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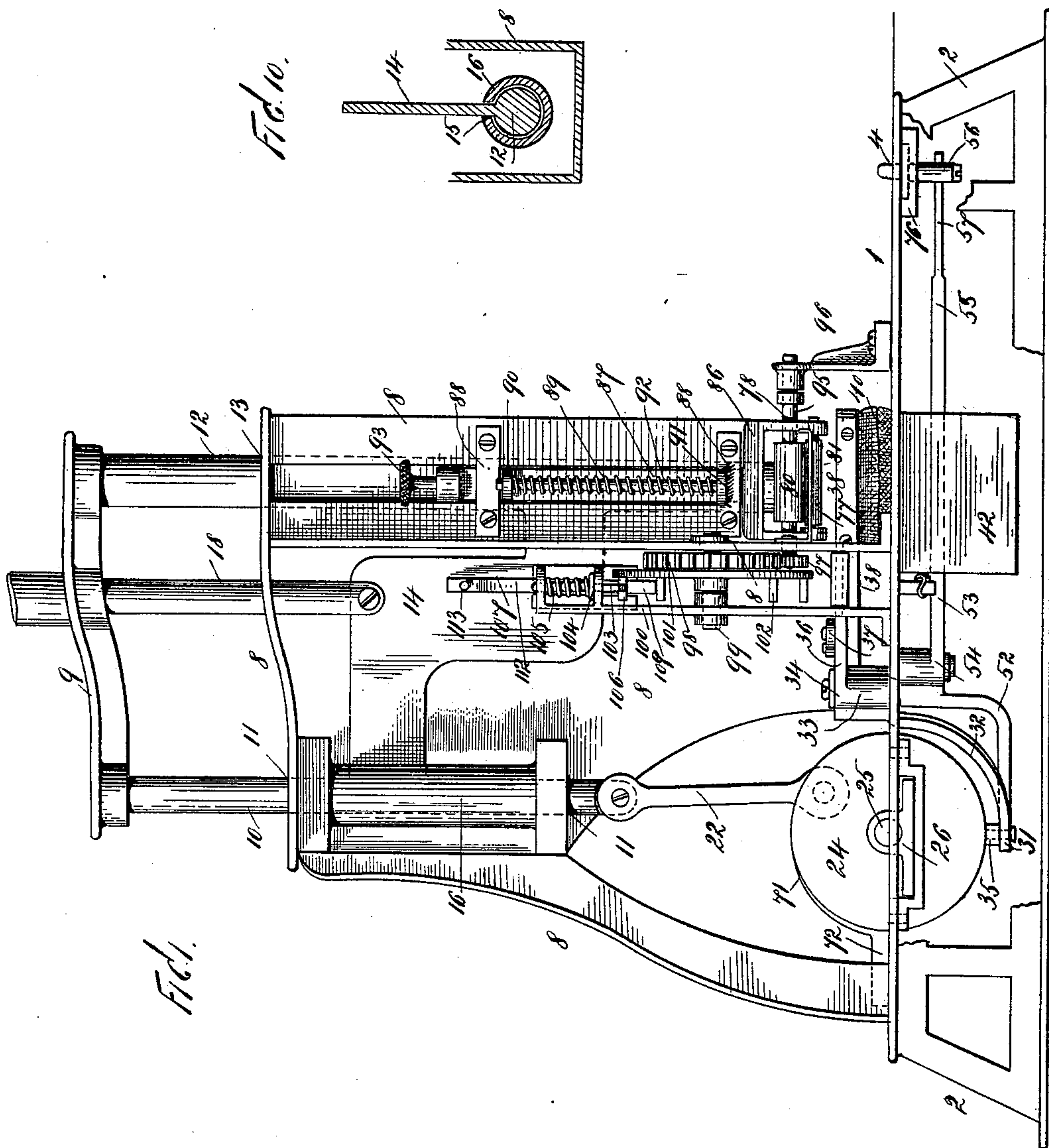
Patented June 27, 1899.

L. M. NIELSEN & C. A. MADSEN.
ENVELOP STAMPING MACHINE.

(Application filed Jan. 5, 1898.)

(No Model.)

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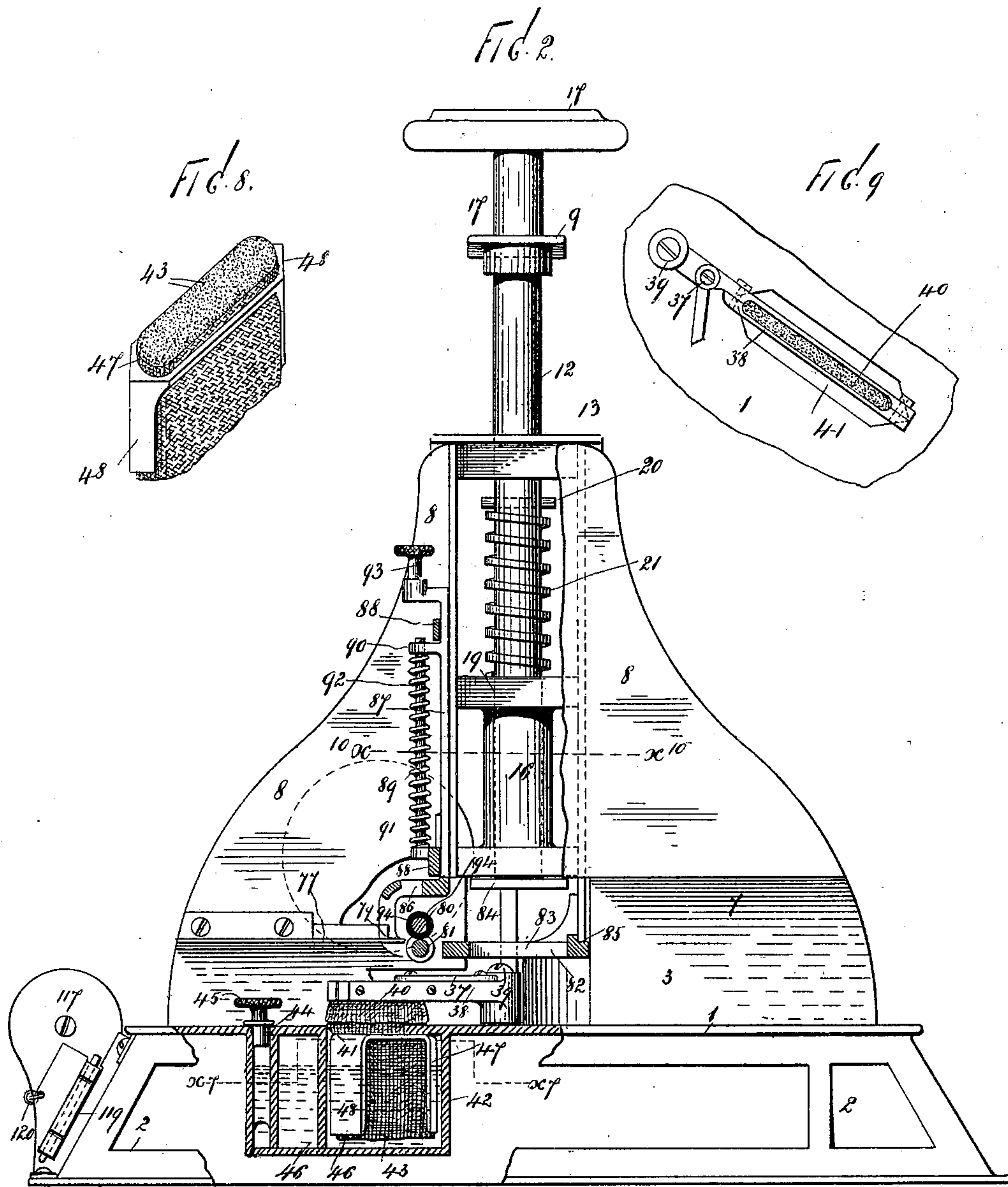
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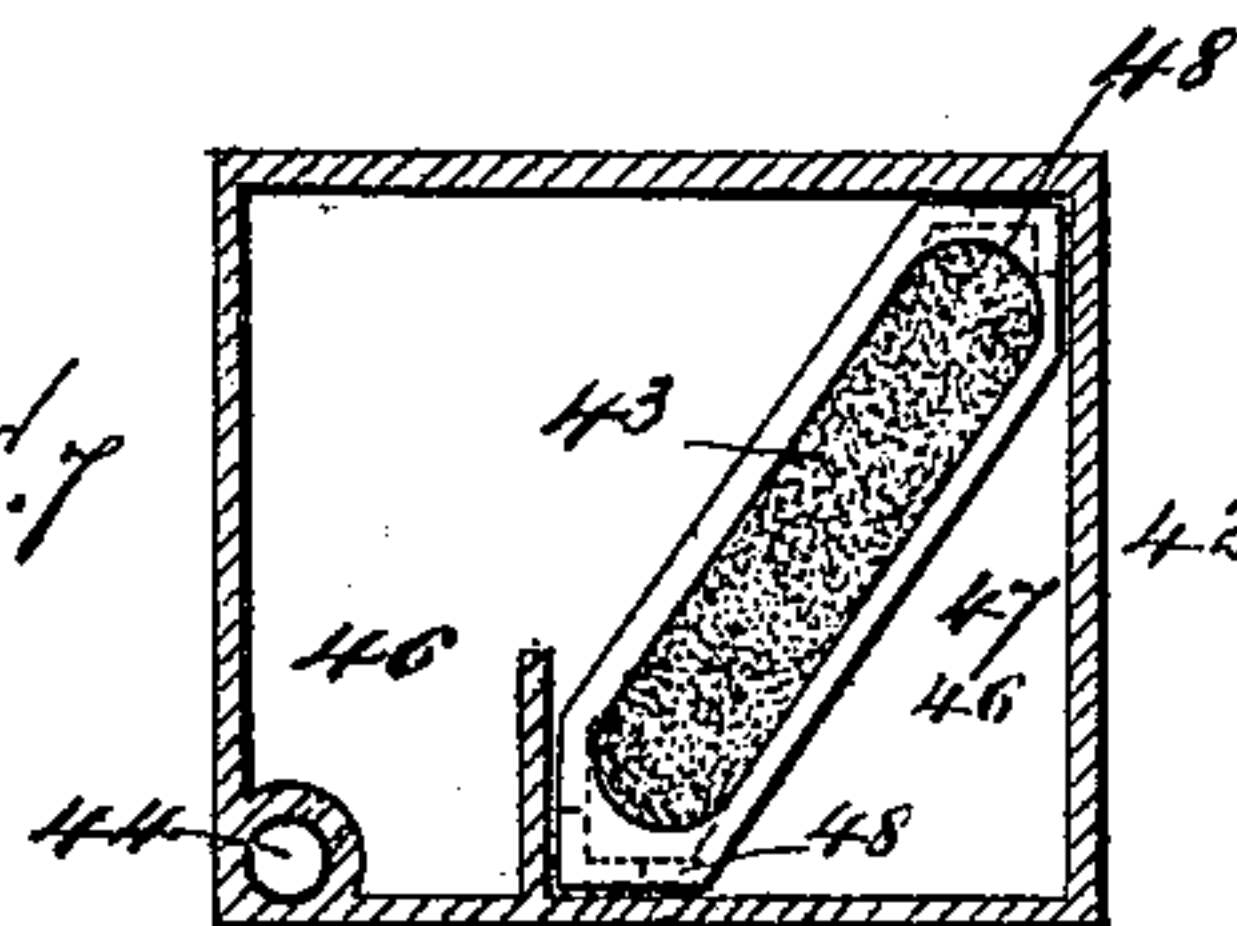
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FIG. 7



