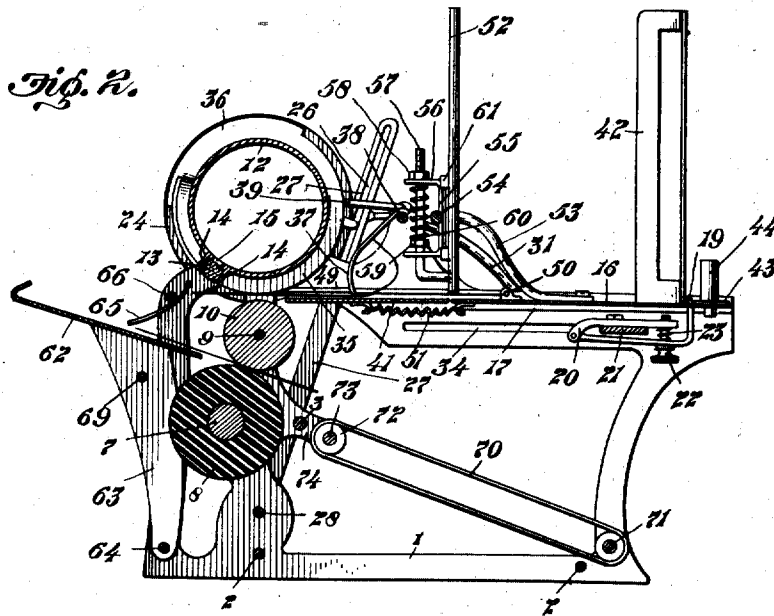
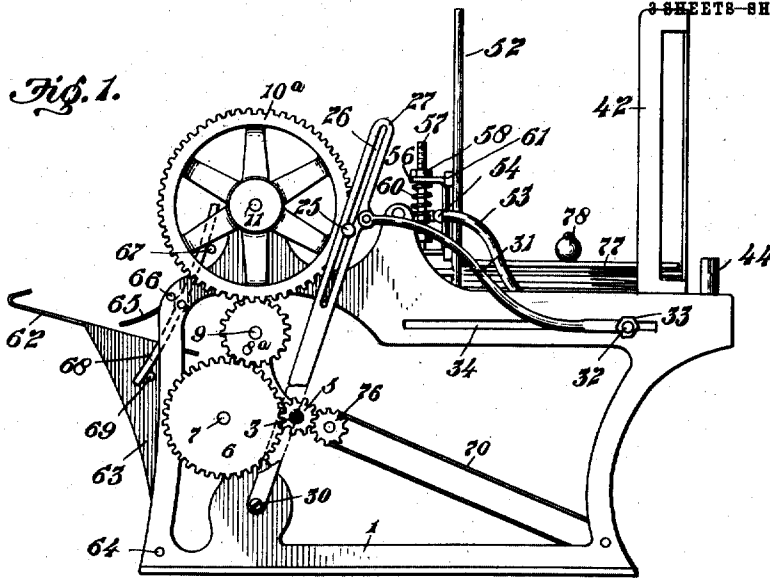


R. E. NICHOLS.
ENVELOP SEALING MACHINE.
APPLICATION FILED MAR. 14, 1911.

1,008,359.

Patented Nov. 14, 1911.

3 SHEETS-SHEET 1.



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3 SHEETS-SHEET 2.

Fig. 3.

