

(No Model.)

4 Sheets—Sheet 1.

M. J. DOLPHIN.
STAMP CANCELING MACHINE.

No. 541,078.

Patented June 18, 1895.

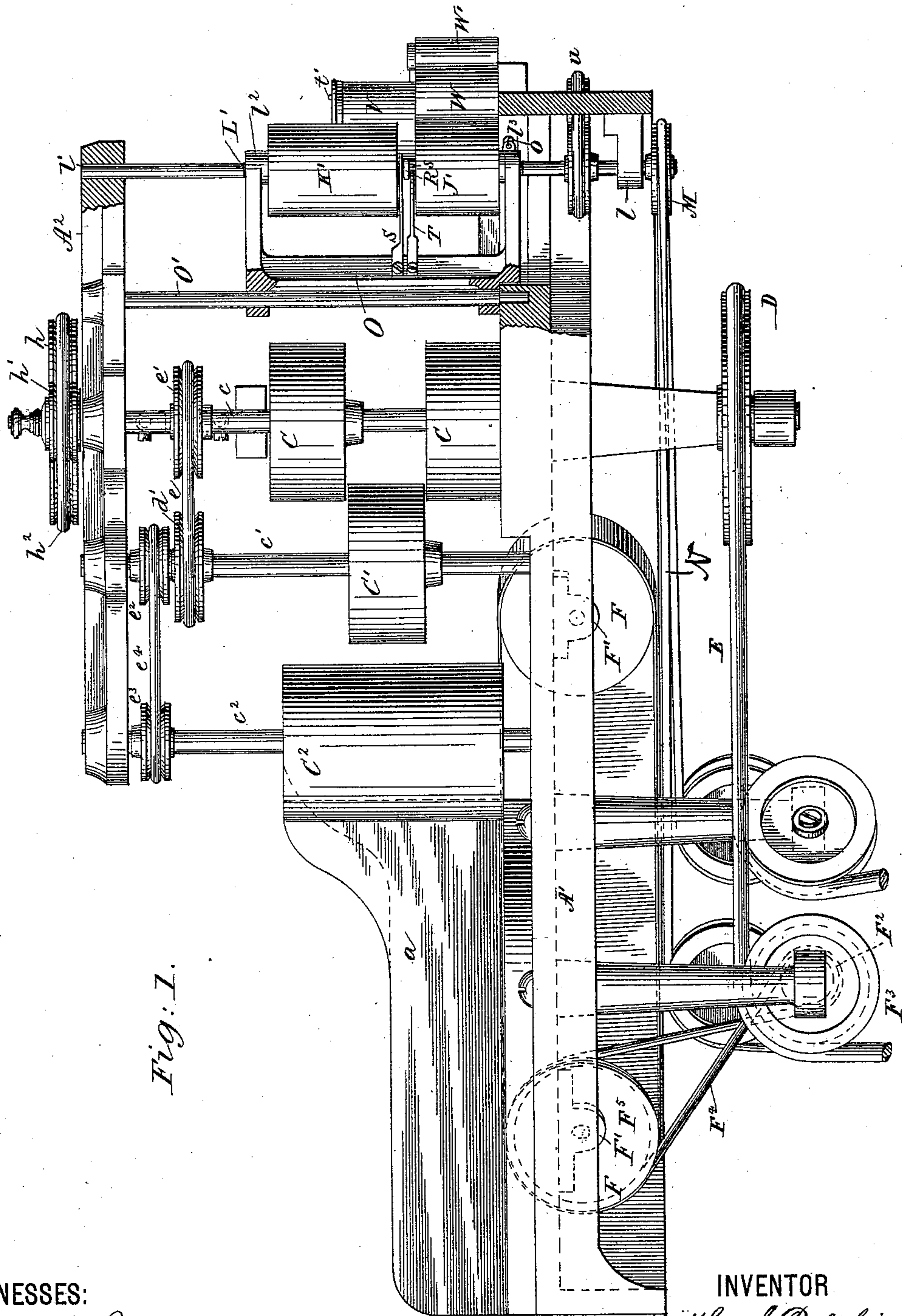


Fig. 1.

WITNESSES:

John A. Rennie
August Bertram

INVENTOR

Matthew J. Dolphin
BY *Wm. Appleton*
ATTORNEY.

(No Model.)