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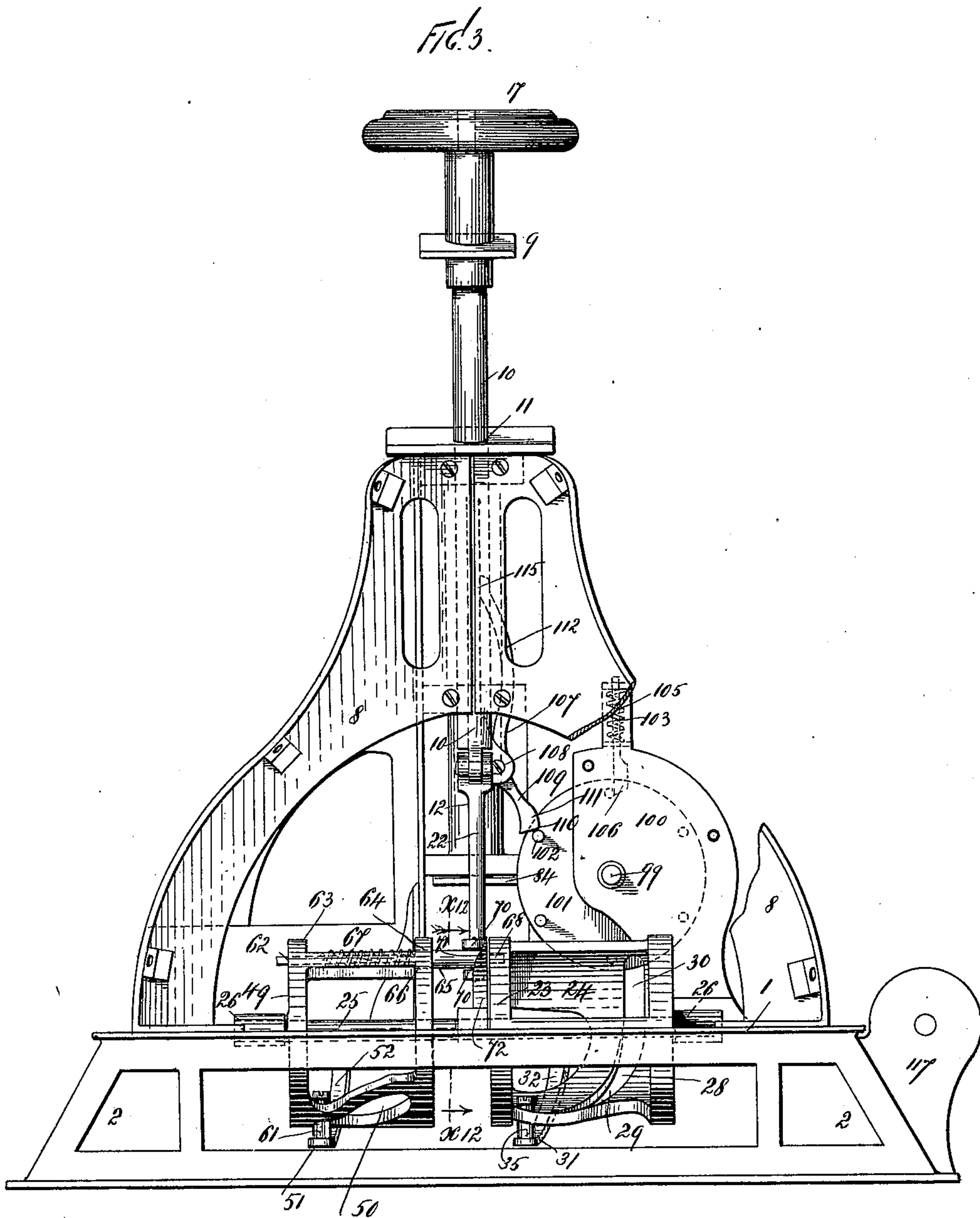
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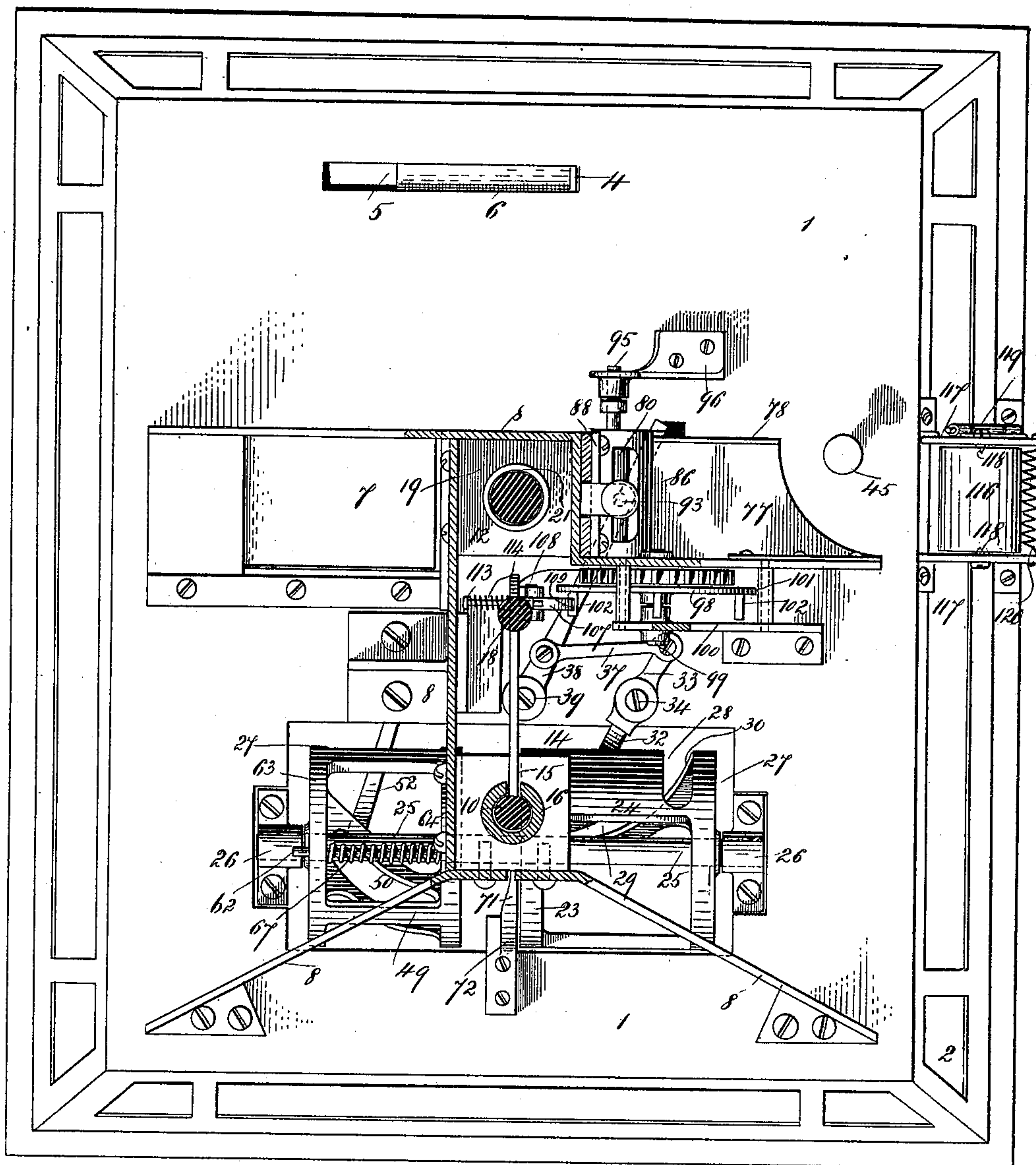
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FIG. 4.



