Sept. 1, 1931. D. A. CASEY 1,821,459

CARD INDEX SYSTEM

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Fig. 1.

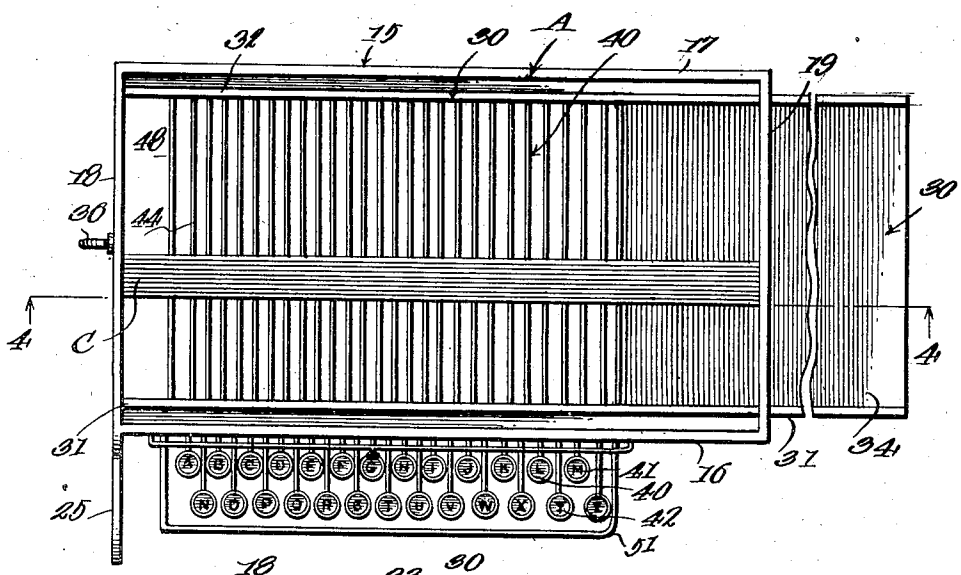



Fig. 2.

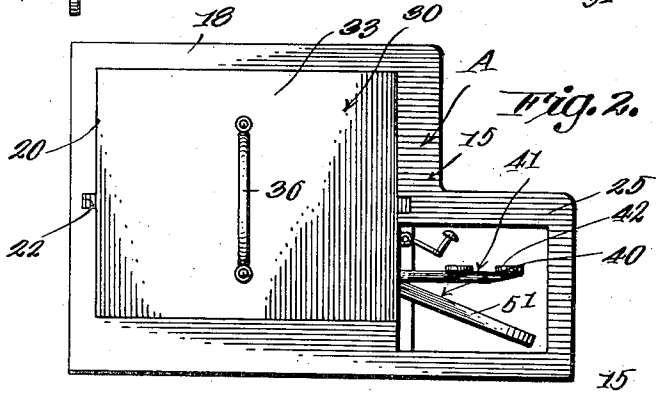
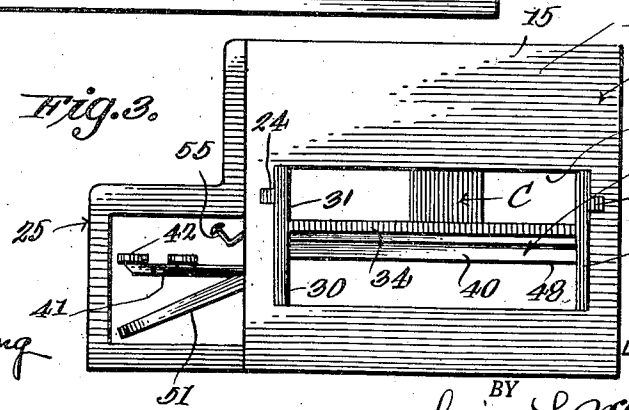



Fig. 3.




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CARD INDEX SYSTEM

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Fig. 4.

