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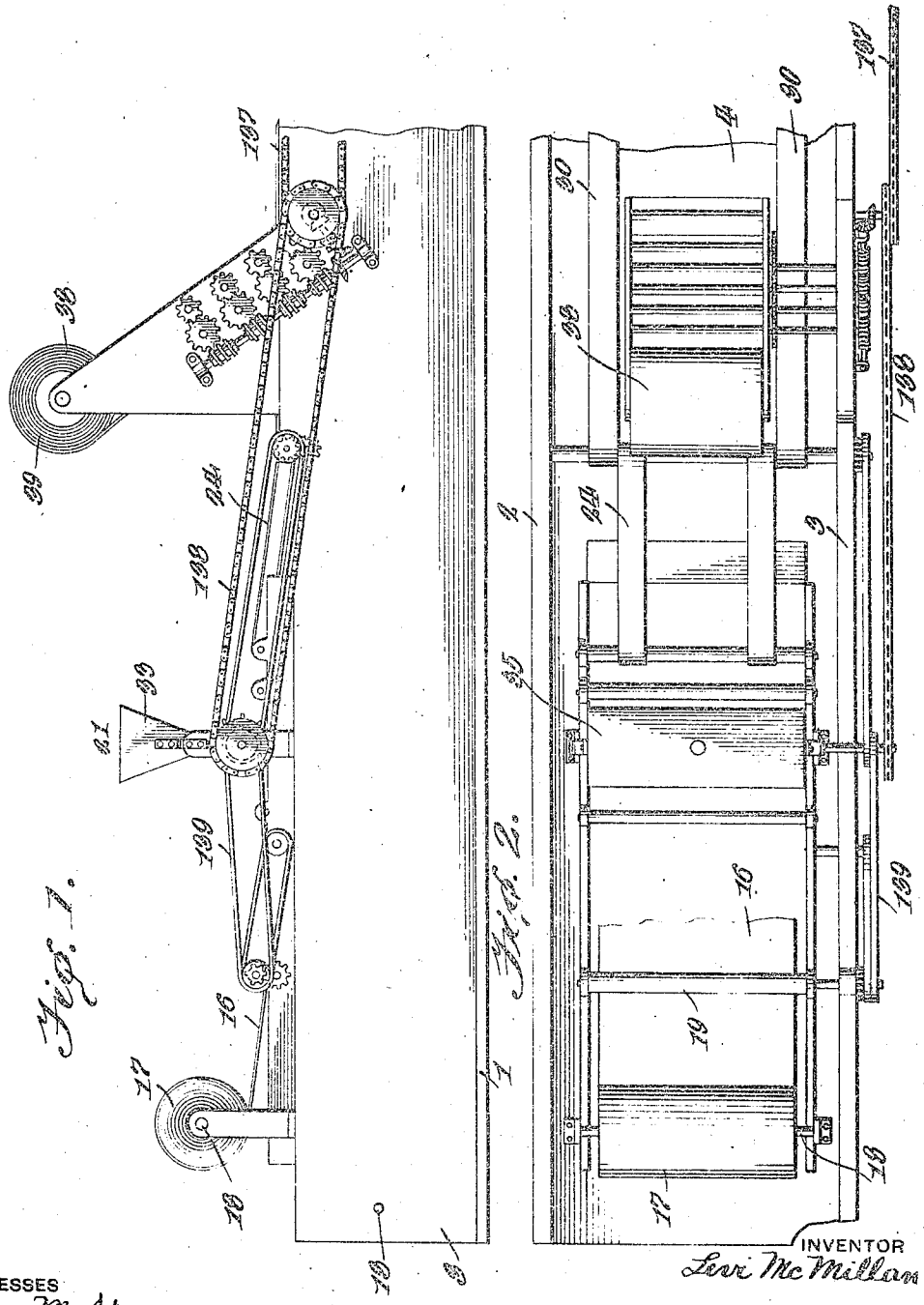
PRINTING AND ADDRESSING MACHINE.

APPLICATION FILED DEC. 7, 1916.

1,255,032.

Patented Jan. 29, 1918.

7 SHEETS—SHEET 1.



WITNESSES

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7 SHEETS—SHEET 2.

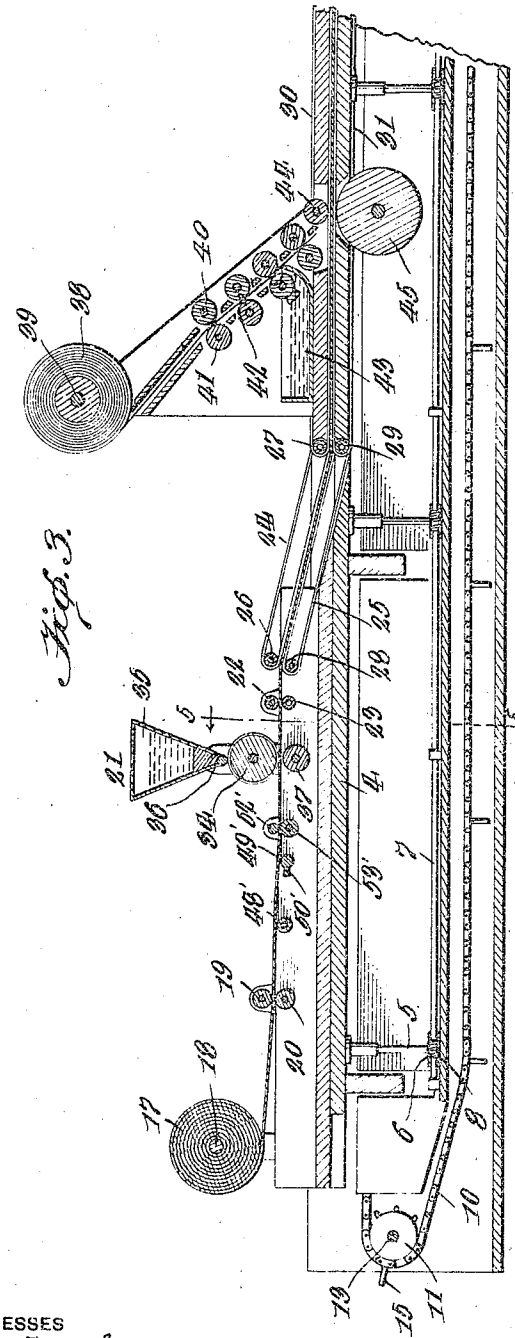


Fig. 3.

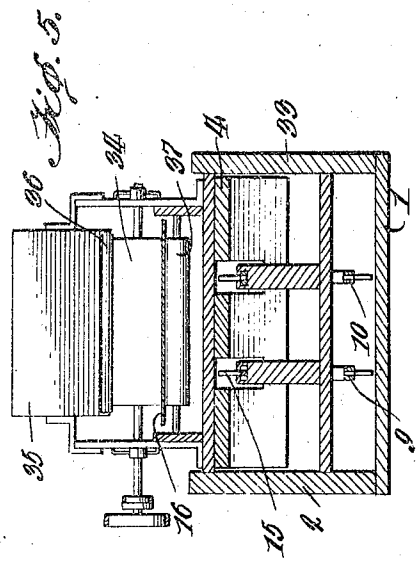


Fig. 5.

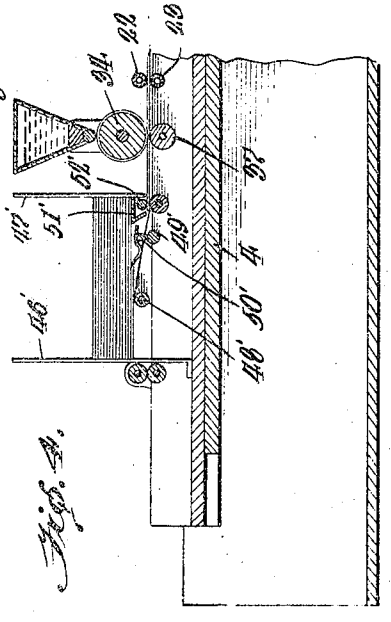


Fig. 4.

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7 SHEETS—SHEET 3.

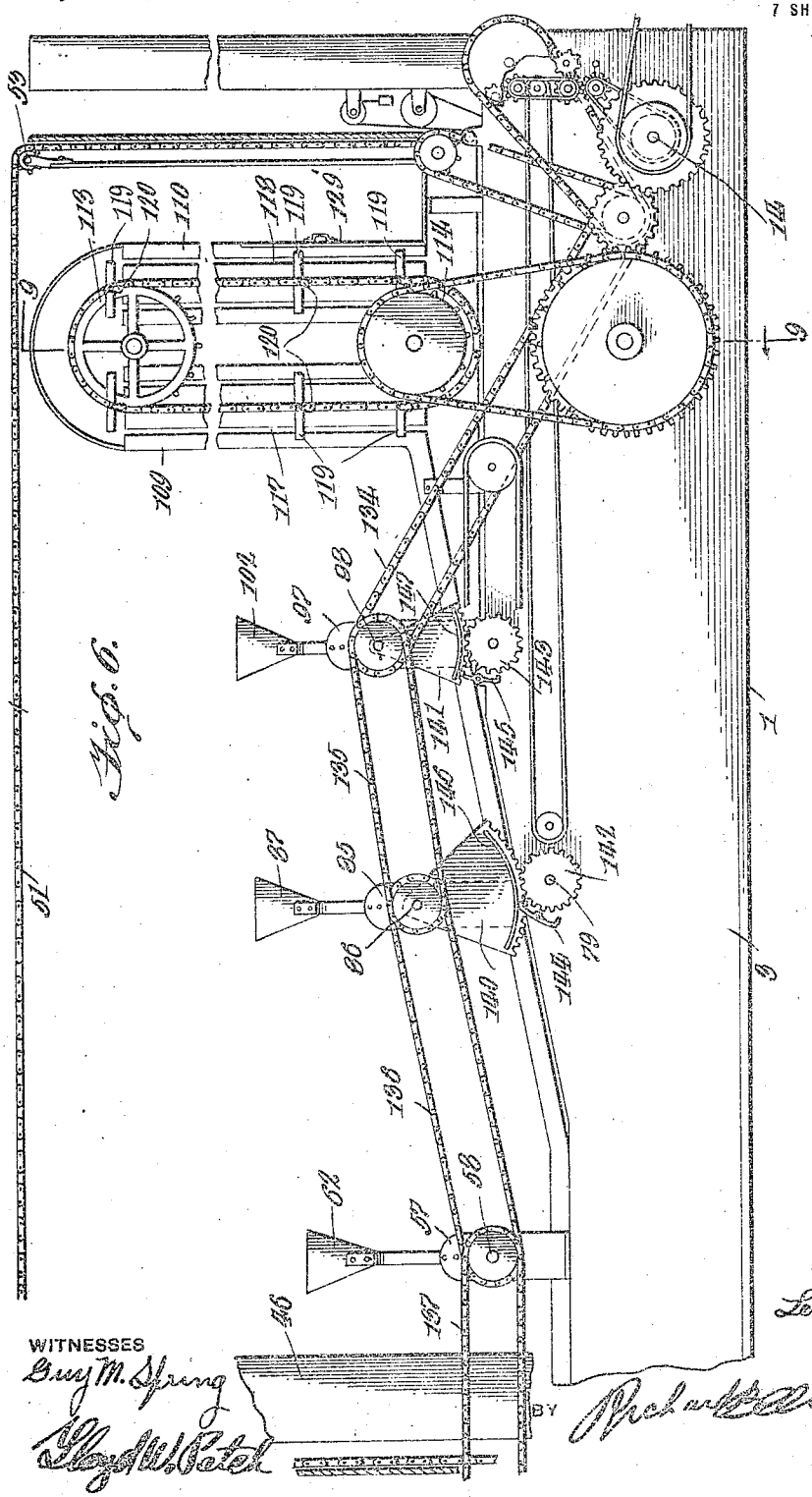


Fig. 6.