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FIG. 5.

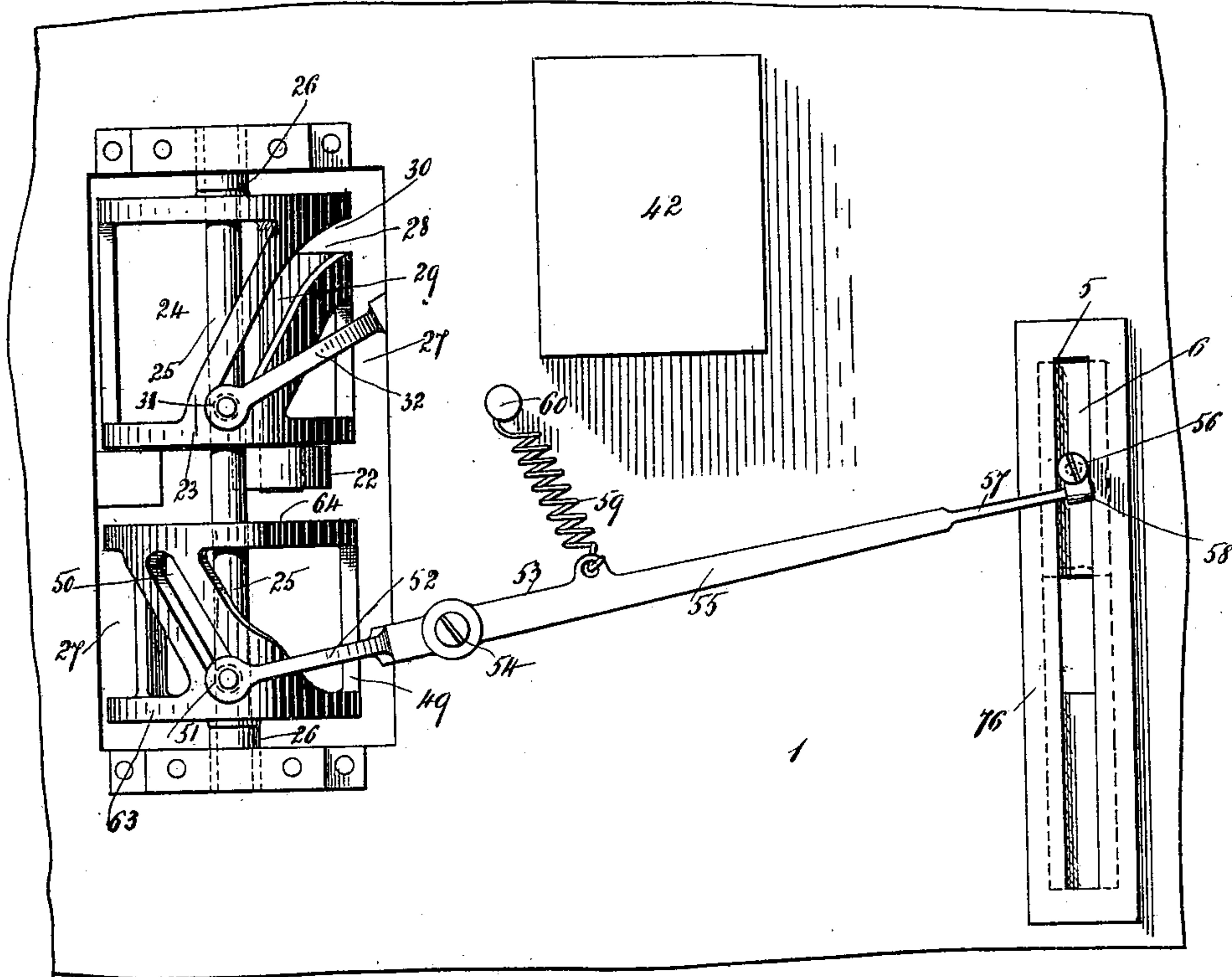


FIG. 11.

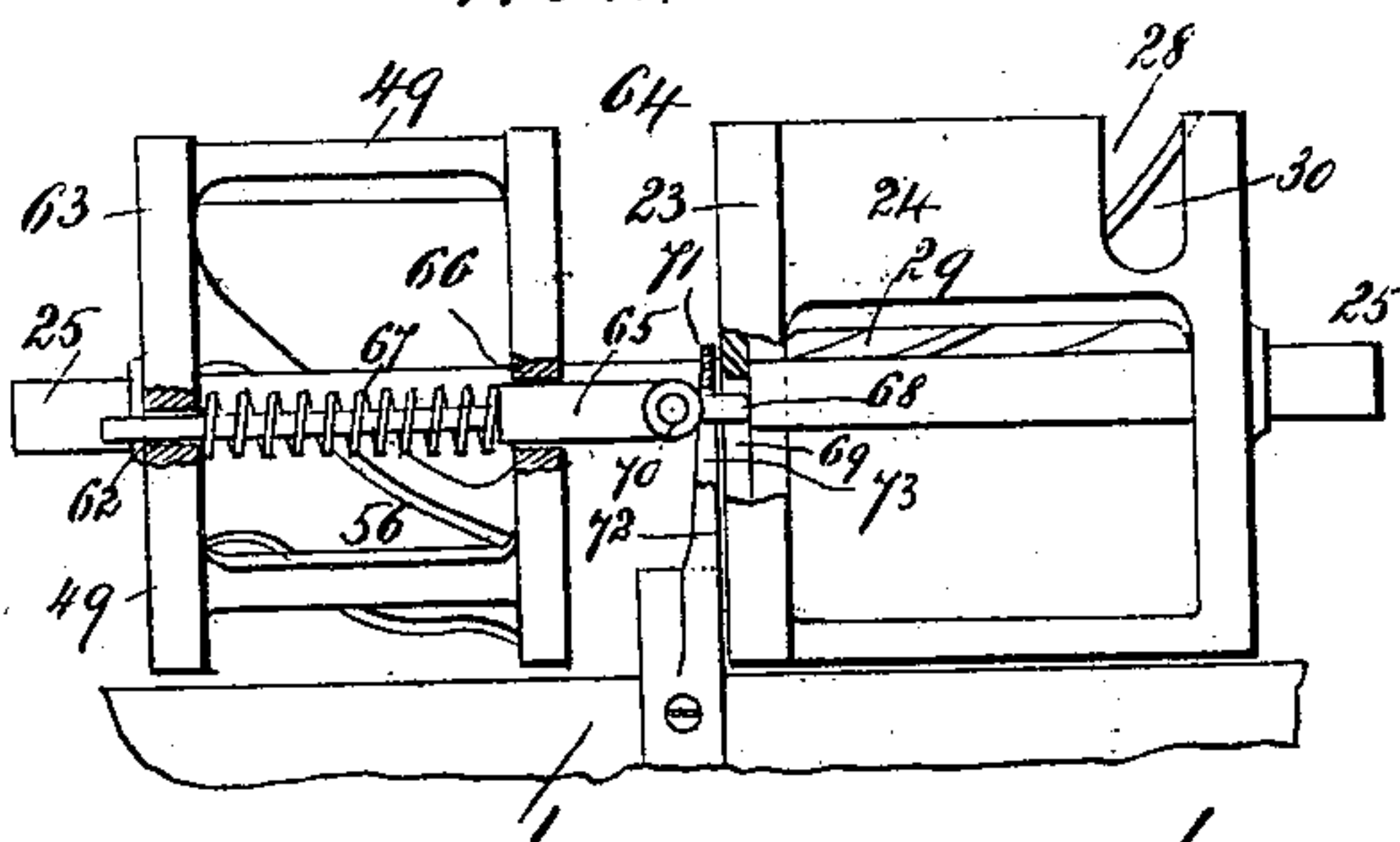


FIG. 12.

