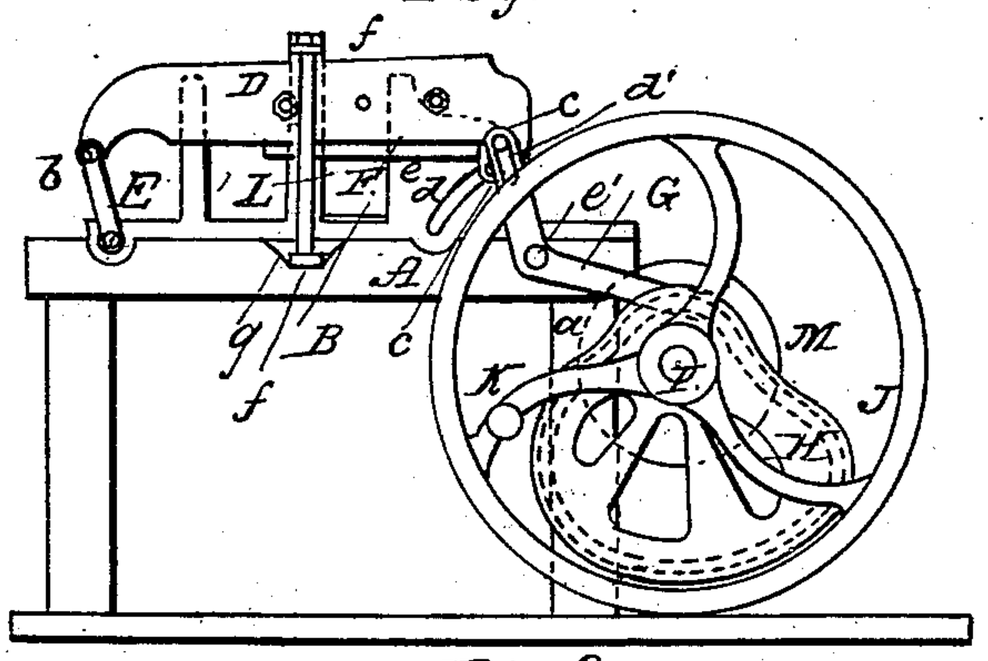


Fig. 2.

