Feb. 13, 1951 G. MENNING ET AL 2,541,881

TELEPHONE ADDRESS INDEX

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Fig. 1

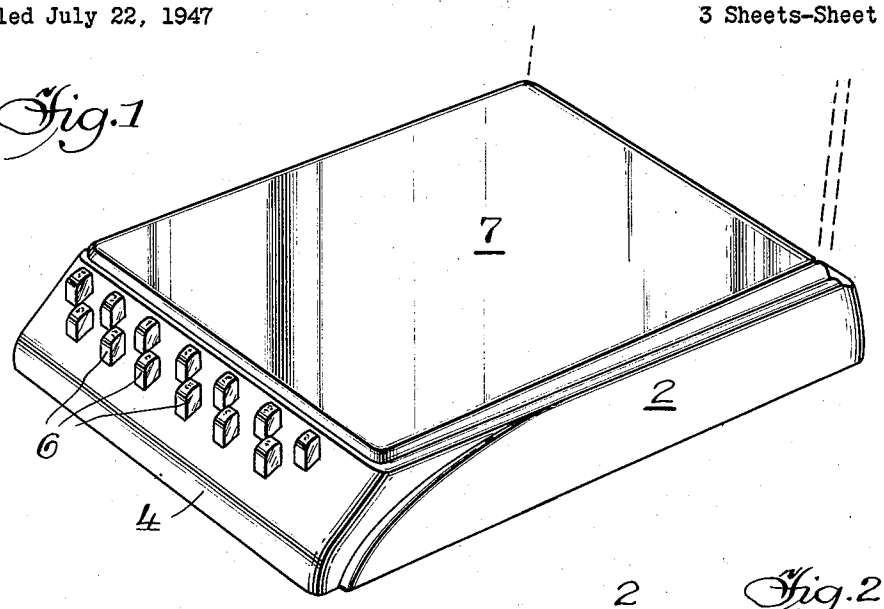
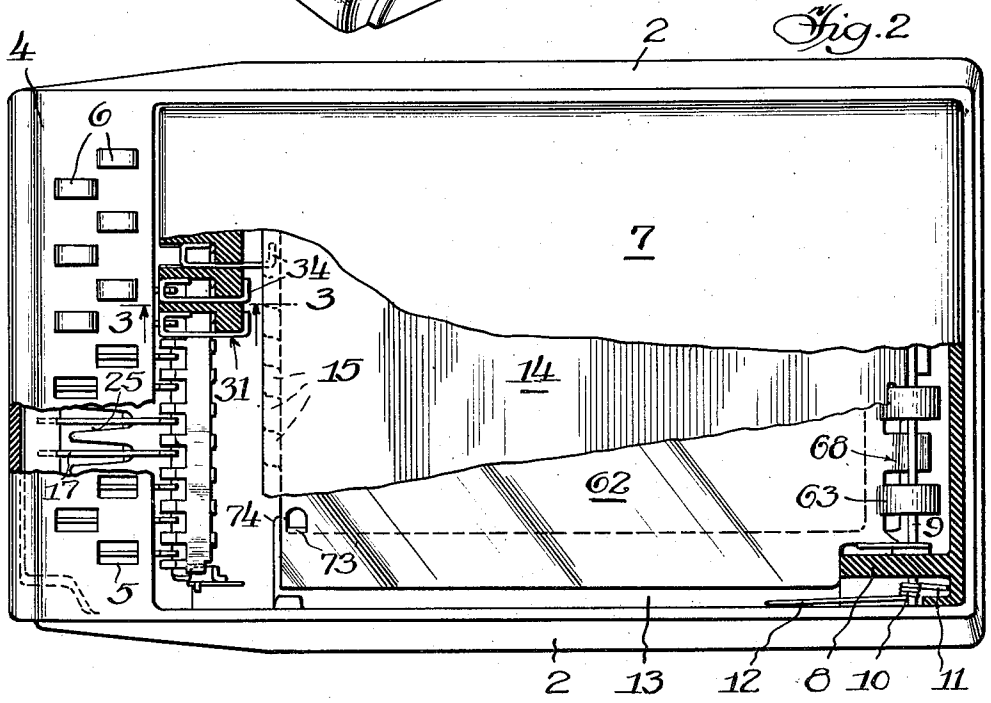