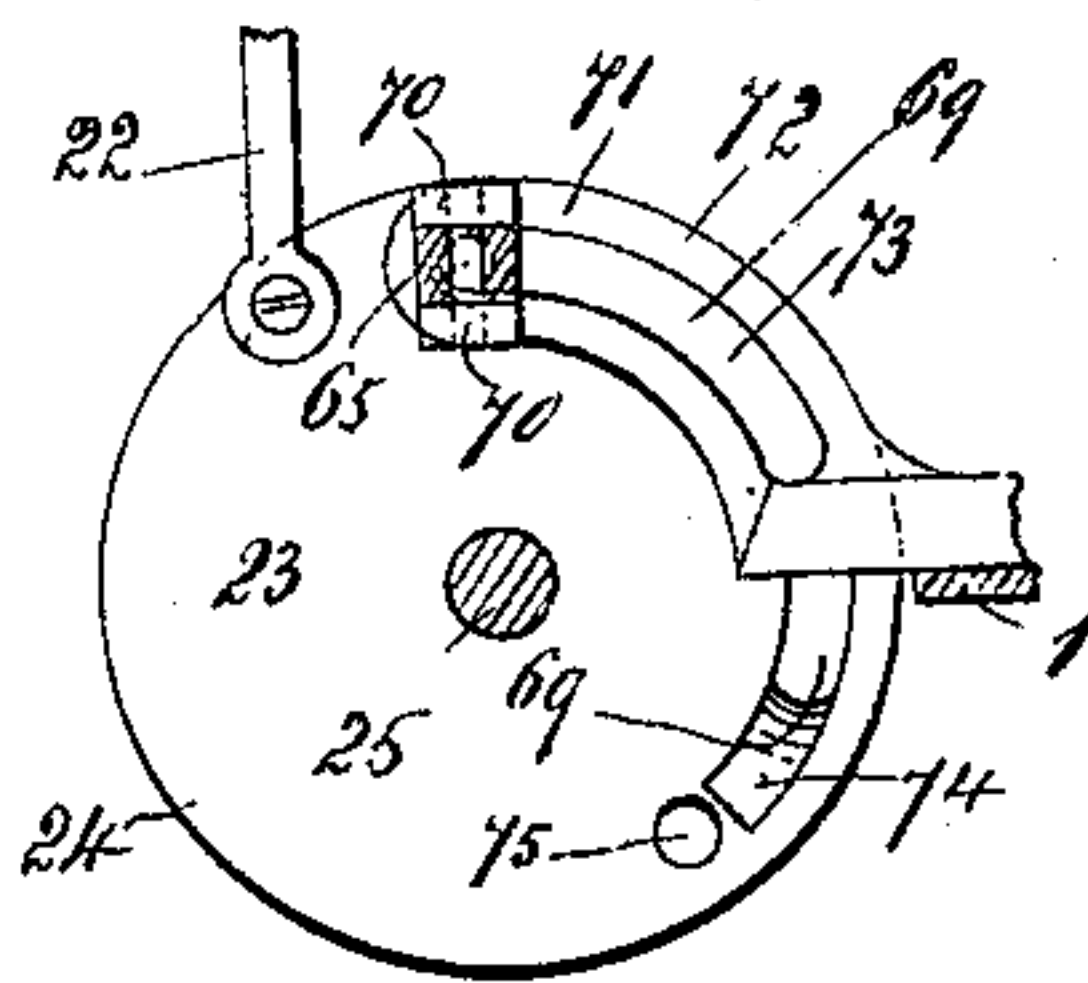
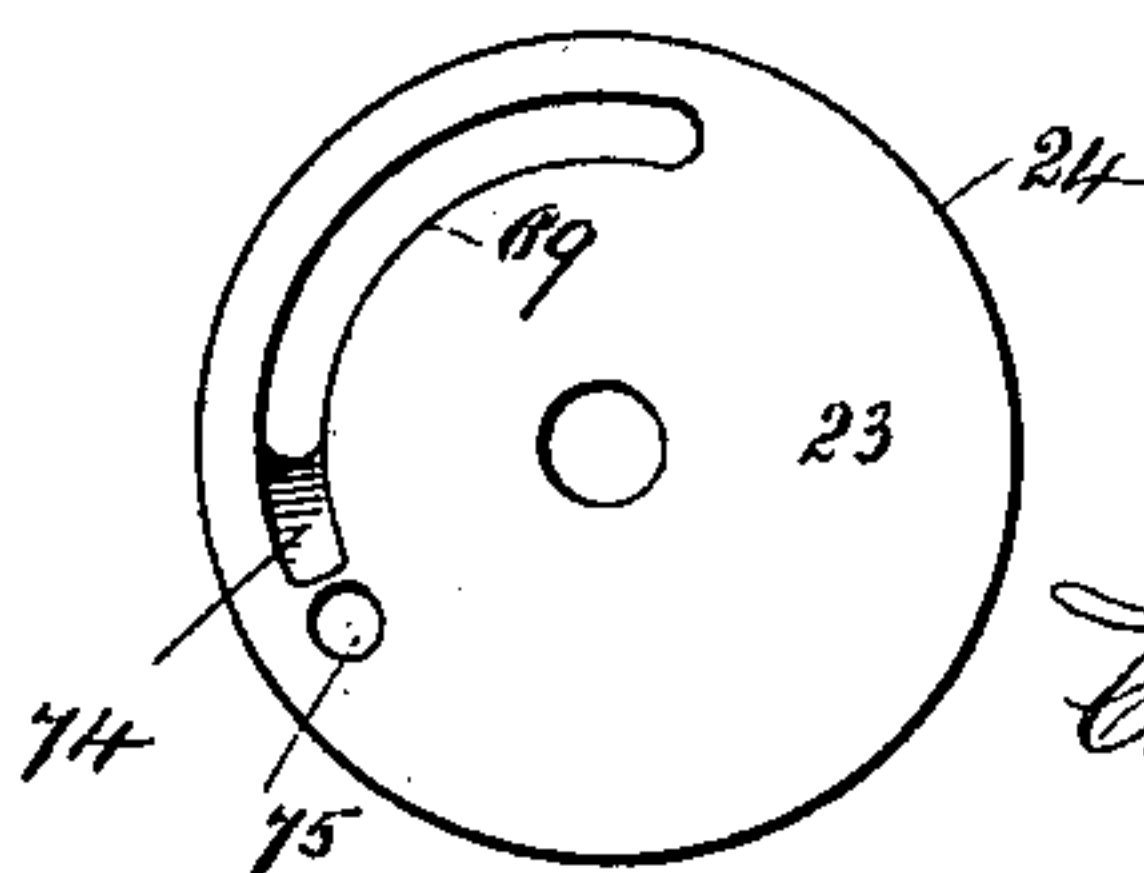


FIG. 6.



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UNITED STATES PATENT OFFICE.

LAURITS MARIUS NIELSEN AND CHARLES A. MADSEN, OF NEW YORK, N. Y.

ENVELOP-STAMPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 627,591, dated June 27, 1899.

Application filed January 5, 1898. Serial No. 665,607. (No model.)

To all whom it may concern:

Be it known that we, LAURITS MARIUS NIELSEN and CHARLES AUGUST MADSEN, citizens of the United States, residing at New York, (Brooklyn,) in the county of Kings and State of New York, have invented certain new and useful Improvements in Envelop-Stamping Machines, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to machines for stamping envelopes; and it has for its object to provide a simple and improved automatic machine of this character which will effectively operate in one continuous movement to feed the stamp, moisten the envelop, apply the stamp, and eject the stamped envelop.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of our improvement are designated by the same numerals of reference in each of the views, and in which—

Figure 1 is a side elevation of a machine embodying our improvements, parts being broken away. Fig. 2 is a front elevation, partly in section. Fig. 3 is a rear elevation, parts being broken away. Fig. 4 is a top or plan view, partly in section. Fig. 5 is an inverted plan view showing a portion of the under side. Fig. 6 is a detail side view showing the guide slot and groove in the end of the cam-drum. Fig. 7 is a detail horizontal sectional view taken on the line $x^7 x^7$, Fig. 2. Fig. 8 is a detail perspective view of the reservoir wick-carrying frame. Fig. 9 is a detail plan view of the outer end of the lever-arm carrying the moistening-pad, showing the adjacent slotted portion of the table. Fig. 10 is a detail horizontal sectional view taken on the line $x^{10} x^{10}$, Fig. 2. Fig. 11 is a top or plan view of the cam-drum mechanism, partly in section. Fig. 12 is a detail vertical sectional view taken on the line $x^{12} x^{12}$, Fig. 3, and looking in the direction of the arrows, parts being broken away to show the construction.