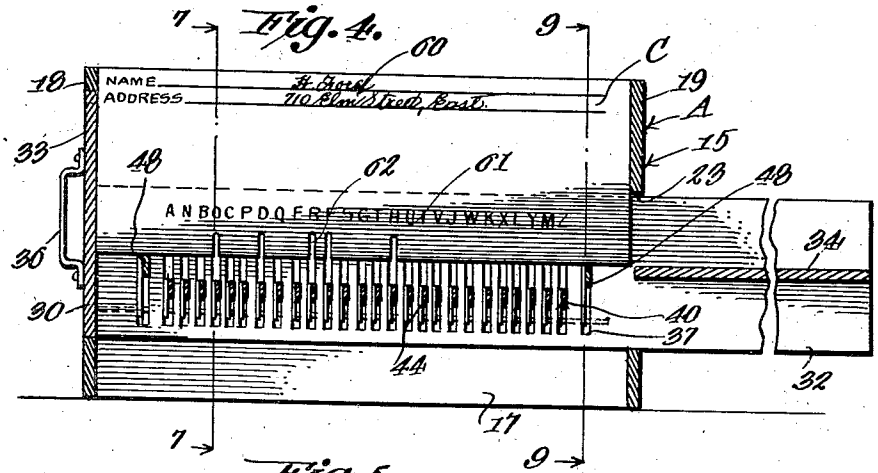



Fig. 5.

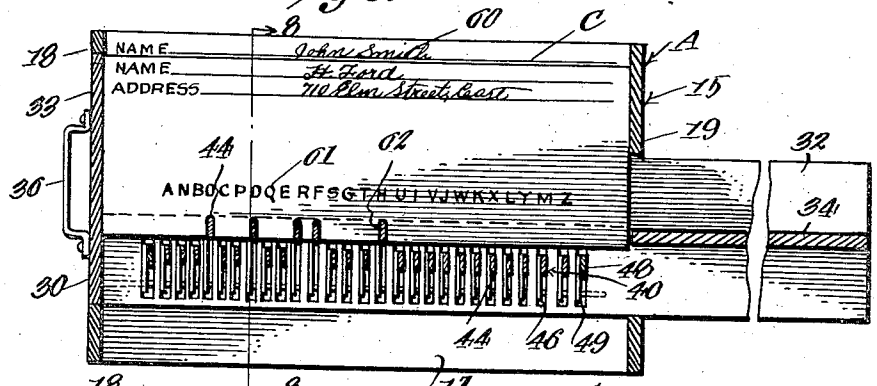
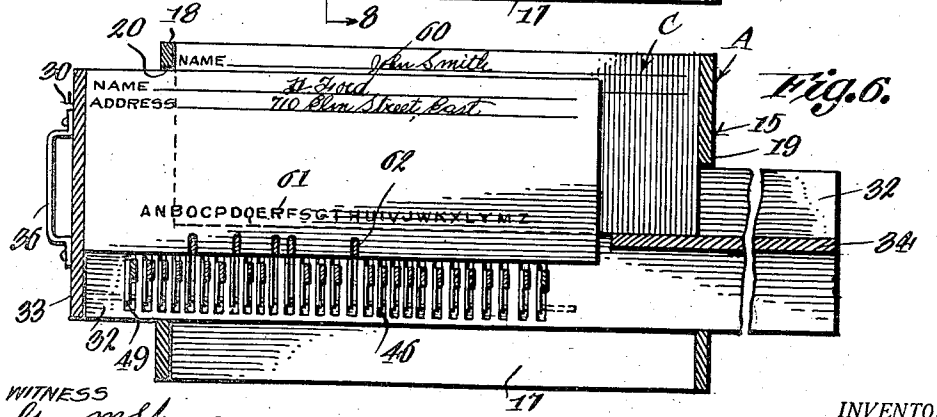



Fig. 6.




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CARD INDEX SYSTEM

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Fig. 7.

