May 28, 1935. J. W. WHITSON 2,002,808

CARD FILING AND SEGREGATING APPARATUS

Filed Sept. 4, 1929 3 Sheets-Sheet 1

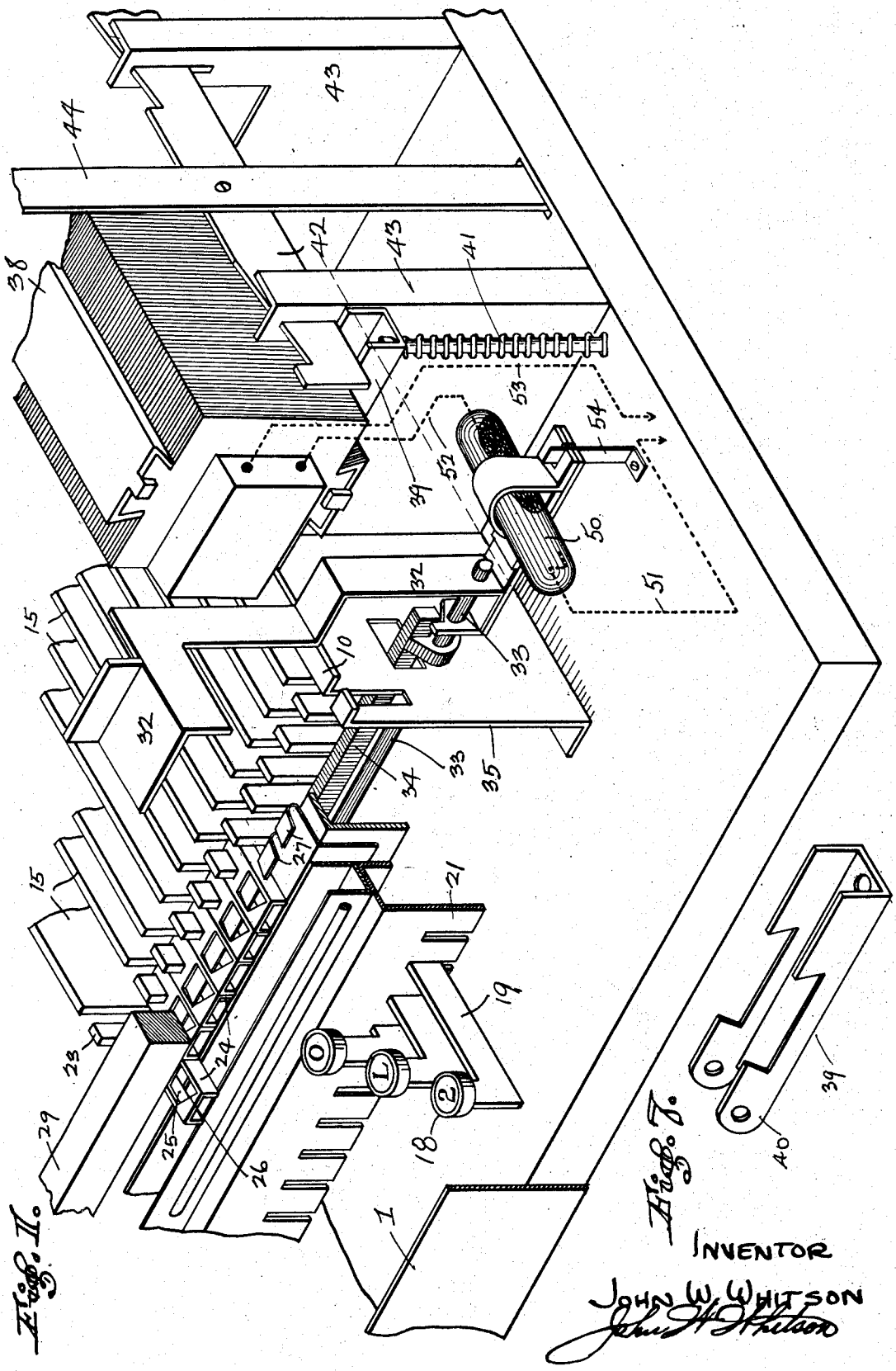

Fig. II.

Fig. I.