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7 SHEETS—SHEET 4.

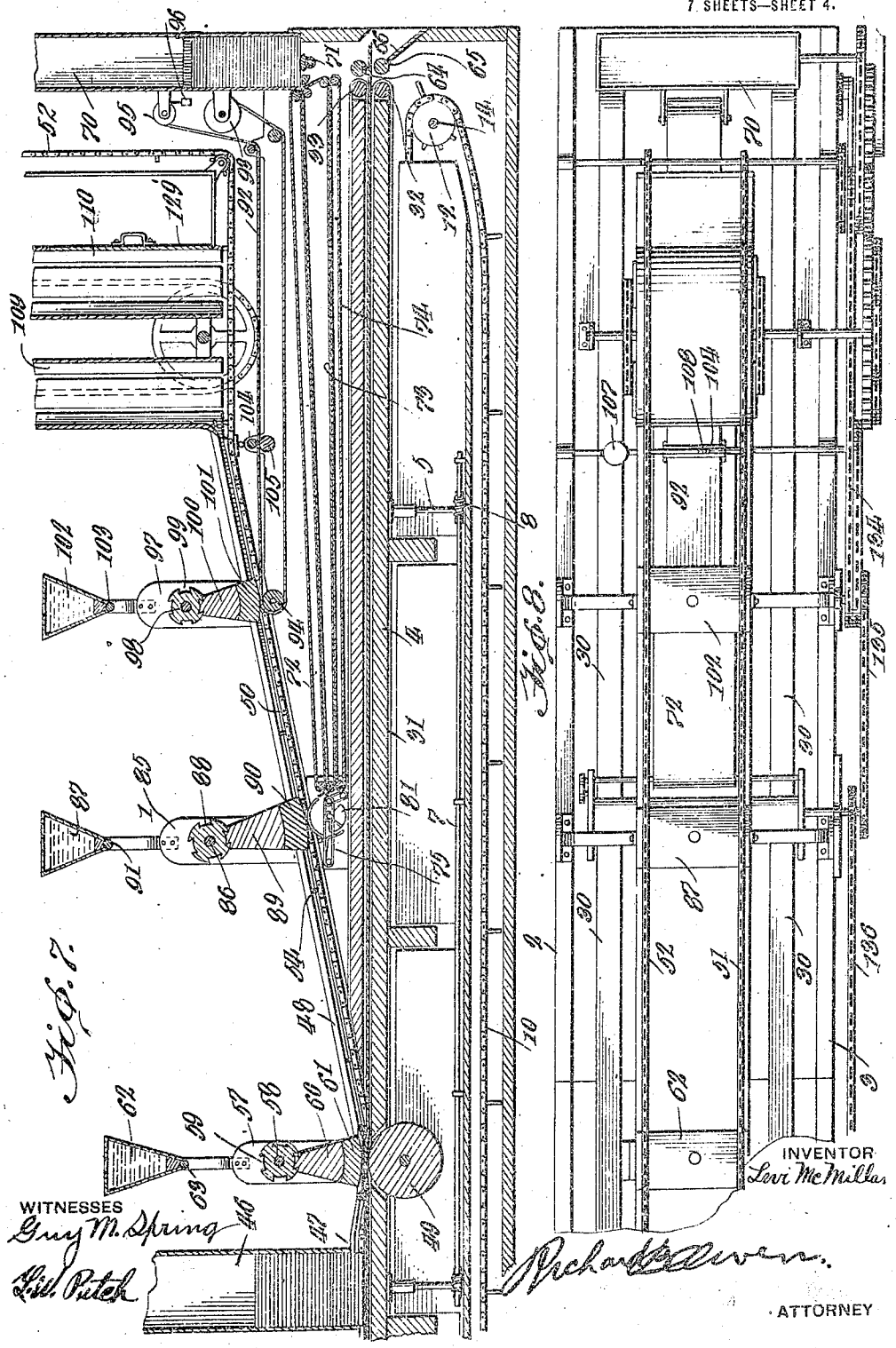


Fig. 7.

Fig. 8.

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7 SHEETS—SHEET 5.

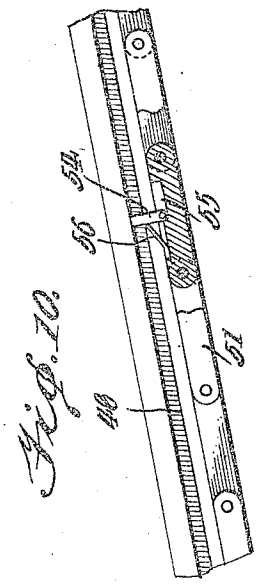


Fig. 10.

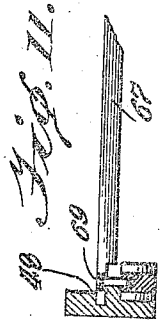


Fig. 11.

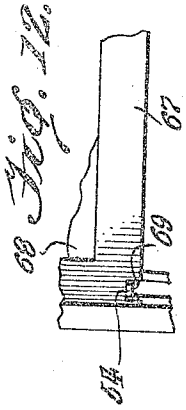


Fig. 12.

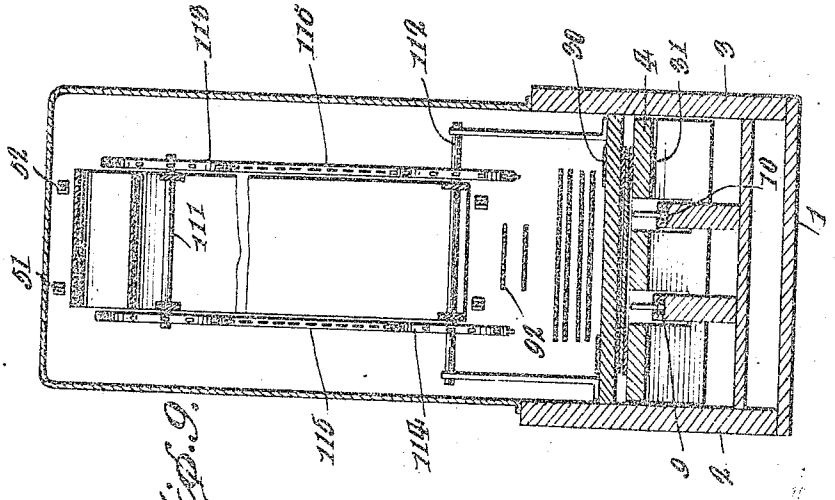


Fig. 9.



Fig. 13.

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7 SHEETS—SHEET 6.

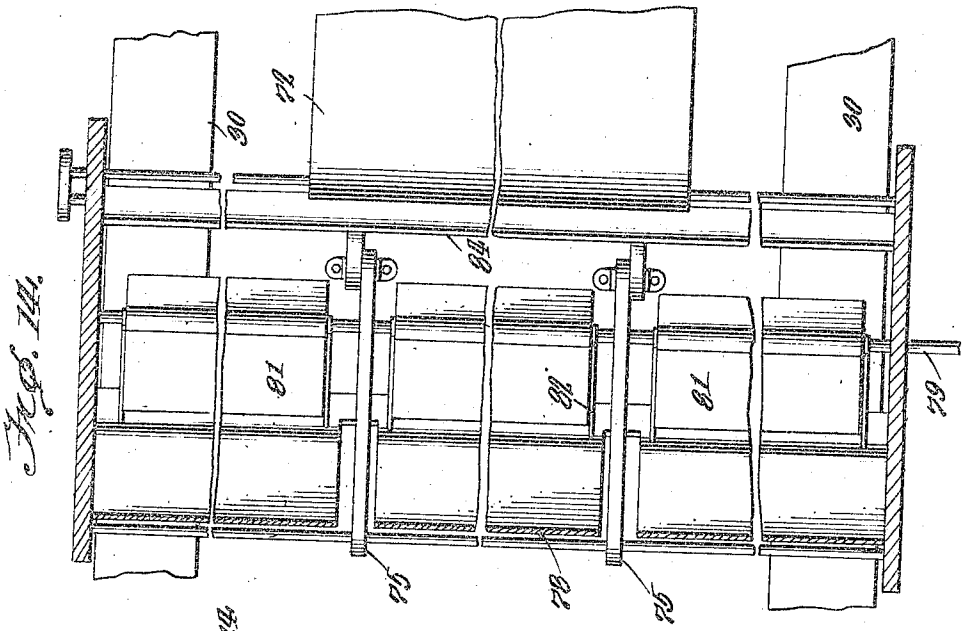


Fig. 12.

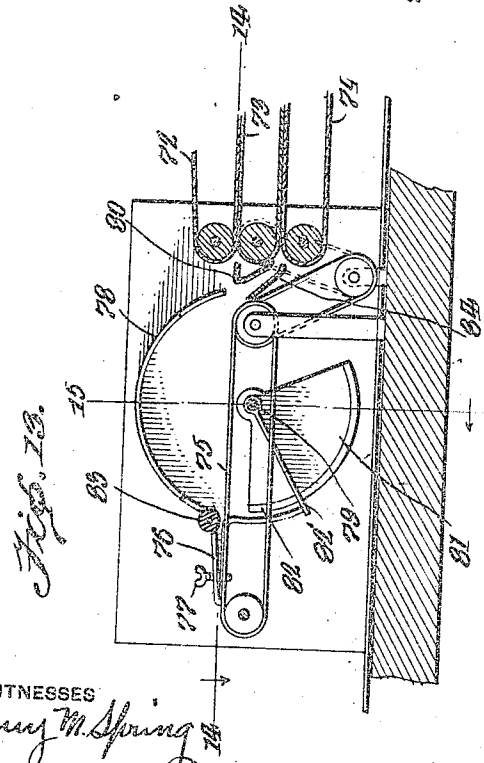


Fig. 13.

