

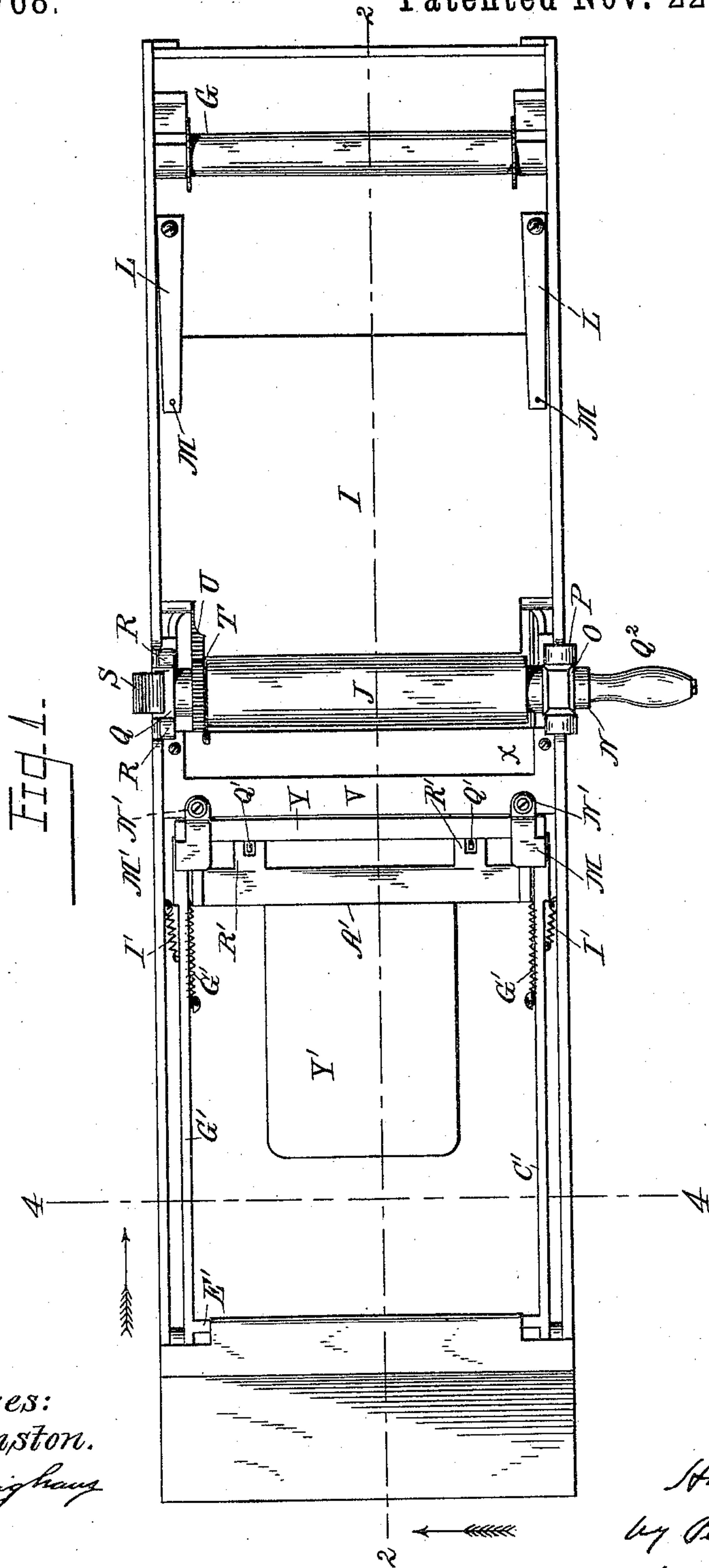
(No Model.)

4 Sheets—Sheet 1.

H. COOK.
AUTOGRAPHIC REGISTER.

No. 486,768.

Patented Nov. 22, 1892.



Witnesses:
W. C. Jirdiniston.
E. W. Harduighaus

Inventor:
Hugo Cook
by Beck & Rector
his Attorneys.

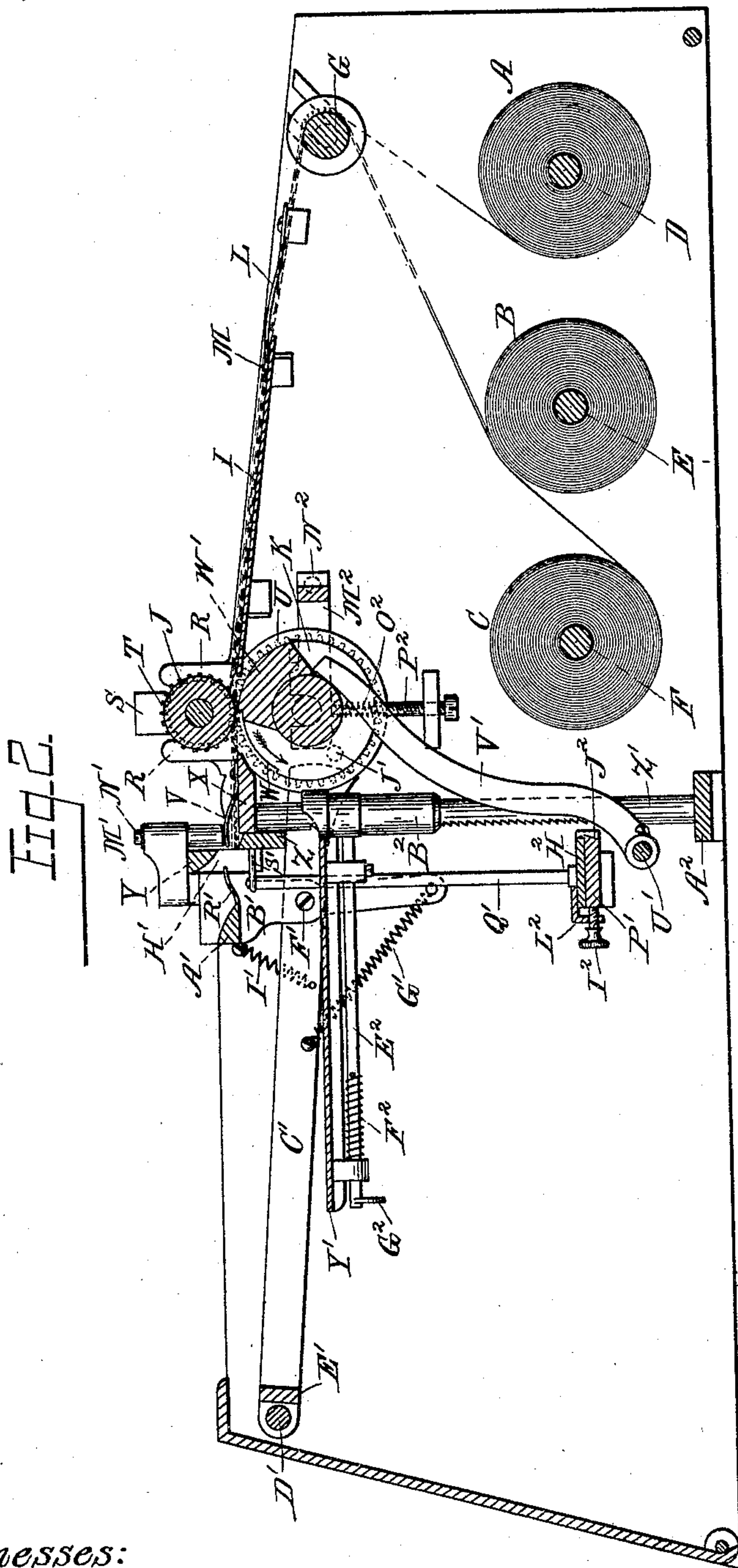
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4 Sheets—Sheet 2.