Referring to the drawings, 1 designates a table or platform upon which the envelopes are placed and which carries both above and below it the operating mechanism. This plat-

form is suitably elevated upon a framework or support 2.

The envelopes are placed one at a time, face up, at the front portion of the table or platform, with their right-hand edge against a transversely-arranged vertical guide-plate 3, projecting from the table 1, and with their top edges against an upwardly-projecting finger 4, extending through a transversely-arranged slot 5 in the table 1 and carried upon an ejector-slide 6, operating beneath said slot. The ejector device thus serves the additional office of a guide in the proper placing or setting of the envelop in position, and these two guide devices 3 and 4 are relatively arranged at right angles, so that they will operate to bring the upper right-hand corner of the envelop in direct position under the stamp-affixing plunger mechanism hereinafter described. The vertical guide-plate 3 preferably has a horizontal forwardly-extending top plate or flange 7, which forms a housing or guard for the envelop in the ejecting movement.

8 designates an upright framework which is mounted upon the table or platform 1 and carries part of the operating mechanism and also forms bearings for the main plunger mechanism by which the various devices are actuated.

The improved construction and arrangement comprised in our invention is designed to effect by a single stroke of the main plunger mechanism the simultaneous and correlative actuation of all the operative parts comprised in the machine in one complete but relatively successive series of movements. The plunger mechanism which thus actuates the various operative devices comprises a cross-head 9, arranged in a plane extending from front to rear of the machine and carrying at its rear end a vertical plunger-rod 10, guided in suitable bearings 11 in the main upright frame 8. This cross-head carries at its front end a vertical plunger-rod 12, which is guided in suitable bearings 13 at the front portion of the frame 8 and forms the operative plunger for affixing the stamps. The rear plunger-rod 10 is connected with and operates the stamp-moistening and the envelop-ejecting mechanism. The plungers 10 and 12 are preferably braced at their lower por-

tions by a connecting bar or plate 14, and for the purpose of bracing the plunger mechanism against lateral strain the respective ends of this cross-bar may travel in vertical slots 15 in tubular housings 16, comprised in the upright framework 8 and respectively arranged at the lower end portions of the plunger-rods 10 and 12, these rods being adapted to slide within said housings.

The cross-head 9 of the frame of the plunger mechanism operates above the main framework 8 and carries an operating-handle 17, and for purposes of greater strength a vertical connecting-rod 18 may be arranged to extend between the cross-head 9 and the lower cross bar or plate 14.

Upon the front plunger-rod 12, between a shoulder 19 comprised in the front portion of the framework 8 and a cross-piece or projection 20 on the plunger-rod, is mounted a coiled spring 21 of sufficient tension to return the main operating plunger mechanism and the various mechanisms with which it is directly connected and which it actuates to normal position after each downstroke of the main operating plunger mechanism.

The main operating plunger mechanism is preferably centrally arranged with relation to the machine, and to the lower rear end of the plunger-rod 10 is pivotally attached a connecting-rod 22, which extends downwardly and is pivotally attached to the inner end or head 23 of a cam-drum 24, mounted upon, but independently of, a transverse shaft 25, carried in bearings 26 upon the table or platform 1 and extending across a slot or opening 27 in the latter, in which slot or opening the cam-drum operates. The connection of the rod 22 with the head or end 23 of the cam-drum 24 is at a point eccentric to the bearing of said drum and in front of said bearing, as shown. It will be understood that the slot or opening 27 is arranged at the rear of the machine, back of the general operating mechanism and beneath the rear plunger-rod 10.

The moistening mechanism, stamp-feed mechanism, and stamp-affixing mechanism are directly connected with and actuated by the main operating plunger mechanism, while the envelop-ejecting mechanism is independently mounted and operated by the cam-drum 24, which latter operates the moistening mechanism. The envelop-ejecting mechanism is thus directly operated by the moistening mechanism and independently operated by the main plunger mechanism. The cam 24 and the similar cam-drum of the envelop-ejecting mechanism (to be hereinafter described) are arranged to describe only a partial revolution upon the shaft 25.

The cam-drum 24 is provided in its under portion with a cam-slot 28, embodying a main portion 29, extended at an oblique angle to the plane of the bearing of said drum, and a front extension 30 at approximately right angles to the plane of the bearing of the drum. This cam-slot is engaged by the lower rear

end 31 of an upwardly-curved rear arm 32, projecting through the slot or opening 27 and comprised in a lever 33, fulcrumed, as at 34, upon the table or platform 1 at a point adjacent to the front edge of the opening or slot 27 and in front of the cam-drum 24. The lower end 31 of this lever may be provided with a friction-roller 35 for engagement with the cam-slot 28. To the front arm 36 of the lever 33 is pivoted a connecting-rod 37, extending transversely inwardly toward the center of the machine and having its inner end pivotally connected to a lever-arm 38, fulcrumed, as at 39, upon the table or platform 1 and projecting forwardly, so that its outer end will swing over the table and under the bottom end or head of the stamp-affixing plunger-rod 12. The connecting-rod 37 is affixed to the lever-arm 38 at a point in front of the fulcrum 39 of the latter.

The front end of the lever 38 carries a moistening-pad 40, adapted to be carried over the end or point of the envelop when the latter is placed in position and moisten the same. In the initial position of the lever-arm 38 the moistening-pad 40 will rest over a slot or opening 41 in the table or platform 1, provided at the left-hand side of the plane of movement of the stamp-affixing plunger-rod 12. Beneath this opening 41 is provided a reservoir 42, carried upon the under side of the table or platform 1 and containing a feeding wick or pad 43, the top portion of which projects through the slot or opening 41, so that the moistening-pad 40 comes in contact with the same when the lever-arm 38 is at rest at the point of its initial movement. The reservoir 42 is adapted to contain a suitable quantity of water or other fluid, which may be fed to the reservoir through an opening 44 in the table 1, which opening is closed by a plug or stopper 45. The reservoir is preferably divided into a series of communicating compartments, as at 46, and between the angles formed by the vertical walls or partitions of the last or main compartment is adapted to be fitted an angular frame 47, with V-shaped ends 48 fitting the corner angles of said compartment, which frame carries the feeding-wick 43 and retains the same in proper position. This angular frame 47 may be passed through the slot or opening 41 to enable the mounting of the same in position.

When the mechanism is in normal position, the rear lower end 31 of the lever 33 will rest at the inner end of the oblique portion 29 of the cam-slot 28 of the cam-drum 24. When the main plunger mechanism is depressed in its downstroke, said end 31 will travel in the oblique portion 29 of said cam-slot as said cam-drum is turned by the connecting-rod 22, and in this travel the lever 33 and connecting-rod 37 and the lever-arm 38 are actuated, so that the latter swings in a full movement to carry its outer end and the moistening-pad 40 under the stamp-affixing plunger 12 and across the surface of the envelop. When

this limit of outer movement of the lever-arm 38 is reached, the lower end of the stamp-affixing plunger will still be in a position above, but just above, the plane of movement of said arm, and as the drum 24 is further turned during the continued downward movement of the stamp-affixing plunger 12 in the operation of affixing the stamp the lower rear end 31 of the lever 33 will travel in the right-angle front extension 30 of the cam-slot 28, and the lever mechanism carrying the moistening-pad 40 will consequently remain in stationary position. On the automatic return movement of the main operating plunger mechanism by action of the return-spring 21 the end 31 of the lever 33 will travel rearwardly in the transverse front extension 30 of the cam-slot 28 while the lower end of the stamp-affixing plunger 12 is moving to a position above the plane of movement of the lever-arm 38, and as soon as said end 31 of the lever 33 reaches the oblique portion 29 of the cam-slot in the reverse operation of the cam-drum 24 the lever mechanism carrying the moistening-pad 40 will be again actuated to swing the lever-arm 38 back to normal position.

49 designates a cam-drum which is independently mounted upon the shaft 25 at the right-hand side of the cam-drum 24. In their relative positions upon the shaft 25 the cam-drums 24 and 49 are arranged so that their inner ends or heads will be separated a suitable distance, and the connecting-rod 22, by which the cam-drum 24 is operated, projects within this intervening space. The cam-drum 49 is provided in its under portion with a cam-slot 50, extended at an oblique angle to the plane of the bearing of said drum and engaged by an upwardly-projecting lower end 51 upon the upwardly turned or curved rear arm 52 of a lever 53, fulcrumed, as at 54, upon the under side of the platform or table 1 near the front edge of the slot or opening 27, the front arm 55 of said lever being arranged to extend forwardly and connect with a downwardly-projecting arm 56 upon the ejector slide-plate 6. Inasmuch as the slide-plate operates in a direct transverse plane with relation to the arc described by the outer end of the lever 53 in the swinging movement of the latter, a sliding connection is provided between said lever and the arm 56 of the plate 6, which sliding connection is preferably formed by a cylindrical finger 57 at the front end of the lever 53 engaging a corresponding eye or opening in a lateral projection 58 upon the arm 56. To provide for the independent return of the ejector mechanism to normal position, a coiled spring 59 is arranged to extend at the left-hand side of the lever 53 from a point in front of its fulcrum to a pin or stud 60 upon the under side of the table 1. The upwardly-projecting lower rear end 51 of the lever 53 may be provided with a friction-roller 61, operating in the cam-slot 50.

