

(No Model.)

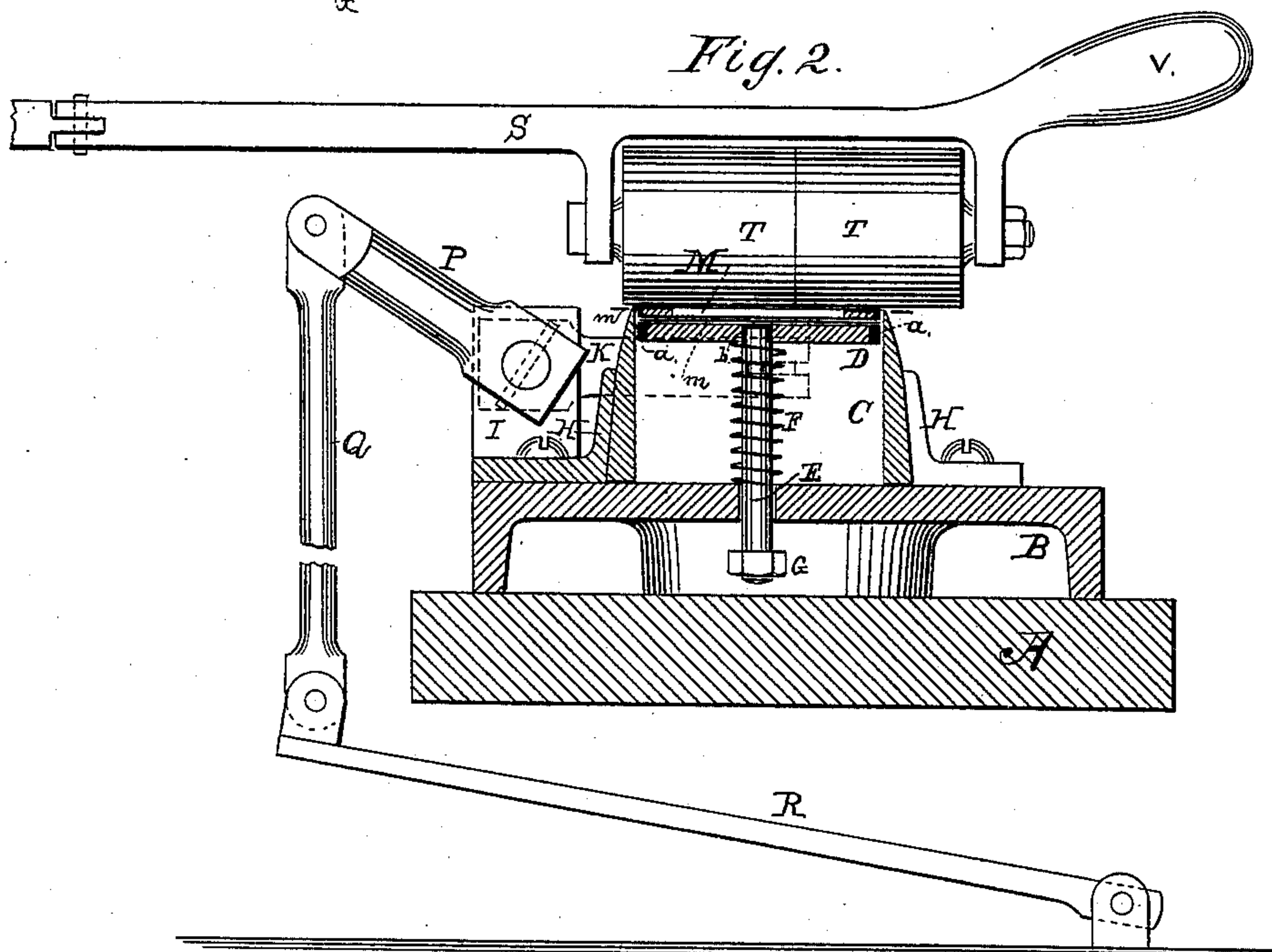
