

(No Model.)

2 Sheets—Sheet 1.

J. R. WILLIAMS.
MACHINE FOR CUTTING WRAPPERS OR BINDERS FOR CIGARS
AND CIGARETTES.

No. 322,029.

Fig. 1. Patented July 14, 1885.

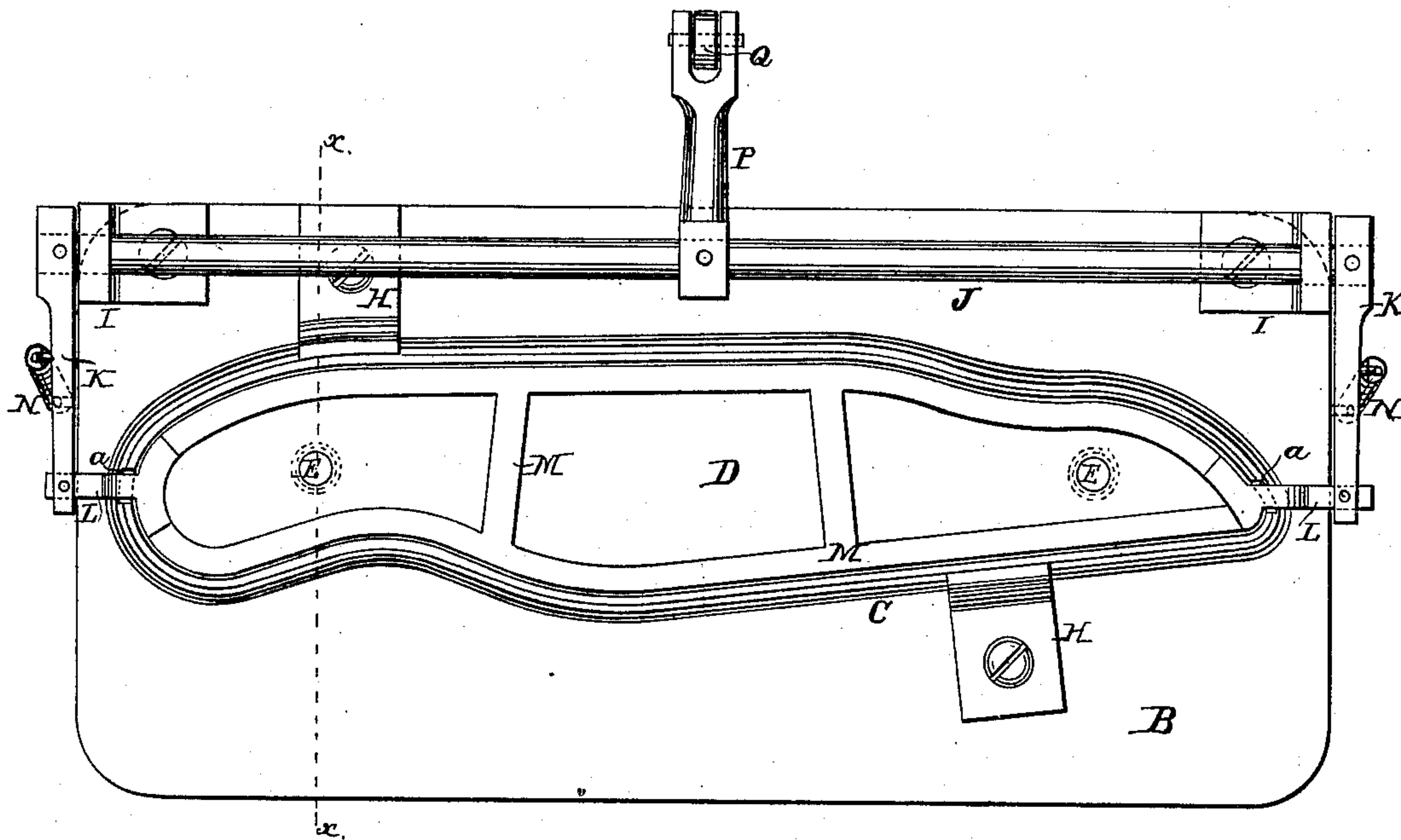
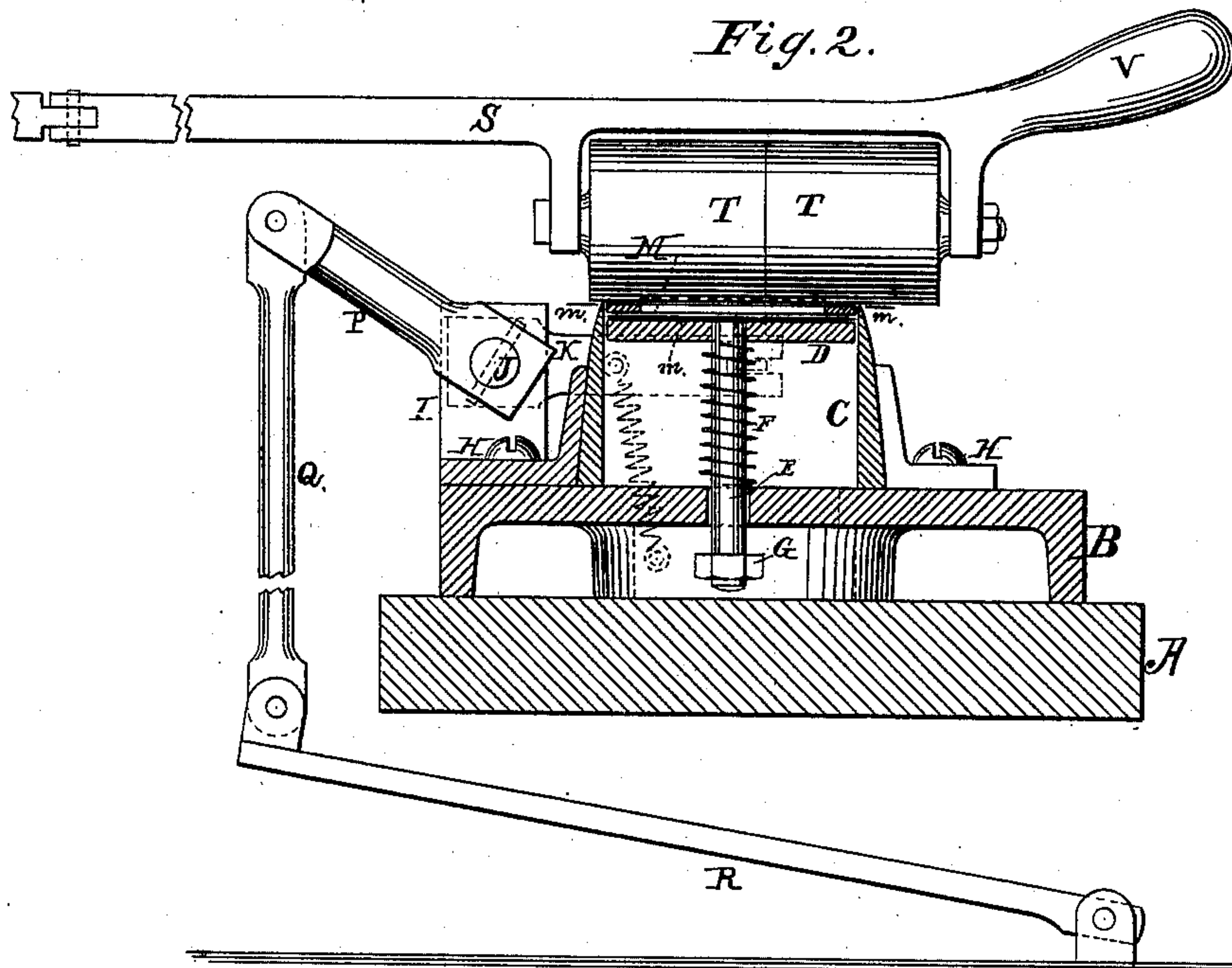


