

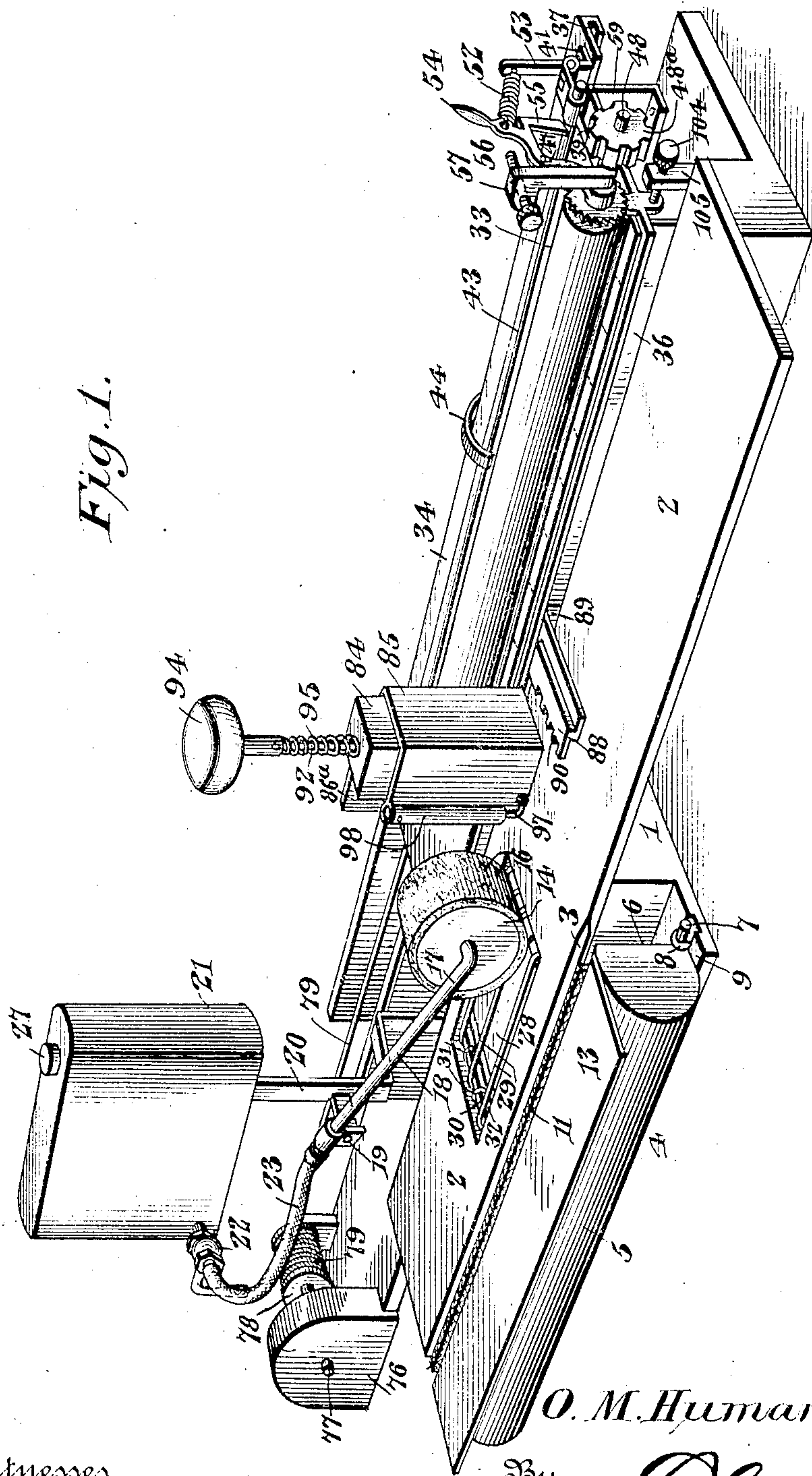
No. 878,396.

PATENTED FEB. 4, 1908.

O. M. HUMAN.  
ENVELOP STAMPING MACHINE.

APPLICATION FILED MAY 25, 1906.

4 SHEETS—SHEET 1.



*O. M. Human*, Inventor

 $\mathbb{B}_1 f$ 

E. G. Figgens

Attorney

Witnesses  
Jas. E. McLaughlin  
J. F. Piley

No. 878,396.

PATENTED FEB. 4, 1908.

O. M. HUMAN.  
ENVELOP STAMPING MACHINE.

APPLICATION FILED MAY 25, 1906.

