

RITTERHOFF & COLQUITT.
Tobacco Cutting Machine.

No. 41,721.

Patented Feb. 23, 1864.

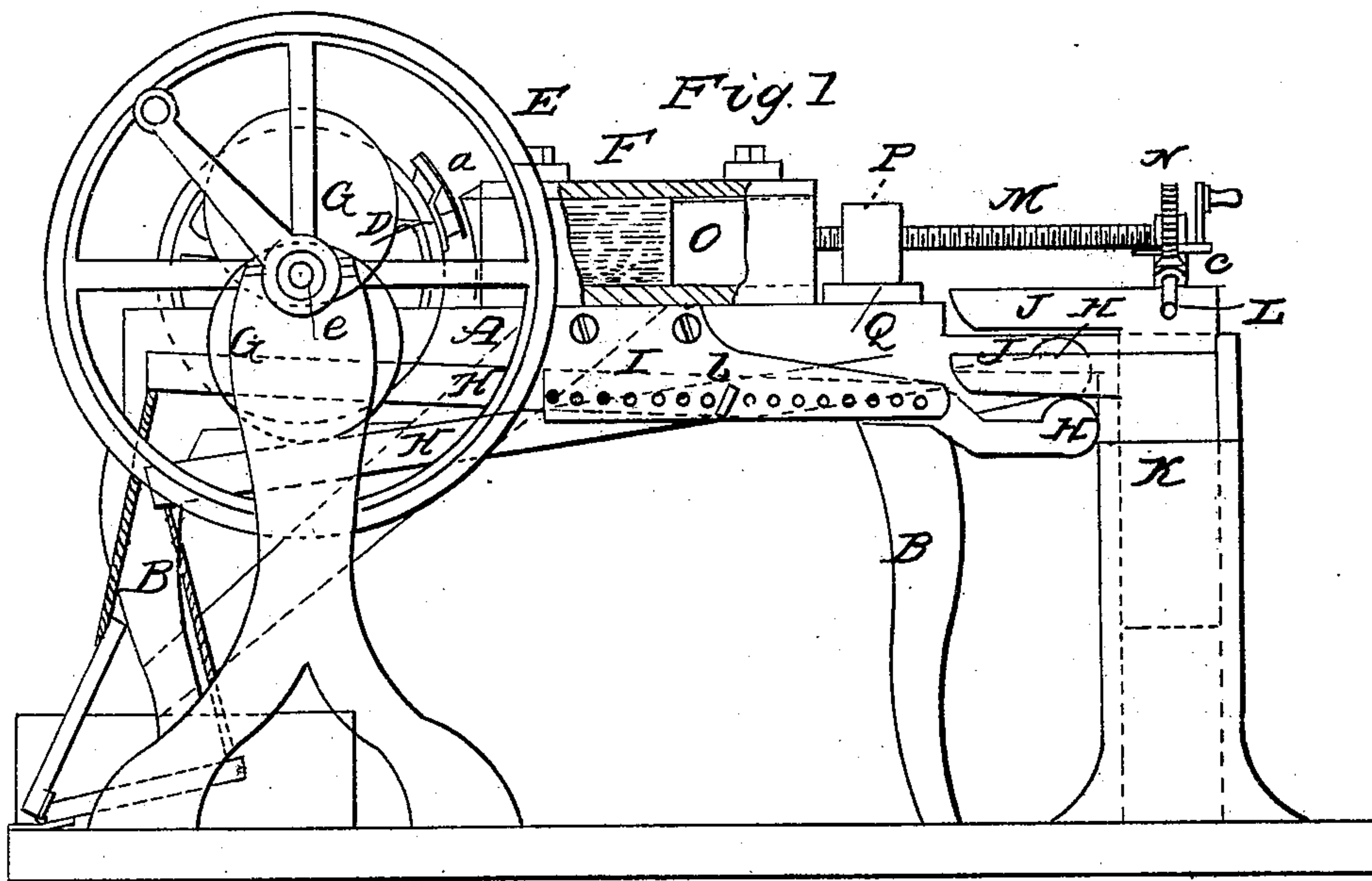
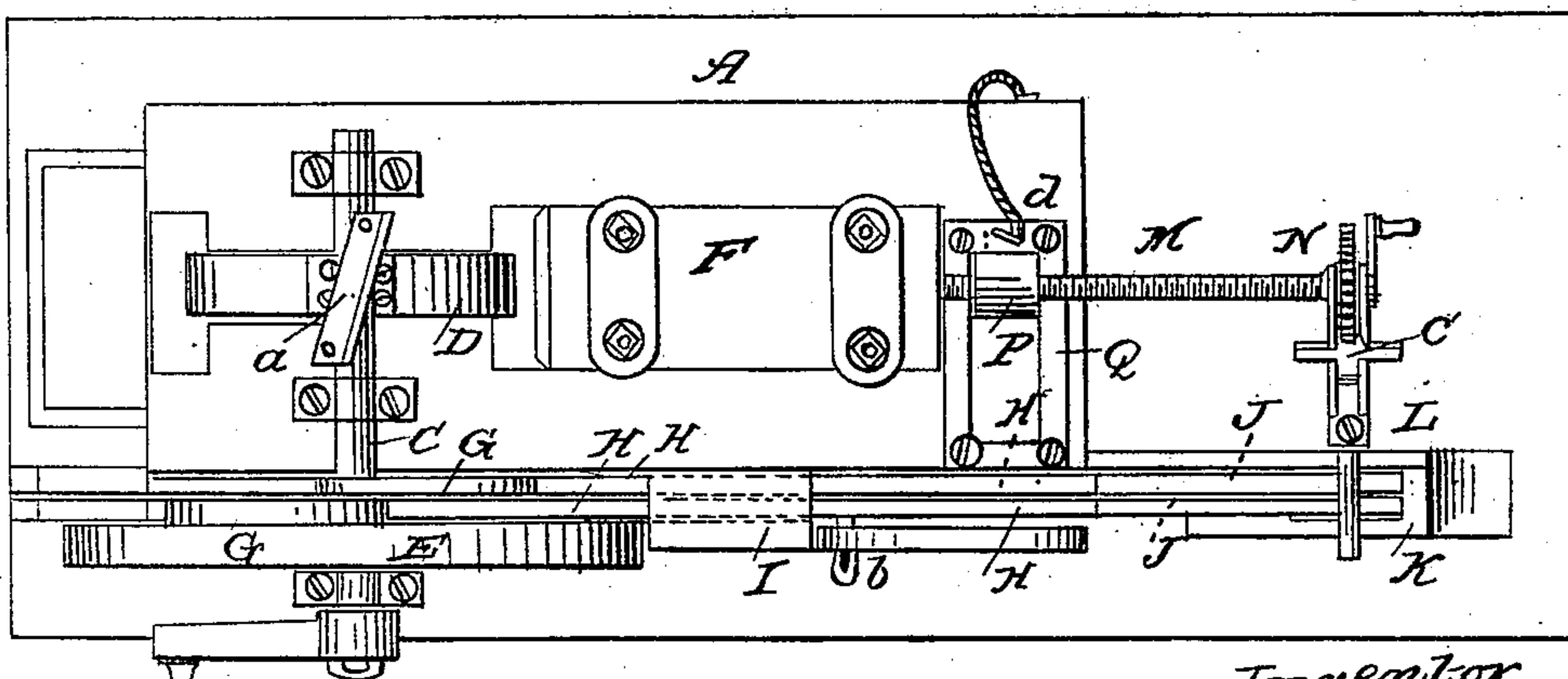