4 Sheets—Sheet 2.

M. J. DOLPHIN.
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Fig. 2.

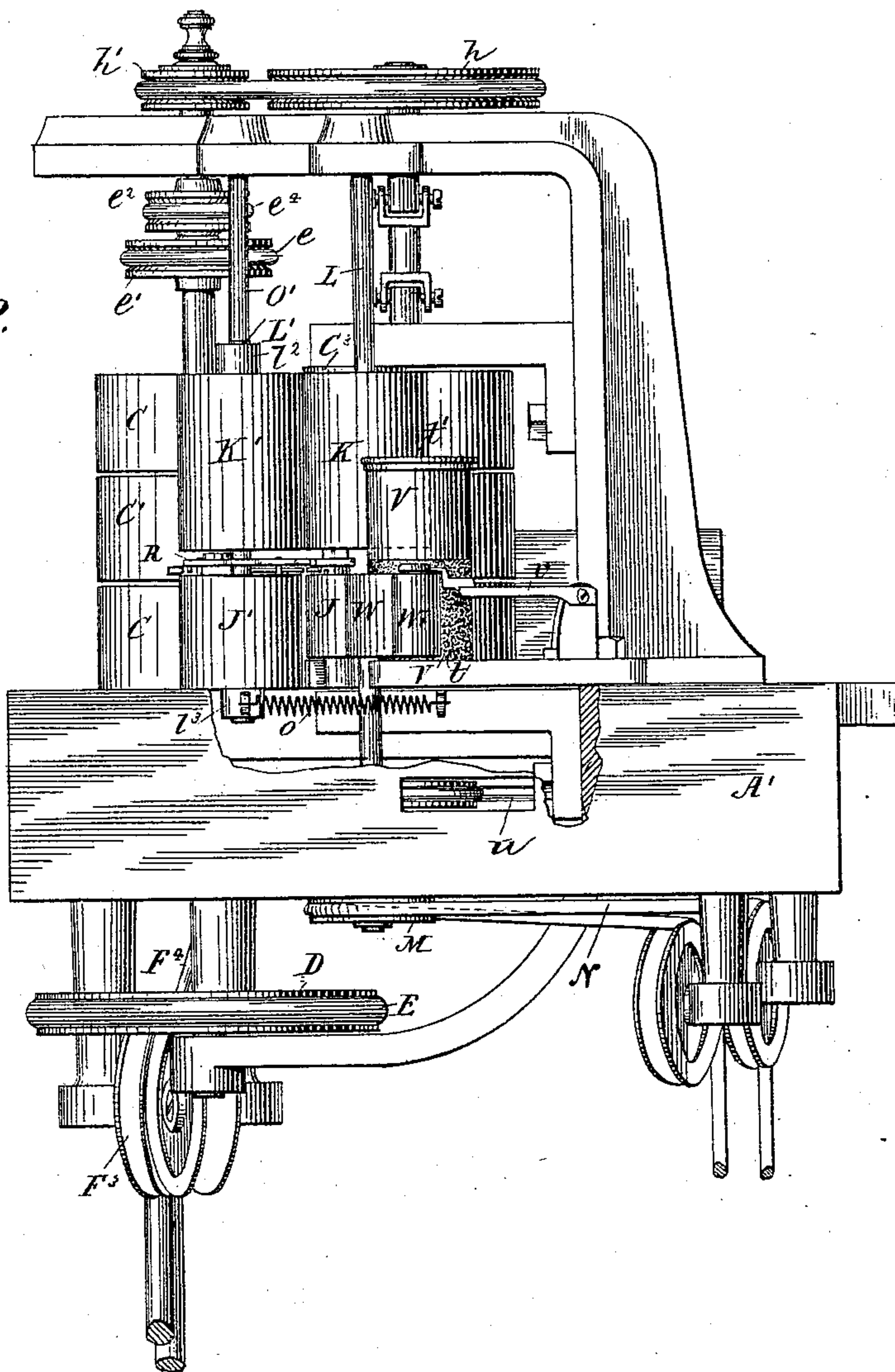
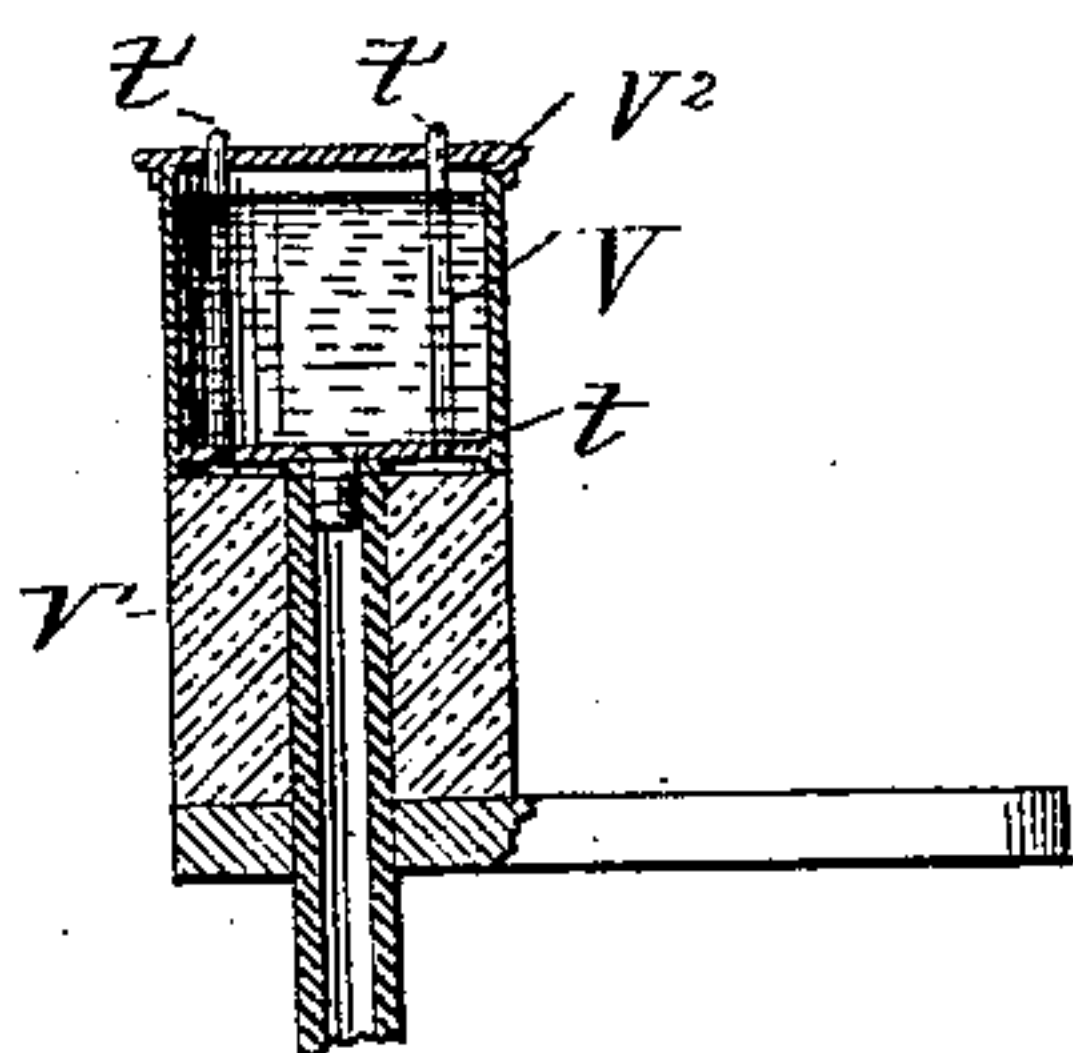


Fig. 8.



WITNESSES:

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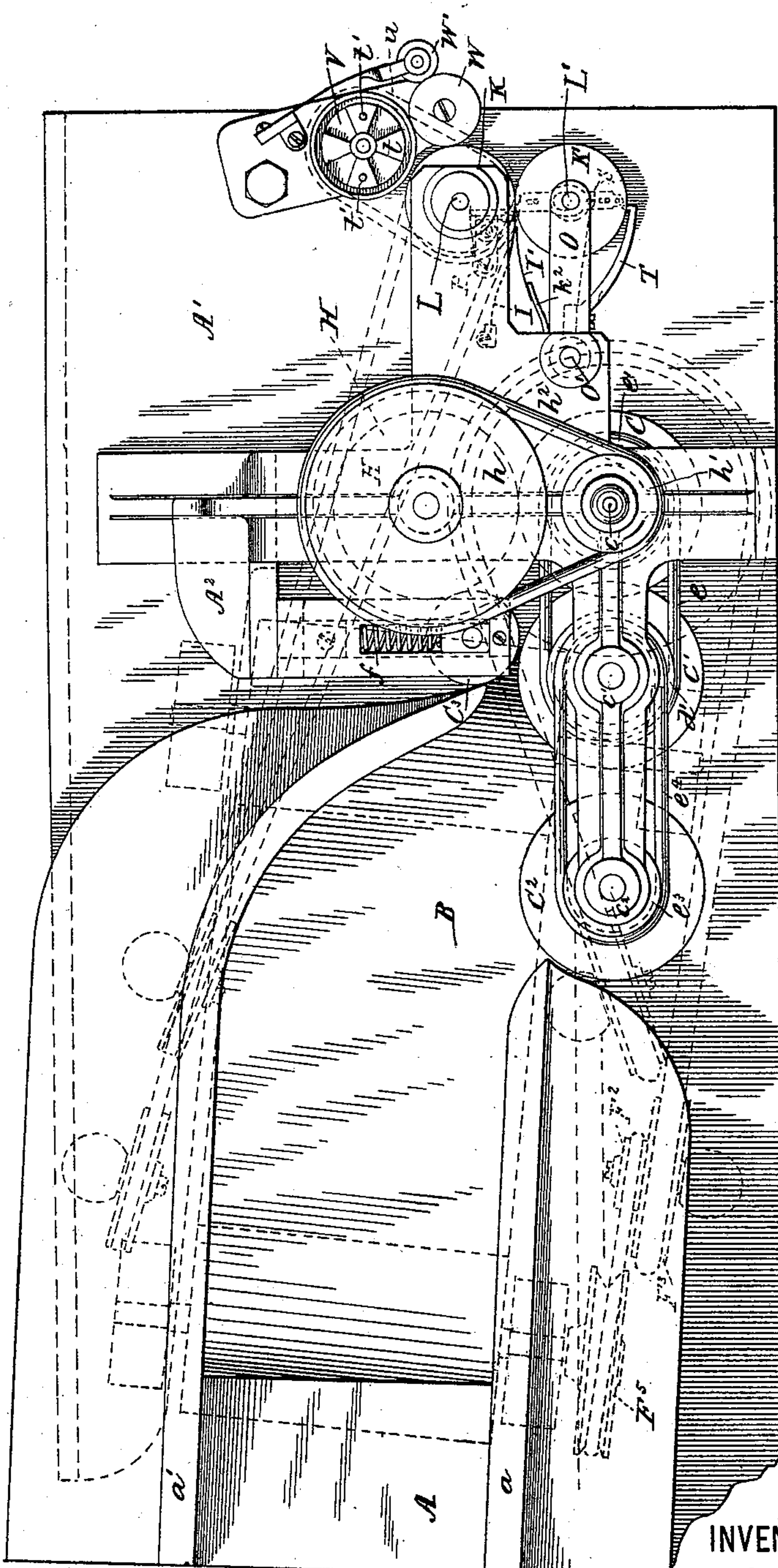
4 Sheets—Sheet 3.

