Oct. 19, 1937. A. C. HUSTON 2,096,248

DISPLAY DEVICE

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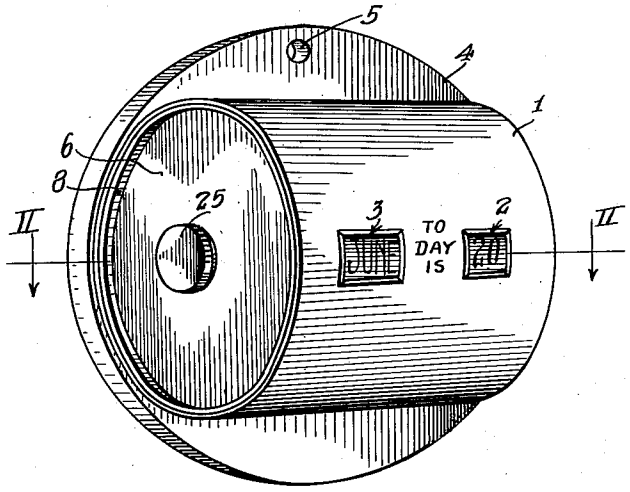


Fig. 1

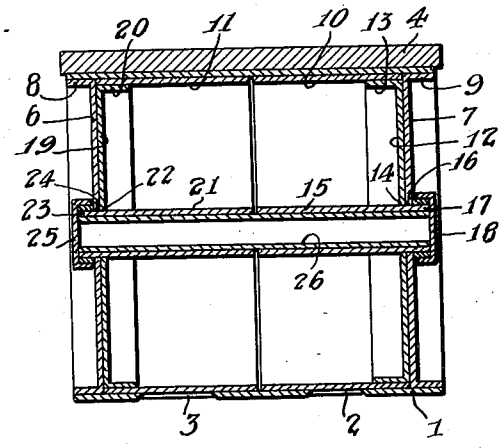


Fig. 2

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DISPLAY DEVICE

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5 Claims. (Cl. 40—68)

My invention relates to display devices, and has particular reference to a display device which may be readily manufactured of paper and paper tubing parts. Various display devices include a casing or housing provided with windows within which is mounted suitable display or indicia carrying members capable of being moved to various positions to display different indicia through the windows. Such mechanisms, however, are usually costly to manufacture and are cumbersome in their construction and manipulation.

It is an object of my invention to provide a display device of the character set forth which may be constructed of relatively inexpensive material and which is extremely simple in its construction and operation.

Another object of the invention is to provide a display device such as a calendar in which the casing is formed of a section of paper or thin sheet-material tubing having a pair of windows and within which operates a pair of rotatable members, each of which is formed of paper or sheet material tubing to present various portions of the surfaces of the inner tubings to the display window whereby indicia or information borne upon the surface thereof may be made visible through the windows.

Another object of the invention is to provide a device of the character set forth wherein all of the parts may be made from paper discs and tubing sections.

Another object of the invention is to provide a device of the character set forth, wherein the outer tubular casing or housing is provided with end discs having concentric openings therein through which projects a tubular bearing member upon which bearing member may be assembled one or more interior tubular members having axes formed of tubular structure fitting exteriorly of the bearing tube and projecting through the discs so as to permit them to be grasped in order to rotate the inner tubular members to present bearing indicia through the windows.

Other objects and advantages will be apparent from a study of the following specifications, read in connection with the accompanying drawing, wherein

Figure 1 is a perspective view of a display device in the form of a calendar, constructed in accordance with my invention; and

Fig. 2 is a horizontal sectional view, taken along line II—II of Fig. 1, and illustrating the various parts and the assembly thereof.

Referring to the drawing, I have illustrated my display device as embodied in a changeable perpetual calendar wherein a casing member 1 constituting a housing for the display or indicia bearing members is provided with a pair of windows 2 and 3 through which indicia may be exhibited.

The casing 1 is illustrated as being formed of a short length of tubing formed of sheet material which may be of any suitable character, though I prefer to employ a tubular section of paper of relatively large diameter.

