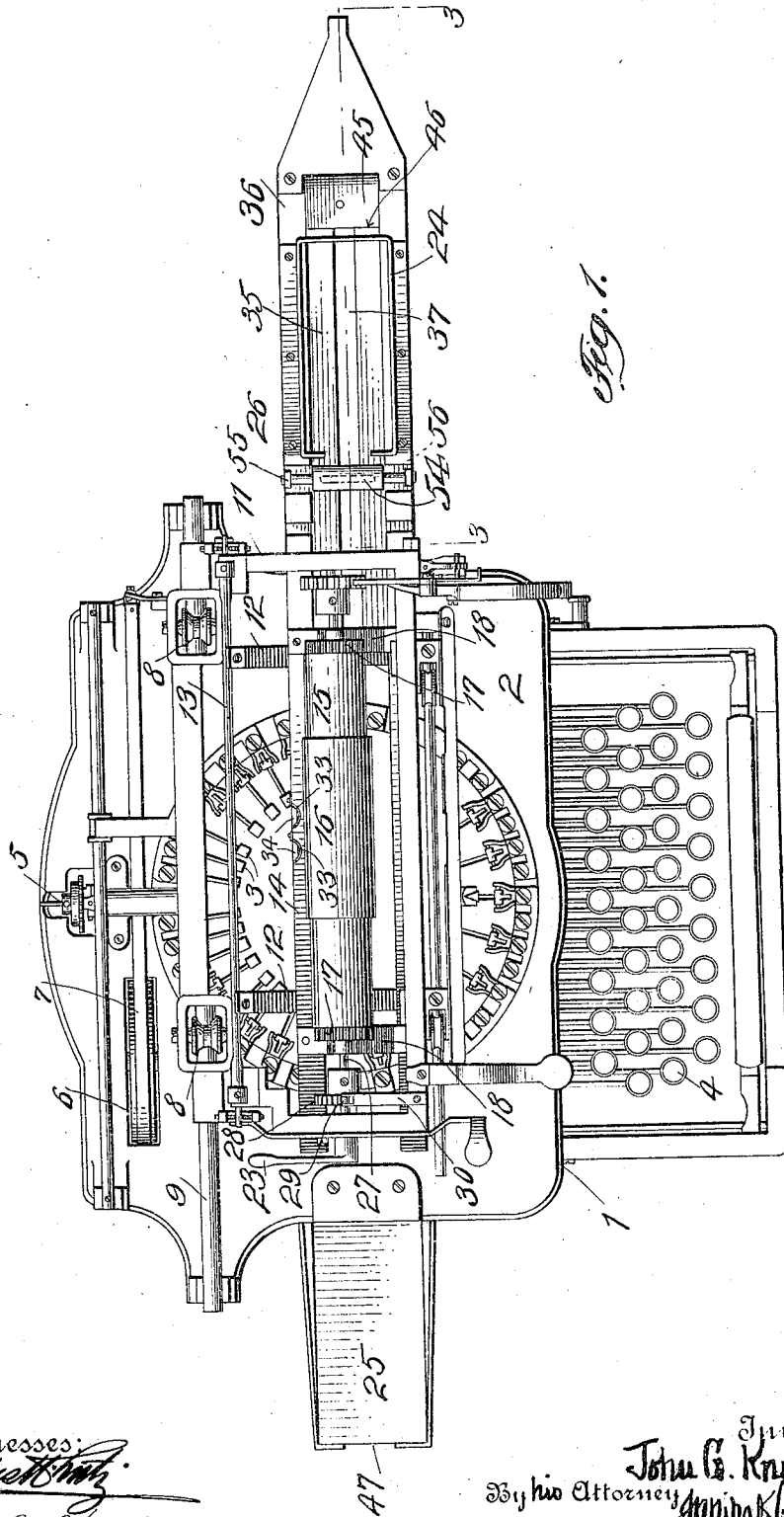


J. G. KNURCK.
CARD ADDRESSING MACHINE.
APPLICATION FILED JULY 2, 1912.

Patented Aug. 12, 1913.

4 SHEETS—SHEET 1.

1,069,958.



