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DISPLAY DEVICE

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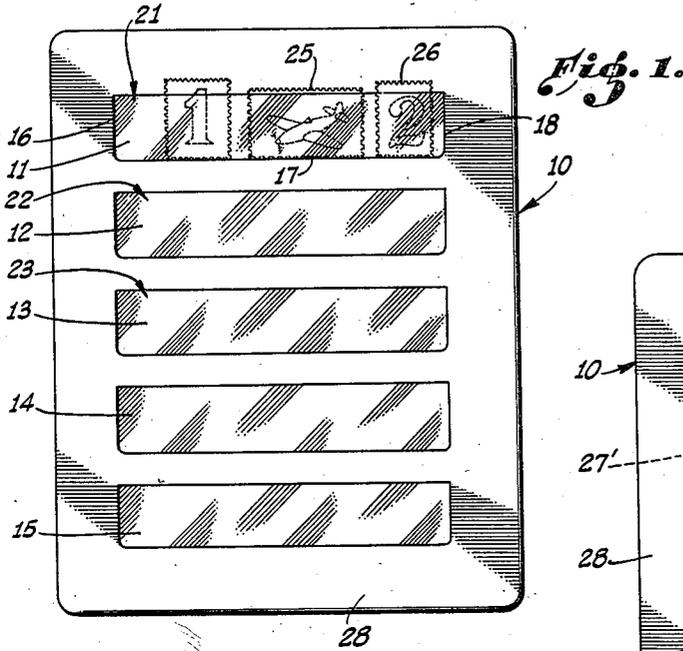


Fig. 1.

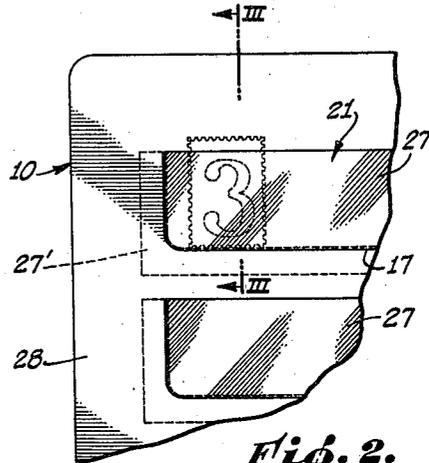


Fig. 2.

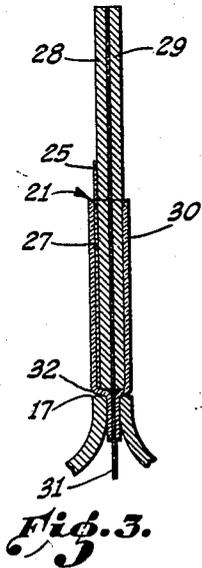


Fig. 3.

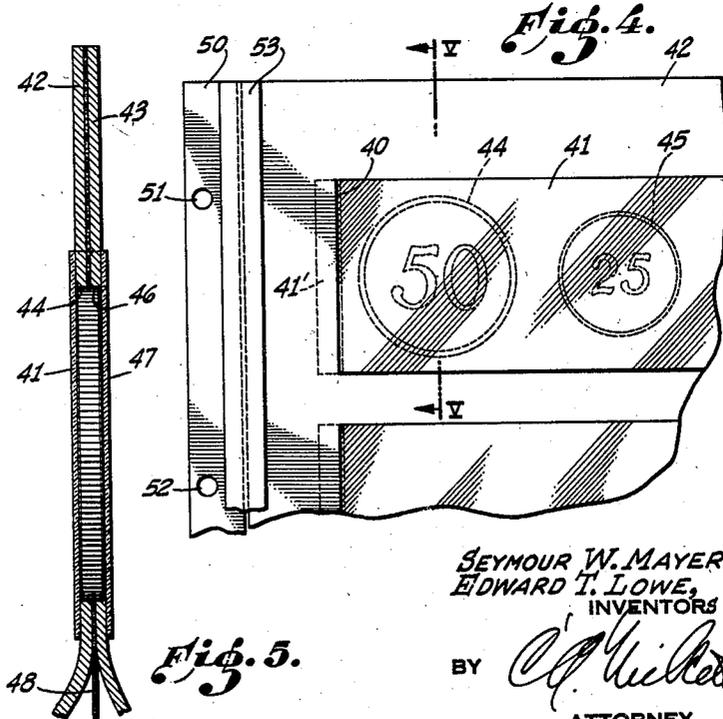


Fig. 4.