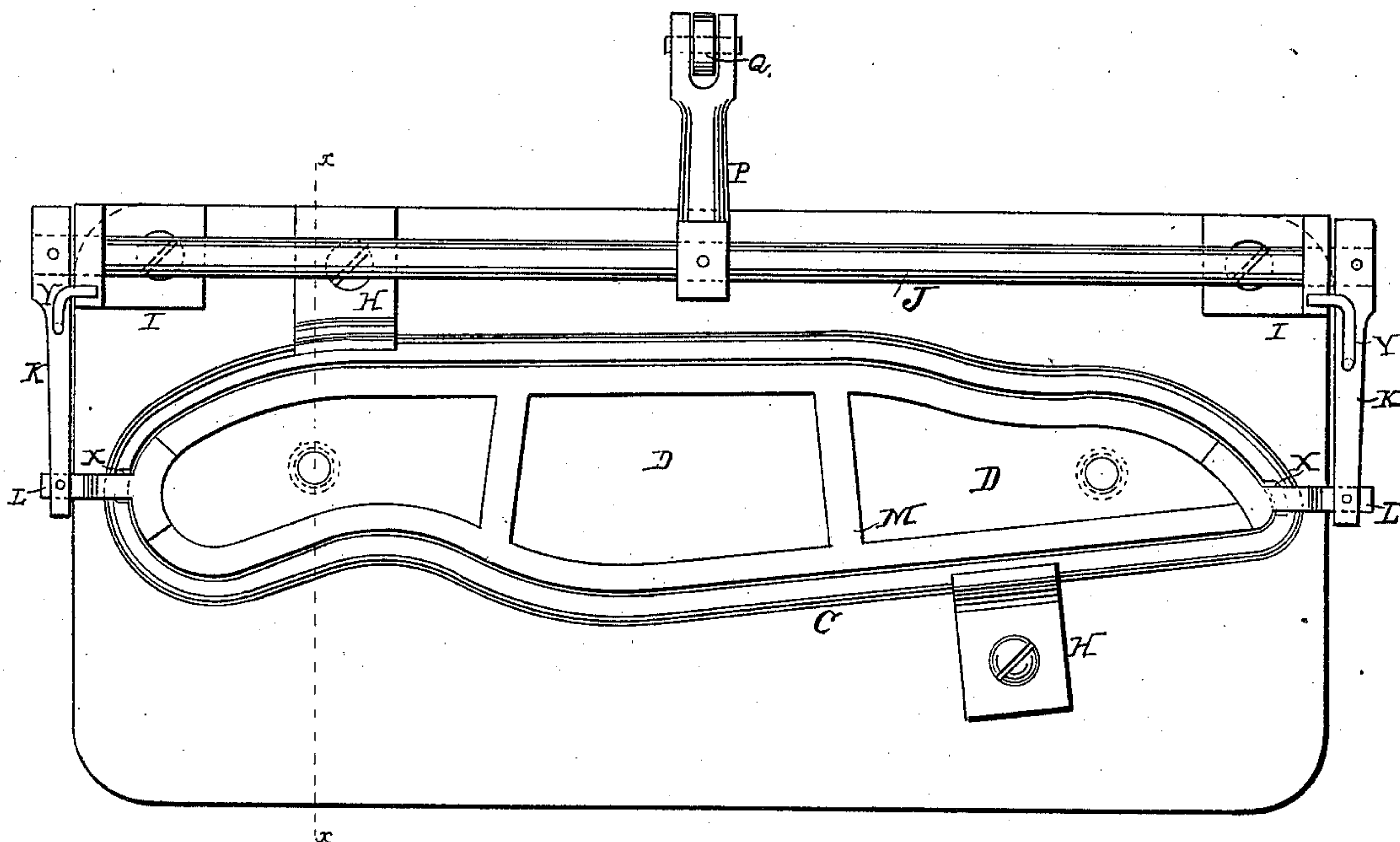
2 Sheets—Sheet 1.