M. J. DOLPHIN.
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Fig. 3.



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M. J. DOLPHIN.
STAMP CANCELING MACHINE.

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Fig: 4.

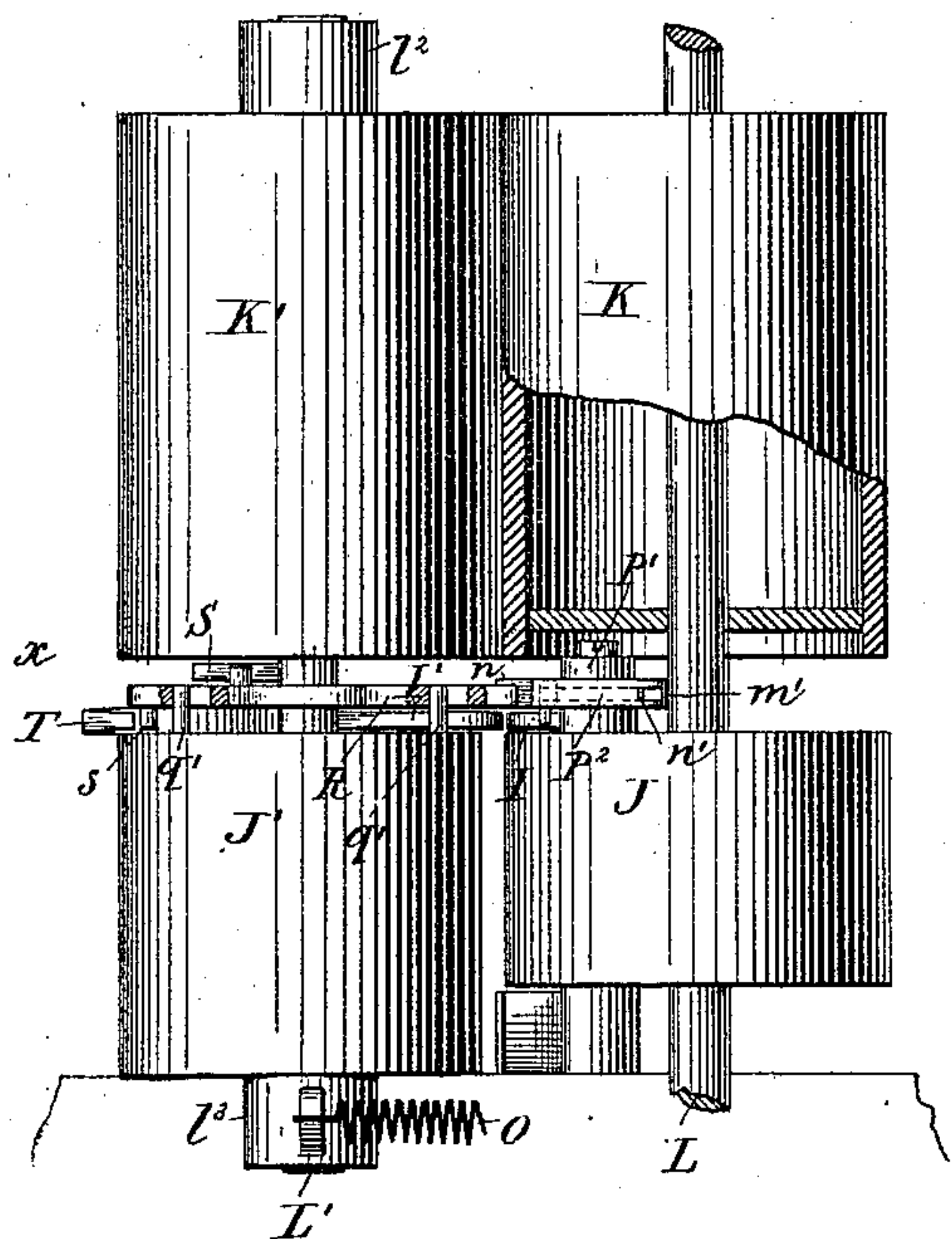


Fig: 5.

