Dec. 11, 1928. 1,694,619

H. P. ELLIOTT

ADDRESSING MACHINE

Filed July 2, 1926 5 Sheets-Sheet 1

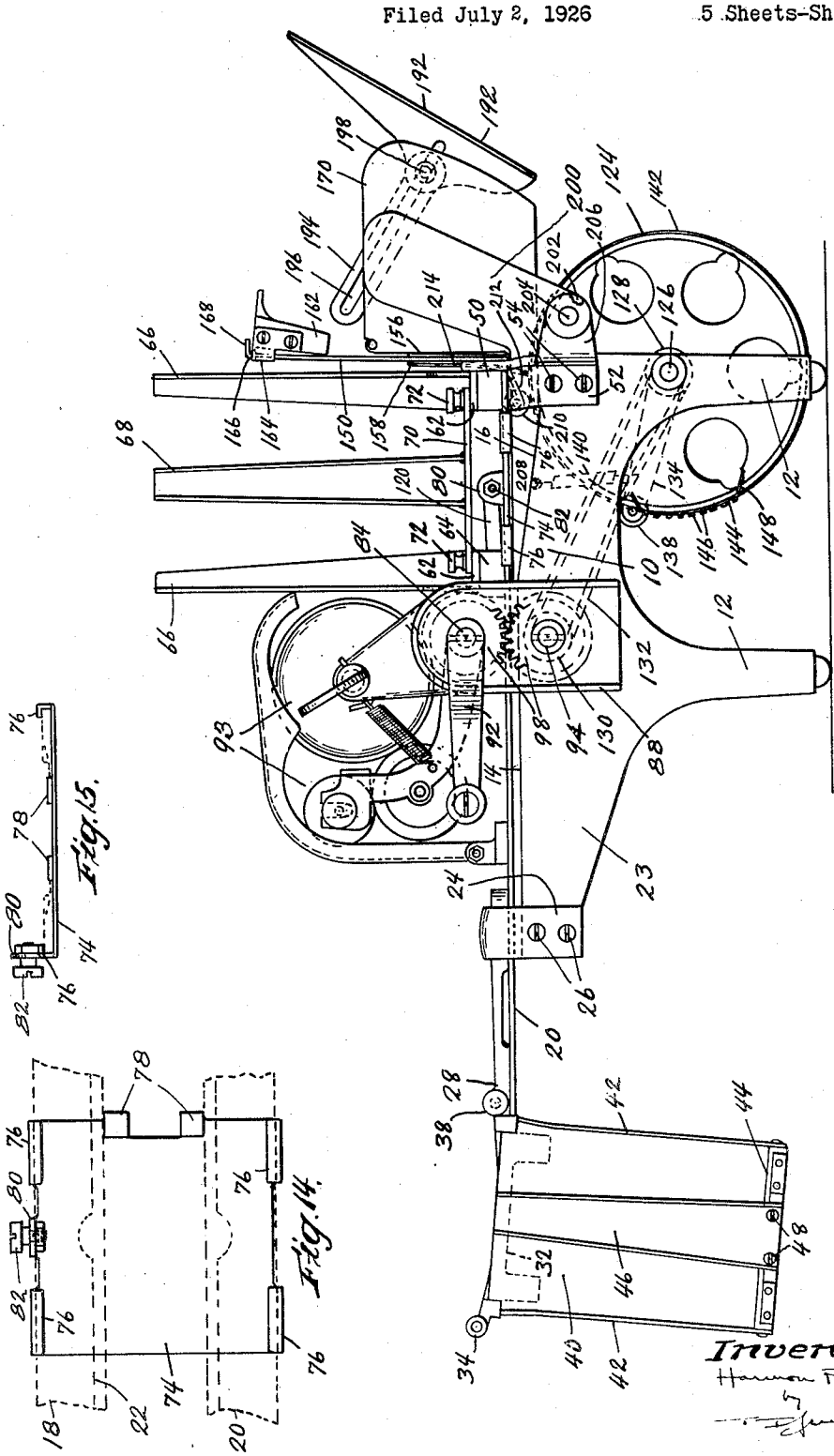


Fig. 1.

Fig. 15.

Fig. 14.