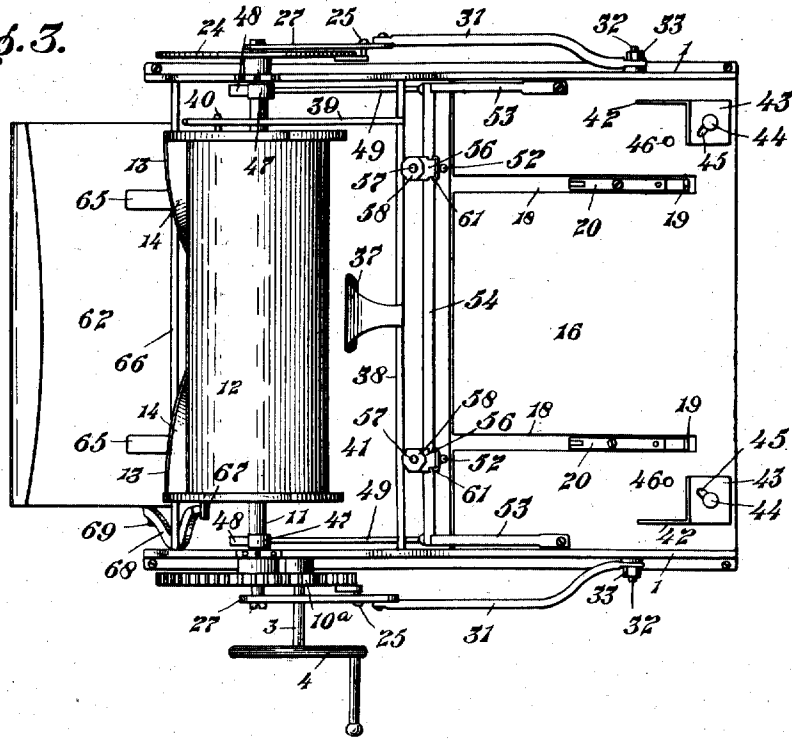
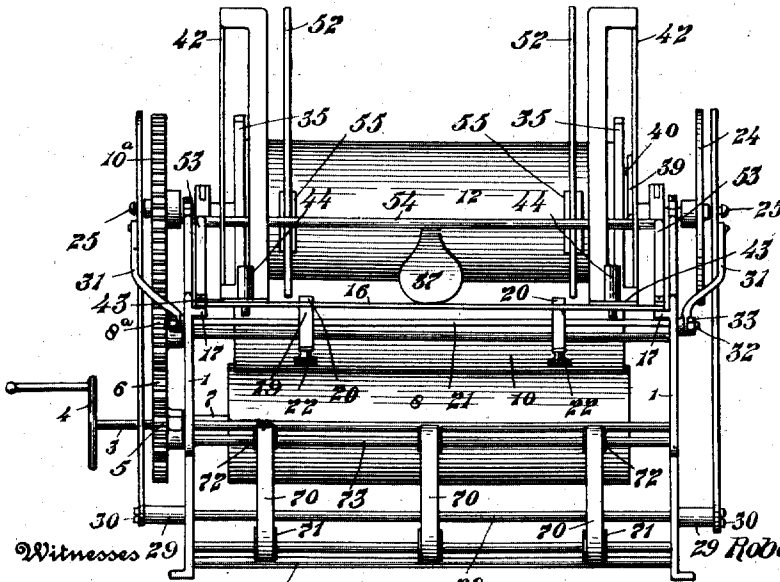


Fig. 4.



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3 SHEETS-SHEET 3.

Fig. 5.

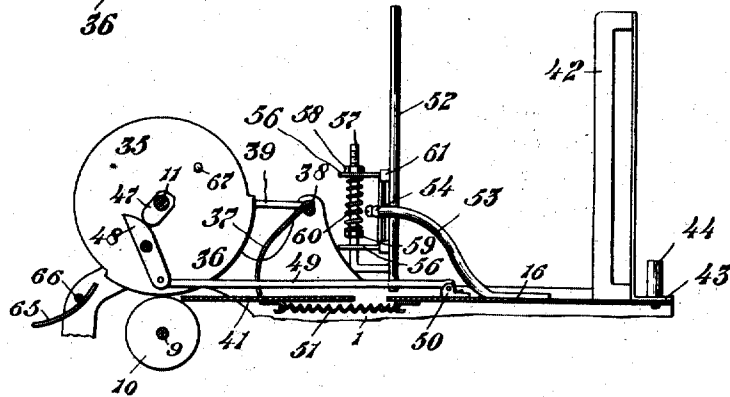
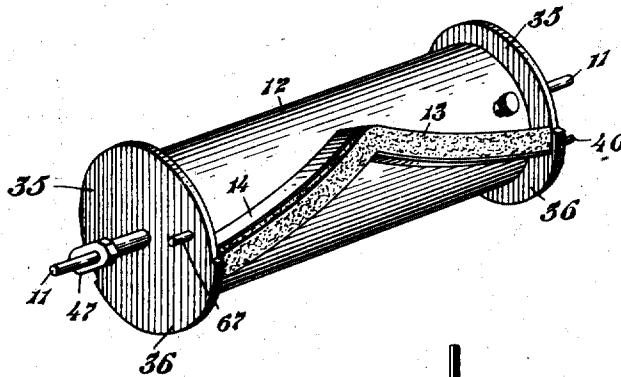
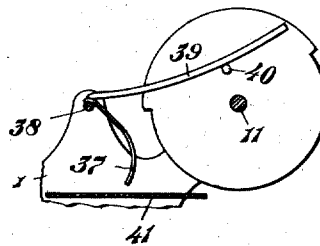


Fig. 6.