Fig. 2



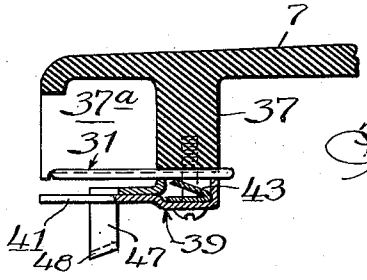


Fig. 3

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Fig. 4

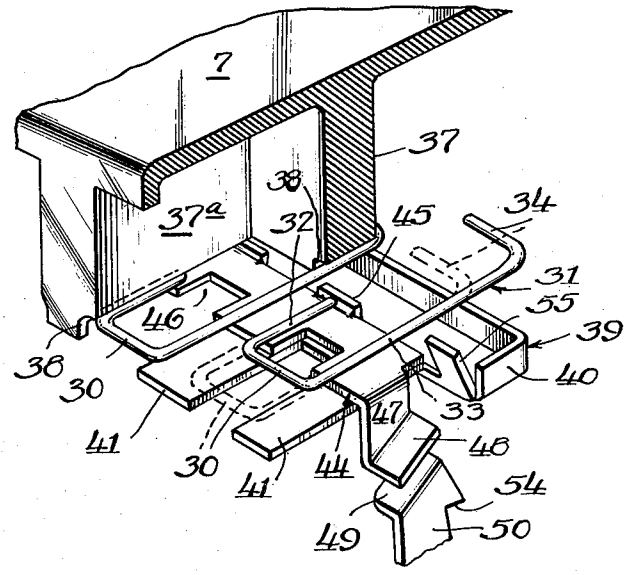


Fig. 5

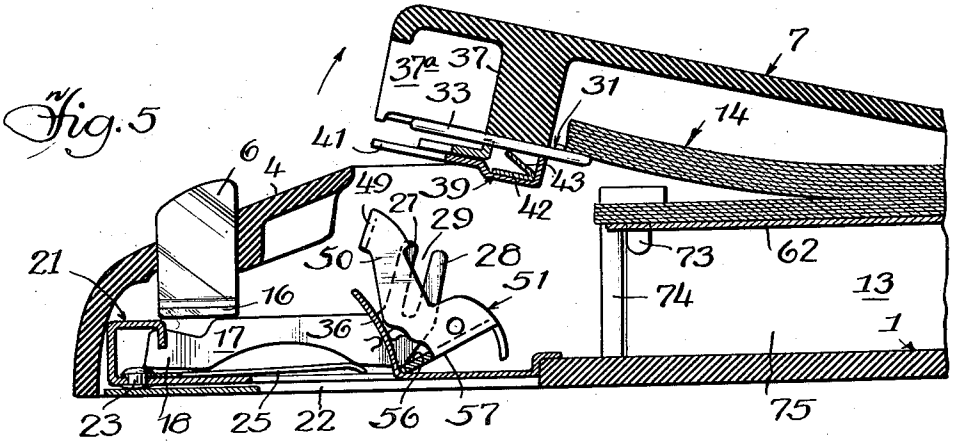
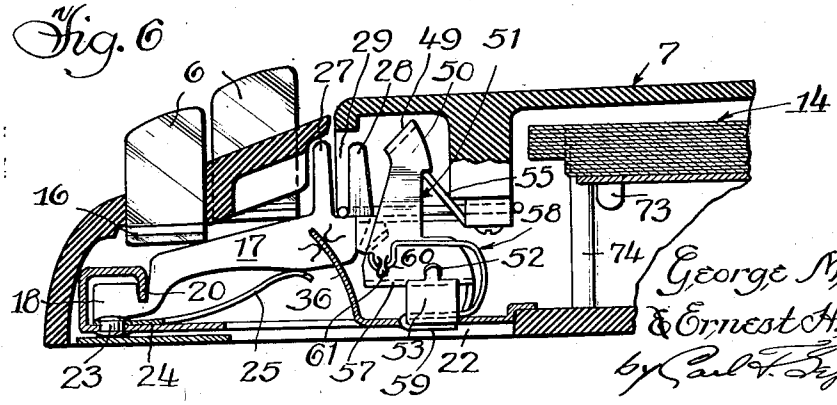