Fig. 5.

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## DISPLAY DEVICE

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3 Claims. (Cl. 40—159)

This invention pertains to a novel display device and to a method of making the same.

The term "display device" as used herein refers to devices of the character described hereinafter in greater detail, these devices being adapted for use as display cards or holders for various articles such as coins, stamps, combs, belts and other articles. Moreover, the devices of this invention may be used not only for display purposes but may also be employed as a means of maintaining collections of articles in an attractive, orderly and permanent manner. For example, the display devices of this invention may be used to great advantage as pages of collectors' albums.

Although as stated hereinbefore the invention has many adaptations, in order to facilitate understanding the description given hereinafter will be particularly directed to the use of the invention in connection with philately.

Heretofore stamp collectors have placed stamps in albums by using so-called adhesive hinges. This method of mounting stamps in albums is not satisfactory since hinges occupy considerable space, thereby rendering the albums unnecessarily bulky, make it almost impossible to arrange stamps without having them askew, and often cause injuries to the stamps when it is necessary or desirable to move stamps from one page to another or for other transfer purposes.

The display device of this invention, when used in a stamp album, comprises a double-faced sheet of sufficient strength and rigidity to remain flat in actual use and be free from warping or curling due to changes in temperature or humidity. Each face of the display device is provided with a series of display areas covered by strips of transparent material such as cellulose acetate, "Cellophane" or similar transparent or translucent material. This strip material emerges from the body of the display device through very narrow slits which delineate each display area. Preferably three slits delineate each display area, the transparent strip being unattached to the face of the board along one edge so that stamps or other thin articles (negatives, snap-shots, cards or the like) may be inserted under the transparent strip. The method of forming the display cards of the present invention causes the transparent strips to be maintained under tension and to be deformed in areas contiguous to the slits through which the strip emerges so that objects placed beneath the transparent strip are firmly held thereby but are readily accessible and visible to the observer or user.

It is an object of the present invention to disclose and provide an improved form of display device.

A further object is to disclose and provide a simple and efficient method of forming display devices.

Other objects, uses, advantages and adaptations of the invention will become apparent to those skilled in the art from the following detailed description of certain exemplary forms of the present invention. Reference will be had to the appended drawing, in which:

Fig. 1 is a plan view of a display device made in accordance with the present invention.

Fig. 2 is an enlarged plan view of one portion of the display device.

Fig. 3 is an enlarged transverse section taken along the plane III—III of Fig. 2, the lower portion of Fig. 3 being flared to more clearly show the various members employed.

Fig. 4 is a plan view of a portion of a modified form of display device. Fig. 5 is an enlarged transverse section taken along the plane V—V of Fig. 4, a coin held by the display device being shown in end elevation, the lower portion of this section showing the component parts separated in order to facilitate understanding.

As shown in Fig. 1, the display device, generally indicated at 10, comprises a plurality of display areas 11, 12, 13, 14 and 15, delineated by the narrow marginal slits, such as the slits 16, 17 and 18 of the area 11. Each display area is covered by a strip of transparent material, the upper edge of the transparent material being indicated at 21, 22, 23, etc. When used as a page of a stamp album, stamps may be inserted between the face of the device and the transparent strips, the transparent strips then holding the stamps in position as indicated in the two examples given at 25 and 26.

Although Fig. 1 is a plan view of one face of a display device, the reverse side may be of identical structure.

