June 12, 1951 J. STILLER 2,556,232

SELECTIVE CARD INDEX

Filed Sept. 16, 1946 2 Sheets-Sheet 1

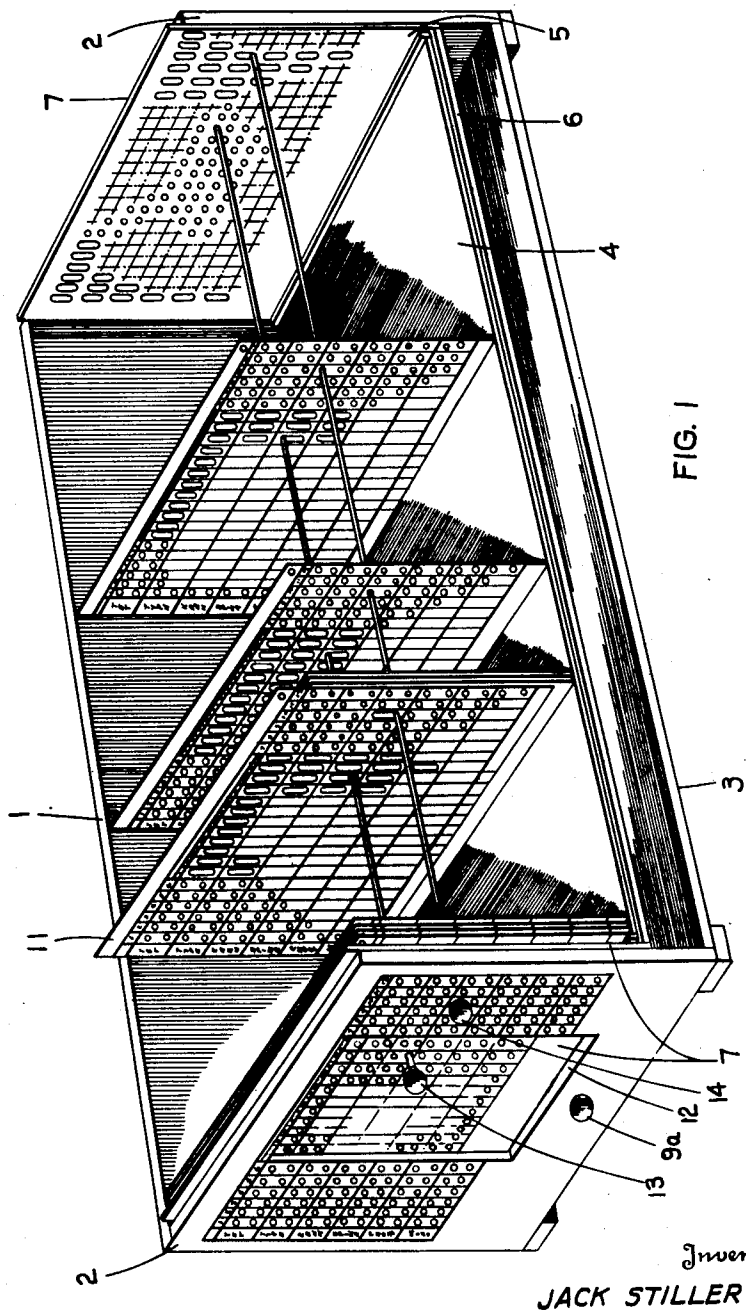


FIG. 1

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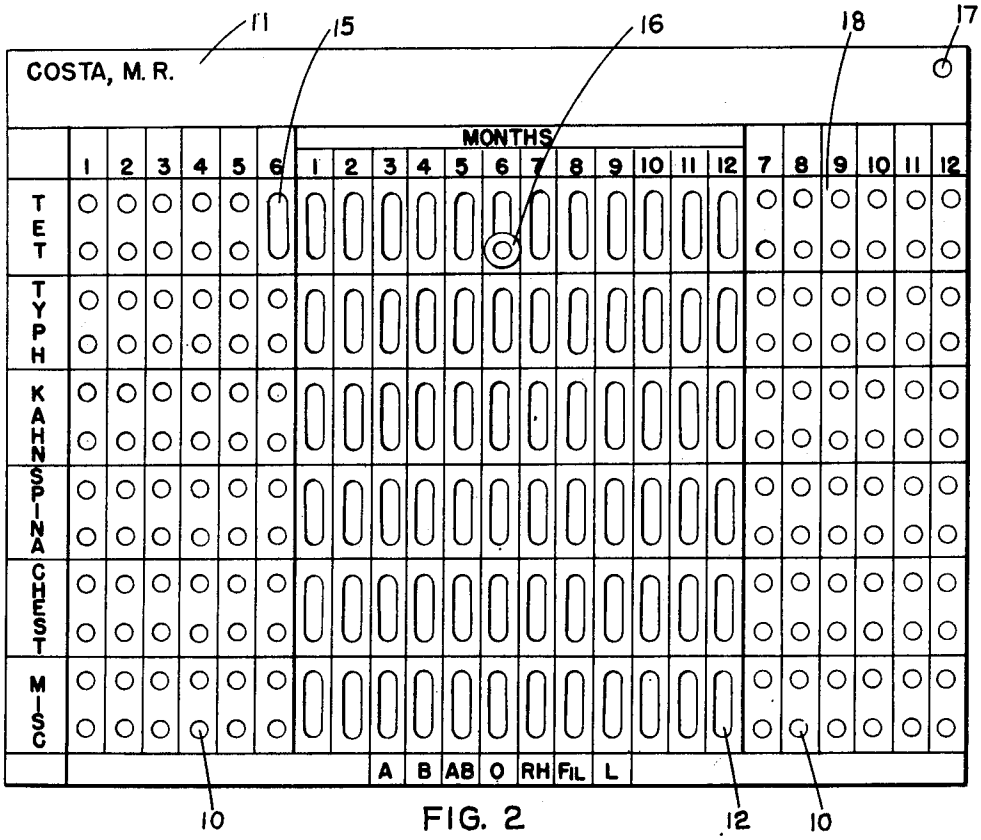


FIG. 2

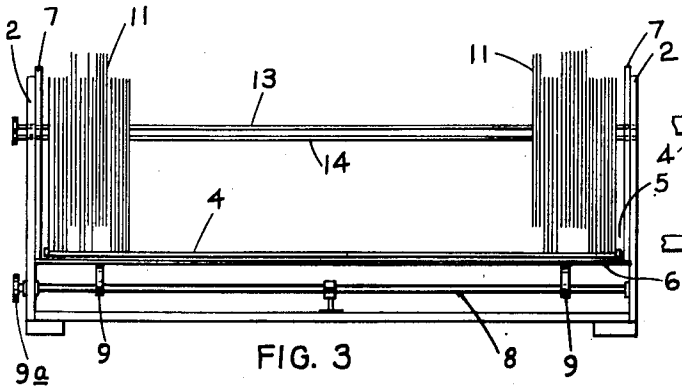


FIG. 3

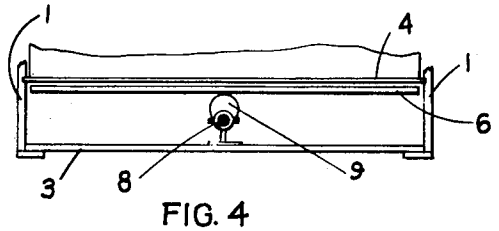


FIG. 4

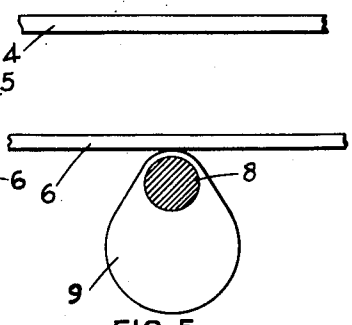


FIG. 5

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UNITED STATES PATENT OFFICE

2,556,232

SELECTIVE CARD INDEX

Jack Stiller, United States Navy

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2 Claims. (Cl. 129—16.1)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

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This invention relates to a card index file and more particularly to a card index file for maintaining periodic record and data cards.