J. R. WILLIAMS.

MACHINE FOR CUTTING WRAPPERS OR BINDERS FOR CIGARS  
AND CIGARETTES.

No. 322,030.

*Fig. 1.* Patented July 14, 1885.



WITNESSES:

Eduard Wolff.  
Herman Gustow.

INVENTOR

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ATTORNEY

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Fig. 3 Patented July 14, 1885.

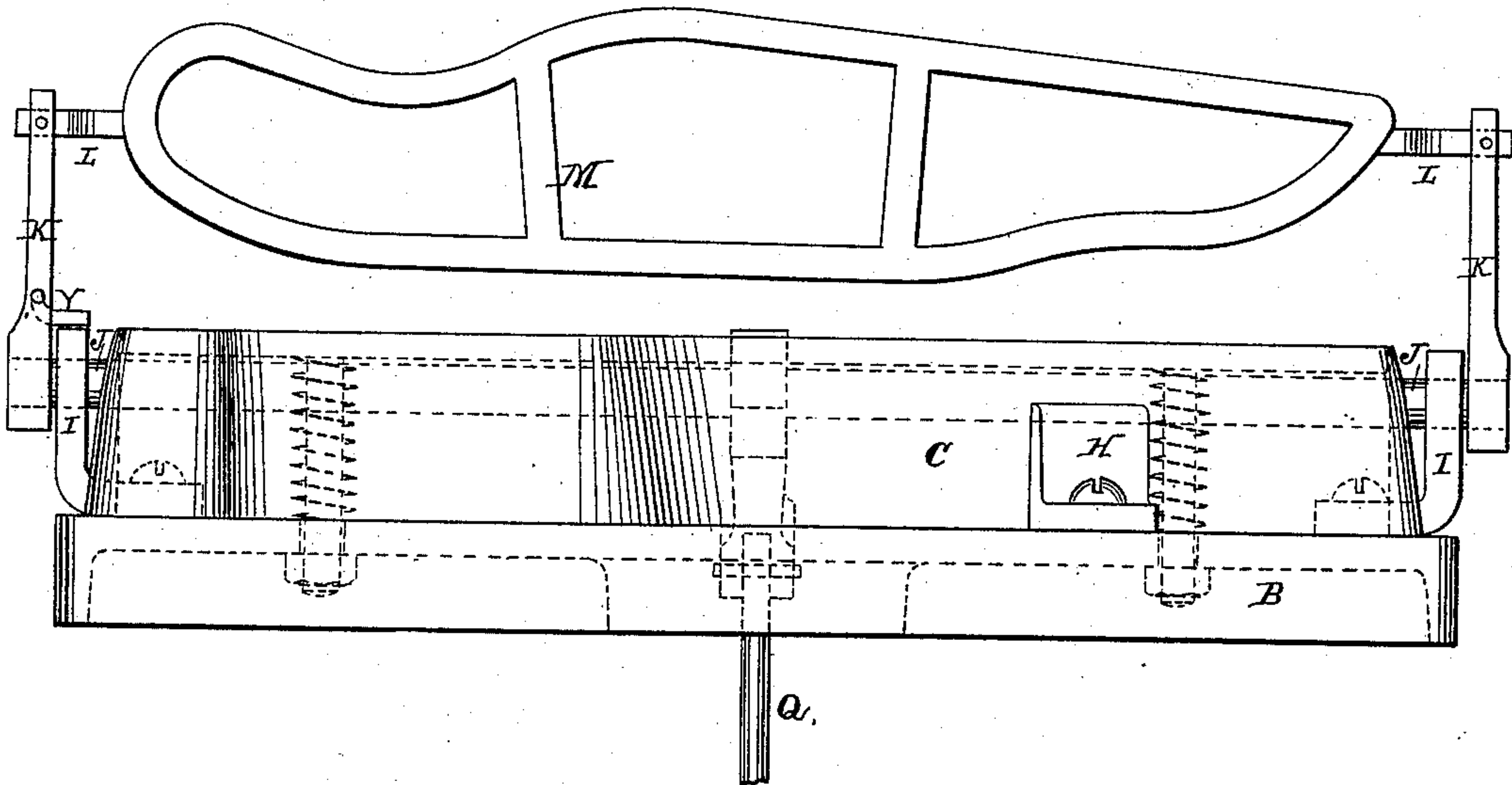
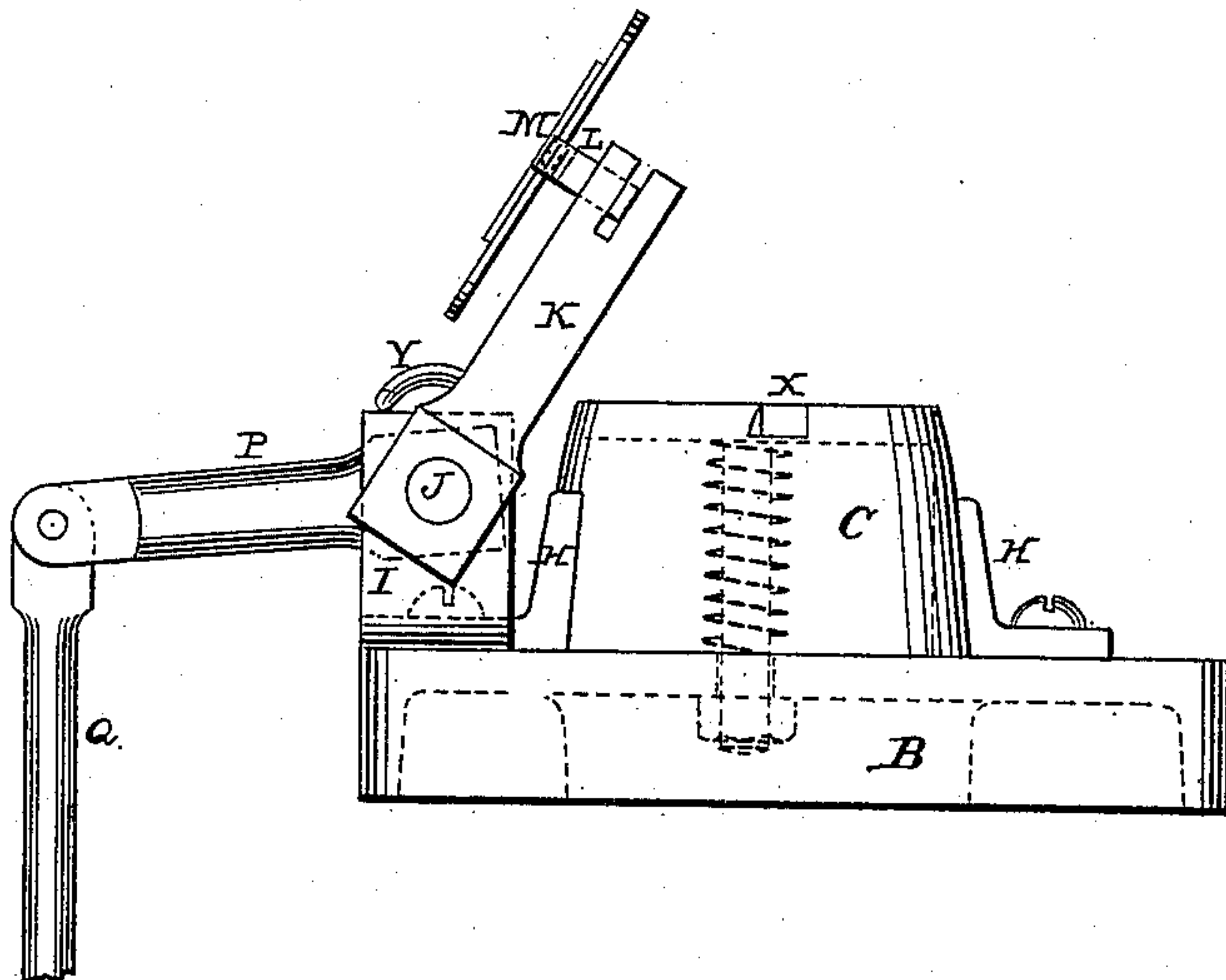


Fig. 4.



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# UNITED STATES PATENT OFFICE.

JOHN R. WILLIAMS, OF NEWARK, NEW JERSEY.

