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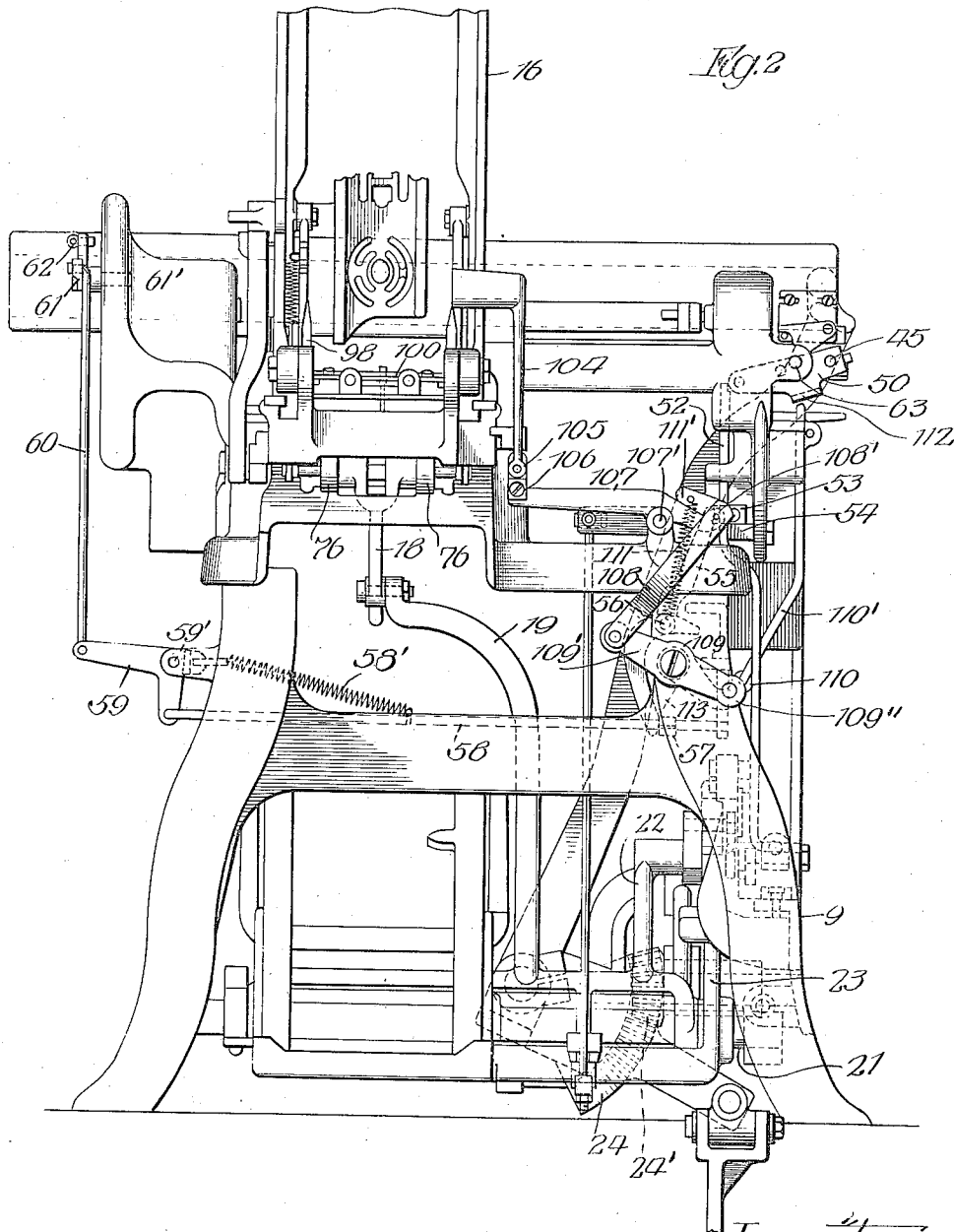
1,503,822

J. S. DUNCAN ET AL

PRINTING AND ADDRESSING MACHINE

Filed May 24, 1920

6 Sheets-Sheet 2



Inventors
J. S. Duncan et al
James S. Duncan
By
J. S. Duncan, Att'y

Aug. 5 , 1924.

