March 5, 1940. R. BOSSE 2,192,178

CARD REGISTRY

Filed Sept. 17, 1938 2 Sheets-Sheet 1

Fig. 1.

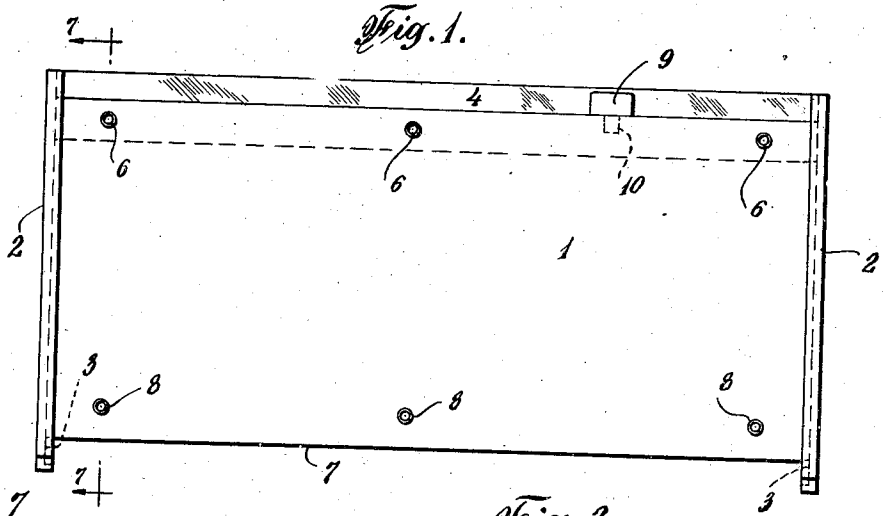


Fig. 7.

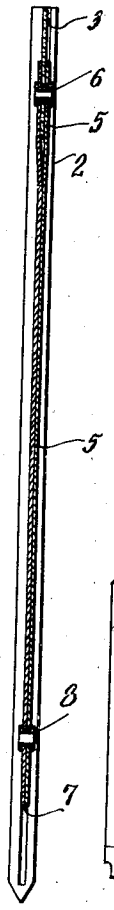
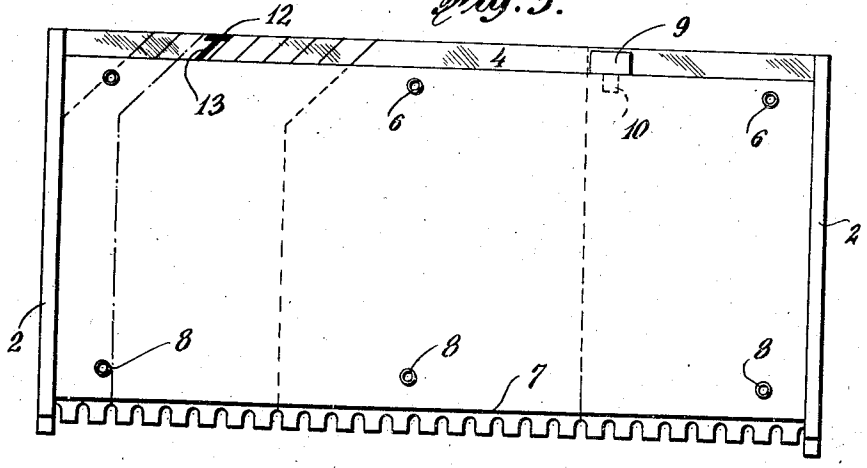


Fig. 3.