Inventor,
Harmon P. Elliott
by
Atty

Dec. 11, 1928. 1,694,619

H. P. ELLIOTT

ADDRESSING MACHINE

Filed July 2, 1926 5 Sheets-Sheet 2

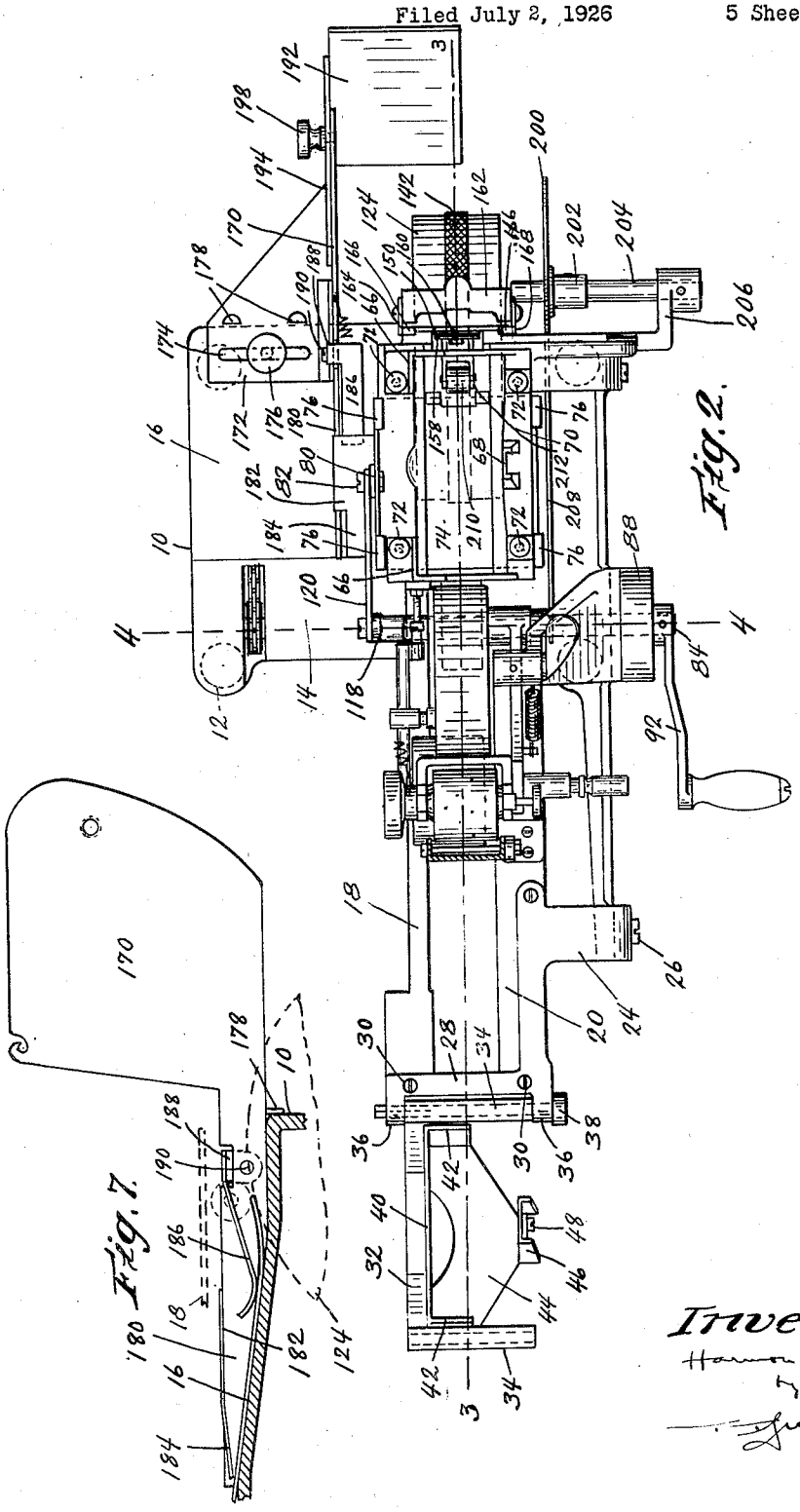


Fig. 2.

Fig. 1.

Inventor:
Harmon P. Elliott
by
Atty

Dec. 11, 1928. 1,694,619

H. P. ELLIOTT

ADDRESSING MACHINE

Filed July 2, 1926 5 Sheets-Sheet 3

Fig. 3.

Fig. 13.

Fig. 12.

Fig. 11.

Fig. 10.

Inventor.
Harmon P. Elliott
by
Atty

Dec. 11, 1928. 1,694,619

H. P. ELLIOTT

ADDRESSING MACHINE

Filed July 2, 1926 5 Sheets-Sheet 4

Fig. 4.

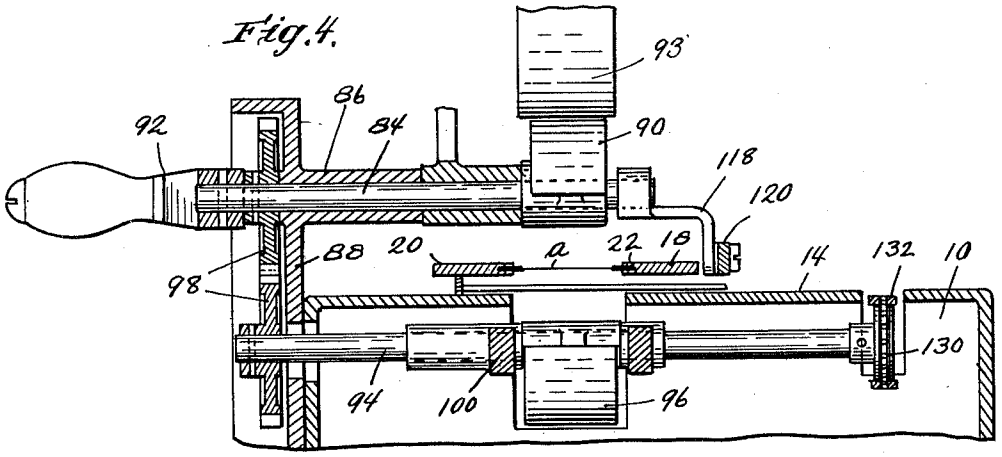


Fig. 5.

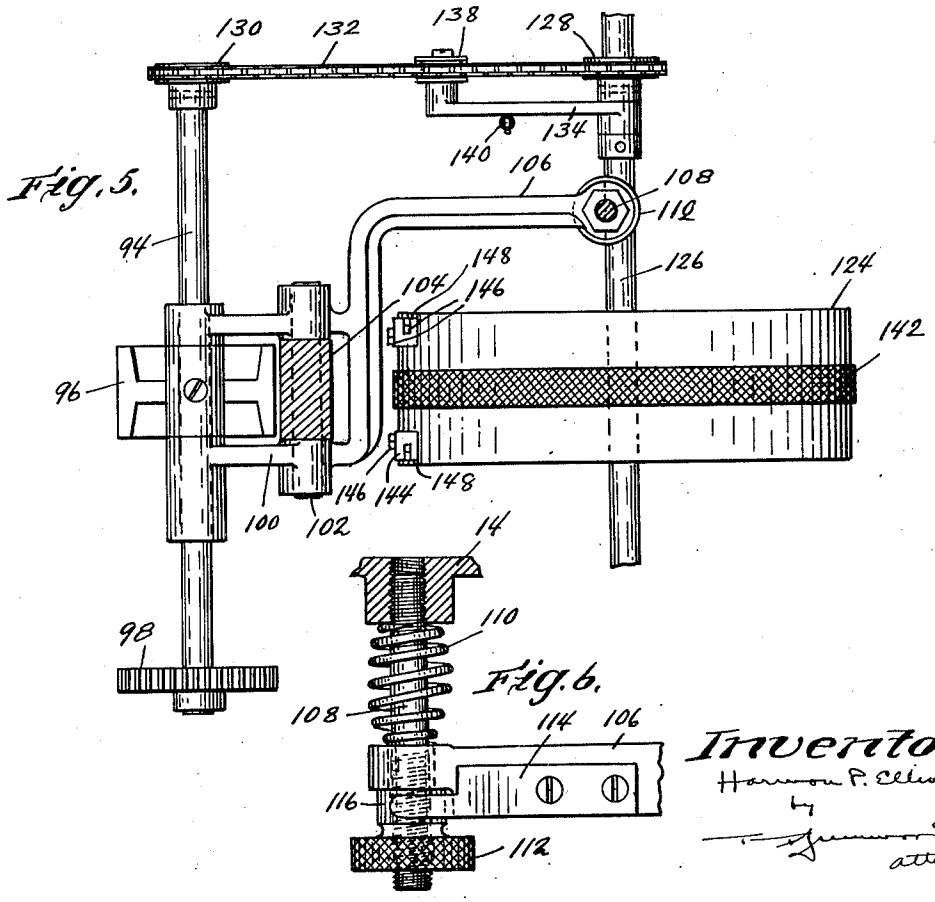


Fig. 6.