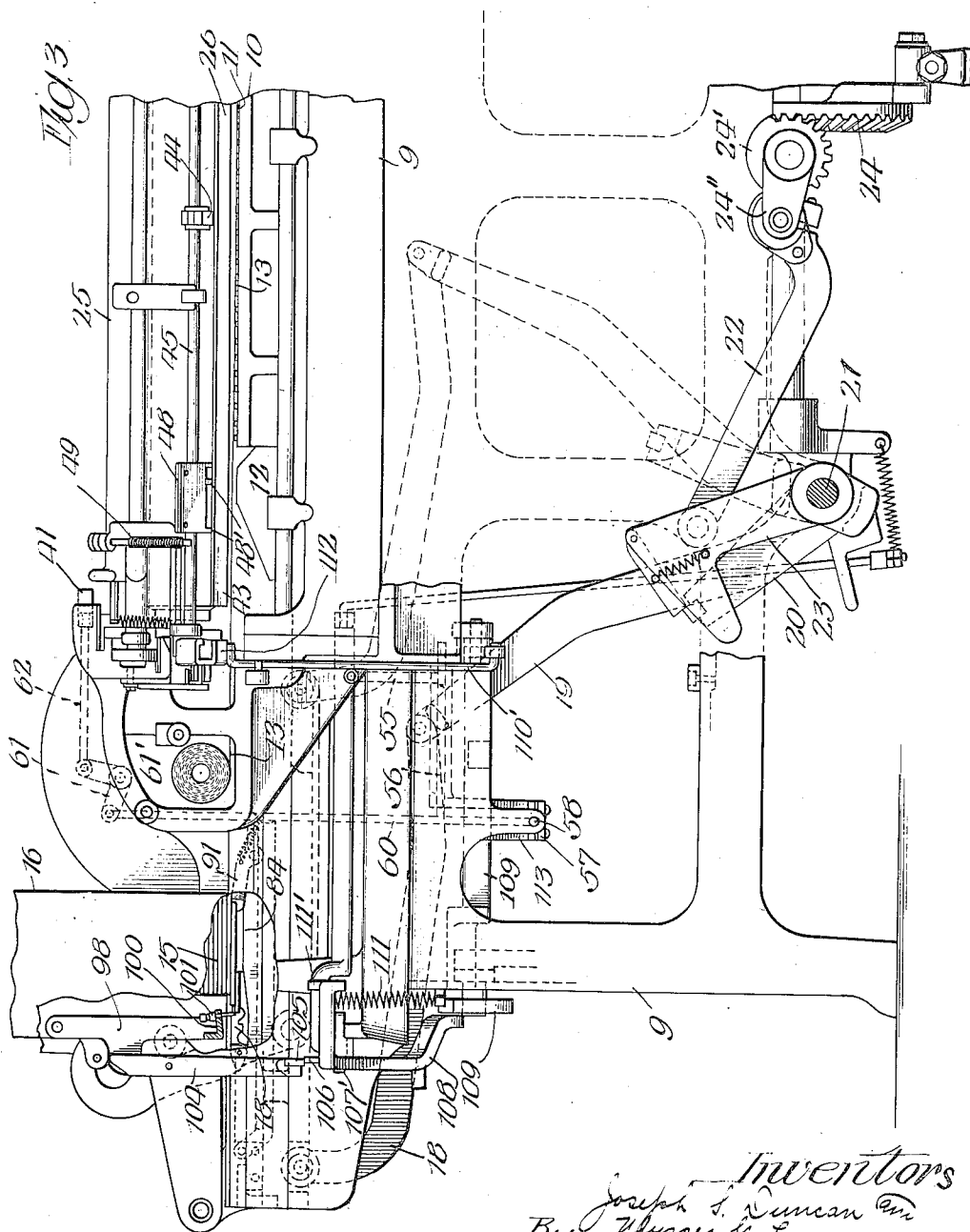
J. S. DUNCAN ET AL

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PRINTING AND ADDRESSING MACHINE

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6 Sheets-Sheet 3



Inventors
By Joseph S. Duncan and
Nathan C. Lee.
Wm. C. Beck Atty

Aug. 5, 1924.

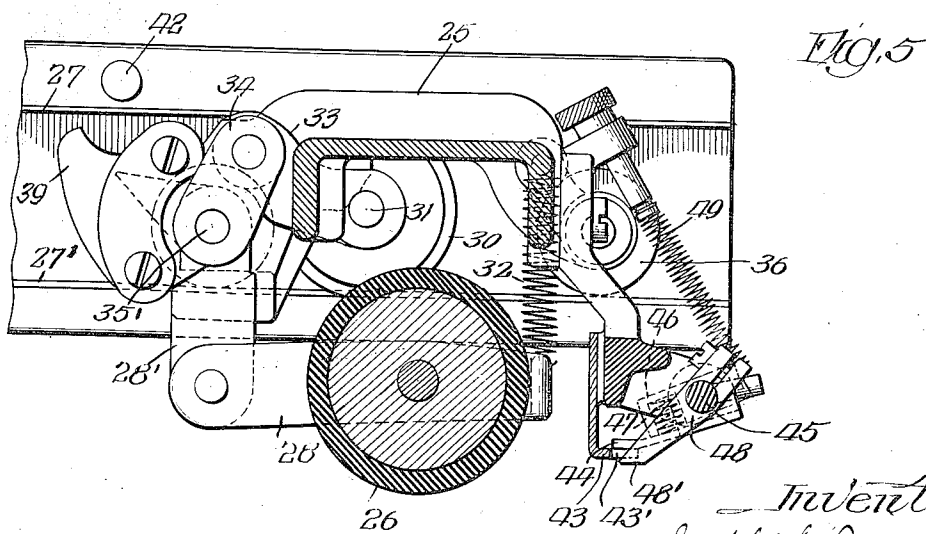
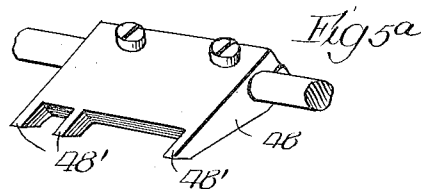
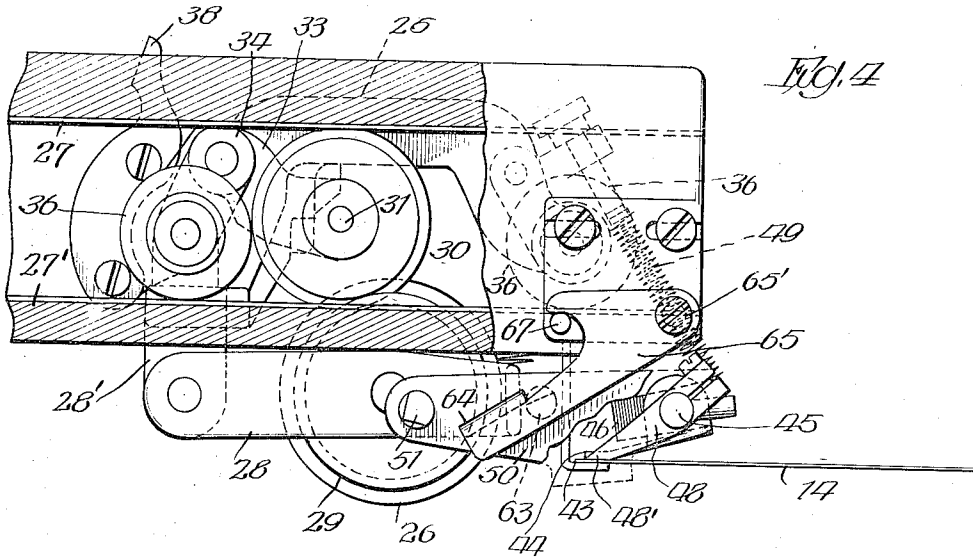
J. S. DUNCAN ET AL

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PRINTING AND ADDRESSING MACHINE

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6 Sheets-Sheet 4



Inventors
Joseph S. Duncan and
Ulysses G. Lee.
By *Wm. C. Bell, Atty.*

Aug. 5, 1924.

