

GEORGE H. FAYMAN.

Machines for Printing Mail Tags.

No. 121,602.

Patented Dec. 5, 1871.

Fig. 1.

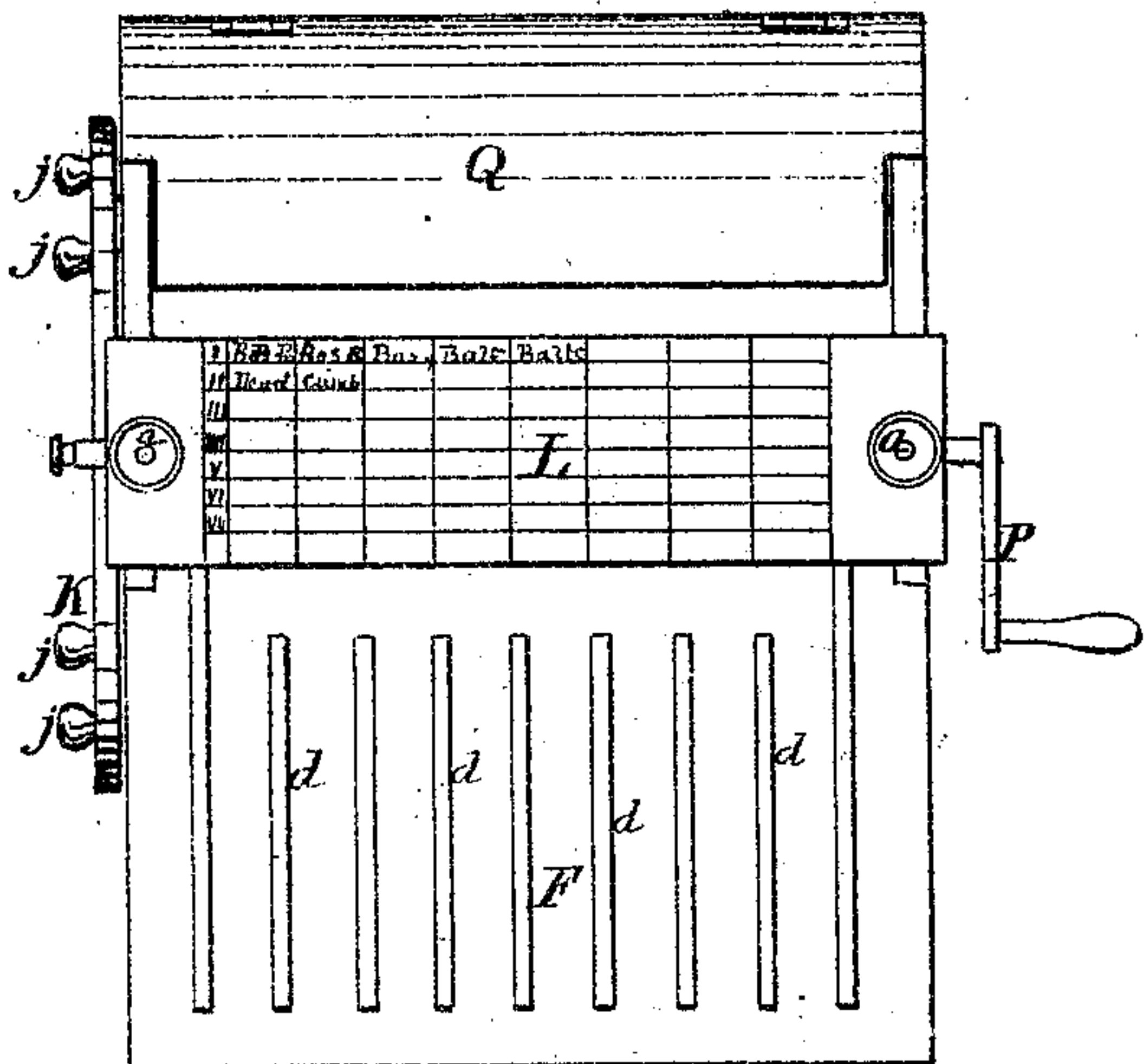


Fig. 2.

