DISPLAY FRAME FOR PHOTOS OR THE LIKE

ABSTRACT: A display frame for photos or other sheetlike articles consists of two separable mating panels, each having magnetic means fixed to marginal portions thereof. The front panel has a transparent viewing area that overlies a support surface for photos, provided on the back panel. The magnetic means join the panels together, holding the articles confined in place by the pressure resulting on them between confronting surfaces of the panels.
DISPLAY FRAME FOR PHOTOS OR THE LIKE

The present invention relates to frames for the convenient and attractive arrangement and display of photos, cippings, writings or other articles having the form of paper or like sheets. Photos and like articles commonly are mounted for display between a backing sheet of cardboard or the like and a transparent sheet (panel) of glass or the like, fitted and fastened within a supporting frame of wood or other structural material. A mat bordering the desired image area may be fitted over the photos within the frame. In such a conventional picture frame it is cumbersome to assemble the parts, or to replace one photo by another, and the frame ordinarily is not suitable for displaying photos of random sizes or in random arrangement.

A known device for displaying such photos makes use of bars of permanent magnet material placed over the edges of photos laid upon the surface of a backing panel that contains a sheet of magnetic metal. The magnet bars limit the appearance and occupy a considerable amount of the display area of this device. They may easily be mislaid or lost when removed from the backing panel. Also, the photos or other articles being displayed are not protected by a cover as in the conventional picture frame.

A principal object of the invention is to provide a display frame for photos or other articles which covers and protects the articles to be displayed yet may be readily and conveniently assembled and disassembled without the use of tools.

Another object of the invention is to provide such a frame which will hold in position and attractively display each of several photos or other sheetlike articles arranged in any desired random fashion or having random sizes.

A further object of the invention is to provide a conveniently usable and attractive frame which consists of few components, so that its parts will not be mislaid or lost when disassembled.

According to the present invention, a display frame is provided which has only two separate mating members, each of panel form, when it is opened to receive a photo or photos. The two panels, after the photos are arranged upon one of them, are joined into a sandwich by magnetic attraction which serves also to hold them together so that their confronting surfaces will confine the photos in place under pressure between them; yet the panels may readily be separated for rearrangement or substitution of the photos.

The front panel is substantially rigid and provides a large, clear transparent area to cover and enable viewing of the articles. Its body may consist of a sheet of clear rigid plastic material such, for example, as a suitable polyacrylic resin. This panel also has marginal portions to which are fixed magnetic elements that are either permanent magnets or magnetically attractive.

The back panel mates with the front panel, has a forward surface adapted to support articles laid thereon for display through the clear area of the front panel, and has marginal portions to which are fixed magnetic elements that will either attract or be attracted by the magnetic elements of the front panel when the two panels are brought into juxtaposition.

The attraction between the respective magnetic means fixed to marginal portions of the panels holds the panels securely connected together in sandwich form and, in addition, each panel being sufficiently rigid to transmit the magnetically applied force over its area, causes the confronting panel surfaces to exert a pressure upon the photos or like articles located between them, so that the articles are held in place as prearranged on either panel before the frame is closed.

The support surface of the back panel is advantageously constituted by a cushioning layer or mat of a resilient compressible material such, for example, as a foamed elastomeric material, which enables the frame better to accommodate varying thicknesses of the articles to be displayed.

Such material also has a frictional property resisting sliding displacement of the articles arranged in the frame. While the support surface may be formed of any of various materials, it is desirable that it be rough, contoured or otherwise formed so that the friction which exists between this surface and the photos or other articles when the articles are under light pressure between the magnetically connected panels will contribute to the secure holding of the articles in prearranged locations within the viewing area.

The above and other objects, features and advantages of the invention will be further evident from the following detailed description and the accompanying drawing of illustrative embodiments thereof. In the drawing:

FIG. 1 is an expanded perspective view of a preferred display frame embodying the invention;

FIG. 2 is an enlarged fragmentary perspective and cross-sectional view, taken substantially along the line 2-2 of FIG. 3, showing a portion of the back panel of the frame;

FIG. 3 is a front plan view of the assembled frame;

FIG. 4 is a transverse cross-sectional view taken substantially along the line 4-4 of FIG. 3; and

FIG. 5 is a partial side elevational view of an alternative embodiment, shown in section.

