

A. WEMPLE.
Machine for Notching Feathers.

No. 224,564.

Patented Feb. 17, 1880.

Fig. 1.

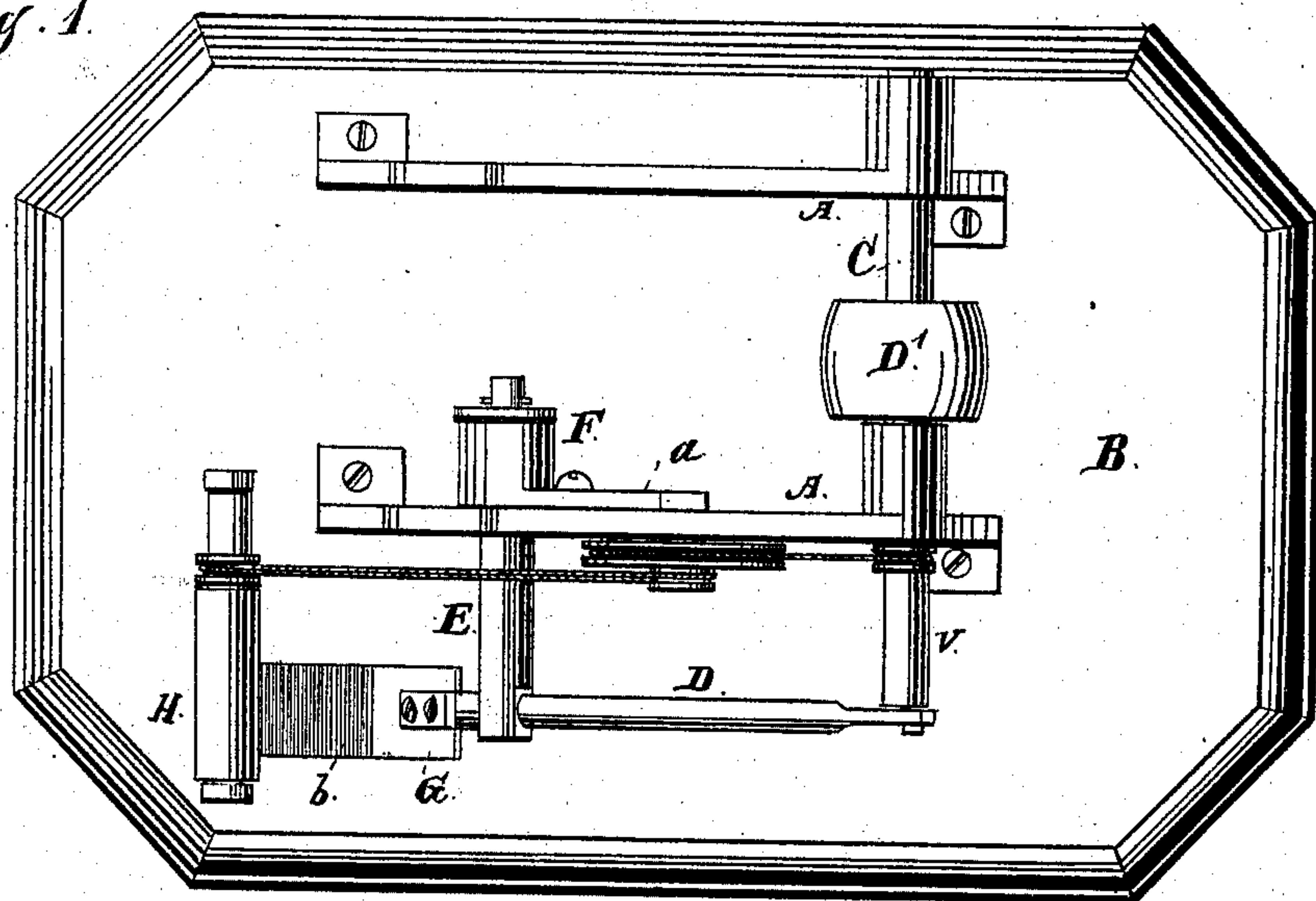


Fig. 3.