4 SHEETS—SHEET 2.

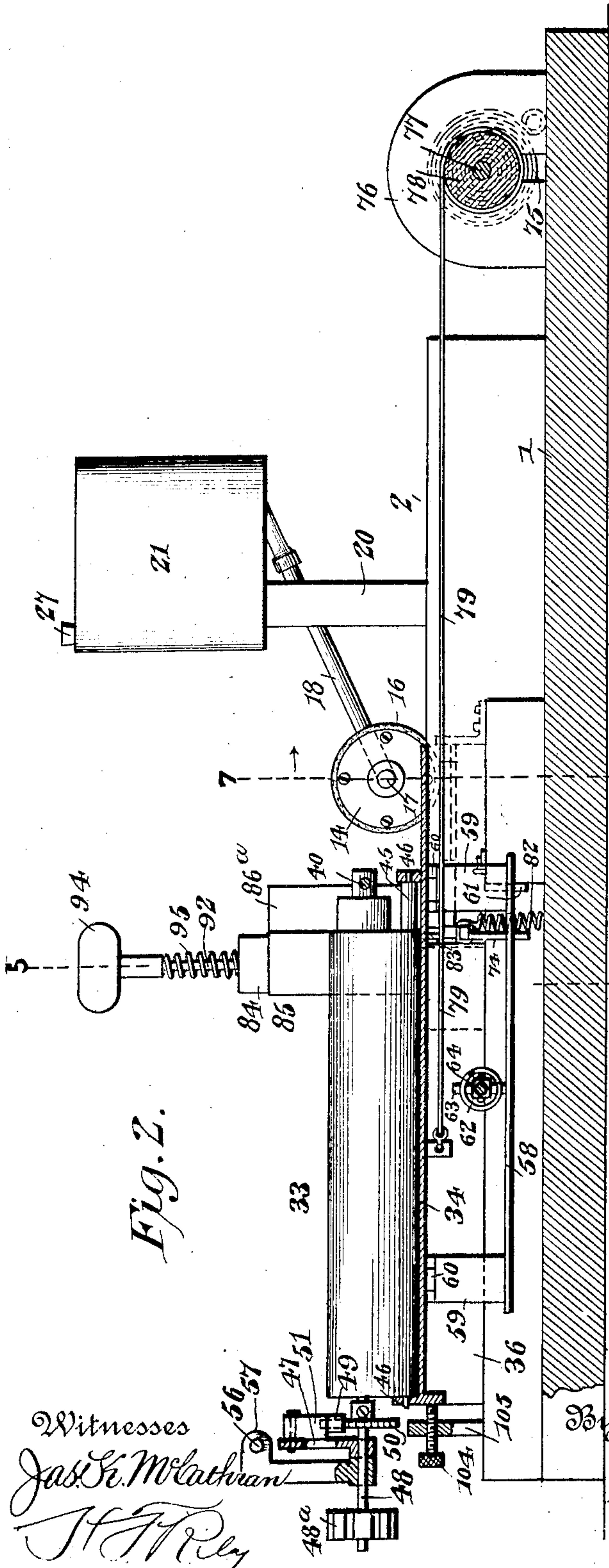


Fig. 2.

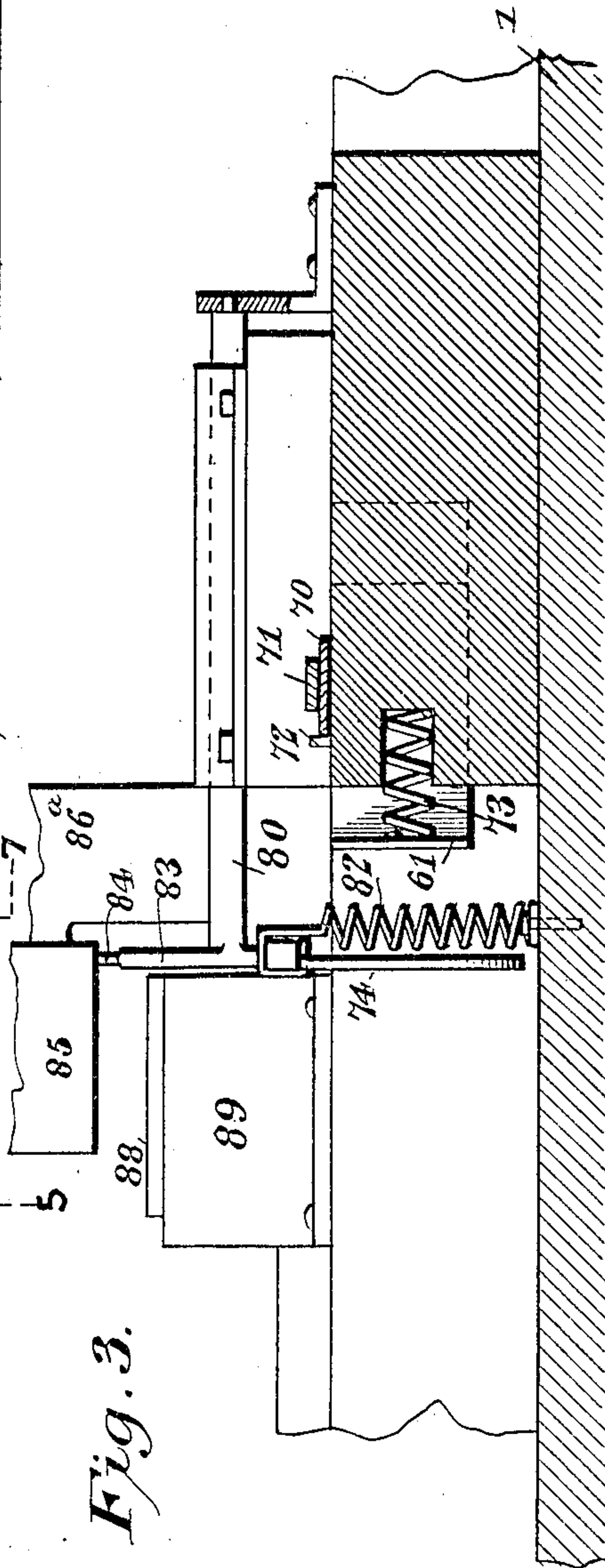


Fig. 3.

