Oct. 1, 1929. R. W. WOOD 1,729,908

VISIBLE CARD INDEX

Filed Dec. 6, 1927

Fig. 1.

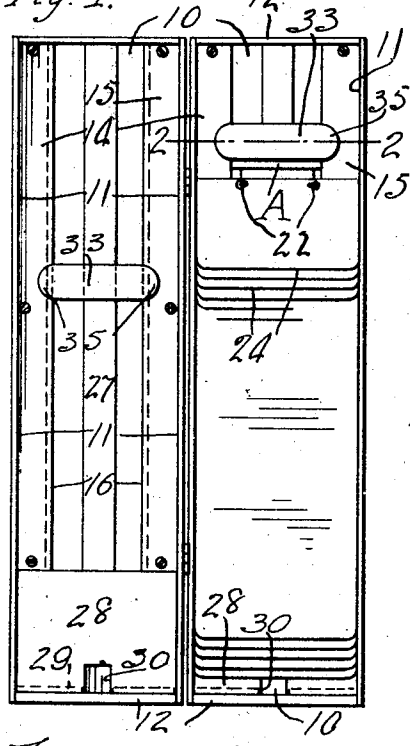
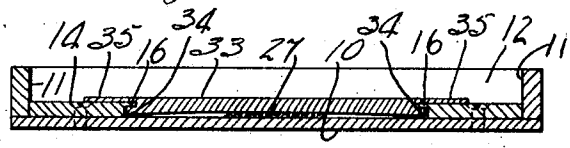


Fig 2.



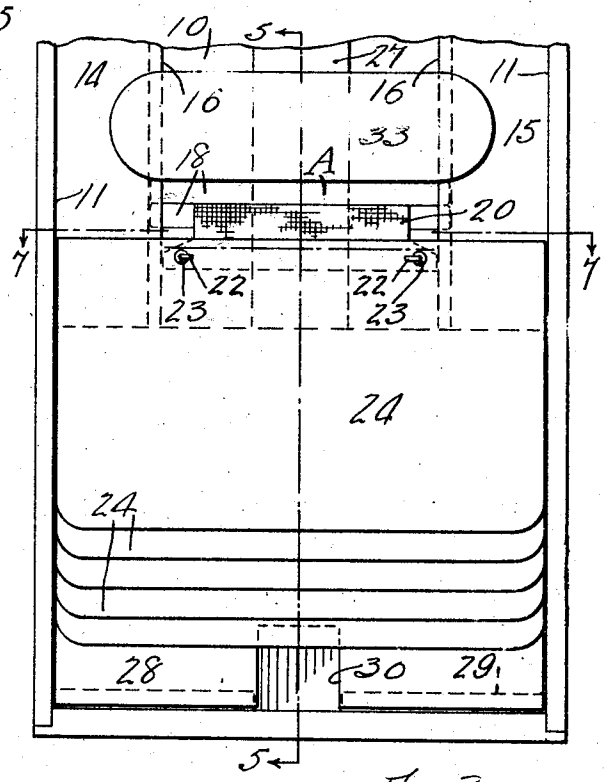


Fig. 3.

Fig 4.

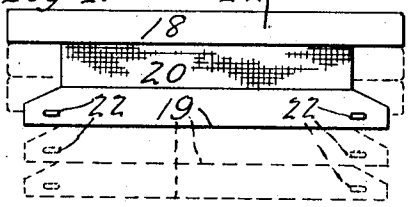


Fig. 5.

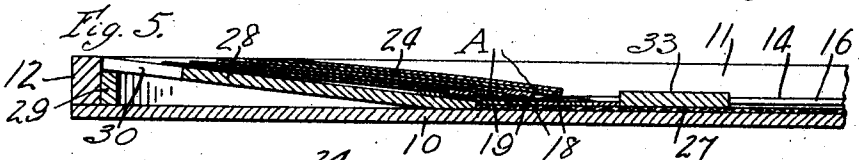


Fig 7.