INVENTOR

JOHN W. WHITSON

John W. Whitson

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CARD FILING AND SEGREGATING APPARATUS

Filed Sept. 4, 1929 3 Sheets-Sheet 2

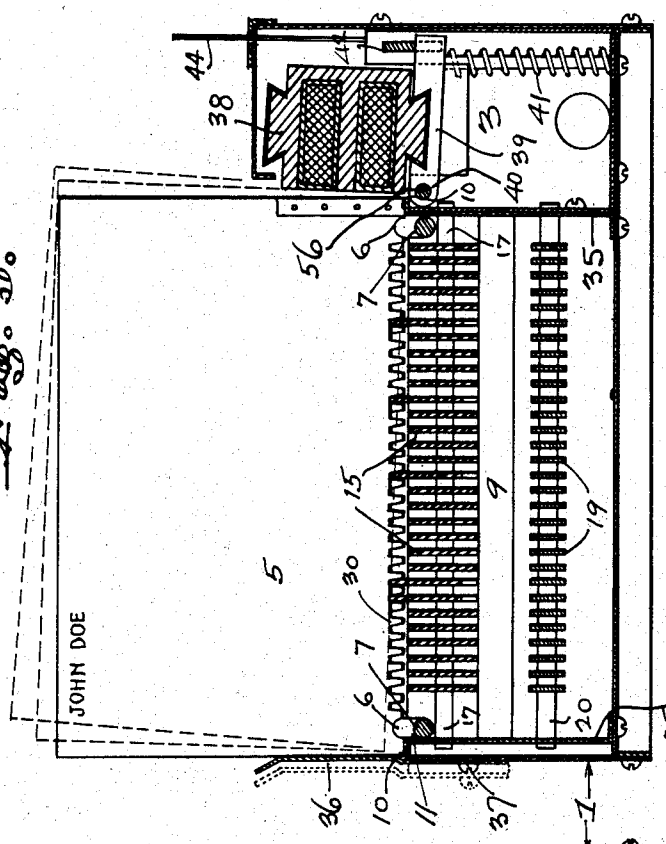

Fig. B.

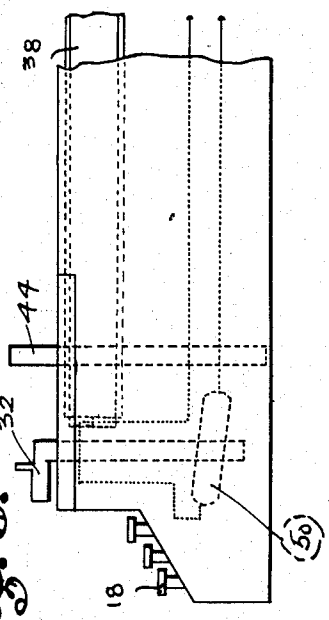

Fig. C.

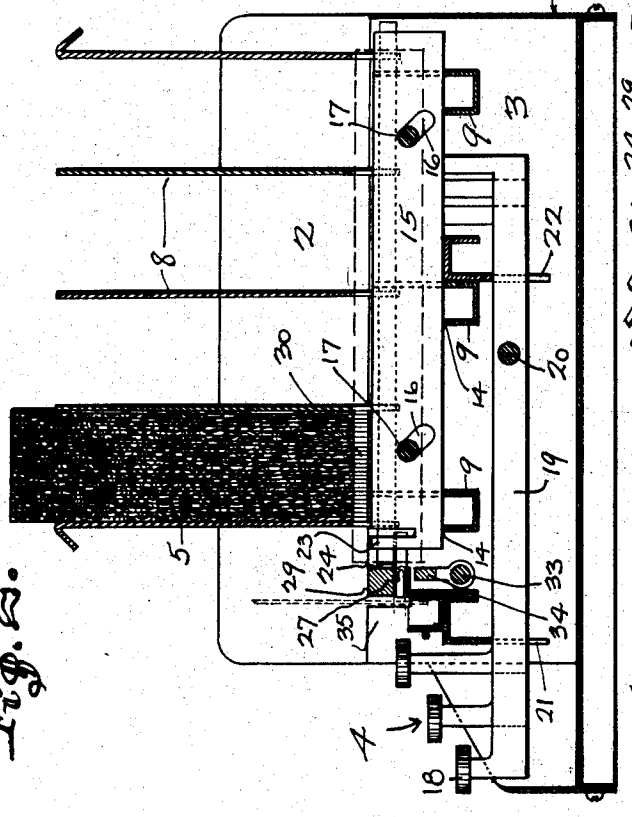

Fig. D.

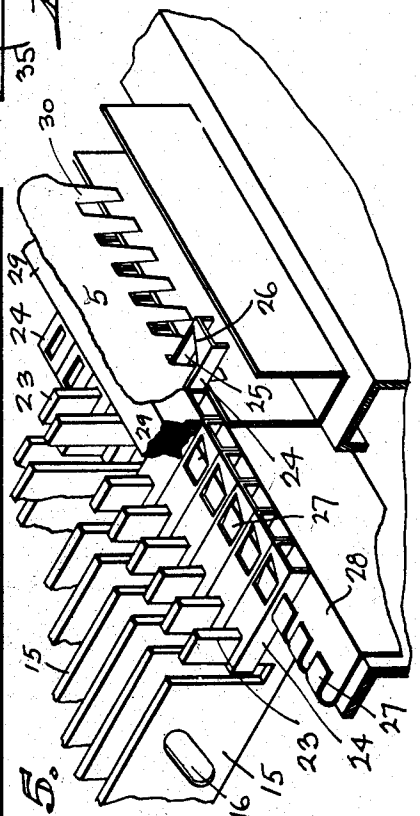

Fig. E.