Fig. 2.



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Fig. 3 Patented July 14, 1885.

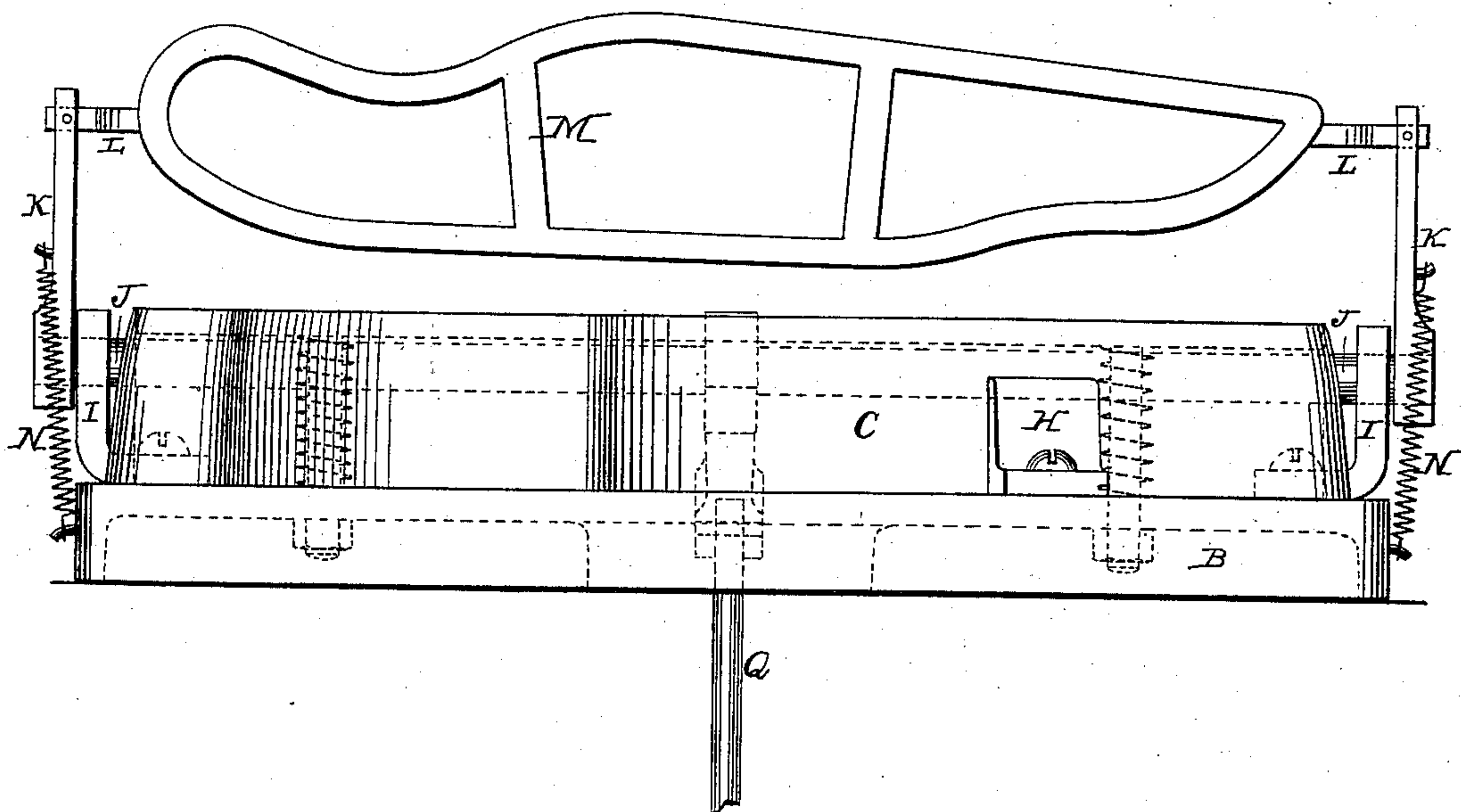
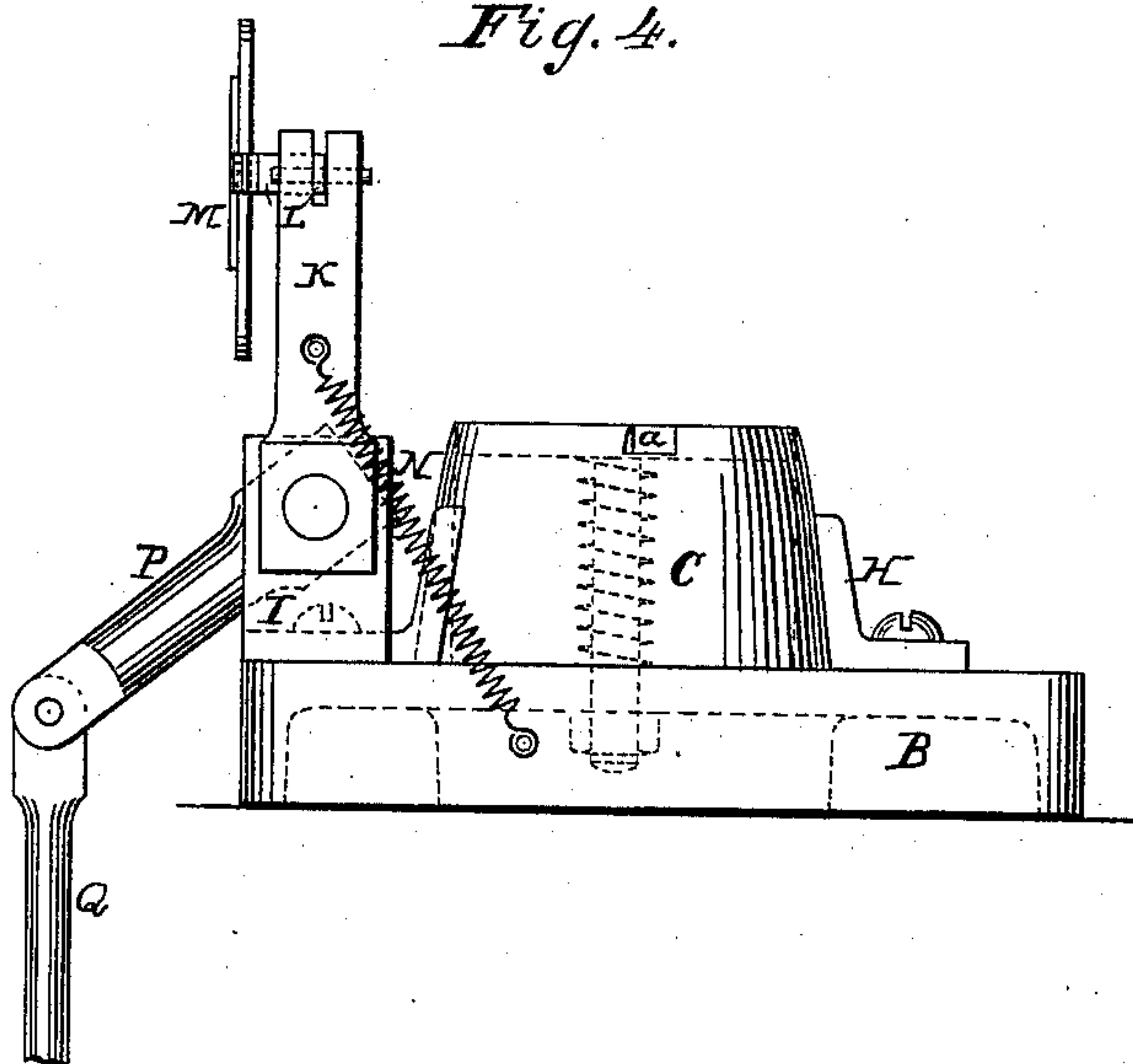