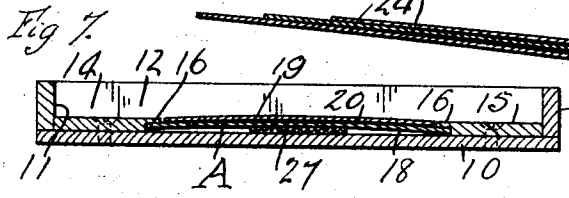


Fig. 6.

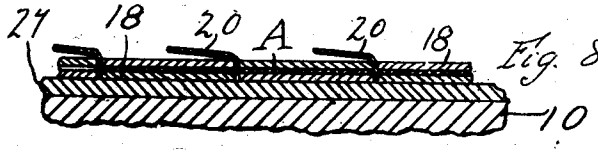


Fig. 8.

INVENTOR.
Richard W. Wood
by Parker & Prodmore
ATTORNEYS.

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UNITED STATES PATENT OFFICE

RICHARD W. WOOD, OF BUFFALO, NEW YORK

VISIBLE CARD INDEX

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This invention relates to visible card indexes of the type which is so constructed that both sides of each card are quickly accessible for reference or for recording items thereon.

The objects of this invention are to provide a device of this kind which is less expensive to construct than similar devices which have heretofore been made and at the same time to provide a device which is easier to handle and quicker and more efficient in use than devices heretofore made for a similar purpose; also to provide a device of this kind of improved construction in which the card holders cooperate with each other and with parts of the container to form a substantially flat supporting surface for the cards to facilitate the making of entries thereon; also to provide a device of this kind with card holders of improved construction; also to provide improved means for fastening the cards to the holders; also to provide containers of improved construction for the cards and holders; also to provide the containers for the cards with means of improved construction for yieldingly holding the card holders in place; also to improve the construction of devices of this kind in other respects hereinafter specified.

In the accompanying drawings,

Fig. 1 is a plan view of a card index embodying my invention, including a pair of containers, one empty and the other containing cards.

Fig. 2 is a transverse section thereof on line 2—2, Fig. 1 and on an enlarged scale.

Fig. 3 is a face view, on an enlarged scale, of one of the containers and showing some of the cards and card holders positioned therein.

Fig. 4 is a face view of one of the card holders and showing in dotted lines the arrangement of the card holder with reference to other card holders.

Fig. 5 is a fragmentary, sectional elevation of a container with cards in place therein, the section being taken on line 5—5, Fig. 3.

Fig. 6 is a fragmentary, sectional view on a still larger scale and also on line 5—5, Fig. 3, showing the relative arrangement of a series of card holders and of the cards secured thereto, the container being omitted.

Fig. 7 is a transverse sectional elevation on line 7—7, Fig. 3.

Fig. 8 is a fragmentary sectional view similar to Fig. 6 but on a still larger scale and showing portions only of the holders.

The containers used in connection with my visible card index may be of any usual or suitable construction and are in the form of shallow trays or receptacles having substantially flat bottoms 10 and side and end walls 11 and 12 respectively and may be made of metal, wood or other material, those shown being indicated as made of wood and having the side and end walls secured to the base, but it will be understood that the containers may be made of metal and of unitary or one-piece construction having the walls formed integral with the base or bottom. In Fig. 1, two of these trays or containers are shown secured together by hinges to form a unit, but it will be understood that the trays may be in the form of drawers of a cabinet or may be arranged in groups in any other suitable or desired manner. Each tray is preferably provided at opposite sides thereof and adjacent to the bottom of the tray with a pair of guide rails or bars 14 and 15, the inner edges of which are undercut or provided at their upper surfaces with extensions 16 spaced at a short distance from the bottom 10, thus forming longitudinally extending grooves or recesses in which the edges of card holders A may engage as will be hereinafter further explained. The guide rails 14 and 15 in the construction shown are in the form of strips of metal secured to the bottom 10 of a tray or container, but it will be understood that these guide rails may be of other construction. The guide rails 14 and 15 preferably terminate at a distance from one end of the container or tray as is clearly shown in the left hand tray in Fig. 1. The upper surfaces of these guide rails are flat so as to form a flat support for the cards to facilitate writing thereon.