The cam-drum 49, which operates the ejector mechanism, carries at its top a transverse rod 62, having sliding bearings in the outer and inner ends or heads 63 and 64, respectively, of the drum. The head 65 of this rod 62 has a square or angular sliding bearing 66 in the inner head 64 of the drum 49 to prevent lateral movement of said rod, and a coiled spring 67 is mounted upon the rod between the shoulder formed by said angular head and the outer end or head 63 of the drum, the tendency of said spring being to force the head 65 outwardly from the inner face of the drum. This projecting head 65 has a finger 68 at its outer end, which projects into a segmental slot 69, formed at the top portion of the inner head 23 of the drum 24, and back of said finger end 68 the head 65 is provided with top and bottom horizontally-arranged rollers 70, which are adapted to bear against a guide-track 71, formed by a bracket-arm 72, projecting upwardly and forwardly from the table 1, in rear of the slot or opening 27 therein, into the space between the two cam-drums, the track-arm of this bracket being arranged adjacent to and in parallel position with the inner head 23 of the drum 24 and being provided with a segmental slot 73, corresponding to the slot 69 and adapted to accommodate the finger 68 upon the sliding rod 62. The guide-track 71 inclines rearwardly toward the inner end or head of the cam-drum 49, as shown. The outer face of the end or head 23 of the cam-drum 24 is provided at the lower rear end of the segmental slot 69 with an incline 74, extending from the base of said slot to the outer face of said end or head 23 and leading to an eye or opening 75 in said head 23, which eye or opening is adapted to be engaged by the finger 68 of the sliding rod 62.

The lower rear end 51 of the lever 53 is normally at the outer end of the cam-slot 50 of the cam-drum 49, and the outer end of the lever 53 projects therefrom toward the left-hand side of the machine, so that the ejecting slide-plate 6 rests at the left-hand end of its slot 5. When the main plunger operating mechanism is depressed and the drum 24 turns forwardly until the lower rear end 31 of the lever 33 has just entered the forwardly-projecting transverse extension 30 of the slot 28, at which time the lever 33 will have completed its swing in the moistening operation, the finger 68 of the sliding rod 62 will have traveled to the rear end of the segmental slot 69 in the inner head of the drum 24 and be just at the entrance of the guide-incline 74. During this movement just described the cam-drum 49 of the ejector mechanism and all the mechanism connected therewith will have remained stationary. Then in the further operation of the drum 24 while the stamp-affixing plunger 12 is completing its full downward movement the finger 68 of the sliding rod 62 will travel over the incline 74 and the sliding rod 62 will be forced inwardly against the tension of its spring 67 until the

finger 68 slips back into the eye or opening 75 by reason of the return action of the spring 67. At the point of operation just described the stamp -affixing plunger 12 will have reached its full limit of downward movement and the stamp will have been affixed to the envelop, while the cam-drum 49 of the ejector mechanism still remains stationary, but has been locked in connection with the cam-drum 24. As the main operating plunger mechanism returns to normal position from its downward stroke by action of the returning-spring 21 the cam-drum 24 turns rearwardly and carries with it the cam-drum 49 in a corresponding rearward movement, during which operation the rollers 70 70 upon the sliding rod 62 travel upon the inclined guide-track 71 of the arm of the bracket 72, and the sliding rod 62 is forced inwardly with respect to the drum 49 until its finger 68 slips from engagement with the eye or opening 75 in the drum 24. At the point in the operation just described the stamp-affixing plunger 12 has reached a position just above the plane of movement of the moistening-pad arm 38 and said arm has still remained in stationary position, while the rear lower end 31 of the lever 33 has been accommodated in the forward extension 30 of the cam-slot 28 and has just reached the front end of the oblique portion 29 of said slot. During the movement just stated, which is quick or instantaneous by reason of its being spring-actuated by operation of the return-spring 21, the rearward movement of the cam-drum 49 has caused the lower rear end 51 of the lever 53 to travel in the cam-slot 50 until it reaches the inner end of said slot, thus operating said lever 53 in a quick swing against the tension of its spring 59 to cause the ejector-slide 6 to move quickly in its slot 5 toward the right-hand side of the machine, and thus eject the stamped envelop. As soon as the finger 68 of the sliding rod 62 has slipped from engagement with the eye or opening 75 of the cam-drum 24 the cam-drum 49 is released from its locking connection with said cam-drum 24 and the spring 59 operates to return the ejector mechanism and its cam-drum 49 instantly to normal position, and the finger 68 of the sliding rod 62 again enters the rear end of the segmental slot 69 in the cam-drum 24, while the latter continues its reverse rearward turn under action of the main returning-spring 21 to carry the moistening mechanism back to its initial position in the manner hereinbefore described.

From the foregoing description it will be understood that the return movement of the moistening and stamp-affixing mechanisms are instantaneous, being spring-actuated by the returning-spring 21, while both the forward and return movements of the ejector mechanisms are instantly accomplished at an intermittent point in the return movement of the other mechanisms under action of its returning-spring 59. The respective operations above described are all accomplished by a

single stroke of the main plunger operating mechanism, on the downstroke of which the moistening mechanism is first operated and then the stamp-affixing mechanism, and then on the spring-actuated return movement of the main operating plunger mechanism while the stamp-affixing mechanism is being returned the ejector mechanism is operated in a complete movement, and then the moistening mechanism is returned to normal position.

The ejector-slide 6 is arranged to operate in a suitable guide 76, arranged at the under side of the table 1 with respect to the transverse slot 5.

The stamp-feeding mechanism is adapted to feed the stamps one at a time from a continuous roll or strip into position immediately under the stamp-affixing plunger-rod 12. This stamp-feeding mechanism comprises a horizontal transversely -arranged guide-plate 77, carried upon the front portion of the upright frame 8 at a suitable point of elevation above the plane of movement of the arm 38 of the moistening mechanism. This guide-plate is arranged at the left-hand side of the machine and is provided with an outer edge flange 78, and its inner end projects with relation to two feed-rolls 80 and 81, respectively, at the left-hand end of a horizontal stamp-guiding frame 82, projecting from the front portion of the upright frame 8 and mounted with relation to the stamp-affixing plunger-rod 12 and in elevated position above the plane of movement of the arm 38 of the moistening mechanism. This stamp-guiding frame is adapted to receive a single stamp as it is passed from between the feed-rolls, and said frame is provided with a rectangular opening 83, through which the corresponding die or platen 84 upon the lower end of the stamp-affixing plunger-rod 12 is adapted to pass. The opening 83 and the platen 84 correspond in size and contour to the stamp. At the right-hand side of the stamp-receiving frame 82 may be provided a vertical flange or ridge 85, against which the outer edge of the stamp will abut, so that its position with relation to the opening 83 is insured.

A single stamp is adapted to be fed from between the feed-roll to the receiving-frame 82 while the stamp-affixing plunger-rod is moving downward, so that when the bottom 84 of said plunger-rod reaches the frame 82 the stamp will be in accurate position over the opening 83 and will be carried through said opening and affixed to the envelop by the further downward movement of said plunger-rod.

The lower feed-roller 81 is arranged to bear, under tension of spring mechanism, against the under side of the upper feed-roll 80 for the purpose of properly governing the passage of the stamp and at the same time enable the proper separation of said rolls for the initial insertion of the stamp-strip when

desired. For this purpose the lower feed-roll 81 is preferably journaled in and carried by a supplementary frame 86, having a vertical extension 87, adapted to slide vertically in suitable guides 88, carried upon the left-hand side of the front portion of the upright framework 8, said supplementary frame being sustained in position by means of a coiled spring 89, arranged between a suitable shoulder or projection 90 upon the vertical extension 87 of the supplementary frame and a shoulder or projection 91 upon the main frame. This vertical coiled spring 89 may be carried around a rod 92, projecting upwardly from the shoulder 91 of the main frame and adapted to slide in a guide eye or opening in the shoulder 90 upon the supplementary frame, which rod will form a suitable guide or brace device in the sliding operation of the supplementary frame. A head or knob 93 may be provided at the top of the supplementary frame, by means of which it may be conveniently depressed against the tension of the spring 89 to carry the roll 81 downwardly from engagement with the roll 80. The feed-rolls 80 and 81 may be provided with an elastic friction-surface 94, as shown.