Inventor,
Harrison P. Elliott
by
atty

Dec. 11, 1928. 1,694,619

H. P. ELLIOTT

ADDRESSING MACHINE

Filed July 2, 1926 5 Sheets-Sheet 5

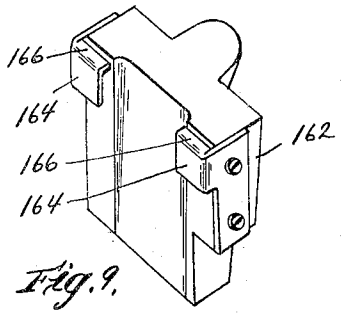


Fig. 9.

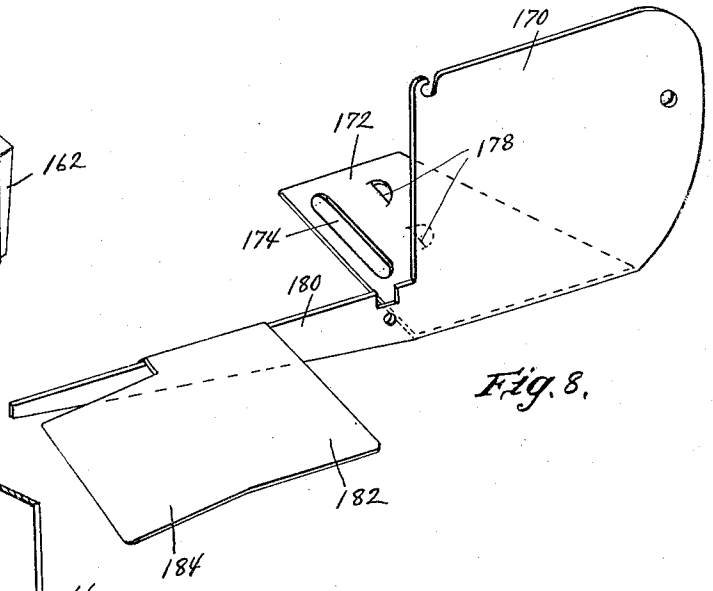


Fig. 8.

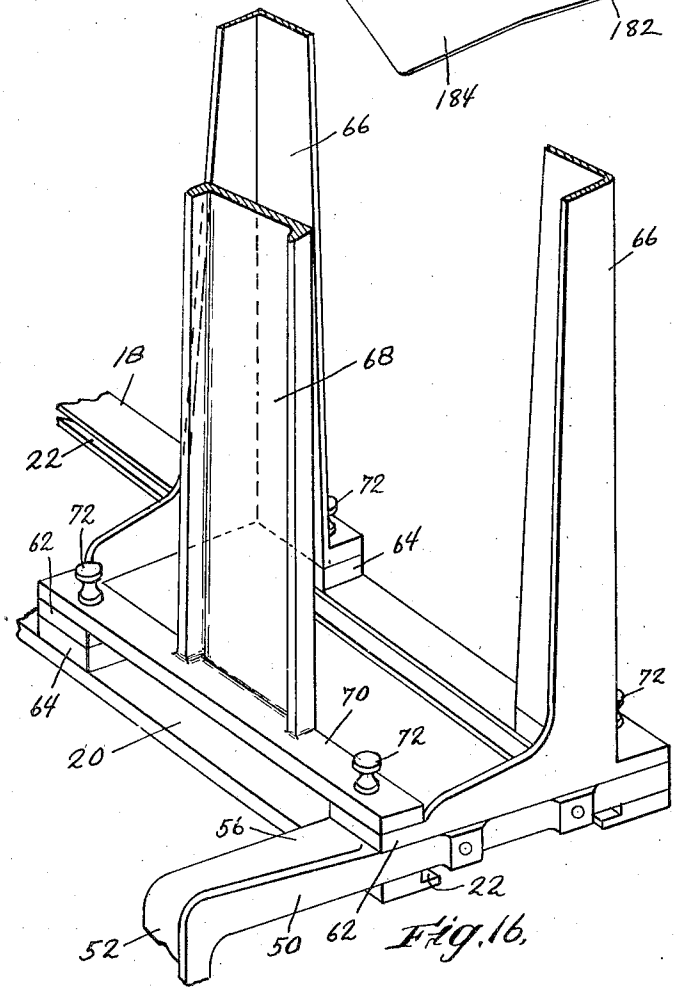


Fig. 16.

Inventor.
Harmon P. Elliott
by
Atty

Patented Dec. 11, 1928. 1,694,619

UNITED STATES PATENT OFFICE.

HARMON P. ELLIOTT, OF WATERTOWN, MASSACHUSETTS.

ADDRESSING MACHINE.

Application filed July 2, 1926. Serial No. 120,206.

This invention relates to printing machines of the type adapted to print addresses and the like on envelopes from stencils bearing the characters to be printed.

An object of this invention is the provision of a stencil printing machine which is operated by hand and is arranged automatically to feed envelopes and the like into and out of printing position conjointly with the feeding of stencils into and out of a printing position so that the envelopes are addressed automatically at a relatively high rate of speed.

Another object of the invention is to provide means to move the envelopes and the stencils in the same direction and in approximately parallel and superposed paths to the printing position.

A further object is generally to improve the construction of printing machines.

Fig. 1 is a side elevation of a stencil printing machine embodying the invention.

Fig. 2 is a plan view of the machine of Fig. 1.

Fig. 3 is a sectional elevation taken along line 3—3 of Fig. 2.

Fig. 4 is a sectional view taken along line 4—4 of Fig. 2.

Fig. 5 is a plan detail of the driving mechanism for the envelope feed drum.

Fig. 6 is a detail of the tension-adjustment mechanism for the lower printing sector.

Fig. 7 is a sectional detail illustrating one of the side plates for the envelope holder.

Fig. 8 is a perspective view of the side plate illustrated in Fig. 7.

Fig. 9 is a perspective view of the envelope weight.

Fig. 10 is a front view of the forward end plate of the envelope holder.

Fig. 11 is a side view of the plate of Fig. 10 with the envelope retaining springs removed.

Fig. 12 is an enlarged view of the lower end of the plate of Fig. 10 illustrating particularly the arrangement of the envelope retaining springs.

Fig. 13 is a perspective view illustrating the manner of supporting one end of the stencil track.

Fig. 14 is a plan view of the stencil pusher.

Fig. 15 is an end view of the stencil pusher.

