SPECIFICATION

Card-index register

The invention relates to a card-index register having a card selection device, which register comprises a housing having a cover part and a bottom part, a number of keys, a drawer urged in a direction out of the housing by a spring, and a locking device for holding the drawer in the housing, which drawer contains a stack of index cards having selection tabs formed in their rear edge portions and having apertures, the number of apertures increasing progressively through the stack, starting from the card having a first aperture up to the last card, each key being fastened to a rocking arm or lever bearing a card retaining device at its free end, the card retaining devices associated with the levers being in line and cooperating with the index cards so that when a key is pressed and the drawer comes out, all the cards above the card associated with the key in question are retained by insertion of the card-retaining device upwardly into apertures in the tabs, whereas the selected card and all the cards below it move out with the drawer, the register also comprising a device actuated by the rocking levers for unlocking the drawer and thus releasing the index card selected by a key, the unlocked drawer being pressed outwards by said spring and the drawer being provided with at least one driving cam for engagement in perforated portions of the index cards.

There are various known embodiments of card-index registers having selector devices. They comprise a housing for holding a stack of loose index cards, and a keyboard having suitably marked, manually-operated keys, which can be actuated to select the desired cards. Information or items for subsequent reference can be recorded in alphabetical order on the cards. A known embodment of a card index register is relatively flat when closed and can be opened by means of a number of manually-actuated keys, in order to open the register at the desired place and ensure that the information on the cards is freely visible. A register constructed in the aforementioned manner also has a closing key, by means of which the cover part covering the index cards can be moved into the closed position, whereupon the raised index cards are simultaneously moved back into their starting position.

Another known card-index register comprises a housing having a drawer acted upon by a compression spring and closed by a bolt and adapted to hold index cards, the device also comprising a means for unlocking the drawer and pushing out the unlocked drawer by means of the compression spring, thus releasing an index card selected by a key.

In another known card-index register, the keys associated with the levers are made of plate-shaped, square or rectangular blanks secured at their ends, the keys on each blank being in line and having a width equal to that of each locking lever, which bears three keys, and connected to the levers so that the key facing the card-retaining pins at the rear ends of the levers projects to the right beyond the two neighbouring levers, the front key projects to the left beyond the two neighbouring levers, and the central key is constructed so as to overlap to right and left of the adjacent levers on either side of the last-mentioned key, the card-retaining pin of each lever comprises a substantially U-shaped portion integrally formed on the end of the lever and having a limb extending towards the keys and, formed on its end, a vertical, upwardly extending rod which, when a lever is actuated, moves upwards to engage the apertures or recesses in the index cards, whereas the drawer, which comprises a plate-shaped bottom having a front closure strip which, when the drawer is pushed in, closes the drawer ejection opening in the front wall of the housing, is open at the back and at both sides, and the front edge region of the drawer is formed with a number of slotted apertures equal to the number of card-retaining pins and having a length equal to that of the U-shaped portions at the ends of the levers, the two side walls bounding the drawer being disposed on either side of the plate-shaped drawer bottom and integrally formed on the inner wall surface of the cover part of the housing; in order to guide the levers, each lever is formed with a vertical slotted aperture at the end bearing the card retaining pins and engaging a cam formed at the inner wall surface of the housing cover part, the cam being guided in the aperture, whereas the device for unlocking the drawer comprises a U-shaped member pivoted to the housing cover part and having a web extending at an angle to the longitudinal direction of the locking levers and disposed above and on the locking arms and actuatable thereby, each limb of the curved member, at its underside facing the drawer, bearing a locking cam which cooperates with a matching cam formed on the drawer so that when the curved member is raised by actuating a key, the locking cam comes away from the matching cam, so that the drawer opens.

It is therefore known to lock and unlock the drawer of card-index registers by means of a U-shaped pivoting member having a limb pivotably mounted at its end inside the register housing, whereas the web connecting the limbs bears on portions integrally formed on the rear ends of the levers, so that when a key is actuated, the rear end of the lever connected thereto raises the curved member so that the locking cams formed on the limbs thereof are moved out of the path travelled

along by the abutment cams formed on the drawer, so that the drawer, which is actuated by a pressure spring can open and produce the selected card when unlocked.

