

L. M. NIELSEN.
MACHINE FOR SEALING AND STAMPING ENVELOPS, &c.
APPLICATION FILED NOV. 3, 1904.

964,448.

Patented July 12, 1910.

13 SHEETS—SHEET 1.

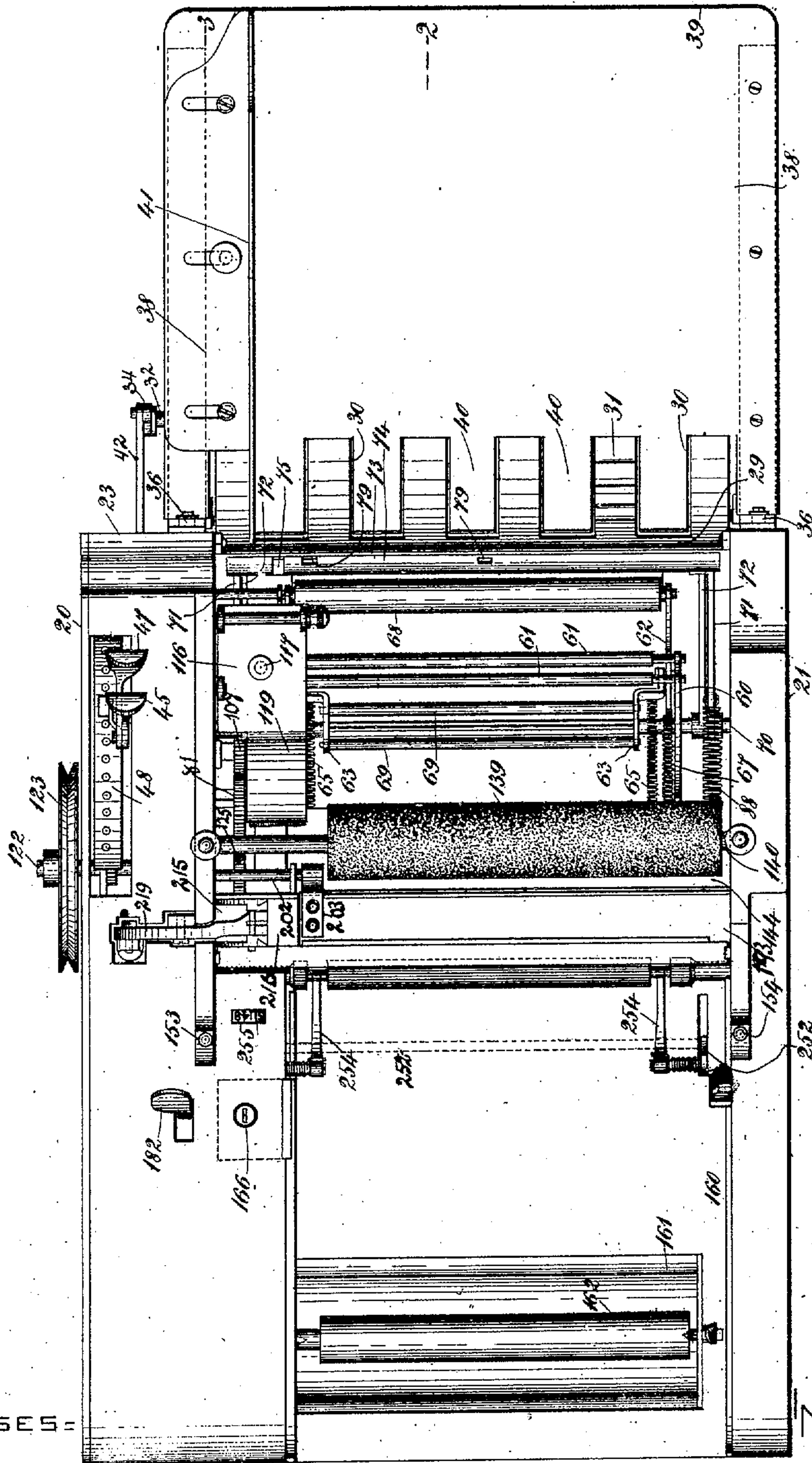


FIG. 1

WITNESSES=

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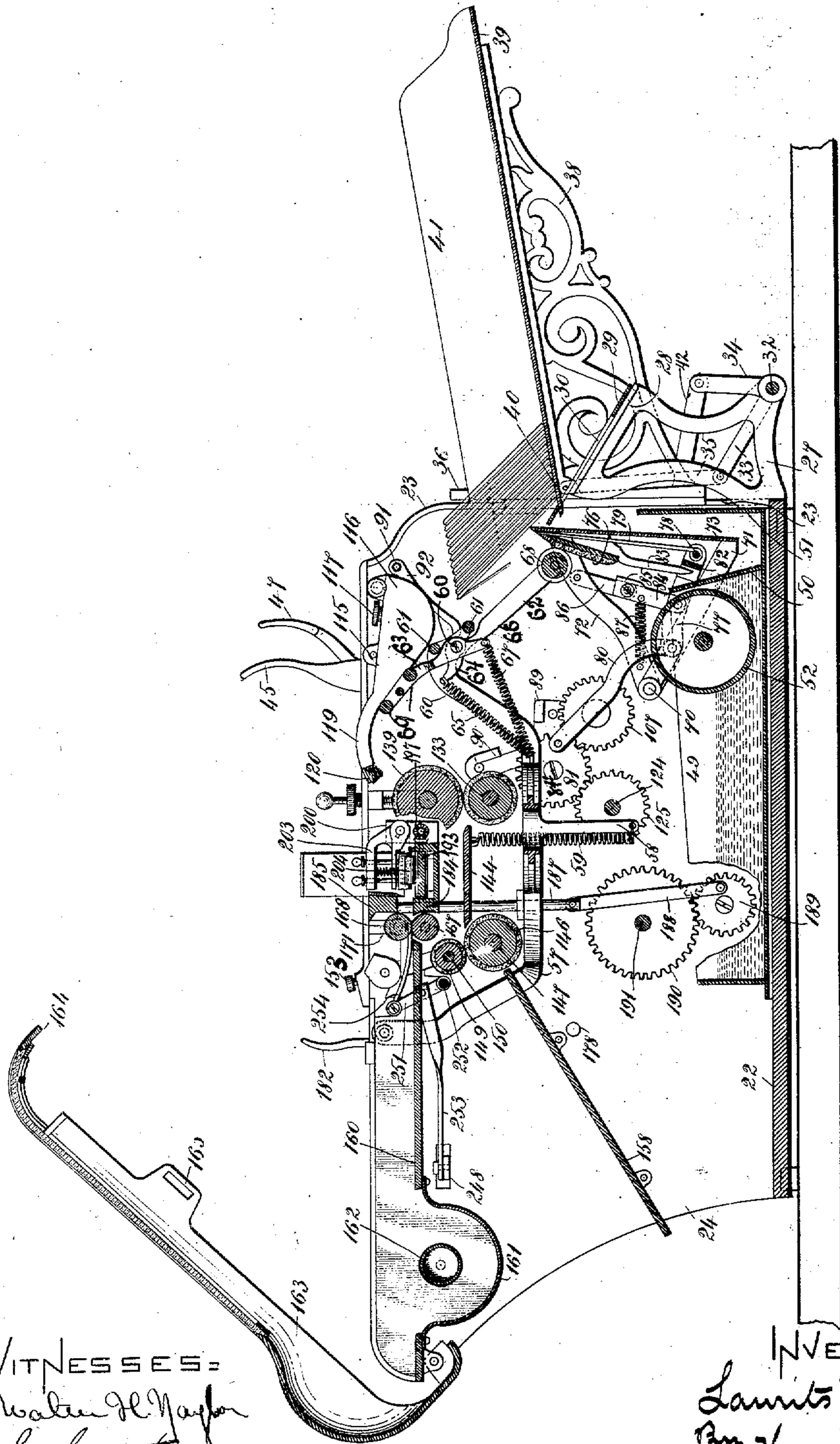


FIG. 2

WITNESSES:
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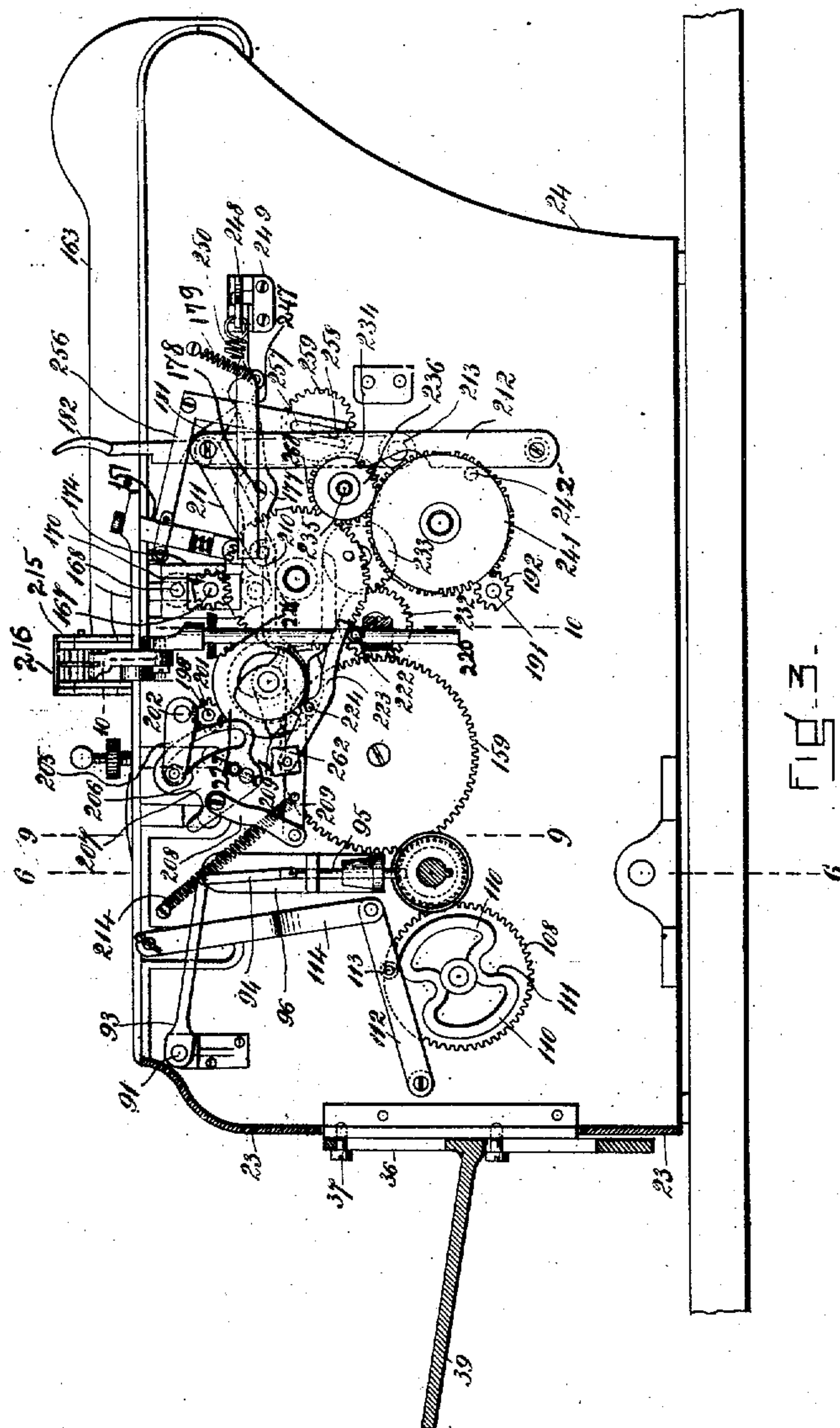
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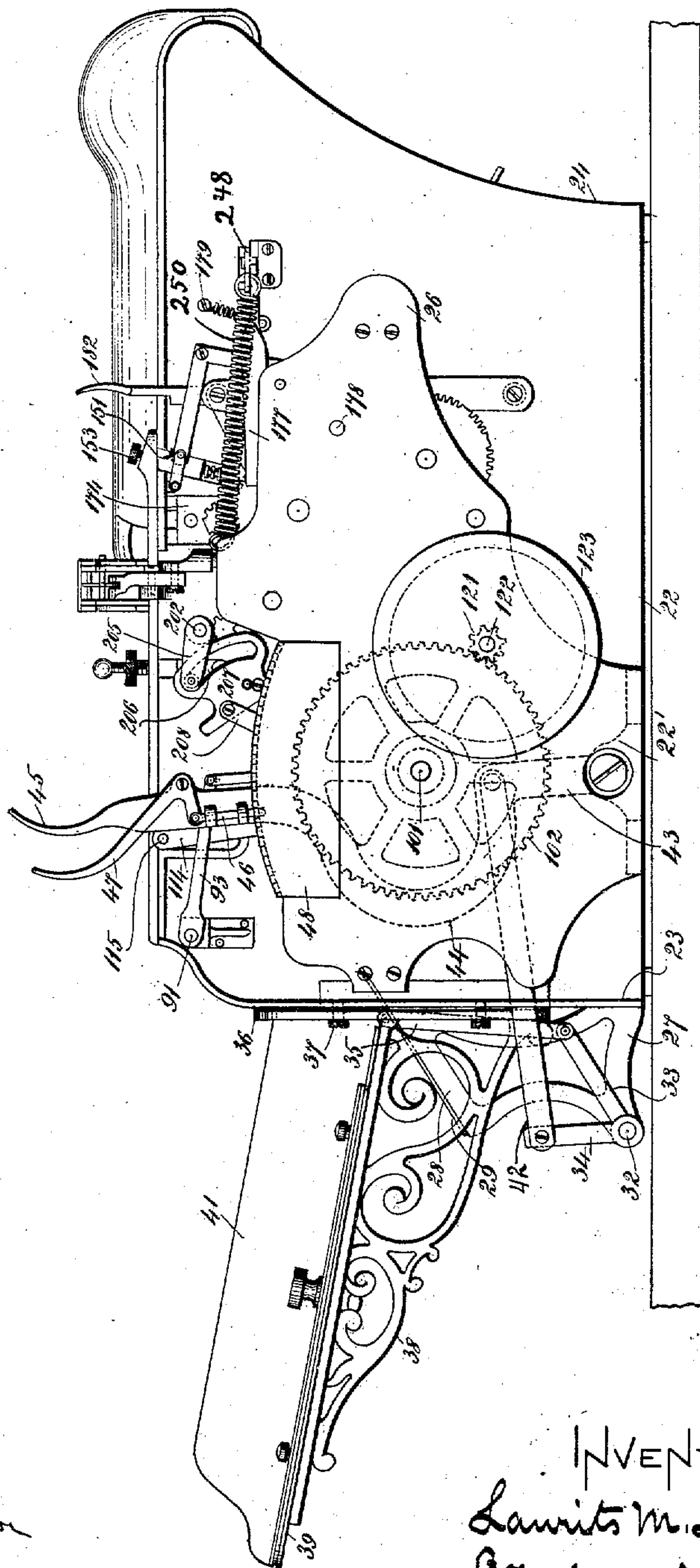