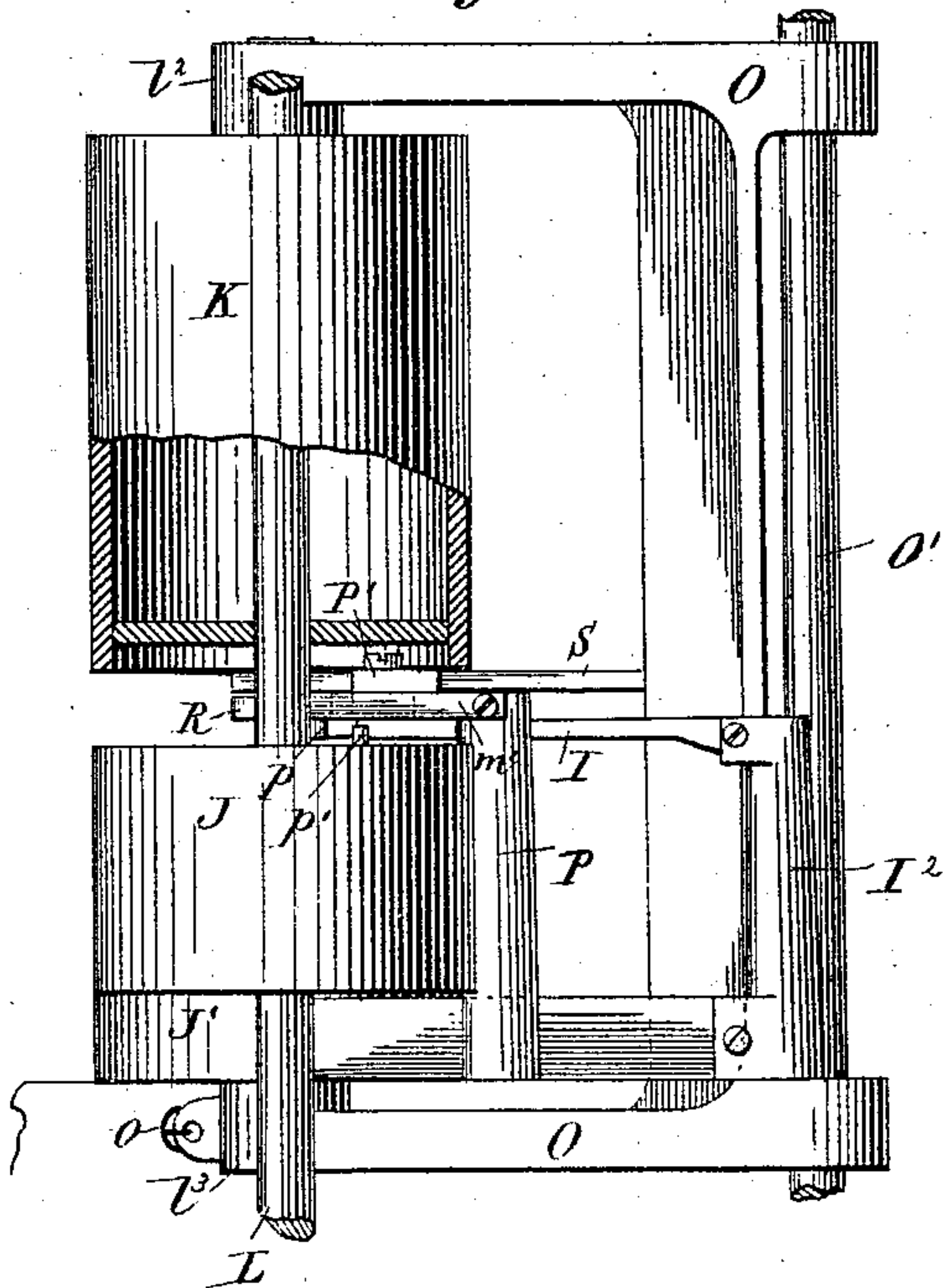


Fig: 6.

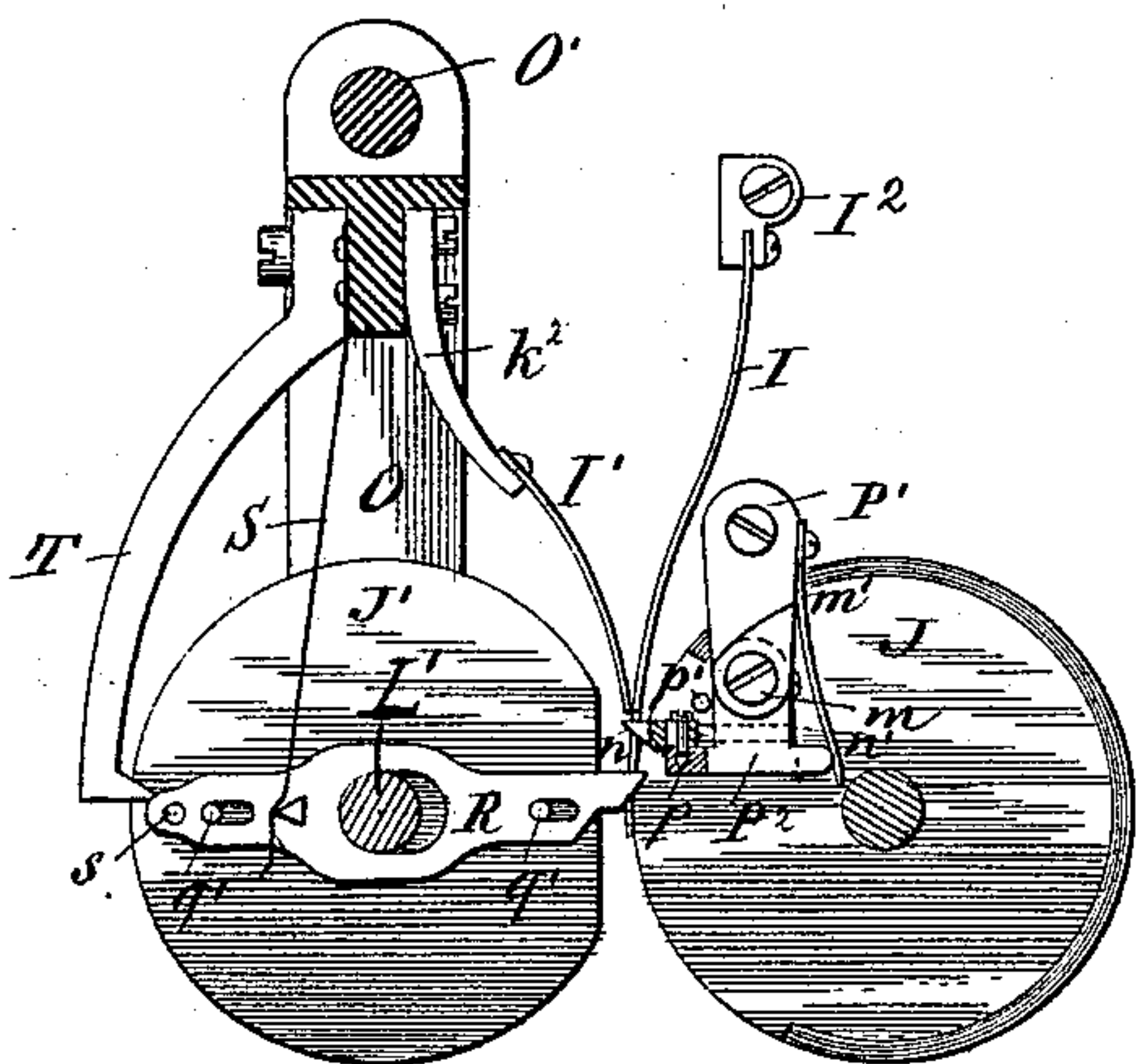


Fig: 7.