The holders A for the cards preferably include a retaining strip or member 18 for retaining the holder on the tray or container, and a card-holding strip or member 19, both

of these strips extending crosswise of the tray. These strips or parts of the holder are connected by means of a flexible or hinge part 20, which in the construction shown is made of cloth or fabric, glued or otherwise secured to the parts 18 and 19, which are made of comparatively stiff material. I have found that the holder retaining member 18 may be made of two pieces of cardboard or fibrous material, secured by means of glue or adhesive to opposite faces of the flexible strip 20, as may be seen by reference to Fig. 8. The card-holding member or strip 19 may also be made of cardboard or other fibrous material, glued or secured to the other end of the flexible strip 20. While I prefer to make the parts 18 and 19 of cardboard or fibrous material, because of the fact that such construction lends itself to the production of the card holders at low cost, yet it will be understood that it is not intended to limit the invention in any way to the material used in these holders, since it will be obvious that the parts 18 and 19 could be made of celluloid, metal or any other desired material. The flexible or hinge member 20 may also be made of any suitable or desired material or construction.

The card-holding strip 19 may be provided with any suitable or desired means for securing a card thereto, and by way of illustration a pair of hooks 22 are shown secured to the holder adjacent to the opposite ends of the strip 19, which hooks may be passed through apertures 23 formed near the upper edges of the cards 24. The apertures are so located with reference to the outer ends of the hooks that the distance between the ends of the hooks and the distance between the apertures are different, so that either the cards or the card-holding strips 19 are bent or arched to enable the outer ends of the hooks to be passed through the apertures. In the particular construction illustrated the hooks face towards each other so that the distance between the ends of the hooks is less than the distance between the apertures, and consequently the cards are bent or flexed to permit the hooks to enter through the holes 23 thereof. Since either the cards or the strips 19 will straighten themselves due to their own resiliency, the cards will be retained on the hooks until removed by again bending the cards or the strips 19. Other means for securing the cards to the holders may be used. In order to place a holder into its operative position in a tray or container it is only necessary to place the part 18 thereof diagonally between the bars 14 and 15 and then turn the holder so that the end portions pass under the projections 16 of the bars. When a tray is nearly full of holders so that there is not room enough to place the parts 18 of the holders diagonally therein, these parts 18 can be bent or flexed to permit their ends to be placed under the projections 16 of the bars, or if desired the retaining parts 18 may be inserted into their operative positions without bending the holders by passing the ends thereof into the open ends of the grooves at the front ends of the bars 14 and 15.

Since the retaining parts 18 of the card holders A are relatively thin, there is a possibility that these parts might overlap each other or that one part might become either wholly or partly positioned upon a corresponding part 18 of an adjacent holder, which would greatly interfere with the satisfactory use of the card index. In order to prevent this overlapping I have provided means for slightly bending or arching the parts 18 of the card holders when in their operative positions, so that these parts are under slight tension. This may be done by providing a raised portion in the bottom of the tray or container between the two retaining bars 14 and 15. In the particular construction shown this raised portion is in the form of a bar or strip of material 27 secured to the bottom of the container and extending lengthwise substantially midway between the two retaining bars 14 and 15 in such a manner that the middle portion of the part 18 of each card holder extends upwardly slightly above the end portions thereof. This causes the front and rear edges of the parts 18 to abut against each other and thus prevents the part 18 of one holder from passing above or below the part 18 of another holder. I have also found that this strip or raised portion 27 facilitates the movement of the holders lengthwise of the container.

