July 28, 1964 L. C. OWNBEY 3,142,124

CLIP-ON SIGN CHARACTER

Filed June 5, 1962

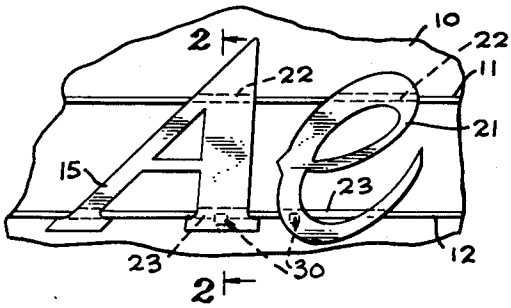


Fig. 1

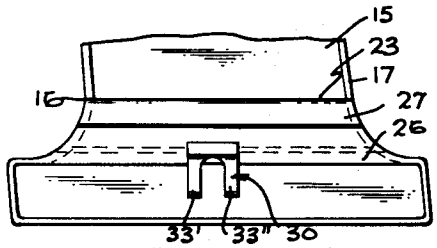


Fig. 3

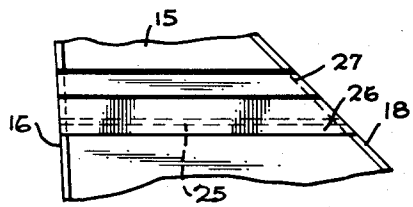


Fig. 4

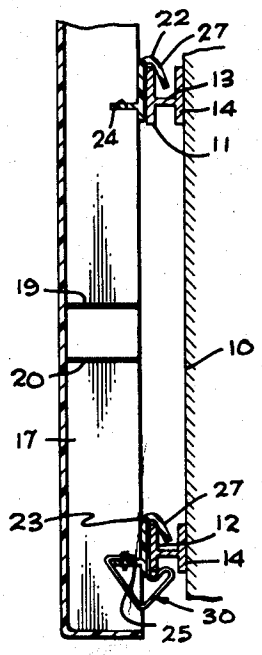


Fig. 2

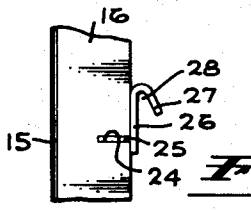


Fig. 5

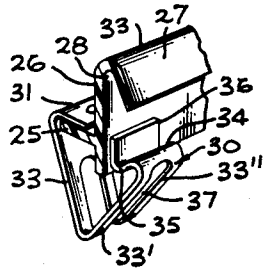


Fig. 7

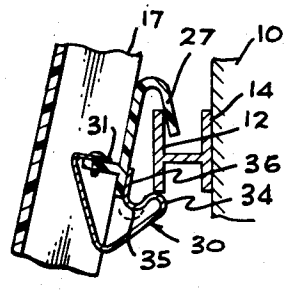


Fig. 6

INVENTOR.

LLOYD C. OWNBEY

BY

Beehler & Shanahan

ATTORNEYS

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CLIP-ON SIGN CHARACTER

Lloyd C. Ownbey, 1313 Collingwood Place, Los Angeles, Calif.

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The invention has reference to sign characters and is more especially concerned with changeable letters and numerals usually made of translucent, white or colored synthetic plastic resinous material which are clipped selectively on rails applied to a background in such fashion that the letters can be removed and interchanged to spell out any words which may be needed for a sign. The letters in question are frequently found on signs advertising movies, shows, conventions, and programs of considerable variety where the sign is one which needs changing from time to time.

Plastic letters of the kind here under considerations have been in use for a great many years. The usual problems have been experienced for attaching the letters to the rails in an acceptable fashion. These problems include the provision of a fastening means which will prevent the letters from being blown off of the rails or dislodged but which at the same time is not so stiff as to make the letters difficult to apply and remove when the sign is to be changed. Heretofore, it has not been possible to compromise effectively these two requirements. Other factors which heretofore have not been accommodated in a satisfactory fashion have been the provision of clips which do not get loose after repeated use and which are adequately fastened by simple means to the letter in such fashion that they do not become easily broken. Very often, signs of this character are located high above the sidewalk so that every time a sign needs changing the operator must work from a place high up on a ladder. Accordingly, unless the letters can be easily applied and removed and applied with appreciable security, the chore of changing the sign becomes considerably burdensome and to a degree hazardous.

It is therefore among the objects of the invention to provide a new and improved clip-on sign character assembly which is very simple in its operation so that each character can be very quickly and easily applied and removed with equal ease, without, however, impairing the needed firm attachment of the character to the rails and background.