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Alfred M. Houghton

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By his Attorney
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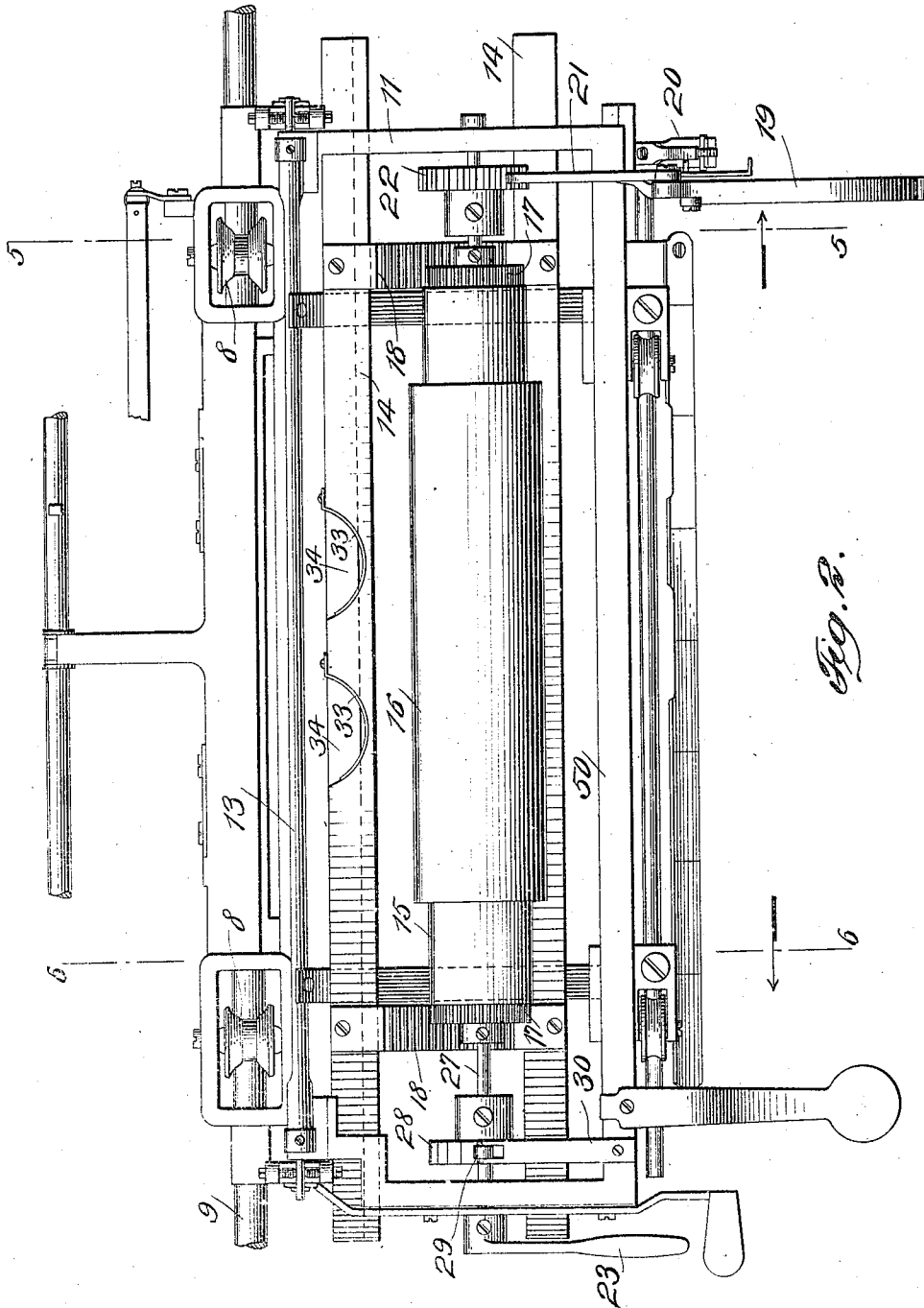


Fig. 2.

