May 6, 1952 L. S. NAURISON 2,595,972

DISPLAY DEVICE

Filed Nov. 19, 1946

Fig. 1.

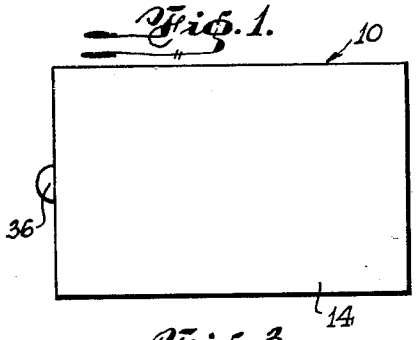


Fig. 2.

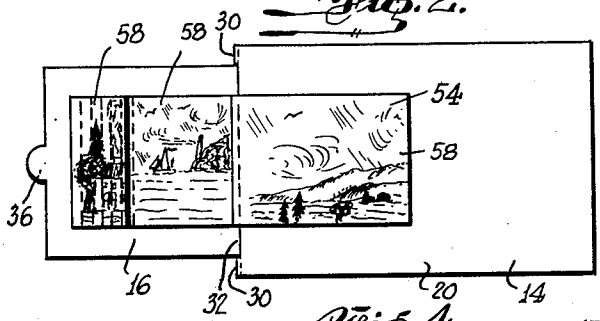


Fig. 3.

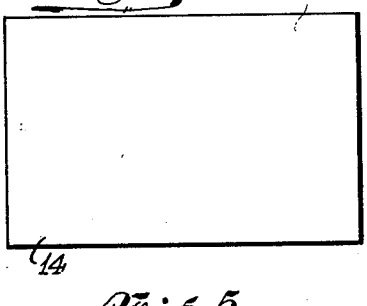


Fig. 4.

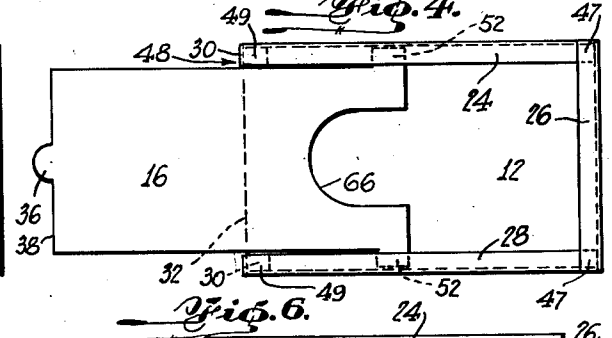


Fig. 5.

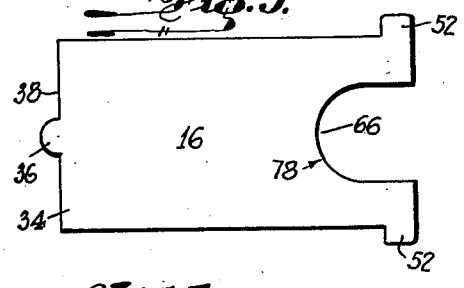


Fig. 6.

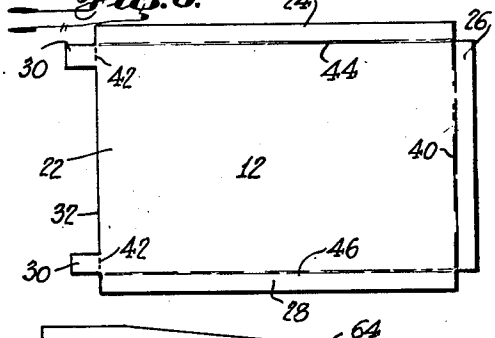


Fig. 7.



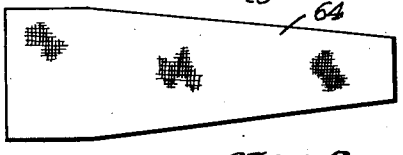


Fig. 8.