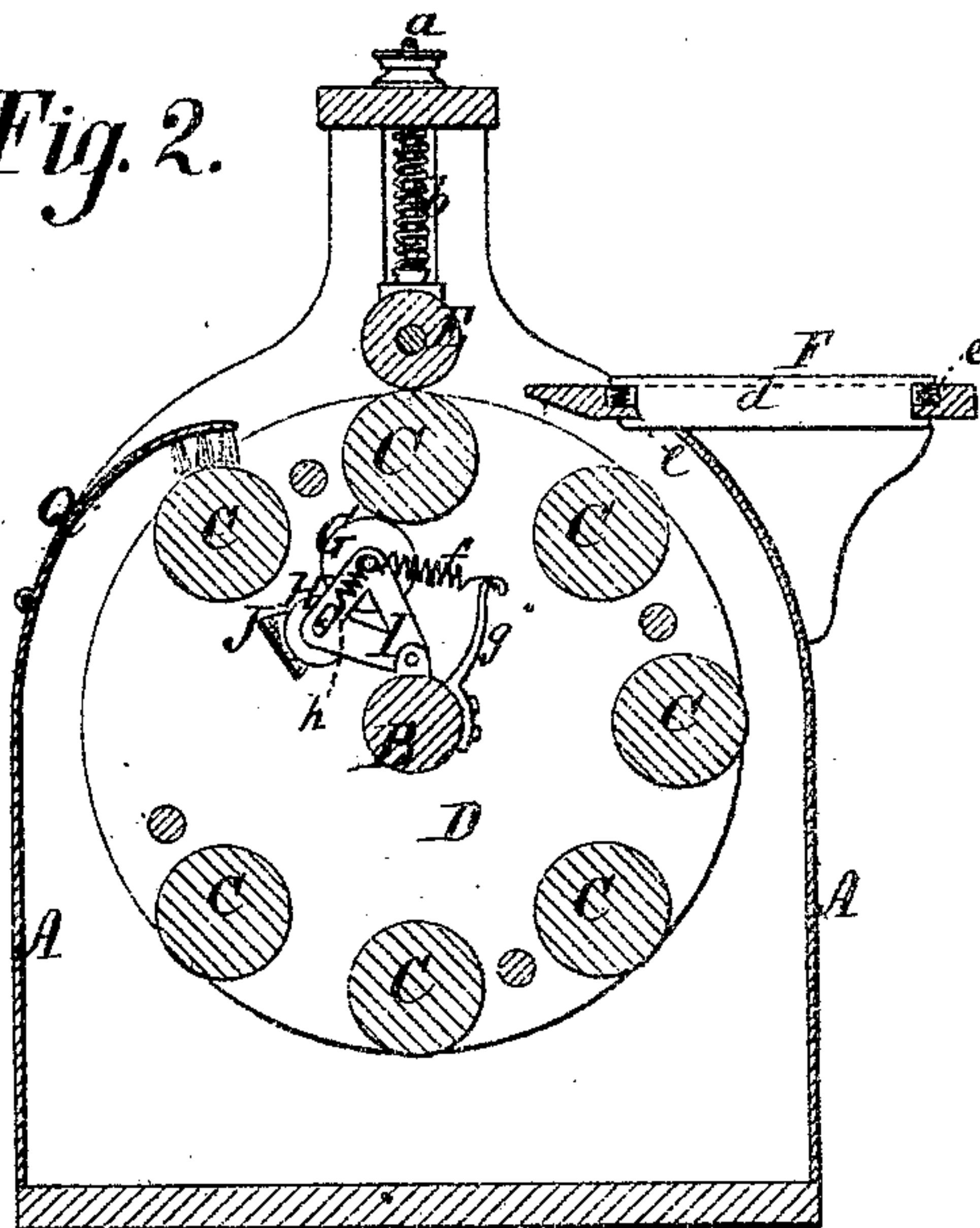


Fig. 3.