The display frame of the embodiment of FIGS. 1 through 4 comprises only two separable parts, 10 and 11. The first part 10 is a rigid front panel providing a suitably large transparent panel area 13 for covering yet clearly exposing to view photos or other sheetlike articles to be displayed in the frame. For example, the body of the front panel 10 may be a flat rectangular sheet 12 of a transparent rigid plastic material such as a polyacrylic resin of the kind known commercially as "Acrylite," "Lucite" or "Plexiglass." Opaque areas of a decorative nature may be provided along the margins of this sheet, as, for example, by applying to its front surface a bordering band 14 of a desired opaque paint, foil, tape or rigid strip material.

Several strips 15 of permanent magnet material are adhered to marginal portions of the backward surface of the front panel 10 at locations bordering the area of the transparent viewing portion 13, where these strips lie behind and will be concealed by the opaque band 14. The strips 15 preferably are fixed along all four margins of the front panel. They may be conveniently formed, for example, by applying and gluing to and along marginal portions of the back side of sheet 12 cast or extruded strips of a flexible rubber or plastic compositions containing a permanently magnetized finely divided filler such as a strongly magnetic ferrite. A suitable magnet material of this nature is the No. 2P038 flexible magnetic strip material produced by Magnet Aids, Inc., of New York, New York.

The second part of the display frame is a back panel 11 which mates with the front panel 10, presents an extended surface, or mat, 20 to support the photos or other articles to be displayed, and has marginal portions 21 outside the area of surface 20. These marginal portions have magnetically attractive elements, such as thin strips 23 of magnetic iron or steel, fixed to them at locations which register with locations of the magnet strips 15 of panel 10 when the two panels are brought together.

The back panel 11 is conveniently made of a backing sheet 24 of suitably stiff sheet material, e.g., of cardboard or pressed pulp board, which may be enclosed in a decorative protective wrapper 25 of paper or other flexible sheet material. The wrapper 25 has flaps 25a folded over the edges and adhered to the front side of sheet 24. These flaps extend over and enclose the magnetic metal strips 23 previously placed along the margins of the front side of sheet 24. Finally, a thin layer 26 of a soft-foamed elastomeric material, such as a polyurethane foam of the kind known commercially as General Foam No. 5000 of Tenneco Company, is adhered to the front side of sheet 24 to cover the edges of the flaps 25a and present the desired support surface 20 for the articles to be displayed. The layer 26 so formed provides a cushioning support surface for the photos. It also exerts enough friction to hold them securely.
in place under the light pressure applied to them between the two panels when the frame is closed.

Two U-shaped eye members 16 having extended feet portions 16a are also adhered to marginal portions of the backward surface of the front panel 10. The margins 21 of panel 11 are cut away, as seen at 16a and 16b in FIG. 1, at locations corresponding to those of the eye members. The positions of the eye members 16, one at the top of the panel and another at one side, permit the frame to be hung lengthwise or sidewise on a hook, nail or other fastener secured to a vertical wall surface.

Three photos 17a, 17b and 17c are shown in the frame as it is depicted in FIG. 3. The frame is adapted to display more or fewer photos, of different sizes and thin sheetlike articles other than photos. The photos or other articles may be arranged in any desired manner within the display area. They may be arranged initially either on the backward surface of panel 10, as indicated schematically in FIG. 1, or on the support surface 20 of the back panel 11. Then, by simply holding the other panel close to and in proper position over the panel on which the photos are prearranged, the two panels are attracted and held firmly together by the force of the coercing magnetic strips 18 and 23.

The embodiment shown in FIG. 5 is generally similar to the embodiment of FIGS. 1-4 but differs, principally, in that some of the permanent magnet elements of the magnetic means provided for both holding the front and back panels together and holding photos sandwiched between them are arranged to serve the additional function of holding a frame-supporting easel releasably in an inactive position against the back side of the frame.

In this embodiment, a rigid transparent sheet 12a constituting the front panel has magnetic metal elements, one of which is shown at 30, fixed to and along marginal portions of its backward surface. The back panel 11a is somewhat thicker and has a contoured or foam plastic layer 26b over its forward side to provide a cushioning and/or frictional surface for support of the photos, one of which is indicated at P, which are sandwiched between it and the transparent front panel. Permanent magnet elements are fixed to marginal portions of the back panel, and at the bottom margin thereof at least one of these elements is a magnet 32 arranged in a lower portion 33 of the panel with opposite poles of the magnet directed to opposite sides of the back panel.

