

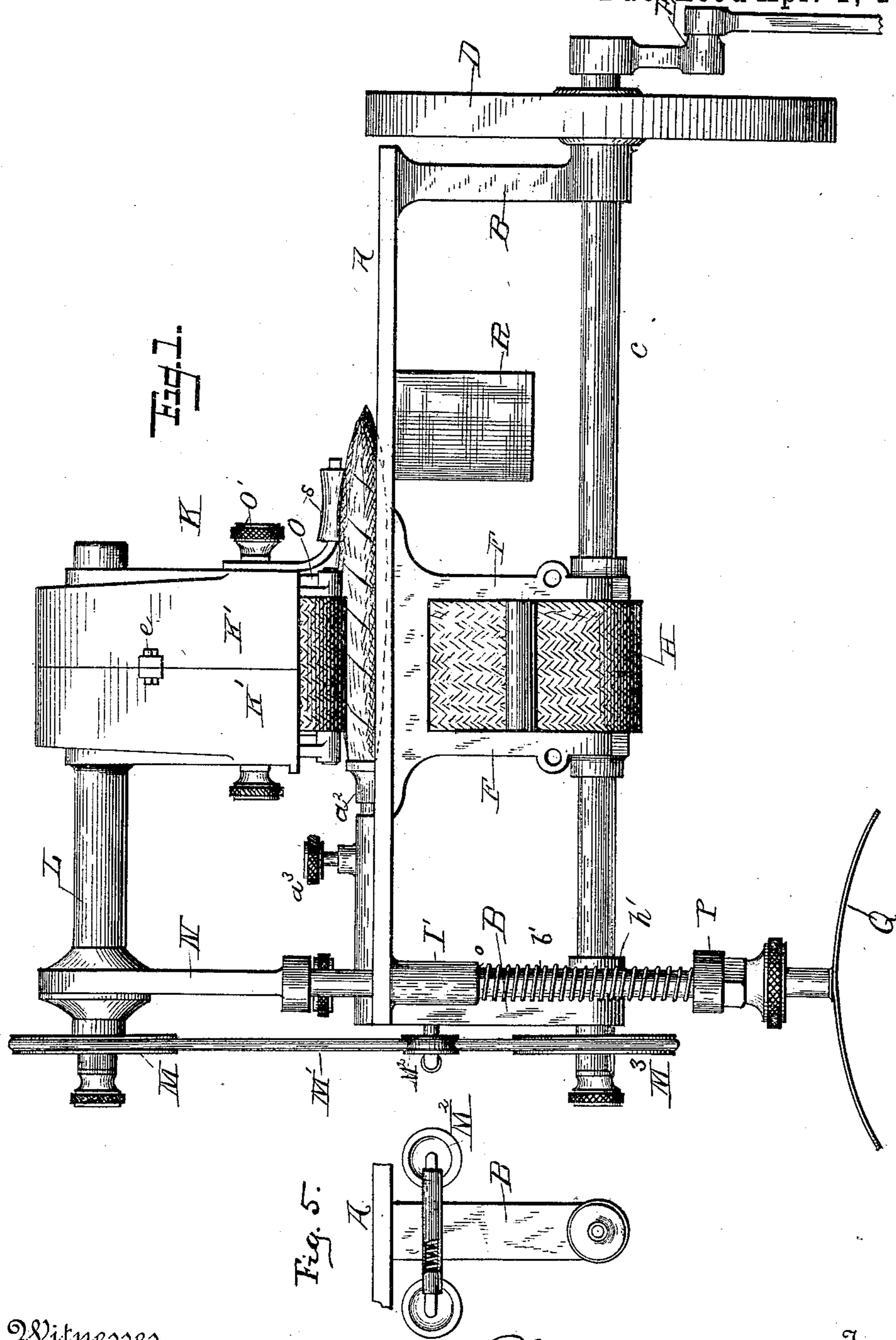
(No Model.)

2 Sheets—Sheet 1.

G. M. HATHAWAY.
CIGAR WRAPPING MACHINE.

No. 424,883.