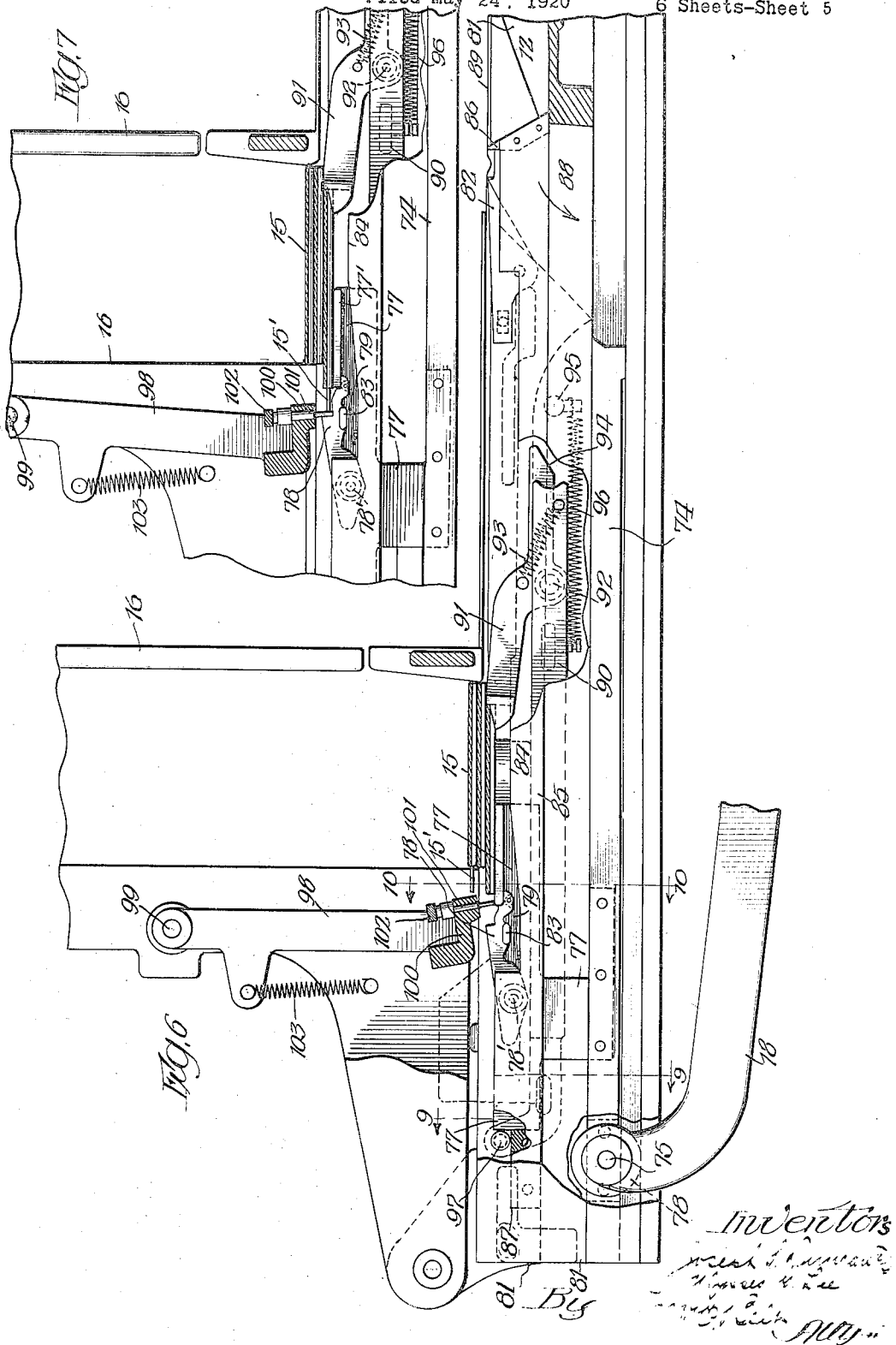
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J. S. DUNCAN ET AL

PRINTING AND ADDRESSING MACHINE

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J. S. DUNCAN ET AL

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PRINTING AND ADDRESSING MACHINE

Filed May 24 1920

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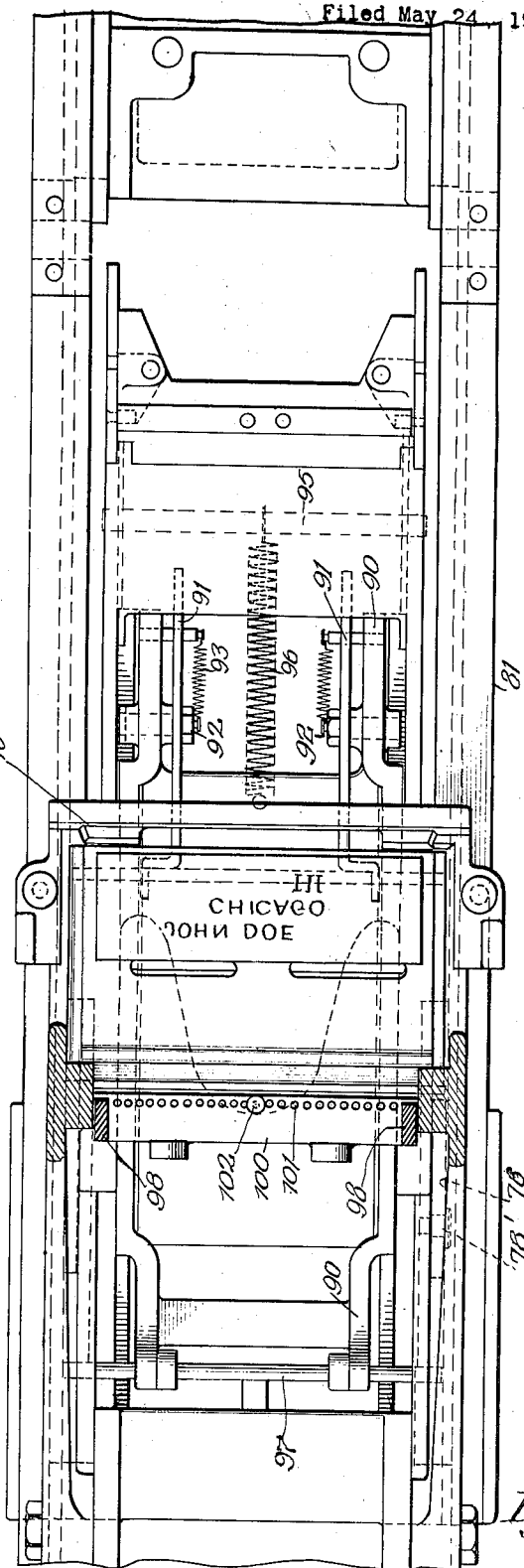