The enlarged plan view shown in Fig. 2 more clearly illustrates the arrangement of the parts, the transparent strip being indicated at 21.

The transverse section of Fig. 3 shows the reverse side of the display device in a partially torn away position for the purpose of emphasizing the construction.

It will be noted that the device 10 comprises two sheets of material of appreciable thickness, namely, the upper sheet 28 and the lower sheet 29. When the display devices are made of cardboard, it has been found desirable to employ a

multi-ply board, and preferably a board of a thickness not thinner than a two-ply board. In ordinary practice, a four-ply board has been found eminently suitable. Each of these sheets of material, such as the sheet 28, is then die cut to provide narrow slits delineating display areas. The slits should define not less than two margins of the display area and as shown in Fig. 1, three slits 16, 17 and 18 delineate the display area 11. The narrow slit 17 is shown in Fig. 3.

In making the display device, a strip of transparent material is passed through the slits 16, 17 and 18, each strip extending over the display area and having its ends overlying the rear surface of the sheet adjacent the slits. For example, in Fig. 3 the upper edge of the strip 27 is indicated at 21 but the lower portion of the transparent strip 27 extends through the slit 17 and extends through the rear surface of sheet 28 adjacent the slit, as at 27'. By referring to "transparent strips," reference is made to translucent materials as well. Strips of Celluloid or Cellophane (either transparent and uncolored or colored, frosted or translucent) may be employed. Certain synthetic materials in thin sheet form may be used to good advantage.

The companion sheet 29 is similarly provided with narrow slits delineating various display areas and similar strips of transparent material are positioned over the display areas as, for example, the strip 30. The two sheets 28 and 29 are then placed in back to back relation with a sheet of pressure bonding material 31 positioned therebetween. Preferably the pressure bonding material 31 is coextensive in area with the entire area of the sheets 28 and 29. The material 31 may comprise a thin sheet of thermoplastic material or a cellulosic web coated or impregnated with a pressure bonding substance, resin or composition. Thin sheets of paper saturated with shellac, plasticizers and other resins may be employed to good advantage. The entire assembly, including sheets 28 and 29, the transparent strips carried thereby and the intervening layer of pressure bonded material 31, is then subjected to pressure and in some instances to heat as well as pressure. The amount of heat employed depends upon the character of the pressure bonded material used between the two sheets 28 and 29. Materials requiring temperatures sufficiently high to discolor the transparent materials 27 and 30 should not be employed.

After the pressure has been removed, it will be found that the intervening layer 31 is substantially indistinguishable as a separate layer and has firmly bonded the sheets 28 and 29 together. Moreover, the pressure (and heat) has now caused the transparent strips 27 and 30 to become deformed in areas contiguous to the slits defining the display areas. For example, the strip 27 has now been deformed so as to form a corner 32 where such strip enters the slit 17. The application of pressure during the bonding and assembly has moreover placed the strip 27 under tension so that it lies closely adjacent the outer surface of the sheet 28 and will not stretch or distort during prolonged use.

It will be noted that in the event a card, snapshot or stamp is inserted beneath the strip 27, the lower part of the stamp will abut the deformed portion of the strip at the corner 32 and inasmuch as the strip 27 is under tension, the stamp, card or snap-shot will be firmly held between the sheet 28 and the strip 27 so as not to be dislodged from its position. Moreover, since

the sheet 28 is of appreciable thickness and is an inherent structural portion of the finished display device, there are no loose or insecure surfacing elements which may peel from the working surface of the display device.

The modification shown in Figs. 4 and 5 is particularly adapted for use with objects of appreciable thickness, such for example, coins, metals, buckles, straps, belts, articles of jewelry, and the like. Whereas the display device of Figs. 1, 2 and 3 had display areas delineated by three narrow slits defining the boundaries of each display area, such slits being in intercommunication, each display area of the device shown in Figs. 4 and 5 is delineated by only two slits, one at each end, a narrow slit 40 being indicated in Fig. 4, such slit constituting one end of a display area covered by the transparent strip 41. The device itself is formed of two sheets of material 42 and 43, the slits delineating the margins of the display areas carried by each of such sheets being substantially superimposed when the two sheets are placed in back to back relation.

