J. H. RAND.

CARD INDEX.

APPLICATION FILED JUNE 21, 1916.

1,227,660. Patented May 29, 1917.

Fig. 1.

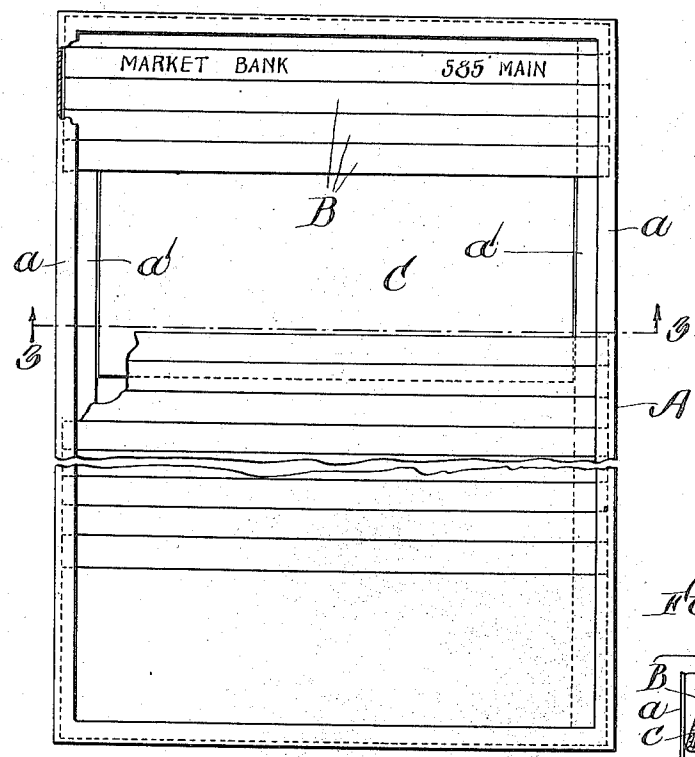


Fig. 2.

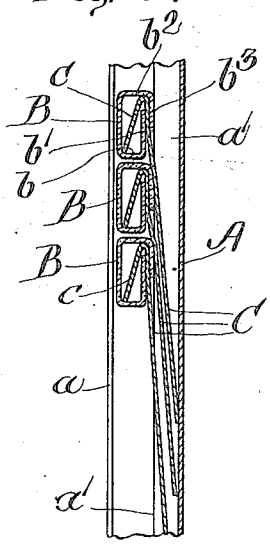


Fig. 3.

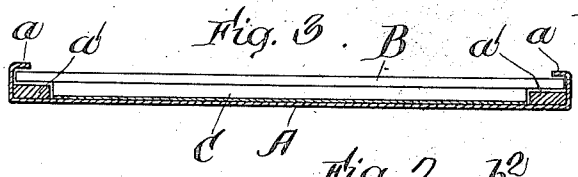


Fig. 4.

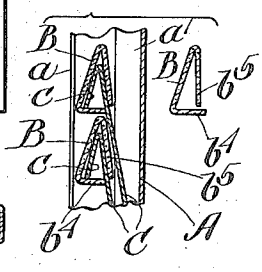


Fig. 5.

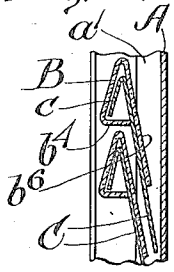


Fig. 6.

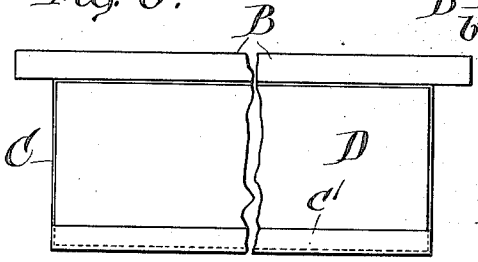


Fig. 7.

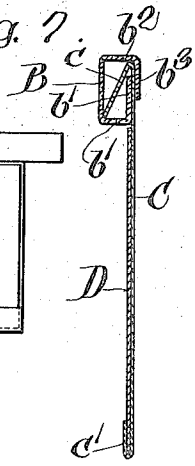


Fig. 8.

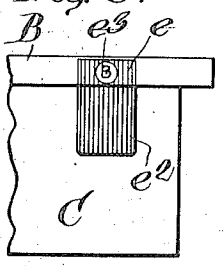
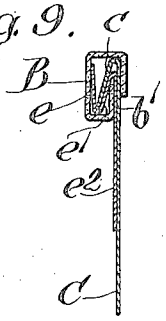


Fig. 9.



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UNITED STATES PATENT OFFICE.

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CARD-INDEX.