Fig. 10

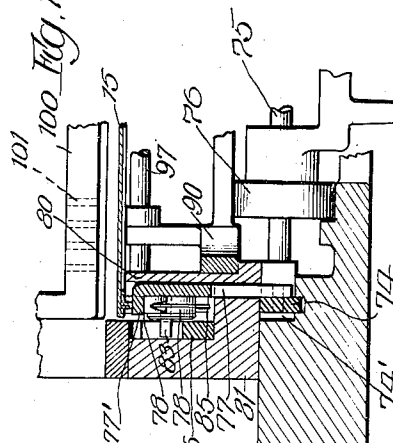
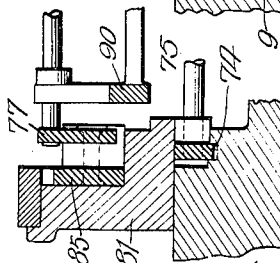


Fig. 9



Inventors

Joseph T. Duncan

Wm. G. L.

John B. Pott

UNITED STATES PATENT OFFICE.

JOSEPH S. DUNCAN AND ULYSSES G. LEE, OF CHICAGO, ILLINOIS, ASSIGNORS TO ADDRESSOGRAPH COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

PRINTING AND ADDRESSING MACHINE.

Application filed May 24, 1920. Serial No. 383,615.

To all whom it may concern:

Be it known that we, JOSEPH S. DUNCAN and ULYSSES G. LEE, citizens of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Printing and Addressing Machines, of which the following is a specification.

This invention has relation to those machines in which a plurality of address or other printing forms are fed one at a time into printing position for addressing letters, envelopes, tags or other articles or for doing some other kind of printing work. The address forms are provided on devices which are preferably arranged in accordance with a card index system, and are placed in the machine in the form of a stack from the bottom of which they are fed one at a time to printing position. In operating the machine in accordance with existing systems now well established, it is customary to place in the magazine of the machine the entire contents of a drawer holding the address devices systematically arranged even though it is not desired that every one of these devices should print. For example, the addresses for a subscription list may be placed on suitable devices and arranged alphabetically in drawers according to some predetermined system with the expirations indicated by disposing index tabs in proper position along the upper edge of the devices. Various means have been proposed and some of them have been used for automatically selecting the particular devices to be printed and for skipping other devices as they are fed through the machine. In this connection, reference may be made to Patents #1,082,505 dated December 30, 1913, and #1,209,414 dated December 19, 1916.

The object of the present invention is to provide selector means simple in construction, and efficient in operation for automatically operating according to any particular system or classification of the printing devices to take impressions from certain of the printing devices and to skip other devices, so that an entire stack of printing devices may be fed through the machine and impressions taken only from those desired according to predetermined classification.

In the accompanying drawings I have il-

lustrated the invention in a selected embodiment in a machine for printing and addressing letters and referring thereto.

Fig. 1 is a plan view of the machine.

Fig. 2 is an end elevation of the machine.

Fig. 3 is a side elevation of a portion of the machine.

Figs. 4 and 5 are sectional views illustrating the platen shifting means and the sheet feeding means.

Fig. 5^a is a detailed view of gripper 48.

Figs. 6 and 7 are sectional elevations showing the address printing form feeding mechanism.

Fig. 8 is a top plan view, partly in section, of the address printing form feeding mechanism.

Fig. 9 is a detailed sectional view on the line 9—9 of Fig. 6.

Fig. 10 is a detailed, sectional view on the line 10—10 of Fig. 6.

Referring to the drawings, 9 is the machine frame, 10 is the bed for a fixed printing form 11, and 12 is the anvil or auxiliary bed to receive and support the printing device in proper relation to the printing form 11 for making a printing impression through an ink ribbon 13, upon a sheet 14 which is fed to the machine manually or mechanically as desired. The address or changeable printing devices 15 are arranged in a stack in magazine 16 and these devices are fed one at a time from the bottom of the stack to printing position on the anvil 12, and after the printing operation is completed, they may be disposed of in any suitable manner, for example by returning them to the storage tray or drawer as set forth in the patent granted to Joseph S. Duncan, July 3, 1923, No. 1,460,711. The present invention is shown embodied in a machine corresponding closely to the machine of that application and it will not be necessary in this application to enter into a detail description of features of the completed machine. The mechanism for feeding the address printing devices to printing position, to be presently described, are operated by a link 18 pivotally connected at one end to a lever arm 19 on the rocker 20 which is pivotally mounted on the shaft 21. A link 22 is pivotally connected at one end to the rocker 23 which is pivotally mounted on

shaft 21 and is operated by suitable power devices to impart an oscillating movement to the rocker and operate the address printing device feed. In the drawings, the power devices comprise a toothed segment 24 which is operated from a suitable source of power to impart reciprocating movement to the link 22. A segment gear 24' is operated by the segment 24 and an arm 24'' rigid with the segment gear 24' is pivotally connected to the link 22 so that as arm 24'' swings in an arc the link 22 is reciprocated.

A carriage 25, (Figs. 1, 2) carrying a platen roller 26 is adapted to be reciprocated back and forth above printing position in suitable guides 27, 27' (Fig. 4) on the frame of the machine. The platen roller (Figs. 4, 5) is rotatably mounted in links 28 which are pivotally supported by lugs 28' depending from the platen carriage 25. The platen is provided at its ends with grooved anti-friction rollers 30. Links 33 are pivotally engaged with the ends of shaft 31 and are pivotally mounted on arms 34 carried by and forming part of the rocker 35. These arms are also pivotally engaged with pivot pins 35' mounted in the carriage frame 25. This frame is supported on carrying rollers 36 which are mounted on the pivot pins 35' and travel on the lower guide 27'. Dogs 38 and 39 are mounted on the rocker 35 at the left and at the right ends thereof, respectively, viewing Fig. 1.