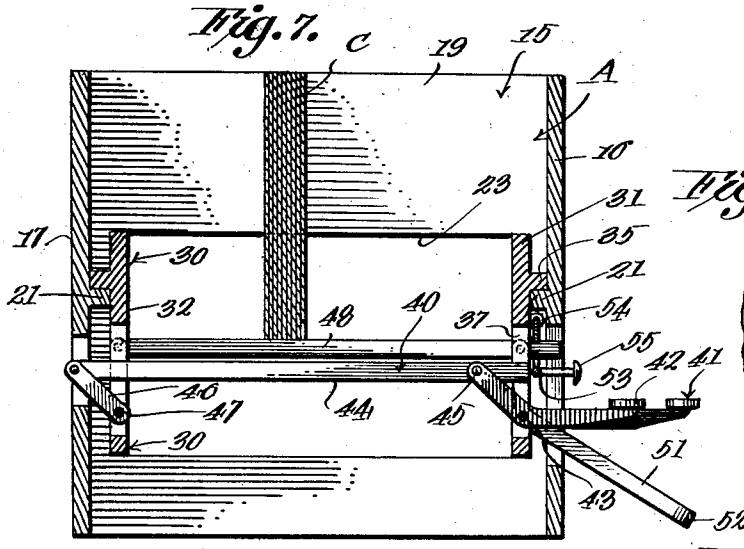



Fig. 11.

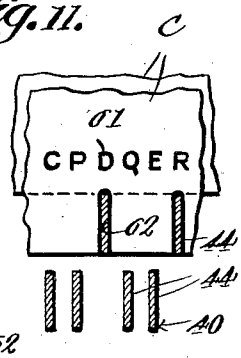



Fig. 8.

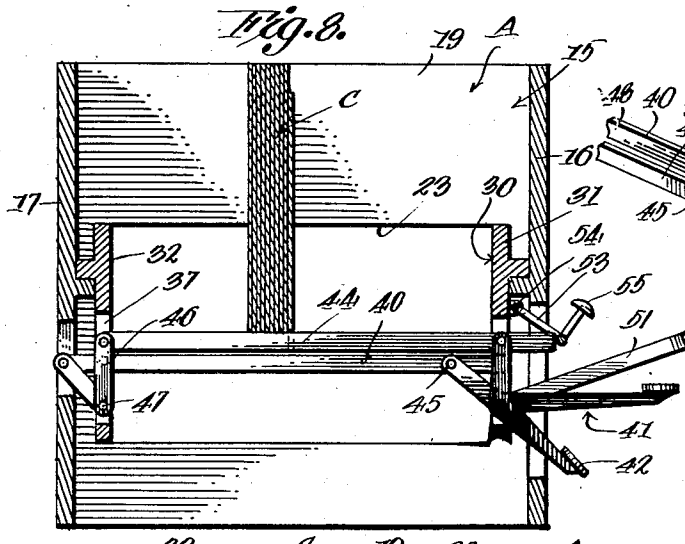



Fig. 10.

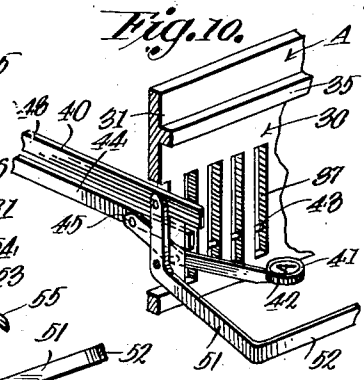
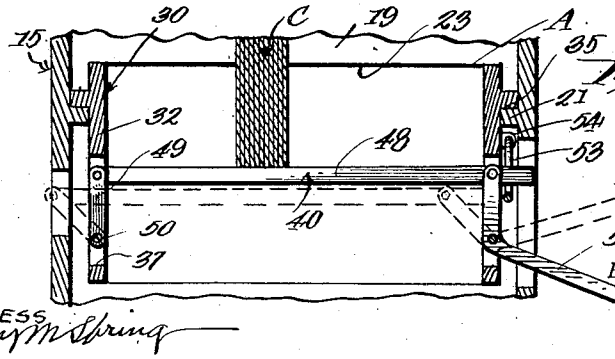



Fig. 9.




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CARD INDEX SYSTEM

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Fig. 12.