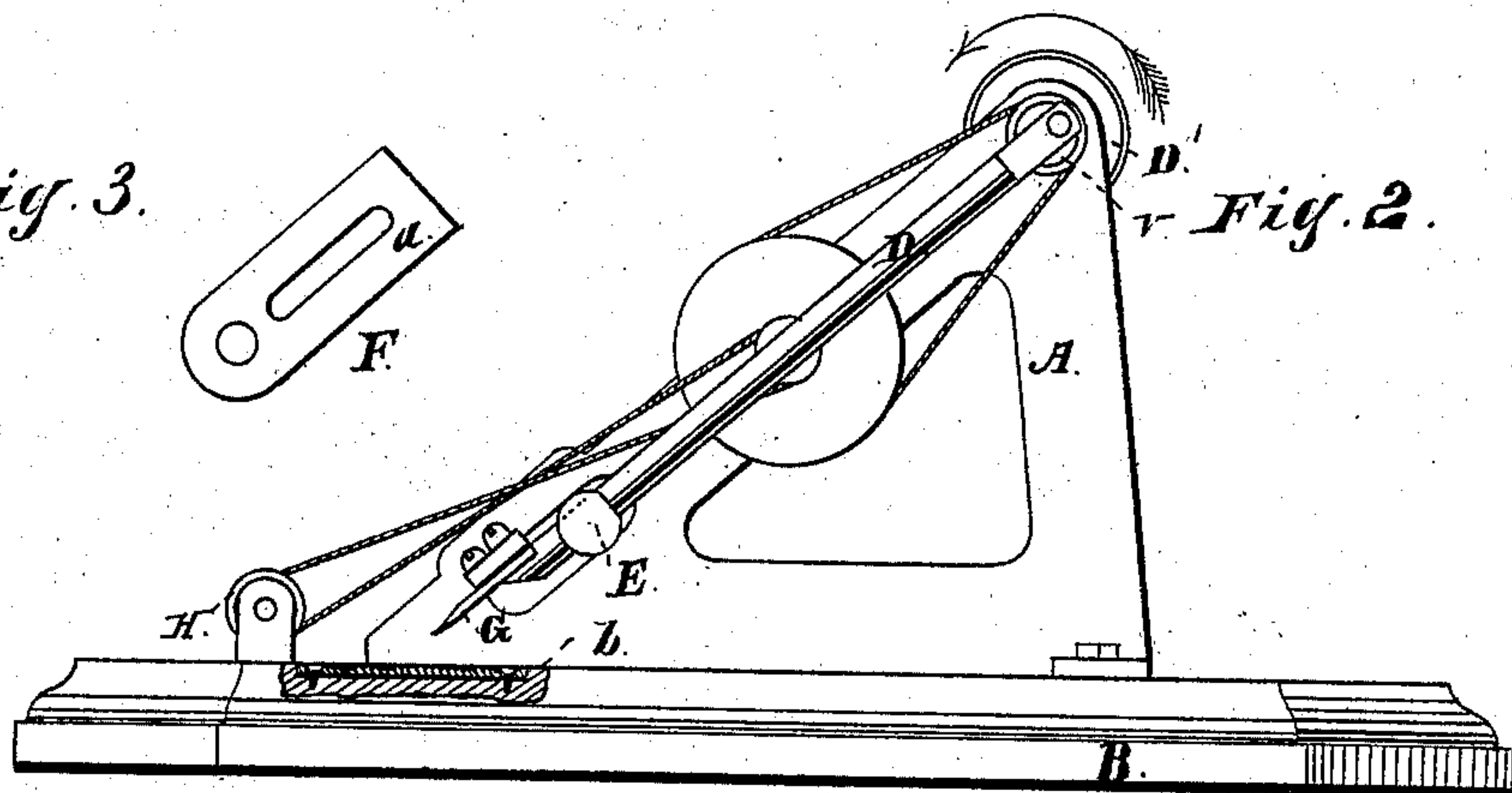
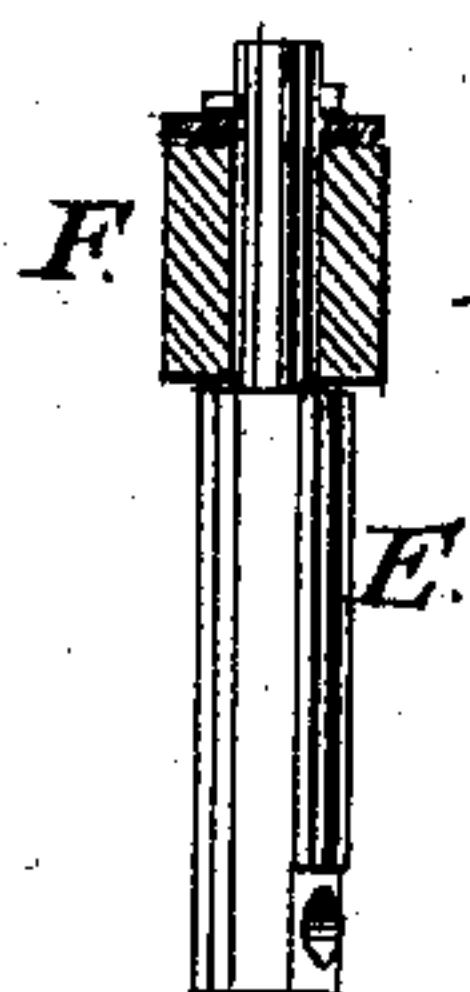


Fig. 2.