The top feed-roll 80 is carried by a rotary shaft 95, having its front end bearing in a bracket 96, projecting from the table 1, and its rear end bearing in the front portion of the upright framework 8. This rear end carries a pinion 97, meshing with a gear-wheel 98, carried in suitable position above the pinion by a shaft 99, having its front end bearing in the front portion of the upright framework 8 and its rear end bearing in a supplementary frame 100, arranged in rear thereof.

It will be understood that the gear-wheel 98 is arranged in transverse position with relation to the machine and with relation to the feed-rolls, and upon the rear face of said gear-wheel is secured a disk or plate 101, preferably of larger diameter than the gear-wheel and carrying a circular series of equidistantly-arranged projecting pins 102, the relative construction and arrangement being such that movement of the gear-wheel 98 a distance corresponding to the space between each pair of these pins will operate the feed-roll mechanism sufficiently to cause the movement of one stamp into position with relation to the stamp-affixing plunger.

The gear-wheel 98 is locked against a rearward or return movement at the termination of each of its intermittent movements for the feeding of a single stamp by means of a vertical spring-actuated locking-pin 103, sliding in suitable bearings at the top of the supplementary frame 100 and provided with a stop or shoulder 104, bearing with relation to the frame 100 and limiting the downward movement of the locking-pin, a governing coiled spring 105 being arranged between said stop or shoulder and the top portion of the frame 100. This locking-pin is adapted at the final period of the respective intermittent move-

ments of the gear-wheel 98 to slide over the respective lateral pins 102 and drop in rear of the latter by action of its coiled spring 105, thus locking the gear-wheel 98 against any reverse movement, but at all times permitting its forward intermittent movement. The locking-pin is provided with a beveled or inclined bottom edge 106 to facilitate its passage over the pins 102.

The gear-wheel 98 is intermittently rotated by means of a vertically-arranged spring-actuated pawl 107, carried upon the main plunger operating mechanism in a suitable position with relation to the laterally-projecting pins 102. This pawl is preferably fulcrumed, as at 108, upon the cross bar or plate 14, which extends between the lower portions of the plungers 10 and 12. The lower end or arm 109 of the pawl below its fulcrum projects outwardly, so that its bottom edge 110 will bear downwardly upon one of the lateral pins 102 of the gear-wheel 98 on the downstroke of the main plunger mechanism, and thus carry the gear-wheel in a partial revolution equivalent to the distance between two of its pins. At the termination of this partial movement of the gear-wheel the lateral pin will be carried, by reason of its rotary plane of travel, from beneath the pawl as soon as the distance traversed by the gear-wheel equals the space between two of said lateral pins, when the pawl will be simply carried farther downward in the continued downstroke of the main plunger operating mechanism.

It will be understood that each engagement of the pawl with the respective pins 102 will operate the stamp-feed mechanism so that it feeds exactly one stamp into position beneath the stamp-affixing plunger 12.

On the upstroke of the main operating plunger mechanism the pawl will bear against the pin 102 next above that which has just been engaged in the downstroke of the pawl, and the latter will be forced inwardly by said pin until it passes over the same, when it will slip outwardly into position over the pin, ready for the next downstroke, as shown in Fig. 3. To facilitate this passage of the pawl beyond the pin, the outer edge of its lower arm 109, just above its bottom edge 110, is curved or beveled, as shown at 111. During this slipping operation of the pawl back of and into position above the lateral pin 102, which is to be operated on the next downstroke, the gear-wheel 98 is maintained in fixed position with respect to any reverse movement by means of the locking-pin 103.

The pawl is provided above its fulcrum with a top arm 112, and the spring mechanism by which the pawl is placed in position above the pin 102 after it has passed by and against the latter on its upward stroke is connected with this arm. This spring mechanism preferably comprises a headed cross-pin 113, passing through an opening in the horizontal plate 14 and having its front end connected to the top end of the pawl-arm 112,

a coiled spring 114 being interposed between the head of said pin and the face of the cross-plate 14 opposite that upon which the pawl is fulcrumed. The top inner edge 115 of the top arm 112 of the pawl bears against the face of the cross-plate 14 when the pawl is in normal position above the pin 102, upon which it is to operate, and by having the headed pin 113 adjustable, by means of a screw-thread or in any other suitable manner, in the top end of the pawl-arm 112 an adjustment of the normal relation of the lower edge 110 of the pawl with respect to its position above the pin 102 may be effected.

When the main plunger operating mechanism is in normal position, the lower end of the pawl is in position immediately above one of the lateral pins 102. (See Fig. 3.) On the downstroke of the main plunger operating mechanism, when the pawl has turned the stamp-feed mechanism in one of its intermittent movements to feed a single stamp into position above the receiving-plate 82 and has just passed from engagement with said lateral pin 102, the lower end of the stamp-affixing plunger 12 will have reached a point immediately above said stamp-receiving plate 82, and the arm 38 of the moistening mechanism will have passed beyond the plane of the stroke of said stamp-affixing plunger. A stamp has now been fed into position above the plate 82 and with relation to the opening 83 therein, and on the further downstroke of the main plunger operating mechanism the pawl 107 will swing free from engagement with the stamp-feeding mechanism and the lower platen end or die 84 of the stamp-affixing plunger 12 will pass through the opening 83 in the plate 82 and operate to cut the stamp at the edge of said opening from its strip and carry the same downwardly through the opening into position upon the moistened surface of the envelop.

The strip of stamps is preferably carried upon a spool 116, mounted at the left-hand side of the machine and in proper relation to the guide-plate 77. This spool is preferably carried between two arms or levers 117 117, carried upon the supporting-frame 2 of the table 1 and projecting above the latter. These arms carry at their inner faces projecting studs or gudgeons 118, received by corresponding bearing-recesses in the ends of the spool. To enable convenient insertion and removal of the spools, one of the side plates 117 is hinged, as at 119, and is adapted to swing outwardly with relation to the other side plate, the hinged plate being retained in position by a coiled spring 120 extending between the two plates 117 and serving by its tension to retain the plates in proper relative position and also govern the rapidity of revolution of the spool.

The operation and advantages of our invention will be readily understood from the foregoing description taken in connection with the drawings. It will be noted that the

moistening mechanism, stamp-feeding mechanism, stamp-affixing mechanism, and the ejector mechanism are all operated in a simultaneous but correlative and successive series of movements by one single stroke of the main plunger operating mechanism, the sequence of action of the various parts being as follows: First, the moistening mechanism is operated and simultaneously with it the stamp-feed mechanism, then the stamp-affixing mechanism operates, then the ejector mechanism operates in a complete movement as the stamp-affixing mechanism is returning to normal position, and then said stamp-affixing mechanism and the moistening mechanism are returned to normal position. The return movements of all the different mechanisms are automatically effected. The moistening mechanism and stamp-affixing mechanism are directly connected with the main operating plunger mechanism, the stamp-feed mechanism has an intermittent engagement with said operating mechanism, and the ejector mechanism has an indirect connection with said main operating mechanism by engagement with the moistening mechanism.

The machine is exceedingly compact and is simple, effective, convenient, and rapid in operation.

Having fully described our invention, we claim as new and desire to secure by Letters Patent—

1. In an envelop-stamping machine, a moistening mechanism comprising a cam-drum provided with an angular slot comprising a portion extending obliquely with respect to the bearing of the drum and a forward extension at right angles to said bearing, in combination with a lever mechanism carrying moistening devices and engaging said angular slot in the drum, whereby said lever mechanism is swung during engagement with the oblique portion of the slot and remains stationary in the extension of said slot during the further turn of the drum, substantially as and for the purpose set forth.

2. In an envelop-stamping machine, the combination, with a vertically-operating stamp-affixing plunger mechanism, of a cam-drum having an angular slot comprising a portion arranged obliquely to the bearing of said drum and a portion extending at right angles to the bearing, connection between said plunger mechanism and the drum, and a horizontal lever mechanism carrying moistening devices and engaging the angular slot in the drum, whereby on the downstroke of the plunger mechanism the drum is operated to swing the lever mechanism under the stamp-affixing plunger as said lever mechanism engages the oblique portion of said slot said moistening mechanism remaining stationary during the further downstroke of the plunger as said lever mechanism engages the extension of said slot, substantially as and for the purpose set forth.

3. An envelop-stamping machine, compris-

ing a vertically-operating stamp-affixing plunger, a guide-plate arranged transversely with relation to the plane of movement of the plunger and adapted to guide one edge of the envelop, and an ejector-slide arranged to project at right angles to said guide-plate and forming a supplementary guide for the other edge of the envelop, substantially as and for the purpose set forth.

4. An envelop-stamping machine, comprising a vertically-operating stamp-affixing plunger operating above a table or platform, a guide-plate mounted upon said table or platform adapted to position an envelop beneath the plunger and having a projecting top flange, and an ejector-slide operating parallelly with relation to said flanged guide-plate and projecting at right angles thereto, said guide-plate and projecting portions of the ejector-slide conjointly forming a guide in the placing of the envelop, substantially as and for the purpose set forth.