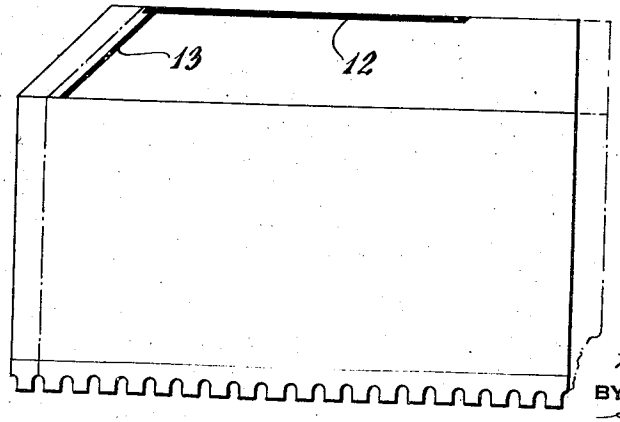


Fig. 2.

INVENTOR,
Rudolf Bosse.
BY
ATTORNEY.

March 5, 1940. R. BOSSE 2,192,178

CARD REGISTRY

Filed Sept. 17, 1938 2 Sheets-Sheet 2

Fig. 4.

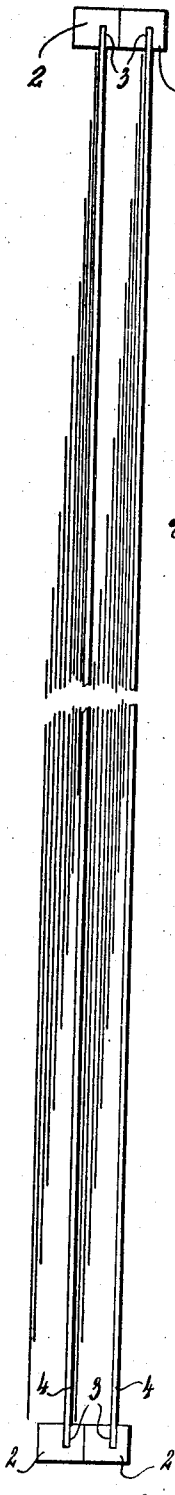


Fig. 5.

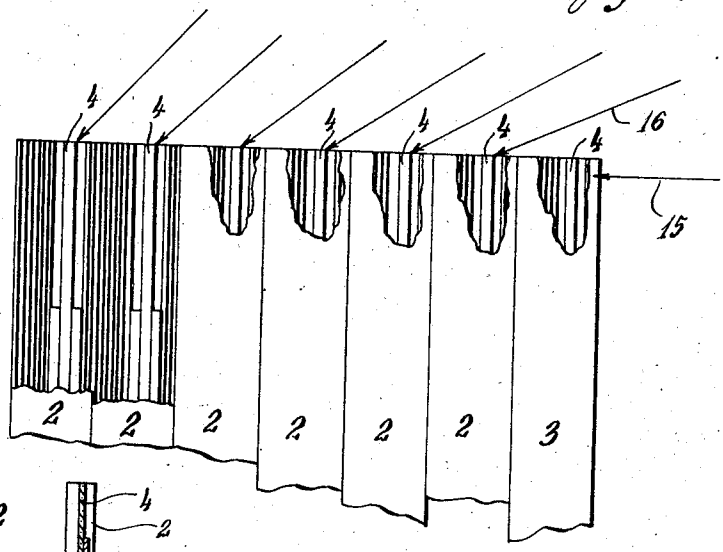


Fig. 8.

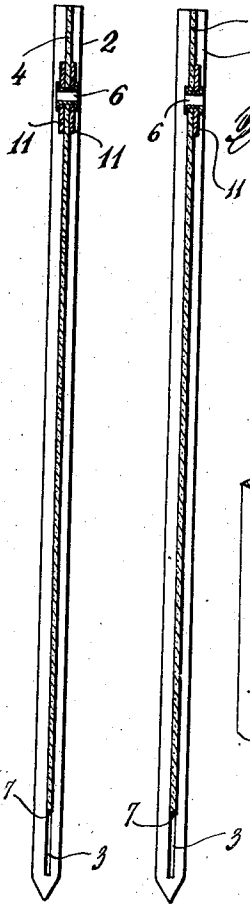


Fig. 9.