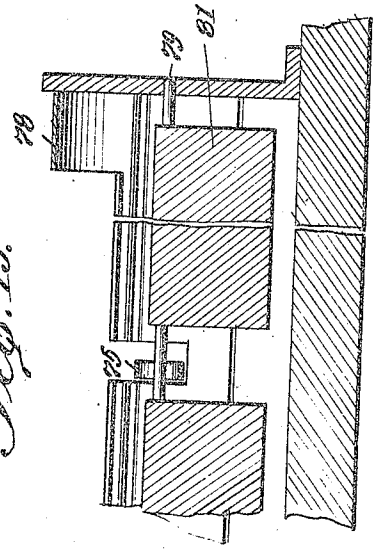


Fig. 15.

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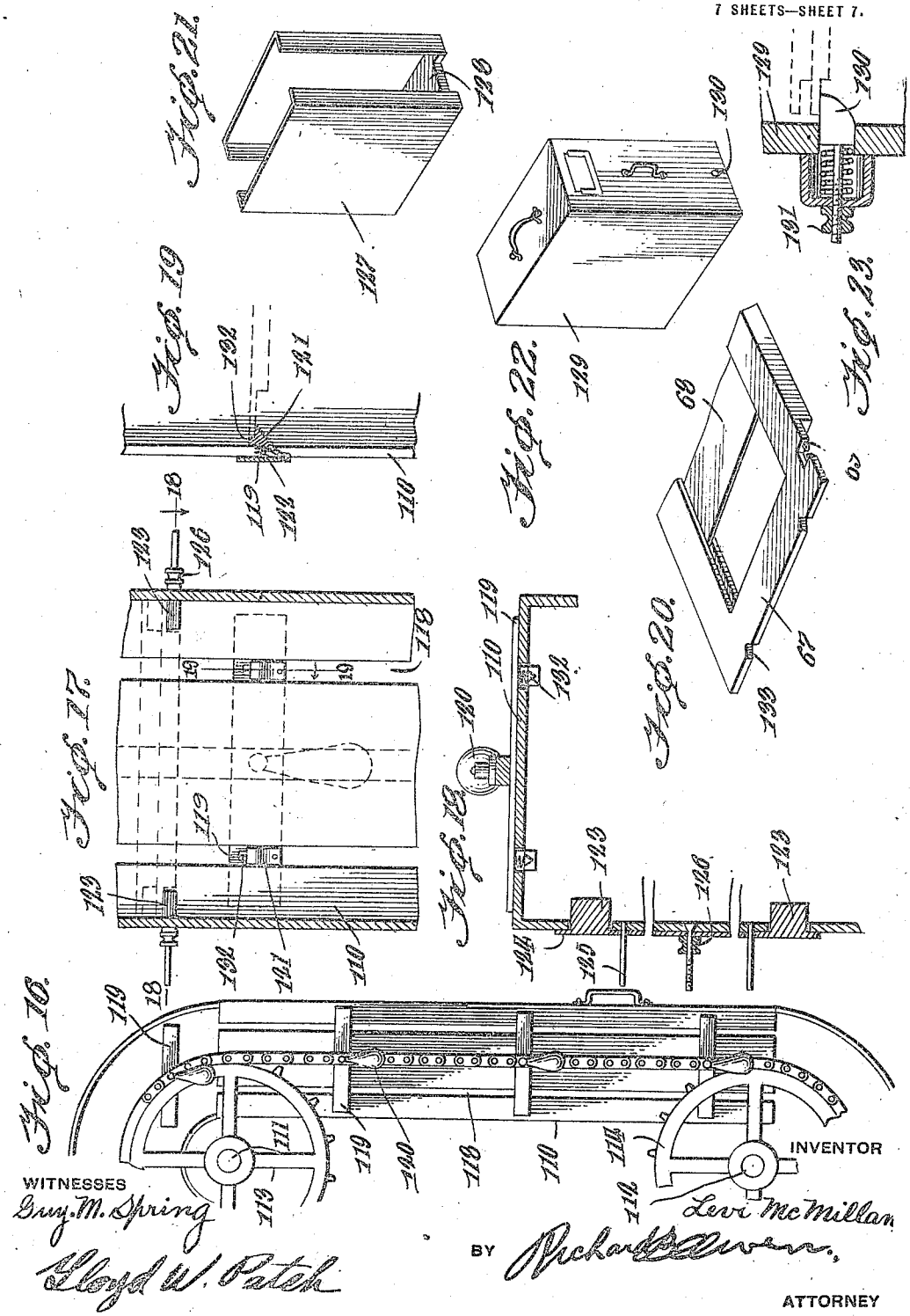
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7 SHEETS—SHEET 7.



WITNESSES

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UNITED STATES PATENT OFFICE.

LEVI McMILLAN, OF WILMINGTON, NORTH CAROLINA.

PRINTING AND ADDRESSING MACHINE.

1,255,032. Specification of Letters Patent. Patented Jan. 29, 1918.

Application filed December 7, 1916. Serial No. 135,665.

To all whom it may concern:

Be it known that I, LEVI McMILLAN, a citizen of the United States, residing at Wilmington, in the county of New Hanover and State of North Carolina, have invented certain new and useful Improvements in Printing and Addressing Machines, of which the following is a specification.

This invention pertains to a new and improved machine adapted for use in addressing or printing and addressing upon publications or paper passing through the machine, and more particularly defined, this machine is the embodiment of improvements over the machine as set forth in United States Patent No. 1,150,784, granted to me on August 17, 1915, and Patent No. 1,206,345 issued to me on November 28, 1916.

An object of my invention is to provide a machine which will take paper from a quantity, print upon the paper subject matter such as a letter or circular matter or perhaps a head, print an address from a compiled list, and then discharge the paper from the machine.

A further object lies in constructing parts of the machine in such a manner that an envelop or container for the letter, circular, or other matter which has been printed will be taken from a quantity and after being printed with the same address will be deposited upon the paper as discharged from the machine.

Another object lies in arranging a recording strip upon which the address is printed subsequent to the printing upon the letter or other paper and upon the envelop to thus give a permanent visible record of the fact that the individual names of the compiled list have been addressed, which mechanism dates each address on the record strip to positively identify the date of printing or some other date as given in changeable type characters, and then deposits the record strip on a spool or reel in convenient form for handling and filing.

A still further object resides in so constructing and arranging the parts of the machine that the compiled list may be made up of stencil cards or plates which will be taken from a rack or other common container, deposited to print the address upon the letter or other matter passing through the machine, then carried to print upon the envelop, and subsequently brought to a position to print upon the record strip, after which the plates are returned to a rack in the same arrangement or compilation as that from which the plate or stencils have been taken, thus restoring the plates or stencils to such arrangement that they may be placed for reuse and will print the various names and addresses in the same order.

Yet another object is to provide means by which the paper handling mechanism, the means by which the envelops are taken and carried into the machine and again discharged, the record strip carrying means, and the printing means are simultaneously and continuously operated, and by which the stencil plates or members are taken from the rack and carried through the various printing positions to be again deposited and arranged, and by which the remaining portions of the machine are operated and will all take their driving impetus from a common source.

Yet a further object lies in so arranging the parts that the paper as taken into the machine may be in the form of a continuous strip passing from a roll and the letters or other printed matter will be continuously affixed thereto, the addresses will be printed at the proper point, and then just as the strip passes from the machine the same will be severed into independent and separate sheets, and in providing label affixing means by which stamps or labels may be affixed upon the paper or publications passing through the machine, and in the case of labels being affixed, can be applied at such points that the address can be printed thereon.

Still another object is to so arrange and construct the parts that adjustment may be made to adapt the machine for printing and addressing letters, bills, or other sizes of sheets, or papers, either in separate form or in a continuous strip, or adjustment may be made to accommodate publications of various sizes and various thicknesses, the arrangement of the parts being such that substantially all of the parts can be adjusted and the address printing means can be regulated to print at any desired point upon the paper or publication.

With the above and other objects in view, my invention consists in certain novel fea-

tures of construction and combinations of parts which will be hereinafter set forth in connection with the drawings and then more particularly pointed out in the claims.

In the drawings:

Figure 1 is a view in elevation showing the feed end of the machine.

Fig. 2 is a plan view of the disclosure in Fig. 1.

Fig. 3 is a longitudinal vertical sectional view of the structure as shown in Fig. 1.

Fig. 4 is a fragmentary view showing a form of feed means to be employed when single sheets are being run through the machine.

Fig. 5 is a transverse vertical sectional view taken on the line 5—5 of Fig. 3.

Fig. 6 is a view in side elevation showing the remaining end of the completed machine.

Fig. 7 is a longitudinal vertical sectional view of the structure as disclosed in Fig. 6.

Fig. 8 is a top plan view of that end of the machine shown in Fig. 6.

Fig. 9 is a transverse vertical sectional view taken on the line 9—9 of Fig. 6.

Fig. 10 is a detail view showing the construction and arrangement of the carrying means for the central plate.

Fig. 11 is a sectional view taken transversely through the disclosure in Fig. 10 and with one of the central plates in place.

Fig. 12 shows a fragmentary plan view to illustrate the parts as disclosed in Fig. 11.

Fig. 13 is an enlarged sectional view showing parts of the envelop carrying, printing, and discharge means.

Fig. 14 shows the parts as illustrated in Fig. 13 in a horizontal section taken on the line 14—14 of this figure.

Fig. 15 is a transverse vertical sectional view taken on the line 15—15 of Fig. 13.

Fig. 16 shows a fragmentary elevational view to illustrate the arrangement of the parts for restoring the central plates to the original order from which they are taken previous to the printing operation.

Fig. 17 is a vertical sectional view showing parts of the mechanism as illustrated in Fig. 16.

Fig 18 is a horizontal sectional view taken on the line 18—18 of Fig. 17.

Fig. 19 is a detail sectional view taken on the line 19—19 of Fig. 17.

Fig. 20 is a fragmentary perspective view to better illustrate the structure of one of the central plates.

Fig. 21 shows one of the racks adapted to receive the central plate following the use and the cleaning of the plate.