MACHINE FOR CUTTING WRAPPERS OR BINDERS FOR CIGARS AND CIGARETTES.

SPECIFICATION forming part of Letters Patent No. 322,030, 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 improvements in machines for cutting wrappers and binders for cigars and cigarettes.

The distinctive characteristic of my present invention is that the leaf of tobacco from which the wrappers or binders are cut is held during the cutting operation between two magnetized plates or frames, the north pole of one plate or frame being opposite to the south pole of that of the other plate or frame.

The machine, independent of the magnetic features, is embodied in an application for patent of even date herewith, Serial No. 147,703, and will be understood from the following description and by reference to the accompanying drawings, in which—

Figure 1 is a top view of the apparatus. Fig. 2 is a vertical section of same on the line *x x* of Fig. 1. Fig. 3 is a side elevation of the apparatus illustrated in Fig. 1, the part of same known as the "clamping frame" being elevated; 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 being provided with a nut, G. The platen D will be magnetized prior to its insertion in the die, and will be encompassed by a strip of insulating material, *a*. The upper ends of the bolts E will be surrounded also by insulating material, *b*, so as to preserve as far as possible the magnetic action in the platen D. The arrangement of the platen D and bolts E is such that when pressure is applied upon the

platen it will be depressed between the walls of the die, as indicated in Fig. 2, and that when the pressure is relieved therefrom the springs F will return the platen to its former position. It is proposed to have the upper surface of the platen 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 is secured, in the present instance, upon the base B by means of 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, and is magnetized, the north pole of the frame being opposite to the south pole of the platen D, whereby a magnetic attraction between the frame and platen is secured. The bars L will be insulated from the frame, and their outer ends depend below the surface of the same, where they are loosely secured in slots formed in the ends of the bars K, as indicated in Fig. 4. The opposite ends of the die C are notched at X to receive the arms L when the platen is depressed into the die.

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 their use in connection with the die, it being only essential for the purposes of the present invention that a suitable means of cutting be provided. A suitable stop, Y, will be provided on the arms K to strike the standards I, and thus prevent the clamp M from being thrown unduly upward by the operation of the treadle R.



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 the treadle R, thereby permitting the platen D to attract the clamping-frame M downward upon the leaf of tobacco, whereby the latter will be securely held. 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 subjecting the leaf to pressure between the edges of the die and rollers and cutting the blank. 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 magnetic action of the platen and clamping-frame is of special importance. It effectually holds the leaf of tobacco and prevents it from contracting or creasing during the cutting operation without danger of bruising or tearing the same. 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. The attraction between the platen and clamping-frame, while it nicely holds the leaf, does not prevent it from being moved laterally so as to bring the most desirable portions of the same over the die. The

lateral movement permitted to be given to the leaf is somewhat similar to that which a piece of iron may have when held by a strong magnet. Though the iron may readily be moved along the surface of the magnet, it cannot easily be drawn in a direct line therefrom. By reason of the lateral movement permitted to be given to the leaf it may be nicely drawn taut over the cutting-edges of the die, and there held while the roller or other means of pressure is brought over it.

As the mechanism shown and described in this application, independent of the feature of the magnetic clamp, forms the subject-matter of a separate application filed of even date with the present application, Serial No. 147,703; and as I am aware that in machines for cutting cigar-wrappers and other articles, a knife corresponding in outline to that of the article being formed has been used in connection with devices for cutting the article on the edge of the knife, and as pistons have been used between the vertical walls of such knives, I make no claim to such devices in themselves; but

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

1. An apparatus for cutting wrappers or binders for cigars or cigarettes, consisting of the die C, yielding platen D, clamping-frame M, and means for depressing the frame and platen between the cutting-edges of the die, said platen and frame being oppositely magnetized, substantially as set forth.
2. An apparatus for cutting wrappers or binders for cigars and cigarettes, consisting of a magnetic clamp for holding the leaf, a die in the outline of a wrapper or binder, and means for pressing the leaf while held by the clamp against the edges of the die and cutting it, 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:

HERMAN GUSTOW,  
CHAS. C. GILL.