In order to hold a series of card holders in operative relation to each other and to present a substantially flat surface upon which writing may be done on the cards, the card-holding strips 19 of the holders are made somewhat shorter than the retaining strips 18, so that the card-retaining strips 19 will fit between the bars 14 and 15, and since the thickness of the card-retaining strips 19 is approximately the same as that of the extension 16 of the guide rails 14 and 15, it will be apparent from Fig. 7 that when a series of card holders are placed between the bars 14 and 15, the upper surfaces of these bars and the upper surfaces of the card-retaining strips 19 of the holders will be substantially continuous. When the card holders are arranged in a tray, the retaining strips 18 form a substantially continuous surface adjacent to the bottom of the tray or container, as shown in Figs. 4, 5, 6 and 8, and the relatively thin flexible hinge parts 20 lie above the strips 18, the card-retaining strips 19, in turn lying on top of the flexible parts 20, so that when a series of these card holders is arranged in a tray, the holders form substantially three uniform layers and thus form with the upper surfaces of the guide rails 14 and 15 a comparatively smooth surface

upon which the cards rest. The arrangement of the card-retaining strips 19 of the card holders between the guide rails 14 and 15 also helps in alining these strips and the cards correctly relatively to each other and in guiding the card holders and cards in their movements lengthwise of the trays. The cards 24 are also kept in alinement by means of the side walls 11 of the trays, the inner surfaces of which engage the opposite edges of the cards.

The card holders are prevented from becoming disengaged from the guide rails 14 and 15 at their lower or front ends thereof, and the lower or front cards are supported by means of an inclined plate or block 28, which is preferably of such shape as to fit between the front wall of a tray or container and the front end edges of the bars 14 and 15. The plate, in the particular construction shown, is held in place by gravity and by the cards and holders which overlap the plate, and the front end thereof rests on a step or shouldered part 29 adjacent to the front wall 12 so that the plate 28 is supported in an inclined position similar to that occupied by the cards in the tray or container. 30 represents a finger hole in the front end of the inclined plate 28 by means of which the same may be readily removed. Any other means for supporting the front cards and for holding the cards from moving forwardly out of engagement with the side bars 14 and 15 may be provided, if desired, that described being inexpensive to produce and easily placed into or removed from its operative position and includes no mechanism or parts to get out of order.

In order to hold the cards in correct relation to each other regardless of the number of cards and holders that may be contained in a single container or tray, a follower 33 is preferably provided which may be of any usual or suitable construction, that shown being of one-piece or rigid construction and having tongues or projections 34 at opposite sides thereof which are adapted to enter under the projections 16 of the guide rails 14 and 15, and top projections or tongues 35 engaging the upper surfaces of these rails, the two pairs of tongues preferably engaging the inwardly extending lips or projections 16 of the guide rails frictionally so that the follower will be frictionally held in any position in which it is set. This friction may be supplemented by that of the friction strip 27, as shown in Fig. 2, which engages the lower surface of the follower. Followers of other construction may be provided, if desired. The follower may, of course, be omitted in case the entire container or tray is filled with cards, in which case the follower can be readily disengaged from the guide rails 14 and 15 by moving the same beyond the front ends thereof after removing the inclined retaining and supporting plate 28.

The construction described has the advantage that it is inexpensive to produce and is durable and efficient in service and operation. The card holders occupy the space between the guide rails where they are out of the way and not apt to get damaged and furthermore form with the guide rails or bars a substantially flat supporting surface for the cards. By constructing the card holders so that they nest in the manner described, efficient use is made of the space available in the trays or containers. By arranging the card holders so that they engage with rails located in the bottom of each container or tray, the sides of the tray are free to cooperate with the side edges of a card to hold the same in place and keep them in alinement, which is not the case with trays in which the side edges are undercut to cooperate with the holders, and in which the cards become caught in the undercut portions of the sides and interfere with the free use of the device. Furthermore by means of the construction described, the widths of the trays or containers need only be greater than the widths of the cards by the thickness of the two side walls, thus effecting an economy of space which is an important consideration in large installations.

Claims:—

1. The combination of a shallow container for cards, guide means extending inwardly from the opposite sides of said container and forming slots with the bottom of said container, card holders having parts adapted to enter said slots to hold said holders in operative position in said container, and card-engaging parts on said holders to which cards may be attached, said two parts of said holders being arranged between said guide means and forming with said guide means a substantially flat support for cards.

