(No Model.)

H. C. HALL.

TOBACCO CUTTER.

No. 265,799. Patented Oct. 10, 1882.

Fig 2.

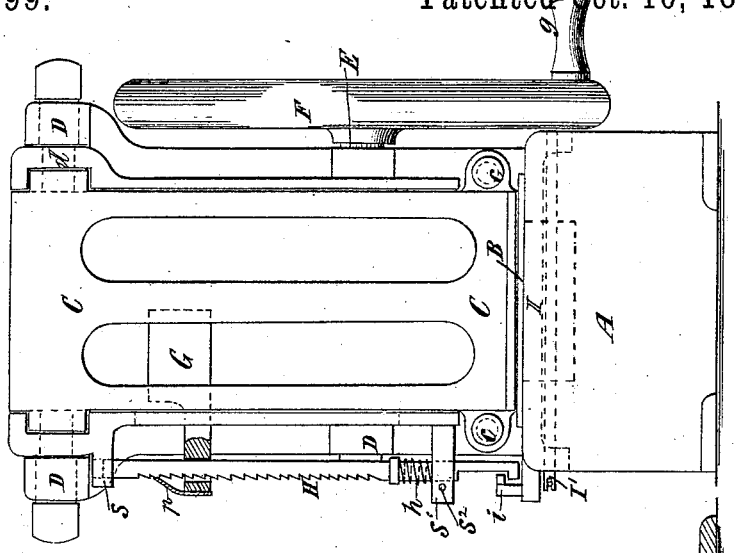


Fig 1.

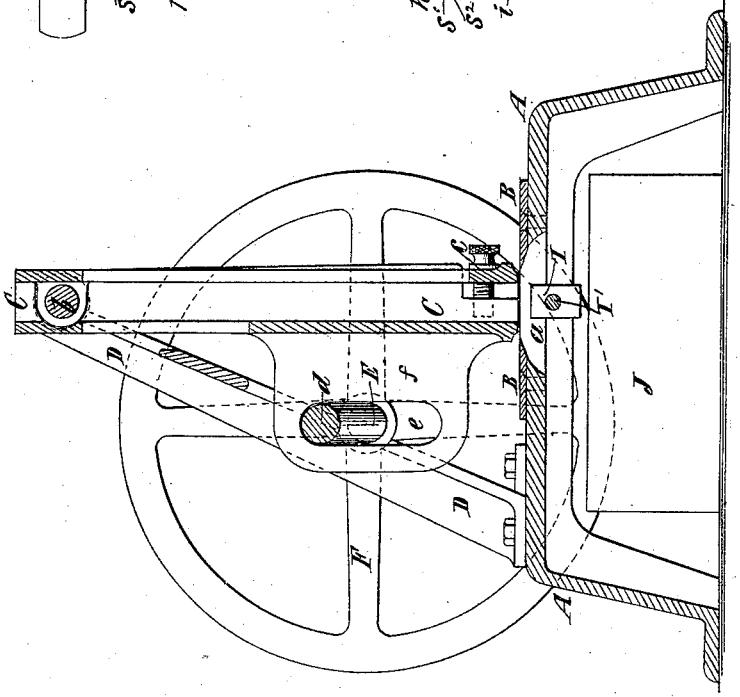
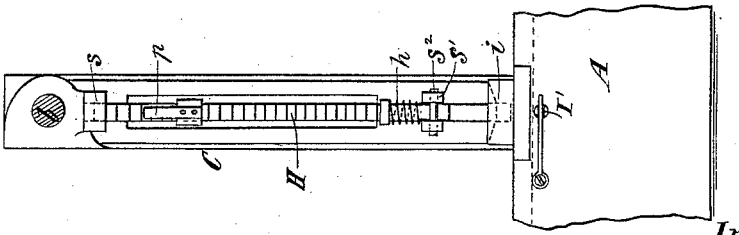


Fig 3.



Witnesses:
James R. Bowen
H. Keane

Inventor:
Harvey C. Hall

UNITED STATES PATENT OFFICE.

HARVEY C. HALL, OF BROOKLYN, ASSIGNOR OF ONE-HALF TO HARRY A. STOOTHOFF AND THOMAS J. DONIGAN, OF NEW YORK, N. Y.

TOBACCO-CUTTER.

SPECIFICATION forming part of Letters Patent No. 265,799, dated October 10, 1882.

Application filed June 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, HARVEY C. HALL, of Brooklyn, in Kings county, and State of New York, have invented a certain Improvement in Machines for Cutting Tobacco and other Materials, of which the following is a specification.

This improvement is especially designed for embodiment in machines for cutting plug-tobacco, but may be utilized in machines for cutting other materials.

The improvement consists in the combination of two stationary knives, a stop or rest between the knives for controlling the thickness of the cut material, and a holder for the material to be cut, pivoted above and midway between the knives, and adapted to be swung to and fro past the knives.

The improvement also consists in the combination, with a stationary knife or knives, of a holder for the material to be cut, composed of two parts pivoted independently of each other on the same trunnions or centers, and one part having side flanges which receive the other part between them, and devices for adjusting said parts toward and from each other at the lower end.

The improvement also consists in the combination of a stationary knife or knives, a holder for the material to be cut, composed of two parts pivoted independently of each other to the same centers or trunnions, and devices for adjusting said parts to and from each other.

The improvement also consists in the combination of two stationary knives, a rest or stop between the knives for controlling the thickness of the cut material, and a holder for the material to be cut, pivoted above and between said knives, and provided in its sides with openings through which the fingers may be inserted for forcing the material to be cut downward.

The improvement also consists in a novel combination of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a central longitudinal section of a machine embodying my improvement. Fig. 2 is an end view of the same, and Fig. 3 is a side view of a portion thereof.

