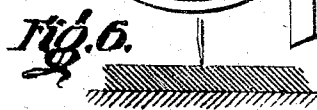
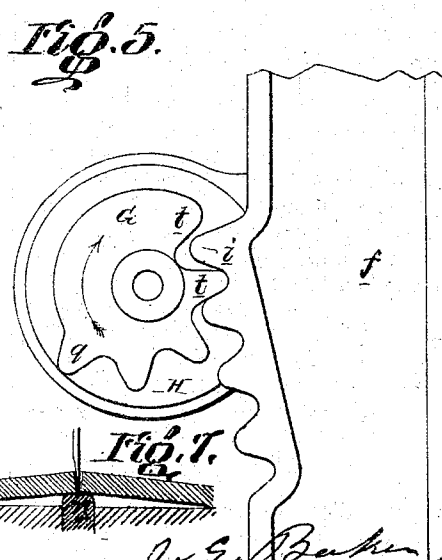
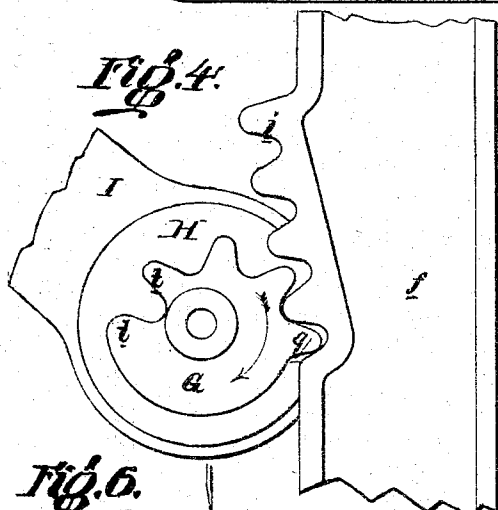
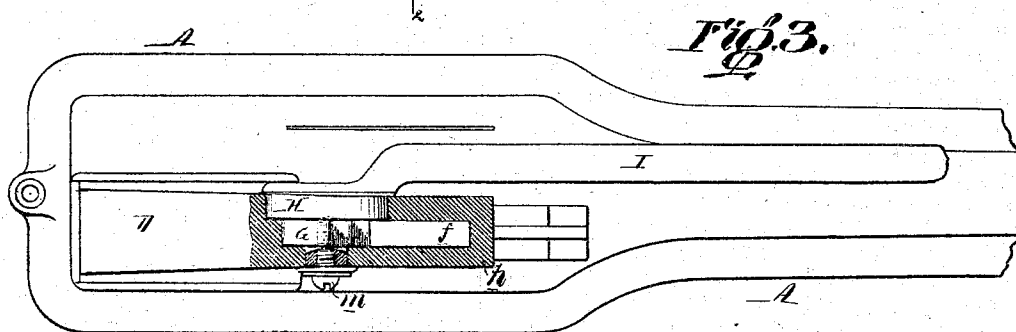
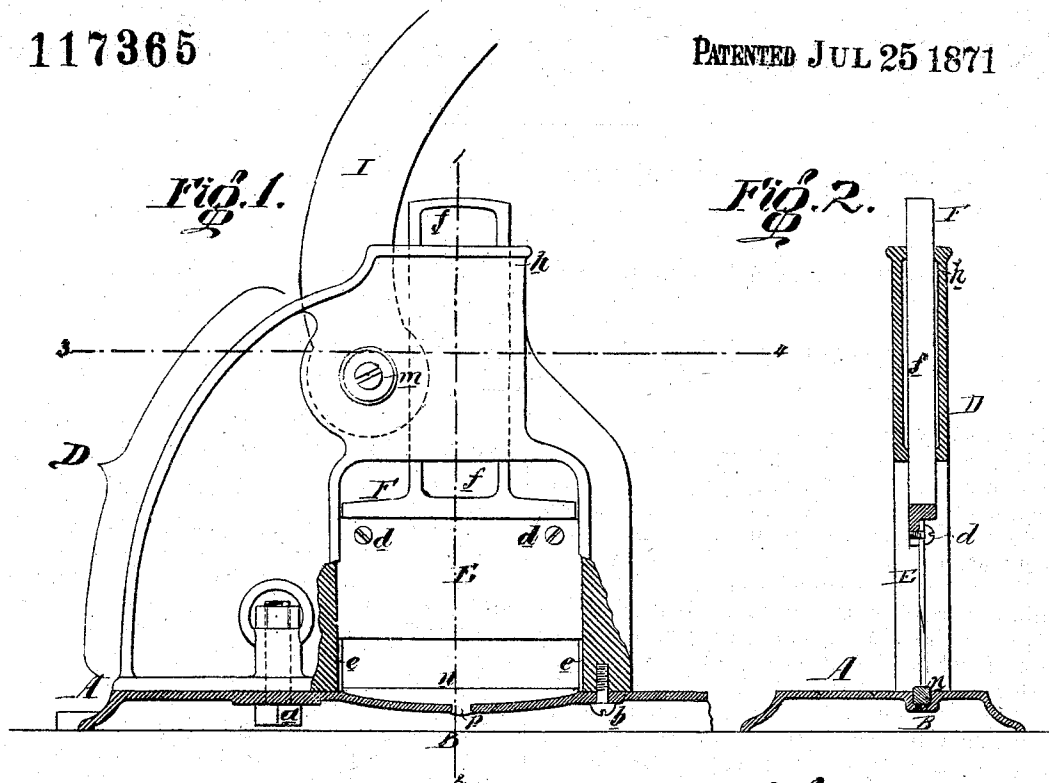


J.G. Baker, Assr. etc., Machine for Cutting Tobacco, etc.