Fig. 7.



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UNITED STATES PATENT OFFICE.

ROBERT E. NICHOLS, OF AKRON, OHIO.

ENVELOP-SEALING MACHINE.

1,008,359.

Specification of Letters Patent. Patented Nov. 14, 1911.

Application filed March 14, 1911. Serial No. 614,470.

To all whom it may concern:

Be it known that I, ROBERT E. NICHOLS, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented a new and useful Improvement in Envelop-Sealing Machines, of which the following is a specification.

The present invention in its entirety consists of a novel and useful construction of machines designed to properly moisten the flaps of envelopes and to finally seal the same, which operation is performed automatically as each envelop passes into the machine and is delivered from the machine.

A further object consists in novel means for automatically feeding the envelopes one at a time, and at such intervals that will prevent any lapping of two or more envelopes over and upon each other.

It further consists in providing novel means for opening the flap of the envelop and in moistening the glued face of the flap while open.

It further consists in the novel construction and properly timed mechanism for moistening the flap and closing the flap, the moistening means being a suitable liquid retainer provided with a suitable moistening pad.

It further consists in means adapted to position the envelopes to be fed between the sealing rollers.

It further consists in the novel construction or means for removing the envelopes after the same have been properly sealed.

The invention further consists in the general arrangement of the various parts and combination of parts hereinafter specifically described and summed up and pointed out in the claims.

In the accompanying drawings—Figure 1 is a side elevation showing a number of envelopes located upon the retaining platform. Fig. 2 is a longitudinal vertical section, showing the parts in the same relative position as in Fig. 1. Fig. 3 is a top plan view. Fig. 4 is a front end elevation looking at the right hand end of Fig. 3. Fig. 5 is a detached perspective view of the moistening cylinder and its pad. Fig. 6 is a vertical section illustrating an end view of the moistening cylinder, also showing the envelop holding platform together with its different parts. Fig. 7 is an end view of the moistening cylinder, showing the envelop flap opening mechanism.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawing 1 represents the side members of the frame proper, which side members are tied together by suitable tie rods 2, which tie rods are for the purpose of holding the side members in proper parallel relationship with reference to each other, and also to provide means whereby a rigid and permanent frame is provided to support and carry the various fixed and movable parts going to make up the machine. The power shaft 3 is properly journaled in the frame, which power shaft may be provided with the crank wheel 4 or said shaft may be provided with a gear or belt wheel to take the place of the crank, if in the event it is desired to communicate motion to the machine from any source of power other than manual force. Upon the power shaft 3 is mounted the pinion 5, which pinion meshes with the gear wheel 6, said gear wheel being mounted upon the shaft 7 and upon which shaft 7 is mounted the lower return feed and sealing roller 8. The gear wheel 5 meshes with the gear wheel 8, which gear wheel is mounted upon the shaft 9 and upon said shaft 9 is mounted the upper return feed and sealing roller 10. Directly above the gear wheel 8^a is mounted the relatively large gear wheel 10^a, which gear wheel meshes with the gear wheel 8^a as best illustrated in Fig. 1. The gear wheel 10^a is fixedly mounted upon the shaft 11, to which shaft is mounted the envelop moistening cylinder 12, said cylinder being formed hollow and adapted to contain a quantity of liquid, preferably water, which liquid is used in moistening the pad 13, said pad being arranged substantially as shown in Fig. 5 and is held in proper relationship with reference to the cylinder 12 by means of the flanges 14 or their equivalents. For the purpose of providing means for saturating the pad 13, the shell of the cylinder is provided with suitable apertures 15, one of such apertures being shown in Fig. 2. It will be understood that the pad 13 should be of a size and shape to correspond substantially with the size and shape of the glued portion of the flap of an envelop, so that the entire flap will become properly moistened and put into condition to be sealed as hereinafter described. Upon the frame of the machine proper is slidably mounted the envelop hold-

ing table or platform 16, said platform being supported in proper elevation by means of the guide and holding flanges 17.