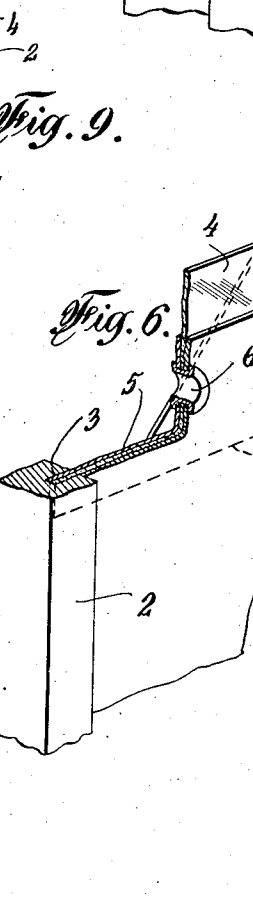


Fig. 6.

Fig. 10.

INVENTOR,
Rudolf Bosse.
BY
ATTORNEY.

Patented Mar. 5, 1940 2,192,178

UNITED STATES PATENT OFFICE

2,192,178

CARD REGISTRY

Rudolf Bosse, Hanover, Germany

Application September 17, 1938, Serial No. 230,373
In Germany November 13, 1937

7 Claims. (Cl. 129—16)

My invention relates to card registries, and to means for separating cards used in such registries and more especially to the class of such registries shown in my United States Patent No. 1,975,566 of October 2, 1934, and is directed to means for separating and identifying the groups of cards, particularly when arranged in echelons assembled in such a registry.

Objects of my invention are to provide improved means for separating the groups of cards; to facilitate the noting of errors in the assemblies of the various groups of cards; to provide means whereby identifying tabs may be associated with the group division means in such a way as to be not readily broken, distorted or disarranged; to provide each group separator with a transparent upper edge through which characteristic marks on the respective cards of succeeding groups may be observed; to minimize the width of the transparent edge, to economize in the use of the transparent material; and to obtain the other advantages hereinafter pointed out and claimed.

In the drawings:

Fig. 1 is a front elevation of a preferred type of my improved separator;

Fig. 2 is a view of a typical card, used in an echelon assembly of the type shown in my aforesaid patent;

Fig. 3 is an elevation of one of my improved separators assembled with an echelon group of cards behind it showing particularly the visibility of the characteristic marks;

Fig. 4 is a top view of two separators with groups of cards assembled in echelon association with them;

Fig. 5 is an end view, on a much enlarged scale, partially broken away to show details of assembly, of a series of separators, with cards between them;

Fig. 6 is a perspective view on a somewhat enlarged scale of a portion of the upper part of a separator and an associated group of cards, the figure being partially broken away to show details of the construction;

Figs. 7, 8 and 9 show different methods of assembling the transparent upper edge of the separator with a supporting card or strips;

Fig. 10 is a top view on a scale similar to Fig. 5 of the frame and separating elements, the figure being medially broken away to save space in illustration.

Figures 4, 7, 8 and 9 are on an enlarged scale as compared with Figures 1, 2 and 3.

In Figures 2 and 3 the position of the missing card is indicated by dot and dash lines. In Figure 4 the composite separating sheet is shown as a single unit, without division, for clearness, because of the close lining of the figure. Fig. 7 is on line 7—7 of Fig. 1.

Similar letters of reference designate similar parts in all the figures.

The unitary separator 1 embodies two grooved ends 2, 2, which may be of wood or other suitable material rectangular in cross-section and are of an appropriate length to register with the tops of the cards assembled between them. In the inner face of each end 2 is a groove 3 adapted to receive and hold the ends of the transparent element 4 and the end or ends of one or more cardboard supporting sheets 5 to which the transparent sheet, which may be of Celluloid or similar material, is attached by suitable means such as clinched eyelets 6, 6 and/or cement, so as to unite the cardboard and Celluloid strips in an unitary assembly.