Another object of the invention is to provide a new and improved clip-on sign character assembly which results in a very steady attachment such that the characters cannot tilt out of a desired vertical alignment and also sufficiently firm so that the spacing of the characters when applied will not change as the result of jarring or wind action and also sufficiently snug so that wind will not blow the letters from their clipped on position.

Still another object of the invention is to provide a new and improved clip-on device for sign characters which has a considerable lateral spread thereby to assure a firm and steady attachment but which depends upon a relatively simple spring clip, preferably limited to only one clip located near the lower portion of the character thereby to not only improve the ease of application and removal but also to minimize the number of intricate parts and accordingly keep the cost as low as possible.

Also included among the objects of the invention is to provide a new and improved clip-on device for sign characters which is substantially universal in its adaptation to different types of supporting rails so that the clip-on device with all of its advantages may be enjoyed under virtually all commercial types of rail supports.

Further included among the objects of the invention is

to provide a new and improved clip-on attachment for sign characters which can, if desired, be constructed largely of synthetic plastic resinous material which weathers well without deteriorating, the metallic portions of the clip-on device being kept to a minimum, the spring portions of the device moreover being of such construction that they can be ruggedly built to last for long periods of service without replacement but at the same time being sufficiently limber to maintain the desired ease of application and removal.

With these and other objects in view, the invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter set forth, pointed out in the appended claims and illustrated in the accompanying drawings.

In the drawings:

FIGURE 1 is a front elevational view of two selected clip-on sign character assemblies applied to a typical background.

FIGURE 2 is a longitudinal sectional view taken on the line **2—2** of FIGURE 1.

FIGURE 3 is a fragmentary rear view of a lower portion of the sign character assembly of FIGURES 1 and 2.

FIGURE 4 is a fragmentary rear view of the upper portion of the sign character assembly of FIGURES 1 and 2.

FIGURE 5 is a fragmentary end elevational view of the upper portion of the device as shown in FIGURE 4.

FIGURE 6 is a fragmentary longitudinal sectional view of the lower portion of the device as shown in FIGURE 2 but showing the lower bracket at the moment of attachment.

FIGURE 7 is a side perspective view of the spring clip of the lower attachment showing the bracket partially in section.

In an embodiment of the invention chosen for the purpose of illustration, there is shown a background **10** which may, if desired, be of translucent plastic or other material so that it can be lighted from behind either naturally or artifically. On the face of the background are supporting rails, namely, an uppermost rail **11** and a lowermost rail **12**. The rails are of substantially conventional construction and by way of example only, each is shown as comprising a web **13** attaching the rail to a supporting flange **14**, the rail itself being spaced from the supporting flange by the depth of the web **13**.

It is customary in commercial use to space the uppermost and lowermost rails apart vertically a distance of about seven inches although it is appreciated that the spacing may vary considerably depending upon the ultimate size of the sign characters which will be used on any particular occasion.

In the chosen embodiment, two characters have been selected, again by way of example only. These consist of the character "A" which is an upper case or capital letter and the character "*e*" which in the chosen embodiment is a lower case letter. Understandably, any character may be employed which may be a letter of the alphabet, a numeral, or sundry punctuation marks, or even other special characters.

By way of example, the letter "A" comprises a line **15** of material which traces the letter. This is preferably of a synthetic plastic resinous material of virtually any moldable consistency which can be appropriately molded by conventional techniques to produce a white, a colored, or even a black, smooth surfaced plastic effect. As appears from the rear view of FIGURES 3 and 4, spaced rearwardly extending side walls **16** and **17** extend rearwardly from the side edges of the upright leg of the character "A" and are formed of the same material. In FIG-

URE 4, a side wall 18 of the sloping leg of the "A" is shown opposite the side wall 16. Side walls 19 and 20 extend along the bar of the "A." The letter "e" is provided with similar rearwardly extending side walls (not shown) which define lateral edges of a line 21 which traces the form of the character. Other letters, numerals, and characters are similarly fashioned.