Similar letters of reference designate corresponding parts in all the figures.

A designates the bed-plate of the machine. It may be made of cast-iron or other suitable material, and of any appropriate form. It is provided with an opening, *a*, on opposite sides of which are arranged two knives, B. These knives may be secured to the bed-piece by means of screws passing through longitudinal slots in the knives and entering tapped holes in the bed-piece. Such means of securing the knives in place afford provision for their adjustment and ready removal when desirable.

C designates a holder for the material to be cut. It consists of a chute which is arranged so that it can have a movement to and fro past the knives B. As shown, it is of a skeleton-like construction, so that it will have no unnecessary weight, and is open at the upper and lower ends. It is pivoted near the upper end to trunnions or centers *b*, which extend from two ears or lugs on a standard, D, whereby they are supported. Its front and back are pivoted to these centers independently of each other, as represented, so that they may be adjusted nearer together or farther apart to receive pieces of material of different thickness. The back of the holder is provided at the sides with projecting flanges, which receive the front between them. Any suitable means may be employed to adjust the front and back into different relations with each other. Screws *c*, passing through the lower portion of one of these parts and entering tapped holes in the opposite portion of the other, will be found convenient for this purpose.

The material to be cut may be introduced into the upper end of the holder, and will slide down the same by gravity. A weight of iron or other suitable material may be placed on the top of the material to insure its feeding properly.

Motion may be imparted to the holder by any suitable means—as, for instance, by a crank, *d*, working in a slot, *e*, in a lug, *f*, extending from the holder. The crank *d* is arranged on a shaft, E, which is provided with fly-wheel F. This shaft may be driven by a hand-crank, *g*, or other suitable means.

If desirable, I may employ a means for imparting a positive feed to the material to be cut. I have shown such a mechanism. It consists of a follower, G, acting upon the top of the material to be cut, and extending through a slot in the side of the holder. It fits upon a ratchet-bar, H, which is adapted to slide longitudinally in bearings s s', extending from the holder. The bearing s' is forked, and the bar is retained therein by a pin, s^2. A spring-pawl, p, on the follower engages with the teeth of the ratchet-bar. A spring, h, applied to the ratchet-bar between a shoulder with which it is provided and one of its bearings, impels it upward. At the lower end it has a transverse extension, which operates upon a cam or double reversed wedges, i, affixed to the bed-piece A. At each motion of the holder the ratchet-bar is pulled downward, and thereby causes the follower G to force along the material to be cut. After the bar H passes the cam i the ratchet-bar is raised by the spring h, and as the follower, owing to its inertia, remains immovable during this operation, the ratchet-bar takes a new hold of the pawl p of the follower, so that at its next depression it will draw the follower farther down.

I designates a stop-rest or gage, against which the material to be cut is fed, and whereby it is supported while it is between the knives. As shown, it consists of a block of metal or other suitable material mounted on a shaft, I', which is journaled in the bed-piece. The different faces of the block are located at various distances from the shaft. Hence by turning the different faces upward different thickness of material may be cut off by the knives. The holder C is pivoted above the rest or stop I and midway between the knives. Different cams or wedges i should be employed to cause the length of the travel of the follower G to correspond with the various thicknesses of material to be cut.

The material cut may be collected in a box, J, or other suitable receptacle. Although the machine is especially designed for use in cutting plug-tobacco, it may be used for cutting various other materials.

When it is desired to introduce a fresh piece of tobacco into the holder the pin s^2 may be taken out, and the bar H may be withdrawn laterally to remove the follower G. If the tobacco is short enough to permit the follower to be inserted above it, the bar H and follower may be replaced and the machine operated. Otherwise the tobacco may be pushed down by the hand until the follower will enter above it.

In lieu of the stop or gage I, I may cast in the bed-piece a bar extending across the opening a between the knives, which will serve the purpose of a rest or gage, although it will not be adjustable. While turning the crank with one hand the other hand may be pressed down upon the material being cut, if the automatic feed is not used, and the open or skeleton-like construction of the chute C affords provision for inserting the fingers into the chute for pressing down the piece of material until it is nearly all cut.

If desirable, I may provide the slot e, in which the crank works, with a removable cap, and when such cap is removed the chute C may be turned upward and over, so as to rest upon the outer side of the standard, whereby provision will be afforded for readily removing the knives for sharpening them or for other purposes.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of two stationary knives, a stop or rest between them for controlling the thickness of the cut material, and a holder for the material to be cut, pivoted above and midway between the knives, and adapted to be swung to and fro past the knives, substantially as described.

2. The combination, with a stationary knife or knives, of a holder for the material to be cut, composed of two parts pivoted independently of each other on the same trunnions or centers, and one part having side flanges, which receive the other part between them, and devices for adjusting said parts toward and from each other at the lower end, substantially as described.

3. The combination of a stationary knife or knives, a holder for material to be cut, composed of two parts pivoted independently of each other to the same trunnions or centers, and devices for adjusting said parts toward and from each other, substantially as described.

4. The combination of two stationary knives, a rest or stop between the knives for controlling the thickness of the cut material, and a holder for the material to be cut, pivoted above and between said knives, and provided in its sides with openings, through which the fingers may be inserted to force the material to be cut downward, substantially as described.

5. The combination of the bed A, the stationary knives B, a rest or stop between them, the two-part holder C, provided with the slotted lug f, the adjusting-screws c, the crank-shaft E, and the standard D, comprising centers or trunnions on which said holder may swing and bearings for said shaft, substantially as described.

HARVEY C. HALL.

Witnesses:
T. J. KEANE,
JAMES R. BOWEN.