Patented Apr. 1, 1890.



Witnesses

F. R. Cornwall
J. C. Hayden

Inventor

G. M. Hathaway

By his Attorney in fact.

Chas. E. Farber

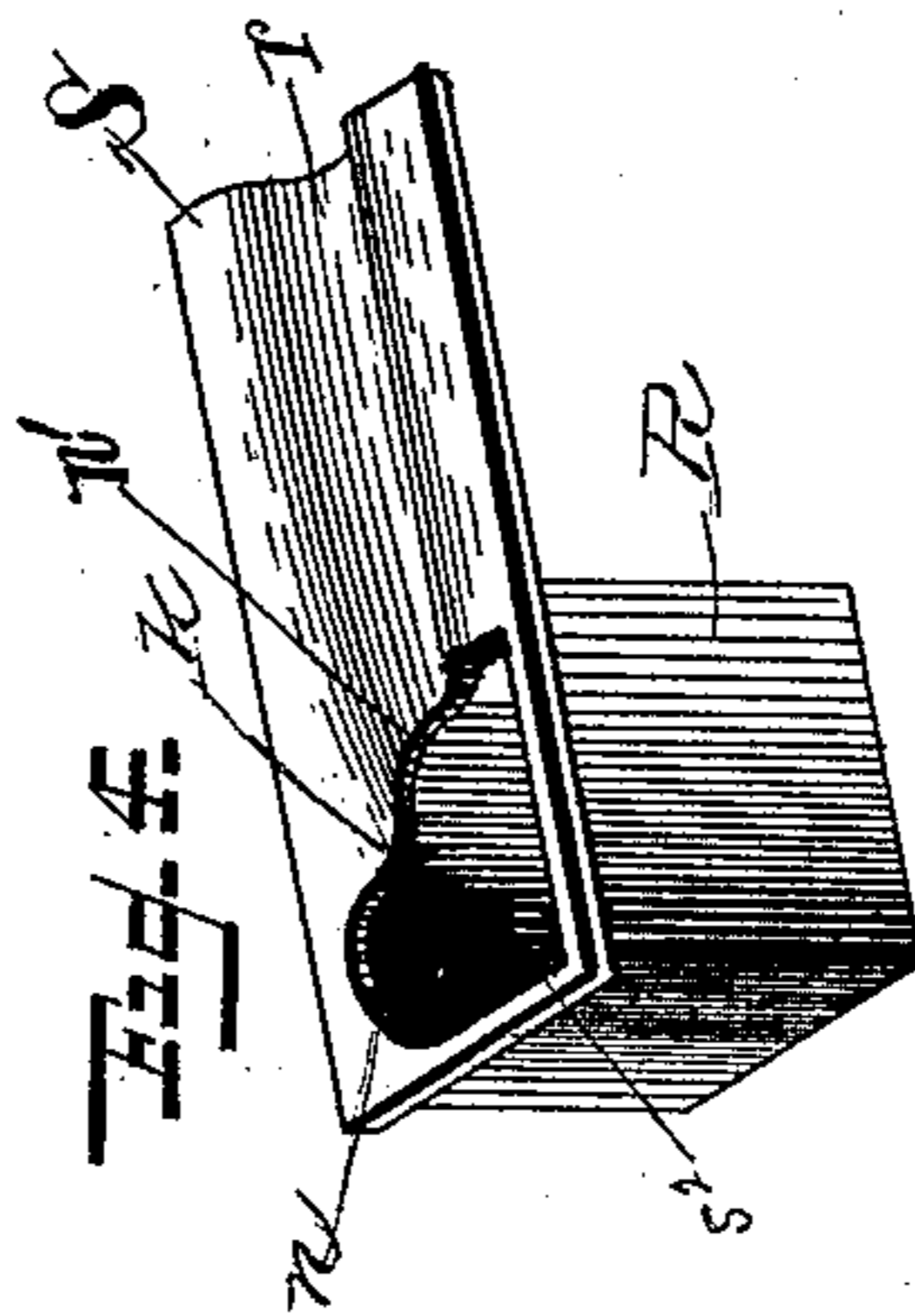
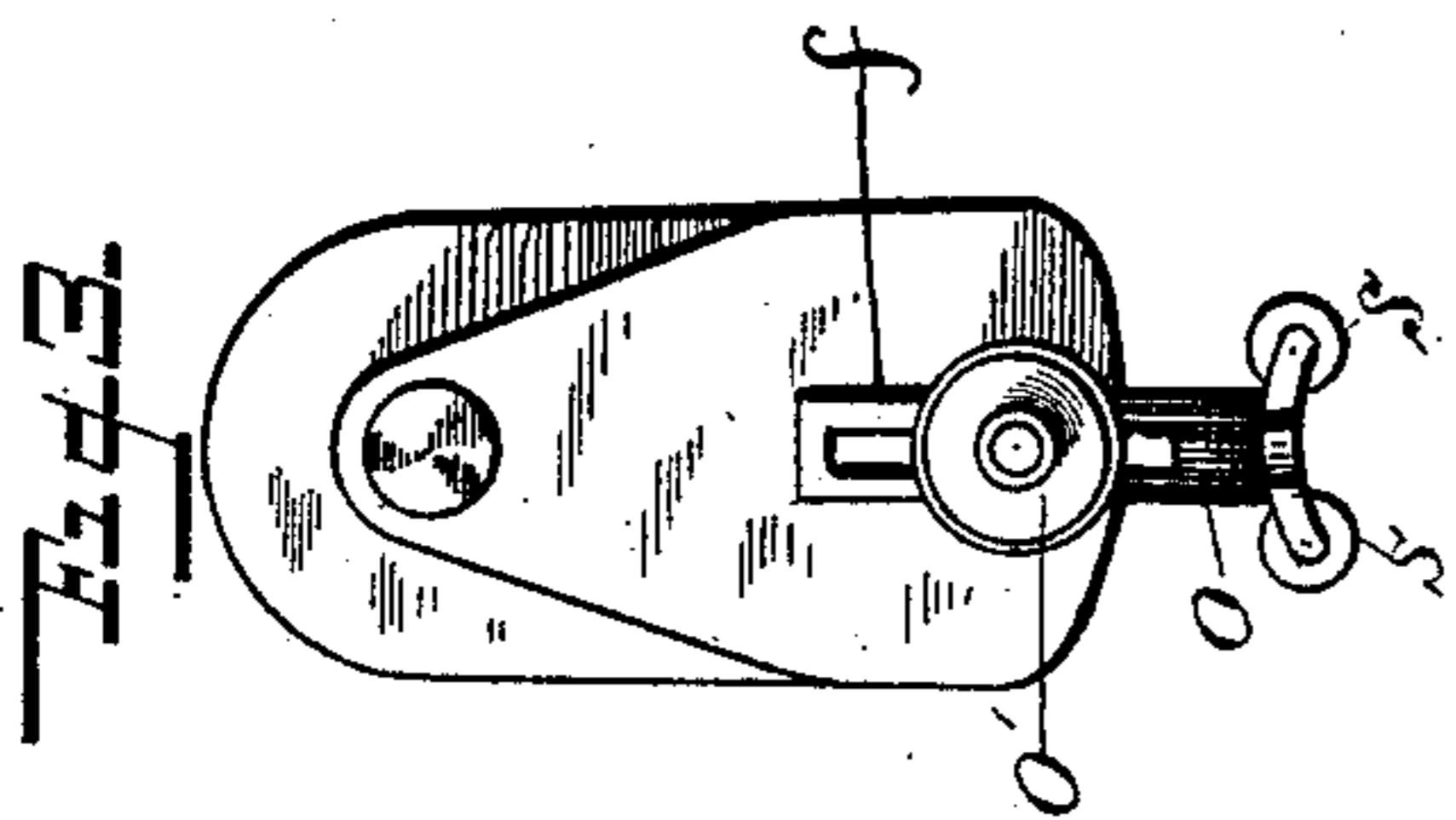
