

J. A. MILLER.
 ENVELOP SEALING AND STAMPING MACHINE.
 APPLICATION FILED MAY 11, 1908.

930,400.

Patented Aug. 10, 1909.

4 SHEETS—SHEET 1.

Fig. 1.

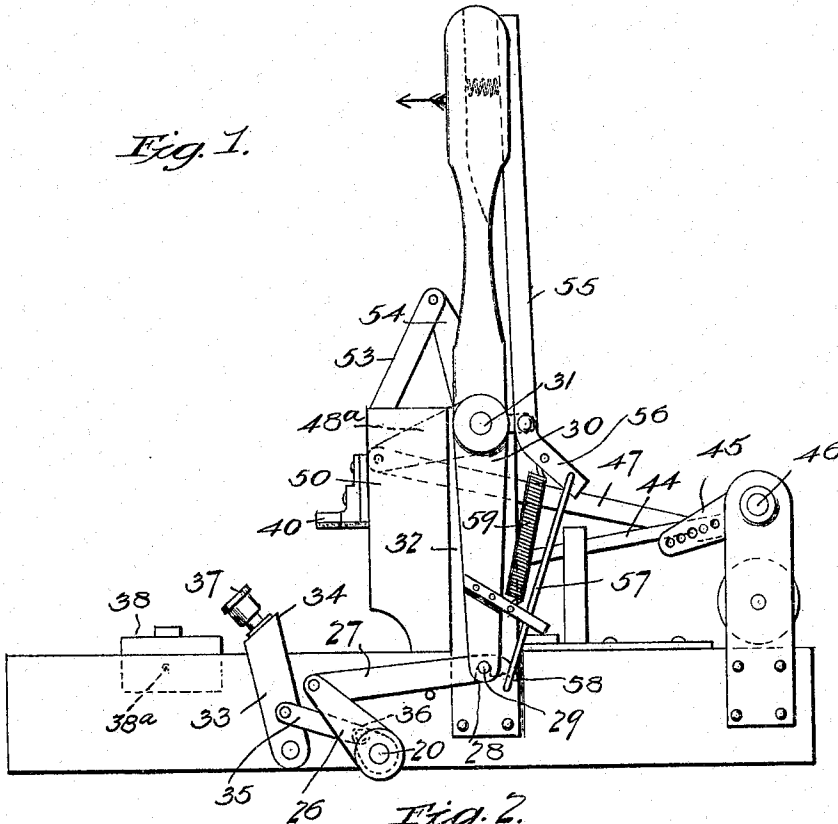
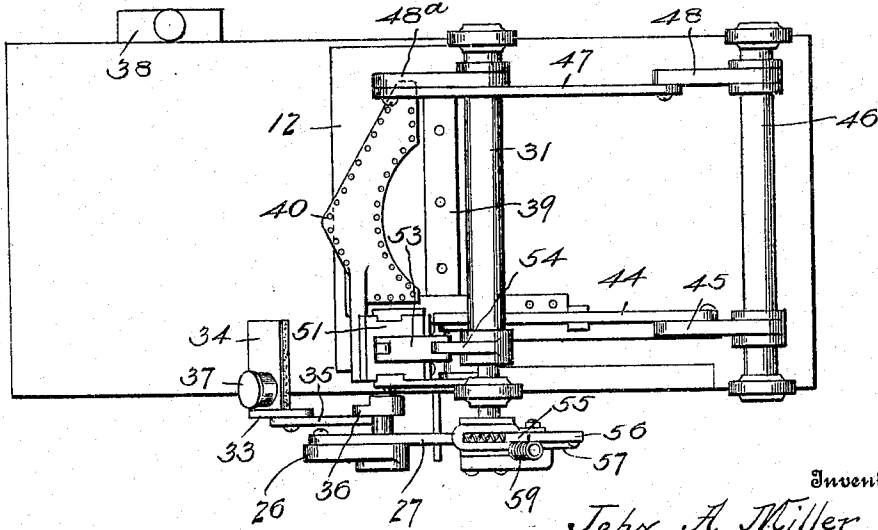


Fig. 2.