Fig. 22 shows a cover adapted to be placed over the rack as illustrated in Fig. 1 and to take the central plate therefrom for subsequent reuse in the machine.

Fig. 23 is a detail sectional view showing one of the spring held catches by which the central plates are retained in the covers as shown in Fig. 22.

Fig. 24 is a detail perspective view showing the roller by which the record strip is dated.

The machine has a base or supporting structure which is in many respects similar to the corresponding portion as shown in the patents above identified, and this base or supporting structure comprises the bottom 1 which has the sides 2 and 3 extending up at the edges thereof to thus form a housing. A work supporting table 4 is extended throughout substantially the entire length of this housing and is supported on the adjustable uprights 5. These uprights are screw threaded throughout a portion of their lower ends and gear wheels 6 have central openings therein internally screw threaded to be fitted on the screw threaded end of the uprights 5, these uprights being thus so mounted that as the gear wheels are turned the uprights and consequently the work supporting table 4 will be raised and lowered according to the direction of rotation of the gear wheels. It is desirable that the work supporting table 4 be maintained at a uniform height throughout its entire length and consequently I provide the shaft 7 which extends throughout substantially the entire length of the table and has the worms 8 thereon in mesh with the gears 6. These worms 8 are all given the same threading and the gear wheels 6 are also each of substantially equal size so that as the shaft 7 is turned, the simultaneous action of the worms upon the gear wheels 6 will cause the uprights 5 to be each adjusted in an equal degree, thus insuring that the work supporting table 4 will be at all times maintained substantially level throughout its entire length. The purpose of providing this adjustment of the work supporting table is to permit the machine to be adapted for operation upon papers, circulars, publications, or other printed matter of various thicknesses. The carrying chains or belts 9 and 10 are mounted over the wheels 11 and 12 which are carried on the shafts 13 and 14 mounted at opposite ends of the housing, and these chains or belts have the projections 15 provided on certain of the links thereof to insure proper carrying of publications or other like printed matter through the machine and over the work supporting table. If desired, the shaft 14 can be treated as the main drive shaft to be turned and to thus cause traveling movement of the chains or belts 9 and 10, and further, any sort of means can be arranged to accomplish turning of the shaft 7 to thus adjust the work supporting table to bring the supporting surface thereof to the proper height, these parts as above described being of substantially the character shown in the

two patents referred to, and therefore not being here specifically shown in their detail construction.

While the machine is equally adaptable for use in operating upon publications and paper in a number of forms, in the present instance I have illustrated the machine as set up to operate upon paper in a continuous strip as the strip is taken from a roll. Where the paper is to be carried through the machine in a continuous strip, it will of course be necessary to provide feed means by which the paper will be held taut and carried smoothly. However, the paper must not be drawn sufficiently tight that it will be torn, and while it might be found satisfactory to provide feed rollers placed at various intervals throughout the length of the machine to work adjacent to the surface of the work supporting table, it is perhaps preferable that some means be provided to guide and carry the paper throughout the entire travel of the same, and with this in mind I provide carrying belts. The strip of paper as indicated at 16 is taken from a roll 17 mounted on the pintle 18, or supported in any other way so that it will be capable of turning to unreel the strip. As the paper is unreeled from the roll 17, it may be taken off by the feed rolls 19 and 20 without danger of tearing or of interfering with the operation of other parts, and for that matter the strip 16 might be carried through the first mechanism arranged to operate thereon, which is in the present instance the printing mechanism as generally indicated at 21. Rollers 22 and 23 are provided through which the strip is guided and carried, and the strip then passes to be taken by the belts 24 and 25 which are arranged in pairs above and below the path of the strip so that the strip will be gripped and held at the side edges thereof. These belts 24 and 25 pass over the rolls 26 and 27 provided for the upper belts and the rolls 28 and 29 mounted to carry the lower belts, and the belts 24 and 25 feed to the main carrying belts 30 and 31. The belt 31 is mounted over the roller 29 and a roller 32 mounted at the opposite end of the housing, and thus this belt is carried so that it works substantially around the supporting table 4 with the upper length of the belt lying substantially in a plane with or slightly above the surface of the work supporting table. The belt 30 is mounted around the roller 27 and a roller 33 which is journaled adjacent to the mounting of the roller 32, and thus the lower straight length of the belt 30 and the upper straight length of the belt 31 travel to be substantially parallel and to be equally spaced throughout their length. While the rollers 29 and 32 might be carried by the housing provided as a support for the machine, it is perhaps preferable that these rollers be mounted in conjunction with the work supporting table 4 so that as this table may be adjusted, the relative disposition of the belt 31 with respect to the belt 30 will be varied and the height of disposition of the upper straight lengths of the belt 31 with respect to the surface of the work supporting table 4 will be maintained the same. As is better shown in Fig. 2, it is preferable that these belts 24, 25, 30 and 31 be so arranged that the belts of each pair will be disposed to receive the strip of paper or individual sheets as the same may be fed through the machine, at the side edges thereof, and thus the central portion of the sheet is left exposed to be printed upon or otherwise treated, while it is positively assured that the sheet will be held flat and will be carried properly through the machine from one end thereof to the other without undue strain or pulling tension being exerted upon the strips or sheets to cause tearing of the same. Further than this, the belts being arranged so that those belts 31 have the upper straight lengths thereof closely adjacent to the surface of the work supporting table will carry the material being operated upon over the surface of the table to be properly supported thereby and yet not at such an elevation that thin paper or other material would sag in its central portion and thus begin to work loosely in and between the belts.

The printing mechanism as hereinbefore mentioned, and as designated by the numeral 21 is intended for use to print the body of a letter, the subject matter of a circular, or the like, and with this purpose in view the roller 34 is provided to carry the type matter or the plate from which the printing is to be accomplished. This roller 34 might be of such construction that changeable type characters may be set up to be placed over the cylindrical surface thereof, or the subject matter to be printed might be embodied in plates curved to fit the surface of the roller. I have disclosed a font 35 from which ink is supplied to the type through the inking roller 36, although it will of course be understood that various other inking arrangements might be provided and that where facsimile typewritten letters are to be printed, a ribbon might even be employed in the manner now generally adapted in connection with machines already upon the market and in use. A pressure roller 37 is mounted below the roller 34 and slightly spaced therefrom so that as the strip of paper or paper in any other form passes over this roller 37 it will be brought with sufficient bearing pressure against the printing characters on the roller 34 that the desired printing action will be accomplished. From this printing mechanism the paper passes to be taken by the

belts 24 and 25 and is then carried by the belts 30 and 31, it being understood that the belts 24 and 25 conduct the strip or the sheets to the belts 30 and 31 by which the paper is carried over the surface of the work supporting table 4. In case that it may be desired to place stamps, labels, or other like independent strips upon the paper as carried through the machine, the labeling mechanism is provided above the feed end of the work supporting table 4. This label affixing mechanism is substantially identical with the like mechanism as shown in Patent No. 1,206,345 and therefore it is not here deemed necessary to describe this mechanism in full detail. However, it might be stated that the labels in a continuous strip are taken from the roll 38 mounted upon the spindle 39 and after being drawn down through the feed rolls 40 and 41, this strip is severed by the knife 42 to make the separate and individual labels, adhesive being applied to the labels from the pan 43, and the roll 44 being arranged to apply the label with the adhesive thereon, with the sticky side down, to the paper passing over the work supporting table. A pressure roll 45 is mounted to have the upper portion thereof received through an orifice provided in the work supporting table 4, and thus this pressure roller 45 bears against the lower side of the paper as the same passes over the working table and the placing of the label or other strip will not interfere with or halt the passage of the paper through the machine, nor will the pressure exerted by the roller 44 cause the paper to bear frictionally against the upper surface of the work supporting table. The label affixing mechanism might be mounted at other points along the length of the work supporting table, as will be apparent during the progression of the description, however, as under some circumstances it may be found desirable to print the address upon this label or separate strip as affixed, it is perhaps preferable that the label be applied before the paper is passed to have the address imprinted thereon.

The parts as hereinbefore described are all carried and supported upon the feed end of the machine, and might be identified as the parts which particularly start the travel of the paper through the machine and prepare the same for the printing of the address, and as has been stated, the structure as described is either adaptable to work upon paper taken in a continuous strip from a roll, or upon single sheets, and when the single sheets are used it will be found desirable to provide some means similar to that shown in Fig. 4. As is here illustrated, the members 46′ and 47′ outline a receptacle in which the sheets are placed by being stacked. This container or rack for the sheets is placed adjacent to the printing mechanism, and a feed roller 48′ is mounted in such relation that it bears against the lowermost sheet of the stack. However, it is desired that some means be provided to feed the sheets successively from the bottom and to insure that but a single sheet is fed at a time, and with this purpose in view I provide the roller 49′ which has a friction rib 50′ thereon and mount the support 51′ having the lower inner side thereof beveled in such relation that as the friction rib 50′ engages with the lowermost sheet it draws the end back from a position of being supported by the member 51′. When the rib has passed from the engaging position, the sheet will snap back and will be fed between the rollers at 52′. These rollers 52′ and 53′ feed the sheet between the bearing or presser roll 37 and the printing roll or cylinder 34, from which the sheet is taken by the feed rollers 22 and 23 and is carried to the belts 24 and 25. By this arrangement of the parts, single sheets of various sizes can be placed in the rack and will be taken therefrom at the proper intervals, carried through the machine to have matter printed thereon and perhaps to have labels affixed, and will be caused to have progressive movement along and throughout the length of the work supporting table 4. It will of course be apparent that by variation in the size of the printing roller or cylinder 34, the body of the letter or the other subject matter to be printed can be lengthened or shortened, and also this variation in the size of the roller 34 will permit the matter to be condensed upon a small sheet or spread over a larger sheet, thus making the machine adaptable for use in printing upon letter paper or legal size, printing statements or other matter upon bill heads, and also adaptable for operation upon sheets of various other sizes or to print upon lengths of the strip corresponding to sheets of the size desired. While I have spoken of the printing roller 34 as being particularly adaptable for printing the body or subject matter of the paper being carried through the machine, it will of course be understood that by changing the type characters or the plates applied on the rolls 34, the printing mechanism might be used to print a letter or bill head and perhaps even to apply and print the signatures.

In the present adaptation, the printing of the addresses is to be accomplished by the use of stencil plates made up from a compiled list and placed in prearranged order in stacks, and with the use of such stencils or stencil plates it is necessary that means be provided to place the same upon the paper at the proper position, to then carry the stencil to move with the paper past means by which a printing impression

is made through the cut out portions of the stencil, and to then again take the stencil from the position in which it has been placed upon the paper, which means must be timed to move in unison with the movement of the paper as carried by the belts 30 and 31 so that the plates or stencils will not be shifted to cause blurring of the subject matter which is to be printed thereupon.