Witnesses  
Jas. E. McLaughlin  
J. F. Rely

O. M. Human, Inventor

E. G. Figgess

Attorney



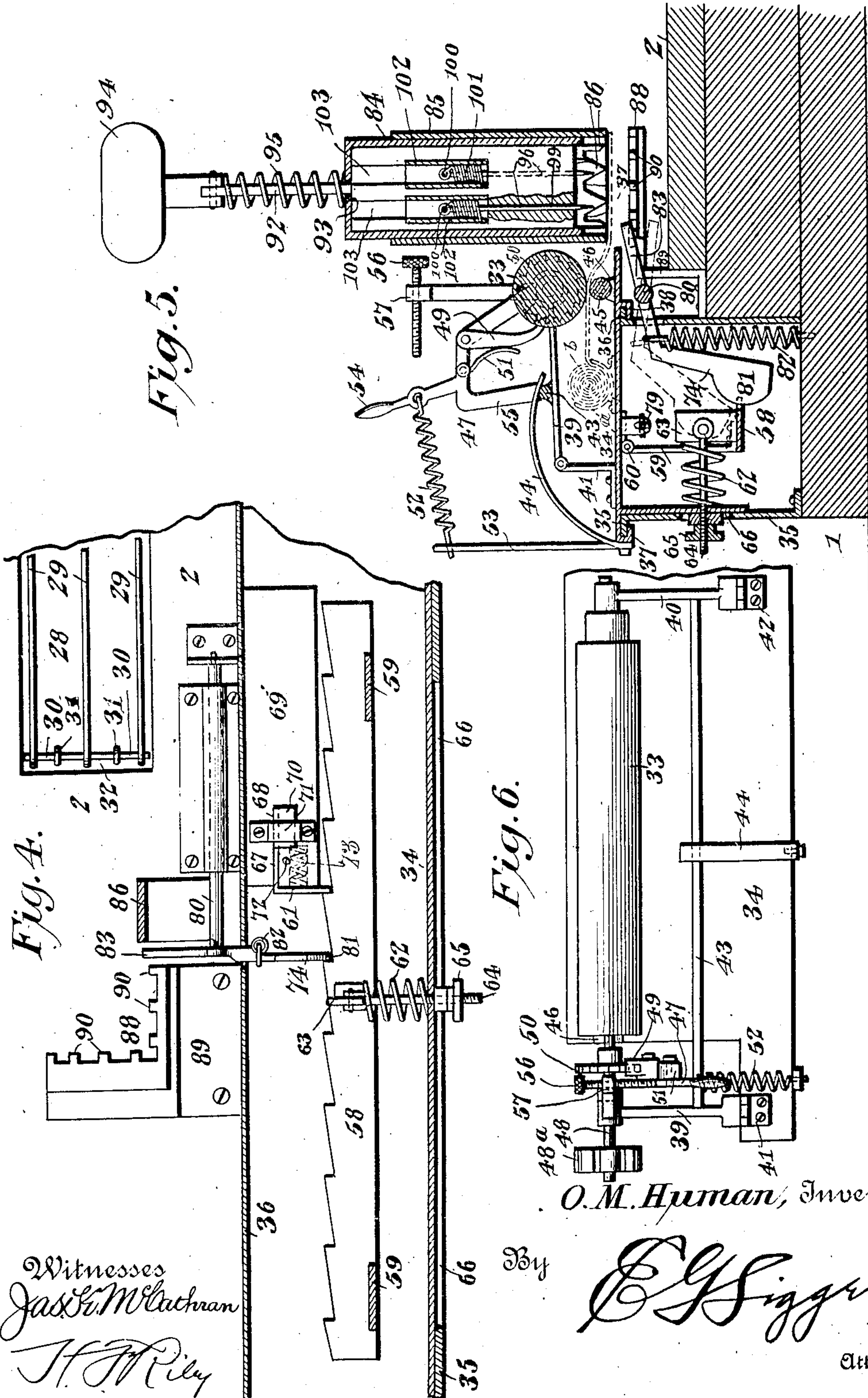
No. 878,396.

PATENTED FEB. 4, 1908.

O. M. HUMAN.  
ENVELOP STAMPING MACHINE.

APPLICATION FILED MAY 25, 1906.