The upper edge of the Celluloid strip is preferably even with the tops of the ends 2, 2; while the bottom 7 of the unitary sheet is preferably raised above the bottoms of the registry cards and their underlying supporting means, such as shown in my aforesaid patent.

If two cardboard cards are employed they may be secured to each other below the Celluloid strip by suitable means such as cement or clinched eyelets 8, 8. The ends 2, 2 and the unitary sheet between them, when assembled, form a card-group separator supported by the feet of the ends resting upon the bottom (not shown) of the box or container in which the cards are assembled, with the transparent upper edge of the separator substantially flush with the edges of the assembled cards.

Between the upper edge of the opaque or cardboard sheet 5, and the Celluloid strip 4, a tab 9, not thicker than the reinforcing member, may be inserted, and held as by a projection 10, so as to carry any desired mark, for instance a reference letter or numeral, for identifying a group of cards associated with the separator, this tab being below the upper edge of the transparent strip 4 is not subjected to disarrangement or destruction in the ordinary operation of the filing system, which is usually handled by applying the fingers to the upper edges of the separator and the cards. And yet the notation on the tab will be clearly visible through the transparent strip. It will be understood that if instead of a comparatively narrow transparent strip, a whole sheet of transparent material is

employed, a narrow strip or strips 11, 11, may be fastened to the transparent sheet, as in Figs. 8 and 9, so as to afford a support for the tab 9 in substantially the same position as though it were held in the way which I have just described. The strip or strips need not be of any considerable width, so long as they act as efficient keepers for the support of the tab between them and the transparent sheet.

Furthermore, such tab holding strips as well as the main sheet of the separator may be made of transparent material, and thereby all the advantages of a completely transparent separating sheet may be obtained; but as Celluloid and similar material is comparatively expensive, I find it economical to use a strip or strips only, in combination with less expensive, and opaque, material such as cardboard, without detracting materially from the efficiency of the system.

In a typical echelon assembly of cards, such as is shown in my aforesaid patent, distinguishing marks are applied on the cards in such a way that they may immediately catch the eye if cards are displaced or disarranged. Such a mark or marks, as 12, may for instance be placed along the upper edge of each card in such a position as to be covered when the cards are in proper assembled relation, but to be uncovered if a card or cards be missing. An additional mark such as 13 may be extended down the diagonal portion of the card to emphasize the warning of the mark 12.

In Figures 3 and 6 I have illustrated the visibility of such marks when a card, in the case illustrated the third from the left in Fig. 3, has been removed from the series. If the third card was in the proper position these tell-tale marks would be covered by it.

It is important that the operator of such a registry system should have facilities for observing not only the particular group of cards immediately associated with any one separator, but, also, associated groups, with as little disturbance to the assembly as may be practicable. If the upper edge of the separator is opaque, it practically cuts off the view of the cards behind it, but if the separator is transparent, the observer may look through it at the cards between it and the next separator, so as to observe at once any telltale marks of disarrangement in any of the rows of cards in the entire cabinet without the necessity of fingering the separators.

Such an angle of observation may be indicated by the arrow 15 in Fig. 5. However, the cards assembled behind the first separator, normally extend to the same height as the upper edge of the separator and the cards behind it.

Consequently to see the cards behind the separator of the second group the angle of vision must be changed, for instance as indicated by the arrow 16 in Fig. 5, so that the operator may look down through the upper edge of the transparent element of the separator to see the upper edges of the cards behind it; and when a distinctive mark, such as the black upper edge illustrated, is used in the system, the displacement of a card will be at once obvious to the observer. The observation of succeeding groups may be facilitated by increasing the angle of sight as indicated by the succeeding series of arrows shown in Fig. 5; so that the operator of the system has an opportunity to observe at once any disarrangement in the cards of the system's groups. This observation is facilitated by the fact that the transparent upper edge of the separator is offset, back, from the adjacent cards by the thickness of its supporting sheets 5 or strips 11, 11, so that there is more or less of a space between the transparent edge and the cards behind it.