An object of the invention is to provide a device embodying a periodic card index and comprising an economical and simple construction.

Another object of the invention is to provide a card index device with which selection of desired data is quickly and easily achieved.

Still another object of the invention is to provide a card index device with means for retaining those cards not selected in a fixed position, while the selected cards are raised for ready accessibility.

A further object is to provide a novel card file apparatus, and novel cards therefor which may readily be adjusted and modified to enable selected cards to be lifted by the apparatus in respect to the balance of the cards, by a novel process of card modification and selection.

A still further object is to provide a novel card construction embodying both slots and pairs of holes or circular apertures which are adapted to be readily modified to restrict a slot to form a hole at one end and to convert a pair of holes into a slot, thereby enabling the card to be moved in respect to the remaining cards when needles are employed in cooperation with the modified apertures.

Another object is to provide a card construction in which the card lifting area is centrally located to substantially prevent tilting or binding of the card when lifted.

Other objects and advantages of the invention will be apparent from the accompanying description and drawings which are exemplary and in which:

Fig. 1 is a perspective view of a card file apparatus embodying the invention, with one of its side walls omitted and with the lifting device in raised position.

Fig. 2 is a view of an index card according to the invention.

Fig. 3 is a diagrammatic side elevation of the card file apparatus on a reduced scale.

Fig. 4 is a fragmentary end view thereof.

Fig. 5 is a view of a detail.

The embodiment of the invention set forth comprises a cabinet or housing having side wall members 1, end walls 2 and a bottom 3. The cabinet can be constructed of any desired materials such as wood or metal and can take any desired size form, preferably a rectangular or box shape. The bottom, side, and end members may be joined together by a suitable means such as by

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nails or screws if a wood structure is desired. A false bottom or card supporting platform member 4 is affixed within the cabinet to the side member 1 a desired distance above the bottom 3. The card supporting member 4 is of slightly less length than the inner length of the box and is so disposed as to leave a slight gap or opening 5 near each end of the cabinet. Positioned within the cabinet slightly below the support member 4 and in a plane therewith is a horizontally disposed vertically movable plate member 6. At each end of the plate member 6 is affixed a vertically disposed end plate or lifting plate 7, disposed to extend upwardly from the plate member 6, and to pass through the openings 5 at each end of the support member 4. To enable the horizontal plate member 6 with the vertical end plates 7 thereon, to be moved vertically, a rod 8 is provided rotatably mounted in and extending longitudinally of the cabinet and disposed between the bottom 3 and the plate member 6. Cams 9 carried on the rod 8 are adapted to engage the under surface of the plate 6 in such a manner as to apply a lifting force to the plate 6 when the cam rod 8 is rotated by means of hand knob 9a thereon. Thus the plate member 6, and the end plates 7 carried thereon, can be raised and lowered by means of the rotary cam rod, as desired.

The card selecting means comprises a factory processed index card 11 of a size to slidably fit within the cabinet to rest on the false bottom or support member 4 and having the desired data or indicia thereon, such, for example, as that illustrated in Fig. 2. In the card shown in Fig. 2, the months of the year are marked by numerals on the top margin and various subjects, for example various medical inoculations, are listed along the side margin. A space may also be reserved at the bottom of the card for any desired additional information as indicated in Fig. 2. The card is desirably divided into three sections, the center section covering half the width of the card within the marginal lines and the two outer sections each being of half the width of the center section. The sections are subdivided into vertical columns, each column representing a month of the year, for example. The columns are subdivided by laterally disposed lines forming rows of subdivisions or blocks 18, each row representing a desired inoculation or other subject or index name. The blocks or subdivisions 18 of the two outer sections thus formed, each comprise two vertically spaced apart, preferably circular holes 10. The subdivisions or blocks 18 of the center section each have a vertically disposed elongated slot 12 therein,

The individual slots preferably are coextensive with the pairs of holes, the slots being of a length equal to the distance between the outermost points of each vertical pair of holes.