Inventor

John A. Miller

Witnesses

C. W. Wolhaupter
 P. A. Hockaday

By

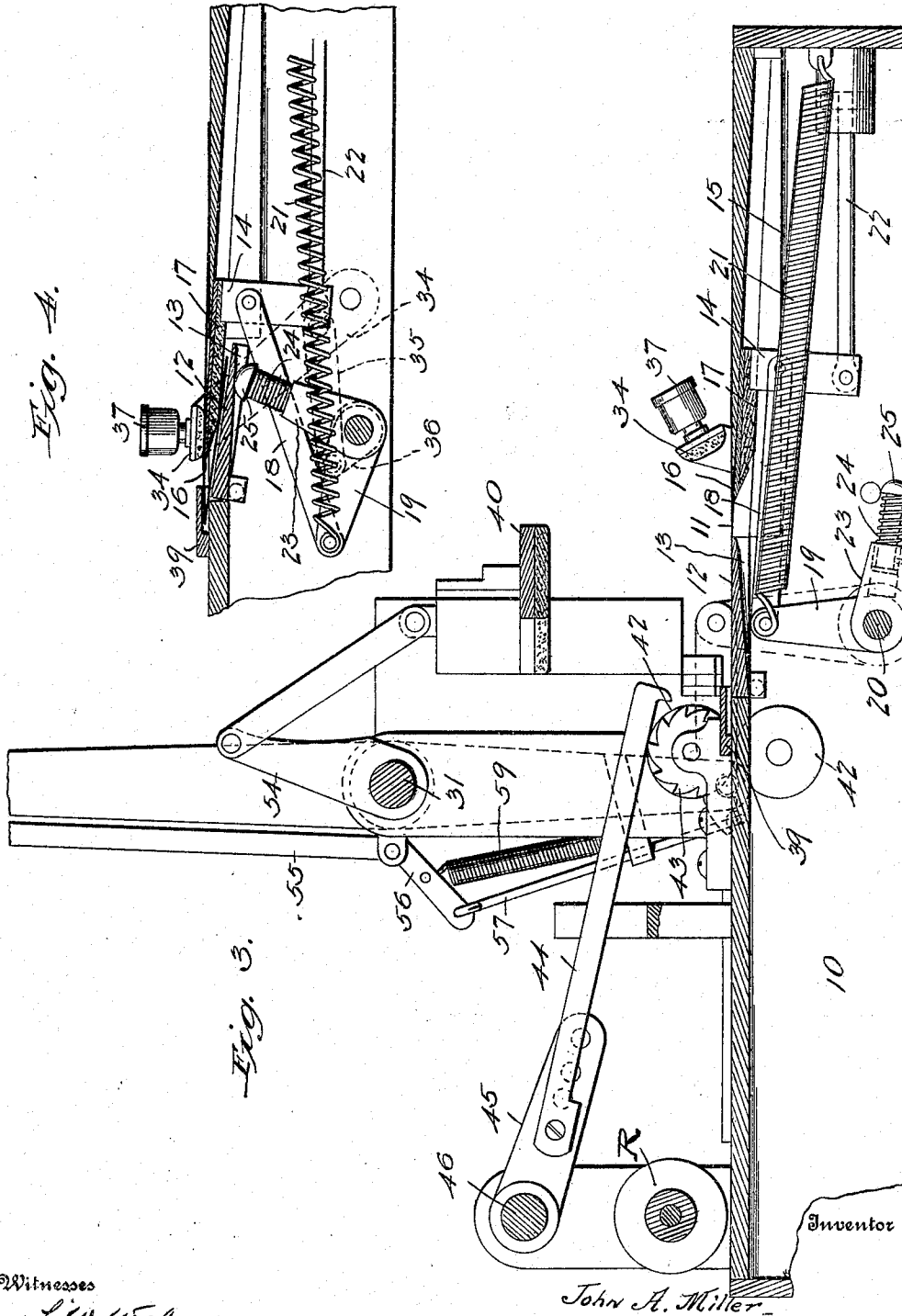
C. W. Wolhaupter.

Attorney

930,400.

Patented Aug. 10, 1909.

4 SHEETS—SHEET 2.



Witnesses

E. W. Wochaufer
J. L. Noecker

By

E. W. Wochaufer
Attorney

930,400.

Patented Aug. 10, 1909.
4 SHEETS—SHEET 3.

