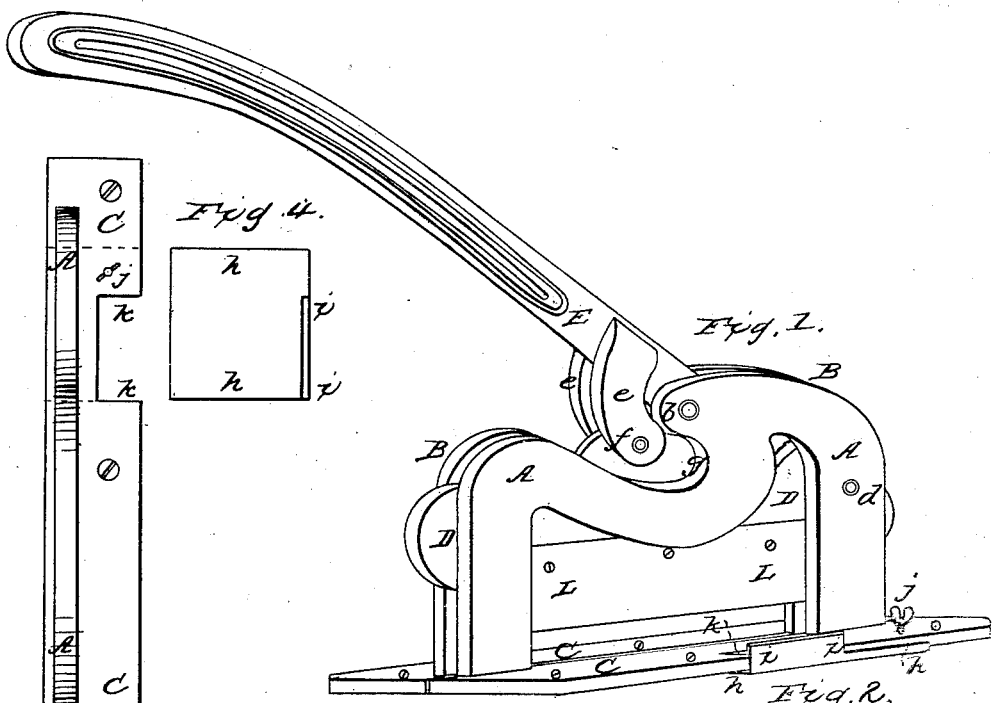
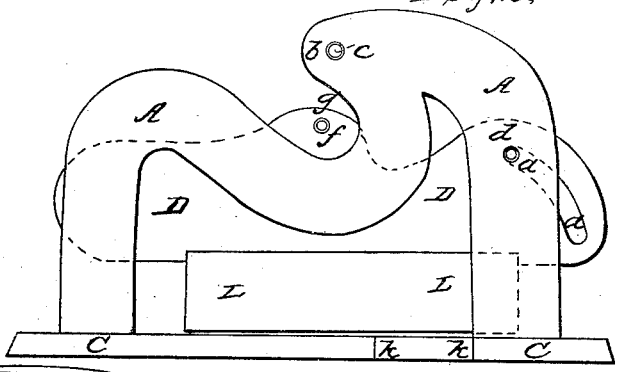
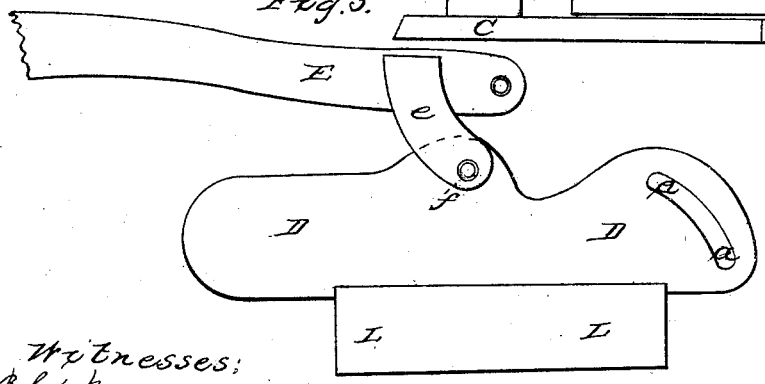
A. E. & J. B. BLOOD.

Tobacco Cutter.

No. 45,219. Patented Nov. 29, 1864.







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UNITED STATES PATENT OFFICE.

ABIJAH E. BLOOD AND JOSIAH B. BLOOD, OF LYNN, MASSACHUSETTS.

IMPROVEMENT IN TOBACCO-CUTTERS.