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To all whom it may concern:

Be it known that I, JAMES H. RAND, a citizen of the United States, and resident of North Tonawanda, in the county of Niagara and State of New York, have invented new and useful Improvements in Card-Indexes, of which the following is a specification.

This invention relates to a card index of the so-called visible index type, and consists in the novel and improved features of construction hereinafter described and particularly pointed out in the claims.

In the accompanying drawings which illustrate certain embodiments of the invention,—

Figure 1 is a face view of an index containing the invention, parts being broken away;

Fig. 2 is a fragmentary view in longitudinal section on an enlarged scale, illustrating the index shown in Fig. 1;

Fig. 3 is a cross section on line 3—3 of Fig. 1;

Fig. 4 is a longitudinal fragmentary section showing a modified form of card carrier;

Fig. 5 is a similar view showing another modification;

Fig. 6 is a face view, partly broken away, of one of the cards formed with a pocket to receive an insert;

Fig. 7 is a vertical section on an enlarged scale of the card carrier, card and insert shown in Fig. 6;

Fig. 8 is a fragmentary face view of one of the card carriers and card showing an adjustable signal or indicator applied thereto; and

Fig. 9 is a vertical section on an enlarged scale, of the carrier, card and indicator shown in Fig. 8.

A represents the frame of the index which may be made in the usual way of sheet metal having inturned flanges *a* at each side to form a pair of inwardly facing guide channels. A series of card carriers B are supported in the frame with their ends in said guide channels and slidable lengthwise thereon. A pair of guide rails *a'* are secured underneath the flanges *a*, and their front faces form with said flanges the guide channels.

Each card carrier B comprises a sheath of transparent resilient material such as sheet celluloid, having a relatively long and narrow closed front face, and rearwardly bent retaining lips for holding an index slide in the manner hereinafter explained.

In the form shown in Figs. 2, 7 and 9, both retaining lips are bent rearwardly substantially perpendicular to the front face, as shown at *b* and b^2, and thence inwardly flatwise of the front face as shown at *b'* and b^3. Said retaining lips overlap each other as shown, and are so formed as to press yieldingly one against the other so as to exert a spring grip upon a card extending between them.

A card C is supported by each carrier B and has a folded over margin *c* at its upper edge, forming a slide which is inserted into the sheath at either end with the body of the card C extending outward from the sheath between the retaining lips *b'*, b^3. The folded margin *c* may be used to display index characters or other desired inscription and also serves as a supporting means by which the card is attached to the card carrier. The pinch or grip upon the card C by the resilient lips *b'*, b^3, frictionally holds the card in position and prevents its accidental dislodgment endwise of the card carrier.

The abutting faces *b*, b^2, of the several carriers being substantially perpendicular or upright to the plane of the cards prevents the card carriers from overriding one another when the same are shifted together lengthwise of the frame.

The body of each card C lies substantially flatwise of the frame and extends behind the adjoining card carriers and the cards attached thereto, whereby the several card carriers B may be arranged in juxtaposition one to another to form a practically continuous index face of celluloid or similar transparent protective sheet material, while the cards themselves are covered and protected by the juxtaposed card carriers. Any card C may be exposed to view for inspection or for receiving inscriptions by separating its card carrier and the next adjoining overlying card carrier in the manner illustrated in Fig. 1.

Preferably the cards C are narrower than the frame and terminate short of the ends of the carriers B so as to project with a loose fit between the guide rails *a'*, *a'*. As the carriers B are shifted lengthwise of the frame in the guide channels to separate two adjacent carriers B for the purpose of exposing the card or for the purpose of readjusting or inserting new card carriers, the

cards C, being guided at their lateral edges by the guide rails a', a', will hold the carriers B in their correct position transverse of the frame and cause both ends of the carriers B to slide together equal distances in the guide channels and prevent the card carriers B from being twisted or inclined relative to the longitudinal axis of the frame.

In the modification shown in Fig. 4, the card carrier B has a rearwardly bent lower lip b^4 and a rearwardly and inwardly bent upper lip b^5, the latter normally being overlapped by the lip b^4, whereby when the card C with its folded over margin c is inserted into the sheath the lip b^5 will exert a spring grip on the card held between it and the edge of the lip b^4. In this form the edge of the card carrier on the underside, that is, on the side in which the card extends, is substantially upright to the plane of the card so as to avoid any tendency of the next juxtaposed card carrier below to override the adjoining card carrier attached to the next underlying card.

In the modification shown in Fig. 5, the card carrier B is a sheath similar to that shown in Fig. 4, save that the rear lip b^6 extends beyond the edge of the lower lip b^4 instead of terminating short of it as in Fig. 4, and the spring grip exerted on the card C extending between the lips is exerted by the pressure of the resilient lip b^6 against the edge of the lip b^4.