The use of a cam member for locking and unlocking the drawer is disadvantageous in that the housing must be given dimensions sufficient for the curved member to pivot freely inside it. As a result, the housing has to be given a considerable size, and sufficient space at the side of the drawer must be available for receiving the limbs of the curved member.

The object of the invention therefore, is to reduce the cost of manufacturing the devices for locking and unlocking the drawers of card-index registers, and improve them so that the register housing has very small dimensions and improved efficiency.

To this end, the invention proposes a card-index register of the initially-described kind wherein, according to the invention, the drawer unlocking device comprises a pivoting plate pivoted in the back portion of the housing around a horizontal axis and having an abutment edge acted upon by the rear ends of the levers and a locking cam facing the drawer at each of the side edges of the plate extending at right angles to the abutment edge, each locking cam having a portion extending at an oblique angle to the bottom part of the housing towards the back portion of the housing, said portions of the locking cam cooperating with engagement recesses or abutment cams having rear sliding edges at the end region of the bottom of the drawer in such a way that when the abutment edge is raised by pivoting the plate, the locking cams can be raised out of the engagement recesses or off the abutment cams.

Since a pivoting plate, disposed in the rear region of the register housing, is used for locking and unlocking the drawer, the register can be made very small, since the plate is disposed at the rear of the housing and does not take up any space at the side of the housing, i.e. the drawer can occupy practically the entire width of the housing, which is an advantage since the cards can be made correspondingly wide, so that there is a relatively large area available for writing on each card. In addition, the drawer need not be very long since, owing to the adequate width of the drawer and the corresponding dimensions of the cards, there are large surfaces on the cards available for writing. Another frequent disadvantage in existing devices is that, when a key is actuated, the drawer moves out a relatively considerable distance, since there is frequently insufficient space for opening such long drawers of card-index registers. Another advantage of using a pivoting plate for unlocking the drawer, is that it is economic to manufacture. The plate is in one piece and the bearings for pivoting the plate can be integrally formed on the bottom of the housing during manufacture. There is also a simplification in the process of assembling a card-index register comprising an aforementioned plate, since the locking lever and retaining pins are freely accessible and, when the register is closed, there is no curved member to get in the way. In addition, the height of the register can be relatively small since, in contrast to the known card-index registers, the housing does not need to be spacious enough to hold U-shaped members.

Another advantageous embodment is disclosed in the sub-claim.

By way of example, the invention is illustrated in the drawings, in which:

Figure 1 is a perspective view of a card-index register;

Figure 2 is a top view of the register;

Figure 3 shows the register from the back;

Figure 4 is a front view of the register;

Figure 5 is a side view of the register;

Figure 6 is a top view of the register after the cover part has been removed and the drawer has been closed by means of the pivotable plate and locked;

Figure 7 is a top view of the drawer;

Figure 8 is a top view of the pivotable plate;

Figure 9 is a side view of the plate;

Figure 10 is a vertical section along line X–X of Fig. 9;

Figure 11 is a side view showing how the plate co-operates with a locking lever;

Figure 12 is a side view of the cover part of the housing;

Figure 13 is a vertical section along the line XIII–XIII in Fig. 2;

Figure 14 is a larger-scale side view of the card-retaining device disposed at the end of a locking lever;

Figure 15 is a front view of the bottom of the housing;

Figure 16 is a top view of the bottom part of the housing;

Figure 17 is a vertical longitudinal section along line XVII–XVII in Fig. 16;

Figure 18 is a top view of the stack of index cards, and

Figures 19 and 19A are top views of the front portions of index cards disposed in line and formed at the rear with apertures and recesses for the card-retaining devices.

Figs. 1–5 show a card-index register comprising a housing 10 having a box-shaped cover part 11 and a box-shaped bottom part 21. Parts 11 and 21 are interconnected by screws or sticking or clamping and are preferably made of plastics.

Cover part 11, which has side walls 13 and 15, a front wall 12 and a back wall 14, has a top cover plate 16 which forms a step 16a near the front wall 12, where it merges into a slightly bevelled- disc-shaped portion 16b which, in the present example 12, has a line

of spaced-apart slotted apertures 17 for a corresponding number of keys 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50 and 51. The remaining surface 16b of plate 16 can be given a non-slip coating and a sufficient size to bear a telephone apparatus.