Witnesses:
Julius H. Knurck
Alfred M. Houghton

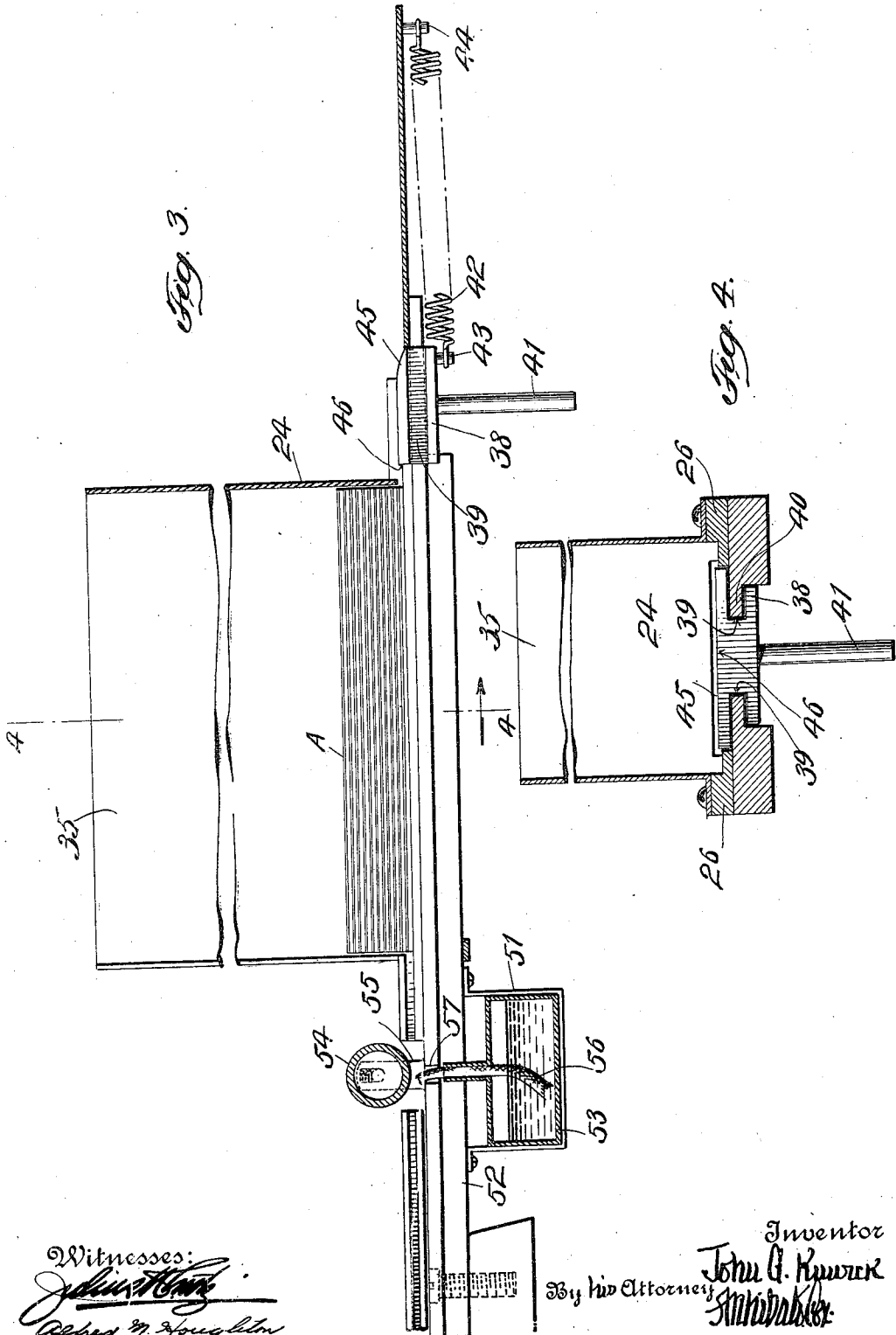
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4 SHEETS—SHEET 3.