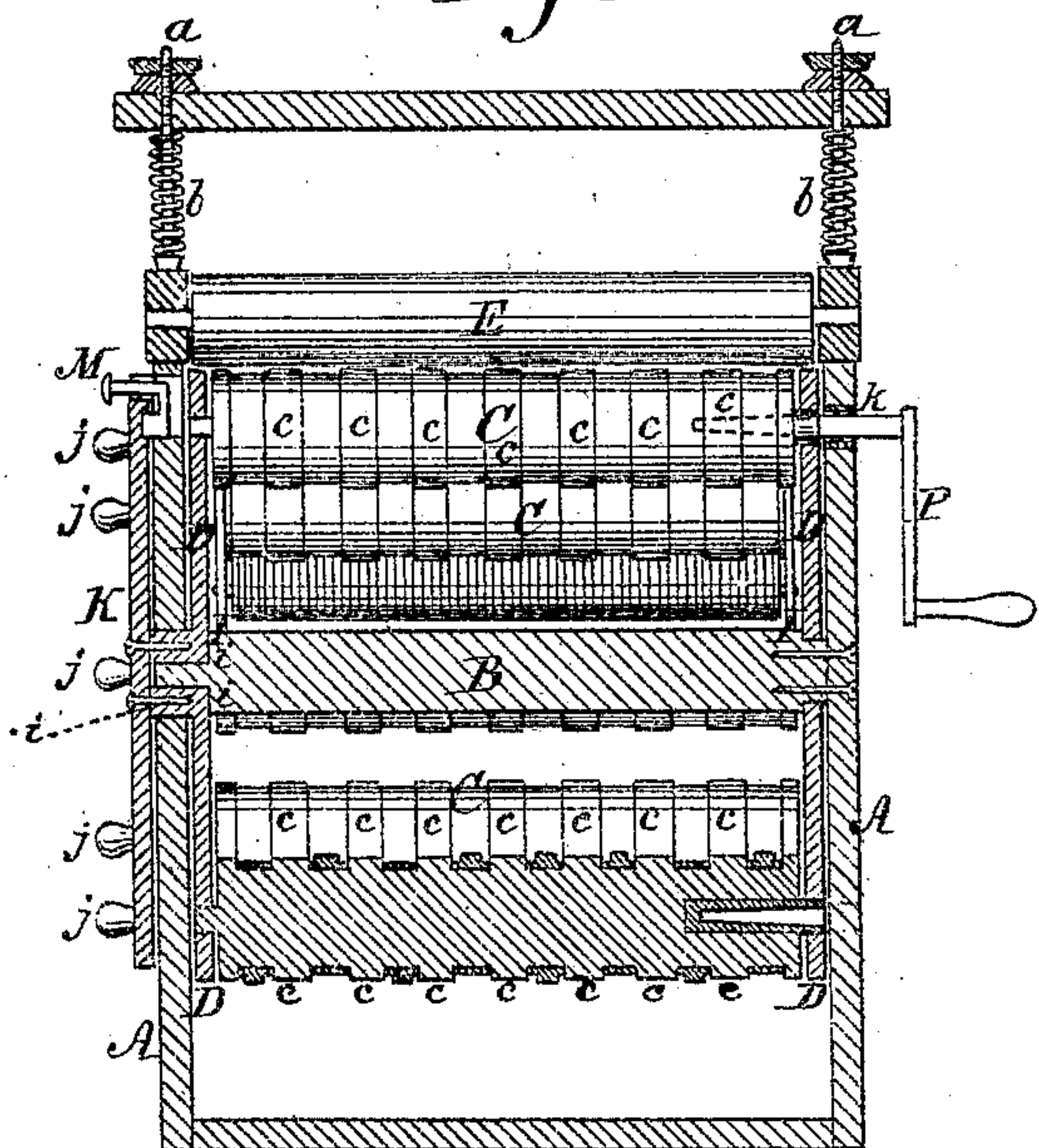
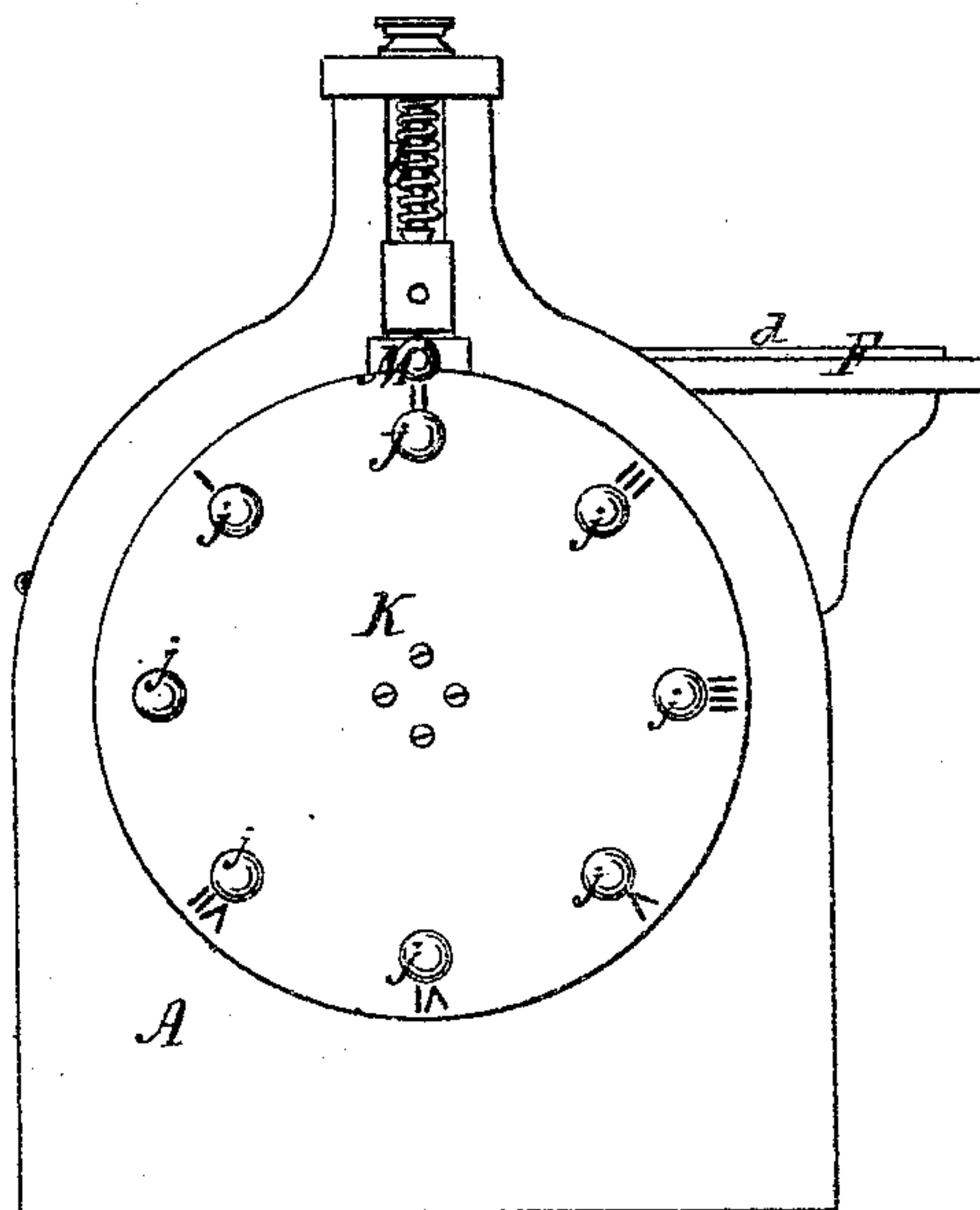