5. In an envelop-stamping machine, the combination, with a guide-plate against which one edge of the envelop is adapted to bear, said guide-plate having a flange projecting at its top, of an ejector-slide operating parallelly with relation to said guide-plate and having a projecting portion arranged at right angles thereto and forming a supplementary guide for the other edge of the envelop, whereby said guide-plate and the projecting portion of the ejector-slide conjointly form guides in the placing of the envelop and the guide-plate retains and guides, the envelop as it is ejected by the operation of the ejector-slide, substantially as and for the purpose set forth.

6. An envelop-stamping machine, comprising an ejector mechanism, and a moistening mechanism intermittently engaging and operating said ejector mechanism, whereby the ejector mechanism is actuated in a complete movement at an intermediate point in the operation of the moistening mechanism, substantially as and for the purpose set forth.

7. In an envelop-stamping machine, a cam-drum, a lever to operate in an ejector mechanism and engaging said cam-drum, a cam-drum connected with and operating moistening mechanism, and devices for locking said drums together and disconnecting the same at an intermediate point in the operation of the moistening-mechanism drum, substantially as and for the purpose set forth.

8. An envelop-stamping machine, comprising a cam-drum having a slot obliquely arranged with relation to the bearing of the drum, moistening mechanism embodying a lever engaging said slot, a supplementary cam-drum having a slot obliquely arranged with respect to the bearing of the drum, a lever engaging said slot an ejector mechanism operated by said lever, and automatic devices for locking said drums together and disconnecting the same at an intermediate point in the movement, substantially as and for the purpose set forth.

9. An envelop-stamping machine, comprising a main operating plunger mechanism carrying a stamp-affixing plunger, a cam-drum connected with said main operating plunger mechanism, lever mechanism adapted to swing beneath the stamp-affixing plunger and engaging said cam-drum, a supplementary cam-drum, ejector mechanism a lever connected therewith and engaging said supplementary cam-drum, and devices for connecting said drums and disconnecting the same at an intermediate point in their movements, whereby the stamp affixing and moistening and ejector mechanisms are all simultaneously operated in relatively successive movements upon one stroke of the main operating plunger mechanism, substantially as and for the purpose set forth.

10. An envelop-stamping machine, comprising a main operating plunger mechanism carrying a stamp-affixing plunger, a moistening mechanism connected with and operated by said main operating plunger mechanism in an intermittent movement with relation to the stamp-affixing plunger, and an ejector mechanism engaging said moistening mechanism at an intermediate point in its operation, whereby the stamp-affixing and stamp-moistening mechanisms are directly and the ejector mechanism is indirectly successively operated by a stroke of the main operating plunger mechanism, substantially as and for the purpose set forth.

11. An envelop-stamping machine, comprising a main operating plunger mechanism carrying a stamp-affixing plunger, a moistening mechanism connected with and operated by said main operating plunger mechanism, means for returning said main plunger mechanism and the moistening mechanism to normal position, an independently-arranged ejector mechanism, means for engaging the ejector mechanism with the other operative mechanism and for disengaging it therefrom at an intermediate point in the movement thereof and means for independently and automatically returning the ejector mechanism to normal position, substantially as and for the purpose set forth.

12. An envelop-stamping machine, comprising a main operating plunger mechanism embodying a vertically-operating stamp-affixing plunger and a vertically-operating supplementary plunger, a cam-drum having a slot obliquely arranged with relation to the bearing of said drum, a lever engaging said slot and comprised in a mechanism embodying an arm carrying a moistening device adapted to be swung under the stamp-affixing plunger, said drum having an opening in its head or end, a connecting-rod extending between the supplementary plunger and said drum, a supplementary drum having a slot arranged obliquely with respect to the bearing of the drum and at a reverse angle to the oblique slot in the other drum, said supplementary drum carrying a spring-actuated catch adapt-

ed to engage the opening in the end of the main drum at a point during the movement of the latter, a lever engaging the slot in the supplementary drum and connected with and
 5 operating an ejector device, means for disengaging the spring-actuated catch of the supplementary drum from the opening in the end of the main drum during the conjoint movement of said drums, and means for re-
 10 turning the supplementary drum to normal position, substantially as and for the purpose set forth.

13. An envelop-stamping machine, comprising a main operating plunger mechanism carrying a vertically-operating stamp-affixing
 15 plunger and a supplementary plunger, means for returning said main operating plunger mechanism to normal position, a cam-drum having an angular slot embodying a portion
 20 arranged obliquely with respect to the bearing of the drum and an end extension at right angles to said bearing, said drum having an opening in its end or head, a lever engaging the angular slot in said drum and comprised
 25 in a moistening mechanism embodying a swinging arm carrying a moistening device and adapted to move under the stamp-affixing plunger, a connecting-rod between the supplementary plunger and said cam-drum,
 30 a supplementary cam-drum having a slot arranged obliquely with respect to the bearing of the drum and at right angles to the oblique portion of the slot in the main drum, a lever engaging the slot in the supplementary drum and comprised in an ejection
 35 mechanism, means for returning said supplementary drum to normal position, a spring-actuated catch carried by the supplementary drum and projecting from its end or
 40 head and adapted to engage the opening in the head of the main drum, and an inclined guide-track engaging said catch and adapted to throw the same from engagement with said opening, substantially as and for the purpose
 45 set forth.

14. In an envelop-stamping machine, a stamp-feed mechanism comprising a gear-wheel having at one face a circular series of
 50 equidistant laterally-projecting pins, feed-rolls having gear engaging said gear-wheel, a spring-actuated pawl or lever adapted to successively engage said pins, and a spring-actuated catch adapted to engage said pins to lock the gear against reverse movement
 55 during the return stroke of the spring-actuated operating-pawl, substantially as and for the purpose set forth.

15. An envelop-stamping machine, comprising a platform or table upon which the envelop is adapted to be placed in position, an
 60 upright framework carried by said table, a vertically-mounted main operating plunger mechanism carrying a stamp-affixing plunger, a horizontally-arranged moistening mechanism mounted above the table and adapted to

swing beneath the vertically-operating stamp-affixing plunger, said moistening mechanism being directly connected to the main plunger
 operating mechanism, an ejector mechanism mounted beneath the table and operating in
 70 a slot in the same, said ejector mechanism having an operative connection with the moistening mechanism and being thus indirectly connected with the main operating
 plunger mechanism, and a stamp-feeding
 75 mechanism arranged above the table and intermittently engaged by the main operating plunger mechanism, whereby the stroke of the latter simultaneously and correlatively
 80 operates all of said several independent mechanisms in a relatively successive movement, substantially as and for the purpose set forth.

16. An envelop-stamping machine, comprising a suitable frame or support, provided with
 85 a table or platform, a vertically-operating main plunger mechanism, a horizontally-journaled cam-drum having a slot arranged obliquely with the bearing of said drum, a pivotal connecting-rod extending between the
 90 vertical plunger mechanism and said drum, a horizontally-swinging lever mechanism, and moistening devices connected therewith, said last-named lever mechanism being adapted to engage with the oblique slot in the cam-
 95 drum, substantially as shown and described.

17. An envelop-stamping machine, comprising a suitable frame or support, a platform or
 table forming part thereof, a main operating plunger mechanism, a stamp-affixing plunger
 100 connected therewith, a moistening mechanism arranged to swing beneath said stamp-affixing plunger, intermittently-operating devices connected with the moistening mechanism and with the main operating plunger
 105 mechanism whereby the stroke of the main operating plunger mechanism actuates the moistening mechanism in an intermittent movement with relation to the continuous movement of the stamp-affixing plunger, substantially as shown and described.
 110

18. An envelop-stamping machine, comprising a suitable frame or support, a table forming
 115 part of said frame, a main drum adapted to partially rotate, a supplemental drum, devices connected with the supplemental drum for engaging the main drum when it reaches the end of its movement, said supplemental drum being carried by the main drum in its reverse movement, and means for releasing
 120 said automatic devices and disconnecting said drums when the main drum has partially described its reverse movement, substantially as shown and described.

19. An envelop-stamping machine, comprising a suitable frame or support, a table or plat-
 125 form forming part thereof, a main drum having an opening in its head or end, a supplemental drum provided with a spring-actuated catch which is adapted to engage with the opening in the main drum, friction-rollers con-
 130

nected with said catch, and an inclined track
on which said rollers are adapted to move,
said track being adapted to actuate said catch
so as to disengage it from said opening during
5 the turning of the drums, substantially as
shown and described.

In testimony that we claim the foregoing as
our invention we have signed our names, in

presence of the subscribing witnesses, this 20th
day of December, 1897.

LAURITS MARIUS NIELSEN.
CHARLES A. MADSEN.

Witnesses:

L. M. MULLER,
M. A. KNOWLES.