Support for the characters on the rails is provided by horizontal brackets attached to the rear of the character in each instance. For the letter "A," there is provided an upper bracket 22 and a lower bracket 23. The brackets are substantially identical in cross-sectional configuration but vary in length depending upon the particular form of the character and its overall breadth at the location where the bracket is supplied. The upper bracket for the letter "A" which has been chosen for the purpose of illustration spans the distance from the side wall 16 to the side wall 18 as shown advantageously in FIGURES 1 and 4. To attach the bracket to the character a groove 24 is cut in the side wall so that it receives a leg 25 of the bracket. When both the character and the bracket are made of synthetic plastic resinous material, the leg can be welded to the side wall by employment of an appropriate solvent or adhesive. Should the materials not be compatible to this degree, an appropriate adhesive or other means of attachment can be employed. At the inner end of the leg 25 is a vertical flange 26 at the upper end of which is a part of the bracket which extends rearwardly, namely a portion 27 providing a recess 28. The last mentioned elements may be appropriately described as an overhanging lip.

Except for length, the lower bracket 23 is the same in all respects as the upper bracket 22. By bringing the bracket all the way across the rear of the character in each instance and fastening it to the outermost of the walls which are encountered, a substantial breadth is established giving a long horizontal line of support. The bracket, of course, can be cut off flush with the outer surface of the appropriate wall whether it be vertical, oblique or curved. Moreover, should the bracket intersect any intermediate walls as is the case of the lower bracket in each of the letters "A" and "e" selected by way of example, the walls intersected will also be provided with appropriate grooves like the groove 24 so that the bracket can be attached by the appropriate means described to each of the walls which it intersects thereby adding appreciably to the security of the attachment. Moreover, where the span is long as it is between the lower ends of the legs of the letter "A," the bracket may be cut so that it actually consists of two pieces, one for each of the legs without any intervening portion. Where the span is short and particularly where the bracket is either transparent or the same color as the background, the bracket may be left intact spanning the distance between traces of the letter thereby adding appreciably to the effective supporting ability of a long length of bracket.

In order to fasten the character assembly to the rails, a spring clip 30 is provided. Ordinarily one clip is sufficient. In the chosen embodiment, the clip consists of a single length of spring metal bent in such fashion as to provide an arm 31 adapted to overlie the leg 25 and to be fixed to the leg by appropriate screws 32 or other conventional means of attachment. The arm extends from the area of attachment as a generally downwardly convex section 33 having forward and rearward portions, the rearward portion extending upwardly and then being bent somewhat sharply into a rounded strike edge 34. The material is then curved downwardly to provide a recessed section 35 and ultimately upwardly to provide a vertical section 36. As a matter of providing adequate breadth for the clip but to avoid excessive use of metal and unnecessary spring tension, the convex section may be provided with a cut-out intermediate portion 37 thus providing in reality a convex section having two portions 33' and 33" as shown to good advantage in FIGURES 3 and 7. This last expedient is, however, purely optional.

When one or another of the characters, such for example as the characters shown in FIGURE 1, are to be applied to a pair of rails, the easiest manner of fastening them is to place the character against the rails so that the overhanging portion 27 of both the upper and lower brackets overlies the upper edge of the rail in each instance. Thereafter upon a slight push toward the background and, if need be, slightly downwardly, pressure will cause a camming action between the strike edge 34 and the lower edge of the lowermost rail. This will deflect the recessed section 35 slightly to about the location of the broken line of FIGURE 6 and at the same time deflecting the strike edge so as to clear the lower edge of the rail. This action causes the clip to snap into place as shown in FIGURE 2 whereupon the recessed section returns upwardly into contact engagement with the lower edge of the rail. While movement of the recessed section takes place, the vertical section is free to slide in face to face relationship with the flange 26 of the lower bracket acting as a guide and as an agent for backing up the spring action of the clip to give it a steadier movement and grip upon the rail. In clipped on position, the vertical section lies between the flange 26 and the outside face of the lowermost rail.

To remove the character, it is necessary only to grasp the lower end of the character and pull it outwardly away from the rail. This again causes the clip to deflect with respect to the recessed section 35 although the camming action of the lower edge of the rail against the strike edge is in reversed direction. In any event, the spring action of the clip will permit it to yield sufficiently to disengage from the rail while the adjacent overhanging portion 27 remains in engagement with the upper portion of the lowermost rail. After disengagement, the character can be lifted clear of the rails and removed.

Although the description has centered about employment of two brackets, it will be appreciated that for very small letters and for numeous punctuation marks, a single bracket may suffice, in which event a bracket and accompanying clip like the lower bracket heretofore described will be employed. The clip will be of the same construction and application of the character to one of the rails and removal therefrom follows in the same fashion as that already detailed.