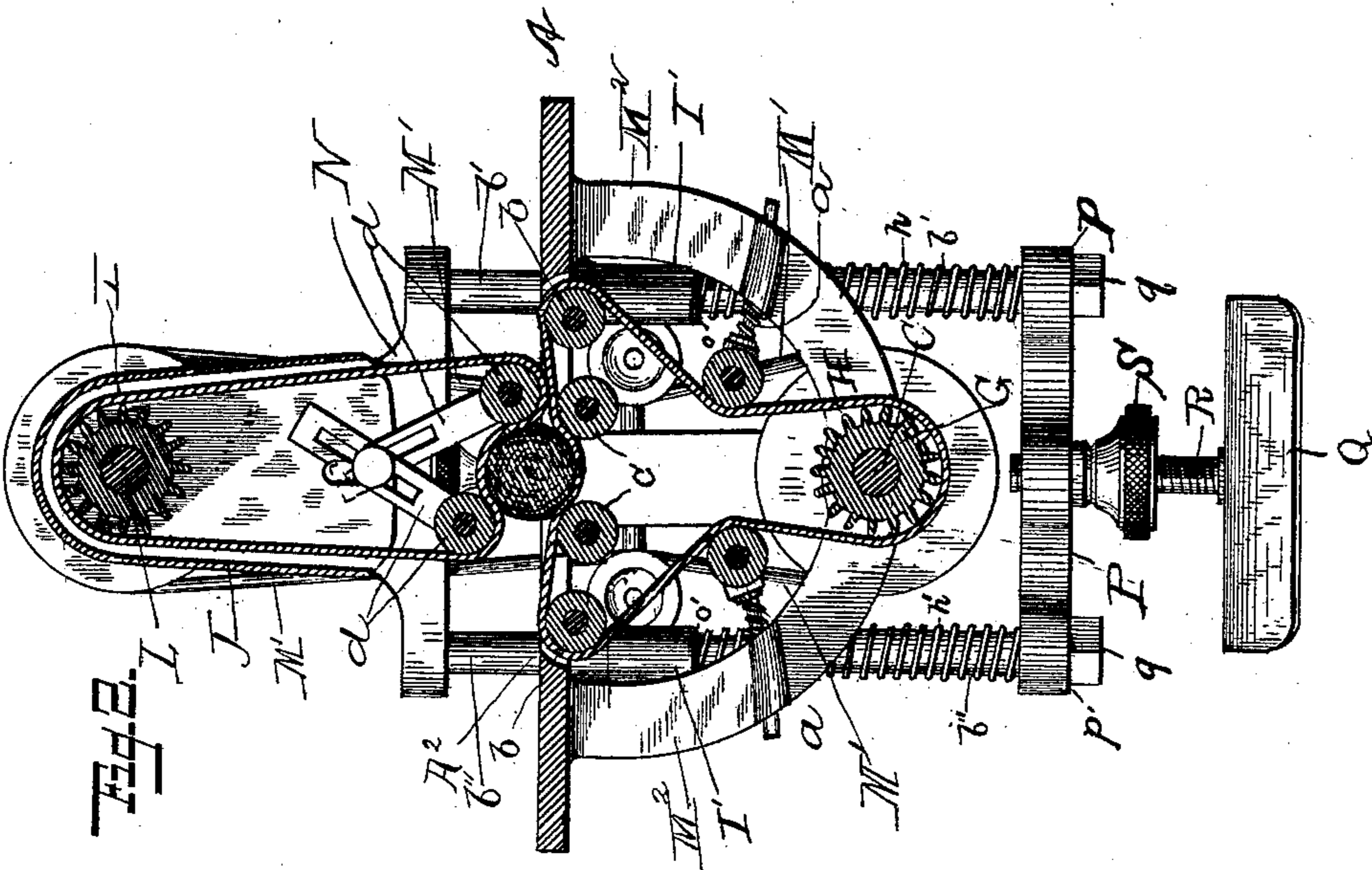
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UNITED STATES PATENT OFFICE.