Fig. 4-

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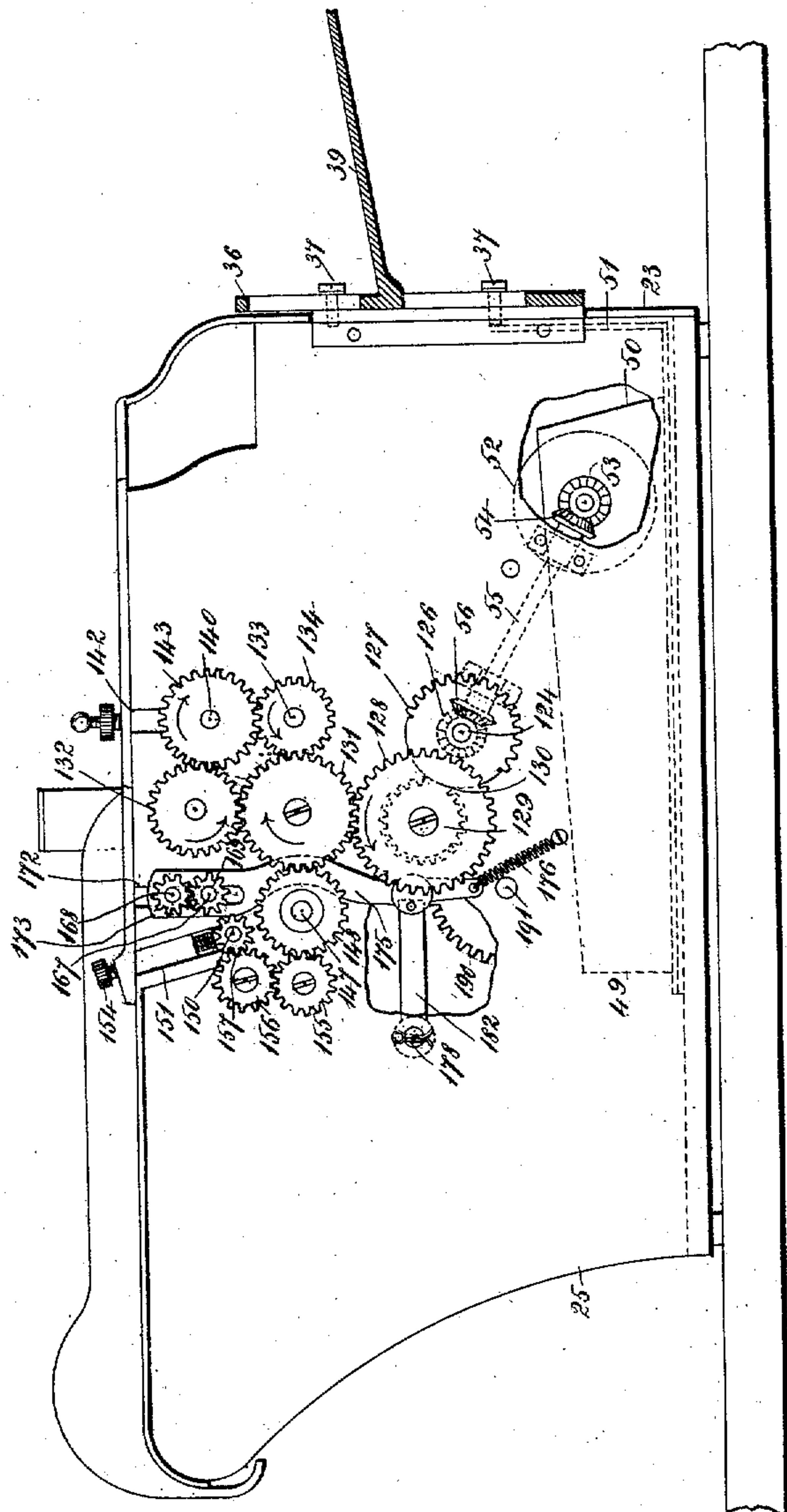


FIG. 5-

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13 SHEETS—SHEET 6.



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Fig. 6. 22 INVENTOR=
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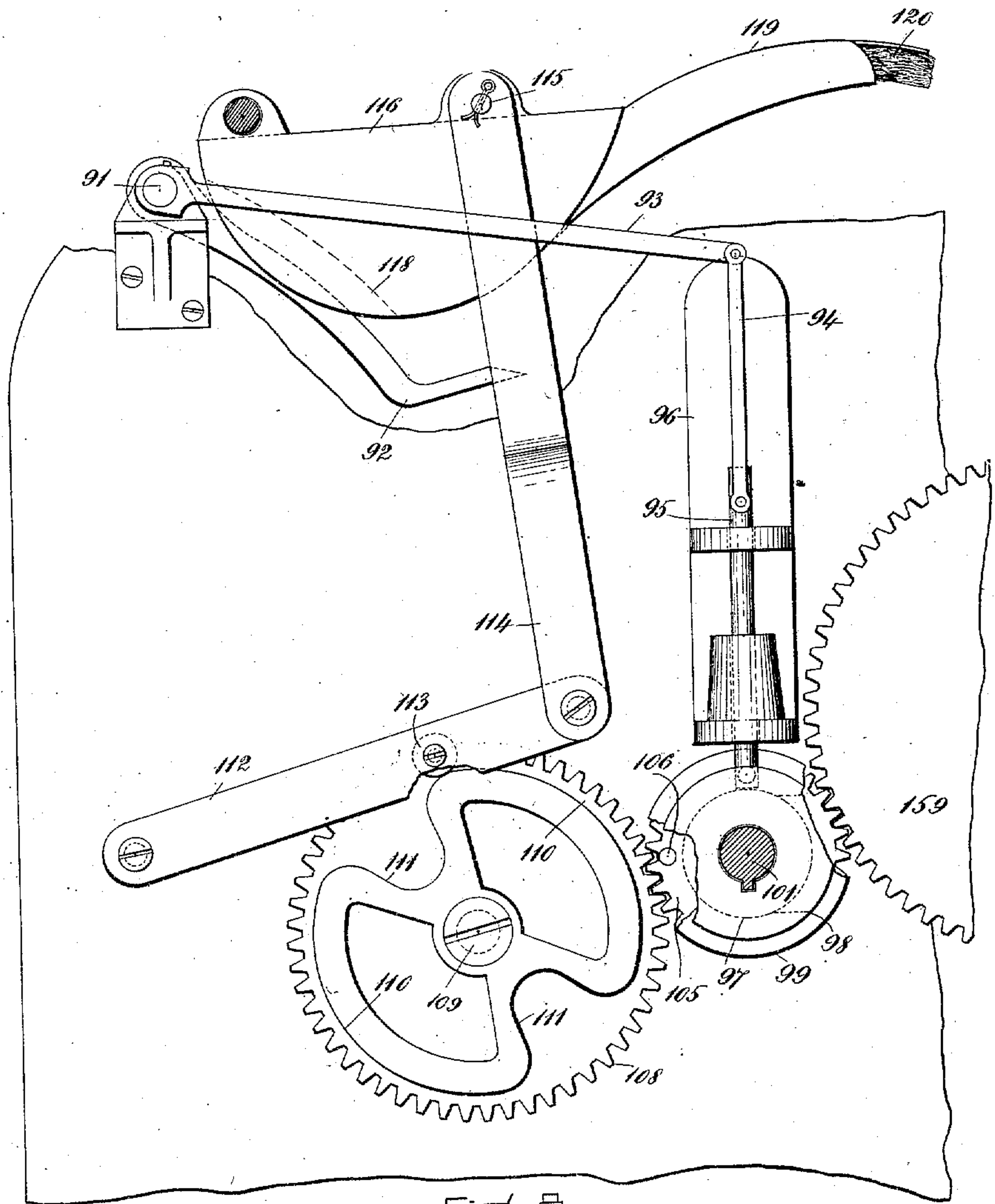


FIG. 8.

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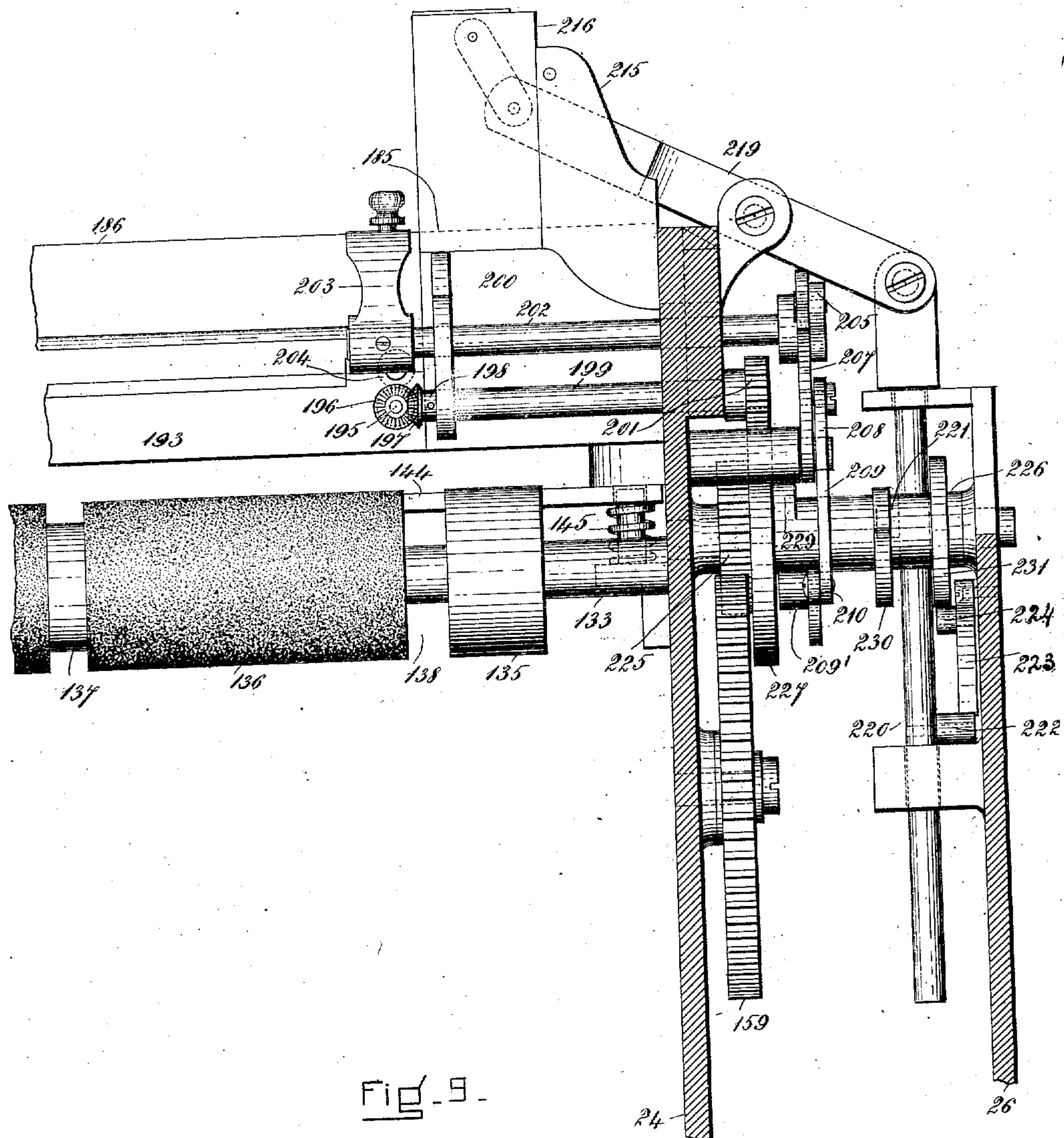


Fig. 9.

