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COMBINATION DISPLAY DEVICE

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This invention relates to display signs of the general type disclosed, for example, in United States Patents Nos. 2,048,040 and 2,119,430, and is particularly concerned with a sign provided with uniform principal carrier means and with uniform auxiliary carrier means for supporting display elements and combinations of display elements of different size and shape in any desired combination.

A sign made in accordance with the disclosures contained in the above noted patents comprises a box or receptacle provided at one or more sides with a translucent display panel and carrier means extending horizontally across and in parallel with the panel for removably supporting display elements in front thereof. These carrier means may be simple rods or the like, or channel-shaped members, depending on the particular structure of the display elements. Illuminating means may be disposed within the box for the purpose of illuminating the panel. The display elements may have peripheral flanges provided with inclined notches for engagement with the horizontal rod-like supports, or they may be provided with lug-like top and bottom extensions for engagement with channel-shaped carrier supports. These elements may be arranged on the carrier supports so as to spell out or to convey a desired message appearing against the display panel in bold silhouette outline. The display panel may be made in one piece or in several sections, depending on the size of the sign, an example of the latter, sectionalized structure being described in the previously noted Patent 2,119,430. Another embodiment of such a sign, that may be mentioned in this brief review of the prior art, is described in United States patent application, Serial No. 213,603, filed June 14, 1938, showing a background or display panel which comprises a number of strips or plates horizontally disposed one above the other in a common plane, each strip being provided with an angular forwardly projecting carrier ledge. The ledges are equally spaced from each other and constitute the carrier supports for the sign elements.

These prior signs are adapted to accommodate principal display elements, for example, letters or characters of different size and height. The height of the smallest individual element is determined by the distance between any two of the carrier supports. Considering only the letter structure provided with notches, and assuming the distance between the carrier mem-

bers to be, say 7 inches, it follows that the mounting notches in the letters or display elements must be spaced likewise. The overall height of the display elements exceeds this distance by a predetermined amount; that is, the overall height may be, for example, 8, 10 or 12 inches. Larger display elements measuring, for example, 16, 18 or 20 inches in height, may be made for support on any three adjacent horizontal carriers, and still larger elements measuring, for example, 24 inches, may be mounted on four such horizontal supports. The dimensions noted herein may or may not correspond to dimensions used in practice; they are merely mentioned for the purpose of description. The essential thing to be observed is that such a sign renders it permissible to mount thereon letters, characters, figures and the like, in short, principal individual sign elements of different size or height.

Such a sign may be standardized in its elements to some extent and is quite adaptable and versatile, inasmuch as it permits variation in the setup of messages using, for example, prominent individual capitals followed by smaller individual sign elements to form words or images. This adaptability or flexibility, however, is limited by the necessity, in assembling messages, of using special combination sign elements, symbols or marks which require individual letters or characters of a size smaller than the smallest principal sign element that can be supported on two adjacent carrier members. Examples of such sign combinations, symbols or marks may be found in the words "to—for—in—out—on—by—at—and—of—from" and the like, also punctuation marks, symbols such as "&—()—'—%—"—!" etc., and numerous abbreviations as well as ornamental symbols or the like. There are many instances where such elements must be made smaller than any principal letter in a given text, and other instances where it would be very desirable to use an element of a size smaller than a letter or sign element forming part of the text or setup. Combinations and subcombinations that may be formed are too numerous for even approximate listing. In any case, the ideal would be to furnish a sign that is as flexible in its use as is a print, giving in fact unlimited possibilities for forming desirable text or image combinations for display.

The present invention realizes this concept by the provision of an auxiliary carrier device consisting of a simple frame that can be easily and removably mounted on the principal carrier sup-

ports, the frame being provided with intermediate carrier members for accommodating individual sign elements of an intermediate or small size either alone or in any desired combination between or partly between any of the principal carrier supports of a sign.

The invention is described below with reference to the accompanying drawing, wherein

Fig. 1 shows a display panel with an embodiment of the auxiliary carrier attached thereto; and

Fig. 2 illustrates an example of a complete sign employing the auxiliary carrier shown in Fig. 1, in the makeup or assemblage of a message.