Fig. 6



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Fig. 7

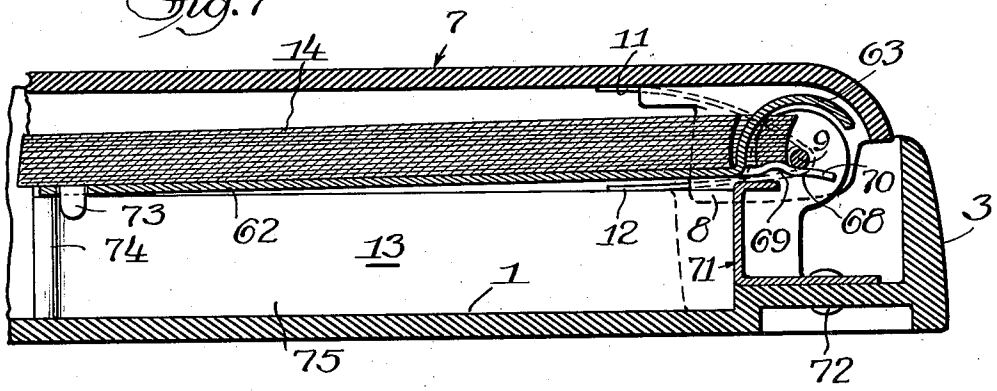


Fig. 8

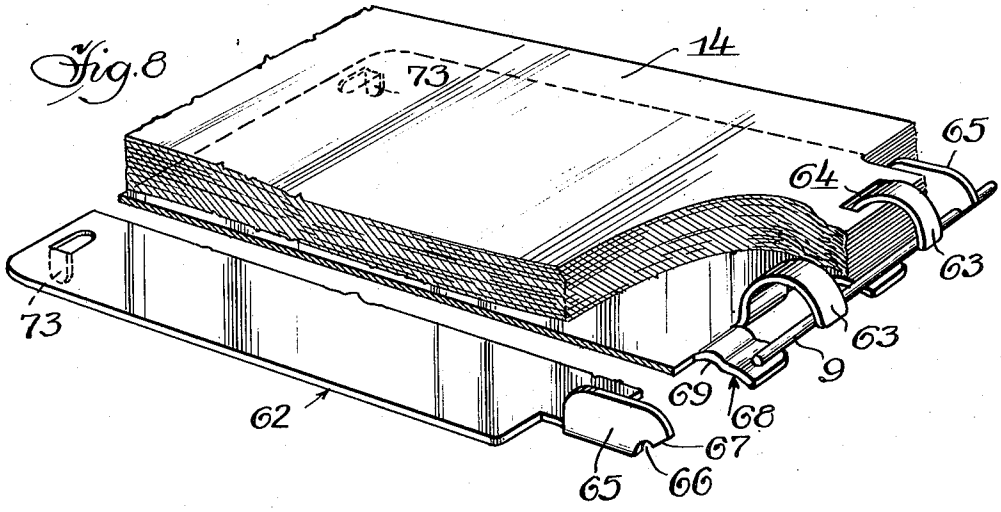
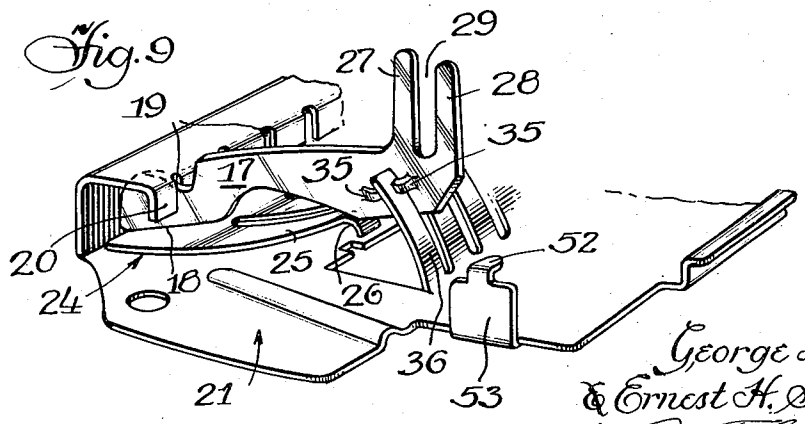