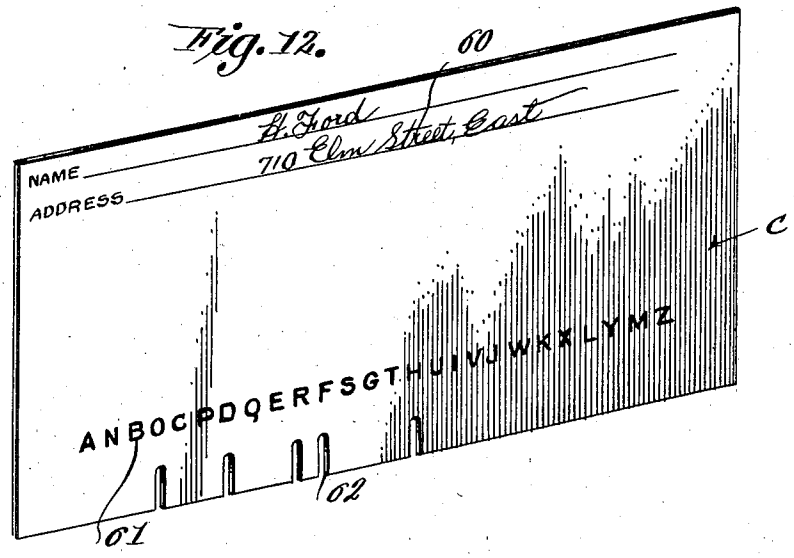
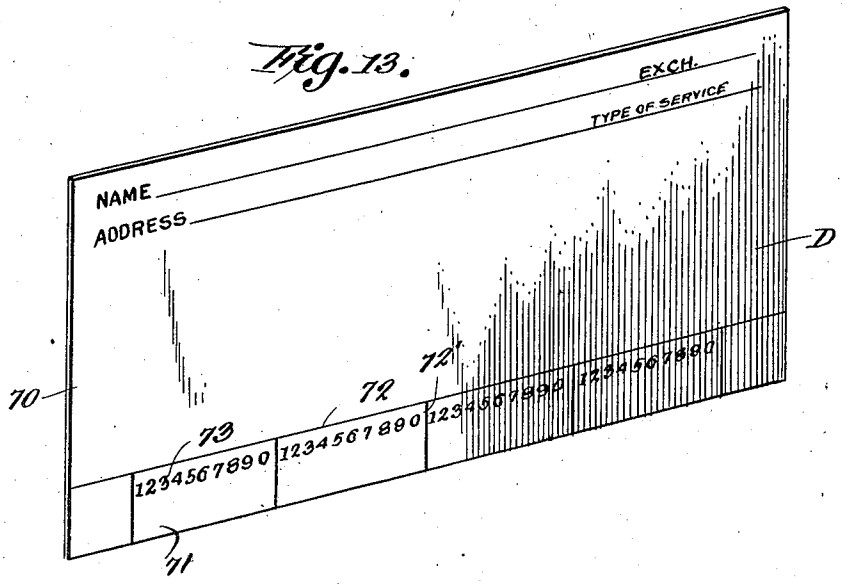



Fig. 13.




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# UNITED STATES PATENT OFFICE

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## CARD INDEX SYSTEM

Application filed February 19, 1929. Serial No. 341,111.

This invention appertains to card filing or index systems and more particularly to means for withdrawing a desired card from a group of filed cards.

One of the primary objects of my invention is to provide novel means for quickly and accurately locating a desired card in a group of filed cards and withdrawing said card from the group of cards.

Another important object of my invention is the provision of a novel device for receiving a plurality of filed cards with means including a keyboard, which is adapted to be actuated by an operator, similar to a typewriter, for locating the desired card among a group of filed cards.

A further salient object of my invention is the provision of a novel device for receiving a plurality of filing cards, the device including a novel casing and drawer, the drawer carrying a plurality of key-operated levers corresponding to the letters of the alphabet, the filed cards having their lower edges cut according to the letters constituting the name of the person on the card, whereby upon operation of the desired keys, the desired card will be located and segregated from the other cards, so that upon movement of the drawer, the segregated card will be withdrawn from the casing.

A further object of the invention is the provision of means for quickly and accurately locating and withdrawing a card from a group of filing cards, which is so arranged and constructed as to eliminate the necessity of the cards being filed alphabetically.