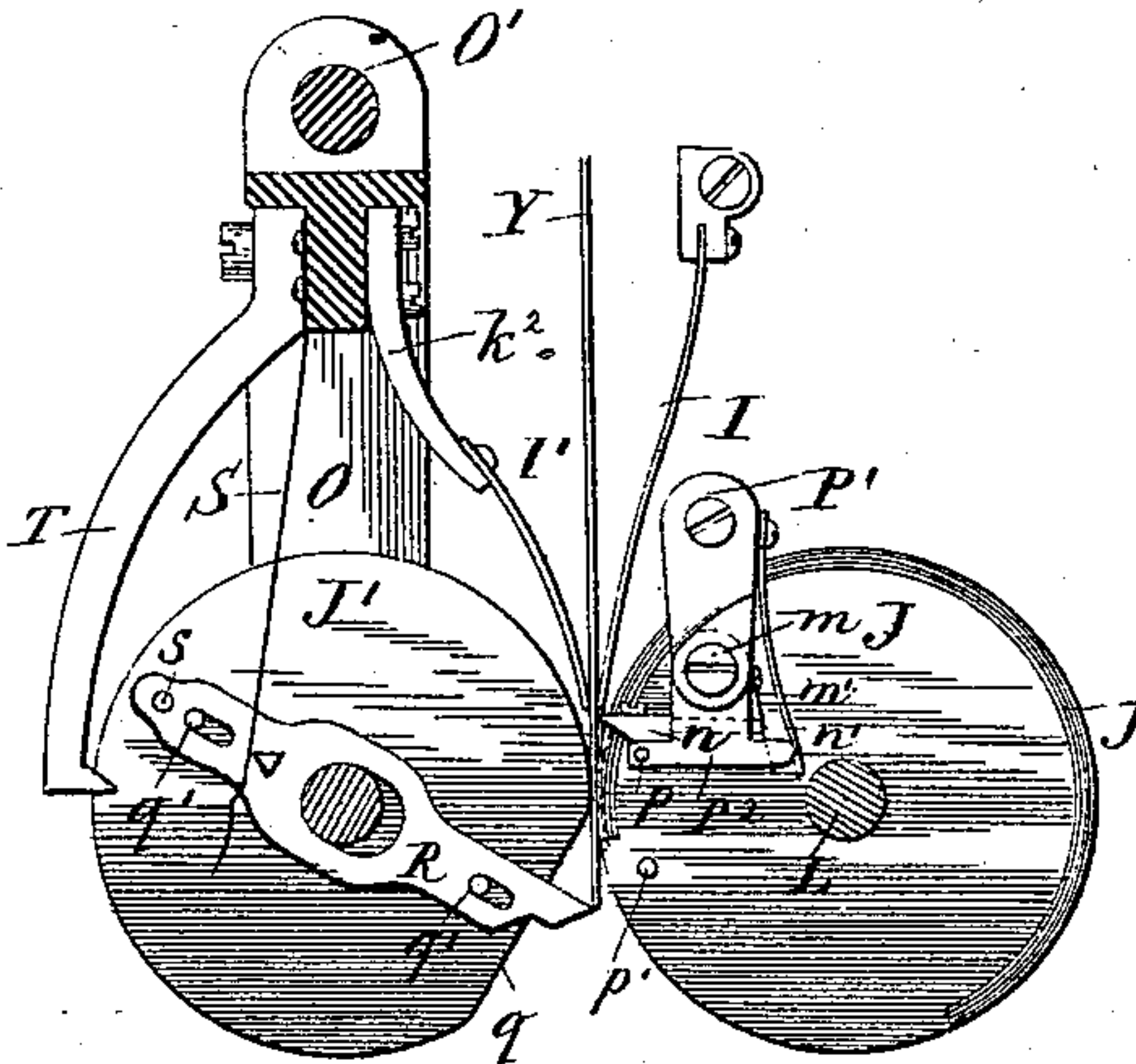
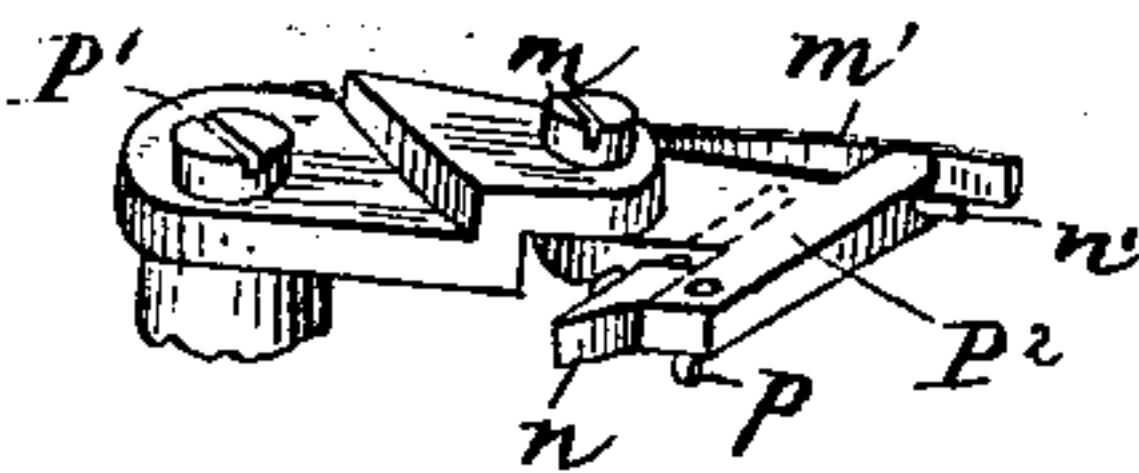


Fig: 9.



WITNESSES:

John A. Rennie,
August Bertram

INVENTOR

Matthew J. Dolphin,

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UNITED STATES PATENT OFFICE.

MATTHEW J. DOLPHIN, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE INTERNATIONAL POSTAL SUPPLY COMPANY OF NEW YORK, OF SAME PLACE.

STAMP-CANCELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 541,078, dated June 18, 1895.

Application filed September 19, 1887. Serial No. 250,062. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW J. DOLPHIN, a citizen of the United States, and a resident of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Stamp-Canceling Machines, of which the following is a specification.

My invention relates to that class of machines or devices known as stamp cancelers or stamp canceling machines, primarily intended for canceling postage stamps or printing post marks upon letters, or both canceling and printing; and has for its objects the provision of simple, certain, efficient and automatically operating, devices, whereby the printing or canceling or both may be rapidly and accurately accomplished upon envelopes and packages of the usually varying sizes, without arresting the movements of the machine or requiring attention from the operator further than to introduce the packages or letters into the hopper; and also to secure certain advantages in the matter of construction, arrangement, and operation of parts, all as will hereinafter more fully appear.

To these ends, my invention involves, first, the application of a continuously rotating printing wheel in the path of the letter or other article operated upon, bearing upon its periphery the marks or devices to be impressed or printed, a regulating mechanism arranged in connection with said printing wheel—not to control the movements of the said wheel, which are continuously and practically uniform,—but to regulate the movements of the letters or packages to bring the points thereon where the imprint is to be made into proper relation with respect to that portion of the printing wheel upon which the printing characters or devices are located, as the same are brought opposite the position where the printing or canceling is effected; second, a presser wheel normally at rest and out of operative connection with the printing wheel and normally out of the path of the letter; third, automatically operating devices for bringing the presser wheel into action at the proper instant, and, fourth, a variety of attachments or adjuncts, and new and useful combination and arrangement of parts, the

principles and constructions as well as the mode of operation of all of which, will be hereinafter first fully explained and the prominent patentable features then pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a stamp-canceling machine with my improvements applied thereto, parts being broken away to show them more clearly; Fig. 2, an end elevation of the same, looking in the direction from which the articles are delivered; Fig. 3, a plan view thereof; Figs. 4 and 5, front and side elevations, respectively, of the printing, canceling, and delivery devices, some of the parts being broken away in both figures; Figs. 6 and 7, sectional plan views taken on the line xx of Fig. 4, Fig. 7 showing the parts in a slightly-different position than in Fig. 6 or after having been acted upon by the letter or other article; Fig. 8, a vertical axial section of the inking roll and well, and Fig. 9 an enlarged detail of a portion of the timing mechanism.

In all the figures like letters of reference indicate corresponding parts.