INVENTOR

JOHN W. WHITSON

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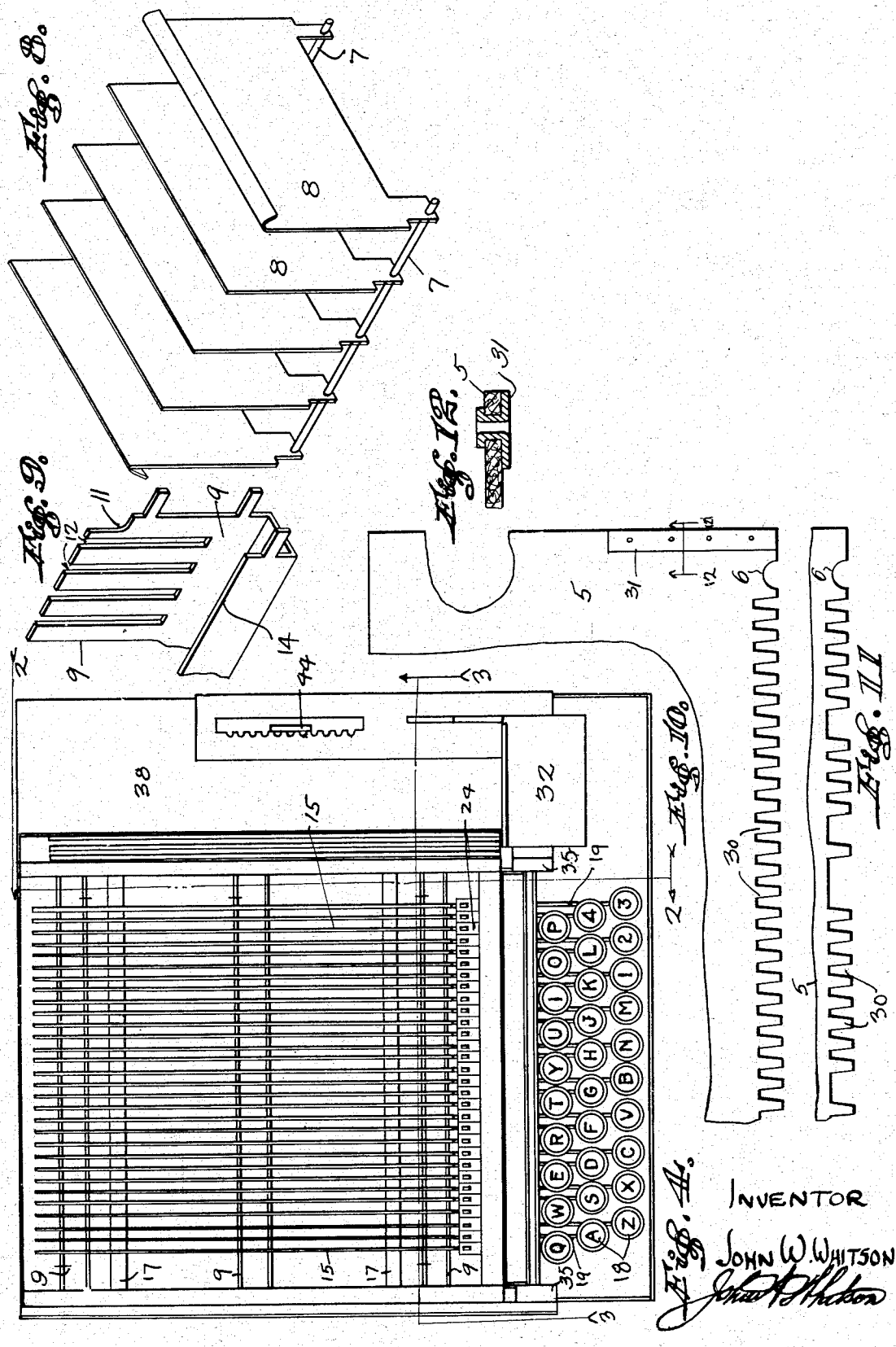
CARD FILING AND SEGREGATING APPARATUS

Filed Sept. 4, 1929 3 Sheets-Sheet 3



Patented May 28, 1935 2,002,808

UNITED STATES PATENT OFFICE

2,002,808

CARD FILING AND SEGREGATING APPARATUS

John W. Whitson, San Francisco, Calif.