Fig. 4.



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MACHINE FOR CUTTING WRAPPERS OR BINDERS FOR CIGARS AND CIGARETTES.

SPECIFICATION forming part of Letters Patent No. 322,029, dated July 14, 1885.

Application filed November 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. WILLIAMS, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Machines for Cutting Wrappers or Binders for Cigars and Cigarettes, of which the following is a specification.

The invention relates to an improvement in machines for cutting wrappers or binders for cigars and cigarettes. Its construction and distinctive characteristics will appear in the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of an apparatus embodying the elements of the invention. Fig. 2 is a vertical transverse section of the same on the dotted line *xx* of Fig. 1. Fig. 3 is a side elevation of the apparatus illustrated in Fig. 1, the part of the same known as the "clamping-frame" being in an elevated position; and Fig. 4 is an end view showing the position of the parts illustrated in Fig. 3.

In the drawings, A denotes a suitable support for the base B, upon which is secured the die C, whose upper edge is sharpened and describes the outline of a cigar or cigarette wrapper or binder.

Within and closely fitting between the vertical walls of the die C is a platen, D, supported by the bolts E, which are encompassed between the base B and the platen D, with the coiled springs F, their lower ends projecting downward through apertures in the base B, and provided with a nut, G.

It is due to the construction and arrangement of the platen D, bolts E, and spring F that when pressure is applied upon the platen it will be depressed between the walls of the cutter C, and that upon the release of the said pressure the springs F will force the platen D back to its former position. The extent of the depression of the platen D will of course depend upon the amount of pressure exerted upon it. Its elevation, however, is controlled by the nuts G. It is intended to have the upper surface of the platen D on the same horizontal plane as the cutting-edges of the die C when the parts of the apparatus are at rest.

The die C may be secured upon the base B

by any suitable means. It is illustrated in the drawings as being secured by the angle-irons H.