Fig. 5.

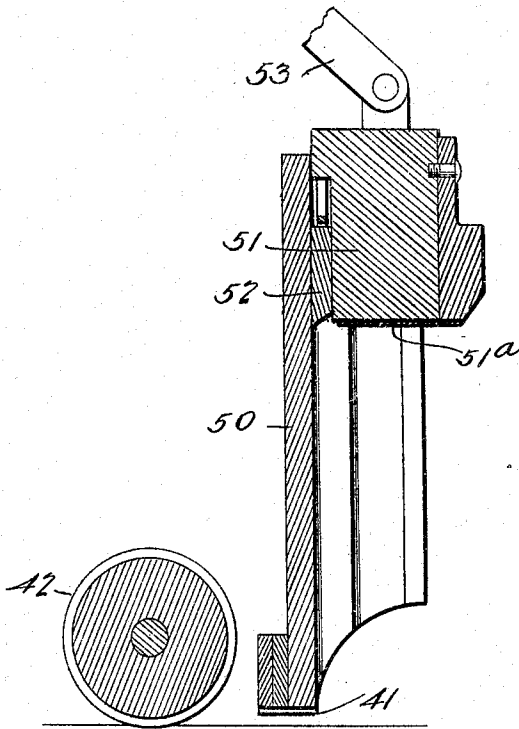


Fig. 6.

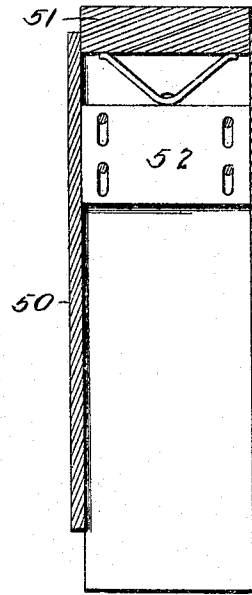
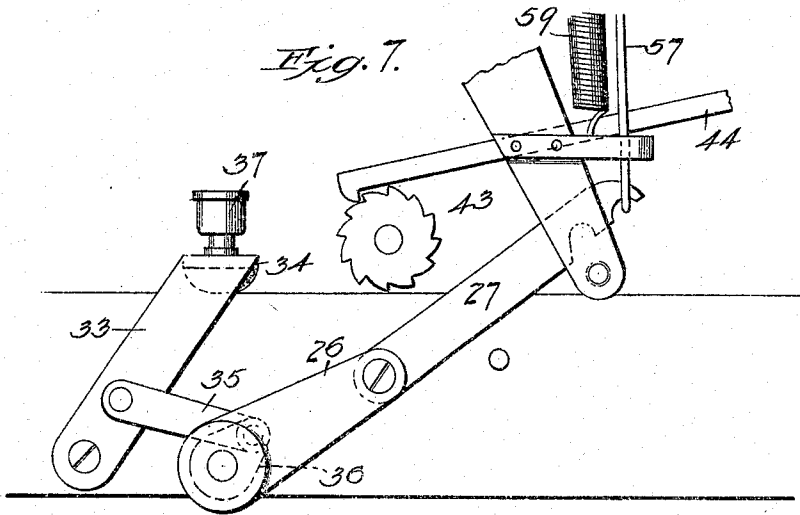


Fig. 7.



Inventor

John A. Miller.

Witnesses

C. W. Wolhaupter.
J. L. Mochan

By

S. W. Wolhaupter.

Attorney

J. A. MILLER.
 ENVELOP SEALING AND STAMPING MACHINE.
 APPLICATION FILED MAY 11, 1908.

930,400.

Patented Aug. 10, 1909.