The envelop holding table or platform 16 is provided with the elongated slots 18, which elongated slots are for the purpose of providing suitable clearance to allow the envelop feeding fingers 19 to be extended up so that their upper ends will extend a short distance above the upper surface of the envelop table or platform 16, the object of so extending the fingers 19 is to cause said fingers to move the under envelop upon the platform toward the flap opening moistening and sealing devices. It is well understood that envelops vary in thickness, reference being had to their contents and in order to provide for this varying thickness of envelops, the fingers 19 are pivotally connected to the bars 20, which bars are secured to the tie bar 21, said tie bar being for the purpose of holding the envelop fingers in proper relationship with reference to each other and at the same time holding them in proper relationship with reference to the elongated slots 18.

For the purpose of providing means for adjusting the fingers 19 up or down the screws 22 are provided, which screws are located through the bars 20 and between the bars 20 and the horizontal portions of the fingers 19 are located the springs 23, said springs being for the purpose of holding the fingers 19 in their lowermost positions after the fingers have been properly adjusted with reference to the thickness of the envelops. It will be understood that this adjustment of the fingers 19 is not necessary at all times, but said fingers should be adjustable so that when it is desired to seal a number of envelops of substantially uniform thickness and then at another time desire to seal a number of envelops of uniform thickness but of greater thickness then it becomes necessary to adjust the fingers, the adjustment being of such a degree that but a single envelop will be fed at any one movement of the fingers 19.

For the purpose of providing means for reciprocating the fingers 19, the large gear wheel 10^a, and the wheel 24 are each provided with the wrist-pins 25, which wrist-pins are extended through the elongated slots 26 formed in the oscillating bars 27, which bars are connected at their bottom or lower ends to the cross shaft or rod 28, and for the purpose of holding the oscillating bars 27 in proper position and to prevent any lateral displacement of said oscillating bars, the sleeves 29 are provided, the rod 28 being extended through the sleeves, and the screws 30, or their equivalents properly connected to the rod 28. It will be understood that other means may be employed for pivotally connecting the bottom or lower

ends of the oscillating bars 27, as the only object designed to be accomplished is to provide some means whereby an oscillating movement can be imparted to the oscillating bars 27. Between the ends of the oscillating bars 27 are pivotally connected the connecting rods 31, which connecting rods are extended forward and connected to the tie bar 21 by means of the extended portions 32 and the nuts 33 or their equivalents, which extensions 32 are located through the elongated slots 34 formed in the side members of the frame proper. It will be understood that as rotary motion is imparted to the gear wheel 10^a and the wheel 24 there will be imparted an oscillating movement to the oscillating bars 27 which in turn imparts a reciprocating movement to the connecting rods 31 and to the envelop feeding fingers 19 by reason of the reciprocating movement of the tie bar 21, to which tie bar the envelop feeding fingers are operatively connected. The moistening cylinder 12 is provided with the end flanges 35, which flanges are provided with the segmental extended portions 36, the outer edges of said extended flanges or portions constituting envelop bearing surfaces and when said extended portions are brought into their lowered positions their edges will come in close contact with the upper surface of the roller 10 and by a continuous rotary motion of the moistening cylinder 12, the envelops will be carried rearward by the frictional contact between the roller 10 and the extended flanges 36. For the purpose of increasing this frictional contact the edges of the flanges 36 should be milled or roughened.

In use the envelops should be placed upon the table or platform 16 with their flaps uppermost and for the purpose of turning the flap backward or in other words opening the flap of the envelop so as to bring the glued surface of the flap uppermost, the curved flap opening finger 37 is provided, which curved finger is operatively connected to the rock bar or shaft 38 from which rock bar or shaft is extended the curved trip rod or finger 39, which trip rod or finger is lifted forward by means of the pin 40 fixed to and carried by one of the end flanges 35 of the moistening cylinder 12. The object in providing the trip rod or finger 30 is to provide means to move the trip finger 37 so as to better turn the flap backward during the movement of the envelop. This movement of the flap opening finger 37 being an oscillatory one and its movements being so timed that it will move during the time the flap portion of the envelop is passing said finger, which finger first catches or comes in contact with the edge of the flap. After the flap of the envelop has been properly turned backward so as to bring its glued surface uppermost the trip rod 39 falls by

gravity, thereby permitting the extreme bottom or lower end of the envelop flap opening finger 37 to fall in close relationship or contact with the bed-plate 41, which bed-plate is secured in any convenient and well known manner to the frame proper.