In Fig. 1, the platen carriage is shown in what may be called its initial position, at rest, adjacent to the sheet fed table which is designated generally 40 and is intended to indicate any sort of table or support or other auxiliary part to facilitate the automatic or manual feeding of paper sheets to the machine. The carriage is provided with a handle 25' to facilitate the operation thereof, and in its forward movement across printing position from the position shown in Fig. 1 an address printing device is fed forward from the magazine to the position indicated in broken lines in Fig. 1, and a sheet is carried by the carriage into printing position above the ribbon which is stretched across the printing forms, (and is shown only in Fig. 3). During this forward movement of the carriage, the platen is held elevated out of operative position, so that it will not engage the ribbon over which it travels. If an address printing device to be printed and a sheet to receive the impression have been properly disposed in printing position, the platen will be lowered for the return movement of the carriage to initial position, so that it will operatively engage the sheet and cause an impression to be made thereon through the ribbon. This movement of the platen between operative and inoperative positions

is fully described in the patent to Joseph S. Duncan No. 1,460,711, granted July 3, 1923, and in his application, Serial No. 383,616, filed concurrently herewith, and need only be referred to herein sufficiently to indicate the cooperation of the platen with the invention. As the carriage reaches the limit of its forward movement with the platen in elevated position, the dog 38 will engage pin 41 (Fig. 1) which causes the rocker 34 to rock and by means of links 33 push the rollers 30 forward and the platen roller down into impression position. On the return movement of the carriage, dog 39 will engage pin 42 on the machine frame and cause the platen shifting devices to return to normal position with the platen elevated above impression position. The engagement of dog 39 with pin 42 on the return movement of the platen carriage moves the rollers 30 with relation to the rollers 29, so that the spring 32 may pull the platen to its inoperative position.

A paper feed with which the machine may be provided and which is more particularly set forth in the concurrent application hereinbefore referred to, comprises a ledge 43 rigidly mounted on the platen carriage, a gripper 44 loosely mounted on a rock shaft 45, an arm 46 rigidly mounted on the shaft and provided with a recess which forms a housing for the spring 47 engaging gripper 44, another gripper 48 rigidly mounted on shaft 45 and provided with fingers 48' which are adapted to pass down through slots 43' provided for them in the ledge 43. A spring 49 is fastened to the platen carriage and to the shaft 45 to cause the grippers to make gripping engagement with a sheet 14 on the ledge (Fig. 4). If there is no sheet in position on the ledge, the gripper fingers 48' may pass down through the slots 43', as shown in Fig. 5, but the gripper 44 remains on the ledge as shown in this figure. When a sheet is positioned on the ledge, the gripper fingers 48' and the gripper 44 will hold the sheet until it has been arranged in printing position by the travel of the platen carriage in its forward movement.

A tripper 50 is rigidly mounted at one end on the shaft 45 (Figs. 2, 4). The downward swinging movement of this tripper and the rocking movement in one direction of the shaft is limited by the engagement of gripper 48 with a sheet on the ledge 43. When there is no sheet on the ledge, the gripper fingers 48' enter slots 43' and permit the tripper to swing farther downward, so that a lug 51 on the tripper will be positioned to engage the upper end of a rod 52 and push it to the left (Fig. 2) until the block 53 rigidly secured on said rod is dislodged from the support 54 which it engages to support the rod in normal position. In

this movement of the block 53, it engages a rocker 55 (Fig. 2) which is pivotally mounted at 56 on the machine frame. The lower end of this rocker engages a stop 57 on a rod 58 which is slidably supported in the machine frame and is connected by a rocker 59 pivotally mounted at 59' on the machine frame and connected by rod 60 to the bell crank 61 which is pivoted on the frame at 61' and operates a rod 62 which carries the pin 41 (Fig. 3). It may be remarked here, although it forms no part of our joint invention, that if there is no sheet on the ledge to support the tripper the latter will, on the forward movement of the carriage, engage the rod 52 and through the intermediate connection thus described, the pin 41 will be withdrawn from the path of dog 38 and the platen roller will not be shifted to impression position, but if there is a sheet on the ledge, the grippers will be supported by the sheet in elevated position (Fig. 4) and hold the tripper sufficiently elevated to cause lug 51 to clear the upper end of rod 52 on the forward movement of the carriage, so that when a sheet is carried to printing position, the platen will be lowered for the impression operation. On the return movement of the carriage, a pin 63 on the tripper (Figs. 2, 4) rides up on an inverted edge 64 of the switch pawl 65 which is pivotally mounted at 65' on the platen carriage to elevate the tripper, so that it will clear the rod 52 at the completion of the return stroke. When the tripper is thus swung upward, the shaft 45 on which it is rigidly mounted is rocked and the grippers 44 and 48 are opened to receive the sheet as the platen carriage completes its return stroke. When pin 63 rides off of the edge 64, the tripper swings down in position to clear the rod 52, if a sheet is on the ledge, or to engage the rod 52, if a sheet is not on the ledge, as previously described. On the forward movement of the carriage, the pin 63 rides under and lifts the switch pawl 65 until it travels beyond the switch pawl, whereupon the latter drops by gravity to the position shown in Fig. 4, being limited in its movement by the stop 67. A spring 58' (Fig. 2) engaged with rod 58 and the machine frame acts on said rod to hold pin 41 normally in projected position in the path of dog 38.