Fig. 16 is a perspective detail illustrating the construction of the stencil holder.

The stencil printing machine embodying this invention includes the supporting frame or bed 10 having the legs 12. The frame is formed with a top face or wall which is approximately horizontal at the forward side 14 and is inclined downwardly to form the rear side 16 thereof. A stencil track comprising a pair of spaced parallel rails 18 and 20 respectively, having stencil grooves 22 in their proximate side edges, is disposed in spaced relation above the frame of the machine and at one side thereof. Said rails are supported in the aforesaid relation at the forward end of the machine by means including an arm 23 which is integral with the frame of the machine and extends laterally therefrom at one side thereof and below said rails. A bracket 24 is secured by screws 26 to the forward end of said arm 23 and has an extension 28 which overlies the ends of said rails and is secured thereto by screws 30. Said bracket also serves as a support for the stencil receiver which is disposed at the end of the rail. Said receiver comprises a frame 32 which has the parallel and spaced hubs 34 on the opposite sides thereof. Either of said hubs is adapted to be disposed between the arms 36 of said bracket 28 and to be pivotally connected removably therewith by a pin 38 which is passed through said ears 36 in either one of said hubs 34. A depending channel member having the rear wall 40 and the integral side walls 42 is attached to said frame 32 and depends therebeneath and is adapted to receive the stencils as they are discharged from the stencil track into the receiver. The channel member is provided with a pressed steel bottom wall 44 which is riveted to the lower end of the channel member and is provided with an upstanding extension 46, which is connected to the bottom member by screws 48 and comprises a front wall of the receiver, cooperating with the aforesaid channel member to retain the stencils removably in the holder. The stencil receiver is adapted to be somewhat inclined out of the vertical, as illustrated in Fig. 1, and one of the side walls 42 is adapted to be disposed beneath the stencil track

whereby to permit the stencils to enter the receiver while the other side wall 42 is, by the inclination of the receiver, terminated above the path of movement of the stencils so that the stencils will be prevented from overshooting the receiver and consequently will be compelled to fall into the receiver. The stencil receiver is adapted to be held in either of two relatively reversed positions, one of which positions is herein illustrated, by inserting the pin 38 in either one of the hubs 34 whereby to permit the stencils to be run through the machine in either one of two relatively reversed positions.

The rear end of the stencil rails are supported by a bracket 50, see Figs. 1 and 13. Said bracket is provided with a depending arm 52 which is attached by screws 54 to the side wall of the frame 10. Said bracket has an arm 56 which is extended horizontally above the stencil rails and is secured thereto by screws 58. Said track-supporting brackets are arranged to hold the stencil track in elevated position above the top wall of the frame whereby to permit envelopes to be moved between the track and the top wall and into and out of printing position.

A stencil holder is carried by the stencil track at the rear end thereof, and in position to deliver stencils into the groove in the track. Said stencil holder includes a pair of standards having attaching feet 62. One of said standards is disposed upon and supported by the arm 56 of the bracket 50 while the other standard is disposed upon a filling block 64 disposed upon and secured to the stencil track. Said standards are provided with upstanding channel members 66 which are adapted to provide supports for the opposite ends and for one side of the stencils *a*. A cooperating and vertically extended channel member 68 is disposed in position to provide a support for the free side of the stencils and is connected with a base plate 70 which is extended between the bracket 60 and is disposed upon and is secured to the ears 62 thereof. The various members of the stencil holder are secured in position by screws 72 and the stencil holder may be arranged in either of two relatively reversed positions upon the removal of the screws 72.

The pile of superimposed stencils in the stencil holder are adapted to descend by their own weight into the grooves of the stencil track, the upper walls of the grooves being cut away under the stencil holder for this purpose. Means including a pusher are arranged to advance the lowermost stencils successively from the pile of stencils and into and along the stencil track and into and out of printing position and into the stencil receiver.

The stencil pusher includes a flat plate 74, Figs. 1, 14 and 15, which is disposed immediately beneath the stencil rails and beneath the stencil holder and is formed with upturned ears 76 at its opposite corners which overlie the top faces of the stencil rails and support the pusher movably thereon. The rear edge of said pusher is provided with a pair of upstanding projections 78 which are located between the stencil rails and are adapted to engage the rear edge of the lowermost stencil and move it out from under the pile and along the track. Said pusher is provided with an upstanding ear 80 at a side edge thereof and a shoulder screw 82 is secured therein above the stencil track and provides means for connection with the stencil printing mechanism hereinafter to be described by which the stencil is reciprocated. It is apparent that, as said pusher is reciprocated back and forth beneath the stencil pile it moves them successively along the track; and the extent of movement of the pusher is adapted to be such as to bring the stencils into position to be engaged by the printing mechanism, which printing mechanism also serves as means to advance the stencils further along the track independently of the pusher.

The printing mechanism includes an upper shaft 84 which is disposed transversely above the top face 14 of the frame 10 and is rotatably supported in the hub 86 of a housing 88 which is secured to a side wall of said frame. A printing sector 90 is fixed to said shaft above the stencil track and an operating handle 92 is fixed to the outer end of said shaft, by means of which handle the printing machine is operated manually. Suitable inking mechanism 93 is associated with said sector 90. A lower printing shaft 94 is disposed vertically beneath said upper shaft 84 and beneath the top wall 14 of the printing table and is provided with a similar printing or anvil-sector 96 fixed thereto vertically beneath said upper sector 90. Said shafts 84 and 94 are connected together for conjoint rotation at the same speed through intermeshing gears 98 fixed to said shafts and disposed within said housing 88. Means are provided to support said lower shaft 94 yieldingly in position whereby to permit the printing mechanism to adjust itself for varying thicknesses of envelopes fed between the sectors while maintaining a suitable pressure thereon. Said means includes a frame 100 in which said shaft 94 is journalled. Said frame is pivoted on a pin 102 carried by a bracket 104 that is secured dependingly to the top wall 16 of the frame 10. Said frame 100 is provided with an arm 106 through which a screw-threaded rod 108 is loosely passed. Said rod is screw threaded dependingly into the top wall of the machine and is provided with a compression spring 110 which is disposed to bear against the upper face of said arm 106. A pressure adjusting nut 112 is

screw threaded on said rod 108 beneath said arm and serves as a stop member against which said arm is maintained yieldingly by said spring 108. Said nut 112 is held releasably in position by means of a spring plate 114 carried by said arm 106 and having a projection which is adapted to be maintained yieldingly in any one of a plurality of recesses 116 in said nut. Said nut is disposed in a conveniently accessible position at the rear end of the machine so that it can be rotated readily to vary the spring tension on the bottom sector 96 when desired.