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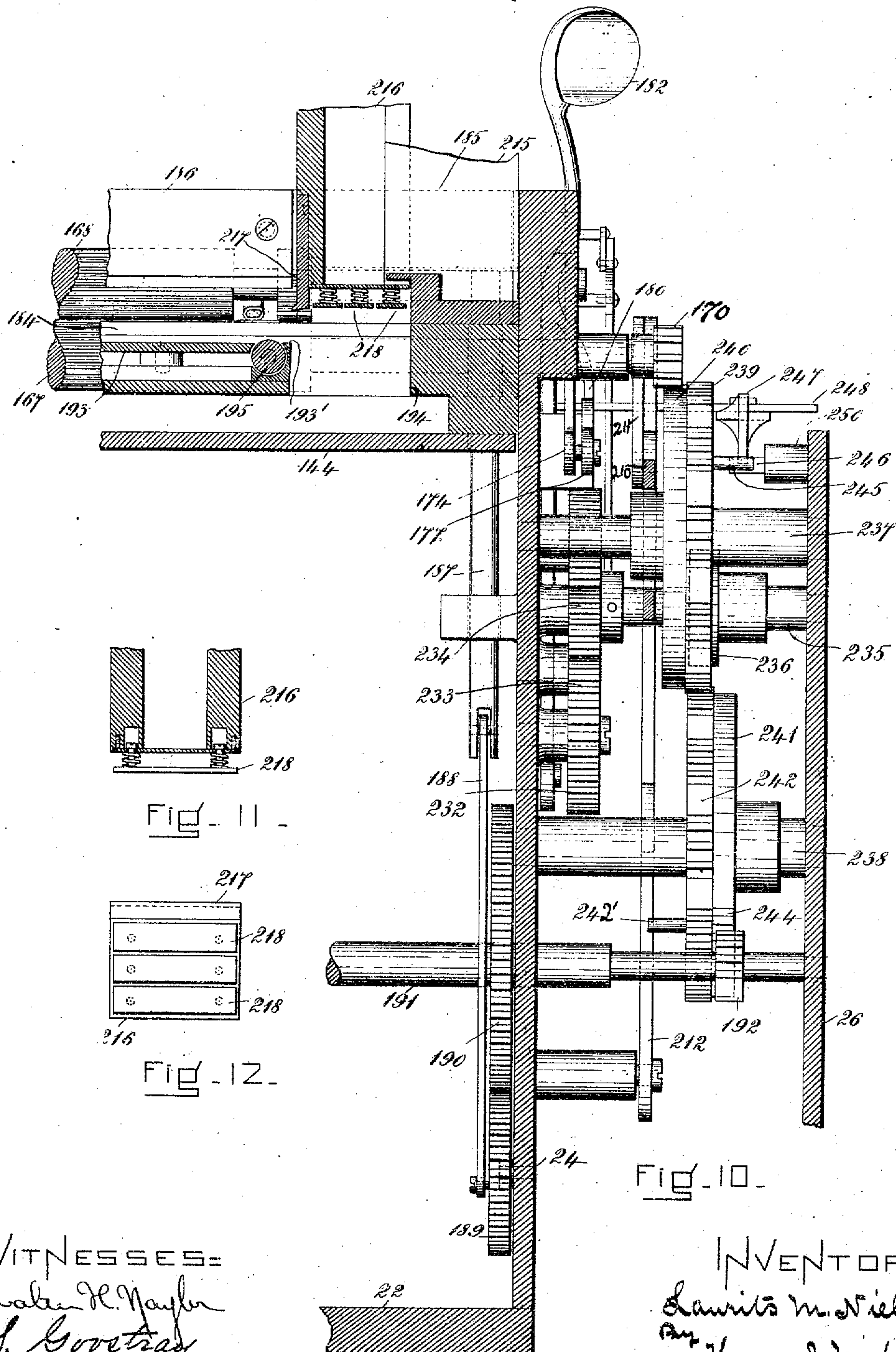
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13 SHEETS—SHEET 9.



WITNESSES:
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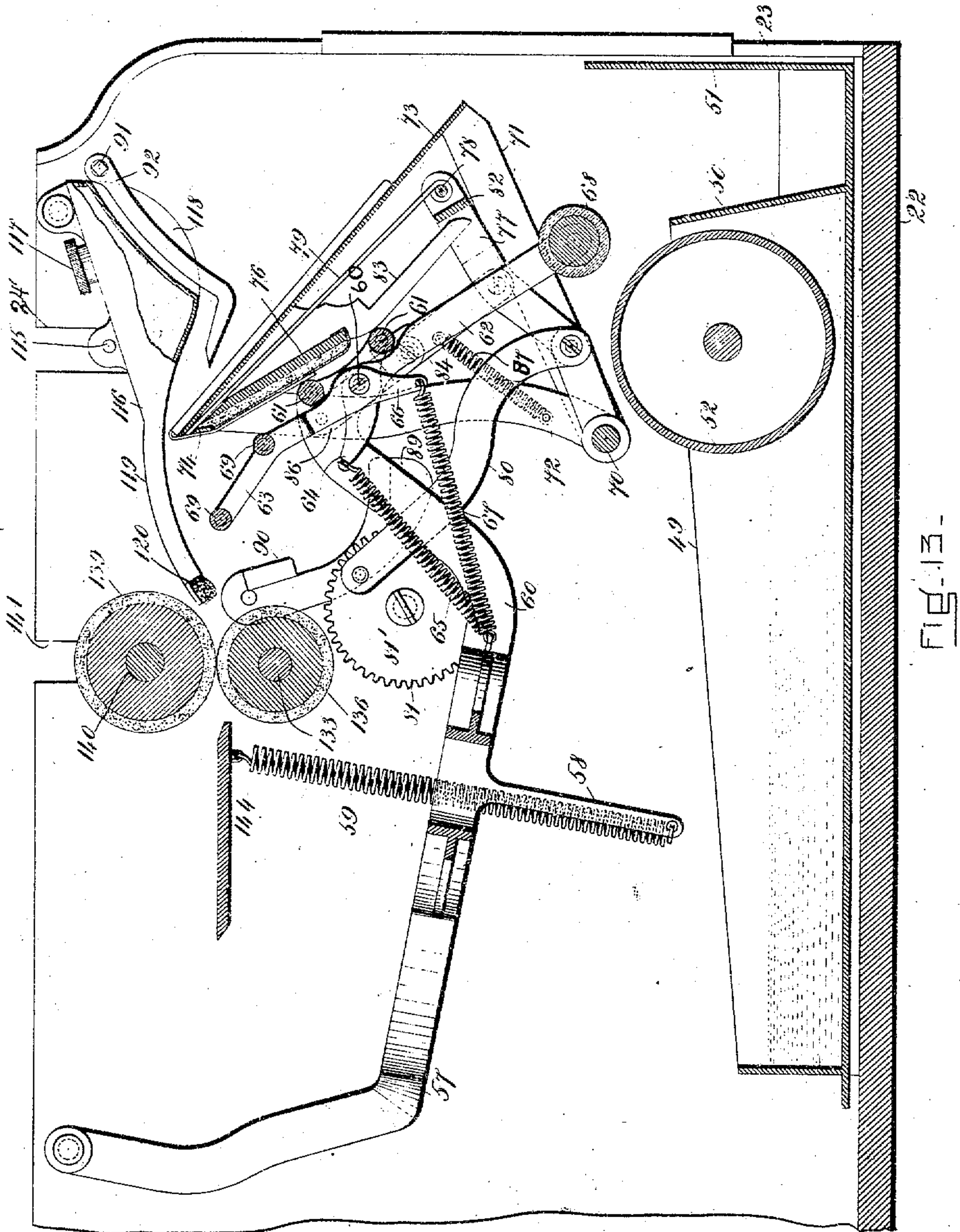
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13 SHEETS—SHEET 10.



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13 SHEETS—SHEET 12.