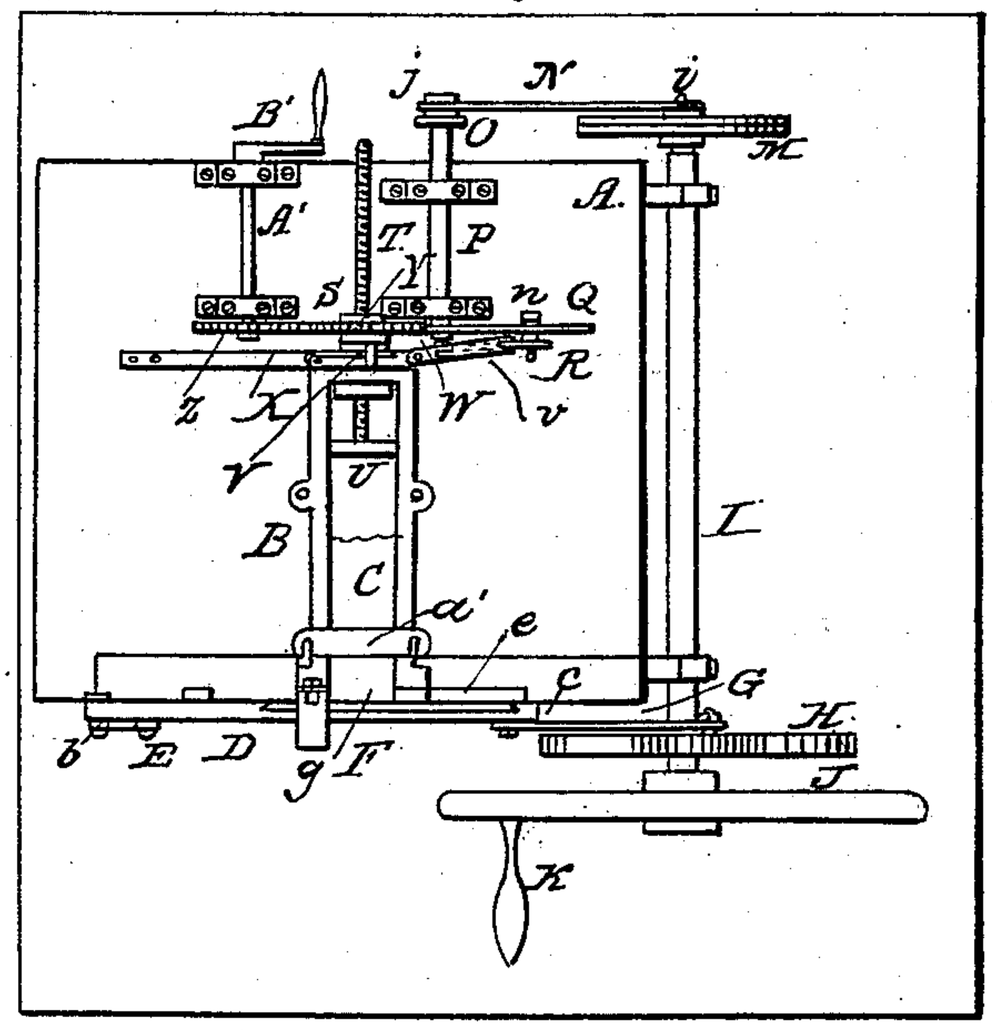
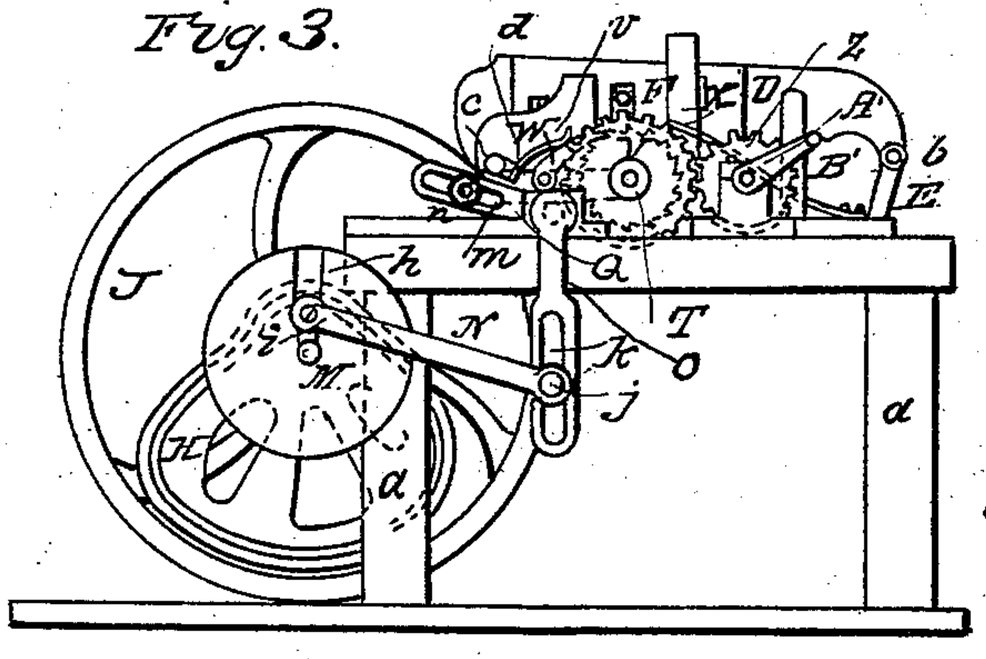


Fig. 3.



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J. W. CROSSLEY, OF BRIDGEPORT, CONNECTICUT.

Letters Patent No. 64,498, *dated May* 7, 1867.

MACHINE FOR CUTTING TOBACCO.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, J. W. CROSSLEY, of Bridgeport, in the county of Fairfield, and State of Connecticut, have invented a new and improved Tobacco-Cutting Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front view of my invention.

Figure 2, a plan or top view of the same.

Figure 3, a rear view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved machine for cutting tobacco for chewing and smoking purposes.

The invention consists in a novel manner of arranging and operating a knife, whereby a drawing cut is obtained; and also in a novel feed mechanism for so feeding the tobacco to the knife, all being constructed and arranged in such a manner that tobacco may be cut for the purposes specified with a moderate expenditure of power, in an expeditious manner, and finer or coarser, as may be required.