Application September 4, 1929, Serial No. 390,373

22 Claims. (Cl. 129—16.1)

This invention relates to improvements in card filing and segregating apparatus which will be comparatively simple as to construction and operation, compact, and inexpensive and which may be operated to segregate the cards as desired, in a much more accurate and expeditious manner than has heretofore been possible with apparatus of this kind.

Another object of the invention is to provide a card record apparatus of the character described in which the cards may be easily, reliably and accurately segregated according to one or a plurality of characteristics of the cards by the simple expedient of pressing a button or similar operating member.

A further object of the invention is to provide an apparatus of the character described which will provide for the proper housing of a greater number of cards and a more rapid, reliable and accurate segregation of said cards in a smaller and more simply constructed apparatus than has heretofore been possible in this art.

A further object is to provide a card-selecting apparatus of the character described in which the cards may be segregated in various ways in accordance with the invention by magnetically attracting cards or a card of the group of cards.

In the accompanying three sheets of drawings, Fig. 1 is a perspective view of a fragmentary portion of a segregating apparatus constructed in accordance with my invention.

Fig. 2 is a longitudinal cross-section through my segregating apparatus taken on a line 2—2 of Fig. 4.

Fig. 3 is a lateral cross-section through my segregating apparatus taken on the line 3—3 of Fig. 4.

Fig. 4 is a plan view of my segregating apparatus with the card carrier removed.

Fig. 5 is a perspective view of a fragmentary portion of the machine illustrating the cutters for cutting abutments from the index cards.

Fig. 6 is a side elevation of the segregating apparatus shown in reduced scale.

Fig. 7 is a perspective view of one of the magnet-holding brackets.

Fig. 8 is a perspective view of a card carrier.

Fig. 9 is a perspective view of an end of one of the card-selecting bar holders.

Fig. 10 is a front elevation of one of the cards showing the selector abutments at the bottom thereof and a magnetically attractable element on one side of the card.

Fig. 11 is a fragmentary view of the lower edge of the card shown in Fig. 10 with certain of the abutments removed therefrom to enable said card to be selected.

Fig. 12 is a section taken through Fig. 10 on the line 12—12.

In detail the construction illustrated in the drawings comprises a casing 1, made up of a card compartment 2, a mechanism compartment 3 and a key-board 4. Cards 5 are provided with recesses 6 on the bottom edges thereof and adjacent each of the opposite sides thereof to be received on the carrier bars 7 of a card carrier. The carrier bars 7 of the tray or card carrier are adapted to engage the recess 6 when removing the cards from the tray compartment or installing the same therein. The card-supporting bars 7 are provided with a plurality of card-spacing elements 8 adjustable throughout the length thereof whereby a number of cards are confined between each pair of spacers. The bars 7 and elements 8 together form a card carrier. A plurality of holders 9 are arranged laterally across the casing 1 between the front and rear ends thereof, the upper edges of said holders lying on a common plane slightly below the line of the bottom surface of the card compartment 2. The casing 1 is provided with supporting frames 35 each of which has a shoulder 10 on its top edge at respectively opposite sides thereof which form the bottom supporting surfaces of the said compartment 2. When the cards are in the compartment the bottom edges thereof at the opposite corners rest on the upper face of the shoulders 10 and the carrier bars 7 of the tray drop below the plane of said shoulders 10 into recesses provided in the bottom of the compartment on opposite sides thereof between the shoulders 10. The holders 9 are provided with crosswise recesses 11 therein adjacent each of the opposite ends thereof and disposed next to the opposite sides of the casing into which the longitudinally extended bars 7 of the card carrier are adapted to rest when said card carrier is placed within the card compartment 2. The card carrier shown in Fig. 8 supports all of the cards that are confined within the card compartment and said carrier may be removed at will to permit various groups of cards supported in similar carriers to be removed to and from the compartment at will.

The holders 9 are provided with a series of elongated slots 12 (Fig. 9) cut down from the upper edge thereof and extending across the entire length of said cross members. The slots 12 in all of the holders 9 are in alignment with each other. The lower edge of each of the holders 9 is turned up into a U section so that the

edge 14 is bent upwardly to lie on a plane substantially flush with the bottom of slots 12.

A selector bar 15 is confined in each of the slots 12 in each of the cross members, each of said selector bars extending from a point rearwardly of the rearmost holder 9 to a point forward of the foremost holder 9. The upper edge of each of the selector bars 15 lies substantially flush with the upper edge of the holder 9. Each of the bars 15 has inclined slots 16 formed therein through which rods 17 extend, said rods being attached at their opposite ends to opposite sides of the inside supporting frames 35.