A still further object of the invention is to provide a card index system of the above character, which will be durable and efficient in use, one which will be simple and easy to manufacture, and one which can be placed upon the market at a reasonable cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described, claimed, and illustrated in the accompanying drawings, in which drawings:

Figure 1 is a top plan view of the improved device;

Figure 2 is an end elevation of the same;

Figure 3 is a view similar to Figure 2 looking in the opposite direction;

Figure 4 is a longitudinal section through the improved device taken on the line 4—4 of Figure 1 looking in the direction of the arrows;

Figure 5 is a view similar to Figure 4 illustrating the position of the key levers after being operated for selecting the desired card, the card being shown selected and segregated from the remaining cards;

Figure 6 is a view similar to Figures 4 and 5 showing the segregated card being withdrawn from the file;

Figure 7 is a transverse section through the improved device taken on the line 7—7 of Figure 4 looking in the direction of the arrows, the main levers being operated only;

Figure 8 is a transverse section taken on the line 8—8 of Figure 5 looking in the direction of the arrows, showing certain of the key levers in their operative position with the main levers released so as to bring about the selection of the desired card;

Figure 9 is a transverse section partly broken away taken on the line 9—9 of Figure 4 looking in the direction of the arrows showing the main keys in their operative raised position;

Figure 10 is a fragmentary perspective view of the front portion of the machine showing certain of the keys with the main key levers in their raised operative position;

Figure 11 is an enlarged fragmentary longitudinal section illustrating the manner of the keys engaging the cards, one of the cards being selected thereby;

Figure 12 is a perspective view of one type of card used in the index system, and

Figure 13 is a perspective view of another form of card which can be used in the index system.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indi-

cates the improved card filing or index device which comprises a casing or frame 15 and a sliding drawer 30 carrying the operating mechanism 40.

The casing 15 can be made of any desired material and constructed in any preferred way and suitably painted or otherwise ornamented to create a pleasing and attractive appearance. This casing embodies front and rear walls 16 and 17, and end walls 18 and 19. The top of the casing is left open so as to permit the easy insertion of the filing cards therein, one form of filing card being indicated by the reference character C and another form of filing card by the reference character D. The end wall 18 is provided with an opening 20 through which the drawer 30 slides and the inner faces of the front and rear walls 16 and 17 are provided with longitudinally extending drawer guides 21 and directly above the drawer guides 21 the end wall 18 has the sides of the opening 20 provided with guide notches 22 for a purpose which will be later described. The end wall 19 is provided with an opening 23 of less size than the opening 20 and a portion of the drawer slides through said opening during the opening and closing of said drawer. The side walls of the opening 23 are also provided with guide notches 24 which are in alignment with the guide notches 22 in the end wall 18, for a purpose which will also be described.

Projecting forwardly from the end wall 18 is an open frame and guide piece 25, which also forms a supporting leg for the casing and it is to be noted that the lower edge of the open frame 25 is in the same plane as the lower edge of the wall 18 and that the opening 20 in the said wall 18 communicates with the interior of the open frame.

The drawer 30 which is slidably supported by the casing 15 and extends longitudinally thereof includes longitudinal side walls 31 and 32 and a connecting front wall 33 which extends a considerable distance above the side walls 31 and 32 for completely closing the opening 20 when the drawer is in its closed position. It is to be noted that the drawer when in its completely closed position, extends through the opening 23 in the end wall 19 and beyond the casing a considerable distance, for a purpose which will be later described, and this portion of the drawer has its side walls 31 and 32 thereof connected intermediate its ends by a platform or bottom wall 34, for a purpose which will be later described. Longitudinally extending guide ribs 35 are formed on the outer faces of the side walls 31 and 32 and these ribs engage and rest upon the guide ribs 21 carried by the front and rear walls 16 and 17 of the casing 15. These guides slidably extend through the notches 22 and 24 formed in the end walls 18 and 19. The front wall 33 of the drawer can be provided with any preferred type of hand pull 36.