To the platform or envelop table 16 are secured the upright angled envelop holding angled bars 42, said bars being provided with the foot flanges 43, which are held in proper position by means of the screws 44, which screws are formed of sufficient size so that they can be easily rotated to provide means for adjusting the envelop holding angle bars 42, slots 45 being provided in the foot flanges 43 and for the purpose of providing means for varying the adjustment with reference to various sized envelops a number of screw threaded apertures 46 may be provided in the platform or table 16, but for a limited degree of adjustment the slots 45 are sufficient. To the shaft 11 are connected the tappets 47, which tappets are for the purpose of actuating the trip-bars 48, which trip-bars are pivoted between their ends to some fixed object of the frame, preferably one of the side members. It will be understood that as the tappets 47 come in contact with the top or upper ends of the trip-bars 48 they will be moved away from the shaft 11 and their bottom or lower ends moved in the opposite direction, or toward the envelop table or platform 16.

For the purpose of moving the envelop table or platform 16 away from the bed plate 41 the bars 49 are provided, which bars are connected to the trip-bars 48 and also to the envelop table or platform 16 by means of suitable brackets 50 by which arrangement a limited movement is given the platform toward the front end of the machine proper; but when the tappets 47 have fully passed the trip bars 48 the envelop table or platform together with the envelops carried thereon is moved in the opposite direction by means of the springs 51, which springs are connected to the bottom or under-side of the envelop table or platform 16 and to the bottom or under-side of the bed-plate 41. The purpose of imparting a short reciprocating movement to the envelop table or platform 16 is to move the bunch or stack of envelops toward the front of the machine and thereby better separate or part the undermost envelop from the remaining upper envelops, so that the envelop which is passing through the flap opening, moistening and sealing mechanism will not be interfered with or more specifically will be entirely separated from the bunch or tier of envelops. For the purpose of moving the envelops with the movement of the table or platform 16 produced by the tappets 47 and their intermediate mechanism the upright guide members or rods 52

are provided, which upright guide rods and the upright angled bars 42 are spaced the proper distance apart to come in close proximity with or abut against the side edges of the envelops.

It will be understood that each envelop as it is fed into the machine must pass under the upright guide rod 52 and in order to provide for this emergency the bottom or lower ends of the guide rods 52 must be spaced a short distance from the upper or top surface of the envelop table or platform 16 and the bed plate 41. For the purpose of providing proper supporting mechanism for the guide rods 52 the upwardly and rearwardly curved arms 53 are provided, which arms are connected to the envelop table or platform 16 at or near the ends of said table or platform and are so located that they will not interfere with the movement of the envelops as they are fed into the machine. To the upper ends of the arms 53 is attached the cross bar 54, to which cross bar is attached in any convenient and well known manner the short bars 55, which short bars are provided with the right angled arms 56, through which right angled arms are located the screw threaded rods 57, which screw threaded rods are secured to the guide rods 52. Upon the screw threaded rods or posts 57 are located the screw threaded nuts 58 and 59, the screw threaded nuts 58 being for the purpose of adjusting the guide rods up or down by means of turning said nuts in the direction desired to bring about the adjustment wanted. Between the right angled arms 56 are located the nuts 59 above which nuts and between the upper right angled flange 56 are located the springs 60, which springs are for the purpose of permitting a yielding upper movement to the guide rods 52 in case excessive pressure is exerted upon the bottom or lower ends of the guide rods 52. It will be understood that the rods 52 should be so adjusted that their bottom or lower ends will not interfere with the forward movement of the envelops as they are fed or moved by the feeding fingers. In order to properly guide the movements of the guide rods 52, they are provided with the guides 61, which embrace the short bars 55 as best illustrated in Fig. 3. It will be understood that the adjustment of the guide rods 52 may be but slight and hence the guides 61 need be quite narrow as shown in Fig. 2, but their construction is simply mechanical as their only object is to provide means for properly guiding the envelop guide rods 52.

At the rear of the envelop flap opening mechanism for moistening and sealing is located the envelop receiving plate 62, which plate is provided with the downward extended arms or supports 63, which supports are pivoted at their bottom or lower ends by