Said upper shaft 84 is adapted to reciprocate the pusher and for this purpose is provided at its free end with a crank arm 118 which is pivotally connected with a connecting rod 120. Said connecting rod is provided with a notch 122 at its rear end in which the screw 82 of the pusher is adapted removably to be received. Under normal conditions each complete rotation of the shaft 84 serves to effect a complete reciprocatory movement of the pusher to deliver a stencil into the track. When, however, it is desired to repeat the printing of a selected stencil, said connecting rod 120 is adapted to be detached from its engagement with the pusher by raising the connecting rod away from engagement with the screw 82 whereupon the printing mechanism may be actuated without effecting the movement of the pusher.

Envelope feeding mechanism is provided and is arranged to present successive envelopes at the printing position between the printing sectors conjointly with the presentation of a stencil in printing position, and the arrangement is such that the envelopes and the stencils are moved simultaneously through the printing position by the sectors. The envelope feeding mechanism includes a drum 124 which is disposed beneath the rear edges of the stencil track and is extended slightly above the top of the inclined wall 16 of the frame 10. Said drum 124 is of substantial diameter and is fixed to a shaft 126 which is journalled at its ends in the frame 10 of the machine. Said drum 124 and said sectors 90 and 96 are adapted to rotate at the same angular speed. To this end the shaft 126 has a sprocket wheel 128 fixed thereto. The lower sector shaft 94 has a sprocket wheel 130 of the same pitched-diameter fixed thereto. An endless chain 132 is passed over said sprockets and serves to connect said shafts 94 and 126 for positive rotation at the same angular speed. Means are provided to take up the slack in said chain 132, which may occur when said lower shaft 94 is unusually depressed by reason of a thick envelope passing through the machine. Said means includes an arm 134 which is supported loosely on said shaft 126 and carries a chain-engaging roll 138 at its free end. A tensile spring 140 is connected with said spring at one end and with the frame 10 at the other end and tends to maintain said roll yieldingly in rolling engagement with the chain 132.

Said drum is provided with a middle, peripherally-raised, continuous rib 142 which is adapted to engage the envelopes and the face of said rib may be knurled, if found desirable, to enhance its driving engagement with the envelopes. Said drum is also provided with other envelope engaging means comprising rubber bands 144 which are provided with outstanding yielding envelope-engaging projections 146. Said bands are disposed on opposite sides of said rib 142 and are secured in taut position by having their ends extended through slots 148 formed in the rim of the drum. Said bands 144 are somewhat elastic and are adapted to be stretched tightly on the face of the drum when the ends thereof are inserted within the slots 148 so that when the tension is released on the ends of the band, the band resumes its original thickness and so is retained in the slots. Said bands 44 are adapted to overlie only such a portion of the total peripheral extent of the drum as is necessary to feed the envelopes into position to be engaged by the printing sectors.

A holder for the envelopes is disposed above the drum 124 and at the rear of the stencil holder and is adapted to contain a pile of superimposed envelopes which are inclined downwardly toward the top of the drum and so arranged that the forward edge of the lowermost envelope is maintained in contact with the drum.

The envelope holder has a front wall comprising a vertically disposed plate 150 against which the forward edges of the envelopes are adapted to bear. Said plate is secured by screws 152 to the track-supporting bracket 50 and immediately to the rear of the stencil holder and immediately above the top of the drum 124. Said plate 150 is provided with a slot 153 which extends upwardly from the middle portion of the lower edge thereof and is also formed with a struck-out portion 154 disposed immediately above said slot and forming a raised seat on the forward face of said plate and a recess in the rear face thereof. A plurality of thin flat springs 156 of varying lengths, which are shown in greatly exaggerated thickness in Fig. 12, are received in the recess and a similar set of flat springs 158 are received on the flat seat and both sets are secured together and to said plate by suitable screws 160. The lower edges of said springs are adapted closely to overlie the raised rib 142 of the drum and are adapted to engage the forward edges of the envelope and serve to ensure the feeding of

one envelope at a time from the envelope holder. The rear springs 156 are adapted to be flexed into said slot 153 by the pressure of the envelopes, and the slot is formed to permit the free flexing of said springs.

The envelope holder is provided with a weight 162 which is adapted to bear upon the forward edges of the envelopes in the holder and press them against the periphery of the drum. Said weight is slidable on said plate 150 and is provided with rearwardly extended ears 164, see Figs. 9 and 11, which are adapted to overlie the forward face of said plate and cooperate with the forward face of the weight to form a guide slot in which said plate is received loosely. Said ears 164 are formed at their upper ends with rearwardly directed extensions or hooks 166 which are adapted to engage the top edge of said plate 150 and support said weight in raised position free from engagement with the pile of envelopes when desired. Said plate 150 is provided with a permanently-connected ear 168 which extends rearwardly from the top edge thereof and is adapted to overlie said weight 162 and prevent the weight from becoming unintentionally disengaged from the plate, whereby the weight, in effect, is permanently connected slidably with said plate.

The envelope holder is provided with a vertically extended side wall 170, see Figs. 2 and 8, which is formed with a laterally extended foot member 172 at the bottom thereof that is adapted to rest upon the top wall 16 of the frame 10. Said wall member is adapted to be moved outwardly and inwardly of the envelope space in the holder whereby to adjust the holder for various widths of envelopes. To this end, the foot member 172 is provided with an elongated slot 174 through which a clamping screw 176 is passed which screw is screw threaded in the top wall 16 and serves to secure the wall member releasably in adjusted position. Said foot member is also provided with downwardly extended ears 178 which are struck out of the foot member and are adapted to bear against the edge of said top wall 16 whereby to guide said wall member for movement in a straight line. Said wall member is provided with a forwardly directed extension 180 which is adapted to extend over the inclined wall 16 and below and at one side of the stencil track and serves to guide one edge of the envelopes for movement into the printing position. Said extension 180 is provided with a laterally extended plate 182 which is disposed immediately beneath the stencil track and is spaced above the wall 16. Said plate has a resilient downwardly inclined forward portion 184, the forward edge of which is adapted closely to overlie the top wall of the frame 10 and provide a passage between it and the top wall through which the envelopes are adapted to be moved. This arrangement serves to hold the envelopes in proper position upon the top wall 16 of the frame 10 in their movements into printing position.

The extension 180 of said wall member 170 is provided with a spring finger or shoe 186, see Figs. 3 and 7, which is adapted to overlie the envelope space and yieldingly engage the envelopes frictionally in their movements to printing position and to press the envelopes against the bottom wall of the frame 10. Said spring finger is provided with an offset depending ear 188 which is attached to said forward extensions 180 by a suitable means as a screw 190.