Fig. 9



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Patented Feb. 13, 1951 2,541,881

UNITED STATES PATENT OFFICE

2,541,881

TELEPHONE ADDRESS INDEX

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Application July 22, 1947, Serial No. 762,712

10 Claims. (Cl. 40—104)

1

The present invention relates to an index or register for recording and quickly selecting and making available the telephone number, address or other desirable data or information, and more particularly to a novel means and mechanism which may be rapidly initiated or actuated by a single manipulation of a key or push button for selecting the desired information, and which is positive in operation under any and all conditions of use.

One of the important objects of the present invention is to provide a novel combination and assembly for the selective operation of an index whereby to select and expose or make available the data or information desired, and which automatically returns the selector mechanism to inoperative position when closing the cover.

The present selector mechanism is key actuated and provided with novel interengaging mechanism so designed and constructed as to assure positive operation of the index under all conditions and requirements in use. The invention comprehends a novel arrangement and construction of indexing mechanism including selector members actuated by depressing one of a plurality of keys and a sliding plate so positioned as to automatically return any and all selector members to their normal or neutral position ready for subsequent operation.

Another important feature of the present invention is the provision of a novel tension means for returning each of the key or push buttons and its respective selector arm actuated thereby to their normal or inoperative position after they have been depressed for selecting the desired card or sheet and for releasing the cover carrying the selected card or sheet whereby to make the selected information available.

The invention further comprehends a novel construction and arrangement of selector arms and in the novel means and manner of guiding such arms when actuated by depressing a selected one of a plurality of keys or push buttons.

The present invention further comprehends a novel plate or holder forming a support for the sheets or cards on which the data or information to be made available is collected, and provided with means for securely retaining this supporting plate or holder and the sheets or cards carried thereon against accidental displacement.

Other important objects are to provide a construction of maximum simplicity, efficiency, economy and ease of assembly and operation, and such further objects, advantages and capabilities as will later more fully appear and are inherently possessed thereby.

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The invention further resides in the construction, combination and arrangement of parts illustrated in the accompanying drawings, and while there is shown therein a preferred embodiment, it is to be understood that the same is susceptible of modification and change, and comprehends other details, arrangements of parts, features and constructions without departing from the spirit of the invention.

In the drawings:

Figure 1 is a view in perspective of the novel index assembly in closed position, and showing in dotted lines the position of the cover or closure when the latter is released and moved to open position by depressing one of the keys and push buttons.

Fig. 2 is a top plan view of the novel index assembly in closed position but with parts of the cover or closure broken away to show the interior construction.

Fig. 3 is a fragmentary enlarged view in vertical cross-section taken in a plane represented by the line 3—3 of Fig. 2.

Fig. 4 is an enlarged fragmentary view in perspective showing the assembly and manner of operating the sliding plate carried by the cover for returning the selector wires to inoperative position when the cover is closed.

Fig. 5 is an enlarged fragmentary view in vertical cross-section through the forward end of the index and showing the cover after being released by actuating a key or push button and beginning its upward movement to open position.

Fig. 6 is a fragmentary view similar to Fig. 5 but showing the position of the parts when the cover is closed, and the manner of locking the cover in closed position.

Fig. 7 is an enlarged fragmentary view in vertical cross-section through the rear end of the index.

Fig. 8 is an enlarged broken view in perspective of the plate holder for supporting a plurality of sheets or cards.

Fig. 9 is an enlarged fragmentary view in perspective disclosing one of the selector arms and its associated assembly for indexing one of the sheets and actuating the trip mechanism.