Fig. 4.



Witnesses:
O. W. Bond
H. H. Murphy

Inventor:

Andrew Wemple

UNITED STATES PATENT OFFICE.

ANDREW WEMPLE, OF CHICAGO, ILLINOIS, ASSIGNOR TO AZEL F. HATCH,
OF SAME PLACE.

MACHINE FOR NOTCHING FEATHERS.

SPECIFICATION forming part of Letters Patent No. 224,564, dated February 17, 1880.

Application filed December 15, 1879.

To all whom it may concern:

Be it known that I, ANDREW WEMPLE, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented new and useful Improvements in Machines for Notching Feathers, of which the following is a full description, reference being had to the accompanying drawings.

10 The object of this invention is to provide a machine by the use of which the stems of stiff feathers can be rapidly and suitably cut or notched, for the purpose of adapting them to be used in making feather dusters, which I accomplish as hereinafter set forth.

15 In the drawings, A represents a suitable frame, mounted and supported, as shown, on a base, B. C is a shaft rotating in bearings in the frame. D' is a pulley on the shaft C, which is to be driven in the direction of the arrow. D is a rod or bar, the upper end of which is pivoted eccentrically on the end *v* of the shaft C. The lower end is supported in and passes loosely through a rod, E, which is so supported that
20 it can have a rocking movement to adapt itself to the varying positions of the rod D. As shown, this supporting-rod E is secured in a sleeve, F, which, if desired, can be adjusted up and down on the diagonal bar of
25 the frame by means of a bolt and slot in the arm *a* of the sleeve F.

G is a knife secured to the lower end of the rod D. *b* is a metal plate in the base B, upon which the feather rests while being cut or
30 notched. H is a roller, beneath which the feathers pass, the same operating as a feed-roller. This roller can be driven by suitable belting.

35 If desired, a second feed-roller may be used, located beneath H, and so arranged that the feathers will pass between the two rollers.

The plate *b* is made rough to prevent the undue slipping of the feather while it is being cut. This plate is not a necessity.

40 The operation is as follows: A rapid reciprocating movement is given to the rod D by the rotation of the shaft C, and with each downward movement of this rod and the knife or cutter G a notch will be cut in the stem of
45 the feather, the same being placed in proper position beneath the knife and being fed forward at a suitable speed. In fact, when the

parts are constructed as shown and described the feather will be fed forward by the action of the knife alone, which is done by the diagonal movement of the knife and by the little upward movement which the edge of the knife has just as the cutting of each notch is completed.

The roller H is desirable for the purpose of holding the feathers in place, even if it should not be used as a feed-roller; but in practice it will be advisable to have it act as a feed-roller.

The rod D could be supported at its lower end in a fixed bearing instead of in a rocking support, E, either by enlarging and properly shaping the hole in E, through which D passes, or by jointing the rod D; but I regard the construction shown as the best.

The cutter or knife may be adjusted up and down on the rod D.

By the use of this machine the stems of feathers can be cut or notched uniformly and rapidly and to any desired depth, leaving the outside of the stem and the fiber uninjured, the inside of the stem and the pith only being notched.

I am aware that feathers have been heretofore cut or notched on the inside, and I do not claim a cut or notched feather; but I am not aware that machinery has been devised by means of which such cutting can be rapidly and successfully done.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. In a machine for cutting or notching feathers, the reciprocating rod or bar D, carrying a cutter, G, in combination with the driving-shaft C and rock-shaft E, substantially as and for the purpose specified.

2. The reciprocating rod or bar D, carrying a cutter, G, in combination with the driving-shaft C and one or more feed-rollers, H, substantially as and for the purpose specified.

3. In a machine for notching feathers, the roughened plate *b*, in combination with a reciprocating cutter moving diagonally, substantially as specified.

ANDREW WEMPLE.

Witnesses:

O. W. BOND,
H. W. MURPHY.