The envelope holder also includes a rear wall comprising a flat plate 192 which has an upstanding projection 194 that is adapted to overlie the outer face of said wall member 170. Said projection is provided with an elongated slot 196 therein and a clamping screw 198 fixed in said wall member 170 and passed through said slot serves to connect said back plate 192 adjustably with said side wall 170. Said back plate is adapted to be maintained normally in about the downwardly inclined position illustrated in Fig. 1 and can be moved outwardly and inwardly, and its inclination varied, to accommodate envelopes of various lengths.

The envelope holder is also provided with a second side wall 200 which is disposed in spaced parallel relation with said wall 170. Said plate 200 is provided at its lower end with a hub 202 which is slidable on a rod 204 fixed in an arm 206 carried by the track supporting bracket 50. Said plate 200 is slidable along said rod 204 and is adapted to be clamped in any adjusted position thereon whereby to cooperate with said other wall member 170 in defining an envelope space of suitable dimensions. Said wall member 200 also is provided with a forward extension 208 which is adapted to overlie the top wall 16 of the frame 10 and cooperate with said extension 180 in guiding the envelopes into printing position.

A small roller 210 is disposed in the space above the drum 124 and beneath the rear edge of the stencil track and immediately forward of the envelope holder and is adapted to press the envelopes into driving contact with the drum. Said roller is journalled in a frame 212 which is attached to the forward edge of a spring supporting-member 214 that serves to urge said roller 210 against the envelopes as they pass therebeneath and thereby to urge the envelopes against the drum 124.

As an envelope is removed from the envelope holder by the drum 124 it is adapted to be passed out of the bite between the roller 210 and the drum and held motionless in

such position by the spring finger 186, with the forward end of the envelope disposed in position to be engaged by the printing sectors, as illustrated in Fig. 3. A stencil is also adapted to be delivered into position above the envelopes, so that when the sectors are rotated they engage both an envelope and a stencil and move both forwardly simultaneously and in contact with each other during the printing operation. The stencils pass along the track to the stencil receiver while the printed envelopes are deposited in the space between the frame 10 and the receiver. The drum 124 is adapted to revolve during the printing operation without delivering an envelope but is adapted to deliver an envelope in position for printing immediately following the printing operation at the same time the stencil pusher is adapted to deliver a stencil in the stencil holder in a position for printing.

The printing and addressing machine herein described is especially adapted to utilize stencils having a heavy frame surrounding a window covered with a stencil sheet bearing the characters to be imprinted although it is apparent that other types of stencils or other carriers for the printing characters can be utilized equally well, under certain conditions.

The structure may be otherwise modified without departing from the spirit of the invention.

I claim:

1. In an addressing machine, printing means defining a printing position, means to move successive stencils and successive envelopes in approximately parallel paths in the same direction to the printing position.

2. In an addressing machine, printing means defining a printing position, means to move successive stencils and successive envelopes independently in approximately parallel paths in the same direction into the printing position.

3. In an addressing machine, means to move successive stencils to a printing position, and separate means to move successive envelopes to the printing position in a path approximately parallel to the path of and in the direction of movement of the stencils.

4. In an addressing machine, printing means defining a printing position, means to move successive stencils and successive envelopes in approximately parallel and rectilinear paths in the same direction to the printing position.

5. In an addressing machine, means to deliver successive stencils to a printing position, and means to deliver successive envelopes beneath and in the same direction of movement of the stencils to that of the printing position.

6. In an addressing machine, a pair of superposed and approximately parallel guide-ways, means to move successive stencils along one guide-way to a printing position, and means to move successive envelopes in the same direction of movement as that of the stencils along the other guide-way to the printing position.

7. In an addressing machine, a pair of superposed and approximately parallel guide-ways, means to move successive stencils along the upper guide-way to a printing position, and means to move successive envelopes in the same direction of movement as that of the stencils along the lower guide-way to the printing position.

8. In an addressing machine, independent means to deliver successive stencils and envelopes in the same direction and along parallel paths to a printing position, and means common to both the stencils and the envelopes to move them out of printing position.

9. In an addressing machine, separate feeding means arranged independently to deliver successive stencils and envelopes in the same direction and along parallel paths to a printing position, and means common to both the stencils and the envelopes to move them simultaneously out of printing position.

10. In an addressing machine, printing mechanism, a stencil holder located at one side of said printing mechanism, a stencil track extended between said stencil holder and printing mechanism, an envelope holder disposed beyond said stencil holder, and an envelope-guide-way extended between said envelope holder and printing mechanism.

11. In an addressing machine, printing mechanism, a stencil holder located at one side of said printing mechanism, a stencil track extended between said stencil holder and printing mechanism, an envelope holder disposed beyond said stencil holder, and an envelope-guide-way extended between said envelope holder and printing mechanism disposed in approximately parallel relation with said stencil track.

12. In an addressing machine, printing mechanism, a stencil holder located at one side of said printing mechanism, a stencil track extended between said stencil holder and printing mechanism, an envelope holder disposed beyond said stencil holder, and an envelope-guide-way extended between said envelope holder and printing mechanism and disposed beneath said stencil track.

13. In an addressing machine, an envelope holder, a stencil holder, and printing mechanism all disposed in line in the order named, and means to move envelopes and stencils from their respective holders in the same direction to said printing mechanism.

14. In an addressing machine, a stencil holder, means to deliver successive stencils from said holder to a printing position, an envelope holder, and means to deliver suc-

cessive envelopes from said envelope holder and move them beneath said stencil holder in the same direction as that of the stencils to the printing position.

15. An addressing machine having the combination of printing mechanism, means to present envelopes in successive order to said mechanism including an envelope holder, an envelope-feeding drum arranged for rotation in the one direction to engage and remove successive envelopes from said holder, and means to deliver successive stencils to said printing mechanism, with the envelopes and stencils arranged in superposed relation at said printing mechanism.

16. An addressing machine having the combination of printing mechanism, an envelope-feeding drum disposed at one side of said printing mechanism, an envelope holder disposed above said drum and arranged to support a pile of envelopes with the forward edge of the lowermost envelope in contact with said drum, said drum arranged to deliver the lowermost envelopes successively into position for engagement by said printing mechanism, a stencil holder, and means to move successive stencils from said stencil holder into position for engagement by said printing mechanism.