means of the cross rod 64 or its equivalent which cross rod may be fixed to the side frame members 1 or other means may be provided for pivotally connecting the supporting arms 63. Above the envelop receiving plate are located the envelop shunting or guide fingers 65, which are attached to the cross bar 66 and are for the purpose of moving the envelops down and upon the plate 62 and cause them to move along and upon the plate 62, the envelops being carried by the extended flanges 36 and the upper feed roller 9, which feed roller is a combined rearward and forward feed roll. After the envelop has been properly delivered upon the plate 62, said plate is tilted slightly forward and its forward edge slightly lowered by means of the pin 67, which is connected to one of the end flanges 35 of the moistening cylinder 12 and the rock arm 68, which pin moves the top or upper end of the rock arm outward or away from the feed rolls and moves the lower end inward which lower end strikes the pin 69, which pin is connected to the rocking supports 63 and when in this position the envelop slides upon the plate 62 and is caught between the rollers 8 and 10 and passes between said rollers on to the endless conveyers 70, which conveyers extend in an inclined position and are located around the pulleys 71 and 72, the pulley 72 being securely mounted upon the shaft 73, which shaft is properly journaled in the side members or more specifically the web members 74 of the frame proper. The plate 62 is so supported that after the pin 67 has passed the rock arm 68 the plate 62 is free to tilt backward by gravity and in the position to be again tilted as above described. For the purpose of communicating motion to the pulleys 73 and the conveyer belts 70 the gear wheels 5 and 76 are provided. The gear wheel 5 being mounted upon the power shaft 3 and the gear wheel 76 upon the shaft 73. It will be understood that a receptacle should be provided to receive the envelops as they are delivered one at a time from the endless belts or conveyers 70.

For the purpose of preventing any slipping or sliding action of the feed rollers 8 and 10 during the time the envelop is passing between said rollers, preferably the lowermost roller should be somewhat resilient, so that sufficient adhesiveness is maintained as between at least one of the feed rollers and its opposing roller to move the envelop with the rotary movement of the rollers 8 and 10. This is of importance, owing to the fact that during the operation of the machine and while envelops are being fed they follow each other in close succession and any stopping or clodding of the envelop will interfere with the proper movement of the envelops. Another purpose in providing a resilient feed roller is to insure practically

uniform pressure between the ends of the envelop flaps so that they will be properly sealed throughout their entire length or the entire length or surface of the glued or adhesive faces of the envelop flaps.

It will be understood that the roller 10 is what might be termed a two-way feed roller, that is to say when the envelops are moving to the left or from front to rear the envelops ride upon the top of the roller 10 and when the envelops are fed by the tilting plate 62 they pass between the rollers 8 and 10 from left to right or in the opposite direction, the bottom or underside of the roller 10 coming in contact with the envelop and the envelop riding upon the top or upper surface of the feed roller 8.

In order to press the bunch of envelops upon the table or platform 16 so that the lowermost envelop will lie closely upon the upper surface of the table or platform 16, the weight 77 is provided, which weight is substantially of the size of the envelops and lies upon the uppermost envelop of the staff. For the purpose of convenience in removing and placing the weight 77 it is provided with the knob or handle 78.

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

1. In an envelop sealing device, the combination of a suitable frame, an envelop holding table or platform, said table or platform provided with slots, envelop feeding fingers located through the slots in the table, means for imparting reciprocating movement to the envelop holding table and envelop feeding fingers, a fixed bed plate adapted to support an envelop, an envelop flap opening finger, located in the path of the movement of an envelop, means for oscillating said flap opening finger, a moistening cylinder provided with a moistening pad, said cylinder provided with end flanges having flanged extensions, a feed roller located below the moistening cylinder, a tilting plate, and a feed roller located below the feed roller adjacent the moistening cylinder, means for tilting the plate and gear wheels adapted to impart rotary motion to the moistening cylinder feed rollers from a driven gear, substantially as and for the purpose specified.

2. In an envelop sealing device, the combination of a suitable frame, an envelop holding table or platform, said table or platform provided with slots, vertical adjustable envelop feeding fingers located through the slots in the table, means for imparting reciprocating movement to the envelop holding table and envelop feeding fingers, a fixed bed plate adapted to support an envelop, an envelop flap opening finger located in the path of the movement of an envelop, means for oscillating said flap

opening finger, a moistening cylinder provided with a moistening pad, said cylinder provided with end flanges having flanged extensions, a feed roller located below the moistening cylinder, a tilting plate and a feed roller located below the feed roller adjacent the moistening cylinder, means for tilting the plate and gear wheels adapted to impart rotary motion to the moistening cylinder feed rollers from a driven gear, substantially as and for the purpose specified.