Specification forming part of Letters Patent No. **45,219**, dated November 29, 1864.

To all whom it may concern:

Be it known that we, ABIJAH E. BLOOD and JOSIAH B. BLOOD, of Lynn, in the county of Essex and State of Massachusetts, have invented a new and Improved Machine for Cutting Tobacco or any Hard-Pressed Herb; and we do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon—

Figure I showing a perspective view of the entire machine, except the wooden base or block to which it is to be secured; Fig. II, the right-hand cheek with the knife and knife-bar in positon; Fig. III, the knife and knife-bar as they are attached to the handle; and Fig. IV, a plan of the right-hand cheek, showing the manner in which the gage is disposed under it.

We make our machines of two opposite side frames or cheeks, A A and B B, each of which is provided with a projecting foot or flange, *c*, through which pass two or more screws on each side to secure the machine upon a proper bed or block. The inner edges of these feet or flanges we make true and straight, and provide with a slight projection near each end, so that when placed together upon the bed or block an opening for nearly the entire length of the frame is formed of sufficient width to admit the edge of the knife, as hereinafter described. Between the vertical parts of these side frames or cheeks we introduce a sliding piece or knife-bar, D D, of the form shown in the several figures, and of such thickness as to move freely both vertically and endwise. To the lower edge of this knife-bar we fasten the knife itself, L L, having the form of a rectangular blade, with the cutting-edge turned downward, fixed to the bar by two or more screws, and being let into the same a little more than its own thickness. In the forward end of this knife bar or plate we make a curved opening or guide-slot, *a a*, of the form represented, passing through the bar, and when the latter is in its designed place admitting freely the guide-pin *d*, which also passes through both the cheeks and is riveted close on either side. Above the knife bar or plate and between the projections *b b* of the cheeks we hang the lever or handle E, turning freely on the pin *c*. From the lower side of this lever extend two projections or claws, *e e*, attached to the sides of the lever and forming a part thereof, and having the shape represented. These are far enough apart at the lower ends to receive between them the upper edge of the knife-bar, which is there secured by the pin *f*, which turns freely in the knife-bar aforesaid. As by the depression of the handle the claws *e e* are necessarily carried forward, the cheeks are so formed that under the projections *b b* are openings or spaces *g g*, allowing the claws to advance till the pin *f* comes almost vertically under the pin *c* by the time the knife reaches its lowest position.

To prevent the edge of the knife from striking on the iron of the feet or flanges, we provide a small inclined surface or guide at the bottom of the forward part of each cheek on the inner side, which inclined surfaces are so disposed as to direct the edge of the knife into the groove or joint of the flanges before described.

In a depression in the under side of the flanges, near the forward end, we lay a movable plate, *h h*, having a part of one end turned vertically upward, *i i*, to serve as a gage to regulate the width of the material to be cut. This plate moves freely beneath the flanges, and between them and the wooden bed or block aforesaid, and is fixed in any desired position by the set-screw *j* passing through the flange at a point some little distance—say a half-inch or more—forward of the extreme forward limit of the opening under the knife. The gage-plate is also so constructed and arranged that its front edge extends about the same distance forward of said opening. This arrangement allows the screw to press on the gage and hold it firmly in position, while it is itself entirely out of the way of any material thrust through said opening. The upright post of the gage *i i* is, on being moved close up, received into a notch or opening in the flange *k k*, by which it is allowed to approach the knife within about half an inch. By this arrangement we obtain, when the knife L L is pressed downward by the motion of the handle E, a lengthwise or forward motion of the edge, sliding it along the material placed under it, and thus dividing it with much greater facility than by a simple downward pressure alone. At the same time the action of the

guide-pin *d* in the curved slot *a a* secures the parallelism of the edge of the knife throughout its motion, causing all parts to descend alike. This is the case theoretically. Practically, defects of manufacture may produce some variations.

What therefore we claim as our invention, and desire to secure by Letters Patent, is—

1. The arrangement and combination of the slotted knife-bar D D, the lever E, the guide-pin *d*, and the side frames or cheeks, A B, all constructed and operating substantially in the manner and for the purpose specified.

2. So arranging the gage-plate *h h* and its set-screw *j* with reference to the upright part of the frame A B that said screw shall stand so far forward of the opening under the knife that it cannot interfere with the material placed under the knife to be cut or divided, as herein set forth.

ABIJAH E. BLOOD.
J. B. BLOOD.

In presence of—
ROBERT RAMSDELL,
THOMAS MILLS.