The side walls 31 and 32 of the drawer are provided at equi-distantly spaced points inward of the platform or bottom wall 34 with a plurality of vertical slots 37 for receiving a portion of the operating mechanism 40, which will now be described.

The operating mechanism 40 includes a keyboard 41 carried by the drawer 30 and this keyboard is somewhat along the line of the keyboard of a typewriter. The keyboard 41 constitutes a plurality of keys 42, a key being employed for each letter of the alphabet and the keys are preferably arranged in two horizontal rows, the innermost row starting with A and ending with M and the outermost row starting with the letter N and ending with the letter Z. The keys are each of a substantially bell-crank shape and are rockably mounted at their angles on a pivot pin 43 which extends through the vertical slots 37 of the side wall 31 of the drawer 30. This pin 43 is arranged adjacent to the lower ends of the vertical slots and the keys extend through the said slots.

Extending transversely of the casing 15 and the drawer 30 is a plurality of key-operated selective key-bars 44, a key-bar being provided for each key 42, and these key-bars likewise extend through the slots 37. Each key is connected with a respective key-bar 44 adjacent to but spaced from the extreme forward end thereof by means of a pivot pin 45, the pivot pin being carried by the upper end of the key. The rear ends of the key-bars 44 are pivotally connected to links 46, which are normally arranged in the vertical slots 37 formed in the side wall 32 of the drawer, and these links 46 are rockably mounted on a suitable pivot pin 47 carried bp the walls of the slots 37 adjacent to the lower ends thereof.

By this arrangement it can be seen that when a key is depressed, its corresponding key-bar will be raised upwardly in a horizontal plane for lifting the cards C which are placed within the drawer. The drawer is also provided with two main key-bars 48 which are preferably disposed at the opposite ends of the key-bars 44 and the rear ends of the main key bars 48 are pivotally connected to links 49 which correspond to the links 46 and these links 49 are also mounted for rocking movement on pivot pin 43 carried by the walls of the slots 37 formed in the wall 32 of the drawer adjacent to the lower ends of said slots. The forward ends of the main key-bars 48 extend through two of the slots 37 formed in the wall 31 of the drawer and have piv-

otally connected thereto adjacent to the forward ends thereof main key levers 51 which are also of a substantially bell-crank shape. The main key levers 51 are connected together by a front bar 52 for synchronous movement.

After a predetermined number of keys 42 have been actuated to raise the desired key-bars 44 and the desired card selected and delivered as hereinafter explained, means is provided for simultaneously returning all of the keys to their normal positions. This means includes a swinging substantially U-shaped return bail lever 53 which has the terminals of the legs thereof mounted for swinging movement in ears 54 carried by the wall 31 of the drawer 30 above the keyboard 41. A suitable manipulating key 55 is provided for the return lever and the bight portion of the return lever is arranged in the path of the key-bars 44 so that when any one or more of the key-bars are raised and pushed forwardly, the return lever will likewise be raised. It thus can be seen that by depressing the key 55, all of the key-bars will be returned to their normal positions.

Attention is now invited to Figure 12 showing one of the cards C, which is of such a size and shape as to fit within the casing 15 and to extend longitudinally thereof. The cards are adapted to normally rest upon the key-bars 44 and 48, at which time the upper ends of the cards lie just below the upper wall of the opening 20 of the end wall 18 of the casing so that all of the cards can be withdrawn with the drawer 30 when the keys are all in their normal position. However, when the main key-bars 48 are in their raised position, the cards will be held above the opening 20 as shown in Figure 7 of the drawings, and thus the cards will not be withdrawn with the drawer. Each card can be provided with any desired type of indicia such as the name and address of a person as indicated by the reference character 60. In accordance with my invention, each card has printed thereon adjacent to the lower edge thereof the letters of the alphabet as indicated by the reference character 61 and the letters are preferably arranged according to the arrangement of the letters on the keys 42, so that when a certain key of a certain letter is depressed, the key-bar will be disposed directly below the corresponding letter on the card. Thus, in the present instance, the letter N on the card is arranged between the letters A and B in view of the fact that the key-bar 44 of the key N lies between the key-bars 44 of the keys A and B. In accordance with the invention, the lower edge of the card is cut in any desired way to provide notches 62 into which the key-bars 44 are adapted to fit and these notches are cut according to the letters in the name of the person appearing on the card. Thus, in the present instance, the name appearing on the card is H. Ford, therefore notches will be cut in the card directly under the letters H, F, O, R and D.