Referring to the disclosure in the drawings and to the illustrative embodiment therein shown, the novel telephone-address index or register comprises a base 1 provided with spaced upstanding side walls 2, an end wall 3 at the rear thereof and a front wall 4 inclined upwardly and rearwardly to provide a ledge or inclined surface having a plurality of slots or openings 5 to receive a series of vertically disposed actuating keys or

push buttons 6. These keys or push buttons are preferably located in two rows and may be in staggered relation, with each key or button being marked with one or more letters of the alphabet. A cover or closure 7 is pivotally mounted on the base at the rear thereof by means of spaced depending lugs 8 each provided with an opening adapted to receive and permit passage therethrough of an end of a cross rod or pin 9 having its opposite ends journalled in the side walls 2 of the base. A coil spring 10 encompassing each end of the cross rod or pin and having one end 11 engaging the underside of the cover 7 and the other end 12 seating upon a longitudinally extending ledge 13 provided at each side of the base 1, is adapted to tension and raise the cover to a substantially vertical position for exposing the face of one of a plurality of indexing cards or sheets 14 and the back of an adjacent or succeeding card or sheet. The cover is spring-biased to open position whereby when it is released the cover automatically assumes the dotted line position shown in Fig. 1. The present invention is an improvement on the index or register disclosed in the co-pending application of Hans A. Bauer, Serial No. 683,063, filed July 12, 1946.

The cards or sheets 14 are similar to those shown in the above mentioned co-pending application of Hans A. Bauer. These cards or sheets are preferably of uniform length except for the bottom card which is somewhat shorter than the remainder, and except for the bottom and top cards each is provided at its forward end with staggered cut-outs 15 to permit the indexing and raising of any one of the cards or sheets other than the bottom one along with those overlying or nesting on the top of the one selected. In other words, each card except for the bottom one is of substantially the same length, and all cards intermediate the top and bottom ones are provided with a cut-out. These cut-outs are staggered in such manner that the card or sheet next to the top is provided with a relatively short cut-out and with the width of such cut-outs in the lower, succeeding cards increasing across the front edge thereof until the last or bottom card or sheet which is cut away across its entire width for the reason that this card is not elevated by the selector and indexing mechanism.

The indexing is accomplished through the series of keys or push buttons 6. As clearly shown in Figs. 1 and 2, these keys or push buttons are disposed in spaced and staggered relation with the lower edge or base 16 of each key seating upon the upper edge of one of a plurality of selector arms 17 each having its forward end 18 disposed in a vertical slot 19 provided in the inturned and downwardly projecting flange 20 of a plate 21 extending completely across or laterally of the base 1 and mounted within a transverse opening 22 provided in the base.

Secured to the plate 21 as by means of rivets or other securing means 23 is a comb-spring 24 provided with a plurality of upwardly projecting and transversely spaced leaf springs 25 each having a rounded upper end 26 abutting against and applying pressure to the underside of its respective selector arm 17 mounted thereabove. Each leaf spring applies pressure to and tends to maintain its selector arm in raised, inoperative position and returns this arm to that position upon release of its key or push button 6. Each selector arm 17 pivots or is fulcrumed about its lower forward end 18 and is also permitted limited longitudinal movement as it is depressed by its respective key or push button. At its other end each arm is provided with spaced upstanding fingers or projections 27 and 28 providing an upwardly opening slot 29 therebetween.

The projecting fingers 27 and 28 of each selector arm when in normal, inoperative position project substantially vertically and are adapted to receive in the slot 29 therebetween an end 30 of a selector wire or member 31. As clearly shown in Fig. 4, these selector wires are each provided with an arm 32 extending parallel to the opposite longer arm 33 but of substantially less length, and at its other end the arm 33 is provided with an inturned lateral projection 34, the purpose of which is to engage under a selected card or sheet 14 when the selector wire or member 31 is moved to forward position by actuation of its selector arm 17.

Each selector arm at one side thereof is stamped or provided with outwardly bent or formed prongs or projections 35 spaced apart an amount sufficient to conformably receive therebetween one of a series of suitably spaced curved tongues or guide members 36 upstanding from the plate or frame member 21 and preferably formed integral therewith. These guide members are spaced apart an amount to slidably receive a selector arm 17 and are so curved or formed as to guide the longitudinal movement of the selector arms as a key or push button 6 is depressed.