A plurality of finger keys 18 comprising the key board 4 are mounted on levers 19 which in turn are rotatively journaled on a cross-bar 20. Each of the key levers 19 engages one of the selector bars 15 beyond the fulcrum bar 20. Thus when any one of the finger keys 18 is depressed, the opposite end of the key lever is moved upwardly causing a corresponding upward and forward movement of the related selector bar 15 within the limits of movement prescribed by the inclined slots 16 and cross rods 17. Each lever 19 on opposite sides of the pivotal axis 20 is confined in the respective guide members 21 and 22 which are substantially the same as holders 9 in the inverted position, to eliminate lateral play of said levers during movement thereof.

The forward end of each selector bar 15 is provided with an arm 23 thereon to which one end of a cutter 24 is vertically slidably and detachably secured. Each cutter member 24 consists of an inverted U-shaped element having one end attached to the selector bar as described, and the opposite end of said cutter provided with an opening 25 through the bottom thereof, one edge 26 of said opening being cut on an angle to provide a shearing or cutting edge. The cutters 24 lie along side of each other across the entire width of the casing 1. The bottom face of each of the cutters rests on a spring finger 27, while the upper face of the cutters is confined below the bottom side of the shear bar 29. The spring fingers 27 engage the interior of the respective cutters 24 and tend to force the upper side of said cutters upwardly against the bottom side of the shear bar 29. The described method of mounting the cutters permits of a slack or "loose-play" fit of said parts and the spring fingers 27 serve to hold each of the cutters in proper operating position. The spring tension of the fingers on the cutters also supplies the necessary friction to maintain each selector bar in its elevated position. When the cutters are inoperative the outer ends thereof lie flush with the outer face of the shear bar 29. When any one of the finger keys is depressed, in addition to raising a corresponding selector bar 15, the movement of the selector bar causes the cutter attached thereto to be projected forwardly of the shear bar 29 into cutting position, as shown in Figures 1 and 5.

The cards 5 are provided with a plurality of spaced lugs or abutments 30 along the bottom edge thereof, the spaces between the plurality of lugs corresponding to the number of selector bars 15. Each one of the lugs or the space between any pair of lugs may represent or be designated by any of the letters of the alphabet or by numbers or by any other emblems or indicia to suit the particular conditions of work of the card. The lugs or spaces on the bottom of the card are related to the finger keys on the machine whereby each key on the key board when depressed will always move its selector bar into a space on the bottom of the card having a symbol corresponding with that on the key. Fig. 10 shows a card before any of the lugs 30 have been removed. The card can be made of magnetically attractive material or as shown in Figures 10, and 12 light spring-steel pieces 31 may be attached to the card edge in some conventional manner. The cards must be responsive to magnetic attraction and suitable magnetically attractable material may either be incorporated in the card or attached thereto.

Operation

In order to prepare the card shown in Fig. 10 so that it may be selected from a group of cards confined in the card compartment, the operator first depresses certain keys on the key board in proper sequence corresponding to the name or title or other "key" data which will distinguish that particular card from other cards. The keys thus depressed will cause corresponding cutter members to be projected beyond the face of the shear bar 29 into position shown in Figs. 1 and 5. With the cutters in this position the card would have the lugs 30 on the bottom thereof dropped down into the cutters as shown in Fig. 5. The operator would then move a handle member 32 to cause all of the cutters to be returned simultaneously to the concealed position which action of the cutters causes the lugs on the bottom edge of the cards to be cut therefrom. The handle 32 is attached to a cross rod 33 journaled inside the frames 35 secured on the casing 1. The shaft 33 is provided with a bar 34 extending lengthwise thereover and said bar is adapted to engage the forward end of the selector bars and to move said bars downwardly and rearwardly. This rearward movement of the selector bars causes the finger keys 18 to be raised out of the depressed position. The cutters 24 being attached to the selector bars move in unison therewith. After the handle 32 has returned the selector bars 15 and cutters 24 into the down position, the machine is in readiness for further operation.

The card 5 from which certain of the lugs have been cut or severed as shown in Fig. 11 would then be placed in the card holder in the card compartment 2. In order to select the card shown in Fig. 11 with the cut-out portions thereof from the stack of cards, the operator would first see that all of the cards in the holder had the marginal edges thereof in alignment. This would be done manually by forcing the cards against the side wall 36 of the casing 1. The wall 36 is adjustably secured to the side of the casing by screws 37 whereby said wall may be adjusted laterally relative to the side of the casing in order to accommodate cards of different widths in the card compartment.