The cards do not have to be filed alphabetically and can be placed within the drawer in any arrangement and when it is desired to withdraw a certain card from the filing device A, the following operation takes place. The operator depresses the connecting bar 52 which will raise all of the cards, after which the keys bearing the letters H, F, O, R and D are depressed, which will raise the key-bars 44 of these keys in the same plane as the main key-bars 48. The main key-bars 48 are now returned to their lower position by pulling up on the connecting bar 52, and all of the cards, except the card having the notches in its lower edge corresponding to the raised keys, will still be held in a raised position, due to the fact that the lower edges of these cards will rest upon the tops of the key-bars 44. The drawer 30 can now be pulled out by means of the pull 36, and the cards which are held in a raised position will be prevented from being drawn out with the drawer in view of the fact that these cards engage the end wall 18 of the casing above the opening 20. The card having the slots corresponding to the raised keys will of course drop down due to the slots 62 formed therein and this card will lie below the top wall of the opening 20 in the end wall and will be drawn out with the drawer where the same can be removed or the matter thereon quickly seen. As the drawer is pulled outwardly, the bottom wall or platform 34 thereof will ride under the cards remaining in the casing and afford additional support to the same in the raised position.

After the card has been removed or the desired matter received therefrom, the drawer is returned to its normal position and the key 55 can be depressed to return all of the keys 42 to their normal positions.

From the foregoing it can be seen that I have provided an exceptionally novel and simple device which will quickly segregate and select a desired card from a group of filed cards without the necessity of going through the entire group of cards.

In certain filing systems the cards are selected by numbers instead of by names, such as in telephone companies and the like, and in this instance the car D, Figure 13, can be used and the machine can be slightly altered in reference to the keyboard for handling such type of cards. As shown the card D is provided with a body portion 70 for receiving any desired data, while the lower edge of the card is divided into a horizontal row of spaces 71 by a horizontal line 72 and vertical equi-distantly spaced lines 72'. Each space receives a set of digits 73

which are arranged in consecutive order and the lower edge of the card is notched the same as the card C, the notches appearing under the desired numbers. I prefer to provide the plurality of groups of numbers or digits 73 for the following reason. If a number has one or more like characters such as the number 7771, notches are made in the card under 7 in the first three spaces and under the 1 in the first space, which permits of a greater variety of numbers to be used, and in this instance four groups of keys will be provided in the keyboard having numbers thereon corresponding to the numbers in the different spaces.

Changes in details may be made without departing from the spirit or the scope of this invention, but:

What I claim as new is:

1. A device for selecting a desired card from a group of filed cards comprising a casing having a drawer opening, a drawer slidably mounted in said casing through the opening for receiving the groups of filed cards, a plurality of selective key-bars carried by the drawer for selecting a desired card, operating keys for said bars, the cards being adapted to normally rest upon the selective key-bars, and releasable means for initially raising all of the cards with their upper edges above the drawer opening, said selective key bars adapted when operated to hold the cards other than the selected card above the drawer opening when said means is released.

2. In a device for selecting a desired card from a group of filed cards, the combination with a casing having a drawer opening, a drawer slidably mounted in said casing through the opening, a plurality of selective key-bars, carried by the drawer for swinging parallel motion and a key for each selective key-bar, of a plurality of cards adapted to be received within the drawer longitudinally thereof and to rest upon the selective key-bars, means for initially raising all of the cards above the drawer opening, the cards having notches cut in the lower edges thereof at certain selected points to correspond to certain selective key-bars, whereby when certain selective key-bars are actuated and the initial card raising means is released the card having the notches therein corresponding to said actuated key-bars will be selected from the group of cards by moving in a plane below the other cards and in alignment with the drawer opening, so that upon opening of the drawer the selected card will be moved outward therewith.