The pivotally mounted cover or closure 7 is formed or provided adjacent its forward end with a transversely extending and depending rib 37, and extending or projecting forwardly from this rib to the extreme end of the cover are formed or provided relatively short and spaced longitudinally extending and depending flanges or parallel ribs 37a. The adjacent lower edges of these ribs are recessed at 38 (see Fig. 4) to provide guiding and aligning surfaces for the sliding movement of the selector wires 31 as they are moved longitudinally for selecting and indexing a desired card or sheet. Secured to the underside of the rib 37 is a plate or frame member 39 channel-shaped at 40 to seat upon and be secured to the base or undersurface of the rib and slotted at its forward end to provide spaced, forwardly extending teeth or projections 41. These teeth or projections are spaced apart an amount sufficient to provide forwardly opening slots for receiving therebetween the upwardly projecting leg 28 of a selector arm 17. To retain the selector wires 31 in elevated position a spring plate or member 42 is provided within the channelled part 40 of the frame member 39 and having a plurality of upwardly bent spring fingers 43 spaced apart in such manner that a spring finger abuts the undersurface of the longer leg or arm 33 of each selector wire.

Extending across and slidably mounted on the plate or frame member 39 is a slotted cross bar or plate 44 provided with spaced upstanding flanges or shoulders 45 at the rear edge thereof and having its forward edge slotted at 46 with these slots coinciding with the slots in the plate 39 between the teeth or projections 41. At each of its opposite sides or ends the bar or plate 44 is bent downwardly at 47 and then outwardly to provide an inclined ear 48. The purpose of this cross bar or sliding plate 44 is to return the selector wires 31 to their inoperative position each time the cover is closed. This is accomplished by automatically moving this sliding plate

forwardly by reason of the contact of the inclined ears 48 with similar inclined ears 49 formed or provided on each of a pair of upstanding latch arms 50 provided or formed at the opposite ends of a latch bar 51 extending transverse of and pivotally mounted at 52 on the ends of upstanding legs 53 formed on or bent upwardly from the base plate 21. Forward movement of the sliding bar or plate 44 causes the upstanding flanges or shoulders 45 to engage the end of each arm or leg 32 of the selector wires and to return these wires to their forward, inoperative position. This latch bar 51 and the pair of latch arms 50 maintain the cover or closure 7 in lowered, closed position by engagement of a dog 54 on each of the latch arms engaging over the end of an inclined catch 55 projecting forwardly and upwardly from the opposite ends of the plate or frame member 39.

To trip the latch bar and release the cover when desired, a selected key or push button 6 is depressed and it in turn depresses its respective selector arm 17 therebelow and by reason of this arm being guided in its movement by the curved tongue or guide member 36, the selector arm is moved rearwardly or away from the operator into contact with an edge 56 of the base 57 of the latch bar 51 to thereby tilt this bar sufficiently about its pivots 52 to release the latch dog 54 from the inclined catch 55, whereupon the springs 10 automatically raise the cover 7 to open position. At the same time the selector arm 17 in its rearward movement forces the proper selector wire rearwardly by reason of its engagement with the end 30 of this wire, whereby the end 34 of this selector wire engages beneath the selected card and when the cover is released the latter carries such selected card and those overlying it upwardly to open position. To return the latch bar 51 to its normal or operative relation to lock the cover in closed position, there is provided a latch bar spring 58 at one end of the latch bar and adjacent to a latch arm 50. This spring is preferably formed of resilient wire with one end 59 anchored onto the base of the upstanding leg 53 and the other end 60 hooked under a projecting prong or lug 61 on the latch arm.

The individual cards or sheets 14 are disposed preferably in alphabetical order upon a plate holder 62 which may be made or formed of metal or other rigid material suitable for the purpose. To pivotally mount this plate holder in the index, it is provided with spaced arcuate projections 63 adapted to pierce or project through similarly spaced slots 64 in the cards or sheets 14. At the opposite edges of the plate holder are provided upstanding ears or flanges 65 each provided with a recess 66 for receiving the cross pin or rod 9 and having its end 67 inclined. The end of the support is further provided with a plurality of spaced spring fingers or projections 68 disposed intermediate the arcuate projections 63 and provided with an upwardly curved portion 69 against which the cross pin or rod 9 abuts and a rearwardly and downwardly bent end 70 adapted to guide the plate holder onto the cross pin or rod until the latter abuts the part 69 and seats in the recesses 66, whereupon the plate holder and cards are retained against accidental removal or displacement, but when intended may be readily removed. A cross bar or substantially L-shaped supporting bracket 71 extends transverse of the base and is secured thereto by rivets or the like 72.