3. In an envelop sealing machine the combination of a suitable frame, a reciprocating envelop holding table, said table provided with slots, reciprocating envelop feeding fingers located through the slots in the table, upright guide rods, the bottom or lower ends spaced from the envelop table, means for vertically adjusting said guide rods, envelop holding bars secured to and carried by the reciprocating table, a tilting plate, means for tilting the plate, an envelop flap moistening cylinder, feed rollers located below the moistening cylinder, means for rotating the moistening cylinder and feed rollers, said feed rollers located between the reciprocating envelop holding table and tilting plate, substantially as and for the purpose specified.

4. In an envelop sealing machine, the combination of a reciprocating table adapted to support and reciprocate a plurality of envelops, reciprocating envelop feeding fingers adapted to move the lowermost envelop of the series carried by the table independent of the movement of the table, means for opening the flap of an envelop while fed, a moistening device, feed rollers located below the moistening device, an envelop receiving plate, means for shunting the envelop upon the plate and means for tilting the plate toward the feed rollers located below the moistening device, substantially as and for the purpose specified.

5. In an envelop sealing machine, the combination of a reciprocating table adapted to support and reciprocate a plurality of envelops, reciprocating envelop feeding fingers adapted to move the lowermost envelop of the series carried by the table independent of the movement of the table, means for opening the flap of an envelop while fed, a moistening device, feed rollers located below the moistening device, an envelop receiving plate, means for shunting the envelop upon the plate and means for tilting the plate toward the feed rollers located below the moistening device, and means for automatically and differentially reciprocating the envelop supporting table and envelop feeding fingers, substantially as and for the purpose specified.

6. In an envelop sealing machine, the combination of a train of gears, a shaft hav-

ing mounted thereon the uppermost wheel of the train of gears at one of its ends and its opposite end provided with a wheel, said wheel and uppermost wheel of the train of gear wheels provided with wrist pins, oscillating bars provided with elongated slots, said oscillating bars pivotally connected at their bottom or lower ends, connecting rods pivotally connected between the ends of the oscillating bars, envelop feeding fingers adapted to be reciprocated by the connecting bars, a reciprocating table provided with slots, fingers located through the slots, means for reciprocating the table, an envelop flap moistening cylinder adapted to moisten the flaps of the envelops when in opened position, sealing devices and means for feeding the envelops to the sealing device, substantially as and for the purpose specified.

7. In an envelop sealing machine, the combination of a frame, a reciprocating table, envelop holding bars carried by said table and horizontally adjustable upon said table, means for holding said bars in fixed adjustment, vertically adjustable guide bars carried by said reciprocating table, reciprocating envelop feeding fingers adapted for contact with the envelop, means for reciprocating said fingers and adapted to move the envelop upon the table, means for opening a flap of an envelop, moistening and sealing devices, and means for actuating said moistening and sealing devices, substantially as and for the purpose specified.

8. In an envelop sealing machine, the combination of a frame, a reciprocating table, envelop holding bars carried by said table and horizontally adjustable upon said table, means for holding said bars in fixed adjustment, vertically adjustable guide bars carried by said reciprocating table, reciprocating envelop feeding fingers adapted for contact with the envelop, means for reciprocating said fingers and adapted to move the envelop upon the table, means for opening a flap of an envelop, moistening and sealing devices, means for actuating said moistening and sealing devices, and means for feeding the envelops after moistening to the sealing devices, substantially as and for the purpose specified.

9. In an envelop sealing machine, the combination of a frame, a reciprocating table, envelop holding bars carried by said table and horizontally adjustable upon said table, means for holding said bars in fixed adjustment, vertically adjustable guide bars carried by said reciprocating table, reciprocating envelop feeding fingers adapted for contact with the envelop, means for reciprocating said fingers and adapted to move the envelop upon the table, means for opening a flap of an envelop, moistening and sealing devices, means for actuating said moistening

and sealing devices, and means for actuating the moistening device, substantially as and for the purpose specified.

10. In an envelop sealing machine, the combination of a frame, a reciprocating table, envelop holding bars carried by said table and horizontally adjustable upon said table, means for holding said bars in fixed adjustment, vertically adjustable guide bars carried by said reciprocating table, reciprocating envelop feeding fingers adapted for contact with the envelop, means for reciprocating said fingers and adapted to move the envelop upon the table, means for opening a flap of an envelop, moistening and sealing devices, means for actuating said moistening and sealing devices, substantially as and for the purpose specified.