4 SHEETS—SHEET 4.

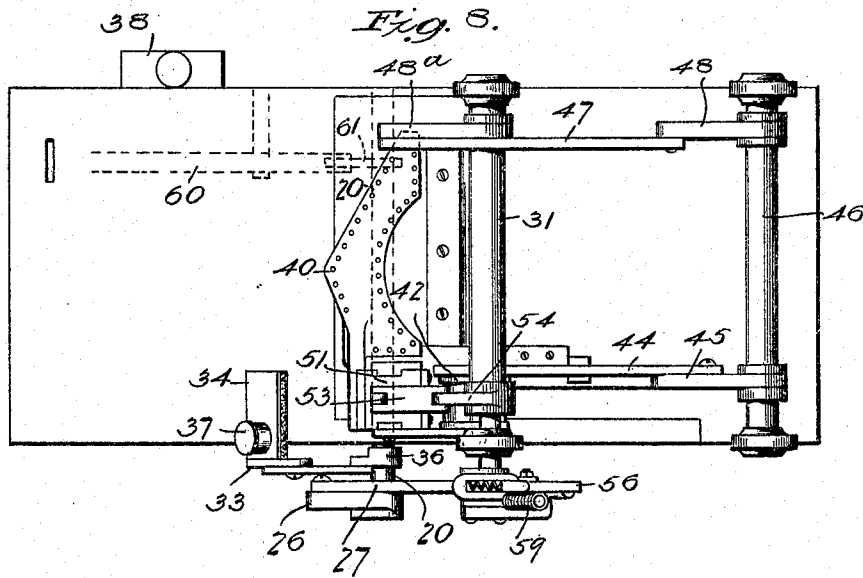
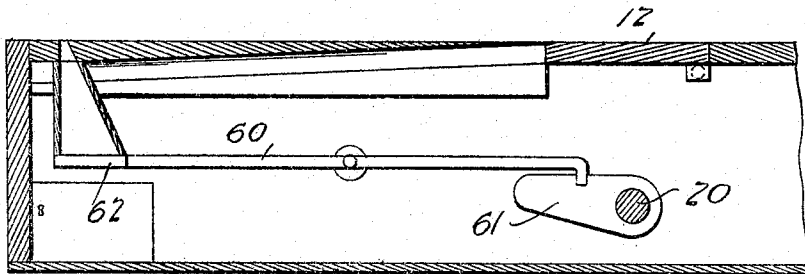


Fig. 9.



Inventor

John A. Miller

Witnesses

E. W. Walchaupt
P. L. Moschauer

By

E. W. Walchaupt

Attorney

UNITED STATES PATENT OFFICE.

JOHN A. MILLER, OF BALTIMORE, MARYLAND, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO JOHN A. MILLER CO., OF WASHINGTON, DISTRICT OF COLUMBIA, A CORPORATION OF THE DISTRICT OF COLUMBIA.

ENVELOP SEALING AND STAMPING MACHINE.

No. 930,400.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed May 11, 1908. Serial No. 432,185.

To all whom it may concern:

Be it known that I, JOHN A. MILLER, a citizen of the United States, residing at Baltimore, in the county of Baltimore City and State of Maryland, have invented certain new and useful Improvements in Envelop Sealing and Stamping Machines, of which the following is a specification.

This invention relates to certain new and useful improvements in machines for sealing and stamping envelopes.

The invention has for its object the production of a simple and inexpensive machine by means of which the flaps of envelopes and the like may be readily moistened and subsequently sealed while said flap is in its normally folded position.

A further object is to provide improved means for feeding stamps and applying them to the successive envelopes during the sealing operation.

A further object is to so arrange the sealing and stamping units, with relation to the moistening unit, that the former cannot operate until the latter has completed its functions.

A further object is to provide a moistening unit of simple construction and provided with means to insure a positive and accurate engagement with the flap of the envelop.

A further object is to provide means for discharging moisture from the moistening unit upon the adhesive of the envelop flap.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings: Figure 1 is a side elevation illustrating my invention. Fig. 2 is a plan view thereof. Fig. 3 is an enlarged longitudinal sectional view. Fig. 4 is an enlarged detail view of the moistening unit. Fig. 5 is a detail longitudinal sectional view of the stamp severing device. Fig. 6 is a detail sectional view illustrating the back of the latter. Fig. 7 is a detail view illustrating the mechanism for disengaging the moistening unit after the same has completed its functions. Figs. 8 and 9 are plan and sectional views respectively of the machine showing the same fitted with a coin-controlled lock.

Like references designate corresponding parts in the several figures of the drawings.