4 SHEETS—SHEET 3.



Witnesses  
Jas E. McArthur  
J. H. Riley

O. M. Human, Inventor

E. J. Siggers

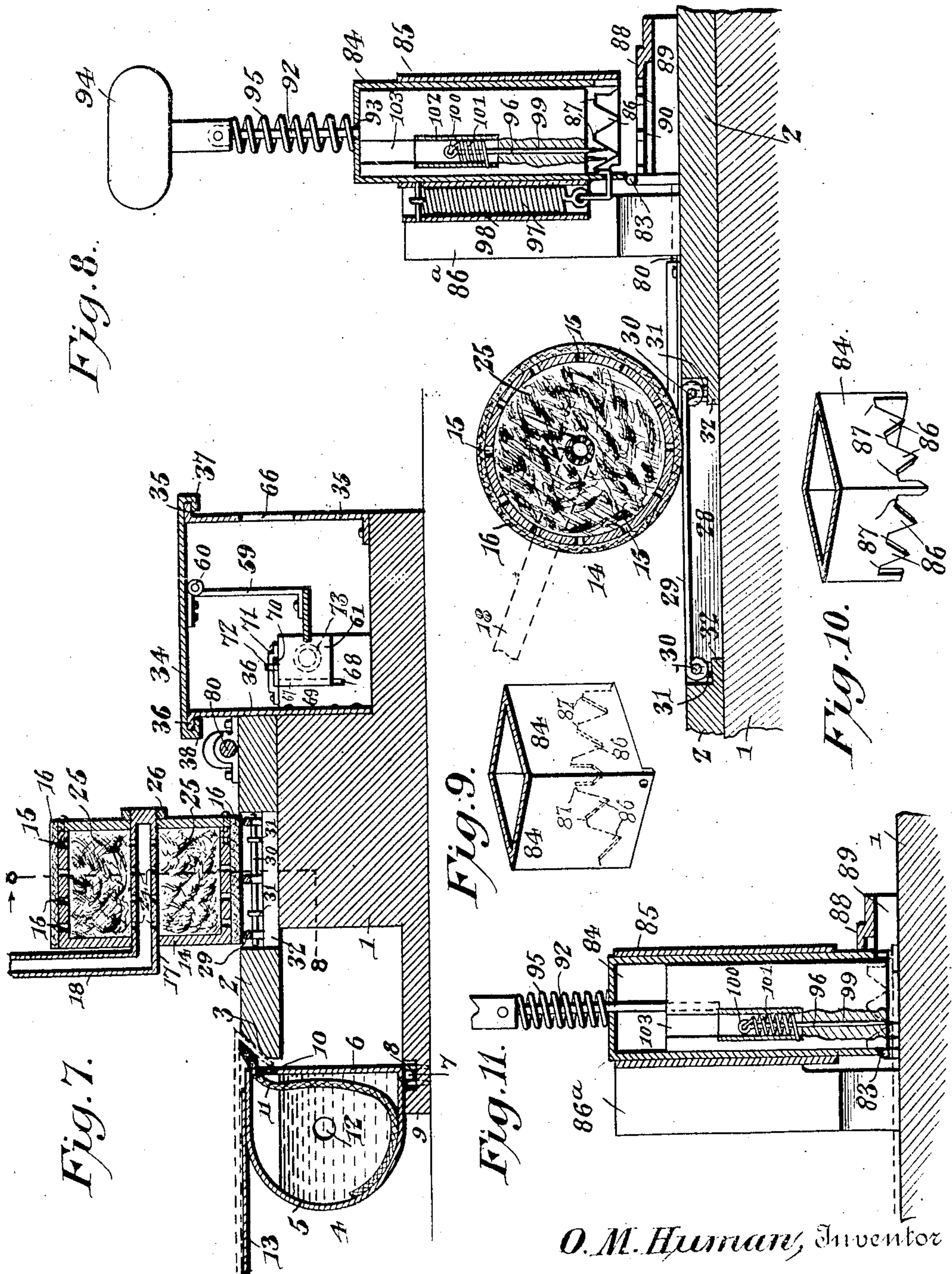
Attorney



O. M. HUMAN.  
ENVELOP STAMPING MACHINE.

APPLICATION FILED MAY 25, 1908.

4 SHEETS—SHEET 4.



Witnesses  
Jas. E. McLaughlin  
J. J. Riley

By

O. M. Human, Inventor  
*E. J. Figg*

Attorney



# UNITED STATES PATENT OFFICE.

OSCOR M. HUMAN, OF SHERMAN, TEXAS.

## ENVELOP-STAMPING MACHINE.

No. 878,396.

Specification of Letters Patent.

Patented Feb. 4, 1908.

Application filed May 25, 1906. Serial No. 318,721.

*To all whom it may concern:*

Be it known that I, OSCOR M. HUMAN, citizen of the United States, residing at Sherman, in the county of Grayson and State of Texas, have invented a new and useful Envelop-Stamping Machine, of which the following is a specification.

The invention relates to improvements in envelop stamping machines.

The object of the present invention is to improve the construction of envelop stamping machines, and to provide a simple and comparatively inexpensive one, adapted to moisten a portion of the face of the envelop and affix one or more stamps to the moistened surface.

A further object of the invention is to provide a machine of this character adapted to receive one or more sheets of stamps, and capable of severing the stamps one at a time from a sheet, and of holding and thereby controlling the severed stamp until the same is affixed in proper position to an envelop.

Another object of the invention is to provide a machine in which the upper face and the address of an envelop will be exposed to view during the entire time it is being sealed and stamped.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a perspective view of an envelop stamping machine constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is an enlarged detail sectional view, illustrating the arrangement of the pawls or dogs of the escapement for controlling the feeding movement of the carriage. Fig. 4 is an enlarged horizontal sectional view illustrating the construction of the escapement. Fig. 5 is a transverse sectional view taken substantially on the line 5—5 of Fig. 2. Fig. 6 is a plan view of the carriage. Fig. 7 is a transverse sectional view taken substantially on the line 7—7 of Fig. 2. Fig. 8 is an enlarged detail sectional view taken substantially on the line 8—8 of