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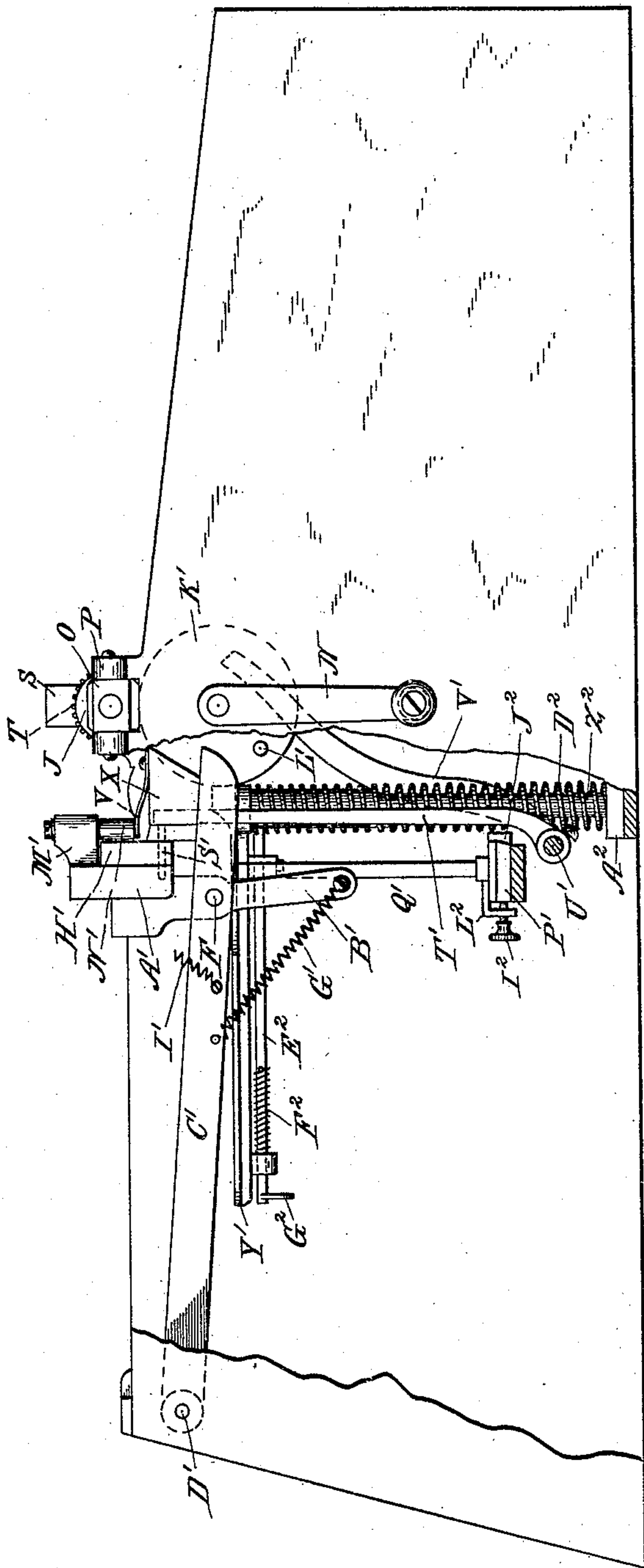
4 Sheets—Sheet 3.

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FIG. 3.



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(No Model.)

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Fig. 4.