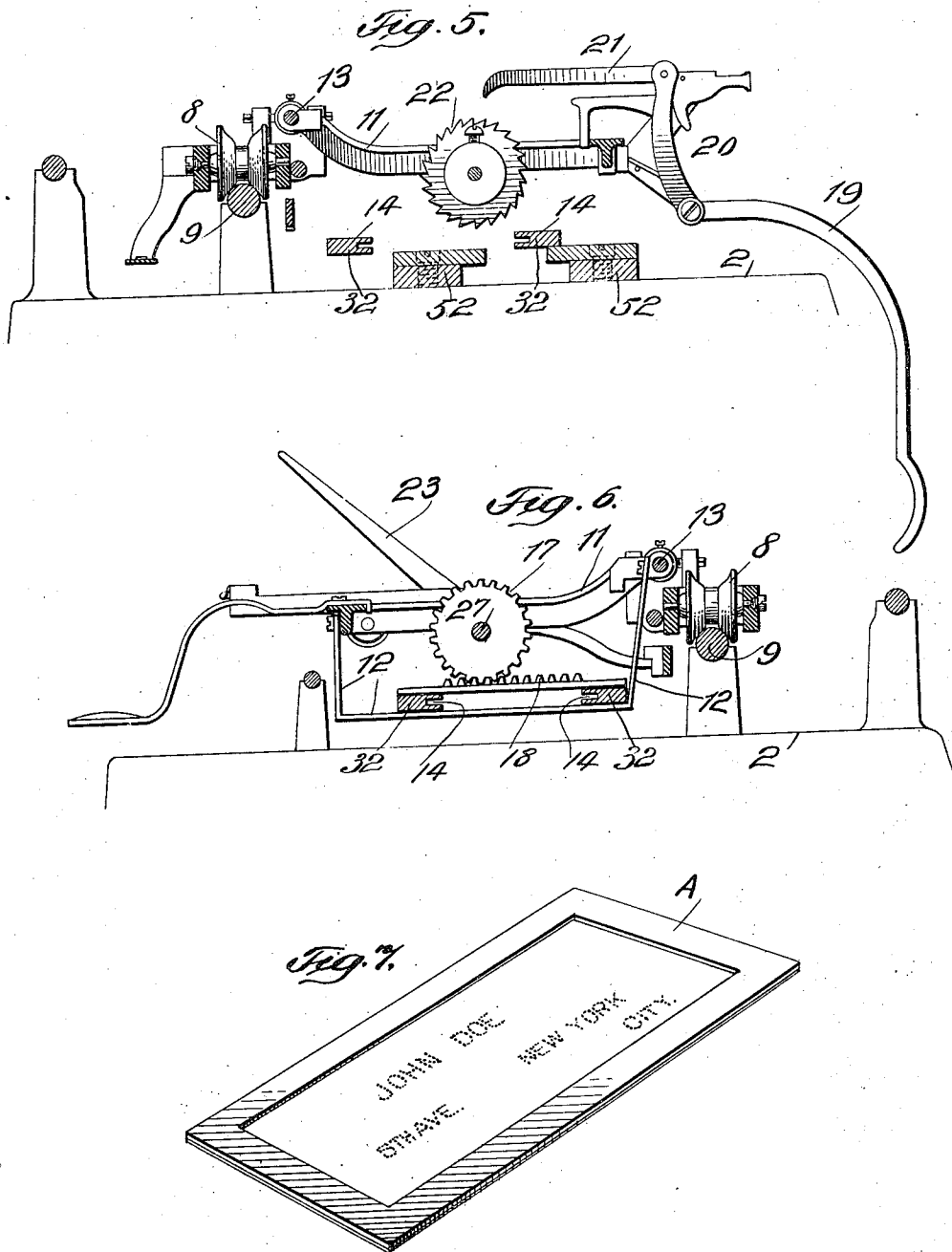
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 4 SHEETS-SHEET 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN GEO. KNURCK, OF NEW YORK, N. Y.

CARD-ADDRESSING MACHINE.

1,069,958.

Specification of Letters Patent.

Patented Aug. 12, 1913.

Application filed July 2, 1912. Serial No. 707,184.

To all whom it may concern:

Be it known that I, JOHN G. KNURCK, a citizen of the United States, residing in the borough of Brooklyn, county of Kings, in the city and State of New York, have invented new and useful Improvements in Card-Addressing Machines, of which the following is a specification.

This invention relates to card addressing machines and embodies means for typewriting, stenciling or printing cards and the like and mechanism for receiving and storing such cards, feeding the same into correct relation to the type across the writing machine, means for securing each card while being written upon in correct position, and means for moving the card with relation to the type to secure spacing of the letters and spacing of the lines, together with means for eliminating the cards from the machine after they have been written up, all as more fully hereinafter set forth and as claimed.

The object of my invention is to provide a card stenciling mechanism which may be used in connection with the usual typewriter now on the market having a cylindrical platen, so that the machine may be used for writing ordinary letters and the like as well as for addressing cards merely by substituting the correct carriage.

It is a further object of my invention to provide means which may be attached to the usual typewriter in order that such typewriter may be readily and economically adapted for use as an addressing machine.

Another object of the present invention is to produce a card addressing machine embodying all the advantages of the usual typewriter and operating upon the same principle in order that any typist may operate the machine.

My invention has also for its object to provide a machine of the class described which, while simple in operation and inexpensive in manufacture, nevertheless accomplishes the feeding and ejecting of the cards from the machine through one movement of the hand of the operator, thus saving considerable time in operation as well as being less tiresome to the operator than other style machines in which the cards must be fed singly by hand.

A still further object of my invention is

to provide a card addressing or stenciling machine in which relatively thick cards may be typed and whereby stencil cards having thick margins and relatively thin type-receiving surfaces may be stenciled or perforated without the necessity of their being bent or curved to secure contact with the platen, and at the same time to avail myself of the usual advantages of a round platen.

With these and other objects in view, my invention comprises certain principles of operation and details of construction as will be more fully hereinafter set forth.