The end walls 2 of the cabinet may desirably be divided into sections corresponding to those of the cards and may have holes therethrough in like disposition and corresponding in alignment to those in the cards. The center section of the end walls 2 of the cabinet may preferably be cut away entirely forming a window 12 as shown in Fig. 1. Alternatively the center section of the end walls may be slotted to conform with the slots of the center section of the cards, but as this would add nothing to the operation of the apparatus it is believed desirable to omit or cut the center section away, as shown in the present embodiment, to further simplify the construction. The end or lifting plates 7 affixed to the vertically movable horizontal plate 6 are preferably also divided into three main sections corresponding to those of the cards and end walls of the cabinet. However, the holes and slots are in reverse arrangement, with holes provided in the center section and slots in the outer sections of the lifting plates 7. The arrangement of holes and window in the end walls 2 of the cabinet, the holes and slots in the end plates 7 and the index cards 11 is such that the needles 13 and 14 can be passed through the front end wall of the cabinet and through the coinciding or aligned holes and slots of the front end plate, the cards, the rear end plate, and, finally, the rear end wall of the cabinet.

The card moving or lifting needle 13, which passes through selected aligned holes in the vertically movable end plates 7, is used to lift those of the cards which have been adapted or modified for lifting when the lifting needle 13 is placed in a properly selected hole in the end plate 7. The card retaining or holding needle 14 which passes through the holes in the end walls 2 of the cabinet is used to hold down the cards except those cards which have been adapted or modified for lifting, when the two needles are in properly selected holes corresponding in category, as denoted in the horizontal and vertical margins of the end wall, e. g., the sixth month and tetanus as indicated in Fig. 2. In Fig. 1 a different selection or category is shown, being that for the tenth month and "Kahn." Whatever the selection or category, the lifting needle 13 is placed in the lowermost hole of the vertical pair of holes in the proper block or subdivision of the end lifting plate 7, while the holding needle is placed in the uppermost hole of the vertical pair of holes in the categorically corresponding block or subdivision of the end wall 2 of the cabinet.

Each card after being marked for use, as by applying the name of a person, and before being placed in the cabinet, is provided with a lifting means adapting it to be lifted by the lifting needle when desired. In providing the lifting means the card handler must know what categories, such as the month of the year, and the purpose, such as tetanus inoculation, the card will next be desired for use. If, for example, the subject whose name is on the card is to receive another tetanus inoculation on the sixth month of the year as indicated in Fig. 2, the card han ler will cut away the material separating the two holes of the subdivision or block represented in the sixth month column and tetanus row, thus forming a slot 15. A grommet or hole reinforcing ring 16 of paper or cloth is

then glued to the card at the base of the slot designating the sixth month and tetanus, or the slot may be otherwise restricted to provide a hole at the bottom thereof as indicated in Fig. 2. In this manner the selected original holes and slot are now reversed in the card. This adapts the card to be lifted by the card moving or lifting needle 13 while the other cards are held down by the holding or retaining needle 14, when the lifting needle 13 is placed in the aligned holes in the end plates 7 located in the lower part of the block or subdivision in the sixth month column and tetanus row, and the holding needle 14 is placed in the aligned holes in the end walls 2 located in the upper part of the block in the sixth month column and tetanus row.

With the different selected category of tenth month column and "Kahn" row, as indicated in Fig. 1, the card indicated at 11 in Fig. 1 has a hole forming grommet attached at the lower end of the slot through which the lifting needle 13 extends and by which the card has been lifted. The cams 9 are of a size to lift the end plates 7 and the cards 11 such distance as is permitted by the length of the slots in the end plates 7 and cards 11 through which the needles extend. This distance is desirably substantially the same as the vertical distance between the centers of the vertically adjacent holes, which is desirably the same throughout any of the groups of holes.

The cards may desirably be provided with holes 17 located at a point in the upper margin for receiving, if desired, a needle for holding the raised cards in raised position, said needle resting on the upper edge of the end walls and passing through the holes 17 of the raised cards, and serving to hold the cards in raised position even though the end plates and lifting needle may have been lowered.