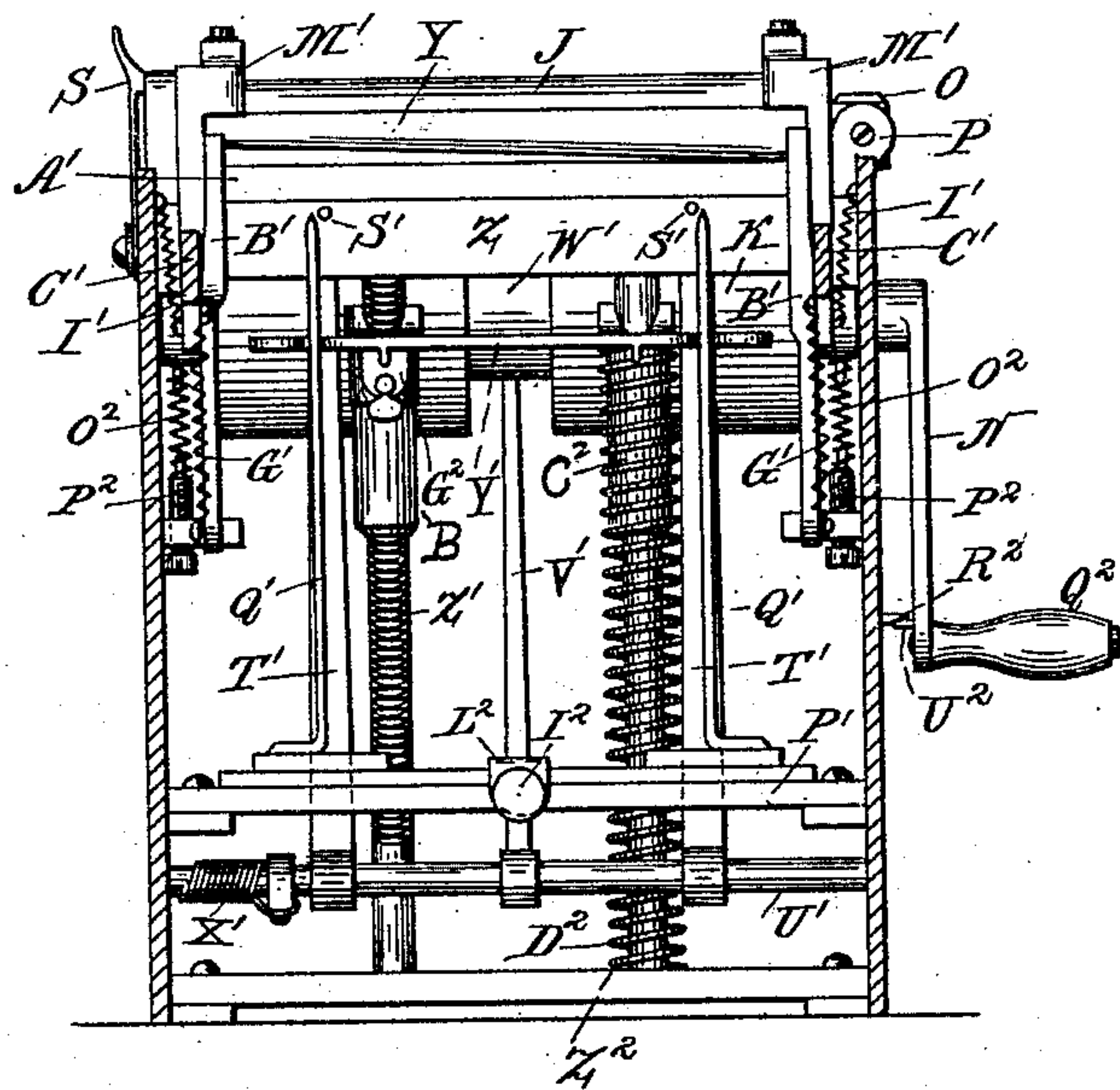


Fig. 5.

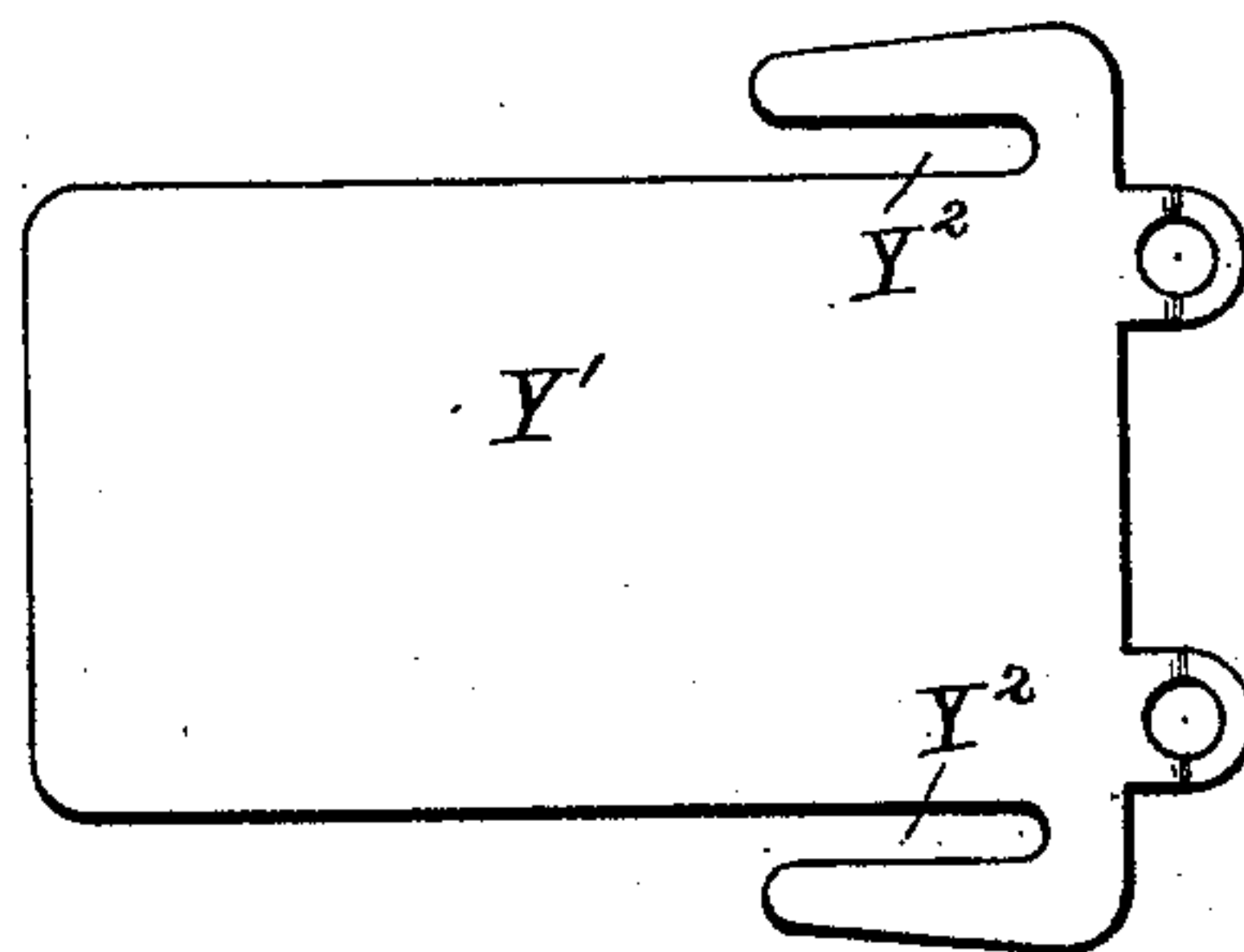


Fig. 6.

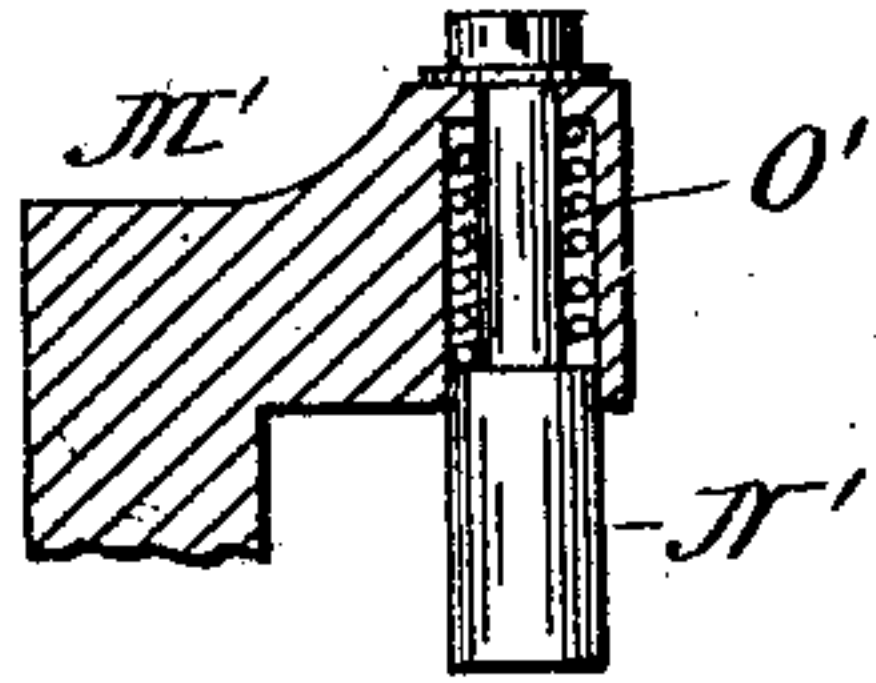


Fig. 7.