17. An addressing machine having the combination of printing mechanism, an envelope-feeding drum disposed at one side of said printing mechanism, an envelope holder disposed above said drum and arranged to support a pile of envelopes with the forward edge of the lowermost envelope in contact with said drum, said drum arranged to deliver the lowermost envelopes successively into position for engagement by said printing mechanism, a stencil holder, and means to move successive stencils from said stencil holder into position above said envelopes for engagement by said printing mechanism.

18. An addressing machine having the combination of a stencil track, a stencil holder located above and at one end of said track, means operable to move successive stencils from said holder along said track to a printing position, an envelope holder disposed adjacent said stencil holder, an envelope feeding drum disposed below said track under said envelope holder and operable to move successive envelopes from said envelope holder beneath said track into the printing position to register with a stencil therein, and printing means operable on the envelopes and stencils at the printing position.

19. An addressing machine having the combination of a stencil track, an envelope track disposed beneath and extended in the direction of said stencil track, means to deliver successive stencils and envelopes along their respective tracks into a printing position, and printing mechanism operable on the superposed stencils and envelopes at the printing position.

20. An addressing machine having the combination of a stencil track, an envelope track disposed beneath and extended in the direction of said second track, means to deliver successive stencils and envelopes along their respective tracks into a printing position, and printing mechanism operable on the superposed stencils and envelopes at the printing position including means to engage and move the envelopes and stencils simultaneously out of printing position.

21. In an addressing machine, means to move successive stencils into a printing position, means to move successive envelopes into the printing position to register with the stencils therein, and means to hold the envelopes releasably in such position.

22. In an addressing machine, means to move successive stencils into a printing position, means to move successive envelopes into the printing position to register with the stencils therein, and a friction shoe engageable with said envelopes to hold them releasably in such position.

23. In an addressing machine, means to move successive stencils into a printing position, means to move successive envelopes into the printing position to register with the stencils therein, and a pressure member engageable with said envelopes in the rear of the printing position operable releasably to hold them motionless.

24. In an addressing machine, superposed stencil and envelope tracks, means to move successive stencils and envelopes along their respective tracks into a printing position, printing mechanism operable to engage the stencils and envelopes at the printing position including means to move the stencils simultaneously out of printing position, and means releasably to hold the envelopes motionless in printing position until engaged by said printing mechanism.

25. In an addressing machine, the combination of stencil feeding mechanism operable to deliver successive stencils to a printing position, envelope feeding mechanism operable to deliver successive envelopes to the printing position to co-act with the stencils, said envelope feeding mechanism including an envelope holder adapted to contain a pile of superposed envelopes, and a feeding drum therefor having a limited angular portion only of its periphery arranged for driving engagement with the envelopes, and printing mechanisms engageable with both the envelopes and the stencils when the envelopes are free from driving engagement with said feeding drum.

26. In an addressing machine, the combination of stencil feeding mechanism operable to deliver successive stencils to a print-

ing position, envelope feeding mechanism operable to deliver successive envelopes to the printing position to co-act with the stencils, said envelope feeding mechanism including an envelope holder adapted to contain a pile of superposed envelopes, a feeding drum therefor disposed beneath the envelope holder and adapted to support the pile of envelopes and drive them successively out of the pile and having a limited angular extent only of its entire periphery arranged for driving engagement with the envelopes, and printing mechanism engageable with both the envelopes and the stencils when the envelopes are free from driving engagement with said feeding drum.

27. In a machine of the class described, an envelope holder arranged to hold a pile of superposed envelopes, and a feeding drum therefor having a pair of angularly-spaced slots in its circular periphery, and an elastic envelope-engaging band stretched over a portion only of the periphery of said drum with its free ends received in and held by said slots.

28. In a machine of the class described, an envelope holder arranged to hold a pile of superposed envelopes, and a feeding drum therefor having a pair of angularly-spaced slots in its periphery, and an elastic envelope-engaging band received on the periphery of said drum with its ends received in said slots, said band having projections at its ends which are disposed within said drum and overlie said slots, whereby to retain said band in position.

29. In an addressing machine, printing mechanism including a rotatable envelope-driving member, envelope-feeding mechanism including an envelope-feeding drum, rotatable in one direction only to feed successive envelopes to said envelope driving member, and means for driving said driving member and drum at the same angular speed in the same direction.

30. In an addressing machine, printing mechanism including a rotatable envelope-driving member, envelope-feeding mechanism including an envelope-feeding drum, rotatable in one direction only to feed successive envelopes to said envelope driving member and a driving connection between said driving member and drum characterized by driving said drum at the same angular speed and in the same direction as that of said driving member.

31. In an addressing machine, printing mechanism including a rotatable envelope-driving member, envelope-feeding mechanism including an envelope-feeding drum, rotatable in one direction only to feed successive envelopes to said envelope feeding member and driving means for said drum including sprocket wheels of equal pitch-diameter fixed to said driving member and drum, and a driving chain passed over said sprockets, whereby said drum and driving member are constrained for conjoint rotary movement.

32. In a machine of the class described, printing mechanism including a rotatable member having an intermittent driving engagement with an envelope, means to feed envelopes to said printing mechanism including an envelope holder adapted to hold a pile of superposed envelopes, an envelope-feeding drum engageable with the envelopes in the pile to move them successively to said printing mechanism by rotary movements in one direction, said drum arranged for intermittent driving engagement with the envelopes, and operatnig mechanism for said driving member and drum having a positive driving connection therebetween at all times arranged to effect their alternate driving engagements with the envelopes.

33. In an addressing machine, printing mechanism including a rotatable member arranged to engage and drive an envelope through the printing position, and envelope-feeding mechanism arranged for continuous operation in the same direction to deliver successive envelopes into position for engagement by said rotatable member at a speed which is greater than the speed of the envelope through the printing position, and means providing for the alternate envelope-moving operations of said rotatable member and feeding mechanism including means connecting said member and mechanism for movement only in the same direction.

34. In an addressing machine, printing mechanism including a pair of superposed sectors, means to feed successive stencils into printing position between said sectors, means to feed successive envelopes into printing position between said sectors including an envelope-driving drum, and means constantly connecting said drum and one of said sectors for conjoint rotation.

35. In an addressing machine, printing mechanism including a pair of superposed rotatable sectors, one of which has yielding supporting means for it, envelope feeding means including a rotatable drum, an endless driving band connecting said drum and said yieldingly-supported sector, and band-tension means acting on said band to maintain it taut during a movement of said yieldingly-supported sector.

36. In an addressing machine, printing mechanism, and means to deliver successive envelopes to said printing mechanism including a holder adapted to contain a pile of superposed envelopes, a feed drum engageable with the lowermost envelopes of the pile to move them in succession therefrom, means to press the envelopes against the drum, a roller disposed ahead of said means having means urging it against an envelope

on said drum, and a support for the removed envelopes, disposed between said drum and said printing mechanism.