Fig. 4.



Witnesses:

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his attorney

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Fig. 7.

Index								
I	B.P. Maine	Bos. R.P.O.	Bos. City	Balt. D.P.O.	Balt. City	Agt. E. Cum.	Annapolis	Alex. Va.
II	Dead I.et.	Cumb.	C and A	Texas	C and M	B and C	Brooklyn	Conn.
III	Harlem	Georgetown	Foreign	Exchange	Erie R.P.O.	East Way	Detroit	Del. Agt.
III	N. Orleans	Manassas	I and B	Lynchb'gh	L. Isl'd Agt.	H. River R.P.O.	H.R. Through	H.R. Way.
V	Potomac P.	Providence	Phila	Orange Agt.	N.J. R.R. Agt.	N.Y. Con - 2	N.Y. City	N.Y. D.P.O.
VI	Wash. Dis.	Wash City	Staunton	Richmond	R.R. Table	Florida	P. Carolinas	P. Virginia
VII	Wash Way	Wilmington						

Fig. 8

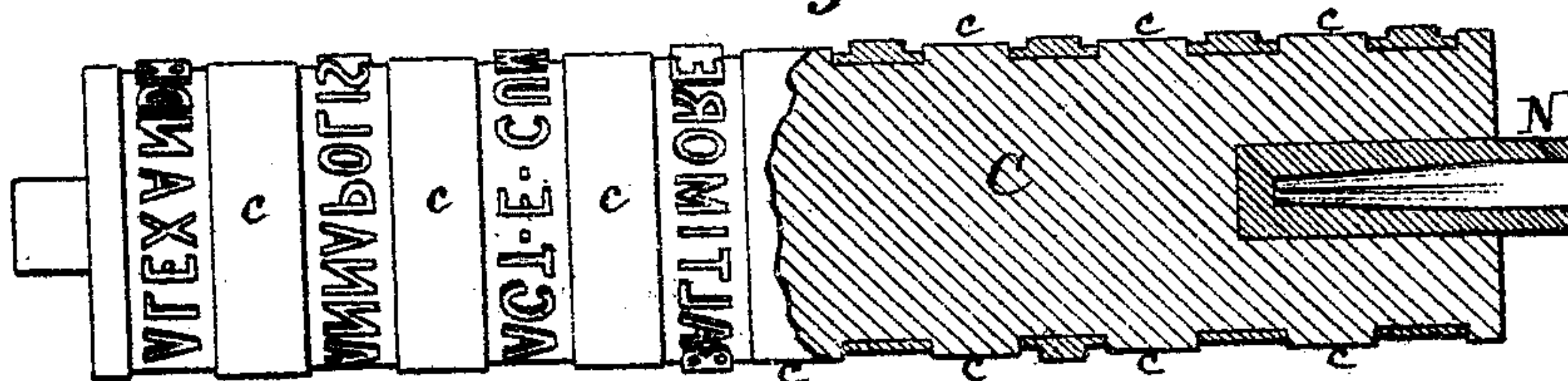


Fig. 9.