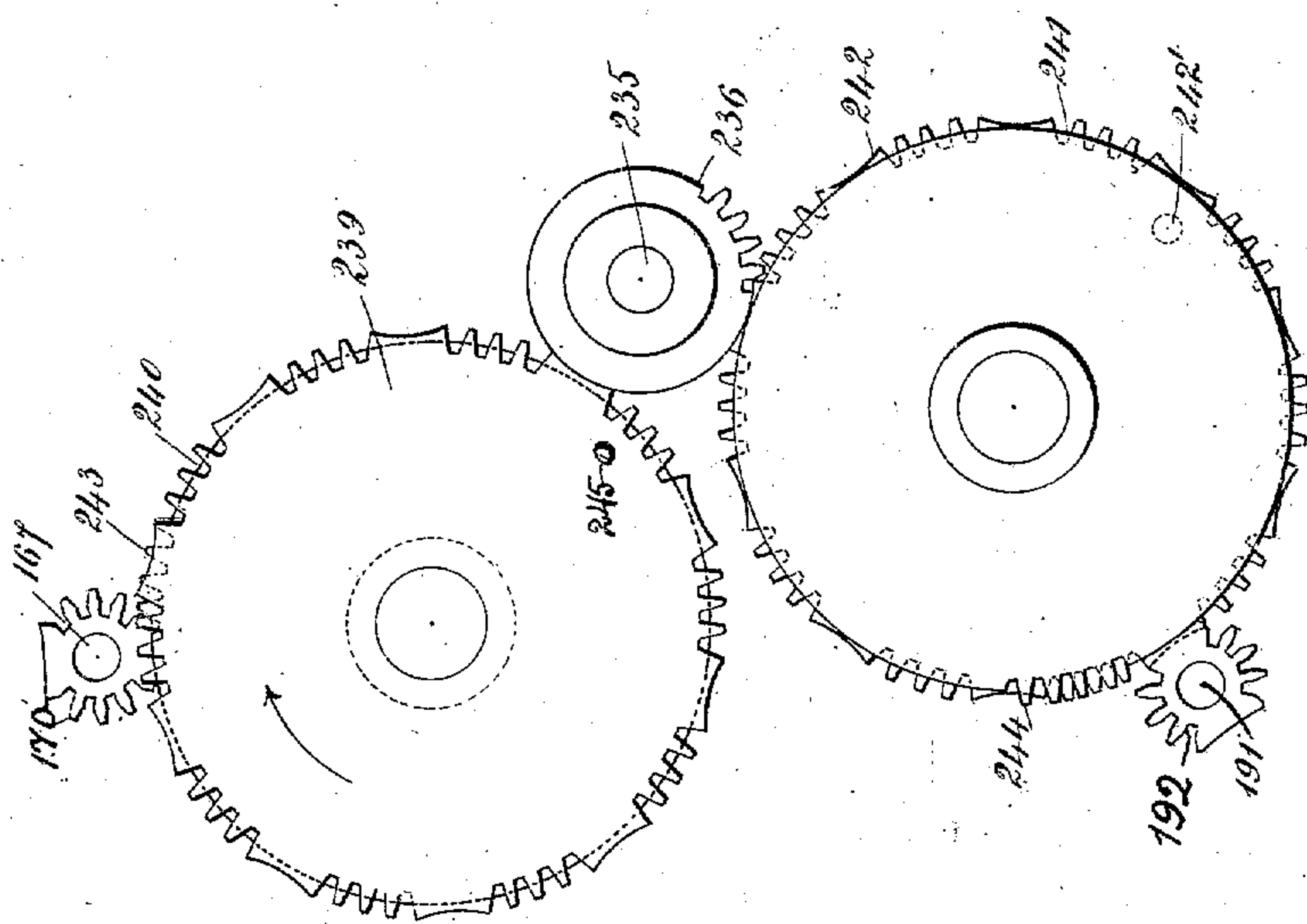


FIG. 15-

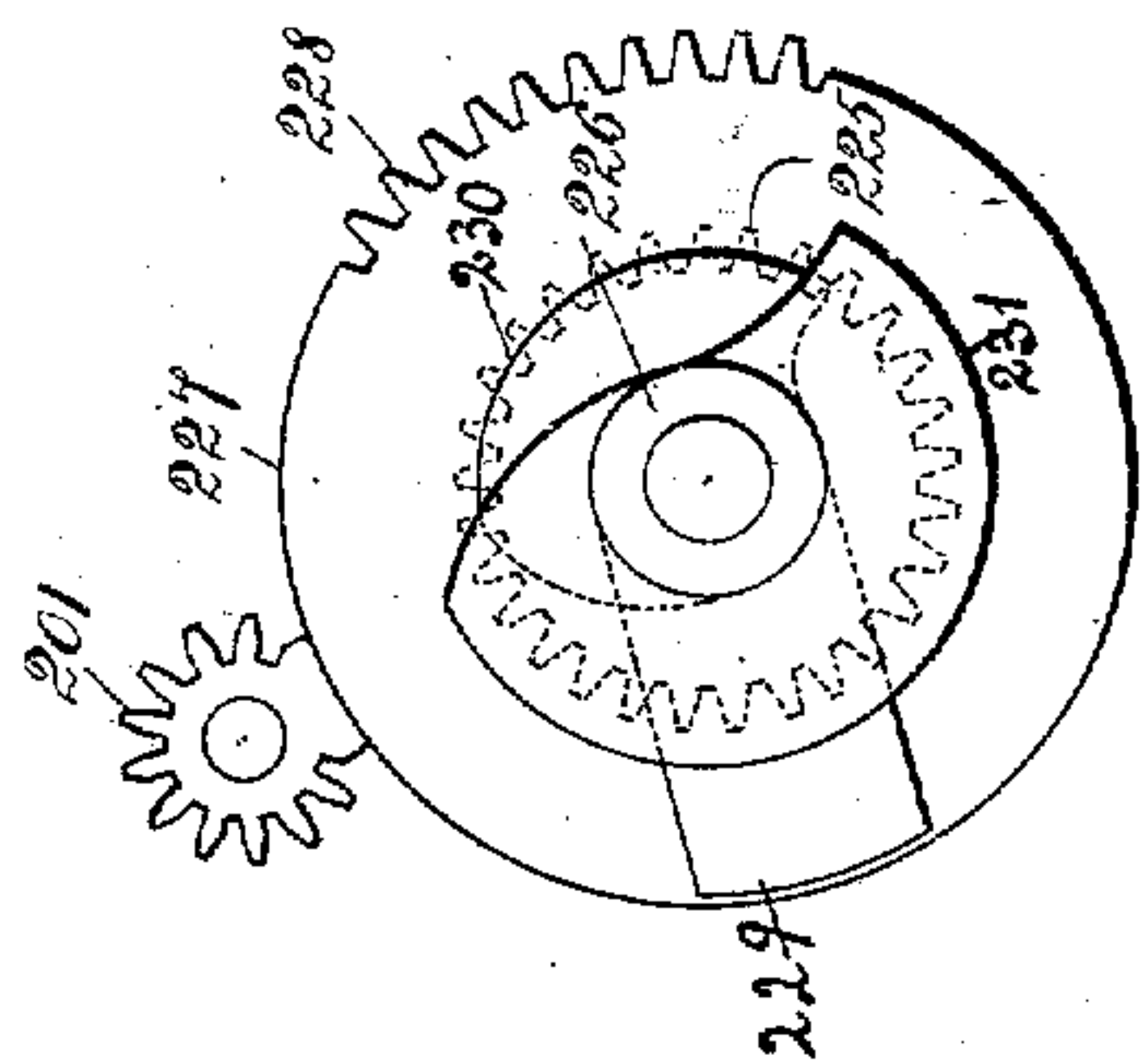


FIG. 17-

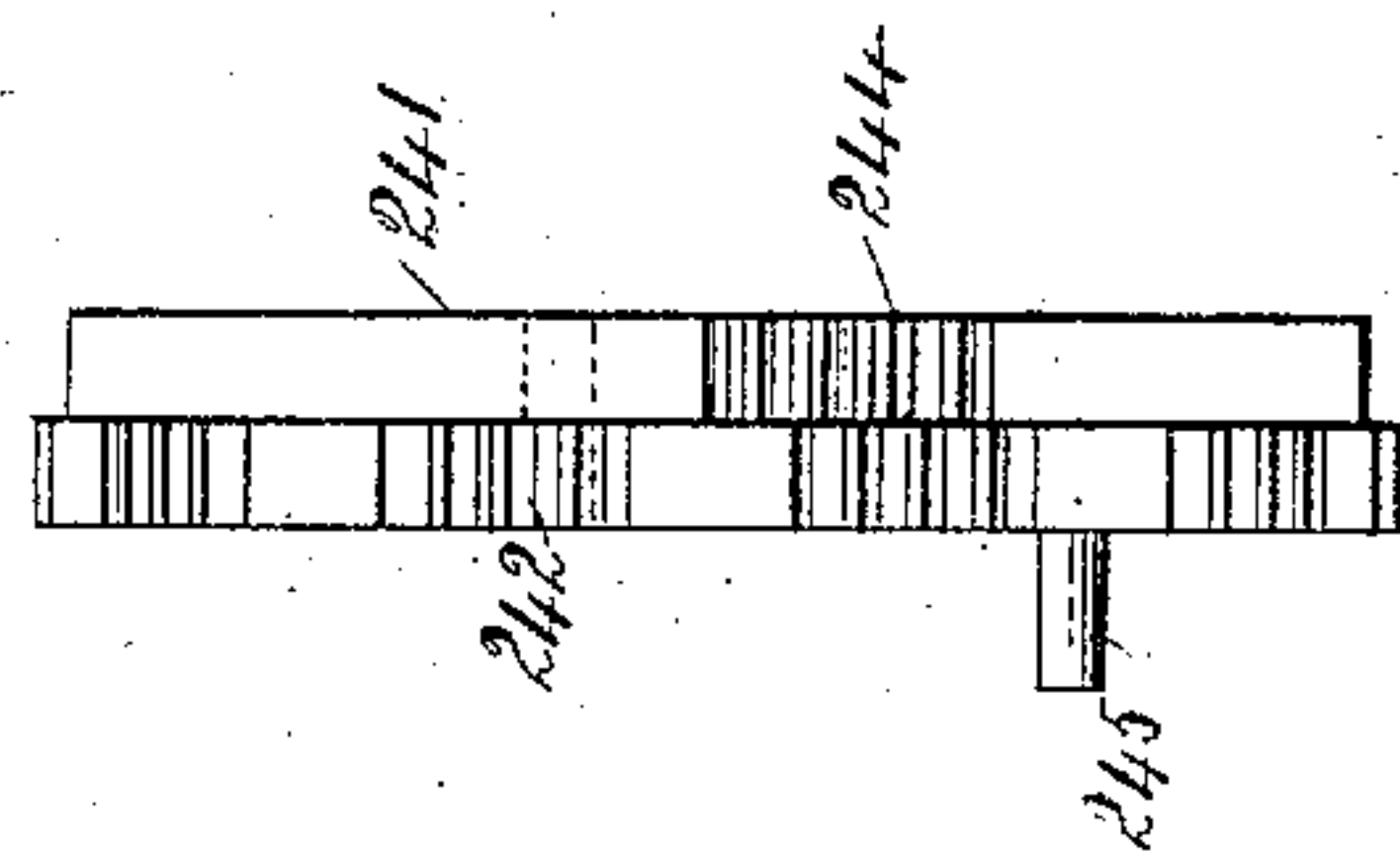


FIG. 16-

WITNESSES=

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964,448.

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13 SHEETS—SHEET 13.

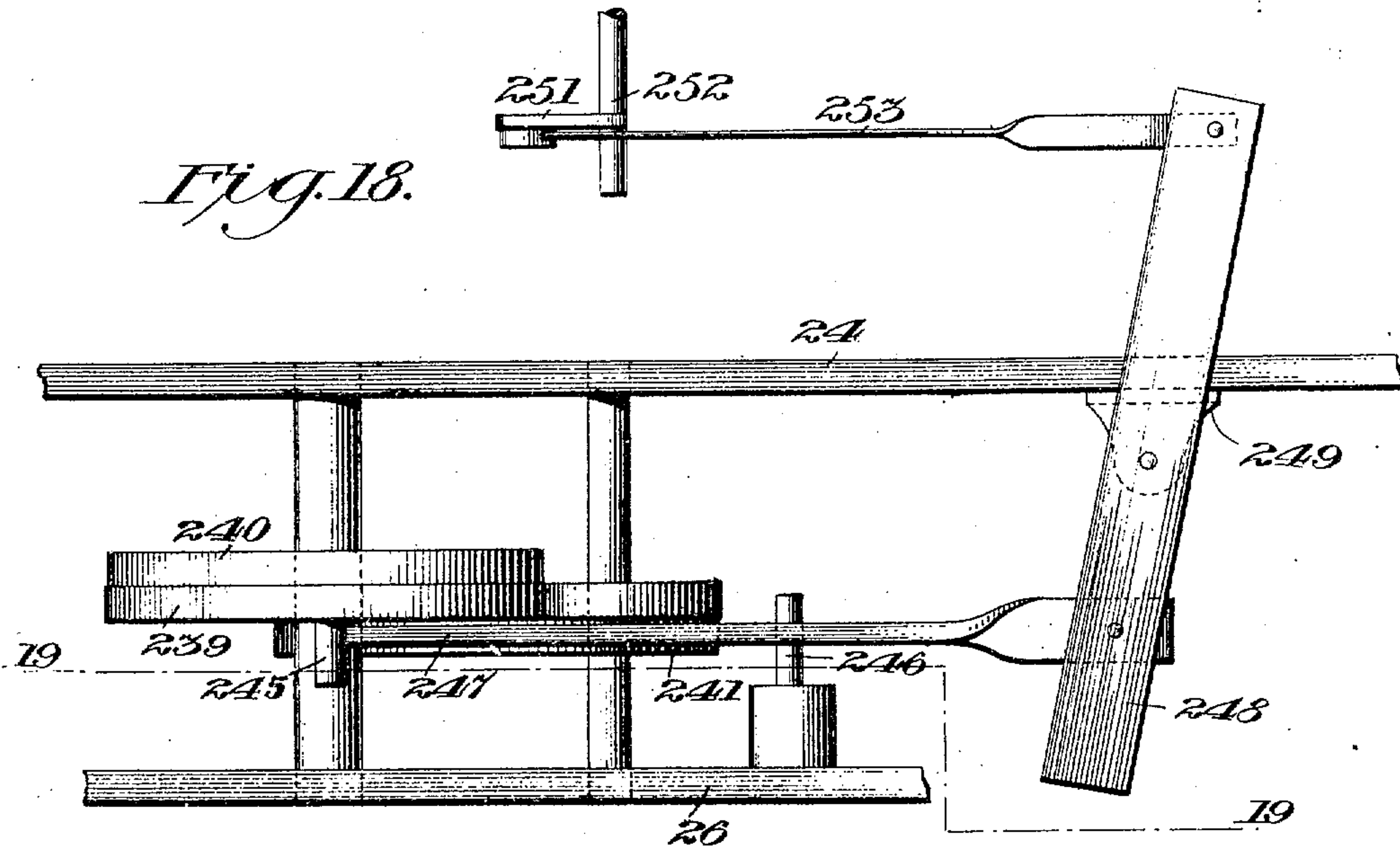
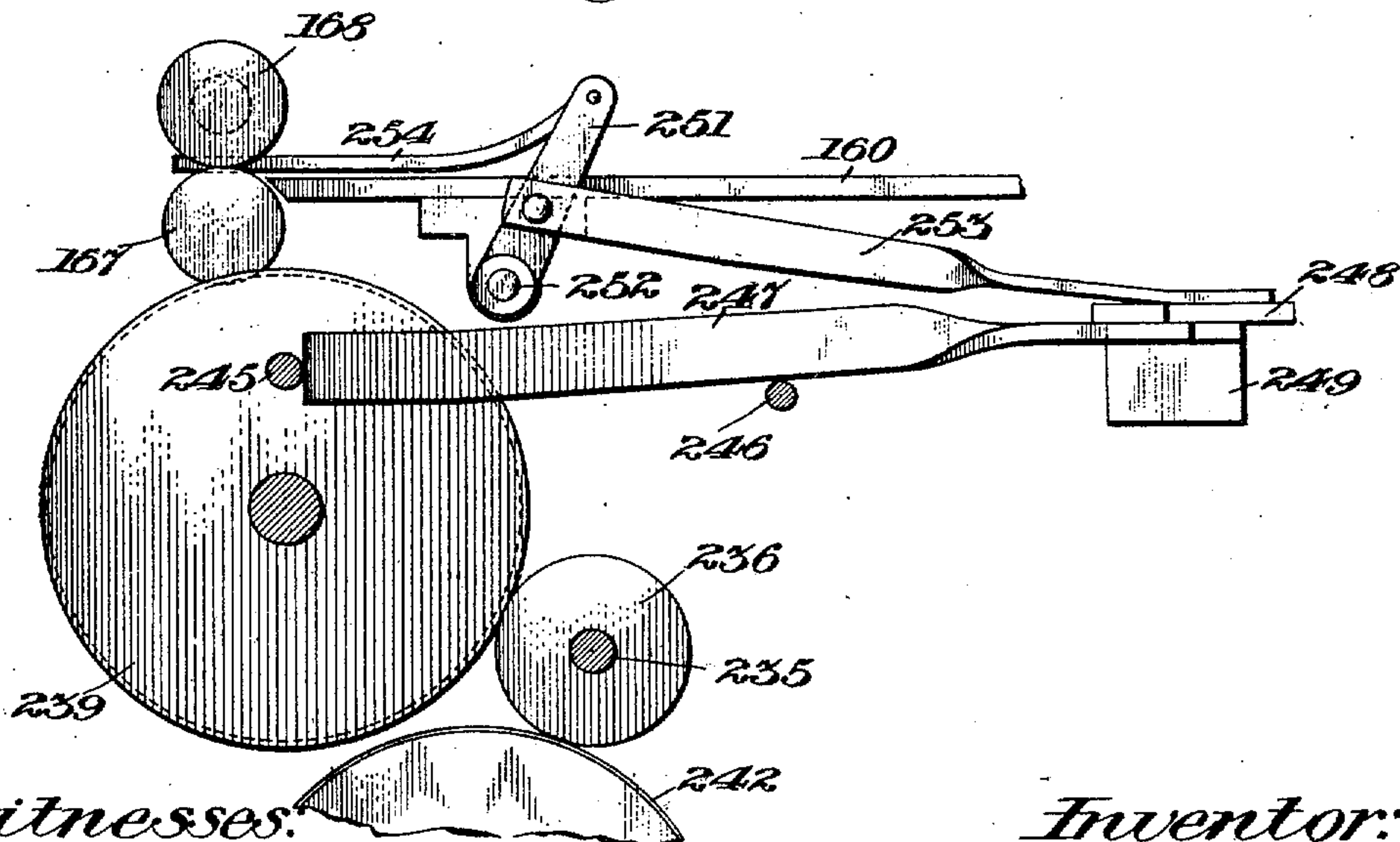


Fig. 19.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

LAURITS M. NIELSEN, OF BOSTON, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO NIELSEN MAILING MACHINERY COMPANY, OF ERIE, PENNSYLVANIA, A CORPORATION OF MAINE.

MACHINE FOR SEALING AND STAMPING ENVELOPS, &c.

964,448.

Specification of Letters Patent.

Patented July 12, 1910.

Application filed November 3, 1904. Serial No. 231,235.

To all whom it may concern:

Be it known that I, LAURITS M. NIELSEN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Machines for Sealing and Stamping Envelops, &c.; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in machines for sealing envelops, or wrappers, and for affixing stamps to envelops, wrappers, cards, or similar articles.

One object of this invention is to so construct a machine of this character that envelops or wrappers placed in quantities on a receiving table may be successively fed forward through sealing mechanism to stamp affixing mechanism, the flaps and stamp spaces of the envelops or wrappers being moistened during their passage through the machine.

Another object of this invention is to so construct a machine of this character that the sealing mechanism or the stamping mechanism may be disconnected from operation without affecting the operation of the other of said mechanisms or the feeding means by which the envelop, card, or other article is fed through the machine.

Another object of the invention is to so construct a stamp affixing mechanism that its operation may be controlled by an envelop or other article being fed thereto.

Another object of the invention is to provide means for adjusting the relative positions of the envelop receiving table and the envelop feeding means.

Another object of the invention is to provide a novel and positive envelop feeding mechanism whereby the envelop may be fed forward through the moistening devices to the pressing rolls.

Another object of the invention is to improve the construction of the feeding mechanism.

Another object of the invention is to improve the construction of the moistening devices whereby the flap and stamp position

of the envelop are more effectively moistened.

Another object of the invention is to improve the stamp sheet feeding, the stamp strip cutting and feeding mechanisms, together with the means for severing the end stamp from its strip and forcing it flatwise against the envelop or other object positioned therebeneath.