A tube or stack 46 is mounted above the work supporting table 4 beyond the position of the label affixing mechanism, and preferably placed rather closely thereto to thus avoid extension of the machine throughout excessive lengths, and this tube or stack box has an opening 47 formed through that side thereof away from the label affixing mechanism. A track-way 48 is disposed at each side of the work supporting table, and is extended in such a manner that the groove or guideway thereof terminates in the opening 47. As is illustrated in Fig. 7, these trackways 48 are extended for a short distance adjacent to the upper surface of the work supporting table 4, and over the pressure roller 49, the trackways are dipped from which point they rise in a gradual incline as shown at 50. The chains 51 and 52 are mounted around suitable sprocket wheels 53, and are thus so extended that they travel adjacent to the track-ways 48. Certain of the links of the chains 51 and 52 have the lugs 54 pivotally mounted thereon to be capable of being folded down in the recesses 55 and to be supported when brought to the raised position by the brace member 56. By the provision of these foldable and extensible lugs 54 on various of the links of the sprocket chains, adjustments may be made as to the distance of spacing between the lugs brought to the raised position, and thus the chains can be adapted to take the stencils or stencil plates from the tube or stack box 46 at proper times to carry the same through the trackways 48 in such relation that they will be deposited upon the sheet passing over the upper surface of the work supporting table at those points at which the address or other subject matter of the stencil or stencil plates is to be imprinted. The dip in the trackways over the pressure wheel 49 causes the stencil plates to be deposited upon the paper passing through the machine and carried by the belts 30 and 31 as the sheet is over this pressure roll, and at this point it is essential that means be provided to print the subject matter through the stencil.

Beyond the tube 46, and preferably above the pressure wheel 49, the standards 57 are mounted and a shaft 58 is journaled between these standards. This shaft has a drum thereon and the drum has substantially dovetailed grooves 59 formed to extend longitudinally thereof and positioned at spaced points around the circumference of the drum. Truncated sector shape blocks 60 are formed at their inner ends to provide ribs which may be fitted in the grooves 59 of the drum, and on the outer ends of the blocks the pad 61 of a more or less absorbent or elastic material is placed. An ink font 62 is mounted above the shaft 58 and an inking roller 63 is journaled to receive ink from the font and to contact with the pad 61 as the shaft 58 is rotated. The portion 61 might be of felt, a composition such as is used in the rollers of printing presses, or of other material, and the purpose of the same is that it roll over the inking roller 63 and then come down upon the stencil as the same is placed upon the paper over the pressure roller 49, in view of which fact it is essential that the material 61 be of an elastic character so that it will press through the cut out openings of the stencil and will carry the ink through to the paper to thus imprint the subject matter of the stencil. A drive is provided for the shaft 58 in a manner which will be hereinafter set forth, and it is of course to be understood that the circumferential face of the surfacing material 61 will necessarily travel at the same speed as the stencil is carried forward. However, as the length of the sheets or sections of paper upon which the addresses are to be printed will be varied in accordance with the suggestions as hereinbefore set forth, the provisions of the plurality of substantially dovetailed shaped grooves 59 will permit the fitting of other of the truncated sector shaped blocks and thus by raising other lugs 54 upon the chains 51 and 52 so that the stencil plates will be carried forward in greater quantities, the stencil plates will be laid at the proper points upon the paper and the pad portion 61 of the several blocks 60 will come to the proper imprinting relation against the stencil. From the point at which the impression is made through the stencils, the trackway rises as shown at 50 and the stencils are thus lifted from the paper and are raised out of contact therewith, the paper continuing its course on through the machine and being carried by the belts 30 and 31 to be discharged at the end of the housing made up of the portions 1, 2 and 3, this discharge being over the roller 32. Where the paper is in a continuous strip, it will of course be necessary to provide some means by which the strip will be severed or cut into the proper length of sheet, and to accomplish this purpose the roller 64 is mounted adjacent to the discharge end of the machine and is provided with a knife which works against a roller 65, a discharge trough or way 66 being provided for the passage of the separate sheets.

As is better shown in Figs. 11, 12, and 20, the stencils preferably embrace a frame portion 67 which is reduced somewhat at its

ends to be received in the trackways 48, and the plates or cards proper, 68, are removably inserted in these frames. By this arrangement of the parts, the matter to be printed by the use of any particular frame can be varied by simply changing the card or plate 68 thereof. If desired, the frame portions 67 can be notched at their rear edges and provided with the spring sheets 69 similar to those disclosed in Patent No. 1,206,345, these being provided to hold around the lugs 54 and thus retain the plates against independent or casual movement. Following the movement of the stencils into the raised portion 50 of the trackway, these stencils are moved from the position in which further printing upon the sheet or strip being carried over the work supporting table will be accomplished.

As has been stated, it is a purpose of my invention to so arrange the parts that the stencil member which has been used to print the address upon the letter or other paper being carried over the work supporting table shall be used to print the same address upon an envelop or other container, shall then be brought to a position to make a permanent visible record of such use and printing, and shall subsequently be brought to an inoperative position to be stacked with other like stencils taken from the tube or stack box 46, in substantially the same arrangement as the several stencils occupied when placed in the tube or stack box 46. When the stencils pass up the inclined portions 50 of the trackways, they are taken from the position in which they operate upon the paper or material passing over the work supporting table and it is on this upward travel that the printing of the envelop and the imprinting to make the record is to be accomplished, it of course being understood that both of these printing actions will take place previous to the restacking of the stencils. An envelop tube or stack box 70 is mounted at the discharge end of the machine to be supported somewhat above the table 4 and consequently above the discharge trough 66, and at the lower end of this tube, which is left open, a shaft 71 having a friction rib thereon is mounted to be capable of turning movement and to move the lowermost envelop forward as the friction rib comes into engagement therewith in the turning of the shaft. A delivery belt 72 is mounted over suitable bearing rollers and is extended to have its inner end adjacent to the inclined portion of the track way 48, an intermediate belt 73 is mounted over rollers placed closely adjacent to the rollers having the belt 72 carried thereby and is so arranged that the upper straight length thereof runs parallel with the lower straight lengths of the belt 72, these parallel lengths being brought rather closely together. A discharge belt 74 is mounted over rollers placed adjacent to the rollers carrying the belts 72 and 73, and has the upper straight lengths thereof parallel with and closely adjacent to the lower straight length of the belt 73. The belts 72 and 74 are arranged to travel in the same direction, and by arranging the intermediate belt 73 to travel in an opposite direction, the adjacent length of the belts 72 and 73 and the adjacent length of the belts 73 and 74 will travel in the same direction, it however being preferable that the belts 72 and 73 on their adjacent portions carry inwardly or from the tube 70 toward the trackway 48, and that the adjacent straight portion of the belts 73 and 74 carry outwardly or away from the trackways. The belts 72 and 73 are so located that as the envelops are taken from the tube 70 by turning of the shaft 71 and the engagement of the friction rib thereof with the lowermost envelop, these envelops will be engaged between the parallel portions of the belts, and the envelops will be carried in to be discharged at the inner end of these belts onto the belts 75 by which the envelops are carried to be caught in the spring clips 76. These spring clips 76 may be adjusted through the medium of the screws 77, and thus the parts are so arranged that the envelops may be fed into the spring clips to any desired extent to thus accommodate the structure for envelops or containers of various sizes and to also insure that the outer edge will extend beyond the inner end of the spring clips. The structure of this spring clip and the parts associated therewith is better shown in Figs. 13, 14, and 15, and as is here illustrated, the parts making up the spring clips 76 are continued in the spring rings 78 which extend in the arc of a circle taken around the shaft 79 journaled within the loop of the belt 75. These spring rings 78 are stopped at such points that the envelops as carried and discharged by the belts 72 and 73 will be directed over the guard 80 onto the belts 75. However, it is preferable that the spring rings 78 be given such extent that only sufficient clearance will be provided between the guard member 80 and these rings 78 for the passage of the envelop in the travel onto the belts 75. As is illustrated in Fig. 14, it is preferable that two of the belts 75 be provided so that it will not be necessary to give great width to the same, and these belts are so spaced apart that they take the envelop substantially at the edges thereof. The substantially sector shaped blocks 81 are mounted on the shaft 79 with spaces therebetween to provide clearance for the belts 75, and these blocks are preferably provided with the cushioning layer or surfacing material as indicated at 82. It is perhaps preferable that this surfacing material be of rubber so that it will retain frictional properties, and thus as the

shaft 79 is turned to move the sector shaped blocks 81 around in a clockwise direction as disclosed in Fig. 13, the envelop as held by the clip 76 will be engaged between the covering 82 of the blocks 81 and the roller 83, and the envelops will then be taken from the spring clips and carried around upon the blocks 81 within the confines of the spring extensions 78. To positively insure the proper placing of the envelops, it is preferable that the finger-like envelop carriers 82′ be provided substantially as shown in Fig. 13. A plate 84 is mounted adjacent to the guard 81 and at such a position that as the sector shaped members 81 with the envelops carried on the surfaces thereof are brought around beyond the ends of the extensions 78, the forward edge of the envelop will be caught by this plate 84 and the envelop will be stripped from the blocks 81 and will be guided to be taken between the parallel lengths of the belts 73 and 74 by which the envelop will be carried out to be discharged through the trough 66. As has been stated, the stencil plates in their travel up the inclined portions of the trackways 48 are to be used to print upon the envelops carried into the machine to have the addresses printed thereon and then discharged from the machine by the mechanism as hereinbefore described, and adjacent to the mounting of the shaft 79 and preferably thereabove, I provide the supporting standards 85 which have the shaft 86 mounted thereon and from which supporting standards the ink font 87 is carried. This shaft 86 has a drum thereon provided with substantially dove tailed shaped grooves 88 similar to the grooves 59 of the drum mounted on the shaft 58, and the truncated sector shaped block 89 provided with the pad or flexible surfaces 90 are shaped at their inner ends to be received in these dove tailed shaped grooves 88 to be held to extend radially from the drum. The inking roll 91 is mounted in conjunction with the ink font 87, and as the shaft 86 is turned in an anticlockwise direction, in accordance with the disclosure in Fig. 7, the pad portion 90 thereof will come in contact with the inking roll 91 to be inked and as continued movement of the shaft 86 occurs and the pad portion 90 is brought down to press against a stencil carried by the chains 51 and 52, the address will be imprinted through the stencil onto an envelop carried by the blocks 81 on the shaft 79, it of course being understood that these parts will be properly timed to work in unison.