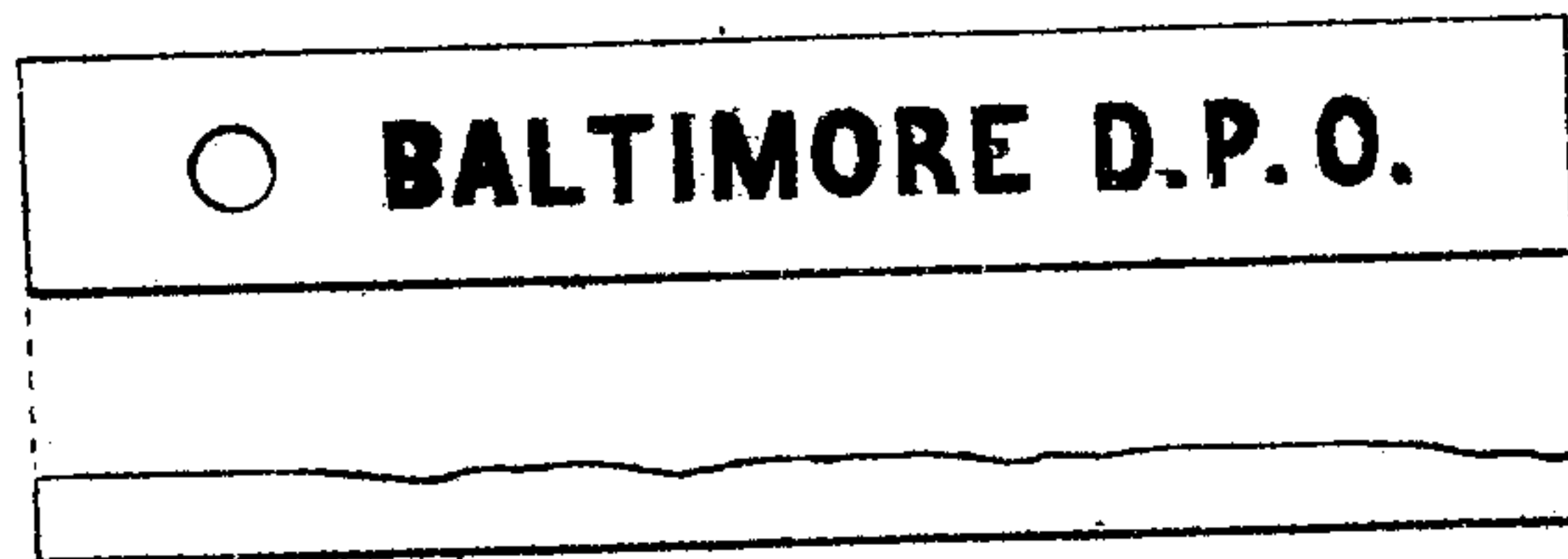


Fig. 5

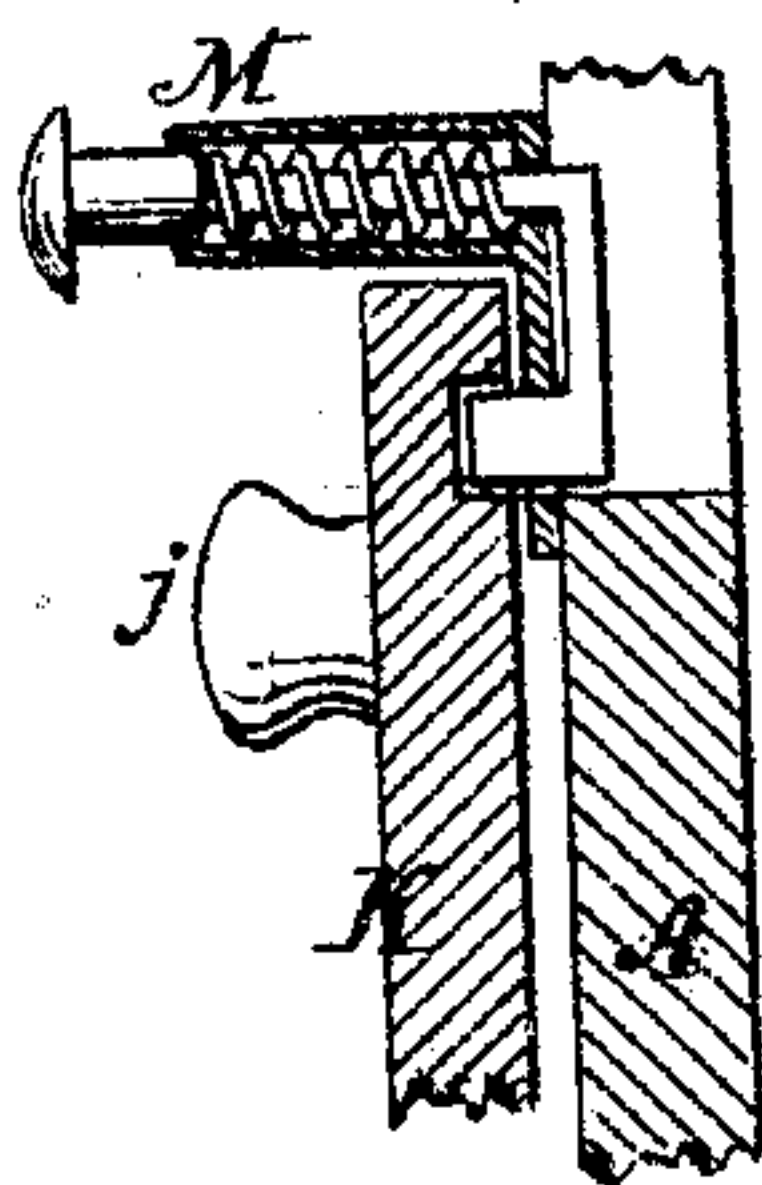
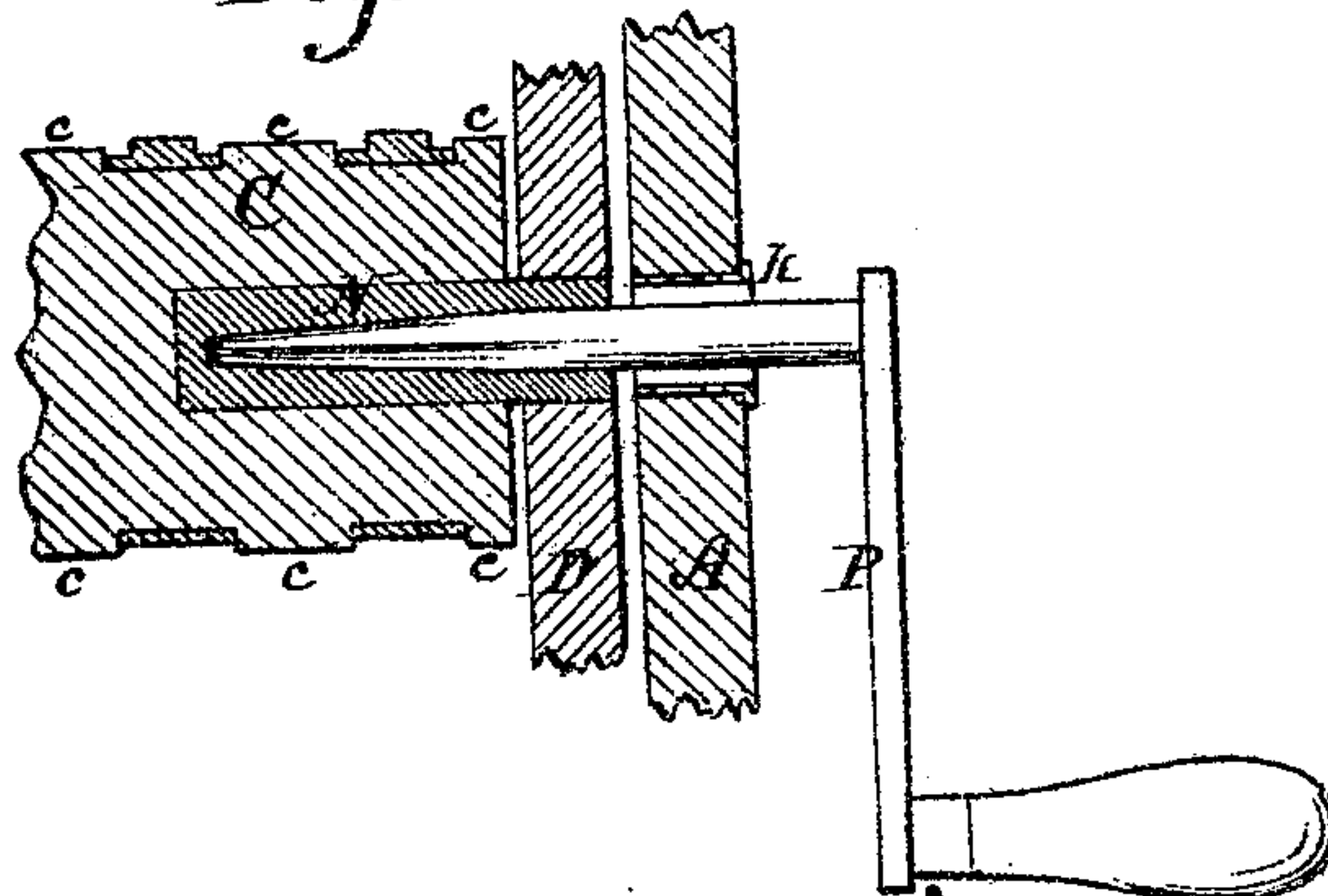


Fig. 6



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UNITED STATES PATENT OFFICE.