The casing or housing 1 may be mounted upon a suitable base, stand or other support 4. In the particular embodiment illustrated herein, the base 4 constitutes a disc of sheet material, such as paper, cardboard, or the like, and adapted to be hung upon a wall as by providing a suitable pin-hole 5 therein, through which nails, screws, pins or other attaching devices may be inserted.

The housing member 1 is provided with suitable end closures 6 and 7, which may be formed from paper discs stamped out considerably in excess of the internal diameter of the tubing employed for the construction of the housing 1, being stamped or otherwise formed into a cup-like shape for insertion into the ends of the housing tube 1, the cupping of the disc forming peripheral flanges, as indicated at 8 and 9, by which the end disc may be glued or otherwise secured in place in the ends of the housing 1.

Behind each of the windows 2 and 3 is mounted an indicia bearing member, that associated with the window 2 being designated by the reference character 10, while that associated with the window 3 is designated by the reference character 11.

As will be observed from an inspection of Fig. 2, the indicia bearing member 10 is preferably formed from a short section of tubing constructed of sheet material, such as paper, having an external diameter just slightly smaller than the internal diameter of the housing tube 1, this short section of tubing preferably extending through a distance slightly less than one-half of the length of the interior of the housing tube 1. The indicia bearing member 10 preferably has a supporting or spacing disc 12 secured at one end thereof, this disc being similar to the discs 6 and 7 in that it is formed with an inwardly projecting flange 13 by which the disc 12 may be secured in place within the tubular indicia bearing member 10. The disc 12 has an opening 14 concentric therewith through which projects a guide tube 15 which may be cemented, glued or otherwise secured in the opening of the disc 12. The end closure disc 7 is provided with a central opening

16, concentric therewith, of a diameter approximately equal to the external diameter of the tubular guide member 15 so that one end 17 of the guide member 15 projects through the closure disc 7 to constitute a handle projecting outwardly of the housing, by which the indicia bearing tubular member 10 may be rotated to various positions to exhibit various indicia through the window tube.

If desired, a cup-like cap 18 may be placed about the end of the guide tube 15 to constitute both a closure for the tube 15 and a handle by which the guide tube 15 and the indicia bearing member 10 may be readily manipulated by hand. The indicia bearing member 11 is similarly constructed of a section of paper or similar tubing having a supporting or spacing disc 19 secured as by means of its flange 20 to the indicia bearing member 11. Likewise the indicia bearing member 11 may be provided with a tubular guide member 21 secured as at 22 to the spacing disc 19 and projecting, as at 23, through a suitable concentric opening 24 in the end closure 6, the outer end of the guide tube 21 being provided with a cap 25 similar in all respects to the cap 18.

While it may be found to be desirable to use a pair of spacing or supporting discs or caps 12 or 19 for each of the indicia bearing members, one of such discs is found to be sufficient for the guide tubes 15 and 21 which are guided or supported through their lengths. One manner of suitably supporting these guide tubes is to employ an axle tube 26 having an external diameter slightly less than the internal diameter of the guide tubes 15 and 21 so that these tubes may be readily rotated therearound and the tube 26 preferably has a length sufficient to extend through both of the closure discs 6 and 7 for the housing. Thus the axle tube 26 may be telescopically assembled within both of the guide tubes 15 and 21, and receives its bearing support at either end through the guide tube 15 and the guide tube 21, respectively, these tubes bearing upon the end closures 6 and 7 at the openings 16 and 24, respectively.

The indicia which may be employed on the indicia bearing members 10 and 11 may be varied though when my device is to be used as a calendar one of the indicia bearing members, such as 11, may bear the names of the months spaced preferably at regular intervals about the exterior surface of the tube section 11, while the opposite tube section 10 may have the various days of the month distributed about the surface of this tube section so that by properly turning the handle or cap 25 the appropriate name of the month may be exhibited through the window 3, while turning the tube section 10 by its handle or cap 18 will bring the desired day of the month into visible position through the window 2.