An electro-magnet 38 of any suitable form, size and type is arranged lengthwise of the casing 1 along the side thereof opposite the adjustable wall 36. The magnet extends the full length of the casing 1 and on its bottom side is supported in brackets 39, which are pivoted at one end thereof as at 40 to cam guides 43, by rods 56 which extend continuously thru the holes in the brackets 39 and holes in the cam guides 43, and at the opposite end thereof each bracket 39 is resiliently supported on an expansion spring 41. The tension of the spring 41 is sufficient to maintain the magnet in desired position relative to the side of the card compartment. The side of the magnet facing the edges of the cards

stacked in the card compartment is inclined at an angle to said cards whereby when any card or cards are attracted to the magnet, said card is caused to move horizontally and then upwardly on an arc as it is withdrawn from the stack of cards as shown by dotted lines in Fig. 3. The angle of inclination of the magnet relative to the card edges may be adjusted at will through the instrumentality of a cam member 42 which bears against the upper side of each of the magnet-supporting brackets 39. The coacting cam guides 43 have the cam 42 slidably confined therein whereby lengthwise movement of the cam in the guides will cause the magnet 38 to be swung downwardly. When the pressure of the cam 42 is relieved, the expansion springs 41 force the magnet upwardly. The cam 42 is actuated by means of a hand lever 44 which is pivoted to the cam 42 and to the casing 1.

In order to attract the card with the cutout portions shown in Fig. 11 from the stack of cards, the operator would depress certain of the keys having symbols corresponding to the symbols represented by the cutout portions on said card. The keys when depressed would force the selector bars thereon upwardly into the cutout spaces between the lugs on said card. The selector bars would also assume a position in the spaces between the lugs on all other cards in the stack which either have or do not have cutout portions thereon. Obviously cards that do not have lugs cut from the bottom edge thereof could not have any lateral movement inasmuch as the width of the selector bar exactly fits the space between any pair of lugs. However, on those cards where one or more lugs have been removed to provide a space between lugs greater than the width or thickness of the selector bar then such card can move laterally relative to the selector bars extended between the lug spaces thereon. After the desired number of keys have been depressed and selector bars engaged with the aforesaid selector spaces on the bottom of the cards the operator would move the handle 32 toward the front which, in the form shown in Fig. 1, is provided with a mercury-tube type of switch 50 to close a circuit from a source of electricity to the magnet to energize the magnet with electricity and to thereby magnetically attract toward the magnet one or more selected cards. A wire 51 leads from one end of the mercury switch to the source of electricity, a wire 52 from the opposite end of the tube to one pole of the magnet, and a wire 53 leads from the other pole of the magnet to a ground. Spring 54 is used for normally maintaining the mercury switch in an inoperative position and to keep the magnet normally deenergized. Although I have shown and described a mercury tube type of switch it is to be understood that any conventional form of circuit closing means can be substituted in lieu thereof. When the cards 5 are in the card compartment in the position to be selectably attracted to the magnet, the opposite edges of said cards are supported on the shoulders 10 in the bottom of the card compartment and hence are free to move laterally with a minimum of resistance. After the selected cards have been attracted to the magnet the operator would withdraw said selected cards from the stack of cards. The handle 32 would then be suitably manipulated to return the selector bars 15 to a position in readiness for repeating the selecting operation, and such return movement of the selector bars causes the keys 18 to be raised to the operating position.

The herein described invention is of the same generic character as those described in my Patent No. 1,846,779, February 23, 1932, and co-pending application Serial No. 270,475, filed April 16, 1928.

Having thus described this invention what I claim and desire to secure by Letters Patent is:

1. Card record apparatus, comprising a card compartment; a row of magnetically responsive cards mounted in the compartment; selectively operable means to lock certain cards against movement; and a magnet arranged alongside the row of cards having the side thereof facing the cards inclined at an angle to the edge of the cards to cause any unlocked card or cards attracted to the magnet to move substantially in an arc, out of alignment with the row of locked cards.

2. Card record apparatus, comprising a card compartment; a row of magnetically responsive cards mounted in the compartment; selectively operable means to lock certain cards against movement; a magnet arranged alongside the row of cards having the side thereof facing the cards inclined at an angle to the edge of the cards to cause any unlocked card or cards attracted to the magnet to move substantially in an arc, out of alignment with the row of locked cards; and means to vary the inclination of the magnet relative to the card edges.

3. Card record apparatus, comprising a card compartment; a row of magnetically responsive cards mounted in the compartment; selectively operable means to lock certain cards against movement; a magnet arranged alongside the row of cards having the side thereof facing the cards inclined at an angle to the edge of the cards to cause any unlocked card or cards attracted to the magnet to move substantially in an arc, out of alignment with the row of locked cards; a frame to hold the magnet in any selected position relative to the cards; and means on the apparatus related to the magnet frame to vary the inclination of the side of the magnet facing the card edges.

4. Card record apparatus including record cards adapted for movement by magnetic attraction; a frame to hold said cards in stacked relation; means in the frame to select certain cards; magnetic means on the frame to attract the selected cards from the stack of cards; and a guide on the frame to hold the cards in operative relation to the selecting means and magnetic means.