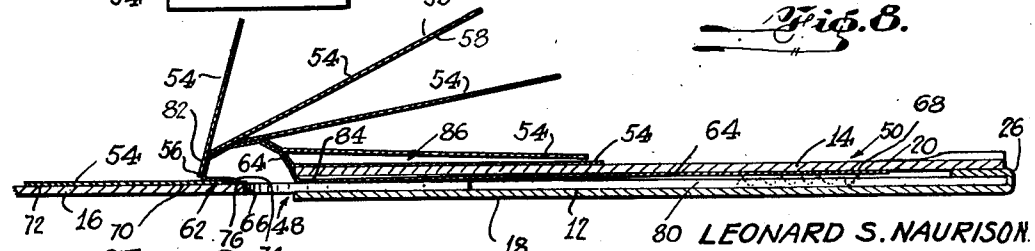


Fig. 9.

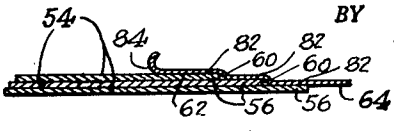


Fig. 10.

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DISPLAY DEVICE

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5 Claims. (Cl. 40—102)

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This invention relates to display devices.

It is an object of the invention to provide a novel device, whereby, as, for instance, in a souvenir postcard, a plurality of scenes may be presented to view by the simple operation of sliding one part with relation to another, and wherein the resultant visualization may be either of the individual scenes as desired, or by a rapid presentation to give the effect of a moving picture.

It is an object of the invention to provide a simple device for bringing into view any one or more of a plurality of scenes in connection with a device which may take the form of a souvenir postcard or like device, where, if desired, the scenes may be presented in rapid succession so that the result may approach the effect of a moving picture, and where the structure is effected by simple parts, assembled cheaply, and arranged compactly.

It is an object of the invention to provide a device whereby a plurality of scenes or views may be housed compactly, and yet may be presented automatically for individual inspection at the will of the manipulator.

Other objects of the invention will be set forth hereinafter, or will be apparent from the description and the drawings, in which is illustrated an embodiment exemplifying the invention.

The invention, however, is not intended to be restricted to any particular construction, or any particular arrangements of parts, or any particular application of any such construction or arrangement of parts, or any specific method of operation or use, or any of the various details thereof, even where specifically shown and described therein, as the same may be modified in various particulars, or may be applied in many varied relations, without departing from the spirit and scope of the claimed invention, of which the exemplifying embodiment, herein shown and described, is intended to be illustrative only, and only for the purpose of complying with the requirements of the statutes for disclosure of an operative embodiment, but not to show all the various forms and modifications in which the invention might be embodied.

On the drawings, in which the same reference characters refer to the same parts throughout, and in which is disclosed such a practical construction,

Fig. 1 is a plan view of a display device embodying features of the invention;

Fig. 2 is a view similar to Fig. 1, but with a portion of the display device extended so as to show the action of the device;

Fig. 3 is a detail plan view of one of the parts entering into the manufacture of the display device;

Fig. 4 is a plan view of two of the other parts entering into the construction of the device, the base being shown as folded and the slide being assembled with the folded base, the top piece of Fig. 3 not being shown in position;

Fig. 5 is a plan view of the slide shown in Fig. 4;

Fig. 6 is a plan view of the blank from which the base of Fig. 4 is formed;

Fig. 7 is a plan view of one of the small leaves shown in Fig. 2 and also in Fig. 9;

Fig. 8 is a plan view of the connecting strip upon which the leaves of Fig. 7 are mounted;

Fig. 9 is a detail vertical cross-sectional view taken centrally along the device of Fig. 2, illustrating an intermediate position of the leaves, and the parts all being shown to enlarged scale, a part of the extended slide being broken away, and the position of the contracted strip being shown in dotted lines; and

Fig. 10 is a detail cross-sectional view illustrating the manner of assembly of the leaves with the strip.

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Device 10, shown on the drawings, may be formed from sheet material which preferably is of substantial thickness, although it can readily be understood that other materials and expedients may be resorted to for making device 10. In the embodiment disclosed, a plurality of blanks 12, 14 and 16 are cut or otherwise formed from the sheet material. Faces 18 and 20 of blanks 12 and 14 may have advertising or similar display matter imprinted thereon or otherwise applied thereto. Blank 12 may have a main rectangular body 22, and has a plurality of flaps 24, 26 and 28 at the boundary edges of main body 22, and a pair of tabs 30 extending beyond an edge 32 of body 22.