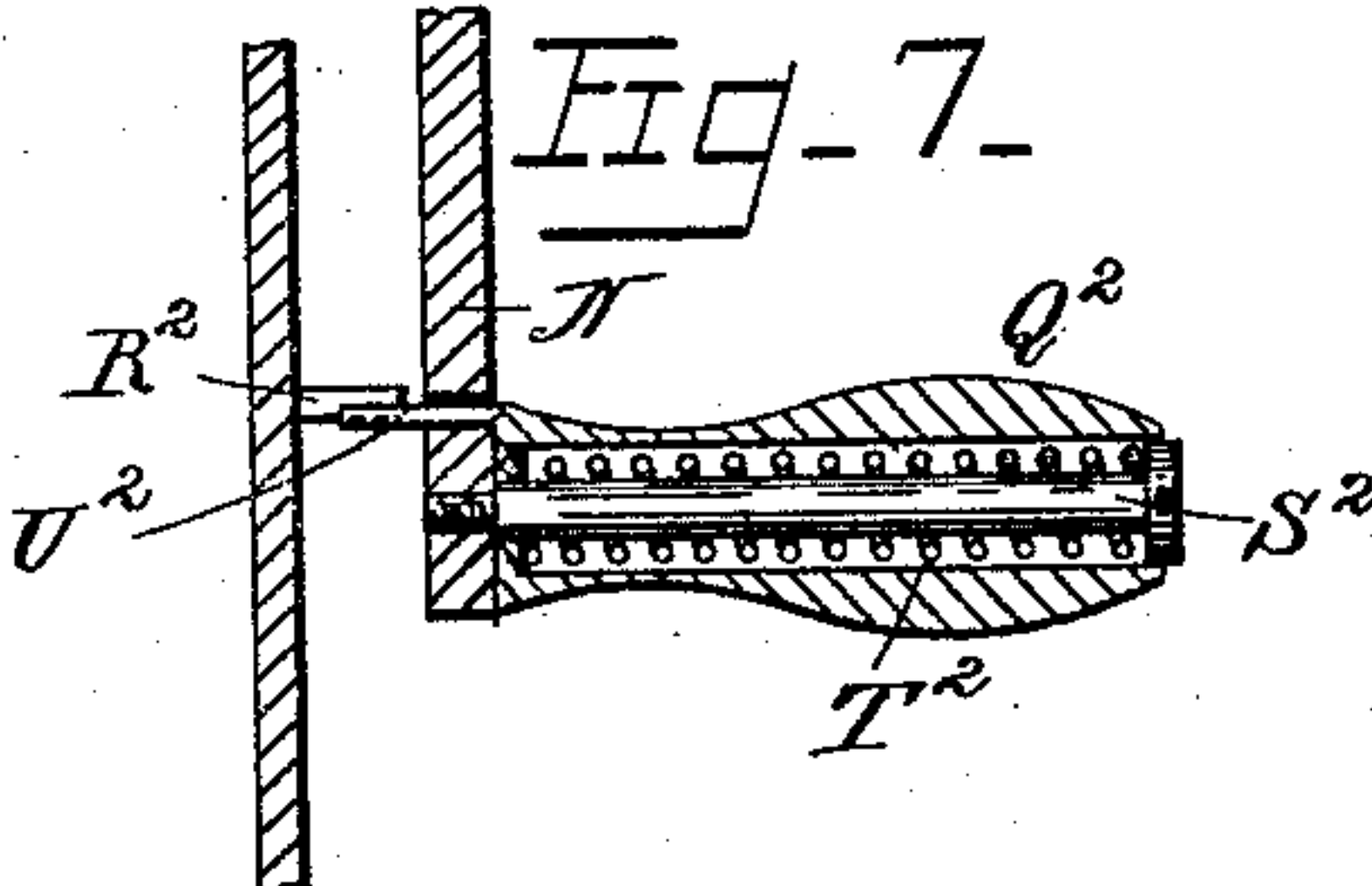
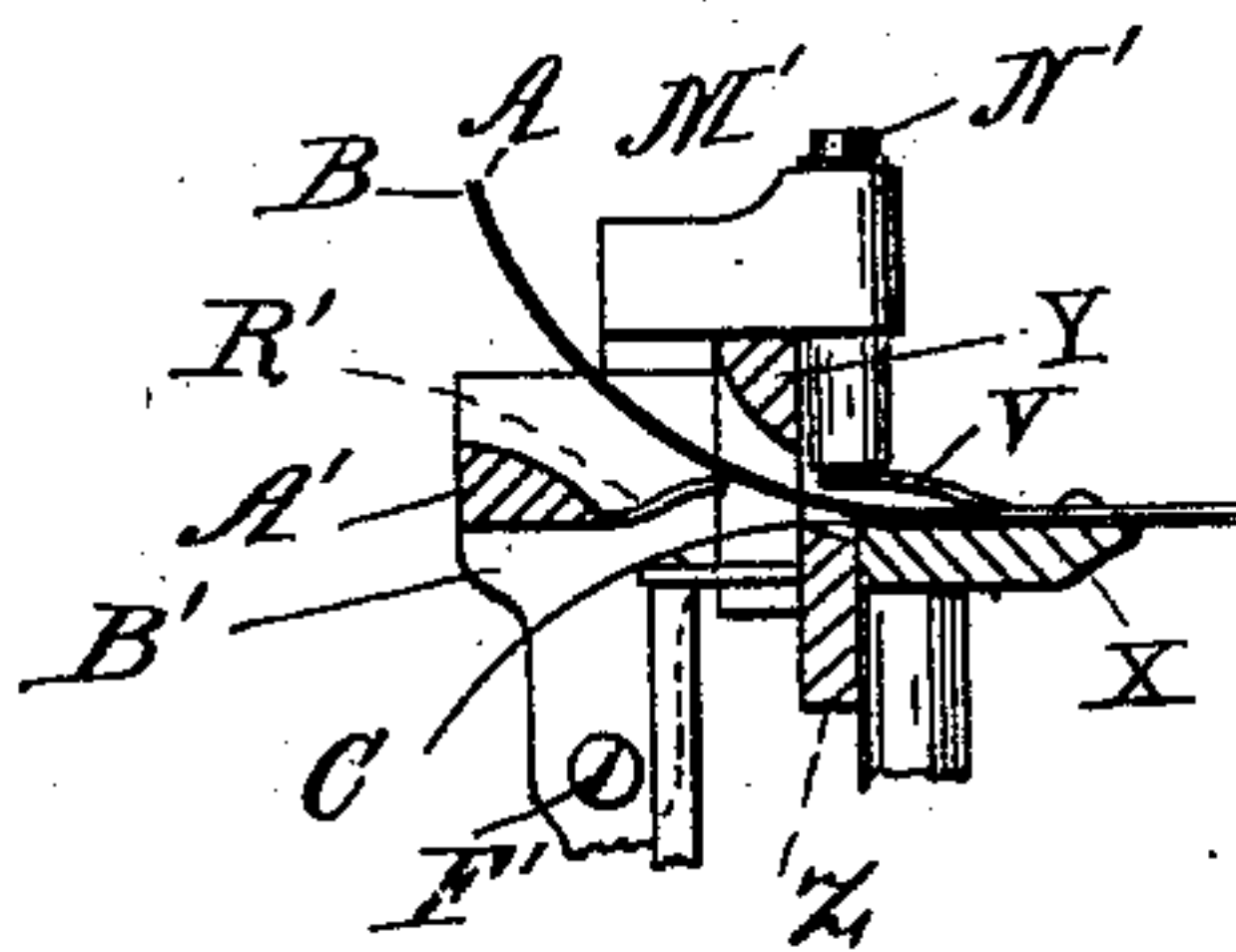


Fig. 8.