11. In an envelop sealing machine, the combination of a frame, a reciprocating table, envelop holding bars carried by said table and horizontally adjustable upon said table, means for holding said bars in fixed adjustment, vertically adjustable guide bars carried by said reciprocating table, reciprocating envelop feeding fingers adapted for contact with the envelop, means for reciprocating said fingers and adapted to move the envelop upon the table, means for opening a flap of an envelop, moistening and sealing devices, and means for actuating the moistening, sealing and envelop feeding devices adapted to open, close and seal the flap of an envelop, substantially as and for the purpose specified.

12. In an envelop sealing device, the combination of a suitable frame, a reciprocating envelop holding table, means for reciprocating a bunch of envelops with the reciprocating movement of the table, reciprocating envelop feeding fingers extended through the table and means for vertically adjusting said envelop fingers, an envelop flap opening finger, means for imparting an oscillatory movement to said finger, an envelop flap moistening device provided with end flanges, said flanges provided with roughened edged extensions adapted for contact with the envelops, a two way feed roller adapted for contact with the roughened edged flanged extensions and a resilient feed roller located in contact with the two way feed roller and means for actuating the feed rollers and moistening devices, substantially as and for the purpose specified.

13. In an envelop sealing device, the combination of a suitable frame, a reciprocating envelop holding table, means for reciprocating a bunch of envelops with the reciprocating movement of the table, reciprocating envelop feeding fingers extended through the table and means for vertically adjusting said envelop fingers, an envelop flap opening finger, means for imparting an oscillatory movement to said finger, an envelop flap

moistening device provided with end flanges, said flanges provided with roughened edged extensions adapted for contact with the envelops, a two way feed roller adapted for contact with the roughened edged flanged extensions and a resilient feed roller located in contact with the two way feed roller and means for actuating the feed rollers and moistening devices and a tilting plate adapted to feed the envelops between the two way feed roller and the resilient roller, substantially as and for the purpose specified.

14. In an envelop sealing machine, the combination of a suitable frame, a reciprocating envelop holding table, reciprocating envelop feeding fingers, means for differentially reciprocating the envelop holding table and envelop feeding fingers, an envelop flap opening finger, means for oscillating said finger, envelop flap moistening and feeding devices, said feeding device consisting of means adapted to feed the envelops backward and forward, substantially as and for the purpose specified.

15. In an envelop sealing machine, the combination of a suitable frame, a reciprocating envelop holding table, reciprocating envelop feeding fingers, means for differentially reciprocating the envelop holding table and envelop feeding fingers, an envelop flap opening finger, means for oscillating said finger, envelop flap moistening device and feeding devices, said feeding device consisting of means adapted to feed the envelops backward and forward, and means for delivering the envelops, substantially as and for the purpose specified.

16. In an envelop sealing machine, the combination of a frame, a table carried by the frame, envelop feeding fingers adapted to feed an envelop when moved in one direction, a shaft mounted thereon, an envelop flap moistening cylinder, tappets fixed to said shaft, rock bars pivotally mounted between their ends, connecting links pivotally connected to the rock bars and to the envelop carrying table, respectively, and springs adapted to move the envelop table in one direction, envelop flap opening, moistening and sealing devices and means for actuating said envelop flap opening, moistening and sealing devices, substantially as and for the purpose specified.

17. In an envelop sealing machine, the combination of a frame, a table carried by the frame, envelop feeding fingers adapted to feed an envelop when moved in one direction, a shaft mounted thereon, an envelop flap moistening cylinder, tappets fixed to said shaft, rock bars pivotally mounted between their ends, connecting links pivotally connected to the rock bars and to the envelop carrying table respectively and springs adapted to move the envelop table in one direction, envelop flap opening, mois-

tening and sealing devices and means for actuating said envelop flap opening, moistening and sealing devices and a tilting plate, substantially as and for the purpose specified.

18. In an envelop sealing machine, the combination of a frame, a table carried by the frame, envelop feeding fingers adapted to feed an envelop when moved in one direction, a shaft mounted thereon, an envelop flap moistening cylinder, tappets fixed to said shaft, rock bars pivotally mounted between their ends, connecting links pivotally connected to the rock bars and to the envelop carrying table respectively and springs

adapted to move the envelop table in one direction, envelop flap opening, moistening and sealing devices and means for actuating said envelop flap opening, moistening and sealing devices, a plate and means for tilting said plate, substantially as and for the purpose specified. 20

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses. 25

ROBERT E. NICHOLS.

Witnesses:

JAMES W. CLINE,
JAMES ROWLAND.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