Blank 16, as shown in Fig. 5, has a main body 34 substantially of the same length as body 22; in addition, a pull tab 36 extends from edge 38 of body 34. Blank 16 with certain parts to be described is to be assembled between blanks 12 and 14. For this assembly, flaps 24 and 28 first are folded inwardly, on fold lines 44 and 46, and down towards but free of body 22. Flap 26 and tabs 30 are now folded along the respective fold lines 40 and 42, towards body 22, and into position to overlie flaps 24 and 28. Flap 26 and tabs 30 are now adhered, by suitable cement-

ing means, to flaps 24 and 26 at their points of contact 47 and 49.

With blank 16 and its assembled parts properly associated, and other operations to be described performed, blank 14 may now be positioned upon the free surfaces of flaps 24, 26 and 28 and tabs 30, and are held there by any suitable cementing means, such as glue, mucilage or the like. Blank 14, which may take the form of a simple rectangular piece, is substantially equal in area to main body 22. The assembly of blanks 12 and 14 in this manner will provide a mouth 48 at one end of a receptacle 50 thus formed. Mouth 48 will be reduced from the width of body 22 by the total width of tabs 30.

Body 34 of blank 16 is of a width equal to that of mouth 48; at its rear end, a pair of ears 52 extend laterally from body 34. The total width of body 34 at ears 52 is that of body 22. Thus, when blank 16 is fitted between blanks 12 and 14, with flaps 24 and 26 folded over, ears 52 are received within the folds formed by the overlapped portions of flaps 24 and 26. Tabs 30, when folded and secured as described, are in the path of movement of ears 52, and thus serve as stops.

Now in the actual assembly, a plurality of leaves 54 are disposed, superposed one upon the other, as shown in Fig. 10, with their end edges 56 forming a regular staggered or stepped pattern. Each of the leaves of the set may have a scenic view upon its face 58. These views will thus be in position to be presented to view in the manner to be described.

With leaves 54 superposed upon each other, as shown in Fig. 10, to form steps 60, a suitable adhesive is applied along these steps. Leaves 54, retained in the stepped relationship, are turned down against face 62 of a flexible strip 64. Strip 64, which may be of cheesecloth or gauze, is of a length such that it will be capable of being anchored to one of blanks 12 and 14, and to blank 16, so that blank 16 may have limited movement in relation to the assembled blanks 12 and 14, in the manner to be described.

Blank 16 has a cut-out 66 to leave a clear space with relation to blank 14, when blank 16 is pushed completely into receptacle 50. Strip 64 is adhered at 68 to blank 14 at the position this cut-out assumes when blank 16 has been pushed to be housed substantially completely between blanks 12 and 14. At the same time that adhesive was applied to steps 60, it also was applied to a portion 70 of face 72 of the topmost leaf 54. An end 74 of strip 64 projected beyond face 72 and also carried adhesive. Now both portion 70 and end 74 are adhered to face 76 of blank 16 so that end 74 is positioned immediately at edge 78 of cut-out 66. Now blank 16 may be pulled out of space 80 within receptacle 50 until ears 52 engage tabs 30 without hindrance from the anchored ends of strip 64.

Strip 64 will be pulled by blank 16 until end 74 is positioned outside of space 80. When blank 16 is pushed back into space 80, strip 64 tends to curl upon itself, as shown in dotted lines in Fig. 9. Leaves 54, in turn, are made to turn and to move into superimposed relation, one upon the other in succession, as blank 16 moves into space 80. Since a very small section 82 of each leaf is adhered flat against face 84 of strip 64, each leaf is caused to move to a position where it is substantially parallel to that particular portion of the strip; as that particular portion of the strip curls itself in going around the bend, the leaf also will rotate around the moving pivot, as depicted in Fig. 9. Finally, after all of the leaves have been rotated into superposed position, blank 16 will continue into fully collapsed relationship.

The end motion of blank 16 causes strip 64 to bunch within space 80 as blank 16 pushes the rest of the fabric back into that space. Cut-out 66, in that case, serves as a housing for the bunched material, and prevents bulging of blanks 12 and 14, or any excessive strain at the joints.