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UNITED STATES PATENT OFFICE.

HUGO COOK, OF DAYTON, OHIO.

AUTOGRAPHIC REGISTER.

SPECIFICATION forming part of Letters Patent No. 486,768, dated November 22, 1892.

Application filed March 11, 1892. Serial No. 424,581. (No model.)

To all whom it may concern:

Be it known that I, HUGO COOK, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have
5 invented certain new and useful Improvements in Autographic Registers, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

10 My invention relates to that class of autographic registers in which a check-strip and a record-strip are led over a writing-tablet, where the desired memoranda is written upon the check-strip and duplicated upon the
15 record-strip by means of an interposed transfer medium, and whence the check-strip is led out of the machine and severed to form a detached check and the record-strip led back into the machine and stored in suitable form
20 as a record.

The object of my invention is to simplify the construction and increase the efficiency of the operation of this class of machines.

25 Its novelty consists in new combinations and arrangements of the parts and new modes of operation, as well as in the novel construction of the machine in its details, all as will be hereinafter set forth, and specifically pointed out in the claims.

30 In the accompanying drawings, Figure 1 represents a top plan view of the machine with the top of the casing removed; Fig. 2, a vertical longitudinal section of the same on the line 2 2 of Fig. 1; Fig. 3, a side elevation of the machine with part of the rear side of the casing
35 broken away to expose the interior; Fig. 4, a vertical cross-section on the line 4 4 of Fig. 1; Fig. 5, a top plan view of the record-slip-supporting plate; Fig. 6, an enlarged sectional detail of one of the spring-plungers and its supporting-bracket; Fig. 7, an enlarged sectional detail of the grasping-knob of the operating-handle and co-operating parts; Fig.
40 8, an enlarged sectional detail of the cutting-knives and associated parts, showing the separation of the check-strips from the record-strip.

The same letters of reference are used to indicate identical parts in all the figures.

50 I prefer to employ two check-strips A B and one record-strip C in my machine, though as many check-strips as desired may be used.

The supply-rolls of the check-strips are carried upon spindles D E and that of the record-strip upon a spindle F, suitably mounted in bearings upon the side walls of the casing. The three strips are led upward over a
55 guide-roller G at the rear end of the machine and thence forward (to the left in the drawings) over a writing-tablet I and between a pair of feed-rollers J K. Sheets of transfer or carbon paper are interposed between the strips in their passage over the tablet-plate I, said sheets being retained in place by
60 springs L, which press the edges of the sheets down over pins M upon the upper face of the plate I, Fig. 1, and confine them between the springs and said plate. The lower feed-roller K is journaled in adjustable bearings in the casing or framework and the left-hand
65 end of its shaft or spindle K² projects out through a slot in the side wall of the casing and has secured upon it an operating-handle N. The upper feed-roller J is journaled at its left-hand end in a bearing-block O, pivoted between ears P upon the casing. The
70 opposite end of the roller is journaled in a like block Q, which fits between like ears or lugs R upon the casing, but is not pivoted thereto. A spring-catch S co-operates with the block Q to confine it between the lugs R, with the roller J bearing against the roller K. By disengaging this catch the right-hand end of the roller J, carrying the block Q with it, may be swung up upon the pivotal support
75 of the block O at its opposite end to permit the ready insertion of new strips of paper between the rollers J K. The inner face of the upper end of the spring-catch S is beveled, as shown in Fig. 4, so that it is only necessary
80 to press down the right-hand end of the roller J, whereupon the block Q will be automatically engaged by the catch and the roller held in place. This end of the roller has fast upon it a pinion T, which meshes with a gear
85 U, fast upon the lower roller K. It will thus be seen that at each complete revolution of the roller K by the handle N a given length of the check and record strips will be drawn forward between the rollers J K.

From the rollers J K the ends of the paper strips pass beneath a spring-plate V, Fig. 1, secured by integral arms at its opposite ends to a cross-piece X of the framework. These
100

arms are so bent, as seen in Figs. 2 and 3, that the body of the plate is held above the surface of the plate X to permit the strips of paper to pass beneath it; but it may be pressed
5 down against the plate X to arrest and hold the strips.

From beneath the spring-plate V the strips pass beneath a vertically-movable knife-bar Y, which co-operates with a fixed knife-bar
10 Z, secured upon the rear side of the plate X, the strips of paper passing between the two bars.

The upper knife-bar Y is carried by a frame A', pivotally supported by depending side
15 arms B' in a frame composed of two side arms C', loosely mounted at their rear ends upon a shaft D' and rigidly connected by a cross-piece E'. The arms B' of the frame A' are pivoted to the arms C' at F'. Springs G',
20 connected to the lower ends of the arms B' and to the arms C', tend to pull the lower ends of the arms B' rearward and throw the frame A' forward and keep the knife-bar Y or its depending arms H' at either end pressed
25 against the fixed bar Z. Springs I', connected at their lower ends to the arms C' and at their upper ends to the side walls of the casing, yieldingly hold up the front ends of said arms. It will be seen from this construction that
30 whenever the forward ends of the arms C' are depressed sufficiently the upper knife-bar Y will be carried down past the fixed bar Z and the strips of paper be sheared off between them. The lower edge of the bar Y and up-
35 per edge of the bar Z are preferably arranged at a slight angle to each other, as shown in Fig. 4, to give a shearing cut upon the paper.

Upon the outer face of the gear U, which is secured upon the right-hand end of the lower
40 feed-roller K, Fig. 2, is a pin J', which co-operates with the front end of the arm C' on that side of the machine, while upon the outer side of a disk K', secured upon the left-hand end of the roller K, is a similar pin L', Fig. 3,
45 which co-operates with the front end of the arm C' on that side of the machine. At each complete revolution of the roller K the pins J' and L' engage and depress the front ends of the arms C', carrying down the frame A' with them and causing the knives Y Z to
50 sever the paper strips, and when the pins clear the front ends of the arms C' the springs I' lift the latter and the knife-carrying frame A' to normal position. The position of the pins upon the roller K relatively to its normal position of rest is such that they will not
55 engage and depress the arms C' until the roller has nearly completed its revolution, so that the strips will not be severed until the feed-rollers have advanced them the proper
60 distance.