Other objects of the invention will appear from the following description of the machine and of its operation.

The invention consists in such novel features of construction of the several parts of the mechanism, their arrangement in distinct groups and in the combination of several of the coöperating groups of mechanism, or of said groups with single related parts, as shall hereinafter be more fully described and pointed out in the claims.

In the drawings:—Figure 1, represents a plan view of the improved sealing and stamping machine and of its receiving table for receiving, in quantities, envelops, wrappers, cards, or other objects adapted to be sealed or stamped by this machine. Fig. 2, represents a sectional view of the same taken on line 2—2 Fig. 1, looking toward the right. Fig. 3, represents a similar view, partly broken away, taken on line 3—3, Fig. 1, looking toward the left in said figure. Fig. 4, represents a side elevation of the machine with the right side casing removed. Fig. 5, represents a similar view taken from the left side of the machine, the outer side casing being removed and a portion of the inner casing or longitudinal frame being broken away to show the water tank and its roll. Fig. 6, represents an enlarged vertical cross sectional view of parts of the mechanism, taken on line 6—6 Fig. 3. Fig. 7, represents a plan view of some of the gears and their connections illustrated in Fig. 6. Fig. 8, represents a side elevation of details of the stamp position moistener and of its operating mechanism. Fig. 9, represents a cross sectional view taken on line 9—9 Fig. 3, illustrating the single stamp cutter and affixer and its operating mechanism, parts of the same being broken away. Fig. 10, represents a similar view taken on line 10—10

Fig. 3. Fig. 11, represents a vertical sectional view of the stamp plunger showing details of construction. Fig. 12, represents a view of the lower end of the stamp plunger. Fig. 13, represents a view similar to that shown in Fig. 2, on enlarged scale, of the envelop feeding, moistening, and pressing mechanism with some of their associated parts, these parts being shown approximately in position as when the flap of the envelop is being moistened. Fig. 14, represents a similar view showing the position of the parts as at a certain point in the moistening of the stamp position and approximately as the envelop is to be engaged by the rolls which press the moistened flap against the body of the envelop to seal the same. Fig. 15, represents a side view of parts of the stamp sheet feed gear and the sheet cutter drive gear. Fig. 16, represents an edge view of one of said gears. Fig. 17, represents a side elevation of the stamp plunger actuating gear and its related stamp strip feeding actuating gear. Fig. 18 represents a plan view of portions of the mechanism adapted to assist the forward movement of the stamp sheet. Fig. 19, represents a sectional view of parts thereof taken on line 19—19 Fig. 18.

Similar numbers of reference designate corresponding parts throughout.

Machines of this character are primarily designed for the sealing, stamping, or the sealing and stamping of envelops, or other objects which are adapted to be fed through the machine.

While the machine under consideration is adapted to seal or stamp other objects or articles than envelops, its construction and operation will hereinafter be considered more particularly with reference to the sealing and stamping of envelops without however limiting its use.

In the sealing and stamping of envelops practice has demonstrated the importance of accurately positioning the envelop while it is being subjected to the several steps of flap moistening, stamp position moistening, flap sealing, and stamp affixing; while it is of equal importance, in the stamping operation that the stamp severing and affixing mechanism should be timed with relation to the envelop feeding mechanism. This accuracy of manipulation is best accomplished by dispensing with human agency in adjustment or handling of the envelops at any part of the operation and by providing mechanism which acts positively in the feeding and positioning of the envelop at certain points in the operation.

Envelops are generally formed with side flaps, or with end flaps, having at their under edge portions strips of adhesive material; stamps are generally and preferably applied to the upper right hand corner of

the envelops close to the edges. As the size and bulk of the envelops vary greatly, mechanical feeding of the same and their correct positioning for the complete moistening of the adhesive material on the back of the flap, to effect the adhesion of practically the entire length of the edges of the flap to the body of the envelop, as well as the bringing of the moistened stamp position on the face of the envelop to a point at which the severed stamp may be accurately applied thereto, has proved to be a difficult problem. Machines of this nature being designed for rapid operation to effect the sealing and stamping of large quantities of envelops should preferably be driven by some motive power and provision should be made to so receive envelops in quantities that they may be successively and positively fed forward through the machine.

In the drawings 20 and 21 represent the outer sides of the machine case, 22 the bottom of said case and 23 one end thereof. Within these side plates are located longitudinally extending plates 24 and 25 in the nature of frames on which many of the operative parts of the machine are mounted, see Figs. 2, 3, 4, 5, and 6; the frame plate 26 see Figs. 4, 6 and 10 being located between the frame plate 24 and the casing 20.

The end 23 has an opening sufficiently large to permit the passage therethrough of the largest envelop upon which the particular machine is designed to operate; beneath this opening are mounted brackets 27—27 having the inclined upper ends 28—28 adapted to support the gage plate 29 which is pivoted to the sides of said opening and rests on the inclined portions of the brackets, this plate having the slots 30—30 the surface of a portion of the plate having gage marks indicating the points of adjustment at which the envelop receiving table should be set for the particular size of envelop to be sealed, as is shown on the part 31 of said plate.

In the lower portions of the brackets 27—27 is journaled the shaft 32 having lever arms 33—33 and 34; to the arms 33—33 are pivoted the rods 35—35 the upper ends of which are pivoted to the slotted guides 36—36 which are free to move on the studs 37—37 secured on the side portions of the case end 23. The guides 36 are furnished with brackets 38—38 on which the, preferably inclined envelop receiving table 39 is mounted, the forward end portion of this table having the fingers 40—40 which are free to work in the slots 30—30 of the plate 29. At one edge portion the table 39 is provided with a guide plate 41 mounted for lateral adjustment and adapted to prevent the lateral movement of the envelops, in one direction, as said envelops move down the inclined surface of the table.

This guide plate is herein preferably shown as applied to the right hand side of the envelop table in order that it may, when desired, be moved inward beyond the position of the detector, to be hereinafter described, but the location of this guide is not limited to that shown.

The rocking of the shaft 32 to effect the vertical adjustment of the envelop receiving table is effected by means of the connecting rod 42 pivoted to the arm 34 of the shaft 32 and to the lever 43 which is pivotally supported on a stud secured in the member 22' extending from the bottom 22, see Figs. 4 and 6 of the drawings; this lever 43 has the curved portion 44 and the upper portion of the lever is supplied with the latch pin 46 movable in guides on said lever and actuated by means of the bell crank lever 47 pivoted to the lever 43 and to said pin 46 whereby said pin may be moved to engage or disengage any one of the sockets of the rack 48 carried by the frame plate 26, see Fig. 4, thus providing means for locking the lever 43 in the adjusted position and preventing the accidental movement of the envelop table.

Supported at the lower part of the case is the water tank 49 having the inclined end 50 and the dash plate 51 located at a distance from said end to form a compartment between said plate 51 and the end 50; water is preferably supplied from this tank by means of the roll 52 the shaft of which is journaled in the side of the tank and is furnished with the gear 53, see Fig. 5, motion being imparted to this gear 53 by means of the gear 54 of the shaft 55 which is journaled in bearings carried by the frame plate 25 and has the bevel gear 56.

Pivotally supported on studs extending from the frame plate 24 and 25 is the frame 57 the depending arms, as 58, of which are connected by retraction springs as 59 with some fixed part of the machine represented herein by the stamp table, this frame having the arms 60—60 formed in part with or secured thereto and on these arms are carried the rolls 61—61; pivotally mounted on studs 60' of the arms 60 are pairs of arms 62 having lever ends 64 which are connected by retraction springs as 65 with the frame 57 while the arms 63 having the lever ends 66 are connected by the retraction springs 67 with the frame 57; between the arms 62—62 is rotatably mounted the moisture transferring roll 68 and between the arms 63—63 extend the presser rolls 69—69 the office of which in pressing the envelop flap against the flap moistener will be readily understood by reference to Fig. 14 of the drawings, where it will also be seen that the upper of the rolls 61 acts as a stop for limiting the swinging of the arms 63 under the action of their springs, while the lower of said rolls 61 acts similarly to limit the mo-

tion of the arms 62 under the retractive strain of their springs.

Mounted in bearings of the frame plates 24 and 25 is the feeder shaft 70 on the end portions of which are journaled the arms 71—71 and 72—72 on the outer ends of which arms is fixed the envelop feed plate 73 having the bent lip 74 at its upper edge, see Figs. 1, 13 and 14, which edge is furnished with the vertically disposed slot 75, see Fig. 1; to the back of the feed plate 73 is secured the flap moistening pad 76 formed of a rigid frame carrying a pad of absorbent material. The arms 77—77 are free to swing on the shaft 70 and between these arms extends the rod 78 carrying accelerating feed fingers 79—79, see Figs. 2, 13 and 14, which work between the frame of the moistening pad 76 and the feed plate 73 and are at times projected through openings formed in the edge of the lip 74. These arms 77 are operated by means of the connecting rod 80 pivotally connected with one of said arms and with the gear 81 so that a complete forward and backward movement of the arms 77 and the accelerating feed fingers 79 carried thereby is effected at each rotation of the gear 81, journaled on the stud shaft 81' extending from the frame 24, the movement of the arms 77 being guided by the plate 82 thereof working over the guide 83 carried by the flap feeding plate 73. Pivotally connected with one of the arms 77 is the link 84 which has the stop lip 85 and is pivotally connected by the link 86 with the related arm 72 and also by the retractive spring 87 with said arm 72 at a distance from the pivot of the link 86 so that a pressure is exerted by said spring to maintain the links 84 and 86 in line, the link 86 bearing against the stop lip 85. A spring 88, connected with the other of said arms 71 at the left of the machine, see Fig. 1, and to a fixed part of the machine tends to exert a lifting pressure on this arm and its related mechanism.

Mounted on the frame plate 24 and extending into the path of movement of the links 84 and 86 is the stop 89 which, when the feed plate 73 has moved forward a suitable distance, intercepts said links so that the straight line of these links is broken at their common pivot, the feeding plate 73 then remaining stationary while the accelerating feed fingers 79 continue their forward movement under the action of the gear 81 and the connecting rod 80, the forward movement of the plate 73 being also limited by the lip 90 on the stop 89 which intercepts the arm 72. When the pivot connecting the rod 80 with the gear 81 reaches its farthest point of throw and begins to return, the first action is to retract the feed fingers to the point where the links 84 and 86 are moved away from the stop 89, the action of the

spring 87 then being to draw these links into line, the retractive pressure of these links then drawing backward the arm 72, to which the link 86 is pivoted, and its related mechanism.

In the upper portion of the frame 24 is journaled the shaft 91 having at its inner end the detector 92 and at its outer end the arm 93, see Figs. 3, 4, 6, 8, 13 and 14, and to the end of the arm 93 is pivoted the link 94 which in turn is pivoted to the rod 95 mounted to slide in guides of the bracket 96 carried by the frame 24, the lower end of this rod 95, when depressed resting on the barrel 97 of the cam 98 which cam has the enlargement 99 furnished with the pins 100—100 and is so mounted on the shaft 101 that it is free to reciprocate thereon, as the cam 98 rides against the side of the rod 95, while it, the cam, rotates with said shaft, see Figs. 6, 7, and 8.

The shaft 101 is journaled in bearings in the frames 24 and 26 and has the gear 102 and the plate 103 carrying the springs 104—104 which bear against the outer end surface of the cam 98 and tend to press the same inward; the gear 105 is free on this shaft and has sockets as 106, Fig. 8, adapted to receive the pins 100 extending from the enlargement 99 of the cam 98 whereby said gear 105 may be locked to the cam to rotate with the shaft 101 at times; also mounted on this shaft 101 and fixed thereto is the gear 107 which meshes with the gear 81.

Meshing with the gear 105 is the gear 108 journaled on the stud shaft 109 of the frame 24 and having the diametrically opposed cams 110—110, with the intermediate contracted portions 111. Pivotally mounted on a stud extending from the frame 24 is the arm 112 having the bearing 113 which rides on the cams for approximately one third of the rotation of the gear 108 then is permitted to move toward the axis of said gear, this motion being made twice in each rotation of said gear; to the free end of the arm 112 is pivoted the rod 114 the upper end of which is pivoted to the stamp position moistening tank stud 115 and tends to sustain said tank in the inoperative position when the bearing 113 of the arm 112 is resting on either of the cams 110, as is shown in Fig. 8.

Stamp position moistening tank 116 is pivotally mounted, to swing vertically, on a pivot extending from the inner side of the frame 24, the stud 115 of said tank working through the slot 24' Figs. 13 and 14, in the same frame; this tank 116 has the inlet 117 and the compartment 118, to provide clearance for the detector 92, and is furnished with the spout 119, extending above the point at which it is designed to moisten the stamp position of the envelop, the open end of this spout being supplied with the pad

120 of absorbent material adapted to be maintained in a moistened condition by the water supplied thereto through the spout 119 when said spout is in the depressed position shown in Fig. 13 of the drawings.

Gear 102 is preferably driven by a small gear 121 Fig. 4, on the shaft 122 journaled in the frames 24 and 26 and provided at its outer end, outside the casing with a drive pulley 123 or its equivalent, for effecting the rotation of the shaft 122. Any other means may, however, be used for effecting the rotation of the gear 102.