The bottom part 21, which has side walls 23 and 25, a front wall 22 and a back wall 24, has a baseplate 26 and a slotted aperture 20 in the front wall 22, for receiving a drawer 30.

The bottom part 21 of housing 10 receives the drawer 30, which comprises a plate-shaped bottom 31 and a front closure strip 32 which, when drawer 30 is closed, closes the drawer exit aperture 20 in the front wall 22 of bottom part 21. The drawer bottom 31 has a driving cam 33 in the middle of its top side (Fig. 13).

At the sides, drawer 30 has two boundary walls, one of which (19) is shown in Fig. 12. Walls 19 are integrally formed at the inner side of the housing cover part 11. Alternatively, the walls can be disposed on the bottom part 21.

In order to open drawer 30, a steel spring rod 29 is disposed at the baseplate 26 of part 21 so that its free end is connected to the plate-shaped drawer bottom 31 whereas its other end is firmly secured to baseplate 26 (Fig. 13). The steel spring has the same effect as a thrust spring which, when drawer 30 is inserted into bottom part 21, is put under tension, with the result that when the drawer is unlocked, it is pushed out by the steel spring rod 29, which springs back into its initial position.

A number of keys 40–51 made from vertical, plate-shaped blanks are disposed at the apertures 17 in the top cover plate 16 of the housing cover part 11. In the embodiment in Figs. 1 and 2 there are twelve keys 40–51, which are correspondingly marked with letters of the alphabet, e.g. the first key 40 is associated with letters "A" and "B", whereas the last key is provided for the letters "W" and "Z". The twelve keys 40–51 are disposed in line and spaced apart, so that each key can be conveniently actuated. Other embodiments of the keys are possible.

Keys 40–51 are connected to a corresponding number of lever-like locking arms 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70 and 71, having ends 60a, 61a, 62a, 63a, 64a, 65a, 66a, 67a, 68a, 69a, 70a, and 71a to which keys 40–51 are secured, whereas the other ends of levers 60–71 are denoted by 60b, 61b, 62b, 63b, 64b, 65b, 66b, 67b, 68b, 69b, 70b and 71b (Fig. 6).

Levers 60–71 are two-armed and mounted so as to pivot on shafts 80 mounted at the side walls 13 and 15 and/or 19 of cover part 11, i.e. levers 60–71 are formed with substantially central bores which extend at an angle to the longitudinal axes of the levers and through which a pivoting shaft 80 extends, so that levers 60–71 are freely pivotable on shaft 80. Levers 60–71, however, can be mounted on the shaft in a different manner. For example, levers 60–71 can have semi-circular recesses, serving as bearings for shaft 80. In the last-mentioned embodiment of levers 60–71, in order to prevent the levers coming away from shaft 80, the inner side of cover part 11 is formed with corresponding projections which prevent levers 60–71 coming away from shaft 80 but do not prevent levers 60–71 from pivoting. Advantageously, keys 40–51 are integral with levers 60–71.

The end 60b–71b of each lever 60–71 bears a card-retaining device 130 (Figs. 13 and 14). Since each device 130 has the same construction, the card-retaining device on one of the levers 60–71 will hereinafter be described in detail.

Device 130 has a U-shaped portion 140 having a limb 141 extending parallel to the locking lever 60. A web 145 connects lever 60 to portion 141. The U-shaped portion 140 is integrally formed on lever 60 so that its end 141 extends in the direction towards keys 40–51.

The free end of limb 141 of the U-shaped portion 140 is adjacent a vertical upwardly-extending portion 142 which, in the upper region of its wall surface 142a facing the web 145, has a nose-like portion 143 which is substantially parallel to limb 141 of member 140 and rises slightly in the direction towards the housing cover part 11, as shown in Fig. 14.

The nose-like portion 143 merges into a wedge-shaped, tapering outer surface 144 which faces the keys and is constructed as a lifting or struck surface. When the end of the pivoting lever comprising the card-retaining means 130 is pivoted, surface 144 facilitates the engagement of the bent limb 142 and nose-like portion 143 in the apertures at the backs of the index cards, as will be described hereinafter in detail.