The address printing form feeding and selecting means illustrated in the drawings, comprises a pair of bars 74 arranged to travel in guideways 74' in the machine frame (Figs. 6-10). These bars are connected by a cross rod 75 with which link 18 is engaged and rollers 76 are mounted on the rod and travel on the frame (Figs. 2-10). A pair of side plates 77 having out-turned flanges 77' at their upper ends are fastened to the bars 74 (Fig. 10) and feed

dogs 78 are pivotally mounted at 78' on said plates (Fig. 6). The feed dogs are normally held upward in operative position by springs 79 to engage the top edge of the address printing device at the bottom of the stack in the magazine 16, this top edge being rearwardly positioned in the magazine. The bottom address printing device in the stack rests upon supports 80 (Fig. 10) which form part of a slidable frame 81 arranged on the main frame 9 of the machine. The printing device travels on the supports up to the pawls 82 (Fig. 6) and thence over the pawls and to the anvil which is a fixed part of the slidable frame 81. This frame is made to slide so that all of the address printing device feeding means, and the anvil, may be withdrawn from operative position when it is not desired to print an address, as, for example, if a fixed form for a full letter page is to be printed. To prevent the stack from dropping upon the feed dogs and disengaging them from the bottom address printing device as the latter is being pushed by the dogs from the bottom of the stack in the feeding operation, we provide lugs 83 on the feed dogs which are adapted to engage the top edge 84 of the ejector bars 85 which travel on the slidable frame 81. Thus the dogs are sustained in operative engagement with the bottom address printing device by the lugs 83 riding on the edge 84 of the ejector bars 85 as the bottom address printing device leaves its position at the bottom of the stack and until the dogs proceed to a point beyond the stack. It will be understood that as the dogs push the bottom printing device forward, the stack will engage the dogs, but at this time the lugs on the dogs are riding on the bars 85 and prevent the dogs from being depressed and disengaged from the printing device being fed. The ejector bars 85 are provided at their front ends with upstanding projections 86 which are engaged by the address printing device in its forward movement and the latter moves the ejector bars along with it to printing position. When the bars 74 carrying the supporting plates 77 and the feed dogs 78 are moved forward by the link 18 and the oscillating arm 19, the ejector bars 85 will remain stationary until the address printing device being fed engages the projections 86 and then the ejector bars travel with the other parts mentioned to the limit of the forward feeding movement. During the printing operation the ejector bars 85 remain stationary with the address printing device being printed while the bars 74, plates 77 and feed dogs 78 are on their return movement. This movement of the bars 74, plates 77 and feed dogs 78 relative to the ejector bars continues until the impression has been taken from the address printing device on the anvil and then

the plates 77 engage blocks 87 on the rear ends of the ejector bars and move the ejector bars rearward. On this rearward movement of the ejector bars, the projections 86 thereon pull the address printing device which has just been printed back and off of the anvil and it drops down through the slidable frame 81 through the space and in the direction indicated by the arrow 88.

In this ejection operation, the address printing device is guided by springs 89 to engage the pawls 82 which positively prevent the further rearward movement of the address printing device and insure its downward movement in the direction of the arrow 88. (Fig. 6.) The bars 74 and the plates 77 constitute a sliding frame actuated by the oscillating arm 19 for carrying the feed dogs 78 and, through the medium of the address printing device being fed to printing position, for moving the bars 85, constituting the ejector slide, forward with the address printing device to printing position, and for returning the ejector slide, after a lapse of time sufficient to permit the impression operation, to initial position, as shown in Fig. 6.

The selector devices comprise a sliding frame 90 (Figs. 6-10) which carries rearwardly directed dogs 91 pivotally mounted between their ends at 92. The dogs are held normally in elevated position by springs 93 attached to the dogs and to the frame 90. The front end 94 of each dog is beveled to slidably engage a fixed stop pin 95 on the frame of the machine and disengage the front end of the dog from the address printing device being fed. The dogs 91 are arranged on the machine in reverse position with relation to the feed dogs 78 and the front ends of the dogs 91 engage the bottom printing device in the stack at the edge (the bottom edge), opposite to that edge (the top edge), engaged by the feed dogs, as shown in Fig. 6. When the printing device feed has completed its return stroke, as shown in Fig. 6, the selector dogs are in engagement with the bottom printing device in the stack and the feed dogs are located at a distance from said printing device. On the forward movement of the printing device feed the selector dogs are carried away from the bottom printing device before the feed dogs engage therewith and then the selector dogs engage the stop 95 and are swung on their pivot to lower the forward ends of these dogs out of the path of the bottom printing device. As the sliding frame 74, 77 is moved forward by the link 18 spring 96 attached to frame 90 and to stop 95 pulls the selector dog frame 90 to the right (Fig. 6), until it engages the stop 95 and is limited in its movement thereby. The feed dogs continue their feeding movement while the selector dogs and the frame 90 remains stationary. Upon the rearward movement of the printing device feed the rear ends of the plates 77 forming part of the sliding frame engage a cross rod 97 on the rear end of the selector dogs frame 90 and moves said frame rearwardly. The construction and arrangement of parts are such that the selector dogs 91 will engage the bottom address printing device in the stack on this rearward movement of the feeding devices and push said bottom address printing device rearward beneath the stack sufficiently to cause certain of the address printing devices to operate the selector means. These selector means may be used in combination with other means in an automatic printing and addressing machine for doing various things such as preventing the impression platen from operating in impression position and also for preventing the sheet feeding mechanism from feeding a sheet into printing position. In the machine illustrated in the drawings, the selector means is adapted to accomplish both of these results, so that the predetermined system or classification of the address printing devices controls the operation of the machine to the extent of preventing an impression operation of the platen and also preventing the sheet feeding devices from feeding a sheet into printing position whenever an address printing device is to be skipped, so that the machine may continue in its regular operation while certain groups of mechanism will automatically function as required to make an impression or to skip an impression.

A selector frame 98 is pivoted at 99 on the magazine 16 and comprises a cross bar 100 having a plurality of openings 101 to receive a selector pin 102 which projects down behind the bottom address printing device in the stack. The address printing devices are provided with adjustable tabs 15' which may be arranged on the printing devices according to any predetermined system or classification, so that all those printing devices in a particular class will be identified and distinguished by the location of the tabs from all the other printing devices in the stack. In the embodiment of the invention illustrated in the drawings, the selector pin is arranged in the cross bar 100 in such a position that all of those address printing devices which are to be skipped in the printing operation and which have their tabs arranged thereon in the same position will engage the selector pin. If the bottom printing device in the stack is to be skipped, its tab will engage the selector pin when the selector dogs 91 push the bottom address printing device rearward, but if this bottom address printing device is to be printed, its tab will be located at one side of the selector pin and conse-