To prevent the plate holder 5 from shifting or becoming disengaged in shipment or rough handling, this holder is provided adjacent its forward end with a pair of depending prongs or projections 73 which are spaced inwardly from the opposite sides of the holder an amount sufficient to engage against the inner sides of the ledges 13, and prevented from longitudinal shifting or sliding movement by an inturned lug 74 provided at the end of each ledge. Thus when the cover is closed, the plate holder and the cards carried thereby are retained in position, but when the index is open and in use this holder and cards may be readily removed.

In the base of the index and between the ledges 13 extending along the interior of the side walls 2, is provided a storage compartment 75 for receiving a quantity of memo sheets or other papers which are readily accessible upon release or raising of the cover 7 and the plate holder 62.

Successive keys or buttons 6 are preferably designated in alphabetical order and with similar designations on the cards or sheets 14. In the form shown in the present application and in the co-pending application of Hans A. Bauer referred to above, the cards beginning at the top are designated from A to Z, and similar designations are provided on the keys or buttons reading from left to right. Generally, each key or button may have two designations such as AB, CD, EF, etc., and when the two cards are exposed that containing names beginning with the letter A will appear on the underside of the top or elevated card and those beginning with the letter B will appear on the face of the exposed bottom card.

In the present device the projection or prong 28 which engages the end 30 of a selector wire or member 31 and the adjacent projection or prong 27 which form therebetween the slot 29 for receiving the end of the wire, are formed or provided with substantially straight sides. By reason of the disclosed angle of the prong 28, should the operator press one key or button and realize he has made an improper selection and yet did not press the key or button sufficient to release the cover, he can rectify his error by pressing the desired key or button and be assured of the proper selection.

It will be apparent from the above description and the disclosure in the drawings, that the present invention provides a novel index or register for recording the names, telephone numbers, addresses or other data in alphabetical order and in which the selector mechanism is automatically returned to inoperative or neutral position when the cover of the casing is closed. This assures successive and successful operation under any and all conditions of use. The present device is also so constructed and arranged as to retain the plate holder and cards or sheets carried thereby against accidental displacement during shipment or rough handling.

Having thus disclosed our invention, we claim:

1. An index or register for recording names, telephone numbers, addresses and the like, upon a series of cards arranged in alphabetical order and for selecting a desired card, comprising a casing including a base and a spring-actuated cover pivotally mounted at one end to the base and biased to open position, a plurality of alphabetically arranged cards pivotally mounted in said casing, a plurality of manually operable keys, a selector arm for each key carried in the base and actuated by its key, a selector member for each

arm carried in the cover and actuated by its arm for indexing a selected card and retaining it in the cover, latching mechanism associated with said arms and members for holding the cover in closed position, means for releasing the latching mechanism to thereby permit the cover and the indexed card to be elevated to open position, a member carried by the cover and a part in the base engaging said member for automatically returning the selector members to inoperative position when the cover is closed.

2. In an index, a base, a cover pivotally mounted in the base, latching mechanism for holding the cover in closed position, tension means for biasing the cover to open position upon release of said latching mechanism, a plurality of cards pivotally mounted in the base, key-actuated selector mechanism including selector members in the cover for selecting a desired card and means in the base for simultaneously releasing said latching mechanism upon operation of said selector mechanism whereby the tension means moves the cover to open position carries therewith the selected card, and a slidable plate provided in the cover for engaging the selector members and means in the base for engaging and moving the plate and returning therewith the selector members to inoperative position upon closing the cover.

3. In an index, a base adapted to contain a plurality of cards having recorded thereon data such as names, telephone numbers, addresses and the like, a cover pivotally mounted on and forming a closure for the base and cards, tension means for biasing the cover to open position, latching means for holding the cover closed, mechanism for selecting a desired card and releasing the latching means and cover whereby the cover and selected card are moved into open position, and interengaging parts on the cover and base for releasing the selected card from the cover and returning the selector mechanism to inoperative position and ready for selection of another card.