In the accompanying drawings, showing one form of a specific embodiment of my invention and in which similar reference numerals designate corresponding parts, Figure 1 is a top plan view of a typewriter with my improved carriage in position; Fig. 2 is a similar view of the carriage upon an enlarged scale with the tracks or guides in the position they occupy when the first line of a card is being written; Fig. 3 is a transverse vertical section along line 3—3 of Fig. 1; Fig. 4 shows a transverse vertical section along line 4—4 of Fig. 3, taken in the direction of the arrow; Fig. 5 is a similar section taken along line 5—5 of Fig. 2 and looking in the direction of the arrow; Fig. 6 is a transverse vertical section along line 6—6 of Fig. 2 and looking in the direction of the arrow; and Fig. 7 is a perspective view of one form of card I prefer to use when the machine is used as a stencil addressing machine.

Referring to the drawings, 1 represents the typewriter similar in construction to the well-known Remington under-stroke machine, having the bed 2 and the usual circularly disposed type-bars and type 3 with the operating keys 4. As regards the construction of the typewriter, it is deemed unnecessary to explain in detail, since the operation is substantially the same as that of the ordinary machine. It is provided with the usual escapement 5, spring 6 and strap 7, and usual roller-guides and bearings 8 and 9, respectively, which all operate in the well-known manner. To the bed 2 of such a machine (or any other machine adapted for the purpose) I attach either temporarily or permanently a frame 11 constituting a carriage hereinafter more fully described. This

frame 11 is provided with two transverse bars or slideways 12 upon which the tracks 14 slide when it is desirable to effect line spacing in the card writing operation, as hereinafter explained. These slides 12 are 5 attached to the rod 13 (which in such typewriters constitutes means for securing the small paper guide-rolls in contact with the platen) so that they pass under the tracks 14 and afford bearings for such tracks. The 10 tracks may be grooved for this purpose if desired to afford guides. The forward ends of such slides 12 may be secured to the front rod 50 of the carriage frame 11.

The carriage 11, while embodying many of the features of the usual typewriter carriage, is different in certain respects, whereby it is adapted to accomplish the results 15 in view. Such carriage is provided with the usual cylindrical platen 15, which in this instance may be made of wood, rubber or any suitable material, and which is preferably of less diameter than that usually employed in typewriters of this type. 20

16 represents cloth of duck, canvas, or other soft material, which is temporarily attached to the roll or platen and which affords protection for the platen as well as the correct impact surface when stencil type 25 is used in addressing the cards. This cloth may be renewed from time to time. The platen is provided with spur gears 17 at either end arranged to engage the teeth of rack 18 carried by the tracks 14, hereinafter 30 referred to. These tracks 14 are carried slidably mounted in frame 11 upon the slideways 12 and are adapted for transverse movement relative to the machine and the carriage through rotation of the platen 15. 35 The forward movement of these tracks may be accomplished through the usual spacing hand-lever 19 and one, two or three spaces may be had through the usual spacing mechanism 20, which is of ordinary construction. 40 The dog 21 engaging the ratchet or star wheel 22 effects this spacing in the well-understood manner. Lever 23 upon the left-hand side of the carriage is used for returning the track to its normal or initial 45 position. Shaft 27, journaled in the carriage frame and to which the platen 15 is secured, is provided with a lever 23 and a star or space wheel 28 having the teeth and spaces thereof corresponding to the teeth and spaces of ratchet 22 upon the 50 other end of the platen. The detent 29, spring pressed through flat spring 30 attached to the rod 50 of carriage 11, serves to secure alinement of the type through its 55 engagement with the wheel 28.

The tracks 14 are provided with rack bars 18, as aforesaid, adapted to engage the teeth of spur gears 17 on either end of platen 15 in such manner that revolution 60 of the platen and thus the gears 17 may

cause the tracks to travel transversely of the machine and carriage on slides 12 through operation of lever 19 or 23, as the case may be. It is advisable to provide these tracks 14 with grooves 32 of sufficient size so as not to allow the cards to 70 bind therein, and it is also desirable to space the tracks sufficiently apart to allow for any variation in the width of the cards to be stenciled. This I accomplish through rack 75 bars 18. In order to secure the cards in position while being operated upon and against movement through jarring of the machine or vibration because of contact with the type, I attach two leaf springs 33 80 in recesses 34 preferably in the rear track 14 in such manner that they will engage the card edges and hold the cards firmly in position while being stenciled.