The web 145 of the U-shaped portion 140 of each card-retaining device 130 has a substantially horizontal, rear actuating arm 146 (Figs. 13 and 14).

The card-retaining device 130 at the rear end 60b–71b of each lever 60–71 is integral with the rocking lever.

The vertical portion 142 and the nose-like portion 143 of each card-retaining means 130 is the component actually used for retaining the card. Device 130 is constructed and disposed at the lever ends 60b–71b so that when a lever is actuated by pressing the corresponding key, the rear end of the lever is raised, thus simultaneously raising portion 142 of the corresponding lever, so that portion 142 engages in the recesses or apertures at the rear edges of the index cards in the

stack disposed in drawer 30, as will be described in detail hereinafter.

Baseplate 26 has a recess 27 (Fig. 13) in the neighbourhood of each bearing surface of the U-shaped portions 140 of the card-retaining means 130. The depth of recess 27 is approximately equal to the height of limb 141 of portions 140, but can be greater. The important feature is that recess 27 is constructed and pivot 80 is disposed so that the pivoting lever, when inoperative, slopes slightly towards the rear part of the housing, as shown in Fig. 13. In the aforementioned inoperative position, the limbs 141 of portions 140 bear on the bottom surface of recess 27. The aforementioned construction ensures that the vertical portion 142 of devices 130 efficiently engages in the apertures in the rear edge regions of the index cards in the stack.

The nose-like portion 143 formed on portion 142 is short, its length not being greater than the apertures formed in the edge regions of the index cards, so that the card-retaining means 130 can be introduced into the apertures in the cards and non-selected cards can be retained. When drawer 30 is opened, the rearwardly-extending, bent nose-like portion 143 of means 130 prevents the index cards under the selected card from being raised and coming out with the drawer 30. The aforementioned advantageous construction of the card retaining devices 130 is particularly important in the case of index cards which have lost their flat surface after prolonged use.

An unlocking device 300 comprising a pivoting plate 150, (Figs. 6 and 8) is provided for opening drawer 30 after a key has been actuated. Plate 150, which is disposed at the rear of housing 10 and can pivot around a horizontal axis 153, is made from a substantially rectangular blank having longitudinal edges 150a, 150b, and side edges 150c and 150d. The longitudinal edge 150a is at the rear region of plate 150, whereas longitudinal edge 150b (sic) is in the front region of plate 150 and is also constructed as an abutment edge (Fig. 9).

A pivoting cam 151, 152 is formed on either side of the pivoting plate 150, forming a continuation of the rearwardly extending longitudinal edge 150a of the plate. The cams are pivotably held in pivoting bearings 158, 159 formed at the bottom part 21 of housing 10, so that plate 150 can pivot around axis 153 (Fig. 6).

Near the front abutment edge 150b, plate 150 has lateral arms 154 and 155, each having a locking cam at its end. The side view of plate 150 in Fig. 9 shows only one (156) of the two locking cams.

Each of the two locking cams 156 has a guide portion 156a (Fig. 9), which slopes in the direction towards the bottom part 21 of housing 10, in the direction towards the rear part of the housing. Cams 156 in plate 150 co-operate with engagement recesses or abutment cams 157 formed in the end region of the bottom 31 of drawer 30. Alternatively, however, bearing arms can be disposed on either side of bottom 31 and can be provided with the engagement recesses 157. The end regions of the aforementioned bearing arms are constructed as lifting or struck surfaces 157a, so that when drawer 30 is pushed into housing 10, the locking cams 156 run over surfaces 157a until cams 156 engage in recesses 157 (Fig. 13).

The pivotable plate 150, which is constructed as a single-armed lever, is disposed in housing 10 so that the front or abutment edge 150b of plate 150 bears on the rear actuating arms 146 of the card-retaining means 130. When plate 150 is in the last-mentioned position, the locking cams 156 engage in recesses 157 of drawer 30, so that when drawer 30 is pushed into the housing, it is retained in the closed position.