It will therefore be observed that I have provided a construction for display devices, and particularly for a calendar, which is relatively inexpensive to manufacture, all of the pieces being capable of being made out of tubular sections of sheet material and particularly adapted to be manufactured from tubular sections of metal, cardboard and the like. Except for these tubular sections 1, 10, 11, 15, 21 and 26 the remaining parts are formed from discs of the same or similar sheet material, such as paper, cardboard, or the like.

It will also be observed that by the employment of the axle tube 26 I am enabled to form a substantially rigid indicia bearing member from a large tubular section merely supporting the same with a disc at one end and yet the indicia bearing member will be adequately guided and supported throughout its entire length.

While I have shown and described the preferred embodiment of my invention herein, I do not wish to be limited to any of the details of construction illustrated or described herein, except as defined in the appended claims.

I claim:

1. In a display device, a housing formed of a section of tube of relatively large diameter and closed at either of its ends by means of a closure disc formed of sheet material, a plurality of windows in the cylindrical surface of the housing member so formed, an indicia bearing member for each of said windows located within said housing and formed of a short section of tube of smaller diameter than said housing tube, each of said indicia bearing members including a tubular guide member mounted concentrically with the tubular indicia bearing member and projecting beyond the end of said indicia bearing member and through one of the end closures for said housing member, the projecting end of said tubular guide constituting a handle exterior of said housing by which the indicia bearing member can be rotated to various positions.

2. In a display device, a housing formed of a section of tube of relatively large diameter and closed at either of its ends by means of a closure disc formed of sheet material, a plurality of windows in the cylindrical surface of the housing member so formed, an indicia bearing member for each of said windows located within said housing and formed of a short section of tube of smaller diameter than said housing tube, each of said indicia bearing members including a tubular guide member mounted concentrically with the tubular indicia bearing member and projecting beyond the end of said indicia bearing member and through one of the end closures for said housing member, the projecting end of said tubular guide constituting a handle exterior of said housing by which the indicia bearing member can be rotated to various positions, and an axle member extending through both of said end closures and through the tubular guides of all of said indicia bearing members to constitute a bearing support for said guide members throughout their length.

3. In a display device, a housing formed of a section of tube of relatively large diameter and closed at either of its ends by means of a closure disc formed of sheet material, a plurality of windows in the cylindrical surface of the housing member so formed, an indicia bearing member for each of said windows located within said housing and formed of a short section of tube of smaller diameter than said housing tube, each of said indicia bearing members including a tubular guide member mounted concentrically with the tubular indicia bearing member and projecting beyond the end of said indicia bearing member and through one of the end closures for said housing member, the projecting end of said tubular guide constituting a handle exterior of said housing by which the indicia bearing member can be rotated to various positions, and a cap formed of sheet material attached to the extending end of said guide to constitute a hand engaging member by which the guide and the indicia bearing member may be rotated.

4. In a display device, a housing formed of a section of tube of relatively large diameter and

closed at either of its ends by means of a closure disc formed of sheet material, a plurality of windows in the cylindrical surface of the housing member so formed, an indicia bearing member for each of said windows located within said housing and formed of a short section of tube of smaller diameter than said housing tube, a circular opening in each of said closure discs concentric with the tubular housing, each of said indicia bearing members including a guide tube extending through and bearing upon the material of said disc surrounding said opening, and a spacing disc mounted upon and attached to said guide, the periphery of which is attached to the interior of said indicia bearing tube.

5. In a display device, a housing formed of a section of tube of relatively large diameter and closed at either of its ends by means of a closure disc formed of sheet material, a plurality of windows in the cylindrical surface of the housing member so formed, an indicia bearing member for each of said windows located within said housing and formed of a short section of tube of smaller diameter than said housing tube, a circular opening in each of said closure discs concentric with the tubular housing, each of said indicia bearing members including a guide tube extending through and bearing upon the material of said disc surrounding said opening, a spacing disc mounted upon and attached to said guide, the periphery of which is attached to the interior of said indicia bearing tube, said guide tube extending substantially the entire length of said indicia bearing member, and an axle member extending through each of the guide tubes and through the end closure discs to support the guides and the indicia bearing members throughout their lengths.

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