Fig. 7. Figs. 9 and 10 are detail perspective views of the lower end of the incisory tube or casing. Fig. 11 is a detail vertical sectional view of the stamp cutting and affixing mechanism, showing the plunger down.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates the base or bed of the machine, which may be constructed of any suitable material, and the said base or bed is provided with an envelop receiving table 2, arranged horizontally as clearly illustrated in Fig. 1 of the drawings. The outer edge 3 of the envelop receiving table is beveled, and a pivotally mounted moistener 4 is located adjacent to the beveled edge 3, and is movable toward and from the same for moistening the gummed flap of an envelop, which is introduced between the table and the moistening device, as clearly indicated in dotted lines in Fig. 7 of the accompanying drawings. The moistening device consists of a horizontal casing or reservoir 5 of substantially semi-cylindrical form, having a straight inner wall 6, and provided at the ends with horizontally disposed pivots 7, which are journaled in suitable bearings 8 of the bed or base. The pivots or pintles are located at the bottom of the casing or reservoir, contiguous to the inner vertical wall of the same, and the bearings 8 may consist of staples, or any other suitable means, and the base or bed is provided at its outer side with a horizontal extension 9 to receive the pivotally mounted moistening device. The casing or reservoir, which is adapted to contain a quantity of water, is provided at its top adjacent the inner wall 6 with a longitudinal wick receiving slot or opening 10. A wick 11 projects from the slot or opening 10, and is located in spaced relation with the beveled face 3 of the envelop receiving table, and when the gummed flap of an envelop is introduced between the wick 11 and the beveled edge 3 of the table 2, as illustrated in dotted lines in Fig. 7 of the drawings, the pivotally mounted moistener is moved inward to carry the wick into contact with the said gummed flap. The gummed flap is then drawn upwardly to move it over the wick. At the same time the body of the envelop is moved forwardly and is pressed against the table 2, which will operate to seal the letter, the gummed flap being interposed between the body of the envelop and the



table 2. The wick will absorb sufficient moisture for sealing the flaps. The casing is provided at one end with a filling opening, and it has a removable screw cap 12. The moistening device is also provided at the top with a plate 13, suitably fixed to the reservoir or casing 5, and adapted to be readily grasped by the operator for manipulating the moistener.

10 An envelop after being sealed is passed under a rotary moistening device 14, consisting of a hollow drum or cylinder provided with peripheral perforations 15, and having a peripherally arranged wick 16, forming an absorbent rim. The rotary drum or cylinder is journaled on an arm or extension 17 of an L-shaped tube 18. The tube 18, which is arranged at an inclination, is secured at its upper end by a pivot 19 to a standard or support 20, upon which is mounted a tank 21. The tank 21 is provided with a valved outlet 22, which is connected by a flexible tube 23 with the upper end of the pivotally mounted pipe or tube 18. The arm 17, which constitutes an axle or spindle for the hollow drum or cylinder, is provided with perforations 24. In order to distribute the moisture uniformly to the absorbent rim of the rotary moistening device, the hollow drum or cylinder is filled with a sponge 25, or other suitable material. The outer end of the arm 17 is closed, and the hollow drum or cylinder is secured on the same by means of a nut 26, or other suitable means. The outlet 22 is provided with a suitable valve for controlling the flow of the water from the tank to the rotary moistening device. The tank 21 is provided with a suitable filling opening, which is closed, after the tank is filled by means of a screw cap 27. By the particular construction of the moistening device there is no liability of the water in either of the moistening devices spilling, in any position in which the machine may be held.

The table 2 is provided beneath the rotary moistener with a recess or depression 28, adapted to collect any water dripping from the moistener, to prevent the same from accumulating on the table and soiling a letter. The rotary moistener is supported above the recess or depression by means of a rectangular frame or grating, consisting of spaced longitudinal rods 29 and transverse end rods 30, which are secured in eyes 31 formed by bending the terminals of the longitudinal rods. The frame or grating is secured within the recess 28, upon end ledges or shoulders 32, by means of suitable fastening devices.

60 The frame or grating also forms a support for the letters, to prevent the same from coming in contact with any water accumulating within the recess or depression.

The stamps, which may consist of one or more commercial sheets, are placed upon the

machine in the form of a loose roll, and the rows of stamps are fed forward by a feed roller 33 of a reciprocatory spring actuated carriage 34, which is adapted to be fed forward a distance equal to one stamp at each operation of the machine, as hereinafter described. The carriage, which may be constructed of any suitable material, is mounted on guides 35 and 36, which may, as illustrated in the accompanying drawings, consist of vertical longitudinal plates or members, having laterally extending horizontal flanges. The carriage is provided with depending substantially L-shaped flanges 37 and 38, which are slidably interlocked with the laterally extending flanges, as clearly shown in Fig. 5 of the drawings, and in practice suitable anti-friction devices may be employed to reduce the friction to a minimum. The carriage, which is substantially L-shaped in cross section, consists of a horizontal top portion and a depending vertical portion located at the outer side of the top portion and fitted against the inner face of the plate or member 35.

The feed roller is journaled in suitable bearings of hinged arms or members 39 and 40 of bearing brackets 41 and 42, which are fixed to and extend upwardly from the top of the carriage. The hinged arms or members 39 and 40 are connected by a rod 43, which is engaged at an intermediate point by a spring 44, and the latter is adapted to hold the feed roller against a lower roller 45. The upper or feed roller is adapted to be swung upward from the lower roller to enable the free edge of the loose roll of the stamps to be placed between the upper and lower rollers. The spring 44, which is curved, is secured at one end to the carriage at the outer edge thereof, and the other end is free and engages the rod 43 at the upper face of the same. The lower roller, 45, which is much smaller in diameter than the feed roller, is journaled in suitable bearings 46 of the carriage, and is spaced from the top thereof to permit it to rotate freely.