If a key 40 is pushed downwards in the direction of arrow X, the lever 60 connected to the key pivots around shaft 80 so that its free end and the card-retaining device 130 pivot upwards in the direction of arrow XI (Fig. 13). Since plate 150 and its abutment edge 150b bear on the rear actuating arm 146 of means 130, the front region of plate 150, which is pivotably mounted at the back end, is pivoted upwards in the direction of arrow Y, with the result that the locking cams resting in recesses 157 of drawer 30 are moved out of recesses 157, so that the drawer is released and can move out of housing 10 in the direction of arrow Y1 (Figs. 11 and 13).

In order to increase the area of drawer 30, when shut, for holding a stack of index cards, the rear edge region of the plate-shaped drawer bottom 31 has a number of slotted recesses 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171 and 172 (Fig. 7) equal to the number of card-retaining means 130. The tabs or tongue-like portions between each pair of recesses 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171 and 172 are denoted by 160a, 161a, 162a, 163a, 164a, 165a, 166a, 167a, 168a, 169a, 170a, 171a and 172a. The length of each slotted recess 160–171 is equal to the length of the limb 141 of each card-retaining means 130, so that when levers 60–71 are in the inoperative position, the limbs 141 of the U-shaped portions 140 extending towards the front of housing 10 rest in the slotted recesses 160–171. Another result of this construction is that levers 60–71 are disposed in line in the interior of housing 10, so that when a key is actuated the corresponding card-retaining means, without being moved sideways, can engage in the apertures at the back edge regions of the index cards.

In order to guide the levers 60–71, a number of vertical guide devices are disposed inside the housing. In the embodiment shown in Figs. 15–17, the guide devices comprise tabs 110a, 111a, 112a, 113a, 114a, 115a, 116a, 117a, 118a, 119a, 120a, 121a and 122a disposed at the bottom 26 of housing part 21, in line and at an angle to the direction in which drawer 30 opens. Between the tabs there are spaces 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120 and 121; the width of the spaces is equal to the width of each lever 60–71 so that, for example, each pair of tabs 110a, 111a, forms the lateral guides during the pivoting motion of lever 60. However, differently-constructed guide means could be used for levers 60–71.

The stack of index cards (not shown in the drawing) in housing 10 is made up of a number of cards 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211 and 212 equal to the number of keys 40–51; card 201 is at the top and card 212 is at the bottom of the stack (Figs. 8, 19 and 19A).

Each card 201–212 has an edge recess and a number of slotted apertures. Starting from the top card 201 down to the bottom card 212, the edge recess increases in size from the left to the right of the card, each increase being equal to one slotted aperture, with a simultaneous reduction in the number of slotted apertures from the top card 201 to the bottom card 212.

As Figs. 19 and 19A show, the rear edge regions of cards 201–212 are formed with slotted recesses 201a, 202a, 203a, 204a, 205a, 206a, 207a, 208a, 209a, 210a, 211a and 212a. Each card 201–212 has a recess 201a–212a. In addition to each recess 201a–212a, each card, except for the bottom card 212, has a number of slotted apertures, the number of slotted apertures decreasing by one at a time from the top card 201 to card 211, i.e. card 212 does not have an aperture but only a single recess 212a, which extends from recess 201a of card 201 up to and including the aperture in card 211.

Accordingly, card 201 has an edge recess 201a and eleven apertures 220, 220a, 220b, 220c, 220d, 220e, 220f, 220f, 220g, 220i and 220k. Card 202 has a recess 202a twice as wide and ten apertures 221, 221a, 221b, 221c, 221d, 221e, 221f, 221g, 221h and 221i. Card 203 has a recess 203a and nine apertures 222, 222a, 222b, 222c, 222d, 222e, 222f, 222g and 222h. Card 204 has a recess 204a and eight apertures 223, 223a, 223b, 223c, 223d, 223e, 223f and 223g. Card 205 has an edge recess 205a and seven apertures 224, 224a, 224b, 224c, 224d, 224e, and 224f. Card 206 has a recess 206a and six apertures 225, 225a, 225b, 225c, 225d and 225e. Card 207 has an edge recess 207a and five apertures 226, 226a, 226b, 226c, 226d. Card 208 has four apertures 227, 227a, 227b and 227c, card 209 has a recess 209a and three apertures 228, 228a, and 228b, card 210 has a recess 210a and two apertures 229 and 229a, card 211 has a recess 211a and an aperture 230 and card 212 has only a single aperture 212a, extending over the entire width of the card.