117365

PATENTED JUL 25 1871



WITNESSES

John Parker

J. G. Baker
John H. Brown

UNITED STATES PATENT OFFICE.

JOHN GULICK BAKER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR CUTTING TOBACCO.

Specification forming part of Letters Patent No. 117,365, dated July 25, 1871.

To all whom it may concern:

Be it known that I, JOHN GULICK BAKER, of Philadelphia, county of Philadelphia and State of Pennsylvania, have invented a Machine for Cutting Tobacco, &c., of which the following is a specification:

My invention consists of a machine (too fully explained hereafter to need preliminary description) for cutting tobacco and other substances; the said machine being cheap and simple in construction and serving to perform its duty with much less exertion on the part of the operator than ordinary tobacco-cutters require.

Figure 1 is a side view, partly in section, of my machine for cutting tobacco; Fig. 2, a transverse section of the same on the line 1 2, Fig. 1; Fig. 3, a sectional plan on the line 3 4, Fig. 1; Figs. 4 and 5, enlarged views, illustrating part of the machine; and Figs. 6 and 7, diagrams illustrating one of the features of my invention.

A is a cast-iron base-plate, resting on and secured to a bench or table, B, and to this plate is attached, by a bolt, *a*, and a set-screw, *b*, the frame or standard D, the inner edges of the two legs of which are grooved so as to form vertical guides *e e* for the opposite ends of the steel blade or knife E, the upper end of which is attached by set-screws *d d* to the cross-head F, the stem *f* of the latter passing through and being guided by the upper portion *k* of the standard D. On one edge of the stem *f* of the cross-head is formed an inclined rack, *i*, adapted to the teeth of an eccentric pinion, G, which projects from and forms a part of the hub H of the handle I, and this hub fits snugly, but so as to turn freely, in a circular opening made in one side of the standard D, where it is confined by a set-screw, *m*, introduced from the opposite side of the standard, into the central-threaded hole of the said hub H. A recess is formed in the base-plate A for the reception of a strip, *n*, of copper, brass, or other soft metal or alloy, to receive the sharp edge of the knife, this strip being secured in its place by riveting to the under side of the base-plate, a small projection or teat, *p*, forming part of the strip, which should project a short distance above the surface of the base-plate, for a purpose explained hereafter.

In operating the above-described machine, the tobacco is placed on the base-plate A between the legs of the standard D and beneath the knife

E, the latter having been raised by elevating the handle I until the pinion G and rack *i* occupy the relative position shown in Fig. 4, where the tooth *q* furthest from the center of rotation of the pinion is in gear with the rack. As the handle is depressed the power imparted to it is exerted through a constantly-increasing leverage, the cutting of the tobacco being accomplished while the teeth *t t* nearest to the center of rotation of the eccentric pinion are operating on the rack, and, consequently, while the greatest power is exerted.

It will thus be seen that while the knife can be raised rapidly, and to the desired height, through the medium of this eccentric pinion, it is the means by which increased power is exerted at the time when the greatest power is required.

Pressed tobacco is a tough substance, somewhat difficult to cut; if placed on a flat plate, as shown in Fig. 6, the difficulty is increased, for the material is apt to close on the knife as the latter passes through it, thereby creating a friction which demands extra exertion. If the strip *n*, however, be elevated above the surface of the plate, the tobacco will yield to the entering knife, as shown in Fig. 7, and the passage of the same through the tobacco will be rendered more easy.

It will be observed on referring to Fig. 1 that the under side of the strip *n* of soft metal is rounded and adapted to a concave recess. When the strip is first put in its place, and before it is secured, the knife is pressed down upon it, and, its projection or teat *p* being somewhat smaller than the hole in the base-plate, the pressure of the knife will cause the strip to assume its proper position. While it is held by the knife in this position the teat is riveted, and the strip thereby secured in such a position as to always be in line with the edge of the knife when the latter is depressed.

By this simple contrivance subsequent beveling of the strip to accord with the knife, or grinding of the latter to accord with the strip, is rendered unnecessary.

An advantage of the machine is its cheapness, owing to the economy exercised in its manufacture. No filing, turning, fitting, or planing is required in any part of the machine, the base-plate, standard, cross-head, and operating-lever being

simply good castings, ready to put together after they have been properly cleaned, and the hub H in its crude state forming the journal of the handle, ready for fitting into the recess of the standard, to which it is confined by a simple set-screw, *m*.

I claim—

1. In a machine for cutting tobacco, &c., an eccentric pinion, G, adapted to an inclined rack in the guided cross-head which carries the knife, and arranged so that the leverage increases as the knife descends, as and for the purpose set forth.

2. The base-plate, having a recess, curved at the bottom and adapted for the reception of a strip, *n*, curved at the lower edge and self-adjusting in the said recess, as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN G. BAKER.

Witnesses:

WM. A. STEEL,
FRANKLIN B. RICHARDS.