GEORGE H. FAYMAN, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO
DE VERE BURR, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR PRINTING MAIL-TAGS.

Specification forming part of Letters Patent No. 121,602, dated December 5, 1871.

To all whom it may concern:

Be it known that I, GEORGE H. FAYMAN, of the city of Washington, in the District of Columbia, have invented a new and useful Improvement, being a Machine for Printing Wooden Mail or other Tags, of which the following is a specification:

My invention relates to a machine for printing wooden or other tags, especially adapted for the postal and express system of labeling mail-bags and packages for different mail-routes. One of the chief advantages of this machine is that wooden tags having kerfed surfaces can be printed as readily as those having planed surfaces; also tags having irregular sides can be printed upon as well as those having parallel sides.

In the accompanying drawing, Figure 1 represents a plan or top view of a machine embracing my invention. Fig. 2 represents a vertical cross-section of the same. Fig. 3 represents a vertical section taken at right angles to that of Fig. 2. Fig. 4 represents an end view of the same, showing the index-disk. Fig. 5 represents a sectional view, showing the spring thumb-catch of the index-wheel; and Fig. 6 represents a section, showing the socketed printing-roller and the removable operating crank-handle.

Within a suitably-constructed box-frame, A, I arrange, upon a fixed shaft, B, a revolving printing-wheel, consisting of a series of printing-rollers, C, arranged within a circle concentric with the shaft B, so as to be revolved independent of each other between two carrying and supporting-heads D, which also have a motion upon said fixed shaft B, to present the required roller C to receive the tag from the table. In the example shown, I have represented seven printing-rollers, but a larger or smaller number can be used if necessary. In printing, the desired roller is brought vertically over the fixed shaft B, and held in position directly beneath a rubber pressure-roller, E, which can be adjusted by screw-stems *a*, to suit any thickness of tags, and which is constantly pressed down by springs *b* upon the screw-stems. These rollers C are provided with a series of annular surfaces, *c*, between which the rubber printing-bands are secured. As shown in Fig. 8, these printing-bands are eight in number, and each is between a pair of unyielding supporting-surfaces, *c*, which allow the raised letters of the bands to make a

distinct impression, and protect them from being crushed by the tag, as the latter is supported directly upon these annular surfaces during the operation of printing. The letters of each rubber-band indicate a particular post-office or address; and the diameter of the printing-roller must be equal to the length of the tag, which, being about six inches, the rollers therefore must be about two inches in diameter. The pressure-roller E being of rubber, and the tag passing between it and the unyielding annular surfaces *c*, it will be seen that a tag having only one regular surface, as shown in Fig. 9, will be presented to and receive the impression of the letters, which only project sufficiently above the annular surfaces for that purpose. It will also be observed that by passing the tag between a yielding printing and a yielding pressing-surface, in connection with unyielding supporting-surfaces *c*, I am enabled to print upon a kerfed wood surface, thus greatly reducing the first cost of wooden tags; and is thereby an important and essential advantage in rendering it unnecessary to have a smoothed or planed surface, hitherto indispensable in writing the post-office address or route thereon. A table, F, extends from the front side of the machine on a level or thereabout with the top surface of the printing-roller, to support the tags in being fed to the same. This table is provided with parallel guide-strips *d*, arranged in pairs corresponding in number to the annular supporting-surfaces *c* on the roller C, for the purpose of guiding and keeping the tags at right angles to the axis of the printing-roller; and in order to accommodate different widths of tags these guide-strips *d* are supported upon springs *e* at each end, to allow one of each pair to be pressed down flush with the surface of the table when the tag is wider than the space between each pair of strips *d*, so that one strip of each pair will always serve as a guide for the tag, the guide strips *d* being constantly pressed up by their springs *e*, as shown in Fig. 2 of the drawing. The inking-rollers G H are supported upon the fixed central shaft B, and are carried by two end frames, I, into which they are journaled, and which is pivoted to said shaft. These inking-rollers consist of a gum-roller, G, which is always in contact with the roller in position to print, and a cord-roller, H, which is supplied by a sponge, J, or other article. The gum-