The roller K is flattened or cut away upon one side for its whole length, as indicated by the dotted lines at W, Fig. 2, and this cut-
65 away portion passes the roller J while the pins I' I' are depressing the knife-carrying frame and severing the paper, so that during

this operation the feed-rollers do not advance the paper strips, but allow them to remain stationary.

It will be understood that in their co-operation with the arms C' the pins J' L' are simply revoluble cams, and that any other suitable revoluble cams may be substituted for them, whether they be carried directly by
75 the roller K or be driven in any other suitable manner from the revoluble operating-handle.

Carried in brackets M' upon the frame A', one at each side thereof, Fig. 1, are spring
80 plugs or plungers N', adapted to depress the spring-plate V when the arms C' and frame A' are depressed. As seen in the detail view in Fig. 6, these plugs are confined in recessed housings in the brackets M' and are sur-
85 rounded therein by coiled springs O', confined between opposing shoulders upon the plugs and walls of the housings. When the frame A' is depressed, the lower ends of the
90 plugs N' engage the spring-plate V and press it down until it is arrested by contact with the plate X or the paper strips upon said plate and then yield against the pressure of the
95 springs O' during the further downward movement of the frame A'. This co-operation of the plugs N' with the plate V causes the latter to positively hold the paper strips while they are being severed by the knives Y Z.

Supported upon a cross-piece P' of the framework, Fig. 4, are two vertical filing-
100 pins Q' for the record-slips. Upon the rear side of the cross-piece of the frame A' are two filing plates or arms R', Fig. 1, having holes or slots in them immediately above the upper ends of the filing-pins Q'. When the
105 frame A' is depressed in the manner before described to cause the knives Y Z to sever the strips of paper, the plates R' force the slip severed from the record-strip down over the pins Q' and file it thereon.

As will be seen in Figs. 2 and 3, the two rolls of check-strips A B are so arranged in the machine that the strips are led upward from their left-hand or forward sides, while the record-strip roll C is arranged in reverse
115 position, so that the record-strip is led upward from the right-hand or rear side of its roll. Owing to this reverse arrangement of the rolls the ends of the check-strips led forward through the machine constantly tend to
120 curl upward and the end of the record-strip to curl downward. They are prevented from separating until after they pass from beneath the spring-plate V, adjacent to the knife-bars Y Z; but beyond that point the ends of the
125 check-strips are free to turn upward and the record-strip downward. The result is that at the beginning of the operation of the machine as the ends of the three strips are advanced from the severing-point the two check-
130 strips turn upward and pass above the filing-plates R' on the frame A' and the record-strip turns downward and passes beneath said plates, as seen in the detail view in Fig. 8.

The plates R' and cross-bar A' thus separate the strips and cause the check-strips to pass upward out of the machine and the record-strip to pass downward over the filing-pins Q'.

5 For the purpose of preventing the end of the record-strip from curling down behind the ends of the filing-pins between them and the bar Z, I provide means for guiding it over the tops of the pins. This means consists of two
10 sliding pins S', which are passed through holes in the bar Z and whose front ends project forward beside the upper ends of the filing-pins Q'. These pins are carried upon the upper ends of arms T', Figs. 3 and 4, fast
15 at their lower ends upon a rock-shaft U', journaled in the lower part of the machine, one near each end of the shaft approximately in line with the filing-pins Q'; also, fast upon the rock-shaft U', in this instance near its
20 middle, is an upwardly and rearwardly curved arm V', Figs. 2, 3, and 4, whose upper end co-operates with a cam W', fast upon the shaft or spindle of the roller K. In the drawings, Figs. 2 and 4, this cam is shown as formed
25 simply by cutting out a section of the body of the roller K, leaving a portion uncut, as shown by the section-lines, to form the cam; but it will of course be understood that the cam may be formed in any other suitable way
30 and located at any other point upon the revolving shaft or spindle. A coiled spring X', surrounding the shaft U' at one end, Fig. 4, and connected to said shaft at one end and to the casing at the other, yieldingly presses
35 the arms T' and V' forward, holding the upper end of the latter against the cam W' and the pins S' projected forward beside the filing-pins Q'. At the beginning of the operation of the machine the parts are in this position,
40 and as the paper strips are fed forward from the severing-point the check-strips pass upward between the plates R' and the upper knife-bar Y and out of the machine, and the end of the record-strip is guided by the pins S' over the points of the filing-pins Q'. As the
45 roller K approaches the latter portion of its revolution and brings its pins J' K' to position to depress the frame A' and knife-bar Y and filing-plates R' in the manner before described, the cam W' engages the upper end of
50 the arm V' and moves it rearward, thereby rocking the shaft U' and carrying the arms T' in the same direction, drawing the pins S' back into their holes in the bar Z and leaving
55 free passage for the descent of the filing-plates R' and knife-bar Y. As the operating-handle and roller K complete their revolution and come to normal position and release the arms C' and permit the springs to lift them
60 and the frame A' again, the cam W' also clears the end of the arm V' and the spring X' throws said arm and the arms T' forward again and projects the pins S' out beside the filing-pins, ready for the next operation.

65 To support the record-slips after they are filed upon the pins Q', I provide a vertically-adjustable plate Y', a top plan view of which

is shown in Fig. 5. This plate is carried and guided upon two vertical posts Z' Z², mounted upon a cross-piece A² at the bottom of the casing, near its middle, and extending upward nearly to the top of the machine. The end of the plate Y' adjacent to these posts is provided with suitable tubular bearings B² C² to fit over and slide upon the posts. The post Z² and bearing C² are surrounded by a spring D², resting at its lower end upon the cross-piece A² and bearing at its upper end against the under side of the plate Y'. The post Z' is serrated upon one side, and a catch-rod E², carried in guides upon the under side of the plate Y', co-operates with the serrations. A spring F² surrounding the rod between a pin passed through the same and one of the guides upon the under side of the plate Y', Fig. 3, yieldingly holds the rod in engagement with the serrations; but the rod may be withdrawn from engagement with them, against the resistance of the spring F², by means of a finger-piece G². It results from this construction that as the thickness of the stack of papers filed upon the pins Q' and resting upon the plate Y' gradually increases the plate will be gradually forced downward against the resistance of the spring D² by the pressure of the frame A' upon the upper side of the stack of slips at each operation of the machine, the engagement of the catch-rod E² with the serrations in the post Z' permitting downward movement of the plate Y', but preventing upward movement. After the stack of slips has been removed from the machine, as hereinafter explained, the catch may be disengaged from the serrations by means of the finger-piece G² and the spring D² allowed to lift the plate Y' into position to support the next stack of slips.