In Figures 4 and 5 I have shown the separators as assembled with their ends in contact with each other. But it is to be understood that when more cards are used between the separators than the space between their unitary sheets will accommodate, the separators are drawn apart so as to accommodate whatever number of cards the echelon system will allow for. As the number of cards increases their visible ends, for instance in the system illustrated the left hand ends, are pushed further and further back from the separator and become more and more readily observable through the transparent upper edges of the separators.

It is to be understood that what I have illustrated and described is only a typical and not an exclusive embodiment of my invention. For it is evident that details of construction may be varied, as by the use of equivalents, without departing from the spirit of my invention or the scope of my claims.

Having thus described my invention what I claim and desire to secure by Letters Patent of the United States is:

1. A separator for card registries embodying a flat, transparent upper portion extending continuously from side to side of the separator, and a cooperating, offsetting portion consisting of a flat opaque sheet applied to and overlapping the lower part of said transparent portion and setting it back behind the outer face of said opaque sheet, whereby a clear line of vision is afforded above the opaque sheet and through the transparent portion.

2. The assembly in a superimposed series of a plurality of separators for card registries each embodying a flat, transparent upper portion extending from side to side of the separator and a cooperating, offsetting portion consisting of a flat, opaque sheet applied to and overlapping the lower part of said transparent portion and setting it back behind the outer face of the opaque sheet, whereby clear lines of vision are afforded at varying angles through the transparent portions above the opaque sheets.

3. The assembly in a superimposed series of a plurality of separators for card registries each embodying a flat, transparent upper portion extending from side to side of the separator and a cooperating, offsetting portion consisting of a flat, opaque sheet applied to and overlapping the lower part of said transparent portion and setting it back behind the outer face of the opaque sheet, and a tab held below between said opaque sheet and said transparent portion and projecting up before the latter, whereby clear lines of vision of said tabs are afforded at varying angles through the transparent portions above the opaque sheets.

4. A separating card for card registries consisting of a plurality of layers, one of which projects beyond the others, and a tab inserted between the projecting layer and another layer and being substantially in alinement with the upper edge of the projecting layer, the latter being formed of a transparent material and the thickness of the layer covering the transparent layer being at least equal to that of the tab.

5. A separating card for card registries, embodying a flat, transparent upper edge portion

extending from side to side of the separator, a cooperating flat, subjacent, opaque edge carrying portion, and card end supporting means extending lateraly beyond the plane of said flat transparent upper edge.

6. In a card register, in combination, a container, a plurality of groups of cards, the cards of each group being arranged in echelon in the transverse direction of the container, means to position the cards in echelon against relative transverse displacement, an upper portion of the visible part of each card and the part covered by the visible part of the next card being differentiated by a mark located on the normally covered part of the card in a uniform position throughout all the cards, a separator between each two groups of cards, said separator comprising a transparent upper edge portion extending from side to side of the separator and of a width in a vertical direction to register with the said upper portions of the cards provided with said marks, whereby any visible mark disclosed by a missing card in the groups behind separators is visible through a transparent edge portion from the front of the container.

7. In a card register, in combination, a container, a plurality of cards arranged in echelon in a group in the transverse direction of the container, means to position the cards in echelon against relative transverse displacement, an upper portion of the visible part of each card and the part covered by the visible part of the next card being differentiated by a mark located on the normally covered part of the card in a uniform position throughout all the cards, a separator before said group of cards, said separator comprising a transparent upper edge portion extending from side to side of the separator and of a width in a vertical direction to register with the said upper portions of the cards provided with said marks, whereby any visible mark disclosed by a missing card in the group behind the separator is visible through a transparent edge portion from the front of the container.

RUDOLF BOSSE.