roller G is held in contact with the printing-roller C by means of a spring, *f*, attached to the roller-frame I, and an arm *g* on the fixed shaft; and the cord-roller H is held in contact with the gum-roller by a spring, *h*, attached to its journals. The inking-rollers thus arranged can be moved in either direction with the turning of the nest of printing-rollers, and its contact with the upper one is thus rendered self-adjusting, as shown in Fig. 2. In the system of printing-rollers thus arranged each is provided with post-office, depot, or other addresses upon separate and distinct rubber bands arranged within separate and distinct annular recesses upon each; and, in order to bring into action any one of the series of printing-rollers having the particular route or address desired, I secure an index-disk, K, to one of the heads D of the printing-rollers by means of a sleeve, *i*, which forms a bearing upon the fixed central shaft to allow said index-wheel to be arranged outside of the main frame, as shown in Fig. 3. The index-disk K is provided with a knob, *j*, indicating the position of each printing-roller C, and numbered from 1 to 7 in the instance shown, leaving a space through which to supply the inking apparatus. In connection with this index-disk I employ a route-index or address, L, seen more clearly in Fig. 7, placed in any convenient position upon the frame; in the example shown it is arranged just above the pressing-roller E, and represents every post-office or address upon the series of printing-rollers by numbers first corresponding with those of the index-disk K; and second, by divisions indicating the position of the post-office, mail-route, or address upon each printing-roller. This arrangement of the key L and index-disk affords great facility for bringing into position at once the roller and its rubber printing-band containing the post-office route or address which it is desired to print upon the tag, the said divisions of the index-key L corresponding also to the division guide-strips *d* of the table F, which may be also correspondingly numbered with the divisions of the key-index, so that the tag can be instantly placed in position between or against the proper guide-strip. The knobs *j* on the index-disk afford means for operating the nest of printing-rollers, and the disk K is provided with a suitable spring thumb-catch, M, for the purpose of arresting the movement of the disk K, and to lock the desired printing-roller C in position beneath the pressure-roller E. This spring-catch M is L-shaped and fits into recesses on the inner face of the index-disk corresponding with the position of the knobs, and is pressed inward to unlock said disk, as shown more clearly in Fig. 5. The printing-rollers are fitted so as to allow them to be turned upon their journals; and for this purpose one of the journals of each, on the side opposite the index-disk, is provided with a square socket, N, to receive the square shank of a removable crank-handle, P, passed through an opening, *k*, in the side of the frame A, coincident with the axis of the printing-roller

when adjusted for work, to allow said roller to be revolved in contact with the inking gum-roller to ink the series of rubber printing-bands, which are brought in contact with raised surfaces on said gum inking-roller. By means of this socket and hand-crank, also, the printing-cylinder is operated to feed the material being printed. The rear upper portion of the frame is provided with a hinged cover, Q, having a concave brush, which, when closed, is brought in contact with any one of the printing-rollers C, for the purpose of cleaning the same, by simply inserting the crank-handle P through an opening in the frame into the socket N and revolving the roller.

I have described the mechanism as adapted for printing separate and distinct tags; but it is obvious that they may be printed upon continuous strips, and afterward separated. It is also obvious that sheets of paper, leather or other material may be printed as well, in which each printing-band would produce its impression in continuous succession. This would be highly advantageous for railroad-tickets, &c. The hanging position of the crank-handle P always indicates the proper position of the roller for printing, as shown in Fig. 3 of the drawing.

Having thus described my invention, I claim—

1. The combination of a series of independent printing-rollers, C, arranged in a circle and having a movement together to present any one of their series for work, with a pressure-roller E and a feeding-table, F, essentially as described.
2. In combination with a printing-wheel, the operating rollers whereof having both an independent and a united movement, the self-adjusting inking-rollers G H, arranged upon the fixed shaft B within the circle of motion of said printing-rollers, essentially as described.
3. The system of printing-rollers C, arranged upon a fixed central shaft B, in combination with an index-disk K, arranged outside of said rollers and having a movement therewith upon said shaft, as described.
4. The printing-rollers provided with separate and distinct printing-bands, arranged between annular inflexible supporting-surfaces *c*, for the purpose of printing tags separately, in continuous strips, or in sheets of separate printed rows, as described.
5. The spring guide-strips *d* of the feeding-table F, to accommodate tags of different widths, as described.
6. The socketed journal N of the printing-roller C, in connection with the opening *k* in the frame and the removable square-shanked crank-handle P, for the purpose described.
7. The hinged brush Q, in combination with an independent-moving printing-wheel having a series of independent printing-rollers C, as and for the purpose described.

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Witnesses:

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