4. In an index, a base adapted to contain a plurality of cards having recorded thereon data such as names, telephone numbers and the like, a cover pivotally mounted on and forming a closure for the base and cards, tension means for biasing the cover to open position, latching members on the base and cover for locking the cover in closed position, selector members in the cover for engaging a selected card, manually initiated mechanism in the base for actuating the selector members and releasing the latching members to thereby release the cover and the selected card whereby they are moved to open position, a member carried by the cover and means in the base engaging said member for moving the selector members to inoperative position and release the selected card as the cover is moved to closed position.

5. In an index, a base adapted to contain a plurality of cards having recorded thereon data such as names, telephone numbers, addresses and the like, a cover pivotally mounted on and forming a closure for the base and cards, tension means for biasing the cover to open position, a latch bar for holding the cover closed, mechanism for selecting a desired card and including means for tripping the latch bar for releasing the cover whereby the cover and selected card are moved into open position, a member slidable in the cover for returning the selecting mechanism to inoperative position, and projections on said member and latch bar for actuating said member as the cover is moved to closed position.

6. In an index for recording, selecting and exposing any one of a plurality of cards containing names, telephone numbers, addresses and other desired data by the manipulation of a selected one of a plurality of push buttons, a casing including a base and a spring-actuated cover therefor pivotally mounted at one end in the base and biased to open position, a plate holder also pivotally mounted at one end in the base, a plurality of cards disposed on said plate holder in alphabetical relation and adapted to be connected to and opened with the cover, a sliding plate carried in the cover and means in the base engaging and moving said plate for automatically releasing the cards upon closing of the cover.

7. In an index for recording, selecting and exposing any one of a plurality of cards containing names, telephone numbers, addresses and other desired data by the simple manipulation of one of a plurality of push buttons, comprising a casing including a base and a spring-actuated cover therefor pivotally mounted at one end in the base, a plate holder also pivotally mounted at one end in the base, a plurality of cards disposed thereon and adapted to be raised with the cover, and depending projections provided at the other end of the plate for securing the plate and cards against accidental or unintentional displacement.

8. In a telephone index for recording names, numbers, addresses or other data for convenient use and ready reference, a casing having a base, a cover pivotally mounted on the base, a plurality of cards containing the desired data, a plate providing a support for said cards and upon which the cards are pivotally mounted, means for detachably mounting one end of said plate in the casing and means adjacent the other end of said plate for securing the plate against shifting or relative movement when the cover is closed.

9. In an index, a casing including a base and a spring-actuated cover biased to open position, a plurality of cards for recording names, telephone numbers, addresses and the like, means for pivotally mounting the cards in the casing, means for latching the cover to the base, mechanism for selecting a desired card and simultaneously releasing the latching means whereby the selected card is carried with the cover into open position, said selecting mechanism including a plurality of selector arms carried in the base and a similar number of selector members carried in the cover, upwardly projecting spaced prongs carried on the end of each arm and adapted to receive therebetween an end of a selector member, means for moving the end of each selector member into alignment with the spaced prongs, and manually operable means for depressing a selected arm to cause it to move its selector member to engage beneath a selected card, said prongs having their adjacent sides substantially vertically arranged whereby to assure the operator of proper selection when the cover is released.

10. In an index, a casing including a base and a spring-actuated cover biased to open position, a plurality of cards for recording names, telephone numbers, addresses and the like, means for pivotally mounting the cards in the casing, means for latching the cover to the base, mechanism for selecting a desired card and simultaneously releasing the latching means whereby the selected card is carried with the cover into open position, said selecting mechanism including a plurality of selector arms carried in the base and a similar number of selector members carried in the cover, upwardly projecting spaced prongs carried on the end of each arm and adapted to receive there-

between an end of a selector member, means for moving the end of each selector member into alignment with the spaced prongs, guiding means for directing the movement of the arms and including a slotted frame having spaced guide members for receiving an arm between adjacent members and spaced projections at one side of each arm for receiving a guide member therebetween, and a push button for depressing each arm to cause said arm to pivot and move its selector member to engage beneath a selected card, said prongs being substantially vertically arranged

whereby to assure the operator of proper selection when the cover is released.

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