Attention is here called to the fact that when the gear 102 is rotated the envelop feeding mechanism is operated through the medium of the shaft 101, the gears 107 and 81, and the connecting rod 80; while, if the detector 92 occupy the depressed position shown in Fig. 8 the end of the rod 95 so limits the lateral movement of the cam 98 and its barrel 97 under pressure of springs 104 that the pins 101 cannot enter the sockets 106 of the loose gear 105 and this gear will not be driven, consequently, no motion will be imparted to the gear 108 and the depression of the spout end of the tank 116 will occur. When, however, the rod 95 is elevated from the position shown in Fig. 8, by the lifting of the detector 92, the cam 98 and its barrel 97 may be moved along the shaft 101 by the springs 104 to effect the engagement of the pins 100 with the sockets 105 of the gear 106 during one or more rotations of the shaft 101, and said gear and its connected mechanism will be driven during such time as such engagement continues. If now the rod 95 be again allowed to return to the position shown in Fig. 8 the end of the rod will drop on to the surface of the barrel 97 and, when the rise or projection of the cam 98 works against the rod, the barrel with the enlargement 99 and the pins 101 will move outward against the action of the springs 104 and the pins 101 will be disengaged from the sockets of the gear 105. It is to be understood that the lateral movement of the barrel 97 in the direction for the engagement of the pins 101 in the sockets of the gear 105 is never sufficient to carry the flat way of the cam beyond the position shown in Fig. 8, hence the rod 95 is free to drop to the position shown in such figure except when the cam rise is passing under the end of said rod.

Journaled in the frames 24 and 25 is the shaft 124 which is driven by the engagement of its gear 125 with the constantly driven gears 81 and 107, see Fig. 2; on this shaft 124 is the bevel gear 126, which meshes with the gear 56 to transmit motion to the water distributing roll 52, and the gear 127 at the outside of the frames 25, see Fig. 5, this latter gear having teeth arranged around slightly more than one half its periphery,

the remainder of its periphery being in the nature of a smooth way to provide a dwell in the driving action of this gear.

On a stud secured to the frame 25 is journaled the gear 128 having the gear 129 of smaller diameter and having teeth equaling in number the teeth of the gear 127 and a smooth peripheral portion 130 on which rides the smooth way of said gear 127 so that the gears 128 and 129 and the mechanism driven thereby dwells during nearly one half of each rotation of the gear 127. The gear 131 is also journaled on a stud extending from the frame 25 and meshes with the gear 128; the gear 132 likewise being journaled on a stud of the frame 25 and being driven from the gear 131, the direction of rotation of these gears being indicated in arrows in Fig. 5 of the drawings.

In bearings of the frames 24 and 25 is journaled the feed and press roll shaft 133 having the gear 134 which is driven in the direction indicated by the arrow, in Fig. 5, by its engagement with the gear 131; on this shaft is mounted the preferably hard roll section 135, adapted to sustain the stamp position of the envelop at the time such portion is receiving moisture, and the cushioned roll section 136 adapted to frictionally engage an envelop, provision being made, as by the peripherally open channels 137—138 for the reception of the ends of the accelerating feed fingers 79 when these fingers move forward between this roll section 135 and the feeding and pressing roll section 139, the shaft 140 of which is journaled in bearing blocks which are adjustably mounted in slots 141—142 of the respective frames 24 and 25, this shaft 140 having the gear 143 which is driven in the direction indicated by the arrow, in Fig. 5, by its engagement with the gears 132 and 134.

Beyond the roll section 136 is the stamping table 144 one end of which is supported by the frame 25 while the other end is yieldingly supported by the spring 145 carried by a bracket on the frame 24 in order that this end of the table may yield slightly during the stamp affixing operation.

Delivery roll 146 is mounted on the shaft 147 journaled in bearings in the frames 24 and 25 beyond the table 144 said shaft being driven by its gear 148 meshing with the gear 131, Fig. 5, while delivery roll 149 is mounted on the shaft 150 which is journaled in bearing blocks which are adjustable in the slots 151 and 152 of the respective frames 24 and 25, pressure being exerted on these blocks by the screws 153 and 154, Figs. 1, 2, 4 and 5; this shaft 150 being driven from the gear 148 by means of the idle gears 155 and 156 rotatable on studs extending from the frame 25, the gear 156 meshing with the gear 157 with which the shaft 150 is furnished. Beyond these de-

livery rolls 146 and 149 is mounted, on the frames 24 and 25, the inclined delivery chute, or apron 158, from which the envelops are delivered from the machine.

Stamp sheet feeding, strip cutting, and stamp severing and cutting devices are driven by means of the gear 159 journaled on a stud extending from the outer side of the frame 24 and meshing with the gear 105, see Figs. 3 and 8, hence when the gear 105 is disconnected from the shaft 101 the gear 159 and the mechanism in driving relation thereto will rest inoperative. As the stamps are fed in a direction opposite to that in which the envelops move I will now proceed to describe the stamping mechanism progressively approximately in the order in which the stamp sheet, the stamp strip, and the single stamp are operated upon until the latter is applied to the stamp position of the envelop.

At the upper part of the delivery end of the machine is formed a compartment having the table 160 adapted to receive a sheet of stamps when spread flat; at one end of this table is the concavity 161 furnished with the roll 162 on which sheets of stamps may be rolled in a continuous strip, to the wall of this concavity is hinged the cover 163 having the lip 164 which when the cover is closed, extends to a point adjacent to the roll 139 and protects the stamps during their progress through the machine from unauthorized removal, this cover has also a staple 165 adapted to receive the bolt of any ordinary locking mechanism shown at 166 Fig. 1.

Stamp sheet feeding rolls 167 and 168 are located at the inner end of the table 160, the roll 167 being journaled in bearings in the frames 24 and 25 and having the gears 169, shown in Fig. 5; and 170, shown in Figs. 3 and 10, this latter gear having a plain peripheral portion at one point as shown in Fig. 3. The roll 168 is free to move vertically in the slots 171—172 of the frames 24 and 25 and is furnished with the gear 173 which meshes with the gear 169 of the roll 167, when engaged therewith, the ends of this roll 168 are journaled in the frames respectively marked 174 and 175, see Figs. 3 and 5, which have slots working over the corresponding ends of the roll 167, the frame 175 being normally drawn downward by its spring 176 attached to the frame and to some fixed parts of the machine, while the frame 174 is depressed by the lever 177 pivoted to said frame 174 and fixed on the shaft 178, the spring 179 attached to said lever and to the frame plate 24 exerting a pressure on said lever 177 to draw down the frame 174, see Fig. 3; the lever 177 has the shoulder 180 against which the finger 181 of the thumb piece 182, pivoted to the side frame 24, may bear to depress this end of

the lever 177 in order that the roll 168 may be elevated by hand when necessary. The lower portion of the frame 175 is pivoted to the arm 182 which is fixed on the shaft 178 journaled in bearings in the frames 24 and 25, whereby the frame 175 is also raised by the action of the thumb piece 181. The bar 184 extends transversely of the machine and is secured to the frames 24 and 25, the upper surface of this bar being approximately on the level with the surface of the table 160 and being designed to form a support immediately back of the stamp strip cutter to support the sheet of stamps at this point.

Above the bar 184 is the stamp strip cutter bar 185 mounted to move vertically in guides with which the frames 24 and 25 are provided and having a cutting blade 186 adapted in its downward movement, to sever a row of stamps extending beyond the bar 184 from the main sheet of stamps. This strip cutter bar 185 is actuated periodically and with a comparatively quick motion, or impulse, by means of the rods 187—187 which work in guides of the frames 24 and 25, these rods being pivotally connected by the links 188—188 with the small gears 189—189 which are journaled on studs extending respectively from the frames 24 and 25 and are driven by their engagement with large gears as 190 on the shaft 191 which is journaled in bearings of the frames 24—25 and 26 and, on that portion between the frames 24 and 26, is furnished with the small segmental gear 192 which has pair of riding surfaces and two series of teeth as shown in Fig. 3.

Extending along beside the bar 184 and, preferably, at a lower level is the trough shaped stamp strip support 193 positioned above the stamping table 144, or extending to a position thereabove so that stamps fed along said trough may reach a position above the stamp area of the envelop supported on the table 144. At one end this stamp strip support has an opening 194, shown in section in Fig. 10, of a size and shape to permit the passage of stamp flatwise therethrough. Adjacent to this opening and extending across the stamp strip support 193 is the stamp strip feed roll 195 journaled below the level of the support 193 and having a bevel gear 196, Fig. 9, meshing with the similar gear 197 of the shaft 198 which is journaled in the sleeve 199 supported by the bracket 200, which forms one wall of the stamp opening 194, and having at its outer end, beyond the frame 24, the gear 201 of the shape shown in Fig. 3.

Above the sleeve 199 in bearings of the bracket 200 and the frame 24 is journaled the rock shaft 202 carrying at its inner end the frame 203 in which the spring pressed roll 204 is supported above the stamp strip

feed roll 195, the outer end of this shaft 202 being furnished with the lever arm 205 which has a pin working in the curved slot 206 of the plate 207, which plate is pivoted, eccentrically to the extension of the slot 206, on a stud extending from the plate 24. Pivoted to the plate 207 is the link 208 which in turn is pivoted to the rod 209 which has the bearing 209' and the forked end 210 pivotally connected by the link 211 with the lever 212 and having the bearing 213, the forked end of the rod 209 forming a guide which works over a shaft, to be hereafter described, and being retracted by the spring 214 secured to said rod and to the frame plate 24, whereby when the lever 212 is moved to slide the rod 209 to the right, as shown in Fig. 3, and the lever 209 is depressed as shall hereinafter be described, the plate 207 will be swung on its pivot and the stud of the arm 205 will ride up the curve of the slot 206 and cause the swinging of this arm 205 to rotate the shaft 202 thus elevating the frame 203 and its presser roller 204, to permit the feeding of a strip of stamps on to the stamp strip support and between the feed rolls 195 and 204, the return movement of the rod 209 permitting the dropping of the roll 204 and its frame whereby the stamp strip is engaged between said rolls.

At the upper part of the frame 24, in line with the stamp strip support, is mounted the vertical guide frame 215 in the guides of which the stamp severing and pressing plunger 216 works; this plunger has the severing blade 217, which coöperates with the edge 193' of the stamp strip support 193, and its lower end is formed by a series of plates 218—218 yieldingly mounted to accommodate any irregularities in the surface to which the stamp is to be applied, see Figs. 10, 11 and 12. To this plunger is pivoted the lever 219 which is pivotally mounted on the frame 24 and is in turn pivoted to the rod 220 which works in guides extending from the frame 26 and has the studs 221 and 222 against the latter of which works the arm 223 pivoted to the frame 26 and furnished with the bearing 224.

Returning now to gear 159, Figs. 3 and 9, it will be seen that this gear meshes with the gear 225 of the sleeve 226 which has also the intermittent gear 227 having the series of teeth 228 equal in number to the teeth of the gear 201 and the peripheral plain surface on which the projection of said gear may ride, the effect being to cause the rotation of the gear 201 during each rotation of the gear 227, as will be understood by reference to Fig. 17 of the drawings; on this sleeve 226 is also the cam 229 which is adapted, when the lever 209 is moved toward the right, to bear on the bearing 209' of said lever and depress the same; the cam 230 of the sleeve 226 is designed to work

against the stud 221 of the rod 220 to raise the same and to thus depress the stamp plunger 216, while the cam 231 works against the bearing 224 on the arm 223, which latter bears on the stud 222 of the rod 220. Thus for each rotation of the sleeve 226 the stamp plunger 216 is positively moved downward and upward and the gear 201 is given a single rotation, resulting in the similar rotation of the stamp strip feed roll, at the time when the plunger 216 is in the raised position, and the feeding forward of the stamp strip for the space of one stamp. Also driven from the gear 159 is the gear 232, Figs. 3 and 10 which is journaled on a stud extending from the frame 24 and which meshes with the gear 233 similarly mounted, this latter gear in turn engages with and drives the gear 234 which drives the shaft 235 on which said gear is mounted, this shaft being journaled in bearings in the frames 24 and 26 and being furnished with the intermittent gear 236. Also journaled in the frames 24 and 26 are the shafts 237 and 238 having respectively the gears 239—240 and 241—242 shown in plan view in Fig. 15 of the drawings: the gears 239 and 242 being approximately in line, vertically, and so related to the gear 236 that the teeth of the latter may engage periodically with the toothed sections of said gears 239—242, as these toothed sections number ten in each of said gears and as the number of teeth in each of the sections correspond to the number of teeth on the periphery of the gear 236 the gears 239 and 242 will be advanced one tenth of a rotation for each rotation of the gear 236 these periodical advancements being divided by an equal number of dwells which occur while the plain peripheral portion of the gear 236 works against the slightly concave riding portions which are between the toothed sections of said gears; the gears 240 and 241 have each a plain periphery furnished with a single group 243—244 of teeth which equal in number the teeth in each of the groups of the gears 170 of the roll 167 with which the teeth 243 of the gear 240 engage, and those of the gear 192 of the shaft 191 with which the teeth 244 of the gear 241 engage whereby said gears are each given a one half rotation, at a high speed proportioned to the difference in diameter of the gears, at each complete rotation of the gears 240—241. This impulse of the gear 192 is transmitted from the large gear 190 to the gear 189, of one half the circumference of the gear 190, to effect a rapid and complete rotation of the gear 189 and a complete upward and downward movement of the stamp strip cutter blade 186 at each rotation of the gear 241, while approximately at the same time, slightly before, the gear 170 is given a one half ro-

tation by the teeth 243 of the gear 240 to effect the feeding forward of the stamp sheet the distance of a stamp so that a row of stamps may be severed when the blade 186 descends.

Extending from the gear 239 is the pin 245, and mounted to slide on the stud 246 of the frame 26 is the rod 247 the end of which is adapted to intercept the pin 245, at each rotation of the gear 239, and to thereby be moved to effect the swinging of the lever 248 to which said rod 247 is pivoted, this lever 248 being pivotally mounted on the bracket 249 extending from the frame 24 and being retracted by the spring 250 secured to this lever and to the frame 26. The lever 248 works in an opening in the frame 24, Fig. 2, and is pivotally connected with one of the arms 251 of the rock shaft 252 by the link 253, this rock shaft being mounted to move in bearings of the frames 24 and 26 and its arms 251—251 working in slots in the table 160 and having the spring presser-fingers 254—254 which frictionally engage the surface of the stamp sheet near the feed rolls 167 and 168 and tend to assist its forward movement at each forward impulse of the fingers. This feeding device which supplements the action of the rolls 167 and 168 is particularly valuable in the feeding forward of the last strip of stamps of the stamp sheet which, being narrow as compared with its length, is difficult to feed forward to the stamp strip support.