By the arrangement of the parts as described, the envelops will be taken from the tube or stack box 70, will be carried into the machine to have the stencil plates used to imprint addresses thereon, and will then be carried from the machine to be discharged through the trough 66, while the stencil plates are carried on up the incline 50 by the continuous movement of the chains 51 and 52. By chiming the parts in their intergearing, each individual stencil can be used to imprint the address upon a letter or other paper passing over the work supporting table 4 and can then be subsequently used to address an envelop, and the carrying portions can be so chimed that the addressed envelop will be discharged through the trough 66 to be placed upon the particular paper which is to be inclosed therein.

A record strip 92 is taken from a reel 93 and after passing over an idler roller is brought around the pressure roller 94, from which the record strip is led over a winding reel 95. Any suitable form of tensioning means can be provided to turn the reel 95 to always maintain the record strip 92 taut around the pressure roller 94 but in the present instance I have shown a weight 96 which is carried on the end of a cable adapted to be wound upon the shaft carrying the reel 95 and to thus exert a uniform pressure to produce the desired tension of the recording strip 92 and to also turn the reel to wind the strip thereonto as the strip may be unwound from the reel 93 by means which will be hereinafter set forth. The pressure roller 94 is mounted in such a relation that the record strip 92 is carried closely adjacent to the inclined portion of the trackways 48 beyond the mounting of the supporting standards 85, and supporting standards 97 have a shaft 98 carried thereby to be capable of revoluble movement. This shaft 98 has a drum thereon which is provided with substantially dove tailed shaped grooves extending longitudinally thereof as indicated at 99, and the truncated sector shaped blocks 100 are shaped at their inner ends to be fitted in these grooves to be held to extend radially from the drum, these blocks being provided with the pad like layer 101 on the outer faces thereof. As the stencil plates previous to their passage adjacent to the pressure roller 94 have been twice printed through, considerable ink will adhere to the stencils in the cut out portions thereof, and thus sufficient ink will be carried by the stencils to under ordinary circumstances print upon the record strip as the stencils are moved adjacent thereto and pressure is exerted upon the stencils by the bearing of the pad surface portions 101 of the blocks 100. However, under some circumstances it may be found necessary to ink the pad portion 101 and to imprint directly through the cutout openings of the stencils, and for this purpose I provide the ink font 102 having the inking roller 103 located in such relation that the pad portion 101 rolls thereover in the revolution of the shaft 98. Where the pad portion 101 is used to print the sten-

cil upon the record sheet by using the excess ink carried on the stencil, this pad portion will of course be constructed to take up the ink upon the stencil and thus the stencil will be cleaned, in this, its last printing action in a single passage through the machine. Where this last printing action is to clean the stencil, some cleaning fluid might be contained in the font 102 and be placed upon the surfacing portion 101 of the block to thus be applied to the stencil. A date printing roller 104 is mounted adjacent to the record strip 92 as the same is strung from the roller 94 and brought back to the reel 95, and a pressure roller 105 is placed on the opposite side of the strip to insure the proper printing action as the roller 104 is turned during the travel of the record strip. This roller 104 is better shown in Fig. 24, and as is here illustrated the date stamp is placed on the end as is shown at 106 and thus the date will be applied at one side of the strip and away from the address as printed by the stencil. The date stamp 106 may be inked through supplying ink from the font 107 to this stamp by the pipe 108, this arrangement being adopted as the placing of the ink font within the main portions of the machine would put the same at a position inconvenient for filling and also would place the font in rather close quarters.

Following this last printing action by the stencil, the chains 51 and 52 carry the same up the elevated portion of the trackways and to the rack 109. A rack 110 is mounted adjacent the rack 109, and it is to be understood that both of these racks are placed in upright position. A shaft 111 is mounted between the racks 109 and 110 at the upper end thereof and a second shaft 112 is mounted adjacent the lower end of the rack and vertically beneath the shaft 111. Sprocket wheels 113 and 114 are mounted at the end of the shafts 111 and 112 respectively, and sprocket chains 115 and 116 are mounted over these sprocket wheels to have the straight lengths thereof extend substantially centrally at the sides of the racks 109 and 110 after the manner better shown in Figs. 6 and 9. The racks 109 and 110 have the vertically extending slot openings 117 and 118 formed through the side walls thereof on each side of the straight lengths of the chains 115 and 116, and thus as the stencils are brought within the lower end of the rack 109, access may be had thereto through the slots 117. Cross bars 119 are pivotally mounted on certain of the links of the chains 115 and 116 at spaced apart intervals, and the weights 120 are provided to maintain these cross bars 119 in such relation that they will at all times be held in horizontal disposition as is better shown in Fig. 16. These cross bars 119 move over the side walls of the racks 109 and 110, the sprocket wheels 113 and 114 being arranged to travel in clockwise rotation and the cross bars being thus moved upwardly along the sides of the rack 109 and downwardly along the sides of the rack 110. Spring catches 121 are mounted on the cross bars 119 to extend through the slots 117 and 118, the coil springs 122 being preferably provided to give added resiliency, and thus as the sprocket wheels are turned the chains will be carried in such paths that the stencils brought into the rack 109 by the chains 51 and 52 will be taken up by the spring catches 121 of the cross bars 119, will be carried over the shaft 111 and will then be deposited in the rack 110, this carrying up and over of the plates causing the same to be stacked in the same order in which they have been taken from the tube or stack box 46. The stops 123 are carried by a bar 124 slidably mounted on the rods 125, and these stops are extended through openings provided in the side walls of the rack 110 so that as the plates are carried thereinto they will be supported and held by the stops 123, suitable clamping means as shown at 126 being provided to maintain the bar 124 in the proper relation and to thus insure that the stop 123 will at all times be retained in the position of extension into the interior of the rack 110 when it is desired to support the stencils therein. If desired, the stencil receiving and retaining racks 127, similar to that shown in Fig. 21, can be provided to be fitted within the rack 110 and carried by the stops 123, and then as the stencils are brought over into this rack 110, they will be stacked upon the bottom 128 of the containing rack 127 and by removal of the door of the portion 110, the receiving rack 127 may be removed when filled. As the stencils are stacked within the rack 110, and the cross bars 119 are carried over and downwardly by the movement of the chain, these spring extensions 121 by which the stencil members are carried over will be pressed back to ride over previously stacked stencils and then the proper operation of the parts will not be interfered with. If desired, dust proof covers 129 may be provided to be fitted over the receiving racks 127 and to close the same so that the stencils as stacked therein can be piled in their proper order to be readily accessible, and it is preferable that the spring catches 130 be provided adjacent to the lower edges of these covers 129 to ride down over the stencil plates as stacked within the rack 127 and to engage beneath the bottom stencil so that as the cover is raised the stencils will be lifted out of the rack 127. When it is desired to again place the stencils as carried within the cover 129 to the tube or stack box 46, the knobs 131 will be turned to withdraw the spring catches 130 against the pressure of the springs and

justment of this work supporting table permits the proper setting of the same to be obtained for the passage of papers or publications of various thicknesses, and thus the machine as an entirety is very flexible in its use and adapts itself for application in a number of different connections. If desired, cover means might be provided for the various operating parts, or for only certain of the mechanism, and special casings or housings might be provided for the chains and sprockets to make the machine more safe in use and more quiet in running.

The description of the individual and cooperative operation of the various parts has been carried forward with the progress of the specification, and it is not here deemed necessary to indulge in more or less lengthy recapitulation. However, it might be stated that by the use of the machine as described the paper may be taken in single sheets of the desired size or in a continuous strip drawn from a roll, is then fed through the printing mechanism, is then caught by carrying means which feeds the paper to the continuously traveling belts by which the paper is carried throughout the length of the work supporting table. In the carriage of the paper, the label affixing mechanism is passed and if desired a label or other sticker can be applied, following which a stencil is laid upon the sheet and is carried therewith to have the subject matter thereof imprinted upon the paper by subsequently encountered printing means. The stencil is then removed from the paper and the paper is continued on through to be discharged through the discharge trough 66, it of course being understood that if the paper is in a continuous strip it will be severed into the proper size sheets by the cutting mechanism before being discharged through the trough 66. The stencil is taken from the sheet or paper following the imprinting of the subject matter thereof upon the paper, and is then carried to imprint the same subject matter upon an envelop or container brought into the machine by coöperating mechanism, following which the envelop is again carried from the machine to be discharged upon the corresponding printed sheet of paper which has passed through the trough 66 and the stencil is carried on to print a record of its use and is then cleaned and stacked with other like stencils in substantially the same relation from which the stencils were originally taken. Mechanism is provided to accomplish the proper feed of the record strip upon which the permanent visible record is shown and dating means is also provided, and further than this it will be seen that by making slight changes in the feed end of the machine circulars in booklet form, cards, magazines, or other like matter might be fed through the machine to be operated upon and that the action of the machine will be equally efficient by reason of the fact that adjustments are provided for the various parts to adapt the same for use in a greater number of various connections.

While I have shown and described only specific forms of the various parts and have set forth only certain exemplary manners in which the parts might be used, it will be readily apparent to one skilled in the art that a number of changes and variations might be made in the form and arrangement as well as the operative connection of the various parts and that the machine might be put to other uses than those set forth without departing from the spirit and scope of my invention, in view of which fact I do not wish to be limited to the exact disclosure but only to such features as may be imported in the claims.

I claim:

1. A printing and addressing machine including means to accomplish uninterrupted movement of the subject matter to be printed and addressed through the machine, means to accomplish printing action during such movement, and means to subsequently imprint an address while the subject matter is still moving.

2. A printing and addressing machine including means to accomplish uninterrupted movement of the subject matter to be printed upon through the machine, printing means to move with the subject matter and to print addresses upon the matter, and means to imprint the same addresses upon containers in which the addressed matter is to be inclosed as movement of the printing means is continued.

3. A printing and addressing machine including means to continuously convey the subject matter to be printed upon through the machine, means to print addresses upon the matter, means to imprint the same addresses upon containers in which the addressed matter is to be inclosed, and means acting to substantially simultaneously discharge the containers from the machine to be paired with the subject matter to be contained.

4. A printing and addressing machine including means to convey the subject matter to be printed and addressed through the machine, means to imprint an address upon the subject matter, means to print an envelop with the same address, and means to print the address from the same imprinting means upon a record strip to thus give a permanent visible record.

