Feb. 19, 1963 A. HANSON 3,077,687

DISPLAY DEVICE

Filed Feb. 25, 1960

Fig. 1

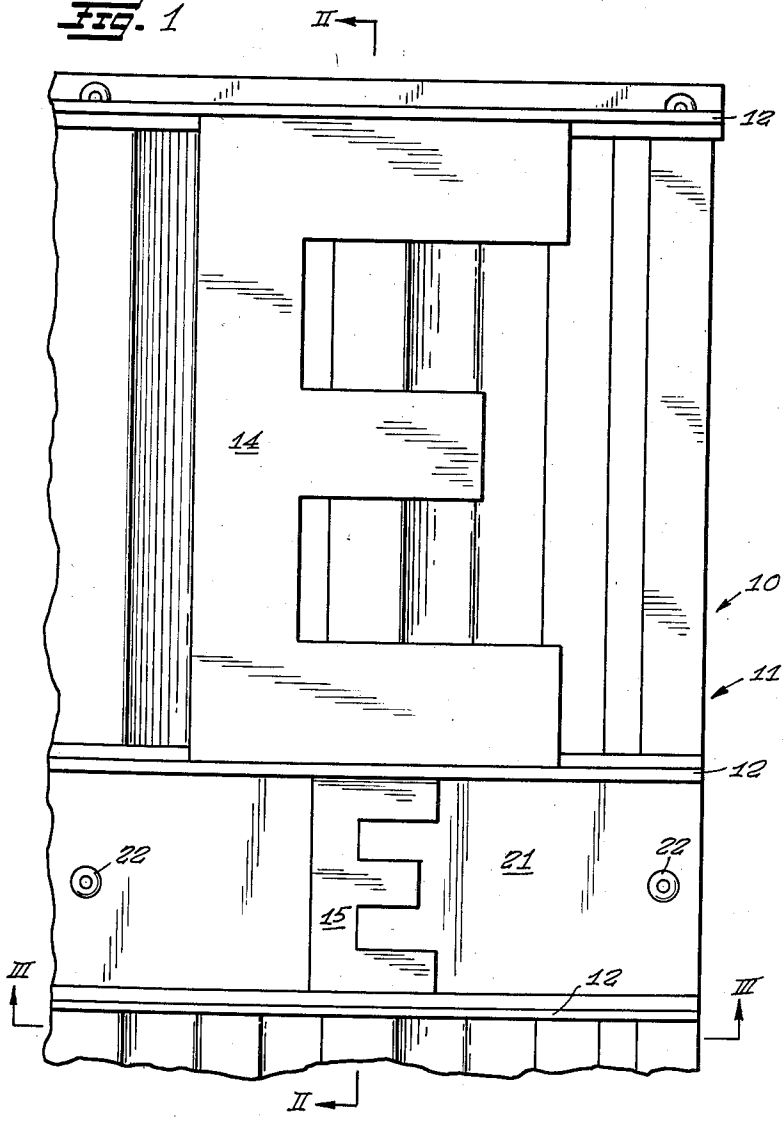
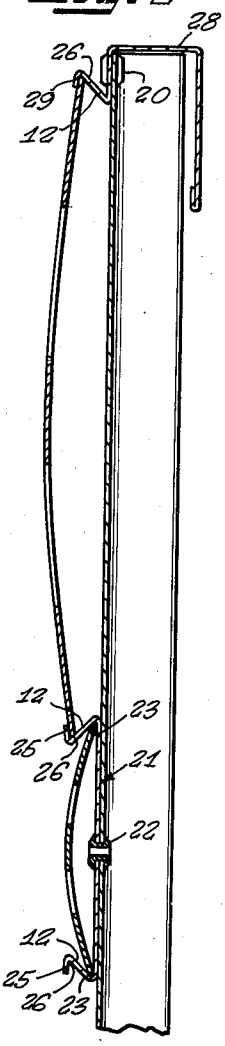


Fig. 2



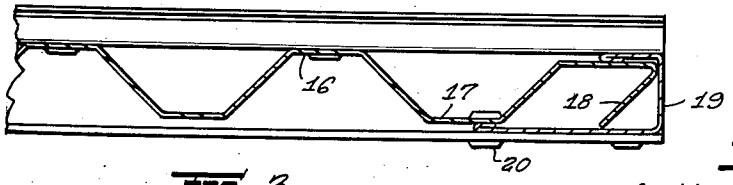


Fig. 3

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DISPLAY DEVICE

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This invention relates to display devices and more particularly relates to a sign construction which is adapted to utilize display characters which can readily be inserted in and removed from their supporting structure.

More particularly the invention is directed to a sign construction employing flexible metal or plastic characters which may be bowed to effect insertion of their opposite ends within opposed mounting grooves formed by a pair of spaced mounting members. The mounting members extend angularly outwardly from the support and form, in conjunction with the support, acute-angle grooves. The mounting members are alternately inclined toward opposite ends of the support and have lips formed on the outermost ends thereof which face in a direction opposite to the inclination of the mounting members and which, in conjunction with the mounting members, form a second set of acute-angle grooves.