A represents the hopper or receptacle which is provided with the vertical side walls $a a'$, and is constructed of such size as to receive any desired number of letters or postal cards. These letters or cards have only to be roughly bunched and placed on edge in the hopper, the stamp or side on which the printing is to be done being turned toward the side on which the printing wheel is located, and the bunch or mass may be added to by single articles or by bunches, as may be desired.

B indicates an endless traveling apron or belt forming the bottom of the hopper and serving to support and carry forward toward the delivery end of the same the letters or cards deposited thereon, and $C C' C^2$ are the rolls which act in connection with the presser roll C^3 to successively withdraw the letters or cards from the mass thus delivered and carry them forward to the printing and canceling devices.

The rolls $C C' C^2$ which are preferably formed of, or covered with, a yielding and elastic material, such, for instance, as rubber, are arranged at the forward end of the wall

5 *a* of the hopper A, with their peripheries extending to or substantially to the plane of the inner side of said wall, and are carried by vertical shafts, *c c' c²*, respectively, which are journaled at their lower ends in the base plate A' and at their upper ends in the bracket A². Secured to the lower end of the shaft *c* is a pulley, D, by means of which said shaft and the roll C carried thereby are rotated, such
 10 pulley receiving a belt or band, E, which extends to and around a second pulley on the main driving shaft of the machine, or other source of power (not shown), and being actuated therefrom. The shaft *c'* carrying the
 15 roll C' is likewise provided near its upper end with a pulley, *d'*, which is rigidly secured thereto, and receives rotation from the shaft *c*, through the intermediary of a belt, *e*, and pulley, *e'*, and transmits the same to its own
 20 supporting shaft, and, through the pulleys *e² e³* and belt *e⁴*, to the shaft *c²* and roll C², whereby the three several shafts *c c' c²*, and the rolls thereon, are all caused to rotate in the same direction synchronously.

25 The presser roll C³, unlike the other rolls just mentioned, is not actuated by means of a belt or other similar motion transmitting devices, and is not mounted in fixed bearings, but is so supported that while held tightly
 30 pressed against the roll C', by means of the springs *ff* interposed between the boxes carrying the bearings and the bottom of the slots in the hangers in which such boxes are mounted, is yet free to yield backward therefrom, and is rotated by frictional contact with
 35 the roll C' or by the article passing between the two.

40 F F are drums upon which the endless traveling apron or belt B is mounted. These drums are journaled in suitable bearings formed in the hangers F' F', secured to the under side of the base plate A', and are so arranged with respect to the longitudinal axis of the hopper that, while they carry the apron or belt B, and the articles deposited thereon,
 45 in a general forward direction, they at the same time carry it over with such articles toward the front wall *a* of the hopper and toward the delivery end of the same, motion being communicated to one of these rolls, as for
 50 instance, the rearmost one, from a pulley F³, through the intervention of pulleys, F² F⁵, and a belt, F⁴, said pulley F³ being rotated by the belt E passing over the same. By
 55 these means, as will be seen, letters or postal cards properly deposited in the hopper A will be carried forward toward the delivery end thereof, and the letters or other articles contiguous to the front wall *a* of the same will
 60 be successively withdrawn and carried forward by the conjoint action of the rolls C C' C² and presser roll C³, and delivered to the devices which are subsequently to act upon them.

65 In order to prevent the presentation to the last mentioned devices of more than one letter or card at the same time, I provide the

roll H, which is preferably constructed of, or covered with, a yielding and elastic material, and cause it to rotate in the same direction as the roll C, but at a slower velocity, by
 70 the employment of the pulleys *h h'* and belt *h²*. The rolls C and H being thus arranged to rotate in the same direction, the contiguous points in their surfaces will, in the operation of the machine, move in opposite directions, and while the rolls C C' C² and C³ will
 75 be carrying forward a letter or card, the roll H will tend to carry the surface with which it is in contact in the opposite direction, and, hence, the movement of any letters or cards
 80 not in direct contact with the surface of the roll C will be arrested until the same is brought into actual contiguity therewith.

The parts as thus far described constitute what I term the feeding devices, and while
 85 novel in themselves are not claimed herein, but form, with other features, the subject of Letters Patent of the United States No. 408,405, which were granted to me August 6, 1889, to which reference may be had.

Immediately in advance of the feeding devices, and preferably upon the same base or bed, is mounted the mechanism concerned in
 90 printing the post marks and canceling the postage stamps upon the letters or other packages passing therethrough, the same consisting of the guiding springs I I', the printing roll J, and the inking apparatus therefor, the
 95 presser or impression roll J', the carrying rolls K K', and the regulating mechanism by means of which the movement of the letter or card is controlled to bring the point thereon
 100 where the printing or canceling or both is or are to be effected into proper relation with respect to the portion of the printing roll carrying the appropriate character or devices,
 105 as the same is brought into proper position to perform that result.

The printing roll J is preferably constructed
 110 in cylindrical form, and is provided on its periphery at *j* either by engraving or otherwise with appropriate characters or devices for printing the post mark or canceling the
 stamp or both, and is rigidly secured upon the
 115 vertical shaft L, which also supports above the same the carrying roll K fixedly secured thereto. This shaft is mounted in suitable bearings *ll'*, formed in or attached to the base
 plate A' and bracket A², respectively, and
 120 carries at its lower end a wheel M, by means of which, and the belt or band N, extending to and around a suitable pulley upon the main driving shaft of the machine or other source
 of power (not shown), a continuous rotary motion is communicated thereto and to the rolls
 125 carried thereby when the machine is in operation. The presser or impression roll J' is similarly but loosely mounted upon the vertical shaft L', which, like the shaft L, also supports
 130 above said roll a second carrying roll K'; but, instead of being mounted in fixed bearings, this shaft is supported in bearings *l² l³*, formed in the ends of the arms of the

frame *o* which is hung upon a rod, *O'*, in such a manner as to be free to swing thereon, and is held swung toward the shaft *L*, with the carrying roll *K'* pressed tightly against the carrying roll *K*, by means of the spring *o*, so that while these two rolls serve to firmly grasp the article passing between them and carry it forward through the machine—both during the time the printing and canceling is being effected and afterward—the former of said rolls is yet capable of yielding and moving away from the latter whenever an unusually thick article is passed between them, a suitable stop (not shown), against which the lower arm of the frame *O* abuts, being employed for limiting the movement of such pressure roll toward the shaft *L* when the cut away portion of the former is turned toward the latter.

The presser or impression roll *J'* is formed of, or covered with, a yielding and elastic material, and its office is to press the letter or postal card against the printing or stamp canceling surface of the printing roll, in order to produce the desired impression thereon. This roll is not like the printing roll arranged to revolve continuously, nor yet intermittingly at any regular interval, but normally remains stationary and revolves only at the proper times for giving the impression at the instant and in the particular place required, as will hereinafter appear.

The path or direction of the letters or postal cards as they are delivered or projected from the feeding devices is controlled by the guiding springs *I I'* which, with the passage between the printing and impression rolls, constitutes a rectilinear letter way through which the letter or other article may travel without being subjected to objectionable bendings or flexures. These springs *I I'* are preferably so disposed as to guide the letter or other article along the letter way past the printing roll at some little distance from such roll, in order to prevent them from coming in contact with it, except when pressed against its surface by the presser roll *J'*, the springs *I* being preferably secured to a post, *I²*, projecting upward from the base plate *A'*, and the spring *I'* being secured to an arm, *k²*, extending outward from the frame *O*, as shown in Figs. 6 and 7.