The filing-pins Q' are not permanently attached to the cross-piece P', which supports them, but are carried by a clip H², which can be attached to and detached from the cross-piece P' by means of a thumb-screw I². At its rear edge this clip has depending ears or a continuous flange J², which fits over the rear side of the cross-piece P', and at its front edge, near its middle, it has a depending ear L², which carries the screw I². To detach the clip from the cross-piece P', it is only necessary to loosen the screw I² and slightly lift the clip to disengage the ears or flange J² from the cross-piece, whereupon the clip and pins and the slips filed upon the latter may be removed from the machine. Another clip and set of pins, or the same ones after the slips have been removed from them, can be inserted in place and readily attached to the cross-piece by simply tightening up the screw I².

As seen in Figs. 4 and 5, the filing-pins pass through open slots Y² in the plate Y', so that the pins and slips filed upon them can be readily removed when the clip which carries the pins is detached from its support.

The adjustable bearings for the lower feed-roller K, heretofore referred to, are carried

by a swinging frame M^2 , Fig. 2, pivoted to the casing at N^2 , the shaft of the roller being journaled in the front ends of the side arms of said frame. The ends of these arms are held up and the roller K yieldingly pressed against the roller J by spiral springs O^2 , interposed between the under sides of said arms and adjusting-screws P^2 , carried in lugs upon the sides of the casing, Figs. 2 and 4. By turning the screws in one direction the roller K may be made to bear with greater pressure against the roller J , and by turning it in the opposite direction the pressure may be decreased.

The grasping-knob Q^2 of the handle N co-operates with a stop R^2 upon the side of the casing. The construction and arrangement of this knob are shown in the detail view in Fig. 7. It is mounted to slide upon a spindle S^2 , screwed into the handle N at one end and provided with an enlarged end at the other. Within the bore of the knob Q^2 and confined between a shoulder therein and the enlarged end of the spindle S^2 is a spiral spring T^2 , surrounding the spindle. The knob has upon its inner end a pin U^2 , which projects through an aperture in the handle N to co-operate with the stop R^2 . The spring T^2 presses the handle inward and holds the pin U^2 in position beside the stop. When the knob of the handle is slid outward, the pin U^2 is carried away from the stop, and the handle can then be turned forward. When it has made a complete revolution, the pin will strike the stop and arrest the handle.

If desired, a ratchet and pawl may be applied to the roller K or to any revoluble shaft driven by the operating-handle to prevent reverse movement of the latter.

The general operation of the machine under the above-described construction is as follows: The clerk, facing the right-hand end of the machine in Fig. 1, with his right hand writes the desired memoranda upon the outer check-strip over the tablet-plate I , and it is duplicated upon the strips beneath by the transfer medium. With his left hand he then disengages the grasping-knob of the operating-handle from the stop upon the casing and gives the handle a complete revolution, whereupon it will be again arrested by the stop. This revolution of the handle will operate, first, to feed forward the portion of the strips which has been written upon and carry it in front of the knives YZ . Then the pins $J' L'$, carried by the roller K , will depress the front ends of the arms C' and draw down the knife Y and filing-slips R' to sever all the strips and file the record-slips upon the pins Q' , the cam W' on the shaft of the roller K at the same time throwing the arm V' rearward and withdrawing the pins S' from the path of the knife Y and filing-plates R' . Then as the operating-handle comes to normal position the pins $J' L'$ will clear the ends of the arms C' , and the springs I' will lift the latter and the frame A' and knife Y , and the cam W'

will also clear the end of the arm V' , and the spring X' on the rock-shaft U' will throw the arms V' and U' forward again and project the pins S' forward beside the filing-pins Q' .

From the foregoing description it will be seen that all the clerk has to do at each operation of the machine is to write the memoranda upon the check-strip and give the operating-handle one revolution, that this single revoluble handle does all the work of feeding forward the strips, severing the slips from them, and filing the record-slips upon the pins.

I am aware that it has heretofore been proposed to accomplish these results by the forward and backward movement of a single lever or a rock-shaft; but I believe I am the first in the art to actuate the feeding, cutting, and filing mechanisms of an autographic register by a single shaft revolving in one direction only. I also believe I am the first in the art to actuate the feeding and cutting mechanisms or the feeding and filing mechanisms by a single revoluble shaft. Such being the case, I desire to claim the combination of such shaft with such mechanisms as broadly as may be done and irrespective of the construction or arrangement of the devices interposed between the revoluble shaft and the feed-rollers and cutting and filing mechanism. In my present machine the revoluble driving-shaft, to which the operating-handle is applied, is the spindle of one of the feed-rollers; but it is evident that it might be an independent shaft geared to said rollers. Furthermore, while I have shown the movable knife and the filing arms or plates as carried by a swinging frame actuated by revoluble cams, yet said knife and filing devices may, if desired, be carried by a reciprocating frame, actuated by a revoluble cam or cams in any suitable manner. Again, while under the construction illustrated and described the knife and filing-plate are not mounted directly upon the frame C' , but on a supplemental frame hung in the frame C' . It will be understood that this supplemental frame is provided because the frame C' is a swinging frame, so that the knife and filing-plate may move up and down in a substantially-straight line instead of in the arc of the circle described by the free end of the frame C' . If the latter frame were a sliding instead of a swinging frame, the knife and filing-plate might be secured directly to it instead of being mounted upon a frame carried by it. So far as I am aware I am the first in the art to support the knife and filing-plate or equivalent means upon a single movable frame, as C' , whose movement in one direction will cause the knife to sever the slip from the strip and the plate to file it, whether the knife and plate are carried directly by said frame or indirectly by it, as is shown and described. It will also be understood that some of the features of my invention are applicable to machines in which only the check-strip is cut into slips and the record-strip

wound upon a storage-reel, in which event the filing mechanism would be dispensed with.

Having thus fully described my invention, I claim—

5 1. In an autographic register, the combination of feeding mechanism for the paper strip, cutting mechanism for cutting it into slips, filing mechanism for filing the slips, and a
10 single revoluble shaft making a complete revolution at each operation of the machine and actuating all three of said mechanisms to feed, cut, and file the slips.

2. In an autographic register, the combination of a pair of feed-rollers for the paper
15 strip, a knife for cutting it into slips, a filing-pin, an arm or plate for forcing the slips upon said pin, and a single revoluble shaft actuating the feeding-rollers, knife, and filing-arm to feed, cut, and file the slips.

20 3. In an autographic register, the combination of a filing-pin, a knife for cutting the paper strip into slips, and a filing arm or plate for forcing the slips upon the pin, both carried by the same movable frame, and means
25 for actuating said frame to cut the slips and file them.

4. In an autographic register, the combination of a filing-pin, a knife for cutting the strips into slips, and means for forcing the
30 slips upon the pin, both carried by the same movable frame, a revoluble cam for actuating the frame to cut and file the slips, and a spring for resetting the frame.

5. In an autographic register, the combination of a pair of feed-rollers for the paper
35 strip, a filing-pin, a knife for cutting the strip into slips, and means for forcing the slips upon the pin, both carried by the same movable frame, and a revoluble driving-shaft and
40 cam for actuating the feed-rollers to advance the strip and the movable frame to cut it into slips and file them.