Attention is directed to the relative vertical alignment of the upper and lower brackets for the letter "A" and the upper and lower brackets for the letter "e." Although for the letter "A" the clip is in vertical alignment with the upper bracket, for the letter "e" the clip is offset appreciably toward the left with respect to the upper bracket. This appreciable offset relationship is made possible because of the fact that the upper bracket in particular is relatively long and steadies the engagement of the letter "e" with the upper rail even though the clip engagement is offset. There is additionally some steadying action with respect to the lowermost rail under those circumstances where the lower bracket is long as in the case of the letter "e" herein presented as an example.

While the invention has herein been shown and described in what is conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope of the invention, which is not to be limited to the details disclosed herein but is to be accorded the full scope of the claims so as to embrace any and all equivalent devices.

Having described the invention, what is claimed as new in support of Letters Patent is:

1. A plastic clip-on sign character assembly adapted for attachment to a rail comprising a sign character, a bracket extending horizontally across the rear face of said character, said bracket having a rearwardly extending overhanging lip adapted to support the character on the upper edge of the rail, and a spring clip attached to the character adjacent the bracket and adapted to releasably

engage the lower edge of the same rail, said clip comprising a spring section extending in a generally downwardly convex direction, a substantially rounded strike edge at the rear, a recessed section forwardly of the strike edge adapted to receive said lower edge of the rail and a free end section adapted to shift relative to a rear portion of the bracket when the character is applied to and removed from the rail.

2. A plastic clip-on sign character assembly adapted for attachment to a pair of horizontally spaced rails comprising a sign character having spaced rearwardly extending walls, an upper and a lower bracket extending horizontally across the rear face of said character, said lower bracket being secured to said walls, each bracket having a rearwardly extending overhanging lip adapted to support the character on the upper edge of the respective rail, and a spring clip attached to the character adjacent the lower bracket and adapted to releasably engage the lower edge of the lowermost rail, said clip comprising a spring section extending in a generally downwardly convex direction, a substantially rounded strike edge at the rear, a recessed section forwardly of the strike edge adapted to receive said lower edge of the lowermost rail and an end section in shiftable relationship with a rear portion of the bracket.

3. A plastic clip-on sign character assembly adapted for attachment to a pair of horizontally spaced rails comprising a sign character having spaced rearwardly extending walls, an upper and a lower bracket of said material extending horizontally across the rear face of said character, said brackets being secured to laterally outermost walls of the character, each bracket having a rearwardly extending overhanging lip adapted to support the character on the upper edge of the respective rail, and a spring clip attached to the character adjacent the lower bracket and adapted to releasably engage the lower edge of the lowermost rail, said clip comprising an arm attached to the character, said arm including a spring section extending in a generally downwardly convex direction, a substantially rounded strike edge at the rear, a recessed section forwardly of the strike edge adapted to receive said lower edge of the lowermost rail and an end section in sliding relationship with a rear portion of the lower bracket.

4. A plastic clip-on sign character assembly adapted for attachment to a pair of horizontally spaced rails comprising a sign character having a line of synthetic plastic resin material tracing the form of the character and spaced rearwardly extending walls on said line of material, an upper and a lower bracket of said material extending horizontally across the rear face of said character, said brackets being embedded in laterally outermost walls of the character and any walls therebetween along the length of said bracket and being fastened thereto, each bracket having a rearwardly extending overhanging lip adapted to support the character on the upper edge of the respective rail, and a spring clip adapted to releasably engage the lower edge of the lowermost rail, said clip comprising an arm attached to said lowermost bracket, said arm including a spring section extending in a generally downwardly convex direction, a substantially rounded strike edge at the rear, a recessed section forwardly of the strike edge adapted to receive said lower edge of the lowermost rail and a vertical section in sliding face to face engagement with a rear portion of the lower bracket and adapted in use to lie between said rear portion and a front portion of the lowermost rail.

5. A plastic clip-on sign character assembly adapted for attachment to a rail comprising a sign character, upper and lower brackets respectively extending horizontally across the rear face of said character, one of said brackets having a rearwardly extending overhanging lip adapted to support the character on one of said rails, the other of said brackets having a rearwardly extending overhanging lip adapted to support the character on the upper edge of the other of said rails, and a spring clip attached to said other bracket and adapted to releasably engage the lower edge of said other of said rails, said clip comprising a spring section extending in a generally downwardly convex direction, a substantially rounded strike edge at the rear, a recessed section forwardly of the strike edge adapted to receive said lower edge of said other of said rails and a free end section facing the respective bracket adapted to shift relative to a rear portion of said respective bracket when the character is applied to and removed from said other of said rails.

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