From the construction of the parts above set forth, it will be readily understood that, inasmuch as the printing roll is kept continuously in rotation, it will print or cancel at any point of its path at which the letter or card happened to be pressed against the printing portion of its surface, and that it is necessary, or highly desirable, to regulate or control the time at which the printing shall commence with respect to the position of the envelope or card in the machine. For this purpose I employ what I term a "regulating mechanism," which is so constructed and operated as to insure the commencement of the printing or canceling only when the letter or card has advanced to a certain point. The

construction of this mechanism is as follows: At a convenient point upon the bed plate *A'*, I secure a suitable post or stud, *P*, and apply to its upper end, by screws or otherwise, a block, *P'*, to the inner end of which block is hinged or pivoted, as at *m*, a second block, *P²*, of general T-shape, having projecting from its under side a pin, *p*. This block *P²* is normally held pressed forward against a suitable stop by a spring, *m'*, acting against a projection on its rear side, and carries a sliding or yielding detent, *n*, the forward end of which, when in its normal position, lies in the path of the traveling letter or other article, as shown in Fig. 6. The detent *n* is held in its advanced position by a very light spring, *n'*, secured at one end to the block *P²*, and bearing at its other end against the rear end of said detent. When therefore the parts are in the position shown in the figure last mentioned the letter way is closed, and if they remained in that position no letter could pass through the machine, but the rotation of the printing roll *J* brings a pin *p'* in its upper end, into engagement with the pin *p*, projecting downward from the under side of the block *P²*, swinging such block backward upon its pivot *m* against the spring *m'*, carrying with it the detent *n*, and thereby removing it from the letter way, and allowing a letter or other article to pass on through between the printing and presser rolls. After the pin *p'* in the printing rolls has passed the pin *p* in the rotation of such rolls, and the forward end of the letter has passed the detent, the spring *m'* returns the block *P²* to its normal position, the spring *n'* permitting the detent *n* to yield as it strikes the letter or other article passing between the printing and presser rolls and to remain pressed back until the same has passed its end, when it returns to its normal and original position ready for the next letter or article (see Fig. 7), and the same operation is repeated, the yielding detent, in consequence of the lightness of its spring, obviating to a great extent the friction and other objectionable effects upon the letter or other article that would result if such detent was made rigid or integral with the block *P²*, and was forced against the letter or article, by the stronger spring *m'*. By these means, as will be perceived, the printing roll at each revolution opens the letter way for the advancing letter, and not only insures that the said roll itself shall be in proper position for imprinting the desired mark at the required place on the letter, but also prevents any letter from coming into contact with the printing roll, when the letter is out of position for printing the desired mark at the required place.

The presser or impression roll *J'*, instead of being cylindrical throughout its entire surface, is cut away or flattened on one side, as shown at *q*, and normally—that is to say, until required for producing the impression necessary for printing—remains at rest, being brought into action and rotated at the proper

time by the letter or postal card as it passes the printing roll. When the roll J' is at rest the cut away portion *q* is turned toward the printing roll, and thus ample space is provided for the free passage of the letters, &c., between the two, the springs I serving to hold them from contact with the printing roll. To bring the roll J' into operation so that it may be caused to revolve and exert the necessary pressure to effect the printing and canceling, it is provided with a diametrically located bar or yoke, R, one end of which extends to and across the path of the letters or postal cards and is struck and carried forward by each of them in turn as they pass the printing roll. This bar is movable in the direction of its length upon the roll J', being provided with slots through which pins or studs, *q' q'*, connected with said roll pass. A light spring, S, keeps this bar or yoke normally projecting beyond the face of the cut away portion of the roll J'. It will thus be apparent that as soon as the projecting end of the bar or yoke R is struck by the moving letter or postal card it will be carried along with it and will in turn start the roll J' in a circumferential direction, bringing the cylindrical surface thereof into contact with the traveling letter or postal card, as shown in Fig. 7. The cylindrical portion of both the printing and presser rolls being now in engagement with the letter or card, and the former roll being driven by power, all will move together and the latter roll will press the letter or card against the former roll and the printing will be then, and then only, accomplished. After the letter or card has passed between these two rolls, or when the presser roll has made one complete rotation, it is of course necessary to stop said roll with its flat portion opposite the printing roll, so that it will not press the letter against the printing surface again, if a single rotation of the two rolls is not sufficient to carry the letter entirely through between them. For this purpose I mount upon the frame O a stop or detent, T, the free end of which is so located as to just clear a pin, *s*, projecting downward from the under side of the bar or yoke, when such bar or yoke is thrust forward toward the printing roll by the spring S, but will engage the same when moved back in the opposite direction, and thereby arrest the movement of the roll. If now a letter or postal card be inserted between the printing and presser rolls, when the machine is in operation, it will, after passing the detent *n*, as before stated, strike the projecting end of the bar or yoke and carry it forward, thus bringing the circumference of the roll into contact with the letter or card. The continued movement of the letter or card, caused by the action of the printing and carrying rolls thereon, effects the rotation of the presser roll, and brings the projecting end of the bar or yoke back to its point of starting, but prior to reaching such point it encounters the letter or card, which forces it back against the action of the spring S, and

brings the pin *s* thereon into contact with the stop or detent T, thereby arresting the further movement of the roll and holding it until the letter or card has been carried entirely past the printing roll, by the carrying rolls K K' mounted above such printing and presser rolls, on the shafts L L' respectively; when such pin will be released from contact with the stop or detent, and the parts returned to their normal position ready for the next printing operation. Provision is thus made for preventing a second printing upon the same surface no matter how long it may be.

With the printing devices above described may be employed any of the well known forms of inking apparatus. I prefer however to make use of the form illustrated in the drawings, as being the most efficient, the same being constructed and operated as follows:

V is an ink reservoir or well mounted upon an ink receiving roll or cylinder V', the latter being about the length of the printing surface, and made up of some absorbent material, as felt, calculated to receive and become thoroughly and uniformly saturated with the ink from end to end as it flows from the reservoir or well. The ink is preferably fed by gravity from the reservoir or well, in the bottom of which are radial openings covered by a register plate, *t*, which may be moved about its central axis or pivot by any convenient devices, as, for instance, the rods *t' t'* extending upward through the cover V² of the reservoir rotatively adjustable thereon. The ink is allowed to flow more or less rapidly according to the degree at which the outlets are opened or closed by the register plate. The cylinder V' and reservoir or well V revolves continuously upon their common axis or shaft, being driven by a belt connection, *u*, from the printing roll J. From the roll V ink is delivered to the delivery roll W, which is so journaled as to come into contact with the printing surface and also with the ink roll.

W' is a distributing roll, held by a spring, *v*, in contact with the delivery roll W, and operating to distribute the ink uniformly upon it before the same reaches the printing surface. By this simple means the ink is evenly and automatically applied as rapidly as may be required, without in any way interfering with the efficient operation of the feeding and printing mechanism.

After being printed in the manner indicated, the letters or postal cards are delivered from the machine in or upon any suitable or convenient receptacle.