Referring to the drawings, 10 designates a

base, the top of which is provided with an opening 11 in which is pivotally mounted a leaf 12, the latter being provided with an under groove 13. The moistening unit comprises a carrier 14 mounted to slide in an inclined guideway 15 and provided with a wedge shaped casing 16 filled with a suitable absorbent material 17, the bottom surface of which is exposed forming a flap moistening pad. Said carrier 14 is connected by means of a link 18 to a crank arm 19 secured to a shaft 20 mounted to oscillate in suitable bearings in base 10. The leaf 12 is normally supported in a horizontal position by crank arm 19, the free end of which is retained normally in engagement with the under side of said leaf by means of spring 21. Said spring also serves to hold the carrier 14 in a normally retracted position, a dash pot 22 being arranged to break the shock of the return of the carrier under the influence of said spring. Keyed to shaft 20 is what is termed a squeegee or squeezing member comprising a holder 23 provided with a socket in which is mounted a spring pressed rod 24 having a head or enlargement 25.

To one end of shaft 20 is secured a second crank arm 26 to the outer end of which is pivotally connected a link or pitman 27. The free end of said link is provided with an open slot or notch 28 normally engaging a pin 29 mounted in the lower end of an operating lever 30. Said lever is secured to a shaft 31 mounted in suitable bearings 32.

On one side of base 10 is pivotally mounted an arm 33 carrying a stamp moistening pad 34 which overhangs the top of said base in position to moisten that portion of the envelop that receives the stamp. Said pad is operated by means of a pitman 35 connecting arm 33 with a crank arm 36 carried by shaft 20. The pad 34 may receive moisture from a suitable water cup 37, and the pad 17 may be so arranged as to receive moisture from a water receptacle 38 secured to base 10 and feeding into one side edge of said pad through an orifice 38^a. A suitable envelop guiding stop 39 is arranged adjacent leaf 12 and an angular or V-shaped presser 40 serves to complete the sealing operation.

Stamps may be fed from the reel R through a guide 41 by means of feed rolls 42 mounted in suitable relation, the upper roll

being provided with a ratchet wheel 43 adapted to be engaged by a pawl 44. Said pawl is pivotally connected to a crank arm 45 carried by shaft 46, means being provided for an adjustment of the connection between said crank and pawl. The shaft 46 is rocked by means of a link 47 connected at one end to a crank arm 48 carried by said shaft, the other end of said link being connected to a second crank arm 48^a carried by shaft 31. The stamp guide 41 is preferably formed in the lower end of a vertical cutter guide 50 in which is arranged a reciprocatory carrier block 51. The rear face of said block is recessed to receive a spring pressed cutting blade 52 arranged to have a shearing action in connection with the guide 41, but so constructed as not to cut into the envelop. The presser pad 40 is secured to the front face of block 51. The said carrier block 51 is reciprocated by means of a link 53 connecting the same with a crank arm 54 secured to shaft 31. Adjacent operating lever 30 is a trip lever 55 having an angular portion 56 provided with a link 57 arranged to engage a hook-like nose or protuberance 58 upon the end of pitman 27. Said trip lever is normally held in the position shown by spring 59.

In practice, an envelop is placed flap down upon the top face of the base 10 and with the flap edge in engagement with the stop 39. The lever 30 is then moved in the direction indicated by the arrow, Fig. 1, whereupon crank arm 19 will be moved out of engagement with leaf 12 and the latter will drop. At the same time, carrier 14 will be moved forward so that the wedge shaped casing 16 enters between the flap and the body of the envelop, as illustrated in Fig. 4. At about this time, the head 25 of the squeegee member engages the groove 13 of leaf 12, forcing the latter upward and exerting a squeezing action upon pad 17 and thereby expelling moisture therefrom and depositing the same upon the adhesive portion of the envelop flap. Simultaneously with the foregoing operation the stamp moistener 34 has been brought in forcible contact with the envelop, thereby depositing sufficient moisture to effect the adhesion of the stamp when the same is applied, as will later appear. By the time the foregoing operations have taken place, the block 51 has been lowered in proximity to the envelop. The next step in the operation consists in pulling trip lever 55 against the action of spring 59, thereby raising link 27 out of engagement with pin 29, whereupon the several elements of the moistening unit will be returned to their normal positions by spring 21. A further operation of lever 30 will now cause the pawl 44 to engage ratchet 43 and effect the feeding forward of the stamp strip (not shown), and just as the feeding movement is completed,

the stamp is severed by knife 52 and the sealing completed by presser 40 and the stamp affixed by the press pad 51^a in the block 51. The link 27 is supported by a suitable pin in such position as to readily permit said link to reengage pin 29 upon return movement of lever 30. Thus it will be seen that the envelop is effectually sealed and this without the necessity of first straightening out the flap and subsequently holding the same after the moistening step, which is now the practice followed in sealing machines now in general use. It is obvious that if desired, the stamping unit may be dispensed with without departing from the spirit of the invention.