Within the frame of the machine is the registering device 255 of any usual construction adapted to be operated by the bell crank lever 256, Fig. 3; which lever is pivotally mounted on a stud of the frame 25 and has, in its lower end, a slot 257 in which works the pin 258 of the gear 259 suitably journaled on a stud of the frame 25 and driven from the gear 260 with which the shaft of the gear 236 is furnished, whereby at each rotation of said shaft the lever 266 is swung to actuate the register and thus record the application of each stamp.

By omitting water from the tank 50, or by removing said tank envelopes may be fed through the machine without sealing while, if said envelopes pass beneath the detector 92, stamps may be applied thereto. If it is desired to feed envelopes through the machine for sealing without stamping the gage 41 is so set that the path of movement of the envelopes is at one side, in this particular machine at the left, of the detector 92, therefore this machine may be used for sealing or stamping envelopes or similar objects, or it may be used as a combined sealing and stamping machine.

Envelops to be sealed and stamped are placed in position on the table 39 being partially supported by the inclined plate 30 and bearing against the edge of the flap engag-

ing plate 73, the flap of the envelop being inward so that as the flap engaging plate moves forward the edge of said plate may engage beneath the flap and carry the inner-

5 most envelop of the group forward with it. The machine may be driven by hand by applying a crank of any well known construction, to the shaft 101, or a belt adapted to be driven by any motive power may be
10 applied to the belt pulley 123 to drive the gear 102 through the medium of the shaft 122 and the small gear 121. When the shaft 101 is rotated the gear 107 rotates therewith and drives the gear 81 which, through the
15 connecting rod 80, causes the feeding carriage with its plate 73 to swing forward and backward on the shaft 70. In the forward movement of the carriage the moisture transferring roll 68 takes moisture from the periphery of the roll 52, or from any other
20 suitable moisture supplying device and, as the carriage moves backward, transfers this moisture to the pad 76 of the feed carriage. Water being supplied to the tank 116, and
25 the pad 76 having been moistened, a sheet of stamps is placed flat on the stamp table 160 with its front edge between the rolls 167 and 168, and the operation of the machine is preferably commenced with the parts approximately in the positions shown in Fig. 2
30 of the drawings. As the feeding carriage moves forward, or inward, from the position shown in Fig. 2 the edge of the plate 73 engages under the flap of the innermost envelop and carries the envelop along, first to the position shown in Fig. 13, in reaching
35 which position the outer surface of the flap has been carried over the bars 61—61 which press the flap against the moistened pad 76 whereby the gummed surface of the flap is moistened. As the carriage moves forward from the position shown in Fig. 13 to that
40 shown in Fig. 14 the bars or rolls 69—69 serve to continue the pressure to hold the gummed surface of the flap against the pad 76. If, for any reason, the envelop has not been so adjusted on the table 39 that the flap will cover the opening 75 in the edge of the plate 73, no lifting of the detector will
50 occur and the envelop will pass through the machine without effecting the operation of the stamp affixing mechanism.

In passing from the position shown in Fig. 13 to that of Fig. 14 the pivoted links
55 84 and 86 have been intercepted at their joint by the stop 89 and have been swung back from their normally straight line, thus drawing forward the pivoted arms 77—77 and the accelerating feed fingers 79—79
60 which engaging under the envelop flap carry the envelop forward into the bite of the rolls 136 and 139, the arm 72 of the feed carriage in the meantime being intercepted by the stop 90. The rolls 136 and 139 now being partially rotated by their train of gears

including the intermittent gears 127 and 129 first press the moistened gummed surface of the flap against the body of the envelop while feeding the envelop forward on to the table 144, the rear edge of the envelop still being retained between said rolls;
70 when next partial rotation of the rolls 136—139 is effected the envelop is fed forward between the rolls 146—149 which continue the pressure and deliver the sealed envelop on to the inclined plate 158 from
75 whence it passes out of the machine. In the rearward movement of the feed carriage the straightening of the pair of links 84 and 86 by their spring 87 after these links are moved backward from the stop 89 causes the
80 swinging of the arms 77 to retract the accelerating feed fingers 79—79 to points within the line of the upper edge of the plate 73, an additional amount of moisture being also supplied by the roll 68 to the pad 76. When, in the forward movement of the envelop feed plate 73, a portion of an envelop, as the flap extends over the slot 75
85 said portion will be carried against the detector 92 and will lift the same thus causing the shaft 91 to rock and swing upward the free end of the arm 93 thus moving the rod 95 upward out of the path of movement of the cam 98. The barrel 97, being then free
90 to move laterally under the pressure of the springs 104, the pins 100 will engage in the sockets 106 of the gear 105 and said gear and the parts in driving connection therewith will be driven by the continued rotation of the shaft 101.
100

The rotation of the gear 108 is so timed with relation to the movement of the envelop feeding carriage that when said carriage reaches the position shown in Fig. 14
105 the bearing 113 works into one of the contractions 111 of the cam 110 and the tank 116 is swung downward on its pivot to bring the moistening pad 130 in contact with the, preferably, upper right hand corner
110 portion of the face of the envelop to moisten the position or area thereof to which it is designed to apply a stamp, the envelop being supported against the pad by the surface of the plate 73 and being carried along
115 under said pad by the action of the fingers 79 in pushing the forward, upper, edge of the envelop between the rolls 136 and 139. As soon as a sufficient area of the envelop has been thus moistened the bearing 113
120 rides out of the contraction 111, in which it worked on to the peripheral portion of the cam 110 and the tank 116 is swung upward to prevent the undue application of moisture to the face of the envelop. At this
125 time the moistening of the gummed surface of the envelop flap has been accomplished, as heretofore described, and the envelop is now carried forward by the rolls 136 and 139 which press the moistened gummed sur-
130

face of the flap against the body of the envelop and feed forward the envelop sufficiently so that the stamp receiving portion thereof comes to a rest above the table 144, while the rear, or lower, portion of the envelop is still between said rolls. When this point is reached by the envelop the rolls 136 and 139 dwell during the period in which the plain periphery of the gear 127 travels over the riding portion 130 of the gear 129 and, during this dwell the stamp is applied to the envelop as shall hereafter be described.

With the sheet of stamps placed upon the table 160 and, for this particular machine, comprising a series of rows each having ten stamps and the forward edge of the sheet engaged between the rolls 167 and 168 the machine is operated with the detector 92 elevated, by hand if desirable, until the train of gears 159, 232, 233, 234, 242 and 241 have caused the shaft 191 and its gear 192 to make a one half rotation, thus effecting a complete rotation of the gear 189 and the moving downward and upward of the stamp strip cutter 185 by means of its connections with said latter gears whereby the first row of stamps is cut from the sheet immediately after the feeding forward of said sheet by the partial rotation of the stamp sheet feeding rolls 167 and 168 driven from the gear 234 through the gears 239, 240 and 170, which latter series of gears are timed to operate said sheet feeding rolls slightly prior to the actuation of the stamp strip cutter 185. At the time of the feeding action of the rolls 167 and 168 the gear 242 has been sufficiently rotated to effect the backward swinging of the pivoted arm 212, by means of the pin 242' of said gear, thus drawing backward the rod 209 until its bearing 209' was below the cam 229 and the sleeve 226, of which said cam forms a part, has been so rotated by the engagement of its gear 225 with the gear 159 that the depression of the rod 209 has been effected by said cam working against said bearing 209' thereby swinging the frame 207 on its pivot by means of the connection 208 and effecting the swinging of the arm 205 to partially rotate the shaft 202 and to swing upward the frame 203 and its presser roll, so that the portion of the stamp sheet fed forward by the action of the rolls 167 and 168 will be received between the stamp strip feed roll 195 and the presser roll 204. As soon as the cam 229 works by the pin 209', the pin 242' having previously moved out of contact with the arm 212, the spring 214 acts to draw the rod 209 back to its normal position, arm 205 being permitted to swing upward to swing downward the frame 203 thus bringing the yieldingly mounted roll 204 into contact with the face of the stamp strip. This action of feeding forward the sheet of stamps and severing a

row, with the other steps related to such operation as above described occurs, in the particular machine herein described, at every tenth forward movement of the envelop feeding mechanism but, by substituting other gears for those marked 239 and 242 this action may be regulated to occur after a greater or less number of actions of said mechanism, this depending on the number of groups of teeth in said gears, which should agree with the number of stamps in each row, and according to the degree of rotation of said gears at each rotation of the gear 236.

Now, recalling the placing of the sealed envelop in position on the table 144, and referring to Fig. 9 of the drawing bearing in mind that the first stamp of the strip fed forward on to the stamp strip support 193 extends beyond the edge 193' so that the vertical face of this part 193' represents the line of division between the first and second stamps, it will be seen that when the sleeve 226 is rotated by its gear 225 being driven by the gear 159, the cam 230 of said sleeve will lift the rod 220 by acting against the pin 221 thus swinging the lever 219 to depress the plunger 216 whereby the blade 217 working over the edge 193' will sever the first stamp, which will be carried forward flatwise until the gummed back of the stamp is pressed against the moistened stamp area of the envelop by the yielding sections 218 of the plunger, which will accommodate themselves to any ordinary inequalities in the surface caused by the irregularities in shape of its contents while, if the envelop be unduly thick the spring 145 will yield to the pressure. After the completion of the downward stroke of the plunger 216 the cam 231 on the sleeve 226 is brought to bear on the pin 224 of the pivoted arm 223 to depress said arm and the rod 220, by the bearing of the arm 223 thereon, to draw downward the outer end of the lever 219 and to elevate the plunger 216.

Gear 227, on the sleeve 226 is so timed with relation to the movement of the plunger 216 that, as the lower end of the plunger moves to a point above the edge 193' of the stamp strip support, the gear 201 is given a rotation, by means of the teeth of the gear 227 meshing therewith, and the stamp strip feed roll 195 is rotated by the gears 197—196 to advance the stamp strip laterally the space of one stamp. After the stamp has been applied to the envelop the rolls 136 and 139 are again caused to rotate by their gear connections and the sealed and stamped envelop is fed forward between the rolls 146 and 149 which press the stamp and the flap against the body of the envelop and deliver the envelop on to the inclined plate 158 from whence it passes out of the ma-

chine. With each rotation of the gear 240 the pin 245 thereon engages the end of the sliding rod 247 and forces the same and its lever 248 backward against the retractive strain of the spring 250, thereby swinging the lever 248 to move forward the arms 251, these arms being both mounted on the rock shaft 252, and pushing the feed fingers 254 forward toward the rolls 167 and 171, this supplemental feeding action being particularly designed for assisting in feeding the last strip of a sheet of stamps on to the stamp strip support. At each rotation of the gear 260, representing one complete action of the stamp plunger 216 downward and upward, the gear 259 is given a rotation whereby the bell crank lever 256 is swung to actuate the stamp registering device 255 to record this action.

While I have herein described a particular mechanism for sealing, for stamping, or for sealing and stamping envelopes or other objects, it is not my intention to thereby restrict myself to the particular mechanism as herein shown and described but only as herein claimed.

Having thus described my invention, I claim as new and desire to secure by Letters Patent.

1. Envelop sealing means comprising means for supporting a group of envelopes in an upright position with their flap surfaces inward, feeding means mounted to swing upward to engage beneath the flap of the innermost envelop, and means, movable with the feeding means, for introducing moisture beneath said flap.

2. Envelop sealing means comprising an envelop support on which a group of envelopes may be fed forward in substantially an upright position with the flap surfaces inward toward the direction in which said group of envelopes are designed to move and means adapted to work across the path of movement of said group of envelopes to engage under the flap of the innermost envelop to move the same from said group and means for moistening the envelop flap during the movement of the envelop.

3. Envelop sealing mechanism comprising means on which a group of envelopes may be fed forward in the upright position with their flaps innermost, swinging means working across the path of movement of said group of envelopes and adapted to engage beneath the flap of the innermost envelop to feed the same inward, and means for moistening said flap as the feeding means reaches the latter part of its movement.

4. Envelop sealing means comprising a table on which a group of envelopes may be fed forward in the upright position with their flaps innermost, an upwardly extending envelop support at the inner end of said table, and means adapted to engage the

flap of an envelop for lifting said envelop above said support to feed the envelop inward.

5. Envelop sealing means comprising a fixed inclined envelop supporting and gage plate having vertically disposed slots, and a table adjustably mounted with relation to said plate and having fingers working in the slots thereof.

6. Envelop sealing mechanism comprising adjustable means for supporting envelopes, a movable envelop feed carriage having a moistening device adapted to be inserted beneath the flap of an envelop, a stationary moisture container, and movable means for receiving moisture from said container and transferring it to said moistening device.

7. Envelop sealing mechanism comprising a movable envelop feed carriage having a moistening device adapted to be inserted beneath the flap of an envelop, a stationary moisture container and movable means actuated by the feeding action of the carriage for periodically receiving moisture from said container and transferring it to the moistening device.

8. Envelop sealing mechanism comprising an envelop feeding carriage movably mounted and having a moistening pad adapted to be inserted beneath the flap of an envelop in feeding the same forward, a stationary moisture container, and a moisture transferring device movably mounted on a yielding carriage and adapted to be moved toward the moisture container on the forward movement of the feeding carriage and to subsequently contact with the moistening device to supply moisture thereto.

9. Envelop sealing mechanism comprising a carriage mounted to swing about a fixed center and having a moistening pad adapted to be inserted beneath the flap of an envelop, a frame movably mounted independently of said carriage and yieldingly supported, and means on said frame over which the envelop flap is pressed in the feeding movement of the carriage for pressing the envelop flap against said pad.

10. Envelop sealing means comprising an envelop feeding carriage mounted to swing about a fixed center and having a moistening pad adapted to be inserted beneath the flap of an envelop, a frame movably mounted independently of said carriage, means on said frame for pressing the envelop flap against said pad, and a moisture transferring device carried by said frame.