6. In an autographic register, the combination of the writing-tablet over which the check-
45 strip and record-strip are led, a pair of feed-rollers for said strips, a filing-pin, a knife for cutting the strips into slips, and means for forcing the record-slips upon the pin, and a single revoluble shaft making a complete
50 revolution at each operation of the machine for actuating the knife, and filing means, and feed-rollers.

7. In an autographic register, the combination of a filing-pin, a swinging frame carrying
55 both a knife for cutting the paper strip into slips and means for forcing the slips upon the pin, and a revoluble shaft provided with a cam co-operating with the swinging frame.

8. In an autographic register, the combination of a fixed knife-bar, a movable knife-bar
60 co-operating therewith, an arresting-plate for holding the paper strip while it is being severed by the knives, and a spring-plunger carried with the movable knife-bar and co-operating with said plate.

9. In an autographic register, the combination of a swinging frame, a second frame piv-

oted thereto and carrying the knife for cutting the paper strip into slips, and a revoluble cam and a spring co-operating with said
70 first-mentioned frame.

10. In an autographic register, the combination of a knife for cutting the paper strip into slips, a filing-pin, a movable plate or arm
75 for forcing the slips upon the pin, a movable guide for directing the end of the strip over the point of the pin, and means for automatically withdrawing said guide from the path of the filing plate or arm.

11. In an autographic register, the combination of a pair of feed-rollers for advancing
80 the paper strip, a knife for cutting it into slips, a filing-pin, an arm or plate moving with the knife to force the slip upon the pin, a movable guide for directing the end of the strip
85 over the point of the pin, and means for automatically withdrawing the guide from the path of the filing plate or arm to permit the latter to force the severed slip upon the pin.

12. In an autographic register, the combination of a pair of feed-rollers for advancing
90 the paper strip, a filing-pin, a knife for cutting the strip into slips and means for forcing the slips upon the pin, both carried by the movable frame, a revoluble shaft provided
95 with a cam for actuating the movable frame to sever and file the slips, a movable guide for directing the end of the strip over the point of the pin, a swinging arm carrying said guide, and a cam upon the revoluble shaft co-operating with said arm to withdraw the guide
100 from the path of the knife and filing device.

13. In an autographic register, the combination of a vertically-movable plate for supporting the record-slips, a spring pressing the
105 plate upward, a ratchet and pawl co-operating with the plate to permit downward but prevent upward movement of it, and means for piling the slips upon the supporting-plate.

14. In an autographic register, the combination of a vertically-movable plate for supporting the record-slips, a spring pressing the
110 plate upward, a vertical ratchet, a spring-catch upon the plate co-operating with the ratchet, and a movable filing arm or plate for piling
115 the slips upon the supporting-plate.

15. In an autographic register, the combination, with the filing-pin and means for forcing the slips upon said pin, of a vertically-movable plate for supporting the slips filed upon
120 the pin, a spring pressing said plate upward, a vertical ratchet, and a spring-catch upon the plate co-operating with the ratchet, for the purpose described.

16. In an autographic register, the combination of a pair of feed-rollers for advancing
125 the paper strip, an operating-handle fast to one of said rollers and revoluble therewith, a movable frame carrying a knife for cutting the strip into slips, and a cam upon the shaft
130 of the feed-roller co-operating with said movable frame to cause the knife to sever the paper strip.

17. In an autographic register, the combi-

nation of a pair of feed-rollers for advancing the paper strip, an operating-handle fast to one of said rollers, a filing-pin, a knife for cutting the strip into slips and means for forcing the slips upon the pin, both carried by the same movable frame, and a cam upon the shaft of the feed-roller for actuating the movable frame.

18. In an autographic register, the herein-described method of separating the check-strip from the record-strip after they have been led together over the writing-tablet, consisting in imparting to one a tendency to curl in one direction and to the other a tendency to curl in the opposite direction, whereby the two strips will automatically separate when liberated at a point beyond the writing-tablet.

19. In an autographic register, the herein-described method of separating the check-strip from the record-strip, consisting in winding the two strips in reverse directions upon their respective supply-rolls, leading them together over the writing-tablet, and liberating them at a point beyond said tablet, whereby when liberated the two strips will automatically separate, in the manner described.

20. In an autographic register, the herein-described method of feeding the check-strip and the record-strip and separating the one from the other, consisting in imparting to one a tendency to curl in one direction and to the other a tendency to curl in the opposite direction, leading them together over the writing-tablet and between the pair of feed-rollers, and cutting them into slips at a point beyond said rollers, whereby the free ends of the strips will automatically separate when liberated at the cutting-point.

21. In an autographic register, the herein-described method of feeding the check-strip and record-strip and automatically separating one from the other, consisting in winding said strips in reverse directions upon their respective supply-rolls, leading them together from said rolls over the writing-tablet and between the pair of feed-rollers, and cutting them into slips at a point beyond said rollers, whereby the free ends of said strips will automatically separate when liberated at the cutting-point, substantially as described.

22. The combination of the feed-rollers J K, the swinging frame having the arms C' co-operating with the pins J' L', carried by the

roller K, the resetting-spring I' for the frame, the frame A', carried by the arms C' and carrying the knife Y and filing-plates R', the spring G', connected to the arms B' of the frame A', the fixed knife-bar Z, and the filing-pins Q', substantially as described.

23. In an autographic register, the combination of the filing-pins Q', the movable frame A', carrying knife Y and filing-plate R', means for supporting and actuating said frame, the guide-pins S', arms T', rock-shaft U', arm V', and revoluble cam W', substantially as described.

24. In an autographic register, the combination of the fixed knife-bar Z, movable frame A', carrying the knife-bar Y, means for supporting and actuating said frame, the spring-plate V, and the spring-plungers N', carried by the frame A' and co-operating with the plate V, substantially as described.

25. In an autographic register, the combination of the vertical posts Z' and Z², the former provided with serrations on one side, the plate Y', mounted to slide upon said posts and adapted to support the record-slips placed upon it by the filing mechanism, the spring D², pressing said plate upward, and the spring-catch carried by the plate and co-operating with the serrations in the post Z', substantially as described.

26. In an autographic register, the combination of the vertical posts Z' and Z², the former provided with serrations on one side, the plate Y', mounted to slide upon said posts, the filing-pins Q', extending upward through open slots in the plate Y', the vertically-moving frame A', provided with the plates R', co-operating with the pins Q', the spring D², pressing the plate Y' upward, and the spring-catch carried by the plate and co-operating with the serrations in the post Z', substantially as described.

27. In an autographic register, the combination, with the cross-piece P' of the framework, of the clip H², carrying the filing-pins Q' and provided with the ears J², and thumb-screw I², co-operating with the cross-piece P', substantially as described.

HUGO COOK.

Witnesses:

THOMAS CORWIN,
PEARL N. SIGLER.