The free edge of the loose roll of stamps is placed between the upper and lower rollers 33 and 45, as illustrated in dotted lines at *a* in Fig. 5 of the drawings, and a wire basket or holder may be provided for the loose roll of stamps, as indicated at *b* in Fig. 5. The stamps are firmly held between the upper and lower rollers by means of the spring 44, which prevents any accidental displacement or movement of the stamps, and which causes a positive feed of the same when the upper or main feed roller is rotated. When one row of stamps is consumed, the feed roller is rotated a sufficient distance to feed another row of stamps to the stamp cutting and affixing mechanism, by means of an oscillatory lever 47, fulcrumed at one end on the journal 48 of the feed roller, and carrying



an actuating pawl 49 for engaging a ratchet wheel 50, which is also mounted on the journal 48 of the feed roller, and which is rigid with the latter. The pawl 49 is pivoted at its upper end to the lever 47 and it is maintained in engagement with the ratchet wheel by a spring 51. The lever is oscillated by hand, to move the actuating pawl 49 backward, a sufficient distance for actuating the feed roller to advance the stamps a distance of one row. The lever is actuated in the feeding movement of the pawl by means of a coiled spring 52, which is connected with the lever and with a projecting portion or arm 53 of the carriage. The lever, which extends upwardly from the journal 48 of the feed roller, is provided at the top with a grip or handle 54, and it has a depending arm 55, connected with the lever at an intermediate point and arranged to engage the rod 43 for limiting its movement in one direction. The movement of the lever in the opposite direction is controlled by an adjusting screw 56, mounted in a threaded opening of a projecting portion or arm 57 of the hinged member 39 of the adjacent bracket 41, but any other form of adjusting device may be employed, as will be readily understood. The screw 56 is adapted to be adjusted to enable the oscillatory movement of the lever to correspond to the size of the stamps on the feed roller. The feed roller is provided with a milled or corrugated disk 48<sup>a</sup>, which is suitably secured to the outer end of the journal 48 and which enables the feed roller to be rotated by hand for adjusting the stamps.

The carriage is provided with an escapement bar 58, which is suspended from the top of the carriage by means of arms 59, detachably secured at their lower ends to the escapement bar by means of screws, or other suitable fastening devices, and connected at their upper ends to the carriage by a suitable hinge joint 60. The escapement bar is provided with ten notches, or ratchet teeth, which are of a size to correspond to the stamps of a row, so that the carriage will be fed the distance of one stamp at each operation of the machine. The escapement bar is yieldably maintained in engagement with a dog 61 by means of a coiled spring 62, which bears against the depending portion of the carriage and which engages a projecting stud or flange 63 of the escapement bar. The spring is adapted to force the escapement bar inwardly in the direction of the dog 61, which is mounted on the bed or base of the machine and the inward movement of the escapement bar is limited by an adjusting device, consisting of a screw 64 and an adjusting nut 65. The screw 64 is perforated at one end, and is pivoted to the stud or projection 63 of the escapement bar, and the other end of the screw is threaded to receive the nut, which is arranged to engage

the outer face of the depending portion of the carriage. The vertical plate or member 35, which constitutes the outer guide for the carriage, is provided with a longitudinal opening 66 of sufficient width to receive the engaging portion of the screw, and of a length to allow the necessary longitudinal movement of the carriage.

The pawl 61, which is substantially L-shaped, consists of a transversely disposed engaging portion and a longitudinal shank 67 which is slidable in a slot or opening 68 of a projecting portion 69 of the base or bed of the machine. The shank 67 is provided at its upper edge with a flange 70, which is arranged within a keeper or guide 71 and which is engaged by a stop 73, consisting of a pin or projection, which extends from the upper face of the portion 69 of the base or bed. A coiled spring 73, which is fitted in a suitable socket of the projecting portion 69 of the base, engages the transversely disposed engaging portion of the dog 61, and moves the same away from the supporting portion 69 in a direction longitudinally of the machine, carrying the dog 61 out of alignment with the shoulder of the contiguous tooth of the escapement bar, when the latter is moved outwardly by a pivoted pawl or dog 74. When the escapement bar is in engagement with the stop dog 61, the actuating spring 75 of the carriage overcomes the force of the spring 73, and slides the dog 61 inwardly against the adjacent end of the projecting portion 69 of the bed or base of the machine. The pivoted pawl or dog 74, which is actuated by the stamp cutting and affixing mechanism, is adapted to swing the escapement bar backward out of engagement with the dog 61, and it engages the escapement bar at one of the teeth thereof, so that the position of the carriage is not changed by the swing or backward movement of the escapement bar. After the stamp has been cut and affixed to a letter, as hereinafter explained, the pivoted pawl or dog is returned to its initial position, and the escapement bar is swung inwardly into engagement with the dog 61, which is then at the limit of its outward movement, and which contacts with the escapement bar in rear of the engaging portion of the contiguous tooth. This permits the carriage to be fed forward the distance of one tooth by the actuating mechanism.