Fig. 2



witnesses.
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UNITED STATES PATENT OFFICE.

F. W. RITTERHOFF AND C. A. COLQUITT, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR CUTTING TOBACCO.

Specification forming part of Letters Patent No. 41,721, dated February 23, 1864.

To all whom it may concern:

Be it known that we, F. W. RITTERHOFF and C. A. COLQUITT, both of the city, county, and State of New York, have invented a new and Improved Machine for Cutting Tobacco, &c.; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a sectional side elevation of our invention. Fig. 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to produce a simple, compact, and cheap machine for cutting tobacco or other material or materials of any desired fineness, so that every small manufacturer is enabled to cut up his own tobacco to suit himself and his customers.

The invention consists in the application of one or more oscillating adjustable levers acted upon by eccentrics or cams, and acting on rising-and-falling tappets, in combination with the cutter-wheel, and with a lever spring-catch, which acts on the teeth of a ratchet-wheel secured to the end of a screw-spindle, which imparts motion to the follower moving in a box, and through it to the tobacco or other material to be cut, in such a manner that by the combined action of the adjustable levers, tappet, ratchet-wheel, screw-spindle, and follower an intermittent feed-motion is imparted to the tobacco or other material in the box, and said material is cut up to such a fineness as may be determined by the position of the oscillating levers.

The invention consists, also, in the employment or use of a laterally-sliding nut, in combination with the screw-spindle, follower, and box in such a manner that, by imparting to said nut a lateral motion, the end of the box is thrown open for the purpose of removing the follower and introducing a fresh charge of tobacco or other material.

To enable others skilled in the art to make and use our invention, we will proceed to describe it.

A represents a frame made of wood or other suitable material, and supported by legs B. This frame forms the bearings for the driving-

shaft C, to which a rotary motion is imparted by hand or any other competent power. This shaft carries the cutter-wheel D and a fly-wheel, E, which is intended to equalize the motion. The cutters *a* are secured to the circumference of the wheel D in the usual manner, and they sweep down close to the front end of the box F, through which the tobacco or other material to be cut is fed to said cutters. The number of cutters may be varied according to the size of the cutter-wheel. In the drawings we have shown two cutters, but instead of two only one or three or more might be used. The feed-motion is effected by the action of two (more or less) eccentrics or cams, G, which are secured to the driving-shaft C. The number and position of these cams correspond to the number and position of the cutters on the wheel D, so that whenever one of the cutters has done its work one of the cams is brought in action, and the tobacco or other material to be cut is fed the desired distance before the next succeeding cutter takes effect. The cams G act upon levers H, which are pivoted to the side of the frame A by means of a pin, *b*, which is adjustable in a bracket, I, with a large number of holes, each of the levers being provided with a similar number, so that their fulcrum can be changed, and the motion produced by the cams G can be varied at pleasure. The motion of the levers H is transmitted to rising-and-falling tappets J, which are guided in a slotted standard, K, at or near the rear end of the frame A, and these tappets impart motion to a lever, I, which is hinged to the end of the screw-spindle M, and which carries a spring-pawl, *c*, that engages with the teeth of a ratchet-wheel, N, secured to the end of said screw-spindle. By the alternate action of the rising-and-falling tappets J on the lever I an intermittent rotary motion is imparted to the screw-spindle, and through it to the follower O, which fits into the box F, and serves to feed the tobacco or other material toward the cutter-wheel. The screw-spindle M screws into a nut, P, which is adjustable in a slotted bed-plate, Q, so that a lateral motion can be given to it whenever it may be desired to remove the follower, or to have free access to the end of the box F. During the operation of the machine the nut P is secured in its place

by a pin, *d*. It must be remarked, however, that instead of making the nut stationary, said nut might be secured to the follower, or made a part of the same, and in this case the screw-spindle would have to be so arranged that it would rotate freely without being allowed to move in a longitudinal direction.

The amount of the feed motion, and consequently the fineness of the cut material, depends upon the position of the fulcrum-pin *b* of the levers *H*, and by changing this pin the fineness of the cut material can be varied at pleasure. The changes to be effected in the feed motion may, however, be still further increased by attaching a series of gear-wheels to the end of the screw-spindle similar to the back-gear of a turning-lathe.

This machine is simple in its construction, and it will enable every small manufacturer of cigars or dealer in tobacco to cut up his own tobacco to suit himself. It is obvious, how-

ever, that our machine may be used for cutting other materials besides tobacco.

What we claim as new, and desire to secure by Letters Patent, is—

1. The application of one or more oscillating adjustable levers, *H*, in combination with the cams *G*, tappets *J*, lever spring-catch *L*, ratchet-wheel *N*, screw-spindle *M*, follower *O*, box *F*, and cutter-wheel *D*, all constructed and operating in the manner and for the purpose substantially as herein shown and described.

2. The laterally-sliding nut *P*, in combination with the screw-spindle *M* and box *F*, constructed and operating in the manner and for the purpose substantially as set forth.

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Witnesses:

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