quently will not engage the selector pin on this rearward movement of the bottom address printing device. The engagement of the bottom address printing device with the selector pin swings the selector frame 98 rearward against the tension of spring 103 to control the operation, in this embodiment of the invention, of the platen shifting means and the sheet feeding means. An arm 104 (Figs. 2, 3) is carried by the selector pin frame 98 and a block 105 on its lower end normally engages a block 106 on the rocker 107 which is pivoted at 107' on the machine frame. A link 108 is pivotally connected at one end to a pin 108' on the rocker 107 and at its other end to one arm 109' of a rocker 109 pivotally mounted on the machine frame and having an arm 110 connected to a rod 110' which projects upward in adjacent relation to the tripper 50. A spring 111 is fastened at one end to the machine frame and at its other end to a projection 111' from the upper end of the link 108 to swing the rocker 109 on its pivot and raise the rod 110' as soon as the block 105 is disengaged from the block 106. Thus when the address printing device to be skipped swings the selector pin frame and disengages the blocks 105, 106, spring 111 swings rocker 109 on its pivot, raises rod 110' and causes it to engage a flange 112 on the tripper and lift the tripper to hold the sheet grippers open, so that they will not feed a sheet to printing position. At the same time an arm 113 on the rocker 109 engages stop 57 on rod 58 and withdraws pin 41 from the path of dog 38, so that the platen will not be shifted into impression position.

In the construction and adjustment of parts as shown in the drawings spring 111 has sufficient tension to overcome spring 58' when the selector means has been operated to skip certain printing devices by disengaging arm 104 and rocker 107. To skip the printing devices which would be printed in the adjustment shown, and to print the printing devices which would be skipped in said adjustment, the lower end of link 108 (Fig. 2) is disengaged from arm 109' and engaged with arm 109''. Since the arm 111', to which spring 111 is attached, is rigid with link 108, the tension of spring 111 will be reduced when link 108 is swung from its position engaging arm 109' to position engaging arm 109''. In this position the springs 58' and 111 act in unison; spring 111 pulls down on link 108 tending to swing rocker 109 and carry arm 113 away (to the left, Fig. 2) from stop 57, while spring 58' tends to pull rod 58 to the left as in the other adjustment.

We have found it desirable to embody the invention in a machine of the kind illustrated and described wherein superior re-

sults are obtained by a continuously operating machine adapted to selectively print certain predetermined addresses and in so doing to control the platen and the sheet feeding devices, so that no confusion in the operation of the several groups of mechanism making up the machine will result because some address devices to be skipped are run through the machine just like those address printing devices which are printed. These safety means form the subject matter of the concurrent application of Joseph S. Duncan hereinbefore referred to and the selector means are embodied in such a machine to show how they can be combined with other means and mechanism in a complete addressing and printing machine and not for the purpose of limiting or restricting the invention to its use in a machine of this particular construction.

It is believed that the operation of the selector means and its associated parts will be fully understood from the foregoing description in which the operation of the several groups of mechanism is referred to in the detailed description. We do not limit the invention to the use of address printing devices of any particular kind, but we prefer to use those well known devices which comprise a printing plate mounted on a metal frame and provided with index or other classification tabs suitably disposed along the upper edge of the frame. We regard these tabs as a convenient and satisfactory means for classifying and identifying the printing devices and for operating the selector means, but do not limit the invention to the use of printing devices provided with such tabs because other means may be supplied for operating the selector means. In the general use of such a machine, the printing devices will bear addresses for addressing envelopes, and letters, but other printing forms may be used and we desire to have it understood that by the expression, "address" printing form or device we include any printing forms adapted to be fed successively to printing position.

We are also aware that changes in the form, construction and arrangement of parts may be made without departing from the spirit of the invention, although we regard the particular form shown as entirely satisfactory for accomplishing the desired results, and we reserve the right to make all such changes in our invention and in the embodiment and application thereof as fairly fall within the scope of the following claims.

We claim:

1. In a printing machine, the combination of means for feeding printing devices one at a time to printing position, selector means, and means for imparting a move-

ment to the printing device to be fed preliminary to its feeding movement to operate the selector means.

2. In a printing machine, the combination of means for feeding printing devices one at a time to printing position, selector means, and means for imparting a movement to the printing device to be fed in a direction opposite to its feeding movement to operate the selector means.

3. In a printing machine, the combination of means for feeding printing devices one at a time to printing position, selector means, and means for imparting a movement to the printing device to be fed preliminary to its feeding movement and in a direction opposite to its feeding movement to operate the selector means.

4. In a printing machine, the combination of reciprocating means for feeding printing devices one at a time to printing position, selector means, and means operating on the return movement of the feeding devices for imparting a movement to the printing device next to be fed to operate the selector means.

5. In a printing machine, the combination of reciprocating means for feeding printing devices one at a time to printing position, selector means, and means operating on the return movement of the feeding means for imparting to the next printing device to be fed to printing position a movement in a direction opposite to the feeding movement to operate the selector means.

6. In a printing machine, the combination of reciprocating means for feeding printing devices one at a time to printing position, selector means, and means operating conjointly with and independently of the feeding means for imparting a movement to the printing device to be fed preliminary to its feeding movement to operate the selector means.

7. In a printing machine, the combination of reciprocating means for feeding printing devices one at a time to printing position, selector means, and dogs movable with the feeding means on the return movement thereof from printing position for imparting a movement to the printing device next to be fed preliminary to its feeding movement to operate the selector means.

8. In a printing machine, the combination of reciprocating means for feeding printing devices one at a time to printing position, selector means, and means operated by the feeding means for causing the next printing device to be fed to operate the selector means.

9. In a printing machine, the combination of reciprocating means for feeding printing devices one at a time to printing position, selector means, and means operated by the feeding means on the return move-

ment thereof to cause the next printing device to be fed to operate the selector means.

10. In a printing machine, the combination of reciprocating means for feeding printing devices one at a time to printing position, selector means, and means moving conjointly with and independently of the feeding means to engage the next printing device to be fed on the return movement of the feeding means and cause said printing device to operate the selector means.

11. In a printing machine, the combination of reciprocating means for feeding printing devices, one at a time to printing position, selector means, means for engaging the next printing device to be fed and imparting thereto a movement in a direction opposite to its feeding movement to operate the selector means, and means for disengaging said engaging means from said printing device on the forward movement of the feeding means.

12. In a printing machine, the combination of reciprocating means for feeding printing devices one at a time to printing position, selector means, pivoted dogs traveling for a limited distance conjointly with the feeding means to engage the next printing device to be fed on the return movement of the feeding means and impart thereto a movement in a direction opposite to the feeding movement to operate the selector means, and means for swinging said dogs on their pivot during the feeding movement to disengage the dogs from said printing device.