The unit shown in Fig. 1 comprises the display panel 11 which may be of glass provided on two opposite sides with channel-shaped holders 12 and 13. These holders are interconnected by the horizontally extending principal carrier supports 14 and 15. Each of the holders 12 and 13 may be equipped with legs or bottom extensions 16 and 17, respectively, in order to hold the glass panel 11. Several such units may be aligned in the opening of a sign, one next to the other, with the carriers 14 and 15 forming substantially continuous horizontally extending lines across the width of the display opening of a sign. A structure of this type is shown in the previously mentioned United States Patent No. 2,119,430. The holders 12 and 13, as well as the carriers 14 and 15 are small, compared with the entire surface of such a sectionalized display panel, and therefore do not appear in any conspicuous or prominent manner that would obscure or detract from the display. A message is assembled on such a sign by attaching letters or sign elements solely on and to the carrier supports or cross members 14 and 15. The height of the smallest individual sign element is determined by the space between the carriers 14 and 15, as described previously. If it is desired to use on a structure such as shown in Fig. 1, comprising merely the principal carriers 14, 15, sign combinations made up of letters of smaller size, such combinations must be furnished as rigid prefabricated units wherein the individual letters are interconnected by supporting bars or ribs.

The new sign eliminates the shortcomings and waste resulting from old structures of this type by providing an auxiliary carrier, comprising the upright members 20 and 21 for removable attachment with the principal carriers 14 and 15 through the medium of suitable inclined notches. In case the sign structure is equipped with channel-shaped principal carriers, the uprights will be simply placed therein; that is, the notches will not be necessary. Auxiliary carrier cross members 22 and 23 interconnect the uprights 20 and 21, forming with these uprights a removable auxiliary carrier unit. These auxiliary carriers are shown in the drawing to be rod-like members. Channel members may take their place in the case of a sign for sign elements of the previously mentioned lug-letter type. The number of auxiliary carrier members 22 and 23 which may thus be removably placed within the space between the principal carrier members 14 and 15 is not limited to two carriers as shown in the drawing, but will be determined by any given conditions to which the sign must conform. It is understood that the auxiliary carrier may be of any desired width and, likewise, the uprights may be extended in either direction or in both directions, and may be interconnected by additional cross members disposed either beneath the principal carrier 15 or above the principal car-

rier 14, extending the possibility for mounting or combining symbols in any desired way or setup.

Referring to Fig. 2, numeral 25 designates a receptacle or sign box having a frontal opening 5 in which is assembled a display panel comprising a number of sections such as the one shown in Fig. 1. In the illustrated example there are three sectional panel divisions in the horizontal direction, each division comprising seven principal carrier cross members. These divisions are indicated by the numerals 31, 32 and 33, and the cross members by numerals 14—15, 26—27, and 28—29—30. It is understood that the sign may also be subdivided vertically, within each division, if it should be so indicated by its height. For example, as shown in the drawing, a top section is provided equipped with the two carrier members 14 and 15, a similar center section equipped with carrier members 26—27, and a bottom section equipped with the carrier members 28, 29 and 30. The divisional or sectional arrangement of the display panel is mentioned only for the sake of completeness; it forms no essential part of the invention.

In assembling the sign, auxiliary carrier devices such as the one shown in Fig. 1, or modified as mentioned, may be placed on any two or three, or in fact on any desired plurality of the principal carrier members, at any desired place, or in any desired combination. For example, an auxiliary carrier device 34 may be placed on the top line of the sign, comprising the principal carriers 14—15, and individual small characters or letters forming predetermined words may be attached thereto. The combination "Flex word" is shown mounted in this instance, to furnish an example. The first principal word on the top line may call for a prominent capital letter "S" followed by a number of small letters. In order to obtain the desired result, a second auxiliary carrier frame 35 is attached to the principal carriers 14 and 15 and the required number of letters are mounted thereon, as shown, so as to engage at the bottom the carrier 15 and at the top an auxiliary carrier member furnished by the auxiliary carrier device. A third such auxiliary carrier device 36 is used for mounting the symbol "&." The letter "L" being a capital letter of the second principal word, is mounted independently on the carriers 14 and 15, followed by a number of small letters supported in a manner similar to the small letters following "S," by means of an auxiliary carrier device 37. The word "for" is assembled, as shown, by means of an auxiliary carrier 38. The last word in this top line may comprise three letters each mounted like the letters "S" and "L." Similar instances of the use of auxiliary carrier frames 39 and 40 are indicated in the second principal line which comprises the principal carriers 26 and 27. The last line of the sign illustrates a further instance of the use of an auxiliary carrier frame 41 and further illustrates the use of large capitals "W—S—S" supported on the three principal carriers 28, 29 and 30.