2. The combination of a container for cards having a bottom and side walls, guide rails arranged in said container at a distance from said side walls and extending parallel thereto, holders adapted to interlock with said guide rails and positioned between said rails, and having parts provided with means for attaching cards thereto, said parts being arranged between said rails, said holders and the parts thereof filling the space between said rails to form a substantially flat support for the middle portions of the cards, the sides of the cards being supported on said rails.

3. The combination of a shallow container for cards including a bottom and side walls, a pair of guide rails arranged on said bottom and extending inwardly from the side walls of said container, and each forming a substantially flat surface arranged above said bottom, holders having parts adapted to engage with the inner edges of said rails to

guide said holders in movement lengthwise of said rails, means located between said rails for securing cards to said holders, whereby said holders and said means for holding said cards fill the space between said guide rails and form with said guide rails a substantially flat support for the cards, the side edges of the cards engaging with the side walls of said container to hold said cards in correct relation to said container.

4. The combination of a shallow container for cards including a bottom and side walls, a pair of guide rails secured to said bottom and extending inwardly from the opposite side walls and having inner edges provided with overhanging parts spaced from said bottom, holders having parts adapted to enter between said overhanging parts and said bottom for guiding said holders in moving lengthwise of said container, and means arranged between said guide rails for securing cards to said holders.

5. In a visible card index the combination of a shallow container for cards having guide rails adjacent to the opposite sides thereof and card holders adapted to cooperate with said guide rails, said card holders including a transverse strip, the opposite ends of which are adapted to be placed into operative relation to said guide rails to move lengthwise thereof, a strip provided with means for securing a card thereto, and a flexible connection between said strips.

6. In a visible card index the combination of a shallow container for cards having guide rails adjacent to the opposite sides thereof and card holders adapted to cooperate with said guide rails, each of said holders comprising a flexible transverse strip the ends of which are adapted to cooperate with said guide rails, a hinge member secured to said strip, and a second strip secured to said hinge member and adapted to lie between said guide rails above the transverse strip of another holder.

7. A card holder for a visible card index, said holder comprising a transverse strip of resilient material, a strip of textile material secured to said transverse strip, and a card-retaining strip secured to said strip of textile material and having means for releasably securing a card thereto.

8. A card holder for a visible card index, said holder including a pair of strips of cardboard or the like, a flexible strip of textile material secured between said two strips of cardboard, and a transverse card-retaining strip of cardboard secured to said strip of textile material, said strip of textile material forming a hinge connection between said pair of cardboard strips and said last mentioned strip.

9. The combination of a container for cards including a bottom and side and end walls, a pair of guide rails arranged adjacent to said bottom and extending inwardly from the opposite sides of said container, said guide rails terminating at a distance from one end of said container, and a plate arranged with one end thereof abutting against the ends of said guide rails and with the other end thereof engaging an end wall of the container for holding said plate in position.

10. The combination of a container for cards including a bottom and side and end walls, a pair of guide rails arranged adjacent to said bottom and extending inwardly from the opposite sides of said container, said guide rails terminating at a distance from one end of said container, a plate fitting between said side walls and between the ends of said guide rails and the adjacent end wall of the container, and a shoulder adjacent to said end wall upon which said plate rests loosely for holding said plate in an inclined position, said plate forming a support for cards.

11. The combination of a container for cards including a bottom and side and end walls, a pair of guide rails arranged adjacent to said bottom and extending inwardly from the opposite sides of said container, said guide rails terminating at a distance from one end of said container, a plate fitting between said side walls and between the ends of said guide rails and the adjacent end wall of the container, and a shoulder adjacent to said end wall upon which said plate rests loosely for holding said plate in an inclined position, said plate forming a support for cards and having an aperture in one end thereof for facilitating the removing of said plate from said container.

RICHARD W. WOOD.