The forward pole of the magnet 32 coacts with the magnetic element 30 on front panel 12a to attract and hold the latter in place against the back panel 11a. The backward pole of the same magnet coacts with a magnetic metal element 34 fixed to the lower margin of a flat easel flap 35 which has its upper edge hinged, as indicated at 36, to part of the back side of panel 11a. The magnet 32 thus serves the further function of normally holding the easel in an unobtrusive, closed position in which the easel rests against or even lies flush in a recessed region of the back panel. Yet the easel 35 can be easily pulled away from the magnet by a finger engaged with its free lower edge 37, and turned backward on hinge 36 to a frame-supporting position, such as indicated by broken lines in FIG. 5. In that location, the lower edge 37 of the easel and the lower edge of panel portion 33 will support the display frame in free standing position on a desk or table top, shelf, or like surface.

It will be evident that new features of the present invention may be embodied in various forms of construction other than those particularly described hereinabove and that the invention is not restricted to the illustrative embodiments set forth, as may be required by a fair construction of the appended claims.

What we claim is:
1. A frame for the display of sheetlike articles such as photos, comprising a substantially rigid back panel having a forward surface adapted to support such articles laid thereupon, a rigid front panel constituted by a unitary sheet of rigid transparent material covering said back panel and comprising a transparent panel portion adapted to lie contiguous to said support surface, and coating permanent magnet means and magnetically attractive means fixed to contiguous marginal portions of said panels for holding said panels separably connected together as a unit by magnetic attraction and confining such articles in place by resulting pressure thereon between said support surface and the backward surface of said transparent portion, said permanent magnet means comprising strips of permanently magnetized material fixed to marginal portions of the backward surface of said front panel outside the area of said transparent portion thereof.
2. A frame as in claim 1, said back panel comprising a substantially flat backing sheet having a cushioning layer of compressible resilient material adhered thereto to constitute said support surface.
3. A frame as in claim 1, said back panel comprising a substantially flat backing sheet having a cushioning layer of a foamed elastomeric material adhered thereto to constitute said support surface.
4. A frame as in claim 1, said front panel being a sheet of rigid transparent plastic material.
5. A frame as in claim 1, said magnetically attractive means comprising strips of a magnetic metal secured to marginal portions of said back panel outside the area of said support surface.
6. A frame as in claim 1, said back panel comprising a substantially rigid sheet of a nonmagnetic material having a layer of cushioning material fixed thereto to constitute said support surface and having strips of a magnetic metal fixed to marginal portions thereof bordering said layer to constitute said magnetically attractive means.
7. A frame as in claim 1, said front panel sheet having opaque outer surface areas bordering the area of said transparent portion, said strips of permanently magnetized material being fixed to portions of said sheet behind said opaque areas.
8. A frame as in claim 1, further comprising an easel having an upper edge hinged to said back panel and having a lower edge to support said frame in standing position, said easel having a magnetic element fixed to a lower portion thereof, said magnet means comprising at least one permanent magnet element embedded in said back panel in position to hold separably thereto both said magnetic element of said easel and part of said magnetically attractive means fixed to said front panel.
9. A frame for the display of sheetlike articles such as photos, comprising a substantially rigid back panel including a backing sheet having a cushioning layer of foamed elastomeric material fixed thereto to constitute a support surface for sheetlike articles such as photos laid thereupon, said sheet having strips of a magnetic metal fixed to marginal portions thereof bordering said layer, a front panel comprising a rigid transparent sheet mating with and completely covering said back panel, said transparent sheet having a clear area adapted to cover and lie contiguous to said cushioning layer and having opaque areas bordering said clear area, and strips of permanent magnet material fixed to said transparent sheet behind said opaque areas in position to attract and hold said magnetic metal strips thereto when said panels are in juxtaposition, said strips constituting coating means for holding said panels separably connected together as a unit by magnetic attraction and confining said articles in place by resulting pressure thereon between said cushioning layer and the backward surface of said transparent area.