GEORGE M. HATHAWAY, OF NEW YORK, N. Y.

CIGAR-WRAPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 424,883, dated April 1, 1890.

Application filed May 28, 1889. Serial No. 312,382. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. HATHAWAY, a citizen of the United States, residing at New York, county of New York, State of New York, have invented certain new and useful Improvements in Cigar-Wrapping Machines, of which the following is so full, clear, and exact a description as will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved device. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a detail end view of a portion of the drum and adjustable holder. Fig. 4 is a perspective of my improved paste-cup. Fig. 5 is a front view of a portion of the machine, showing rollers for regulating the tension of the belt M.

The object of my invention is to provide a cigar-wrapper-rolling machine wherein the endless belt of the machine may be readily removed and replaced in the shortest possible time with the least expense of mechanical and physical force and the least complexity of machinery.

Another object of my invention is to provide a paste-cup which by reason of its location in the machine and of the peculiar shape of the plate which extends upon and partly over the paste-cup admirably adapts it for use in this connection, as will be hereinafter explained; and still another object of my invention is to provide an adjustable holder which will effectually hold the cigar in place without liability of injury to the holder or the cigar during the process of wrapping.

The objects, generally, of my invention are to provide a device by the use of which a cigar can be quickly and easily wrapped with the least trouble and the least liability of damage to the cigar, the wrapper, and the wrapping-machine.

In the accompanying drawings, A designates a bed-plate, to the lower side of which are cast hangers B B, in the lower portions of which is journaled a shaft C, which is provided with the usual fly-wheel D and crank and wrist-pin E. The shaft is provided about centrally with a pair of hangers F F, between which is mounted a serrated wheel G, around which runs a belt H. This belt H is provided

with a pair of tension-rollers *a a* and is adapted to pass up around a second pair of rollers *b b*, which rollers *b b* are mounted in the bed-plate at such an elevation as to bring the top of the belt about parallel with the top of the bed-plate. Between these two rollers *b b* is a third pair of rollers *c c*, which are slightly depressed, giving the belt a slight incline toward the center. By the use of such a construction the top belt moves along substantially or approximately parallel with the top of the bed-plate, and the wrapper has simply to be placed where it will come in contact with the top of the belt, and the latter will carry it along under the cigar, and the wrapping begins. Above the bed-plate is a second serrated wheel I, around which passes a second endless belt J, the lower portion of which belt J passes over the adjustable tension-rollers *d d*. This upper serrated wheel I is incased within a separable drum K, the sections K' K' of which are secured together by bolts *e*, which are provided at each side of the drum. The shaft L, upon which is mounted the upper roller I, is provided at its opposite end with a grooved pulley M, over which passes a circular belt M', which extends down and passes around a second pulley M², thus serving as a means of communicating motion from the shaft C to the shaft L and the intermediate mechanism. To the outer portion of the shaft L, and between the drum K and the grooved pulley M, stands a vertical post N, the lower end of which is formed T shape, and is provided with two downwardly-extending vertical rods *b' b''*. The vertical rods *b' b''* are provided with coiled springs *h h'*, the ends of which impinge against the ends *o o'* of the hangers I' I' and the ends of the cross-bar P, respectively, the purpose of which springs will be hereinafter set forth.

The cross-bar P is perforated at *p p'*, and through these perforations extend the lower ends of the vertical rods *b' b''*, and the cross-bar P is held in position against displacement by the nuts *q q*. The central portion of this cross-bar P is provided with a knee-socket Q, which can be vertically adjusted by means of the screw-threaded bolt R, and adapted to be locked in position by the set-nut S. The front portion of the drum K is provided with a vertically-adjustable holder