The carriage is actuated by a spring 75, which is housed within a suitable casing 76, and the inner end of the spring is connected with a transverse shaft or spindle 77, which carries a drum 78. The drum, which is rotated by the spring, receives a cord 79, or other suitable flexible connection, such as a metal ribbon, or the like. The flexible connection is suitably secured to the drum and to the carriage, the backward movement of



the carriage, which is effected by hand, serving to wind up the spring.

The pawl or dog 74 is mounted at an intermediate point on a pivot or pintle rod 80, and it is composed of upper and lower arms. The lower arm, which is of angular form, is provided at the lower portion with a segmental enlargement 81, for engaging the escapement bar, and it is returned to its initial position by means of a coiled spring 82, secured to the bed or base of the machine, and connected to the lower arm of the pawl or dog at the upper portion thereof, as clearly illustrated in Fig. 5 of the drawings.

The arm 83 of the pivoted pawl or dog 74 is disposed at a slight inclination and is arranged in the path of a hollow incisory member 84, which is rectangular in horizontal section to conform to the configuration of a stamp, and which is guided in a vertical tube or casing 85. The vertical tube or casing 85, which is of rectangular form, is mounted on a suitable support 86<sup>a</sup>. The incisory member is provided at its lower edges with a substantially L-shaped cutting portion consisting of tapering cutting teeth 86, arranged at two of the contiguous sides of the hollow incisory member, and adapted to partially sever a stamp, at the perforations thereof, from the rest of the sheet. The carriage feeds the stamps in each row successively to the stamp cutting and affixing mechanism, so that it is only necessary to cut the stamp at two sides thereof to sever the same from the sheet. The teeth 86 are spaced apart, so as to leave unsevered portions, and the said incisory member is provided between the teeth with straight horizontal edges 87, which are adapted to be engaged by a substantially L-shaped stop 88. The stop 88, which is carried by a bracket 89, is provided with a horizontally L-shaped portion, having projecting lugs 90, arranged in the path of the straight horizontal edges 87, and adapted to arrest the downward movement of the incisory member. The connecting portions of the partially severed stamp are perforated, so that it requires but little force to detach the stamp in the final operation of the machine. The stamp is detached by means of a stamp affixing plunger, which is located within the hollow incisory member. The plunger is provided with a stem 92, which extends through an opening in the upper end 93 of the incisory member, and the said stem 92, which is provided at its upper end with a knob or head 94, receives a coiled spring 95, which is adapted to lift the plunger after the stamp has been affixed to a letter. The coiled spring bears against the upper end 93 of the hollow incisory member, and engages the shank of the knob or head 94.

In order to retain complete control of the stamp until it is properly affixed to a letter, the plunger is provided with a plurality of

yieldably mounted needles 96, which normally project from the lower face of the plunger, and which are adapted to pierce the stamp when the plunger is moved downward by the pressure of the hand. The downward movement of the plunger separates the partially severed stamp from the sheet, and the needles prevent the severed stamp from becoming displaced, and hold the same on the lower end of the plunger, which properly affixes the stamp to the moistened area of the envelop. By this construction there is no liability of a stamp becoming displaced by the wind, or from any other cause, and it will be positively affixed to an envelop in proper position.

The needles are forced upwardly and inwardly into the plunger, when the points come in contact with the table 2, and they are thereby readily withdrawn from the stamp, after the latter has been pressed firmly against the envelop by the plunger. The plunger is automatically raised by the spring 95, when relieved of the pressure of the hand, and the incisory member is moved upwardly by means of a spring 97, connected at its lower end with the lower portion of the incisory member, and housed within a tube or casing 98. The upper end of the spring 97 is suitably secured to the upper portion of the tube or casing 98. The needles, which operate in perforations 99 of the lower portion of the plunger, are provided at their inner ends with eyes 100, which receive the upper terminals of the coiled springs 101, and the latter are housed within suitable tubes or casings 102. The tubes or casings are located within the grooves 103 of the plunger, and the lower ends of the springs 101 are suitably secured to the tubes 102 at the lower portions thereof. The machine is adapted to be successively operated to affix a plurality of stamps to a letter, and the address of the latter is exposed at all times during both the sealing and stamp affixing operations.

The backward movement of the carriage is limited by an adjustable stop consisting of a horizontal screw 104, which is mounted in a threaded opening of a projecting portion or arm 105 of the bed or base of the machine.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a machine of the class described, the combination with a moistening device, of a table provided with a water receiving chamber located below the surface of the table to receive the drip from the moistening device and adapted to prevent the drip from running over the surface of the table, and supporting means spaced from the bottom of the chamber and provided with openings and receiving the moistening device.

2. In a machine of the class described, the



combination with a moistening device, of a table provided with a water receiving chamber located below the surface of the table to receive the drip from the moistening device, and supporting means spaced from the bottom of the chamber and receiving the moistening device and consisting of a grating having openings.

3. In a machine of the class described, the combination with a moistening device, of a table provided with a rectangular recess forming a water receiving chamber located below the surface of the table to receive the drip from the moistening device, and a rectangular support spaced from the bottom of the recess and provided with openings for the passage of water and receiving the moistening device.