In addition, each display area may contain one or more cut-out portions or apertures. If, for example, the display area is to receive a plurality of coins or metals, the sheet 42 within the boundaries of the display area 41 may be provided with circular apertures 44, 45, and the like. Sheet 43 is provided with identical apertures, as for example, the aperture 46 shown in Fig. 5. Apertures 44 and 45 should register when the two sheets 42 and 43 are placed in back to back relation.

Each display area, such as the area illustrated in Fig. 4, is then covered with a strip of transparent material. The end portions of transparent material 41 are passed through the end slits, such as end slit 40, so as to extend onto the rear or back side of the sheet 42, as indicated at 41'. A similar strip of transparent material 47 is caused to extend over the display area of sheet 43 and the end portions of strip 47 pass through slits delineating the ends of such display area. The two sheets 42 and 43 are then bound together by means of an intermediate layer or strip of pressure bonding material 48. The transparent strips 41 and 47 are placed under tension during this cementing process and are firmly held over the display areas.

In actual use, suitable coins may be placed beneath the free edges of the transparent strips, such as strip 41, and slid into the pocket formed by the registering apertures of sheets 42 and 43 such as, for example, the apertures 44 and 46 shown in Fig. 5. When so mounted, the coin, metal or other object is retained in position within the display device but is clearly visible to observers so that both the front and reverse sides of a coin or metal may be examined without removing it from the display device.

When the display devices of this invention are employed in book form, as in collections of coins, stamps, or other objects, they may be provided with a hinged end portion, such as the portion 50 provided with perforations 51, 52, and the like, adapted to fit into a loose leaf binder or other binding means. The portion 50 may be attached to the display device by means of a flexible webbing 53 cemented to the strip 50 and to the display device, thereby permitting the display device to be freely moved and turned while held within a suitable binder, standard or the like.

Numerous modifications and changes may be made in the form of the invention as will be

readily apparent to those skilled in the art. All changes and modifications coming within the scope of the appended claims are embraced thereby.

We claim:

1. A double-faced display device comprising: a pair of outer sheets of material of appreciable thickness, each sheet being provided with a plurality of display areas, each display area being defined by three narrow intercommunicating slits formed in the sheet material and defining the margins of the area; a strip of transparent material extending over each display area and through said slits and having its end portions overlying the rear surface of such sheet adjacent the slits; said pair of outer sheets being cemented together in back to back relation with a pressure bonding layer therebetween, each strip of transparent material being maintained under tension over the display area and deformed in portions contiguous to said slits to form a pocket.

2. A double-faced display device comprising: a pair of outer sheets of material of appreciable thickness, each sheet being provided with a plurality of display areas, each display area being defined by narrow slits formed in the sheet material and defining not less than two margins of the area; a strip of transparent material extend-

ing over each display area and through said slits and having its end portions overlying the rear surface of such sheet adjacent the slits; said pair of outer sheets being cemented together in back to back relation with a pressure bonding layer therebetween, each strip of transparent material being deformed in portions contiguous to said slits.

3. A double-faced display device comprising: a pair of outer sheets of material of appreciable thickness, each sheet being provided with a plurality of display areas, each display area being defined by narrow slits formed in the sheet material and defining not less than two margins of the area; an article-receiving aperture formed in a display area of each sheet, the apertures of such two sheets being adapted to register when said sheets are placed in back to back relation; a strip of transparent material extending over each display area and through said slits and having its end portions overlying the rear surface of such sheet adjacent the slits; said pair of outer sheets being cemented together in back to back relation with a pressure bonding layer therebetween, each strip of transparent material being deformed in portions contiguous to said slits.

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