5. A printing and addressing machine including means to convey the subject matter to be printed and addressed through the machine, means to imprint an address upon

the stencils will then fall from the cover 129 into the tube or box 46 and will be placed therein in the exact order in which they were initially taken therefrom. The provision of the weights 120 mounted in conjunction with the cross bars 119 insures that these bars will be at all times maintained to support the stencils without reversing the upper and lower sides thereof, and to insure that the stencils will be held against shifting during the transferring from the rack 109 to the rack 110, the spring catches 121 may be provided with the substantially triangularly shaped extensions 132 and the edges of the stencil frames 67 may be provided with correspondingly shaped notches 133 in which these extensions 132 fit as the stencils are taken up by the spring catches, and in this relation of the parts the stencils will be positively held against shifting movement and will be positively stacked squarely one upon the other upon being deposited in the rack 110.

As has been stated, the shaft 14 may be used as the power shaft, and the remaining parts may be connected to be driven therefrom by the use of gearing, sprocket wheels and chains, or belting, and as the particular drive arrangement is not a material part of the invention and might be modified in a number of ways, it is not deemed necessary to go into a minute description of the arrangement of the drive in all of its parts, but rather only in such parts as may be of a particular character or intended to accomplish a particular and distinctive operation. A sprocket chain 134 is led around a wheel deriving movement from the turning of the shaft 14 and around a sprocket wheel on the shaft 98, a sprocket chain 135 transmits movement from the shaft 98 to the shaft 86; movement is transmitted from this shaft 86 through a sprocket chain 136 to the shaft 58, a chain 137 leads from the shaft 58 to the shaft on which the roller 44 is mounted, and a chain 138 is led from a wheel on this shaft to a sprocket wheel on the shaft carrying the printing roller 34. By this arrangement of the parts, the shafts 98, 86, and 58 are all turned to move the blocks carried thereby in a counter-clockwise direction, the label affixing mechanism is operated, and the printing mechanism is also given proper operation. When it is desired to drive the feeding mechanism by which separate sheets are fed to the machine, a belt 139 may be connected to transmit power from the turning of the printing roller, and it will of course be understood that the various parts of the label affixing mechanism will receive proper operative movement by being intergeared from the wheel turned by the chain 137. The turning of the shaft 98, 86 and 58 in a counter-clockwise direction will cause the blocks to move in the same direction taken by the stencils in their path of travel through the trackways, and thus binding of the parts or shifting of the stencils will be avoided. Proper driving connections will be established to cause the desired movement and travel of the various carrying belts, and of the chains 51 and 52 as well as the chains 115 and 116, one form of connection which might be employed being shown in Fig. 6.

As has been hereinbefore intimated, it is preferable that the blocks 81 and the pressure roller 94 be given only limited movement, and with this purpose in mind, I provide the substantially sector shaped rack portions 140 and 141 which are mounted on the shafts 86 and 98 respectively. The rack teeth of these members 140 and 141 are adapted to mesh with the teeth of the gear wheels 142 and 143 respectively, and thus during the greater part of the revolution of the shafts 86 and 98, these gear wheels 142 and 143 will remain quiet. To insure that the parts controlled by a movement of the gear wheels 142 and 143, namely the blocks 81 and the roller 94, will be positively maintained against movement except under the impulse of the members 140 and 141, I provide the dogs 144 and 145 which are mounted adjacent to the gear wheels 142 and 143 to have the toothed ends thereof normally in engagement with the teeth of these wheels to stop movement. Arms are provided beyond the points of pivot of the dogs 144 and 145, and the members 140 and 141 have ribs or flanges 146 and 147 thereon to engage with the arms of the dogs to move the same out of engagement with the teeth of the gear wheels 142 and 143. As has been stated, the various parts by which the strip or the sheets are carried through the machine can be adjusted to act upon various sizes of paper and by placing other of the substantially truncated sector shaped blocks in conjunction with the drums mounted on the shafts 58, 85, and 98, and adjusting other of the lugs 54 of the chains 51 and 52 to bring the same to the raised position, the printing operation will be regulated for the various sizes of the papers to print the addresses at proper times. The means by which the paper in a continuous strip is carried and is fed to the machine may be rendered inoperative and the parts may be fitted to hold single sheets and to take these single sheets from a stack and feed the same through the machine, or still further variation of the feed end of the machine might be resorted to to make the same adaptable for action upon magazines, catalogues, or other publications after the manner of the machines shown in the patents issued to me and identified above, and under these circumstances the chains 9 and 10 will act to carry the publications through the machine from one end to the other and over the work supporting table 4. The ad-

the subject matter, means to print an envelop with the same address, means to print the address from the same imprinting means upon a record strip to thus give a permanent visible record, and means to deliver the envelop from the machine to be deposited with the subject matter as addressed.

6. A printing and addressing machine including means to convey the subject matter to be printed and addressed through the machine, means to imprint an address upon the subject matter, means to print an envelop with the same address, means to print the address from the same imprinting means upon a record strip to thus give a permanent visible record, and means to date the record strip.

7. A printing and addressing machine including means to convey the subject matter to be printed and addressed through the machine, means to print upon the matter, means to imprint an address upon the subject matter, and means to imprint the address from the same imprinting means upon a record strip to thus give a permanent visible record of the addressing of the subject matter.

8. A printing and addressing machine including means to convey the subject matter to be printed and addressed through the machine, means to print upon the matter, means to imprint an address upon the subject matter, means to imprint the address from the same imprinting means upon a record strip to thus give a permanent visible record of the addressing of the subject matter, and means to date the record strip.

9. A printing and addressing machine including means to convey the subject matter to be printed and addressed through the machine, means to accomplish printing upon the matter during such movement, means to imprint an address upon the subject matter, means to imprint the same address from the same imprinting means upon a container in which the subject matter is to be inclosed, and means to make a record of the printing of the address.

10. A printing and addressing machine including means to convey the subject matter to be printed and addressed through the machine, means to accomplish printing upon the matter during such movement, means to imprint an address upon the subject matter, means to imprint the same address from the same imprinting means upon a container in which the subject matter is to be inclosed, means to make a record of the printing of the address, and means to date the record.

11. A printing and addressing machine including means to accomplish uninterrupted movement of the subject matter to be printed and addressed through the machine, means making use of a stencil arranged to print an address upon the subject matter while the stencil is moved in line therewith, and means employing the same during continued movement thereof to print the subject matter thereon upon a container.

12. A printing and addressing machine including means to convey the subject matter to be printed and addressed through the machine, means making use of a stencil arranged to print an address upon the subject matter, means employing the same stencil to print the subject matter thereof upon a container, and means to make a record of the printing of the stencil.

13. A printing and addressing machine including means to convey the subject matter to be printed and addressed through the machine, means making use of a stencil arranged to print an address upon the subject matter, means employing the same stencil to print the subject matter thereof upon a container, means to make a record of the printing of the stencil, and means to date the record.

14. A printing and addressing machine including means to accomplish uninterrupted movement of the subject matter to be addressed through the machine, means employing a stencil moving in line with and at the same speed as the matter arranged to imprint an address upon the subject matter, and means arranged to act upon the stencil in its travel from the printing position to make a record of the use of the same in the printing operation.

15. A printing and addressing machine including means to convey the subject matter to be addressed through the machine, means employing a stencil arranged to imprint an address upon the subject matter, means arranged to act upon the stencil in its travel from the printing position to make a record of the use of the same in the printing operation, and means by which the record is dated.

16. A printing and addressing machine adapted for use with a continuous strip of paper comprising means by which the strip of paper is carried through the machine and discharged therefrom, means located in the path of travel of the strip to print repeats upon the strip at spaced apart points, changeable means mounted adjacent to the path of travel of the strip to print addresses thereon in proximity to each of the printed repeats from a compiled list, and means employing the same changeable means to make a record of the printing of each of the addresses from the list.

17. A printing and addressing machine adapted for use with a continuous strip of paper comprising means by which the strip of paper is carried through the machine and discharged therefrom, means located in the path of travel of the strip to print repeats upon the strip at spaced apart points,

changeable means mounted adjacent to the path of travel of the strips to print addresses thereon in proximity to each of the printed repeats from a compiled list, means employing the same changeable means to make a record of the printing of each of the addresses from the list, and means to date the records.

18. A printing and addressing machine adapted for use in conjunction with strips of paper including means to continuously conduct the strip through the machine, means to place addresses upon the strip at spaced apart points, means to print the same addresses upon envelops in which inclosures are to be placed, means to cut the strip to discharge the same from the machine in separate sheets of predetermined size and each having an address printed thereon, and means to discharge the envelops from the machine in such relation that the addressed envelops will each be placed with the sheet having a like address thereon.

19. A printing and addressing machine adapted for use in conjunction with strips of paper including means to continuously conduct the strip through the machine, means to place addresses upon the strip at spaced apart points, means to print the same addresses upon envelops in which inclosures are to be placed, means to cut the strip to discharge the same from the machine in separate sheets of predetermined size and each having an address printed thereon, means to discharge the envelops from the machine in such relation that the addressed envelops will each be placed with the sheet having a like address thereon, and means to record the printing of each of the addresses.

20. A printing and addressing machine adapted for use in conjunction with strips of paper including means to continuously conduct the strip through the machine, means to place addresses upon the strip at spaced apart points, means to print the same addresses upon envelops in which inclosures are to be placed, means to cut the strip to discharge the same from the machine in separate sheets of predetermined size and each having an address printed thereon, means to discharge the envelops from the machine in such relation that the addressed envelops will each be placed with the sheet having a like address thereon, means to record the printing of each of the adrresses, and means to date the record.

21. A printing and addressing machine including means to convey the subject matter to be printed upon through the machine, means to move a stencil plate to a position to have the subject matter thereof imprinted upon the matter in its passage through the machine, means to bring an envelop to a position to be printed by the use of the same stencil, and means to discharge the envelop to be grouped with the matter previously addressed.

22. A printing and addressing machine including means to convey the subject matter to be printed upon through the machine, means to move a stencil plate to a position to have the subject matter thereof imprinted upon the matter in its passage through the machine, means to bring an envelop to a position to be printed by the use of the same stencil, means to discharge the envelop to be grouped with the matter previously addressed, means by which a record strip is carried, and means to cause printing upon said record strip from said stencil.

23. A printing and addressing machine including means to convey the subject matter to be printed upon through the machine, means to move a stencil plate to a position to have the subject matter thereof imprinted upon the matter in its passage through the machine, means to bring an envelop to a position to be printed by the use of the stencil, means to discharge the envelop to be grouped with the matter previously addressed, means by which a record strip is carried, means to cause printing upon said record strip from the stencil, and means to date the matter as printed upon the record strip.