The apertures and edge recesses 201a, 212a in the edge regions of cards 201–211 are constructed and disposed so that the recesses and apertures in superposed cards are in line.

In the aforementioned embodiment, an index card is selected as follows: After a key has been actuated via lever 150, the card-retaining means 130 and the associated web 141 and portion 142 engage upwardly into the recesses and the apertures above them, so that when drawer 30 comes out, all those cards above the selected card are retained, i.e. the aforementioned cards are retained by the portion 142 of device 130 extending through the apertures, whereas the other cards underneath can come out in the drawer together with the selected card, since the vertical portion 142 of the card-retaining means 130 is guided through the recesses under the apertures in the cards above, and thus cannot hold the aforementioned cards back.

Cards 201–212 are made of cardboard, paperboard or the like and can be marked with suitable lines, compartments or the like. In addition, each card 201–212 is marked with letters corresponding to those letters of the alphabet which are marked on the key associated with the corresponding card.

In addition, as shown in Fig. 18, all the cards 201–212 have a central slotted aperture 240 for receiving the driving cam 33 at the plate-shaped bottom 31 of the drawer. Cam 33 is also triangular, so that the cards which are to be brought out together with drawer 30 can be gripped and entrained by cam 33, whereas the cards retained by device 130 cannot be entrained by the cams.

CLAIMS

1. A card-index register having a card selection device, which register comprises a housing having a cover part and a bottom part, a number of keys, a drawer urged in a direction out of the housing by a spring, a locking device for holding the drawer in the housing, which drawer contains a stack of index cards having selection tabs formed in their rear edge portions and having apertures, the number of apertures increasing progressively through the stack starting from the card having a first aperture up to the last card, each key being fastened to a rocking arm or lever bearing a card retaining device at its free end, the card retaining devices associated with the levers being in line and cooperating with the index cards so that when a key is

In order to guide the levers 60–71, a number of vertical guide devices are disposed inside the housing. In the embodiment shown in Figs. 15–17, the guide devices comprise tabs 110a, 111a, 112a, 113a, 114a, 115a, 116a, 117a, 118a, 119a, 120a, 121a and 122a disposed at the bottom 26 of housing part 21, in line and at an angle to the direction in which drawer 30 opens. Between the tabs there are spaces 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120 and 121; the width of the spaces is equal to the width of each lever 60–71 so that, for example, each pair of tabs 110a, 111a, forms the lateral guides during the pivoting motion of lever 60. However, differently-constructed guide means could be used for levers 60–71.

The stack of index cards (not shown in the drawing) in housing 10 is made up of a number of cards 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211 and 212 equal to the number of keys 40–51; card 201 is at the top and card 212 is at the bottom of the stack (Figs. 8, 19 and 19A).

Each card 201–212 has an edge recess and a number of slotted apertures. Starting from the top card 201 down to the bottom card 212, the edge recess increases in size from the left to the right of the card, each increase being equal to one slotted aperture, with a simultaneous reduction in the number of slotted apertures from the top card 201 to the bottom card 212.

As Figs. 19 and 19A show, the rear edge regions of cards 201–212 are formed with slotted recesses 201a, 202a, 203a, 204a, 205a, 206a, 207a, 208a, 209a, 210a, 211a and 212a. Each card 201–212 has a recess 201a–212a. In addition to each recess 201a–212a, each card, except for the bottom card 212, has a number of slotted apertures, the number of slotted apertures decreasing by one at a time from the top card 201 to card 211, i.e. card 212 does not have an aperture but only a single recess 212a, which extends from recess 201a of card 201 up to and including the aperture in card 211.