11. Envelop sealing mechanism comprising a carriage movably mounted and having a moistening pad adapted to be inserted beneath the flap of an envelop, a frame pivotally mounted and yieldingly supported and having means against which the envelop flap bears in the feeding movement and a moisture supplying device for said pad, and a

stationary moisture container whereby on the feeding movement of said carriage the moisture supplying device is moved toward said container and upon the return movement of the carriage the moisture supplying device may contact with said pad.

12. Envelop sealing mechanism comprising feeding and presser rolls having a horizontal line of feed, means for supporting a group of envelops substantially in an upright position at a distance from said rolls, means for engaging the innermost envelop of said group and delivering the same between said rolls.

13. Envelop sealing mechanism comprising a pair of pressing rolls, means for supporting a group of envelops in an upright position at a distance from said rolls, and means including flap moistening mechanism for engaging the innermost envelop of said group and delivering the same between said rolls.

14. Envelop sealing means comprising an envelop support, a pair of presser rolls located at a distance from the support, a frame yieldingly supported and having flap pressing means located between the support and said rolls, and a carriage mounted to swing between the support and the rolls and having a flap moistening pad.

15. Envelop sealing means comprising an envelop feed carriage having a limited movement, envelop pressing means located beyond the limit of movement of said carriage, and means adapted to engage beneath the flap of the envelop for moving the envelop from the carriage to the pressing means.

16. Envelop sealing means comprising means for engaging the flap of an envelop to feed the same forward, means for moistening the flap of the envelop, and supplemental feeding means adapted to engage beneath the envelop flap to feed the envelop from the primary feeding means.

17. Envelop sealing means comprising primary and secondary envelop feeding devices both adapted to engage beneath the flap of the envelop to be fed forward.

18. Envelop sealing means comprising primary and secondary envelop feeding devices both adapted to engage beneath the flap of an envelop and both moving together during the initial feeding action, the secondary feeding device being movably beyond the limit of movement of the primary device.

19. Envelop sealing means comprising primary and secondary envelop feeding devices both adapted to engage beneath the flap of an envelop, means for limiting the feeding action of the primary device, and means, adapted to be acted upon as the primary device approaches the limit of its action, for actuating the secondary device.

20. Envelop sealing means comprising an envelop carriage mounted to swing and having means adapted to engage beneath the flap of an envelop to feed the same forward, a secondary feeding device mounted on said carriage, means for limiting the movement of the carriage, and means for continuing the feeding action of the secondary device beyond the limit of movement of the carriage.

21. Envelop sealing means comprising a carriage mounted to swing and having means adapted to engage beneath the flap of an envelop to feed the same forward, lever controlled secondary feeding means mounted on said carriage and movable independently thereof, a stop for limiting the feeding movement of the carriage, and a stop adapted to intercept the lever controlling mechanism of the secondary device as the carriage approaches its stop.

22. Envelop sealing means comprising a pair of presser rolls, means for supporting envelops at a distance from said rolls, primary and secondary feeding devices both adapted to engage beneath the flap of an envelop on said support to feed the same toward the rolls, means for limiting the feeding movement of the primary device, and means for actuating the secondary device independently beyond said limit of the primary device.

23. Envelop sealing means comprising an envelop feed carriage having a plate adapted to engage beneath the flap of an envelop, feed fingers movably mounted on said carriage and also designed to engage beneath said envelop flap, a lever pivotally mounted on the carriage, and means for actuating said lever at times, to move forward the feed fingers.

24. Envelop sealing means comprising an envelop feed carriage movably mounted and having a plate adapted to be engaged beneath the flap of an envelop, levers pivotally mounted on the carriage and provided with feed fingers which extend adjacent to said plate, a spring retracted lever actuating means also mounted on the carriage and adapted to be actuated by a stop, and a stop located in the path of movement of said actuating device.

25. Envelop sealing means comprising primary and secondary envelop feeding means both adapted to engage beneath the flap of an envelop and each being movable independent of the other, means for moistening the flap of the envelop, and means for subsequently actuating the secondary device to draw the envelop forward on the primary device.

26. Envelop sealing means comprising an envelop feed carriage mounted to swing about a fixed center, a lever pivoted on said carriage, secondary feed fingers mounted on

the carriage and connected with said lever, toggle links pivotally connected with said lever, a spring acting on said links in one direction, and a stop supported in the machine in the path of movement of said links.

27. Envelop sealing means comprising arms mounted to swing, an envelop feed plate mounted on said arms, a flap moistening pad mounted on the carriage thus formed, a series of feed fingers adapted to work between the moistening pad and the plate, a lever pivotally mounted for actuating the feed fingers, a pair of toggle links pivoted to said lever and to the carriage, a spring adapted to exert a pressure on said links to hold the same in approximately a straight line, and a stop mounted in the machine in the path of movement of said links to intercept the same at times.

28. Envelop sealing means comprising a pair of pressing and sealing rolls, an envelop feed carriage having a moistening pad adapted to be inserted beneath the flap of an envelop said carriage having a limited movement toward said rolls, means for pressing the envelop flap against said pad, and means engaging under said flap for moving the envelop forward, independently of said carriage, to said rolls whereby the gummed surface of the flap is drawn over the moistening pad while said flap is under pressure.

29. Envelop sealing and stamping means comprising a feed carriage having a plate on which the envelop to be fed forward is supported, a flap moistener beneath said plate, means for pressing the flap thereagainst, and a stamp position moistener working toward and from the path of said plate.

30. Envelop sealing and stamping means comprising means for supporting and feeding forward an envelop, a flap moistening pad beneath said supporting means, a stamp position moistener above said supporting means, means for pressing the flap against its moistening means, and means for moving the stamp position moistener toward and from the path in which the supporting means travels.

31. Envelop stamping means comprising a feed carriage having a plate on which the envelop is supported, and a stamp position moistener adapted to be pressed against the envelop while the stamp position of the envelop is supported by said plate.

32. Envelop stamping means comprising a feed carriage having means for supporting the stamp position of the envelop against pressure, a stamp position moistener adapted to be pressed against the envelop when so supported, and means for feeding forward the envelop from said carriage.

33. Envelop stamping means comprising a feed carriage having means for supporting

the stamp position of an envelop fed forward thereby, a stamp position moistener adapted to contact with the surface of the envelop when so supported, and means for moving forward the envelop while the same is in contact with the stamp position moistener.

34. Envelop stamping means comprising a feed carriage, a secondary envelop feeding device carried thereby and movable independently thereof, a stamp position moistener adapted to be brought into contact with an envelop on said carriage, and means for actuating the secondary feeding device while such contact is maintained, whereby the envelop is drawn along in contact with the stamp position moistener.

35. Envelop stamping means comprising a feed carriage having a plate adapted to engage beneath the flap of an envelop and adapted to act as support for the body of the envelop, secondary feeding means movably mounted beneath said plate, means for actuating the secondary feeding means to move the envelop with respect to said plate, and a stamp position moistener adapted to contact with the envelop while under such secondary movement.

36. Envelop stamping means comprising means for feeding forward an envelop, a stamp position moistener adapted to work toward and from the path in which the envelop is fed forward, mechanism for operating the stamp position moistener, and means, adapted to be actuated by the presence of an envelop, for releasing said mechanism.

37. Envelop stamping means comprising a stamp position moistener operatively mounted, means for operating said moistener, means for feeding an envelop to a position to receive moisture from said moistener, and means adapted to be actuated by the feeding of an envelop to such position, for releasing said operating mechanism.

38. Envelop stamping means comprising envelop feed mechanism adapted to be constantly driven, a stamp position moistener operatively mounted, means, normally inoperative, for operating the stamp position moistener, and means adapted to be actuated by the presence of an envelop for connecting the moistener operating mechanism with feed driving mechanism.

39. Envelop sealing and stamping means comprising a stamp position moistener, operative means for normally sustaining the same in an inoperative position, envelop actuated means for releasing said operative means, and means for feeding forward an envelop, to be sealed but not stamped, without actuating the releasing means, together with means for moistening the envelop flap, and means for pressing said flap against the body of the envelop.

40. Envelop sealing and stamping means comprising a stamp position moistener movably mounted, means for sustaining said moistener in an inoperative position, said means including a detector, an envelop feed carriage movably mounted and constructed to move past said detector without actuating the same, whereby an envelop may be fed forward without receiving moisture from said moistener.

41. Envelop sealing and stamping means comprising a stamp position moistener movably mounted, means, including a detector, for sustaining said moistener in the inoperative position, an envelop feed carriage movably mounted and adapted to move an envelop fed forward thereby, when suitably placed, against the detector to actuate the same, and means for operating said carriage.

42. Envelop sealing and stamping means comprising a stamp position moistener movably mounted, means, including a detector mechanism for sustaining said moistener in an inoperative position, an envelop feed carriage movably mounted for feeding an envelop past said detector, and having an opening to receive said detector and means for sustaining an envelop over said opening, and means for operating said carriage.

43. Envelop sealing and stamping means comprising a stamp position moistener movably mounted, means, including a detector, for sustaining the moistener in an inoperative position, an envelop feed carriage having a plate adapted to be inserted beneath the flap of an envelop and furnished with an opening adapted to receive the detector and adapted to be covered by an envelop, suitably placed, and means for operating the feed carriage.

44. Envelop sealing and stamping means comprising a swinging envelop feed carriage having an envelop engaging plate furnished with an opening adapted to be covered by an envelop suitably placed on said plate, a stamp position moistener movably mounted above the path in which said plate moves, means for sustaining said moistener in an inoperative position, and means for controlling said sustaining means including a detector which extends into the path of movement of said plate in line with said opening.

45. Envelop sealing means comprising a stamp position moistener pivotally mounted, toggle links pivotally connected with said moistener and with a stationary part of the machine, one of said links having a bearing, a cam rotatably mounted and adapted to bear on said cam at times to sustain the same and, at times to permit the same to move whereby the moistener may be moved to the operative position, detector controlled means for operating said cam, a detector

connected therewith, and means for feeding forward an envelop against said detector.

46. Envelop sealing and stamping means comprising a stamp position moistener pivotally mounted, cam controlled means for swinging said moistener, a main drive gear including a loose driving member in driving relation to said cam, and detector controlled mechanism for connecting said loose member to the main drive gear.

47. Envelop sealing and stamping means comprising a shaft rotatably mounted and provided with a gear and adapted for power driving, a main drive gear meshing with said first mentioned gear, a shaft, suitably journaled, on which said second gear is fixed, an envelop feed carriage, means in constant driving connection with said shaft for driving said carriage, a stamp position moistener, operating means therefor adapted at times to be connected with said shaft, and a detector controlled mechanism for connecting said moistener operating means with said shaft.

48. Envelop sealing and stamping means comprising a drive shaft adapted for continuous driving, an envelop feed carriage operatively mounted and in continuous driving relation with said shaft, a stamp position moistener mounted to move, operating means therefor normally out of driving relation with said shaft, and detector controlled mechanism for connecting said stamp moistener operating means and said shaft at times.

49. Envelop sealing and stamping means comprising a shaft rotatably mounted and having a gear fixed thereon, and a second gear loose thereon, means for connecting said second gear to the shaft, a detector mechanism for controlling said connecting means, a stamp position moistener movably mounted, means in connection with the loose gear for moving said moistener, an envelop feed carriage movably mounted and driving means therefor connected with said first mentioned gear.

50. Envelop sealing and stamping means comprising means for feeding forward a sheet of stamps a row at a time, means for cutting a strip of stamps from said sheet, a support for said strip of stamps, a feed roll in said support for feeding said strip laterally, a frame pivotally mounted and having a presser roll, and means for effecting the swinging of said frame to permit the strip of stamps to enter between said rolls when said strip is fed forward.

51. Envelop stamping means comprising a stamp sheet feed roll furnished with a gear, a gear rotatably mounted and meshing therewith having groups of teeth, said groups equaling in number the number of rows of stamps in a sheet to be fed forward,

and means for intermittently driving said gear.

52. Envelop stamping means comprising means for periodically feeding forward a sheet of stamps a row at a time, means for cutting a row of stamps from said sheet, a support for said row of stamps, and supplemental frictional means for engaging said row of stamps to feed the same forward on to said support.

53. Envelop stamping means comprising means for supporting a row of stamps, periodically operated reciprocating means acting on said row of stamps to feed the same forward, and means for receiving said row of stamps and for feeding the same laterally.

54. Envelop stamping means comprising a table for supporting a row of stamps to be fed forward, a trough shaped support adapted to receive the row of stamps, fingers adapted to frictionally engage said row of stamps and means for reciprocating said fingers to feed the row of stamps from said table to said trough, as and for the purpose described.

55. Envelop sealing and stamping means comprising a stamp strip support having an opening approximately the size of a stamp, a stamp severing and applying plunger working through said opening, a lever pivotally mounted and connected with said plunger, a rod mounted in guides and pivotally connected with said lever, said rod having studs, a gear sleeve rotatably mounted and having a pair of cams one of which

bears against one of the studs of said rod, a pivoted lever, acting against the other of said studs, against which the second of said cams works, and means for periodically actuating said gear.

56. Envelop sealing and stamping means comprising means for intermittently feeding forward a sheet of stamps the distance of a row at a time, means for cutting a row of stamps from said sheet, means for feeding the row laterally the distance of a stamp at a time, means for severing the end stamp from said row and moving the same flatwise, and driving means for said mechanism, in combination with means for feeding forward an envelop and moistening the flap thereof, means, adapted to be continuously driven for operating said envelop feeding mechanism, movable means for moistening the stamp receiving surface of the envelop, driving means therefor in connection with the driving means of the stamp affixing mechanism and normally inactive and means adapted to be actuated by the presence of an envelop on the feeding device, for effecting the connection of the stamp affixing drive mechanism with the driving mechanism of the feeding device, as and for the purpose described.

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

LAURITS M. NIELSEN.

Witnesses:

L. C. CLEARY,
H. J. MILLER.