In the modification shown in Figs. 6 and 7, the card carrier is the same as shown in Fig. 2, and the card C with its folded over margin c is secured to the card carrier in the same manner as before. The lower edge of the card C is folded up to form a pocket c' in which there is removably held a card or paper insert D. In this construction the card C may be used merely as a holder for the insert D, upon which the desired entries may be made, or both the card C and the insert D may be used for entries. This form of card with its insert may be mounted in a frame precisely as shown in Fig. 1, both the cards and inserts lying flatwise of the frame behind the adjoining card carriers and their cards.

In Figs. 8 and 9 the card carrier B and card C may be precisely as shown in Fig. 2. An adjustable indicator is shown adapted to slide lengthwise of the sheath B having a signal portion e located between the front face of the sheath and the folded margin c of the card, thence bent over the edge of the margin c to form a connecting portion e', and thence bent around the edge of adjacent lip b' of the sheath and extending outside of the sheath between the lip b' and the body of the card C to form a tab portion e^2 by which the member may be shifted lengthwise of the sheath. The spring grip exerted on the tab portion e^2 which passes between the two resilient lips frictionally holds the indicator member in adjusted position. The signal portion e of the indicator may have an aperture e^3 to expose underlying inscriptions on the face of the index margin c. Thus the indicator or signal may be used for a great variety of purposes, such as to expose one of a series of letters indicating grade of credit, or to expose numerals representing dates, or other matter pertinent to the uses to which the index is put. It will be understood that the indicator can be applied in the manner described to any of the several forms of card carriers.

The card carriers may be removed from the frame by springing or bending their middle part away from the frame, and then withdrawing their ends from the guide channels.

By having the several cards extend flatwise of the frame behind the adjoining sheaths or card carriers and their attached cards, the cards are fully protected by the celluloid sheaths from injury or defacement by handling, without requiring additional celluloid coverings applied to the cards, thus making it possible greatly to reduce the thickness and bulk of the index as compared with properly protected overlapping cards, and to increase the capacity of the index, and to reduce its cost.

It will be understood that the sheath in any of the forms mentioned may be attached to the lower or free margin of the card instead of to the upper margin, or to both the upper and lower margins, if desired, in precisely the same manner as above described. Whichever form of sheath is used it should be noted that the attachment of the sheath to the folded margin of the card by sliding the sheath on to the folded margin endwise and holding it in place without other securement, permits the relatively slidable members to expand and contract unequally under changing conditions of the humidity and temperature of the atmosphere and prevents any warping or distortion of the parts which results from unequal expansion and contraction when a celluloid sheath is secured to the card by staples, cement, or the like.

I claim:

1. An index comprising a frame having inwardly facing guide channels, a series of card carriers having their ends in said guide channels and slidable lengthwise thereof, and a series of cards attached to the several card carriers and extending flatwise of the frame behind the adjoining card carriers and the cards attached thereto, whereby the card carriers may be arranged in juxtaposition one to another to form the face of the index with the attached cards covered, and

whereby any card may be exposed to view by separating its card carrier and the next adjoining overlying card carrier.

2. An index comprising a frame having inwardly facing guide channels, a series of card carriers having their ends in said guide channels and slidable lengthwise thereof, and a series of cards attached to the several card carriers and extending from the rear side of said carriers flatwise of the frame behind the adjoining card carriers and the cards attached thereto, whereby the card carriers may be arranged edge to edge in juxtaposition one to another to form the face of the index with the attached cards covered, and whereby any card may be exposed to view by separating its card carrier and the next adjoining overlying card carrier.

3. An index comprising a frame having inwardly facing guide channels, a series of card carriers having their ends in said guide channels and slidable lengthwise thereof, each formed of transparent resilient material having a closed front face and rearwardly bent retaining lips, and a series of cards attached to the several card carriers, each having a folded margin held by said retaining lips, the body of the card extending between said retaining lips and lying flatwise of the frame behind the adjoining card carriers and the cards attached thereto.

4. An index comprising a frame having inwardly facing guide channels, a series of card carriers having their ends in said guide channels and slidable lengthwise thereof, each formed of transparent resilient material having a closed front face and rearwardly and inwardly bent retaining lips one overlapping the other, and a series of cards attached to the several card carriers each having a folded margin held by said retaining lips, the body of the card extending between said retaining lips and lying flatwise of the frame behind the adjoining card carriers and the cards attached thereto.

5. An index comprising a frame having inwardly facing guide channels, a series of card carriers having their ends in said guide channels and slidable lengthwise thereof, each formed of transparent resilient material having a closed front face and rearwardly bent retaining lips, and a series of cards attached to the several card carriers, each having a folded margin held by said retaining lips, the body of the card extending between said retaining lips and lying flatwise of the frame behind the adjoining card carriers and the cards attached thereto, said retaining lips being adapted to exert a spring grip upon the card extending therebetween.