Card-receptacle 24 to the right of the machine and attached to the frame 2 of the 85 machine in any desirable manner in alinement with tracks 14 has opening 35 for convenience in placing or removing cards into or from the receptacle and is further 90 provided with a bottom section 36 having the slot 37 in which the card-feeding device 38 travels. Track sections 26 are secured to the bottom 36 of this receptacle and serve to guide the cards into tracks 14 95 when such tracks are in alinement with the receptacle. The card-feed 38 has groove portion 39 arranged to engage the tongues 40 of the bottom section 36 and is further provided with a handle 41 on its under-side 100 and spring 42 attached at one end to stud 43 and at the other end to stud 44 on the extremities of the card-feed and receptacle, respectively. This card-feed 38 is adapted to ride under the stack of cards on the return movement by virtue of the wedge-shaped end 45, but upon movement in the 105 opposite direction to feed a card into the tracks 14 engagement with the end of such card is effected through the square end or 110 abutment 46 of such card-feed.

Receptacle 25 for receiving the cards after being stenciled and located to the left of the machine, may be formed with opening 47 115 for convenience in removing the cards and is in direct communication with the tracks 14 when such tracks occupy the position shown in Fig. 1. In this position the bottom line of the card may be written. The position of the tracks 14 in Fig. 2 is the 120 initial position when writing and is effected through forward movement of lever 23, as will be readily understood. The reverse movement of the tracks may be accomplished either through such lever 23 or the 125 spacing mechanism 19 and 20 to the right, the latter being preferable, as it is most convenient and natural to the operator. In order that the cards may be fed into position under the duck cloth 16 on the platen, 130

it is necessary that the carriage be returned to a definite position with respect to the track sections 26, and I accomplish this through the particular arrangement of tracks 14 and track sections 26, whereby the sections 26 serve as stops to limit the movement of the carriage 11 and thus the tracks 14 on the return movement after a card has been written, and also through the length of section 26 and tracks 14, as may be clearly understood.

In some card addressing operations, particularly where solid line type is used, it is desirable to moisten the paper of the stenciling card, and I provide means in connection with my addressing machine for accomplishing this purpose. This means is shown clearly in Fig. 3 and comprises a bracket or other member 51 which may be temporarily secured to the under-side of the track section supports 52. These brackets retain tank 53 in position under such tracks and under a roll 54 temporarily secured in position above the tracks in slotted supports or brackets 55. This roll is here shown as a weight-roll and rides in slots 58, but it may be spring-pressed if desired. Flat wick 56 passing through slot 57 serves to feed water from the tank 53 to the under-side of the card as it travels under the weight-roll 54, and such roll serves to press the light paper of the stencil card into close contact with the wick.

The operation of the machine is obvious from the above description. Cards A, stacked in the receptacle 24, are in a position to be fed successively by the operator past the moistening apparatus (when such is used) to tracks 14 through movement of the card-feed 38. One movement of such feed will cause one card to rest in the tracks 14, but not in position to be written upon. When the feeding operation is repeated, the second card forces the first mentioned card into correct position for writing in the tracks 14 under the cloth 16 upon the platen 15, and the card is then ready to be stenciled. After one line has been written the operator lifts lever 19, causing the platen 15 to revolve and thus the gears 17 to force the racks 18 and the tracks 14 carried thereby transversely forward of the machine and carriage on slideways 12 the distance for which the spacing apparatus 20 has been adjusted. After the second line has been written with the tracks in such position under the platen, the operator may write a third line by again lifting the spacing lever and causing the tracks 14 to again move forward of the machine, the carriage being free to travel longitudinally in the usual manner. In this position the tracks 14 are in alignment with track sections 26 of the receptacle 24 and the receptacle 25. Further operation of the card feed 33 will thus cause a third

card to be received and carried by the tracks, and so on. It is thus seen that these tracks always carry three cards during the writing operation. After three cards are fed into the tracks 14, the fourth and every other card will thus serve to feed the cards through the machine and to eject the card which is in proximity with the receptacle 25, the tracks 14 and track sections 26 being of such length and so arranged with regard to the length of the cards as to allow the cards to automatically adjust themselves in writing position. When the addressing of a card is complete, the lever 23, which has now returned to the position shown in Fig. 1, is pulled forward by the operator to the position shown in Fig. 2 and the tracks 14 are thus brought into initial position relative to the platen for writing the first line of the address.

The card-feeding and receiving receptacles may be temporarily attached to the machine in order that such machine may be used for ordinary letter writing and the like, and the carriage containing the cylindrical platen and the tracks may be readily removed in order that the usual typewriter carriage may be attached. But it is to be understood that the carriage which constitutes means for feeding the cards through the machine and transverse thereof may be used in connection with ordinary letter writing and the like if desired, very slight alteration being necessary, such, for instance, as removal of the tracks from both the carriage and the bed of the machine and the addition of appropriate paper-guide and feeding means.