If desired, the improved sealing machine may be provided with a coin-controlled mechanism. The latter may be of any preferred structure, the form shown consisting of a locking lever 60 having one end in engagement with an arm 61 carried by shaft 20, the other end of said lever being provided with a coin receptacle 62. The weight of the coin in said receptacle causes the disengagement of the locking lever in an obvious manner. The coin is discharged by suitable means well known in the art.

I claim:

1. In a machine of the class described, a base having a dropping envelop support, a flap moistener arranged to enter behind the envelop flap over said support, a stamp position moistener operating in time with the flap moistener and also working over said support, and sealing means also arranged to operate above said support.

2. In a machine of the class described, a base having a dropping leaf, a reciprocal pad moistener arranged to be carried above said leaf when depressed, a movable stamp position moistener arranged to work over said leaf, a single operating mechanism for said two moisteners, and sealing means operating above the lever.

3. In a machine of the class described, a base having an envelop support, a flap moistener having a movement over said support and behind the folded flap of the envelop, a stamp position moistener movable toward and from said support, stamp feeding means, sealing means, mechanism for operating the two moisteners in time, and means for setting the stamp feeding and sealing means into operation, and simultaneously throwing out of action the said moisteners.

4. In a machine of the class described, a base having an envelop support, a shiftable flap moistener operating over said support, a stamp position moistener also operating over said support, a shaft having operative connections with said moisteners for working them in time, sealing means working above the support, stamp feeding means, and

an operating device having operative connections, and also having an automatically releasable operative connection with said shaft.

5 5. An envelop sealing machine comprising an operating lever, a moistening unit, means for detachably engaging said unit with said lever, a stamp feeding unit also operatively connected with said lever, and a trip lever
10 provided with means for disengaging said moistening unit.

6. An envelop sealing machine comprising an operating lever, a moistening unit, a link for operating said unit and detachably engaging said lever, a stamp feeding unit operatively connected with said lever, and means for disengaging said link from said lever.
15

7. An envelop sealing machine comprising an operating lever, a moistening unit, a link for operating said unit and detachably engaging said lever, a stamp feeding unit operatively connected with said lever, and a trip lever for disengaging said link from said lever.
20
25

8. An envelop sealing machine comprising an operating lever, a moistening unit, a link for operating said unit and detachably engaging said lever, a stamp feeding unit operatively connected with said lever, a trip lever having an angular portion, and a link carried by said angular portion adapted to engage the free end of the first mentioned link to disengage the same from the operating lever.
30
35

9. An envelop sealing machine comprising an operating lever, a moistening unit detach-

ably connected with said lever, a stamp feeding unit, a pawl controlled by said lever for operating the stamp feeding unit, and means for detaching said moistening unit before said pawl becomes operative. 40

10. An envelop sealing machine comprising an operating lever, a moistening unit detachably connected with said lever, a stamp feeding unit, a pawl controlled by said lever for operating the stamp feeding unit, and a trip lever provided with means for detaching said moistening unit. 45

11. An envelop sealing machine comprising an operating lever, a moistening unit detachably connected with said lever, a stamp feeding unit, a pawl controlled by said lever for operating the stamp feeding unit, a carrier, a stamp severing knife mounted therein, a presser member secured to said carrier, and means for detaching said moistening unit. 50
55

12. An envelop sealing machine comprising an operating lever, a moistening unit detachably connected with said lever, a stamp feeding unit, a pawl controlled by said lever for operating the stamp feeding unit, a vertical guide, a carrier mounted to reciprocate therein and connected with said lever, a stamp cutter mounted in said carrier, and means for detaching said moistening unit. 60
65

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

JOHN A. MILLER.

Witnesses:

D. P. WOLHAUPT,
R. C. BRADDOCK.