Accordingly, card 201 has an edge recess 201a and eleven apertures 220, 220a, 220b, 220c, 220d, 220e, 220f, 220f, 220g, 220i and 220k. Card 202 has a recess 202a twice as wide and ten apertures 221, 221a, 221b, 221c, 221d, 221e, 221f, 221g, 221h and 221i. Card 203 has a recess 203a and nine apertures 222, 222a, 222b, 222c, 222d, 222e, 222f, 222g and 222h. Card 204 has a recess 204a and eight apertures 223, 223a, 223b, 223c, 223d, 223e, 223f and 223g. Card 205 has an edge recess 205a and seven apertures 224, 224a, 224b, 224c, 224d, 224e, and 224f. Card 206 has a recess 206a and six apertures 225, 225a, 225b, 225c, 225d and 225e. Card 207 has an edge recess 207a and five apertures 226, 226a, 226b, 226c, 226d. Card 208 has four apertures 227, 227a, 227b and 227c, card 209 has a recess 209a and three apertures 228, 228a, and 228b, card 210 has a recess 210a and two apertures 229 and 229a, card 211 has a recess 211a and an aperture 230 and card 212 has only a single aperture 212a, extending over the entire width of the card.

The apertures and edge recesses 201a, 212a in the edge regions of cards 201–211 are constructed and disposed so that the recesses and apertures in superposed cards are in line.

In the aforementioned embodiment, an index card is selected as follows: After a key has been actuated via lever 150, the card-retaining means 130 and the associated web 141 and portion 142 engage upwardly into the recesses and the apertures above them, so that when drawer 30 comes out, all those cards above the selected card are retained, i.e. the aforementioned cards are retained by the portion 142 of device 130 extending through the apertures, whereas the other cards underneath can come out in the drawer together with the selected card, since the vertical portion 142 of the card-retaining means 130 is guided through the recesses under the apertures in the cards above, and thus cannot hold the aforementioned cards back.

Cards 201–212 are made of cardboard, paperboard or the like and can be marked with suitable lines, compartments or the like. In addition, each card 201–212 is marked with letters corresponding to those letters of the alphabet which are marked on the key associated with the corresponding card.

In addition, as shown in Fig. 18, all the cards 201–212 have a central slotted aperture 240 for receiving the driving cam 33 at the plate-shaped bottom 31 of the drawer. Cam 33 is also triangular, so that the cards which are to be brought out together with drawer 30 can be gripped and entrained by cam 33, whereas the cards retained by device 130 cannot be entrained by the cams.

CLAIMS

1. A card-index register having a card selection device, which register comprises a housing having a cover part and a bottom part, a number of keys, a drawer urged in a direction out of the housing by a spring, a locking device for holding the drawer in the housing, which drawer contains a stack of index cards having selection tabs formed in their rear edge portions and having apertures, the number of apertures increasing progressively through the stack starting from the card having a first aperture up to the last card, each key being fastened to a rocking arm or lever bearing a card retaining device at its free end, the card retaining devices associated with the levers being in line and cooperating with the index cards so that when a key is

pressed and the drawer comes out, all the cards above the card associated with the key in question are retained by insertion of the card-retaining device upwardly into apertures in the tabs, whereas the selected card and all the cards below it move out with the drawer, the register also comprising a device actuated by the rocking levers for unlocking the drawer and thus releasing the index card selected by a key, the unlocked drawer being pressed outwards by said spring and the drawer being provided with at least one driving cam for engagement in perforated portions of the index-cards, characterised in that the drawer unlocking device comprises a pivoting plate pivoted in the back portion of the housing around a horizontal axis and having an abutment edge acted upon by the rear ends of the levers and a locking cam facing the drawer at each of the side edges of the plate extending at right angles to the abutment edge, each locking cam having a portion extending at an oblique angle to the bottom part of the housing towards the back portion of the housing, said portions of the locking cams co-operating with engagement recesses or abutment cams having rear sliding edges at the end region of the bottom of the drawer in such a way that when the abutment edge is raised by pivoting the plate, the locking cams can be raised out of the engagement recesses or off the abutment cams.

2. A card-index register according to claim 1, characterised in that the pivoting plate, which is constructed as a single-armed lever, is made from a substantially rectangular blank and has pivoting cams in line with its rear longitudinal edge and secured in pivoting bearings formed in the bottom part of the housing and at each of its two side edges adjacent the abutment edge, the plate has a bearing arm on which a vertical locking cam is integrally formed.

3. A card-index register substantially as hereinbefore described with reference to the accompanying drawings.

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