6. An index comprising a frame having inwardly facing guide channels, a series of card carriers having their ends in said guide channels and slidable lengthwise thereof, each formed of transparent resilient material having a closed front face and rearwardly and inwardly bent retaining lips one overlapping the other, and a series of cards attached to the several card carriers each having a folded margin held by said retaining lips, the body of the card extending between said retaining lips and lying flatwise of the frame behind the adjoining card carriers and the cards attached thereto, said retaining lips being adapted to exert a spring grip upon the card extending therebetween.

7. An index comprising a frame having inwardly facing guide channels, a series of card carriers having their ends in said guide channels and slidable lengthwise thereof, each formed of transparent resilient material having a closed front face and rearwardly bent retaining lips, and a series of cards attached to the several card carriers, each having a folded margin held by said retaining lips, the body of the card extending between said retaining lips and lying flatwise of the frame behind the adjoining card carriers and the cards attached thereto, the edge of each card carrier on the side in which the card extends being substantially upright to the plane of the card, whereby each card carrier will be prevented from overriding the next adjoining carrier attached to the next underlying card.

8. An index comprising a frame having inwardly facing guide channels, and a pair of spaced guide rails between and parallel to said channels, a series of card carriers in front of said guide rails having their ends in said guide channels and slidable lengthwise thereof, and a series of cards attached to the several card carriers lying flatwise of the frame behind the adjoining card carriers and cards attached thereto and extending between said guide rails.

9. An index comprising a frame having a pair of inturned guide flanges, a pair of guide rails under said guide flanges, the front faces of which form with the flanges inwardly facing guide channels and the inner faces of which form card guiding surfaces, a series of card carriers in front of said guide rails having their ends in said guide channels and slidable lengthwise thereof, and a series of cards attached to the several card carriers lying flatwise of the frame behind the adjoining card carriers and cards attached thereto, and extending between said guide rails.

10. An index comprising a frame having inwardly facing guide channels and a pair of spaced guide rails between and parallel to said channels, a series of card carriers in front of said guide rails having their ends in said guide channels and slidable lengthwise thereof, each carrier being formed of

transparent resilient material having a closed front face and rearwardly bent retaining lips, and a series of cards attached to the several card carriers having a folded margin held by said retaining lips, the body of the card extending between said retaining lips and lying flatwise of the frame behind the adjoining card carriers and the cards attached thereto, and extending between said guide rails.

11. A sheath of transparent resilient material having a relatively long and narrow closed face and bent-over retaining lips, and a card or sheet having a folded margin removably held in said sheet, the body of the card or sheet extending outward between said lips.

12. A sheath of transparent resilient material having a relatively long and narrow closed face and bent-over retaining lips, and a card or sheet having a folded margin inserted in said sheath, the body of the card or sheet extending outward between said lips, said sheath and folded margin being slidable relatively endwise whereby they are permitted to expand or contract unequally without distorting each other.

13. A sheath of transparent resilient material having a relatively long and narrow closed face and bent-over retaining lips, and a cord or sheet having a folded margin inserted in said sheath, the sheath and folded margin being slidable relatively endwise, removably connected to each other without other securement, and capable of unequal expansion or contraction without distorting each other, and the body of the card or sheet extending outward between the lips of the sheath.

14. A sheath of transparent resilient sheet material having a relatively long and narrow closed front face and rearwardly bent retaining lips adapted to exert a spring grip upon a card extending therebetween, and a card having a folded margin inserted in said sheath and frictionally held by said retaining lips, the body of the card extending outward between said retaining lips.

15. A sheath of transparent resilient sheet material having a relatively long and narrow closed front face and rearwardly bent retaining lips one overlapping the other, adapted to exert a spring grip upon a card extending therebetween, and a card having a folded margin inserted and held in said sheath by said retaining lips, the body of the card extending outward between said retaining lips substantially parallel to the front face of the sheath.

16. A sheath of transparent resilient material having a relatively long and narrow closed front face and rearwardly and inwardly bent retaining lips, a card having a folded margin inserted and held in said sheath by said retaining lips, the body of the card extending outward between said lips, and an indicator member adapted to slide lengthwise of said sheath having a signal portion located between the front face of the sheath and the folded margin of the card, a connecting portion bent around the free edge of said card margin, and a tab portion, bent around the adjacent lip and extending outside of the sheath between said last mentioned lip and the body of the card.

17. A sheath of transparent resilient sheet material having a relatively long and narrow closed front face and rearwardly bent retaining lips, and a card or sheet having a folded margin inserted in said sheath, the body of the card or sheet extending outward between said lips.

Signed by me at North Tonawanda, New York, this 16th day of June 1916.

JAMES H. RAND.