A represents a horizontal platform, which may be supported at a suitable height by legs *a*, or any proper framing. B is a feed-box, in which the tobacco to be cut is placed. This feed-box is secured on the platform A, and is provided with a lid or cover, C, secured by clamps *a'*. D is a bar, one end of which is secured by a pivot-bolt, *b*, to the upper end of a radius bar or arm, E, attached to the front side of the platform A, and the opposite end of said bar has a pin, *c*, passing through it, which works in a curved slot, *d*, in an upright plate, *e*, which extends laterally from the front or discharge end of the feed-box B, the curvature of the slot *d* corresponding to the curve described by the radius arm E. To this bar D a knife, F, is attached, which works over the front end of the feed-box, and on a pin, *c'*, just above the pin *c*, the upper end of a bent lever, G, is fitted, said pin passing through an oblong slot, *d'*, in the lever, shown clearly in fig. 1. The lever G has its fulcrum, *e'*, at the front edge of the platform A, and the lower end of said lever has a pin projecting horizontally from it, which works in a grooved cam, H, on a driving-shaft, I, the latter having its bearings at one side of the framing of the machine, and provided at the front end with a fly-wheel, J, to which a handle, K, is attached. A vertical pin or roller, L, is fitted between horizontal projections, *f*, at the front part of the machine, and this pin or roller serves as a guide for the knife-bar D. The projections *f* may extend from bars *g*, connected or cast with the feed-box.

From the above description it will be seen that by turning the shaft I, an oblique up-and-down movement will be given the bar D and knife F, and consequently the latter will operate with a drawing cut, and perform its work with a moderate application of power. At the rear end of the driving-shaft I there is secured a crank-pulley, M, having a radial dove-tail groove, *h*, made in its outer side, in which a slide is fitted, having a rod, N, attached by a screw, *i*. The outer end of the rod N is connected by a screw-bolt, *j*, with an arm, O, at the outer end of a shaft, P, which has its bearings on the platform A, the screw-bolt *j* passing through an oblong slot, *k*, in the arm O, as shown clearly in fig. 3. At the inner end of the shaft P there is an arm, Q, which also has an oblong slot, *l*, made in it, through which slot, and an oblong slot, *m*, in an arm, R, a screw-bolt, *n*, passes. The arm R is fitted loosely on a nut, S, through which a screw, T, works, the screw passing longitudinally into the feed-box, and having a follower or plunger, U, at its inner end, (see fig. 2.) On the nut S there is keyed a ratchet-wheel, V, into which a pawl, W, connected to the arm R, works a spring, *v*, bearing against the pawl, to keep it engaged with its ratchet, (see figs. 2 and 3.) X is a holding pawl, which catches into the ratchet-wheel V, and prevents it from turning in the wrong direction. On the nut S there is also keyed a toothed-wheel, Y, which gears into a corresponding wheel, Z, on a shaft, A', on the platform A, and has a crank, B', on its outer end. It will be seen that as the driving-shaft I is turned, the pawl W will actuate the ratchet-wheel V, and consequently turn the nut S, and move the screw T and plunger U, the latter pressing the tobacco forward towards the knife, which cuts it at each descent, the tobacco being fed forward just previous to each descent of the knife. The tobacco may be cut coarser or finer by varying the throw or length of movement of the pawl W, which may be done by adjusting the screw *i* of the crank-wheel M nearer to or further from its centre, or adjusting the screw-bolt *j* nearer to or further from the end of the arm O, or by adjusting the screw-bolt *n* nearer

to or further from the end of the arm Q. In order to run back the plunger U, the pawl W is disengaged from the ratchet-wheel V, the holding pawl X is raised free from the ratchet-wheel, and the shaft A′ turned through the medium of the crank B′, the wheels Y Z communicating motion to the nut S.

The device is extremely simple and efficient. It has been practically tested, and operates well, performing the work expeditiously and in a perfect manner.

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

1. The radius arm E, fixed plate *e*, provided with the curved slot *d*, the lever G, and pin *c*, cam M, and knife-bar D, all arranged to operate in the manner substantially as and for the purpose set forth.

2. The screw T, with plunger U attached, nut S, ratchet-wheel V, pawl W, and arm R, all combined and arranged to form the feed mechanism as set forth.

3. The adjustable rod N, and screw-bolt *n*, for the purpose of regulating the throw of the pawl W, as set forth.

J. W. CROSSLEY.

Witnesses:

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