In the foregoing, I have described the best means contemplated by me for carrying my invention into use. I wish it distinctly understood, however, that I do not limit myself strictly thereto, as it is obvious that I may modify the same in various ways and still be within the scope of my invention, as, for instance, I may employ other means for supplying ink to the printing roll, and may also make use of other forms of feeding devices, those

shown and described being the forms preferred by me.

Having now fully described my invention and one way in which it is or may be carried into effect, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination, with a marking or printing device arranged for continuous rotation in the path of the letter, a hinged or pivoted block for obstructing such path, and a pin arranged in connection therewith, of mechanism for acting upon the pin to move the block from the path of the letter at the proper time, whereby the movement of the letter with respect to the movements of the marking or printing device is governed, and the marking or printing upon the letter at the required place insured, substantially as described.

2. The combination, with a continuously operating feed, a marking or printing device arranged for continuous rotation in the path of the letter, a hinged or pivoted block for obstructing such path, and a pin arranged in connection with said block, of mechanism for acting upon the pin to move the block from the path of the letter at the proper time, whereby the letter is carried forward toward the marking or printing device, and its movements with respect to the movements of the latter not only governed, but the marking upon it at the required place insured, substantially as described.

3. The combination, with a continuously operating feed, a marking or printing device arranged for continuous rotation in the path of the letter, and a hinged or pivoted block for obstructing such path, of a pin arranged in connection with said block, and operated from the marking or printing device to move the block from the path of the letter at the proper time, whereby the letter is carried forward toward the marking or printing device, and its movements with respect to the movements of such device not only governed thereby, but the marking upon the letter at the required point insured, substantially as described.

4. The combination, with a continuously operating feed, a marking or printing device arranged for continuous rotation in the path of the letter, a rectilinear letter way, a hinged or pivoted block arranged to project across said letter way in the path of the letter, and a pin carried by said block, of means controlled by the marking or printing device for opening said letter way and admitting the advancing letter at the moment when the marking device is in position to apply the required mark at the required place on said letter, substantially as described.

5. The combination, with a continuously operating feed, a marking or printing device arranged for continuous rotation in the path of the letter, a rectilinear letter way, a hinged or pivoted block arranged to project across

said letter way in the path of the letter, and a pin carried by such block, of a pin carried by the marking or printing device for operating upon the first mentioned pin, to open the letter way by swinging the hinged or pivoted block therefrom and admitting the advancing letter into contact with the marking or printing device when such device is in position to apply the desired mark upon the said letter at the required place, and a spring for returning the block to its original position when the letter has passed, substantially as described.

6. The combination, with a continuously operating feed, and a marking or printing device continuously operated in the path of the letter, of an impression roller, the operating surface of which is normally out of the path of the letter, a support for said roller, and devices whereby the operating surface of such roller may be brought into said path when it is desired to mark or print upon the letter, substantially as described.

7. The combination, with a continuously operating feed, and a continuously rotating marking or printing device in the path of the letter, of an impression roller arranged opposite the marking or printing device, with its operating surface normally outside the path of the letter, a support for said roller, a spring, which, while holding such roller pressed forward toward the marking or printing device yet allows of its yielding backward therefrom, and means for bringing the operative surface of said impression roller into the path of the letter to effect the marking or printing upon such letter, substantially as described.

8. The combination, with a continuously operating feed, and a marking or printing device arranged for continuous rotation in the path of the letter, of an impression roller arranged opposite the marking or printing device, with its operating surface normally outside the path of the letter, a support for said roller, a spring which, while holding such roller pressed forward toward the marking or printing device, yet allows of its yielding backward therefrom, and a bar or yoke operated by the letter itself for bringing the operating surface of the impression roller into action to effect the marking or printing upon the letter, substantially as described.

9. The combination, with a continuously operating feed, a marking or printing device arranged for continuous rotation in the path of the letter, and an impression roller arranged opposite the marking or printing device, with its operating surface normally outside the path of the letter, of a hinged or pivoted block arranged to project across such path and carrying a pin, and appliances for respectively acting upon said pin to move the block out of the path of the letter, and for bringing the impression roller into operation, substantially as described.

10. The combination, with a continuously operating feed, two carrying rollers, and two

continuously rotating shafts upon which the carrying rollers are mounted, of a marking or printing device fixedly secured to one of the said shafts, and an impression roller
5 loosely mounted upon the other of such shafts, and devices whereby such impression roller may be brought into operation at the proper times; substantially as described.

11. The combination, with a continuously
10 operating feed, a shaft continuously revolving in rigid bearings, and a marking or printing device securely mounted on said shaft and rotating therewith in the path of the letter, of an impression roller mounted in yield-
15 ing bearings with its operating surface normally held outside of the path of the letter, and devices operated by the passing letter for bringing the operating surface of such impression roller into action to force the let-
20 ter against the marking or printing device, substantially as described.

12. The combination, with a letter feed, a marking or printing device, a shaft continuously revolving in a movable or yielding frame,
25 and an impression roller having a flattened or cut away space opposite said marking or printing device, and loosely mounted upon said shaft out of the path of the letter and normally at rest, of a bar or yoke operated by the letter
30 for bringing the impression roller into action and causing it to press the letter against the marking or printing device with a yielding pressure, substantially as described.

13. The combination, with a continuously
35 rotating printing roll, an impression roller having a flattened or cut away portion and normally at rest, a bar or yoke carried by the impression roller and longitudinally movable thereon, and a spring for normally holding its
40 end projected over the flattened portion, of a detent or stop against which such bar or yoke strikes when retracted against the action of said spring, to arrest the rotation of the presser or impression roller, substantially as
45 described.

14. The combination, with the printing roll, and the mechanism for continuously rotating the same when the machine is in operation,

and a detent arranged across the path of the letter or other article as it passes over the
50 printing roll, of a hinged or pivoted block by which the detent is carried, and devices whereby such detent is withdrawn from said path at predetermined intervals by the action of
55 the printing roll, substantially as described.

15. The combination, with the printing roll
J provided with the pin *p*, and means for continuously rotating said roll when the machine is in operation, of the block *P'*, the block *P*²
60 pivoted thereto and provided with the pin *p*, the detent *n*, and the springs *m' n'*, as and for the purposes specified.

16. The combination, with the continuously rotating roll the presser or impression roller having a flattened or cut away portion, said
65 roller being normally at rest, and means whereby such impression roller is brought into action by the letter or other article operated upon, of the carrying rolls arranged above the printing and presser or impression rolls to
70 aid in carrying forward the letter or other article, substantially as described.

17. The combination, with a continuously rotating printing roll, the presser or impression roll having a flattened or cut away portion,
75 said roll being normally at rest, and means whereby such impression roller is brought into operation by the action of the letter or other article being operated upon, of the guiding
80 springs for conducting such letter or other article properly to said rolls, substantially as described.

18. The combination, with the printing roll
J, the presser or impression roll *J'*, the guiding
85 springs *I I'* forming a passage-way for supporting, and conducting the letter or other article to said rolls and holding it slightly removed from the former roll, when not acted
90 upon by the latter roll, substantially as described.

In testimony whereof I have hereunto set my hand this 17th day of September, 1887.

MATTHEW J. DOLPHIN.

Witnesses:

AUGUST BERTRAM,
GRANT SQUIRES.