After the altered or modified cards have been placed in the cabinet ready for use, the operation of the device is as follows. If it is desired to select the cards for individuals needing inoculations for tetanus in the month of June, the operator inserts the lifting needle 13 through the center section or window of the end wall of the cabinet and through the lowermost of the two holes in the block or subdivision of the end plate corresponding to the sixth month column and to the tetanus row, as indicated on the horizontal and vertical margins of the front end wall. The needle will then pass through the lower ends of the slots of the cards corresponding to the needle receiving holes in the end plate. The needle will pass through the grommet 16 at the base of the slot on those cards which have been altered or modified as heretofore described, adapting the card to be carried upward with the needle which is extended through all the cards and through the rear end plate and rear end wall. The holding needle 14 is inserted through the uppermost hole of the two holes in the subdivision or block corresponding to the sixth month and tetanus in the outer section of the end wall of the cabinet. The needle 14 passes through the upper end of the slot in the corresponding subdivision or block of the end plate 7 and through the uppermost hole of the two holes of the block or subdivision in the cards corresponding to the like holes in the end wall of the cabinet. However, the cards that have been altered or modified receive the needle through the upper end of the slot which was formed by cutting out between the original holes

by the card handler or operator in adapting the card for lifting. The needle passes through all the cards and through the rear end plate and the end wall of the cabinet. For lifting the desired cards the operator simply turns the hand knob 10 near the base of the front wall of the cabinet which in turn rotates the cam carrying rod 8 and thus raises the plate 6 carrying the vertically movable end plates 7 to the position indicated in Fig. 1. The lifting needle 13 which has been passed through the windowed portion of the front end wall and through the proper hole in the end plate and through the grommets of the altered cards, will be lifted with the end plate and thus carry the desired cards with it. The holding needle 14 will be held in a fixed position during the raising of the lifting needle as it was passed through the desired hole in the front end wall of the cabinet, and will hold down all cards except those which have been altered to form a slot in the subdivision or block through which the holding needle passes, which slot permits the altered card to be raised with the end plates.

It will be understood that while but one embodiment of the invention is set forth, the broad concept of the apparatus can have many applications and changes can be made in parts and arrangement of parts without departing from the spirit of the invention, the scope of which is indicated in the appended claims.

The invention described herein may be manufactured and used by or for the Government of the United States of America for governmental purposes without the payment of any royalties thereon or therefor.

I claim:

1. In combination in card file apparatus, a card container comprising front and rear walls and means connecting said walls, a movable member comprising a plate mounted for movement in a plane parallel to said front and rear walls and having a central section provided with holes and sections one on either side of said central holed section, said side sections being provided with slots each of greater extent in the direction of movement of said movable plate member than said holes, means for moving said plate member, said front and rear walls each having side sections having holes therein and corresponding in alignment with the slotted side sections of said movable plate member, said front and rear walls each having a central open section corresponding in alignment with the central holed section of said movable plate member, and a plurality of cards each having side sections having holes therein and corresponding in alignment with the slotted side sections of the movable plate and with the holed side sections of said front and rear walls and disposed to selectively receive a retaining needle, a retaining needle extending through aligned holes of said front and rear walls and cards and a slot of said movable plate, each card also having a central section provided with slots and corresponding in alignment with central holed section of said movable plate and with the central open sections of said front and rear walls and disposed to selectively receive a movable needle to be moved by said movable plate member, a movable needle extending through aligned slots of said cards and a hole of said movable plate and movable in said central open sections of said front and rear walls, certain of said cards being individually modified by added material attached thereto and restricting the selected slot to provide a hole at the end of the selected slot toward the normal position of rest of the card, and being modified by a slot joining two selected holes, thereby enabling the card to be moved by said movable needle and in relation to said retaining needle.

2. In a card file apparatus according to claim 1, each of said cards and said front wall having a set of indicia thereon adjacent and pertaining to the central slotted sections of the cards and to the central holed section of said movable plate which is visible through the central open section of the front wall, and a like set of indicia on said cards and on said front wall adjacent and pertaining to the holed side sections thereof.

JACK STILLER.

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