O, which holder is provided with two rollers *s s*, which rollers are mounted upon projecting bars a slight distance apart and extending horizontally parallel with the top of the bed-plate A. The rollers *s s* are slightly beveled toward the center, which causes them to adapt themselves to the contour of the cigar. This holder O can be vertically adjusted by means of a set-screw O' and a slot *f* in the holder. Just in front of the central opening A² in the bed-plate A is a paste-cup R. This cup R is provided with a plate S, which extends horizontally from the top of said cup, and is formed with a groove or depression *r*, which tapers from its central portion toward the end of the plate at the cup, or, in other words, said groove is made in the shape of a cigar which it is adapted to receive. This plate S is formed above the cup with an opening S², which gives access to the interior of said cup. The portion of the plate surrounding this opening S² is curved to correspond to the shape of the fingers, as shown at *n n'*, between which portions is a projection *k*. This paste-cup is to be filled with paste to a sufficient depth to bring the paste within easy reach of the operator, and by reason of its peculiar shape the finger of the operator may be readily put into the paste and be brought up around the end of the cigar, forming a complete and smooth finish to the cigar without moving the same from the plate. The belt M' is provided with two yielding friction-rollers M² M², which are peripherally grooved to receive said belt *m*.

Many of the important features of this device will be found fully described and shown in my application for cigar-wrapper-rolling machines, filed February 25, 1889, and bearing the Serial No. 301,078.

The adjustable stop A² is horizontally adjustable, and is adapted to be locked in place by a set-screw *a*³. This will enable the operator to adjust the stop *a*² to any length cigar.

The operation of my machine is as follows: Motion given to the shaft C will be transmitted to the shaft L, which carries the serrated wheel I, which operates the endless belt J. The lower belt H is operated in like manner by the serrated wheel G on the lower shaft C. It will be noticed that the serrated wheel I will impart rotary motion to the endless belt J in the same direction with the motion imparted to the continuous belt H by the serrated wheel G. Thus the lower belt advances in one direction, with its upper surface moving across the opening A² in the bed-plate A, and the upper belt advances in the same direction, with its lower surface moving across the line of the opening A² in an opposite direction. By this means a substantially stationary rotary motion will be imparted to a cigar when one is placed between the two operating-surfaces of the belts, and the operator can so hold a wrapper that it will wrap a cigar with great evenness and precision. When the cigar is completed by the opera-

tor pasting the wrapper thereon, it is removed from the machine by the operator raising the upper portion of the wrapper-rolling mechanism, or that portion which is located above the bed-plate A, a sufficient distance to permit the withdrawal of the cigar, which is accomplished by an upward pressure on the knee-socket Q. Another cigar is then placed in proper position in the machine and the wrapper properly located and held, the upward pressure of the socket Q is removed, which socket, together with the upper portion of the wrapper-rolling mechanism, is forced downward by the springs *h'* into position to operate on the cigar.

Having described the objects, uses, and advantages of my device, what I desire to secure by Letters Patent, and what I therefore claim, is—

1. In a cigar-wrapper-rolling machine, the combination, with the endless traveling wrapping-belts located one above the other and means for operating the same, of an adjustable holder carrying friction-rollers, each of which is of a contour to adapt it to the shape of the cigar.
2. In a cigar-wrapper-rolling machine, endless traveling belts located one above the other and means for operating the same, in combination with an adjustable holder having rollers adapted to press upon the cigar being wrapped.
3. In a cigar-wrapper-rolling machine, a main bed-plate, endless traveling belts, and means for operating said belts, in combination with a paste-cup secured to said bed-plate, said paste-cup being provided with a plate formed with a depression *r*, adapted to receive the cigar and formed with an opening S², having curved walls *n n'* and a projection *k* between said curved walls, substantially as shown and described.
4. In a cigar-wrapper-rolling machine, a main bed-plate, endless traveling wrapping-belts located one above the other, and means for operating said belts, in combination with a drum inclosing the upper portion of the wrapper-rolling mechanism and composed of separable sections, substantially as shown and described.
5. In a cigar-wrapper-rolling machine, a main bed-plate having an opening, endless belts supported above and below said bed-plate, and means for operating said belts, in combination with rollers *b*, mounted in the bed-plate, rollers *c*, supported slightly below said rollers *b*, and tension-rollers *d*, adjustably supported above said rollers *b* and *c*, all substantially as shown, and for the purposes set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

GEORGE M. HATHAWAY.

Witnesses:

J. C. HAYDEN,
C. E. BARBER.