5. Card record apparatus including record cards adapted for movement by magnetic attraction; a frame to hold said cards in stacked relation; means in the frame to select certain cards; magnetic means on the frame to attract the selected cards from the stack of cards; a guide on the frame to hold the cards in operative relation to the selecting means and magnetic means; said guide being adjustable relative to the frame to accommodate cards of differing sizes.

6. Card record apparatus comprising a card compartment; a plurality of cards for the compartment; a plurality of lugs extended from an edge of each of the cards; a plurality of cutters on the apparatus adapted to simultaneously register with the several lugs on the cards; and means to actuate one or more selected cutters to sever one or more selected lugs from a card.

7. Card record apparatus comprising a card compartment; a plurality of cards for the compartment; a plurality of lugs extended from an edge of each of the cards; a plurality of cutters on the apparatus adapted to simultaneously reg-

ister with the several lugs on the cards; means to move selected cutters into position to receive corresponding lugs on the cards; and means to move all of the selected cutters in unison to sever the selected lugs from the cards in a single operation.

8. A record card apparatus including a compartment, a set of cards in the compartment, individually settable selector members to lock cards in the set against movement in a predetermined direction, means for subjecting all of the cards of the set to the influence of a force having a tendency to move the set in said direction, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards, and spacer plates in the compartment of cards for subdividing the set into groups, said spacer plates being adjustable within the compartment.

9. A record card apparatus including a compartment, a set of cards in the compartment, each card having differential edge portions to distinguish the card from other cards pertaining to the same set, consisting of projections and indentations between projections along at least one edge thereof, individually settable selector members to lock cards in the set against movement in a predetermined direction, means for subjecting all of the cards of the set to the influence of a force having a tendency to move the set in said direction, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards, whereby through the proper positioning of selector elements relatively to certain projections or indentations the card may be locked against movement relatively to the selector elements or remain unlocked relatively thereto; and means for selectively cutting projections from the series of projections provided on the individual cards to render them distinctive for differential locking or release operation.

10. A card record apparatus, as set forth in claim 9, in which the means for selectively setting the selector elements also control the cutting device, whereby the proper projections are severed from the edges of the cards.

11. A record card apparatus including a compartment, a set of cards in the compartment each card having differential edge portions to distinguish said card from other cards pertaining to the same set, consisting of projections and indentations between projections along at least one edge thereof, individually settable selector members to lock cards in the set against movement in a predetermined direction, means for subjecting all of the cards of the set to the influence of a force having a tendency to move the set in said direction, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards, whereby through the proper positioning of selector elements relatively to certain projections or indentations the card may be locked against movement relatively to the selector elements or remain unlocked relatively thereto; means for selectively cutting projections from the series of projections provided on the individual cards to render them distinctive for differential locking or release operation, in which the means for selectively setting the selector elements also control the cutting device, whereby the proper projections are severed from the edges of the cards.

12. A record card apparatus including a compartment, a set of cards in the compartment, each card having a series of projections with notches in between along an edge thereof, individually settable selector members to lock cards in the set against movement in a predetermined direction, means subjecting all of the cards of the set to the influence of a force having a tendency to move the set in said direction, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards, the cards being locked against movement after the selector members enter the notches between two adjacent projections of the cards, means for selectively cutting projections from the series of projections provided on the individual cards to render them distinctive for differential locking or release operation, in which the means for selectively setting the selector elements also control the cutting device, whereby the proper projections are severed from the edges of the cards, to render the cards suitable for occupying a differential position after actuation of the selector elements in the desired way, and means for returning the set selector elements and the selected severing device simultaneously to their normal position.

13. A record card apparatus including a compartment, a set of cards in the compartment, each card having differential edge portions to distinguish the card from other cards pertaining to the same set, consisting of projections and indentations between projections along at least one edge thereof, individually settable selector members to engage indentations to lock cards in the set against movement in a predetermined direction and means for subjecting all of the cards of the set to the influence of a force having a tendency to move the set transversely relatively to the movement of the selector members, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards, whereby through the proper positioning of selector elements relatively to certain projections or indentations the cards may be locked against movement relatively to the selector elements or remain unlocked relatively thereto, means for selectively cutting projections from the series of projections provided on the individual cards to render them distinctive for differential locking or release operation, in which the means for selectively setting the selector elements also control the cutting device, whereby the proper projections are severed from the edges of the cards, means for returning the set selector elements and the selected severing device simultaneously to their normal position, including means on said severing devices to move the severing devices together with the selector elements to operative position and for retaining said selected severing devices and selector elements in operative position, common means for returning simultaneously the selected severing devices and selector elements to

inoperative position and means on the severing devices for severing the predetermined projections from the card during the return movement.