When blank 16 has moved fully into space 80, only tab 36 extends and provides means for engaging and pulling blank 16 and the attached strip out of space 80. When blank 16 is pulled in this manner, leaves 54 first move out of space 80 in their fixed superposed relationship upon blank 16. Then, as strip 64 is placed in tension from its anchor point 68 and becomes taut, the first leaf 86 will be turned by the turning of strip 64 at that position, and will present whatever picturization may appear on its face, and likewise the picturization upon the next adjacent leaf. Continued movement of blank 16 will cause further rounding of strip 64, and, therefore, rotating movement of that next adjacent leaf out of its horizontal position, thus, in turn, exposing the next leaf and its picturizations. This operation is continued until the last leaf is exposed. This can be the leaf directly attached to blank 16 with the end 74.

Many other changes could be effected in the particular constructions, and in the methods of use and construction, and in specific details thereof, hereinbefore set forth, without substantially departing from the invention defined in the claims, the specific description being merely of an embodiment capable of illustrating certain principles of the invention.

What is claimed as new and useful is:

1. A device including a pair of substantially coextensive members fixed in relation to each other, a slide movable between the members, a strip extending between and secured to the slide and a selected one of the members and a plurality of leaves, the leaves, when the slide is positioned substantially wholly between the members, being superimposed one upon the other and then being positioned between the slide and the selected member, and the leaves, when the slide is moved out from a position substantially wholly between the members, being rotated in spaced radial relationship to a position substantially on top of the selected member.

2. A device including a pair of substantially coextensive members disposed one upon the other, a plurality of leaves of substantially identical dimensions, a strip of flexible material, the leaves being disposed with the end edges of the superposed leaves stepped in regular pattern, the faces of the stepped end portions being adhered flat against the face of the strip, and a slide between the members, the strip being secured between the slide and a selected one of the members, the strip being of a length to extend outside the members when the slide is moved out from between the members, the strip and the slide providing means for moving the strip and the leaves with relation to the members to position the strip and the leaves wholly between the members and with the leaves collapsed and superposed one upon the other between the members, and to extend the strip outside of the members and thereby to rotate the leaves with relation to each other and the members to a position wholly outside the members.

3. A device including a pair of substantially coextensive members disposed one upon the other,

means for retaining the members in fixed relation to each other, a plurality of leaves of substantially identical dimensions, a strip of flexible material, the leaves being disposed with the end edges of the superposed leaves stepped in regular pattern, the faces of the stepped end portions being adhered flat against the face of the strip, and a slide between the members, the strip being secured between the slide and a selected one of the members, the strip being of a length to extend outside the members when the slide is moved out from between the members, the strip and the slide cooperating with the retaining means to limit the movement of the slide with relation to the members, the slide providing means for moving the strip and the leaves with relation to the members to position the strip and the leaves wholly between the members and with the leaves collapsed and superposed one upon the other between the members, and to extend the strip outside of the members and thereby to rotate the leaves with relation to each other and the members to a position wholly outside the members.

4. A device including a pair of substantially coextensive members disposed one upon the other, means for retaining the members in fixed relation to each other, a plurality of leaves, a strip of flexible material, the leaves being attached to the strip so that they may assume a superposed relation to each other, and a slide between the members, the slide having edge portions for engaging with the retaining means to limit the movement of the slide with relation to the members, the slide being of a length approximately that of the members but having a cut-out at one end thereof, the strip being attached to one of the members through the cut-out and being attached to the slide immediately at the edge of the cut-out, the slide operating to move the strip and the leaves with relation to the members to position the strip and the leaves wholly between the members or to position the leaves wholly outside the members.

5. A device including a pair of substantially coextensive members disposed one upon the other, means for retaining the members in fixed relation to each other, a plurality of leaves, a strip of flexible material, the leaves being attached to the strip so that they may assume a superposed relation to each other, and a slide between the members, the slide having edge portions for engaging with the retaining means to limit the movement of the slide with relation to the members, the slide being of a length approximately that of the members but having a cut-out at one end thereof, the strip being attached to one of the members through the cut-out and being attached to the slide immediately at the edge of the cut-out.

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