13. In a printing machine, the combination of reciprocating means for feeding printing devices one at a time to printing position comprising feed dogs to engage one edge of the printing device to be fed, selector means, and means engaging the opposite edge of the printing device to be fed and imparting thereto a movement in a direction opposite to its feeding movement for operating the selector means.

14. In a printing machine, the combination of means for feeding printing devices one at a time to printing position comprising feed dogs adapted to engage one edge of the printing device to be fed, a reciprocating frame carrying said feed dogs, selector means, pivoted selector dogs arranged to engage an edge of the printing device to be fed opposite to that edge engaged by the feed dogs, and means supporting said selector dogs and adapted to be operated by the feed frame on the return movement thereof to impart a movement to the next printing device to be fed in a direction opposite to its feeding movement for operating the selector means.

15. In a printing machine, the combination of means for feeding printing devices one at a time to printing position compris-

ing feed dogs adapted to engage one edge of the printing device to be fed, a reciprocating frame carrying the feed dogs, selector means, pivoted selector dogs engaging the opposite edge of said printing device, means for supporting said selector dogs and adapted to be operated by said reciprocating frame on its return movement to cause the selector dogs to engage and move the next device to be fed in a direction opposite to the feeding movement to operate the selector means, means for swinging said selector dogs on their pivot to disengage them from the printing device on the forward movement of the feeding means, and means for limiting the movement of the selector dogs with the feeding means.

16. In a printing machine, the combination of reciprocating means for feeding printing devices one at a time to printing position, selector means, and means operating with the feeding means on the return movement thereof to engage the next printing device to be fed and impart thereto a movement preliminary to its feeding movement to operate the selector means, said selector dogs being movable for a limited distance with the feeding means, and means for disengaging the selector dogs from the printing device.

17. In a printing machine, the combination of means for feeding printing devices one at a time to printing position, means for imparting to the next printing device to be fed a movement preliminary to its feeding movement to operate selector means, and selector means comprising a pin arranged to be engaged by said printing device on said preliminary movement to operate the selector means.

18. In a printing machine, the combination of means for feeding printing devices one at a time to printing position, means for imparting a movement to the printing device to be fed preliminary to its feeding movement to operate the selector means, some of said printing devices having tabs thereon arranged in a certain position on each printing device, and selector means comprising a pin disposed in adjacent relation to the printing device to be fed so that it will be engaged on the preliminary movement by each printing device which is supplied with a tab registering in position with said pin for operating the selector means.

19. In a printing machine, the combination of a movable impression platen, means for feeding printing devices one at a time to printing position, selector means, means for imparting a movement to the printing device to be fed preliminary to its feeding movement to operate the selector means, and means operated by the said selector means for controlling the movement of the platen.

20. In a printing machine, the combination of a movable impression platen, means for feeding printing devices one at a time to printing position, selector means, means for imparting a movement to the printing device to be fed in a direction opposite to its feeding movement to operate the selector means, and means operated by said selector means for controlling the movement of the platen.

21. In a printing machine, the combination of a movable impression platen, means for feeding printing devices one at a time to printing position, selector means, means for imparting a movement to the printing device to be fed preliminary to its feeding movement and in a direction opposite to its feeding movement to operate the selector means, and means operated by said selector means for controlling the movement of the platen.

22. In a printing machine, the combination of a movable impression platen, means for shifting the platen to and from impression position, means for feeding printing devices one at a time to printing position, selector means, means for imparting a movement to the printing device to be fed preliminary to its feeding movement to operate the selector means, and means operated by said selector means for preventing the shifting means from shifting the platen to impression position.

23. In a printing machine, the combination of a movable impression platen, means for shifting the platen to and from impression position, means for feeding printing devices one at a time to printing position, selector means, means for imparting a movement to the printing device to be fed in a direction opposite to its feeding movement and preliminary thereto to operate the selector means, and means operated by said selector means to prevent the shifting means from shifting the platen to impression position.

24. In a printing machine, the combination of means for feeding a sheet to printing position, means for feeding printing devices one at a time to printing position, selector means, means for imparting a movement to the printing device to be fed preliminary to its feeding movement to operate the selector means, and means operated by said selector means for controlling the operation of the sheet feeding means.

25. In a printing machine, the combination of means for feeding a sheet to printing position, means for feeding printing devices one at a time to printing position, selector means, means for imparting a movement to the printing device to be fed in a direction opposite to its feeding movement to operate the selector means, and means

operated by said selector means for controlling the operation of the sheet feeding means.

26. In a printing machine, the combination of means for feeding a sheet to printing position, means for feeding printing devices one at a time to printing position, selector means, means for imparting a movement to the printing device to be fed preliminary to its feeding movement and in a direction opposite thereto to operate the selector means, and means operated by said selector means for controlling the operation of the sheet feeding means.

27. In a printing machine, the combination of a movable impression platen means for shifting the platen to and from impression position, means for feeding a sheet to be printed to printing position, means for feeding printing devices one at a time to printing position, selector means, means for imparting a movement to the printing device to be fed preliminary to its feeding movement to operate the selector means, and means operated by said selector means for controlling the operation of the platen shifting means and the sheet feeding means.

28. In a printing machine, the combination of a movable impression platen, means

for shifting the platen to and from impression position, means for feeding a sheet to be printed to printing position, means for feeding printing devices one at a time to printing position, selector means, means for imparting a movement to the printing device to be fed in a direction opposite to its feeding movement to operate the selector means, and means operated by said selector means for controlling the operation of the platen shifting means and the sheet feeding means.

29. In a printing machine, the combination of a movable impression platen, means for shifting the platen to and from impression position, means for feeding a sheet to be printed to printing position, means for feeding printing devices one at a time to printing position, selector means, means for imparting a movement to the printing device to be fed preliminary to its feeding movement and in a direction opposite thereto to operate the selector means, and means operated by said selector means for preventing the shifting means from shifting the platen into impression position and for preventing the sheet feeding means from feeding a sheet to printing position.

JOSEPH S. DUNCAN.
ULYSSES G. LEE.