Upon the rear corners of the base B are secured the standards I, in the upper ends of which are journaled the ends of the rock-shaft J, carrying the bars K, to which are secured, by means of the arms L, the clamping-frame M, which is similar in outline to and slightly smaller than the upper edges of the die C. The clamping-frame is of thin metal, open at its central portions, as shown, the bars L being in one piece with the frame, or being secured to it by soldering or otherwise, as may be desired. The outer ends of the arms L depend below the surface of the clamping-frame M, and are pivotally secured in slots formed in the ends of the bars K, as indicated in Fig. 4, and when the clamping-frame is in contact with the platen and depressed into the die said arms L will rest in notches *a* cut in the opposite edges of the die.

Suitable springs, N, are provided to retract the clamping-frame M against and preserve it in contact with the platen D during the operation of cutting a leaf of tobacco.

Upon the center of the rock-shaft J is secured an arm, P, in the outer end of which is pivoted the pitman-rod Q, whose lower end is in connection with the treadle R, whereby the clamping-frame may be elevated at will.

Arranged in suitable proximity to the cutter C is a swinging arm, S, carrying the rollers T, and having a handle, V, upon its outer end, the purpose of the rollers being, when moved over the die C by means of the handle V, to cut the leaf of tobacco, as hereinafter described.

While I illustrate the rollers T for cutting the tobacco, it is to be understood that they are not sought to be claimed herein; nor is the present application limited to the use of them in connection with the die, it being only essential for the purposes of the present invention that a suitable means of cutting be provided.

In the operation of the invention, the roller being swung to one side of the die C, the operator will elevate the clamping-frame M to the position shown in Figs. 3 and 4 by pressing with his foot upon the treadle R, and will then spread the leaf of tobacco upon the platen

D, the edges of the leaf overlapping the edges of the die C, after which the pressure will be released from treadle R, thereby permitting the springs N to retract the clamping-frame M upon the tobacco placed on the platen, holding it securely. The arm S will then be moved over the die, bringing the rollers T in contact with the clamping-frame M and depressing it with the platen into the die, as indicated in Fig. 2, thereby cutting the leaf. After the rollers T have moved entirely across the cutter C, by pressing upon the treadle R the clamping-frame M may be elevated, and the blank cut from the leaf removed by the hand, after which another part of the leaf may be spread over the platen D, the clamping-frame M allowed to lower upon it, and another blank cut by means of the rollers T, in the manner before described.

The clamping-frame is of special importance. It effectually holds the leaf of tobacco and prevents it from contracting or creasing during the cutting operation, and at the same time its pressure upon the platen is not sufficiently great to prevent the leaf being nicely drawn taut across the cutting-edges of the die C without danger of tearing it.

The frame M being open at its central portions or in the form of a skeleton, as shown, permits the attendant to watch the leaf in order to cut perfect blanks, and when said frame is elevated there is no obstruction to the removal of the blank or to the respreading of the uncut portion of the leaf over the die. I indicate in Fig. 2, by lines lettered *m*, the position of the leaf of tobacco when the platen and clamping-frame are depressed by the action of the rollers T.

It will be observed that the blank cut from the leaf is held principally at its edges and is removed from contact with the rollers T, hence the leaf will not be bruised during the operation of cutting, which is a very great advantage in view of the delicate nature of the material.

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

1. A machine for cutting wrappers for cigars or cigarettes, consisting, essentially, of a stationary die, C, having the outline of a wrapper, a vertically-yielding platen, D, located within the walls of said stationary die, a clamping-frame fitting within the upper edges of the die and adapted to hold the wrapper against the platen and die, suitable devices for depressing the platen and frame and cutting the wrapper, and means, substantially as described, for raising said frame, all combined and arranged substantially as set forth.

2. In a machine for cutting wrappers for cigars or cigarettes, the combination, with a suitable base and a die, C, rigidly secured thereto, the latter having the outline of a wrapper, of a vertically-adjustable platen, D, located within the walls of the die, a clamping-frame movably held against the platen, suitable devices for depressing said platen and frame for cutting the wrapper, and means, substantially as described, for raising said frame, substantially as set forth.

3. A machine for cutting cigar-wrappers, consisting of the stationary die C, the yielding platen D, located within the die, a clamping-frame held against the platen and connected to the rock-shaft J, a foot-treadle for operating the rock-shaft to move the said frame, springs F, and means for depressing said platen and frame and cutting the wrapper, all combined and arranged substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 7th day of November, A. D. 1884.

JOHN R. WILLIAMS.

Witnesses:

CHAS. C. GILL,
HERMAN GUSTOW.