The above description covers only a relatively small number of combinations of sign elements that may be obtained by the use of this invention. It does not purport to and cannot exhaust its possibilities. The previously mentioned advantages will be apparent when it is considered, first, that the new structure eliminates all rigid sign combinations; second, that it permits the efficient and unhampered use of each single sign element; and, third, that it opens up un-

limited possibilities for the display of sign combinations, symbols, etc., etc., that were heretofore entirely excluded from use. It may indeed be said that this invention constitutes an important link in the chain of development aiming at the creation of a sign as efficient in the art of display as type and its modern use are in the art of printing.

What is considered new and desired to have protected by Letters Patent of the United States is pointed out in the appended claims.

We claim as our invention:

1. In combination, a background forming a display surface, cross bars constituting principal carriers mounted in front of said surface in relatively fixed relation thereto and extending substantially in parallel therewith, individual sign elements removably supported on said principal carriers, an auxiliary supporting device removably mounted on said principal carriers, said device comprising mounting members engaging said principal carriers, cross bars constituting auxiliary carriers connecting said mounting members, and individual sign elements removably supported on said auxiliary carriers.

2. The combination defined in claim 1 wherein said auxiliary carriers are disposed substantially in parallel with and in the plane of said principal carriers.

3. In combination, a background forming a display surface, cross bars constituting principal carriers mounted in front of said surface in relatively fixed relation thereto and extending substantially in parallel therewith, individual sign elements removably supported on said principal carriers, an auxiliary supporting device removably mounted on said principal carriers, said device comprising mounting members engaging said principal carriers, cross bars constituting auxiliary carriers connecting said mounting members, and individual sign elements removably supported jointly on said auxiliary and on said principal carriers.

4. In combination, a background forming a display surface, cross bars constituting principal carriers mounted in front of said surface in relatively fixed relation thereto and extending substantially in parallel therewith, individual sign elements removably supported on said principal carriers, an auxiliary supporting device removably mounted on said principal carriers, said device comprising mounting members engaging said principal carriers, cross bars constituting auxiliary carriers connecting said mounting members, individual sign elements removably supported solely on said auxiliary carriers, and individual sign elements removably supported jointly on said principal and said auxiliary carriers.

5. In a sign structure, a display panel, a plurality of substantially uniformly spaced principal carrier members mounted in relatively fixed

relation to said panel and disposed in parallel relation to each other in a substantially common plane extending across the panel in front thereof and substantially parallel thereto for removably supporting principal display elements, and an auxiliary supporting device comprising a plurality of auxiliary carrier members for insertion intermediate some of said principal carrier members for removably supporting auxiliary display elements, and means for removably supporting said auxiliary device on said principal carrier members.

6. In a structure for removably supporting against a common background a variable plurality of individual differently shaped display elements of different size, the combination of relatively fixed supports with removable supports comprising a plurality of substantially uniformly spaced relatively fixed principal carrier members disposed horizontally in front of said background in a common plane extending substantially parallel thereto for supporting individual principal display elements of a size exceeding the space between any two of said principal carrier members, means removably attached to some of said principal carrier members for supporting auxiliary display elements of a size smaller than the space between any two of said principal carrier members, said means comprising upright members for removable attachment to any two or more of said principal carrier members, and cross members connecting said upright members for removable individual attachment of said auxiliary display elements intermediate of said principal carrier members.

7. In a structure for removably supporting against a common background a variable plurality of individual differently shaped display elements of different size, the combination of relatively fixed supports with removable supports comprising a plurality of substantially uniformly spaced relatively fixed principal carrier members disposed horizontally in front of said background in a common plane extending substantially parallel thereto for supporting individual principal display elements of a size exceeding the space between any two of said principal carrier members, means removably attached to some of said principal carrier members for supporting auxiliary display elements of a size smaller than the space between any two of said principal carrier members, said means comprising upright members for removable attachment to any two or more of said principal carrier members, and cross members connecting said upright members intermediate of said principal carrier members for removably supporting said auxiliary display elements.

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