I am aware that it is not new to feed cards and the like successively through a typewriter by means of a belt or, in some instances, along tracks, but it is to be noted that I do not broadly claim such a machine. However, I believe that I am the first to provide the simple, efficient and inexpensive card-addressing machine embodying longitudinally arranged tracks combined with the usual cylindrical platen in which the advantageous features of the usual typewriter carriage may be employed, thus retaining all the advantages of the typewriter in addition to those embodied in the card-feeding device, and therefore I do not wish my invention to be construed as limited to the specific machine herein described or the details thereof, as I consider my invention includes all substitutes and equivalents defined by the following claims.

What I claim is:—

1. In a card addressing machine, the combination with the bed of a typewriter and the type, of a carriage movable longitudinally thereon, said carriage comprising a cylindrical platen journaled therein and tracks arranged longitudinally of the bed

and platen to receive cards to be addressed and to hold the same in writing relation to the type and platen.

2. In a card addressing machine, the combination with the bed of a typewriter and the type, of a carriage movable longitudinally thereon, said carriage comprising a cylindrical platen journaled therein and tracks arranged to receive cards to be addressed and to hold the same in writing relation to the type and platen, and means for moving said tracks transversely of said carriage to effect spacing of written lines.

3. In a card addressing machine, the combination with the bed of a typewriter and the type, of a carriage movable longitudinally thereon, said carriage comprising a cylindrical platen journaled therein and tracks arranged to receive cards to be addressed and to hold the same in writing relation to the type and platen, and means for moving said tracks transversely of said carriage step by step through rotation of said platen to effect spacing of written lines.

4. In a card addressing machine, the combination with the bed of a typewriter and the type, of a carriage movable longitudinally thereon, said carriage comprising a cylindrical platen journaled therein and tracks arranged to receive cards to be addressed and to hold the same in writing relation to the type and platen, and means for moving said tracks transversely of said carriage to effect spacing of written lines comprising a rack carried by said tracks and means on the platen operable from the carriage to engage said rack.

5. In a card addressing machine, the combination with the bed of a typewriter and the type, of a carriage movable longitudinally thereon, said carriage comprising a cylindrical platen journaled therein and tracks arranged to receive cards to be addressed and to hold the same in writing relation to the type and platen, and means for moving said tracks transversely of said carriage to effect spacing of written lines comprising a rack carried by said tracks and gears on said platen operable from the carriage meshing with said rack.

6. In a card addressing machine, the combination with the bed of a typewriter and the type, of a carriage movable longitudinally thereon, said carriage comprising a cylindrical platen journaled therein and tracks arranged to receive cards to be addressed and to hold the same in writing relation to the type and platen, and means for moving said tracks transversely of said carriage to effect spacing of written lines comprising a rack carried by said tracks and gears on said platen operable from the carriage meshing with said rack and a spacing lever for operating said gears.

7. In a card addressing machine, the com-

bination with the bed of a typewriter and the type, of a carriage movable longitudinally thereon, said carriage comprising tracks arranged to receive cards to be addressed and to hold the same in writing relation to the type, and means for moving said tracks transversely of said carriage to effect spacing of written lines comprising a rack carried by said tracks and gears operable from the carriage meshing with said rack and means for operating said gears step by step in one direction.

8. In a card addressing machine, the combination with the bed of a typewriter and the type, of a carriage movable longitudinally thereon, said carriage comprising tracks arranged to receive cards to be addressed and to hold the same in writing relation to the type, and means for moving said tracks transversely of said carriage to effect spacing of written lines comprising a rack carried by said tracks and gears operable from the carriage meshing with said rack, means for revolving said gears step by step in one direction and additional means for revolving said gears in the opposite direction.

9. In a card addressing machine, the combination with the bed of a typewriter and the type, of a carriage movable longitudinally thereon, said carriage comprising tracks arranged to receive cards to be addressed and to hold the same in writing relation to the type, and means for moving said tracks transversely of said carriage to effect spacing of written lines comprising a rack carried by said tracks and gears operable from the carriage meshing with said rack, means for revolving said gears step by step in one direction and additional means for revolving said gears in the opposite direction step by step, said additional means comprising a handle, a ratchet and detent.

10. In a card addressing machine, the combination with the bed of a typewriter and the type, of a carriage movable longitudinally thereon and carrying a cylindrical platen, said carriage comprising a pair of parallel longitudinal guides to receive cards to be addressed and to hold the same in writing relation to said type under said platen, means on the platen for moving the guides transverse of said platen step by step to effect spacing of written lines, and means for securing the card-receiving means yieldably in position to secure alinement of letters.