As a result of this construction, each of the mounting members may serve to grip one end of a character placed above and below it. The characters employed, are preferably flexible and have a vertical dimension slightly greater than the vertical distance between a pair of facing acute-angle grooves so that the characters may have their opposite ends seated within a pair of facing grooves in such a manner that a slight bow in the characters will insure positive mounting of the characters on the support.

The structure which forms the subject of my invention could, of course, be used to mount non-flexible characters on a support and, when so utilized, might be arranged to permit the characters to be slid into place from either end of the display device.

The display device illustrated in the appended drawings is a preferred embodiment of my invention and, it will be noted, is of extremely simple design and so may be readily and economically manufactured. The display device utilizes a minimum number of components to provide a means for displaying a maximum number of characters.

It is therefore a principal object of the present invention to provide a display device for displaying a plurality of characters which is of very simple design and which may be readily and economically manufactured.

Another object of the invention resides in the provision of a display device including a support and a plurality of spaced mounting members wherein each of the mounting members is effective to provide a seat for characters both above and below the same.

Another object of the invention resides in the provision of a display device of the character described which employs flexible metal or plastic characters which may be bowed to effect insertion or removal thereof from the device.

These and other objects of the invention will appear from time to time as the following specification proceeds and with reference to the accompanying drawings, wherein:

FIGURE 1 is a fragmental front elevational view of a display device constructed in accordance with the principles of the present invention;

FIGURE 2 is a vertical sectional view through the device illustrated in FIGURE 1 and taken along lines II—II of FIGURE 1; and

FIGURE 3 is a horizontal sectional view taken along lines III—III of FIGURE 1.

With reference to the drawings, a display device 10 includes generally a corrugated support 11, a plurality of

outwardly extending mounting members 12, and a plurality of flexible metallic characters 14 and 15 which are mounted between the mounting members 12.

Referring particularly to FIGURE 3, the corrugated support 11 has a plurality of front and rear walls 16 and 17, respectively, and terminates in rearwardly bent longitudinal edges 18. Rigidifying corner supports 19 are rolled about the forward wall 16 along each longitudinal edge of the tray and around the rearwardly extending portions 18 and are disposed in juxtaposition with the rear wall 17 adjacent the longitudinal edge of the support. The rigidifying member 19 is then secured to the rear wall 17 of the support by riveting or welding or any other suitable means. In the illustrated embodiment of the invention these members are secured together by a plurality of rivets 20.

Referring now particularly to FIGURE 2, it will be noted that a plurality of elongated plates 21 are vertically mounted on the support 11 and are affixed thereto by means of a plurality of rivets 22.

The opposite longitudinal edges of the plates 21 are inturned toward one another and form, in relation to the bases of the plates 21 and the forward walls 16 of the support 11, acute-angle grooves 23. These inturned longitudinal plate edges are hereinafter referred to as the mounting members 12.

Out-turned lips 25 are formed integrally with the mounting members 12 and extend in directions opposite to one another to form, in conjunction with their respective mounting members 12, acute-angle grooves 26.

The characters 15 have a vertical dimension which is slightly greater than the distance between the facing acute angle grooves 23 so that when a character is flexed and snapped into place or slid into place from the end of the plate member 21, it will be disposed in a bowed, stressed condition and will thus be firmly supported between the mounting members 12 with its opposite edges disposed in the acute-angle grooves 23. Similarly, the flexible metal character 14 will be maintained in its proper mounted position on the support 11 between the mounting members 12 with its opposite edges disposed within the acute-angle grooves 26.

A frame member 28 is fitted along the upper edge of the support 11 and serves to rigidify the same but, unlike the rigidifying corner supports 19, its forwardly facing portion is bent outwardly from the support 11 toward the upper end of the support, to form a mounting member 12, and has a generally downwardly extending lip 29 formed integrally therewith which, in conjunction with the member 12, defines another acute-angle groove 26 which faces toward and opens to the acute-angle groove 26 formed on the plate member 21.

Here too, a character 14 is disposed with its opposite ends in the acute-angle grooves 26 which are formed between the main portions of the mounting members 12 and their respective lips 25 and 29.

A single plate 21 thus serves to support characters between its spaced mounting members and serves additionally to support the bases and upper end portions of characters mounted both above and below it, respectively.

It will of course be understood, as has heretofore been pointed out, that nonflexible characters might be employed in conjunction with this display device and in such instances they could be arranged to be slid into their proper position from one side of the display device.

I have thus provided a display device which may be expeditiously manufactured at a minimum cost yet which provides an excellent means for displaying a plurality of characters and for permitting simple removal and insertion of the characters in the display device.

It will further be understood that this embodiment of the invention has been used for illustrative purposes only

and that various modifications and variations in the present invention may be effected without departing from the spirit and scope of the novel concepts thereof.

I claim as my invention:

A display device comprising a flat support, a plurality of elongated mounting members extending in parallel spaced relation transversely across said support, each said mounting member having a longitudinally extending flat base, inturned portions at each side of said base forming facing first acute angles with said base, out-turned lips disposed in parallel spaced relation to said support and integral with said inturned portions and forming second acute angles facing complementary second acute angles with adjacent members, and removable flexible display characters disposed in a flexed condition between each set of adjacent facing second acute angles grooves with

opposite ends thereof lying within said grooves, and other removable display characters disposed in flexed condition between each set of adjacent first acute angle grooves.

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