37. In an addressing machine, printing mechanism, and means to deliver successive envelopes to said printing mechanism including a holder adapted to contain a pile of superposed stencils, a feed drum engageable with the lowermost envelopes of the pile to remove them in succession therefrom, means to press the envelopes against the drum, a roller disposed ahead of said means having means urging it against an envelope on said drum, a support for the removed envelopes disposed between said drum and said printing mechanism, and means releasably to hold said envelopes motionless on said support.

38. In an addressing machine, printing mechanism and means to deliver successive envelopes to said printing mechanism including a holder adapted to contain a pile of superposed envelopes, a feed drum engageable with the lowermost envelopes of the pile to move them in succession therefrom, means to press the envelopes against the drum, a roller disposed ahead of said means having means urging it against an envelope on said drum, a support for the removed envelopes disposed between said drum and said printing mechanism, and means releasably to hold said envelopes motionless on said support with their rear edges disposed at the bite between said roller and drum.

39. In an addressing machine, printing mechanism, a stencil track, a stencil holder disposed at one end of said track, means to remove successive stencils from said holder and move them along said track to said printing mechanism, an envelope holder disposed at the rear of said stencil holder, an envelope feeding drum disposed beneath said envelope holder and operable to remove successive envelopes from the holder and move them to the printing mechanism, means to press the forward edges of the envelopes in the holder against the periphery of said drum, a roller disposed beneath said stencil track ahead of said pressing means and having means urging it against the envelopes on said drum, and a support for the removed envelopes disposed between said drum and printing mechanism and beneath said stencil track.

40. In an addressing machine, printing mechanism, a stencil track, a stencil holder disposed at one end of said track, means to remove successive stencils from said holder and move them along said track to said printing mechanism, an envelope holder disposed at the rear of said stencil holder, an envelope feeding drum disposed beneath said envelope holder and operable to remove successive envelopes from the holder and move them to the printing mechanism, means to press the forward edges of the envelopes in the holder against the periphery of said drum, a roller disposed beneath said stencil track ahead of said pressing means and having means urging it against the envelopes on said drum, a support for the removed envelopes disposed between said drum and printing mechanism and beneath said stencil track, and means operable to press the envelopes against said support and hold them releasably without motion with their rear edges at the bight of said roller and drum.

41. In a machine of the class described, a holder adapted to contain a pile of superposed envelopes, and a weight arranged to bear upon the pile having a loose connection with said holder, and means securing said weight in the aforesaid relation with said holder against unintentional detachment therefrom.

42. In a machine of the class described, a holder adapted to contain a pile of superposed envelopes, and a weight arranged to bear upon the pile having a slidable connection with a wall of said holder and means to support it releasably in raised position on said wall.

43. In a machine of the class described, a holder adapted to contain a pile of superposed envelopes, and a weight arranged to bear upon the pile having opposed inturned projections providing a space between them and the body of the weight in which a wall of said receptacle is loosely received, said weight having a hook adapted to engage with said wall and support said weight releasably in elevated position thereon, and said wall having a projection overlying the path of movement of said weight and arranged to prevent it from unintentional detachment from said wall.

44. In a machine of the class described, an envelope feed drum, an envelope holder disposed above and in the rear of said drum having a rear wall which is located mainly above a horizontal plane including the top of said drum and is generally inclined downwardly and forwardly toward said drum and which has provision for movement into and out of the envelope space of the holder, and also has provision for a variable inclination thereof, and means securing said wall in any adjusted position thereof.

45. In a machine of the class described, an envelope holder having a side wall, an adjustable rear wall having a lateral extension overlying said side wall and provided with an elongated slot therein, and a clamping member for said rear wall carried by said side wall and extended through said slot and arranged to bear removably upon said extension.

46. In a machine of the class described, a supporting bed, and an envelope holder disposed above said bed having a side wall, said

wall having a reflexed lateral bottom extension resting on said bed and formed with an elongated slot therein and having struck-out depending projections engageable with the side face of said bed on the same side of said seat, and a clamping member passed loosely through said slot and having a connection with said bed.

47. In a machine of the class described, a supporting bed, and an envelope holder disposed above said bed having opposed side walls provided with forwardly-directed extensions at the lower portions thereof overlying said bed and providing an envelope guide-way.

48. In a machine of the class described, a supporting bed, and an envelope holder disposed above said bed having opposed side walls provided with forwardly-directed extensions at the lower portions thereof overlying said bed and providing an envelope guide-way, one of said extensions having a plate which is directed toward the other extension and overlies and is spaced above said bed.

49. In a machine of the class described, a supporting bed, and an envelope holder disposed above said bed having opposed side walls provided with forwardly-directed extensions at the lower portions thereof overlying said bed and providing an envelope gude-way, one of said extensions having a plate which is directed toward the other extension and overlies and is spaced above said bed and is provided with a downwarly-inclined forward portion.

50. In a machine of the class described, an envelope holder having a vertical side wall provided with a forwardly-directed envelope-guide extension at the bottom thereof and in the general vertical plane therewith.

51. In a machine of the class described, an envelope holder having a side wall provided with a forwardly-directed envelope-guide extension at the bottom thereof, said extension having a laterally-extended plate formed with a downwardly-inclined resilient forward portion.

52. In a machne of the class described, a supporting bed, a stencil track disposed in spaced relation above said bed, a supporting bracket for said track having a connection with said bed, and an envelope holder having a side wall provided with an adjustable support on said bracket.

53. In a stencil printing machine, a supporting bed, a stencil track disposed above said bed and adapted to guide stencils to pass into and out of a printing position, a bracket connected with said bed and track to support said track in the aforesaid relation, and a stencil receiver disposed at the end of and mainly below said track having provision for removable connection with said bracket in either of two relatively reversed positions of said receiver.

54. In a stencil printing machine, a stencil track, and a stencil receiver disposed at and mainly beneath the end of said track and having means detachably connecting the upper end of any one of its opposite end walls with said track at an inclination therewith in such manner that whichever end wall is the forward wall is elevated above the track and provides a barrier restraining the stencils from passing over the receiver.

55. The method of addressing envelopes by stencils which consists in moving successive envelopes and successive stencils in approximately parallel paths in the same direction into a position wherein the stencils and envelopes are superposed, and applying a printing pressure to the superposed stencils and envelopes.

In tesimony whereof, I have signed my name to this specification.

HARMON P. ELLIOTT.