11. In a card-addressing machine, the combination with the bed of a typewriter and the type, of a carriage movable longitudinally thereon and carrying a cylindrical platen, said carriage comprising means arranged longitudinally thereof to receive cards to be addressed and to hold the same in writing relation to said type under said

platen, means on the platen for moving the card-receiving means transverse of said platen step by step to effect spacing of written lines, and means for securing the card-receiving means yieldably in position to secure alinement of letters, said means comprising a ratchet and detent carried by the platen and carriage.

12. In a typewriter carriage a cylindrical platen and guides for cards arranged longitudinally of the platen, said platen provided with means for moving said guides transverse of the carriage to effect line spacing in writing.

13. In a typewriter carriage a cylindrical platen, tracks for cards arranged longitudinally of the platen, and slideways for said tracks, said platen provided with means for moving said tracks transverse of the carriage on said slideways to effect line spacing in writing.

14. In a typewriter for addressing cards and the like, a carriage carrying a cylindrical platen, means to position the cards in proper relation to the type and platen for writing, and means located between the positioning means and point of proper relation for moistening said cards prior to such positioning.

15. In a typewriter for addressing cards and the like, a carriage carrying a platen, means to position the cards in proper relation to the type and platen for writing and means for moistening said cards while being fed to writing position comprising a tank for liquid and means to feed such liquid to said cards.

16. In a typewriter for addressing cards and the like, a carriage carrying a platen, means to position the cards in proper relation to the type and platen for writing and means for moistening said cards while being fed to writing position comprising a tank for liquid, a wick partly submerged in the liquid, and a roll operable over the card and wick to maintain the cards in contact with said wick.

17. In a typewriter for addressing cards, the combination with a carriage, type and card-holding means, of a moistening device for such cards consisting of a water supply, a wick to conduct water to the cards, and means to maintain the cards in contact with such wick.

18. In a typewriter for addressing cards, the combination with the carriage of card-holding means comprising a pair of tracks carried by the carriage and movable transverse thereto, and a stop located on said typewriter for limiting the movement of said carriage through engagement with said tracks.

19. In a typewriter for addressing cards, the combination with the carriage, of card holding means comprising a pair of tracks

carried by the carriage and movable transverse thereto and track sections located on the typewriter bed in line with said transversely movable tracks when in one position and adapted to feed cards into said transversely movable tracks and also arranged to form a stop cooperating with said transversely movable tracks to limit the travel of the carriage in one direction.

20. In a typewriter for addressing cards, the combination with the bed of the typewriter of a card-containing receptacle and a card-receiving receptacle located on opposite sides of the bed, the card-containing receptacle provided with track sections to receive such cards successively and to operate as stops for card guides, means for engaging an end of a card and feeding the same toward the card-receiving receptacle, and card guides between the two receptacles affording a continuous passage for such cards, but adapted to be moved transverse of said bed into and out of alinement with said receptacles and also to abut against said track sections when in alinement therewith.

21. In a typewriter for addressing cards having a platen, guides for holding such cards in proper relation to said platen, said guides being recessed on one side and springs in such recesses adapted to force the cards against the other side of the guides.

22. In a card addressing machine, the combination with the bed, the type and means for operating the same, of a carriage adapted to travel longitudinally along such bed, slides on said carriage, tracks for cards carried by said slides, said tracks provided with racks, a platen journaled in said carriage provided with means to revolve and having gears at either end meshing with the rack aforesaid, a returning lever on one end of said platen and means for securing the platen against rotation in positive relation to said type, a card-containing receptacle having track-sections in alinement with the tracks when such tracks are holding a card in position for writing the last line, said track sections forming stops to limit the longitudinal movement of said carriage, a card-receiving receptacle in line with said tracks when they are in line with the track sections, and a card feed for feeding cards successively from said containing receptacle into said tracks in position to be addressed and thence to the receiving receptacle.

23. In a typewriter for addressing cards, the combination with the bed of the typewriter of a card receptacle and means for feeding cards successively therefrom, a carriage adapted to travel longitudinally over said bed comprising a platen, card guides carried thereby and arranged to receive cards from said card receptacle and mechanism for moving the card guides transverse

of the carriage to effect spacing of written
lines, the card guides being arranged in
alinement with the receptacle when in their
forward position with respect to the car-
riage or when a last line is being written,
whereby the card may be fed into the guides
from said receptacle prior to positioning
such guides for writing the first line of the
address.

In testimony whereof, I affix my signature 10
in the presence of witnesses.

JOHN GEO. KNURCK.

Witnesses:

HERMAN GUSTON,
ALFRED M. HOUGHTON.

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