4. In a machine of the class described, the combination of a stamp carriage having an escapement bar, means for actuating the carriage to feed the stamps, a spring actuated stop dog for engaging the escapement bar, said stop dog having a limited movement to carry it away from the engaging portion of the contiguous tooth of the escapement bar, stamp affixing mechanism, and means operated by the stamp affixing mechanism for carrying the escapement bar out of engagement with the stop dog.

5. In a machine of the class described, the combination of a stamp carriage having an escapement bar, means for actuating the carriage to feed the stamps, a spring actuated stop dog for engaging the escapement bar, said stop dog having a limited movement to carry it away from the engaging portion of the contiguous tooth of the escapement bar, stamp affixing mechanism, and a pivoted pawl or dog operated by the stamp affixing mechanism and arranged to carry the escapement bar out of engagement with the stop dog.

6. In a machine of the class described, the combination of a stamp carriage having an escapement bar, a horizontally slidable stop dog, a spring for actuating the stop dog, means for limiting the movement of the said dog, stamp affixing mechanism, and means operated by the stamp affixing mechanism for moving the escapement bar out of engagement with the stop dog to permit the same to be moved for engaging the escapement bar at a different point.

7. In a machine of the class described, the combination of a stamp carriage having a movable escapement bar, a spring for moving the same in one direction, a stop dog arranged to be engaged by the escapement bar, stamp affixing mechanism, and a pawl or dog actuated by the stamp affixing mechanism for moving the escapement bar out of engagement with the stop dog.

8. In a machine of the class described, the combination of a stamp carriage provided

with a movable escapement bar, an adjusting device connected with the escapement bar and consisting of a spring for actuating the escapement bar in one direction, and means for limiting the movement of the said bar, a stop dog engaging the escapement bar, stamp affixing mechanism, and a pawl or dog actuated by the stamp affixing mechanism for carrying the escapement bar out of engagement with the stop dog.

9. In a machine of the class described, the combination of a stamp carriage, means for actuating the same, stamp affixing mechanism, a feed roller mounted on the carriage, a ratchet wheel connected with the feed roller, a lever provided with means for engaging the ratchet wheel to rotate the feed roller, a spring for moving the lever in one direction, and an arm extending from the lever for limiting the movement of the same in the opposite direction.

10. In a machine of the class described, the combination of a carriage, a roller mounted thereon, bearing brackets having hinged members, a feed roller journaled on the hinged members of the brackets and arranged to hold the stamps against the said roller, and ratchet mechanism mounted on one of the brackets for rotating the feed roller.

11. The combination of a carriage, a roller journaled thereon, bearing brackets mounted on the carriage and having hinged members, a feed roller journaled on the hinged members of the brackets, ratchet mechanism mounted on one of the brackets for rotating the feed roller, and a spring for holding the feed roller in frictional engagement with the other roller.

12. In a machine of the class described, the combination of a carriage, a feed roller mounted thereon, a ratchet wheel connected with the feed roller, an oscillatory lever provided with an arm extending from the lever at an intermediate point for limiting its movement in one direction, a spring actuated pawl carried by the lever and arranged to engage the ratchet wheel, a spring connected with the lever for moving the same in one direction, and means for limiting the movement of the lever in the opposite direction.

13. In a machine of the class described, the combination of a stamp affixing plunger provided with a plurality of perforations and having grooves communicating therewith, a plurality of needles guided in the perforations, casings arranged in the grooves, coiled springs housed within the casings and connected with the needles, and a hollow incisory tube receiving the plunger and confining the casings in the said grooves.

14. In a machine of the class described, the combination with a plunger, of a hollow incisory tube receiving the plunger and mov-



able with the same and provided with cutting teeth projecting beyond the plunger for severing the stamps.

15. In a machine of the class described, the combination with a plunger, of a hollow incisory tube receiving the plunger and movable with the same and provided with cutting teeth, and yieldable means for causing the cutting teeth to normally project beyond the plunger.

16. In a machine of the class described, the combination with a plunger, of a hollow incisory tube receiving the plunger and movable therewith, said incisory tube being rectangular in cross section and provided at two of its contiguous sides with cutting teeth.

17. In a machine of the class described, the combination of a plunger, a hollow incisory tube provided with cutting teeth spaced apart, and a stop arranged in the path of the incisory tube and adapted to engage the same between the teeth.

18. In a machine of the class described, the combination of a plunger, a hollow incisory tube provided with cutting teeth spaced apart, and a stop provided with a plurality of lugs located in the path of the incisory tube and arranged to engage the same between the teeth.

19. In a machine of the class described, the combination of a guide, a hollow incisory

tube operating in the guide and provided with cutting teeth, a plunger operating within the incisory tube and provided with means for holding severed stamps, and means arranged in the path of and adapted to arrest the downward movement of the incisory tube.

20. In a machine of the class described, the combination of a hollow incisory member provided with spaced teeth arranged to partially sever a stamp, means for limiting the movement of the said member, a stamp affixing plunger arranged to separate the partially severed stamp from the rest of the sheet, and means carried by the plunger for holding the stamp to prevent the same from becoming displaced.

21. In a machine of the class described, the combination of a stamp carriage, an escapement provided with an operating pawl, an incisory member arranged to engage the operating pawl and provided with cutting teeth, and a stamp affixing plunger operating within the hollow member.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

OSCOR M. HUMAN.

Witnesses:

ROSS G. BAKER,  
GEORGE P. BATES.