14. A record card apparatus including a compartment, a set of cards in said compartment, each card having differential notches and projections to distinguish each card from other cards pertaining to the same set, individually settable selector members adapted to lock cards in the set against movement in a predetermined direction; an electromagnet for subjecting all of the cards of the set to the influence of a force having a tendency to move the set transversely relatively to the movement of the selector members, whereby the cards locked by the selector element are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards, the cards being locked against movement after the selector members enter the notches between two adjacent projections of the cards, means for selectively cutting projections from the series of projections provided on the individual cards to render them distinctive for differential locking or release operation, and means associated with the selector mechanism, for energizing and deenergizing of the electro-magnet.

15. A record card apparatus including a compartment, a set of cards in said compartment, individually settable selector members to lock cards in the set against movement in a predetermined direction; means on the cards with which the selector members enter into locking relationship, an electromagnet for subjecting all of the cards of the set to the influence of a force having a tendency to move the set in said direction, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards, and means for energizing the magnet to move the unlocked cards to differentiating position, the effective surface of the magnet being positioned at an angle to the side of the set of cards, whereby the cards influenced by the electro-magnet will travel in an arcuate path to arrive at differentiating positions.

16. A record card apparatus including a compartment, a set of cards in said compartment, individually settable selector members to lock cards in the set against movement in a predetermined direction; an electro-magnet extending longitudinally of the entire set of cards; means on the cards with which the selector members enter into locking relationship for subjecting all of the cards of the set to the influence of a force having a tendency to move the set in said direction, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards, means for energizing the magnet to move the unlocked cards to differentiating position, a carrier for the electromagnet and means for adjusting said carrier at differential angular positions relatively to the side of the set of cards.

17. A record card apparatus including a compartment, a set of cards in the compartment, individually settable selector members to lock cards in the set against movement in a predetermined direction; an electro-magnet extending longitudinally of the entire set of cards; means on the cards with which the selector members enter into locking relationship for subjecting all of the cards of the set to the influence of a force having a tendency to move the set in said direction, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards, means for energizing the magnet to move the unlocked cards to differentiating position, and means for adjustably positioning the electromagnet in direction towards the set of cards.

18. A record card apparatus including a compartment, a set of cards in the compartment each card having a series of projections with notches in between along an edge thereof, individually settable selector members to enter the notches between two adjacent projections of the cards to lock cards in the set against movement in a predetermined direction; means for subjecting all of the cards of the set to the influence of a force having a tendency to move the set in said direction, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards, a guard adjustable relatively to the compartment for the cards, whereby said compartment is rendered suitable to accommodate cards of different sizes, means on the compartment for the cards to support the cards adjacent the outer edges only to render them more readily movable under the influence of the force which places selected cards to differential position.

19. A record card apparatus including a compartment, a set of cards in the compartment, spacer plates in the compartment of cards for subdividing the set into groups, said spacer plates being adjustable within the compartment, individually settable selector members to lock certain cards in the set against movement in a predetermined direction, means on the cards with which the selector members enter into locking relationship, and means for subjecting all of the cards of the set to the influence of a force having a tendency to move the set, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards.

20. A record card apparatus including a compartment, a set of cards in the compartment, individually settable selector members to lock certain cards in the set against movement in a predetermined direction, means on the cards with which the selector members enter into locking relationship, and means for subjecting all of the cards of the set to the influence of a force having a tendency to move the set, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards, means for retaining the selector elements in differential card locking position after actuation and a common means for returning all set selector elements simultaneously to their inoperative position.

21. A record card apparatus including a compartment, a set of cards in the compartment, a guard adjustable relatively to the compartment for the cards, whereby said compartment is rendered suitable to accommodate cards of different sizes, individually settable selector members to lock certain cards in the set against movement in a predetermined direction, means on the cards with which the selector members enter into locking relationship, and means for subjecting all of the cards of the set to the influence of a force having a tendency to move the set, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards.

22. A record card apparatus including a compartment; a card carrier having card supporting means thereon; a set of cards in said carrier; spacers for the cards throughout the length of said carrier; a card carrier and card receiving means in said compartment including means engageable with the lower corners of the cards, whereby the cards are released from the carrier when the card carrier is placed in the compartment, individually settable selector members in the compartment to lock certain cards in the set against movement in a predetermined direction; means on the cards with which the selector members enter into locking relationship; and means for subjecting all of the cards of the set to the influence of a force having a tendency to move the set, whereby the cards locked by the selector elements are prevented from following said movement to permit the cards not engaged by the selector elements to be influenced by said force and to move to a differentiating position relatively to the locked cards; means for retaining the selector elements in differential card locking position after actuation; and a common means for returning all set selector elements simultaneously to their inoperative position.

JOHN W. WHITSON.