3. A device for selecting a desired card from a group of filed cards, the combination with a casing, a drawer slidably mounted through one end wall of said casing, a plurality of movable key-bars carried by the drawer movable in a vertical plane, an operating key for each key-bar, of a plurality of cards adapted to normally rest upon the upper edges of said key-bars, the cards having their lower edges provided with notches to correspond with certain key-bars, each card being notched to correspond to certain indicia thereon, a pair of main key-bars carried by the drawer and movable in a vertical plane, and out of alignment with the notches in said cards, means for synchronously raising the main key-bars for lifting all of the cards simultaneously and above the drawer opening in the casing, and above the other key-bars, whereby upon operation of the selected first mentioned key-bars and upon return of the main key-bars to normal position the card having notches therein corresponding to the raised key-bars will be permitted to fall to a lowered position in alignment with the drawer opening, so that upon movement of the drawer to its open position the lowered card will be exposed to view.

4. In a device for the purpose specified, a casing including an end wall having a drawer opening therein, a drawer slidably mounted in said opening, a plurality of movable selective key-bars carried by the drawer, a pair of movable main key-bars, means for synchronously operating the main key-bars, an independent key for each of said selective key-bars, and means for synchronously returning all of said selective key-bars to their normal position after actuation by said keys.

5. In a device of the class described, a casing, a drawer slidable in the casing, a plurality of selective key-bars movable in a horizontal plane carried by the drawer, an operating key for each selective key-bar, each key being of substantially bell-crank shape, means pivoting the keys at their angles to the drawer, means pivotally connecting the upper end of each key to its respective selective key-bar, a link pivotally connected to each selective key-bar adjacent to the rear end thereof, means pivotally connecting the lower ends of the links to the drawer, whereby upon movement of a key its selective key-bar will be raised, a pair of main key-bars, a link pivotally connected to the rear end of each of the main key-bars, means pivotally connecting the last-mentioned links to the drawer, operating keys for the main key-bars of substantially bell-crank shape pivoted at their angles to the drawer, means pivotally connecting the last-mentioned operating keys to the main key-bars at their upper ends, and means connecting the last-mentioned keys together for synchronous movement.

6. In a device of the class described, a casing, a drawer slidable in said casing, a plurality of selective key-bars for the drawer, an operating key for each selective key-bar of substantially bell-crank shape

pivoted at its angle to the drawer, means pivotally connecting the upper end of each key to its selective key-bar adjacent to the forward end thereof, a link pivotally connected to the rear end of each selective key-bar, means pivotally connecting the lower end of each link to the drawer in spaced relation to said key, a pair of main key-bars arranged on each side of the selective key-bars, a link pivotally connected to the rear end of each main key-bar, means pivotally connecting the last mentioned links at their lower ends to the drawer, a pair of main operating keys of bell-crank shape pivoted at their angles to the drawer, means pivotally connecting the upper ends of the main operating keys to the main key-bars, and means for synchronously returning all of the selective key-bars to normal lowered position including a swinging cross-bar arranged in the path of the forward ends of said selective key-bars.

7. In a device of the class described, a casing including a front wall having a longitudinally extending slot therein, a rear wall and end walls, one end wall being provided with a drawer opening, a drawer slidably mounted in said casing through said opening, including side walls having vertical slots therein, and a connecting platform therefor arranged at the rear end thereof, a plurality of selective key-bars arranged transversely of the drawer for movement in a vertical plane arranged in said slots, an operating key for each selective key-bar of substantially bell-crank shape extending through the vertical slots in one wall of the drawer, means pivotally connecting the keys at their angles to the drawer, means pivotally connecting the upper ends of the keys to the selective key-bars, links pivotally connected to the rear ends of said selective key-bars, means pivotally connecting the lower ends of said links in the slots in the other side wall of the drawer, whereby upon movement of a key a selective key-bar will be moved to a raised position, means for synchronously returning all of the key-bars to their normal lowered positions, and independently operated main key-bars carried by the drawer and movable in a plane parallel with the selective key-bars.

In testimony whereof I affix my signature.

DENNIS A. CASEY.