24. A printing and addressing machine including means to convey the subject matter to be printed upon through the machine, means to move a stencil plate to a position to have the subject matter thereof imprinted upon the matter in its passage through the machine, means to bring an envelop to a position to be printed by the use of the stencil, means to discharge the envelop to be grouped with the matter previously addressed, means by which a record strip is carried, means to cause printing upon said record strip from the stencil, means to date the matter as printed upon the record strip, and means to print containers with the addresses as printed upon the subject matter carried over the work supporting table.

25. A printing and addressing machine including means to convey the subject matter to be printed upon through the machine, means to move a stencil plate to a position to have the subject matter thereof imprinted upon the matter in its passage through the machine, means to bring an envelop to a position to be printed by the use of the stencil, means to discharge the envelop to be grouped with the matter previously addressed, means by which a record strip is carried, means to cause printing upon said record strip from the stencil, means to date the matter as printed upon the record strip, means to print containers with the addresses as printed upon the subject matter carried

over the work supporting table, and means to discharge the containers to be grouped with the subject matter printed upon.

26. A printing and addressing machine including a work supporting table, means by which a strip of paper in the form of a roll is supported, means to carry the strip along over the length of the work supporting table, means to print addresses upon the strip at spaced apart points, means to sever the strip to form sheets of predetermined size having the addresses thereon, means to carry envelops into the machine, means by which addresses are printed upon the envelops to correspond with the addresses printed upon the strips, means by which the envelops are discharged to be each grouped with the separate sheet having the same address thereon, means by which a record strip is carried, and means by which the addresses as printed upon the strip and upon the envelops are printed upon this record strip.

27. A printing and addressing machine including a work supporting table, means by which a strip of paper in the form of a roll is supported, means to carry the strip along over the length of the work supporting table, means to print addresses upon the strip at spaced apart points, means to sever the strip to form sheets of predetermined size having the addresses thereon, means to carry envelops into the machine, means by which addresses are printed upon the envelops to correspond with the addresses printed upon the strip, means by which the envelops are discharged to be each grouped with the separate sheets having the same addresses thereon, means by which a record strip is carried, means by which the addresses as printed upon the strip and upon the envelops are printed upon this record strip, and means mounted adjacent to the path of the record strip to date the addresses as printed thereon.

28. A printing and addressing machine including a work supporting table, means by which a strip of paper in the form of a roll is supported, means to carry the strip along over the length of the work supporting table, means to print addresses upon the strip at spaced apart points, means to sever the strip to form sheets of predetermined size having the addresses thereon, means to carry envelops into the machine, means by which addresses are printed upon the envelops to correspond with the addresses printed upon the strip, means by which the envelops are discharged to be each grouped with the separate sheets having the same addresses thereon, means by which a record strip is carried, means by which the addresses as printed upon the strip and upon the envelops are printed upon this record strip, means mounted adjacent to the path of the record strip to date the addresses as printed thereon, and means by which said parts are simultaneously operated.

29. A printing and addressing machine including means by which the matter to be printed upon is carried through the machine and given continuous movement, a tube mounted over the path of travel of the matter and adapted to contain a plurality of stencils arranged in a stacked relation, means to take the stencils successively from the tube to be carried in line with the travel of the matter and after bringing the same to a printing position to carry the stencils from proximity to the matter to be printed upon, means to print upon the matter through the stencils, means to move an envelop adjacent to the path of travel of the stencils and carry the same in line therewith, and means to print through the stencils upon the envelops.

30. A printing and addressing machine including means by which the matter to be printed upon is carried through the machine and given continuous movement, a tube mounted over the path of travel of the matter and adapted to contain a plurality of stencils arranged in a stacked relation, means to take the stencils successively from the tube to be carried in line with the travel of the matter and after bringing the same to a printing position to carry the stencils from proximity to the matter to be printed upon, means to print upon the matter through the stencils, means to move an envelop adjacent to the path of travel of the stencils and carry the same in line therewith, means to print through the stencils upon the envelops, and means to discharge the envelops from the machine to be grouped with the subject matter having the same address printed thereon.

31. A printing and addressing machine including means by which the matter to be printed upon is carried through the machine, a rack mounted over the path of travel of the matter and adapted to contain a plurality of stencils arranged in a stacked relation, means to take the stencils successively from the rack and after bringing the same to a printing position carrying the stencils from proximity to the matter to be printed upon, means to print upon the matter through the stencils, means to move an envelop adjacent to the path of travel of the stencils, means to print through the stencils upon the envelops, means to discharge the envelops from the machine to be grouped with the subject matter having the same address printed thereon, means by which a record strip is carried in proximity to the path of movement of the stencils, and printing means to print from the same stencils on to the record strip.

32. A printing and addressing machine including means by which the matter to be printed upon is carried through the machine, a rack mounted over the path of travel of the matter and adapted to contain a plurality of stencils arranged in a stacked relation, means to take the stencils successively from the rack and after bringing the same to a printing position carrying the stencils from proximity to the matter to be printed upon, means to print upon the matter through the stencils, means to move an envelop adjacent to the path of travel of the stencils, means to print through the stencils upon the envelops, means to discharge the envelops from the machine to be grouped with the subject matter having the same address printed thereon, means by which a record strip is carried in proximity to the path of movement of the stencils printing means to print from the same stencils on to the record strip, and means to date the record strip as addresses are printed thereon.

33. A printing and addressing machine including means by which the matter to be printed upon is carried through the machine, a rack mounted over the path of travel of the matter and adapted to contain a plurality of stencils arranged in a stacked relation, means to take the stencils successively from the rack and after bringing the same to a printing position carrying the stencils from proximity to the matter to be printed upon, means to print upon the matter through the stencils, means to move an envelop adjacent to the path of travel of the stencils, means to print through the stencils upon the envelops, means to discharge the envelops from the machine to be grouped with the subject matter having the same address printed thereon, means by which a record strip is carried in proximity to the path of movement of the stencils, printing means to print from the same stencils on to the record strip, means to date the record strip as addresses are printed thereon, and means by which the stencils are taken from the carrying means.

34. A printing and addressing machine including a housing, a work supporting table adjustably mounted in said housing, means by which paper is taken from a common supply, means by which the paper is carried through the machine over the work supporting table, means to print subject matter in repeat upon the paper, a tube mounted over said work supporting table adapted to contain a plurality of stencils stacked therein, a carrying chain by which the stencils are taken singly and consecutively from said tube and deposited upon the paper passing over the work supporting table and following the printing thereof, means to imprint upon the paper through the stencils, guide tracks by which the stencils are raised from the printing position, a tube having envelops stacked therein, means to carry the envelops singly from said tube to a position in proximity to the course of travel of the stencils, and means to print upon said envelops through the stencils.

35. A printing and addressing machine including a housing, a work supporting table adjustably mounted in said housing, means by which paper is taken from a common supply, means by which the paper is carried through the machine over the work supporting table, means to print subject matter in repeat upon the paper, a tube mounted over said work supporting table adapted to contain a plurality of stencils stacked therein, a carrying chain by which the stencils are taken singly and consecutively from said tube and deposited upon the paper passing over the work supporting table and following the printing thereof, means to imprint upon the paper through the stencils, guide tracks by which the stencils are raised from the printing position, a tube having envelops stacked therein, means to carry the envelops singly from said tube to a position in proximity to the course of travel of the stencils, means to print upon said envelops through the stencils, and belts arranged to conduct the envelops from the printing position and place the same upon the paper printed with an address by the same stencil.

36. A printing and addressing machine including a housing, a work supporting table adjustably mounted in said housing, means by which paper is taken from a common supply, means by which the paper is carried through the machine over the work supporting table, means to print subject matter in repeat upon the paper, a tube mounted over said work supporting table adapted to contain a plurality of stencils stacked therein, a carrying chain by which the stencils are taken singly and consecutively from said tube and deposited upon the paper passing over the work supporting table and following the printing thereof, means to imprint upon the paper through the stencils, guide ways by which the stencils are raised from the printing position, a record strip being mounted in proximity to the path of travel of the stencils in said guideways, and means to cause the subject matter of the stencils to be imprinted upon the record strip.

37. A printing and addressing machine including a housing, a work supporting table adjustably mounted in said housing, means by which paper is taken from a common supply, means by which the paper is carried through the machine over the work supporting table, means to print subject matter in repeat upon the paper, a tube mounted over said work supporting table

adapted to contain a plurality of stencils stacked therein, a carrying chain by which the stencils are taken singly and consecutively from said tube and deposited upon the paper passing over the work supporting table and following the printing thereof, means to imprint upon the paper through the stencils, guideways by which the stencils are raised from the printing position, a record strip being mounted in proximity to the path of travel of the stencils in said guideways, means to cause the subject matter of the stencils to be imprinted upon the record strip, and means to date the matter as printed by the stencils upon the records strips.

38. A printing and addressing machine including a housing, a work supporting table adjustably mounted in said housing, means by which paper is taken from a common supply, means by which the paper is carried through the machine over the work supporting table, means to print subject matter in repeat upon the paper, a rack mounted over said work supporting table adapted to contain a plurality of stencils stacked therein, a carrying chain by which the stencils are taken singly and consecutively from said rack and deposited upon the paper passing over the work supporting table and following the printing thereof, means to imprint upon the paper through the stencils, guide tracks by which the stencils are raised from the printing position, a tube having envelops stacked therein, means to carry the envelops singly from said tube to a position in proximity to the course of travel of the stencils, means to print upon said envelops through the stencils, a record strip being mounted within the machine in proximity to the path of travel of the stencil in the guideway, and means to imprint the subject matter of the stencils upon the record strip.

39. A printing and addressing machine including a housing, a work supporting table adjustably mounted in said housing, means by which paper is taken from a common supply, means by which the paper is carried through the machine over the work supporting table, means to print subject matter in repeat upon the paper, a rack mounted over said work supporting table adapted to contain a plurality of stencils stacked therein, a carrying chain by which the stencils are taken singly and consecutively from said rack and deposited upon the paper passing over the work supporting table and following the printing thereof, means to imprint upon the paper through the stencils, guide tracks by which the stencils are raised from the printing position, a tube having envelops stacked therein, means to carry the envelops singly from said tube to a position in proximity to the course of travel of the stencils, means to print upon said envelops through the stencils, a record strip being mounted within the machine in proximity to the path of travel of the stencil in the guideway, means to imprint the subject matter of the stencils upon the record strip, and means to date the matter as printed upon the record strip by the stencils.

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

LEVI McMILLAN.

Witnesses:
LLOYD W. PATCH,
ISABEL T. PRICE.