

Sept. 13, 1938.

L. E. CUNNINGHAM

2,129,651

SIGN STRUCTURE

Original Filed Aug. 13, 1935 2 Sheets-Sheet 1

Fig. 1.

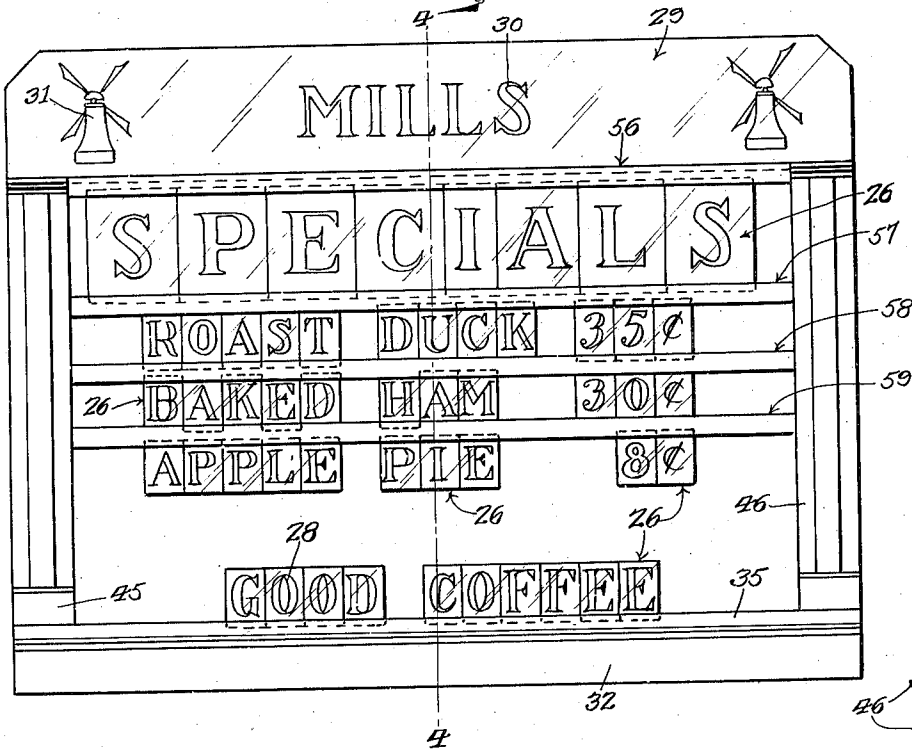


Fig. 2.

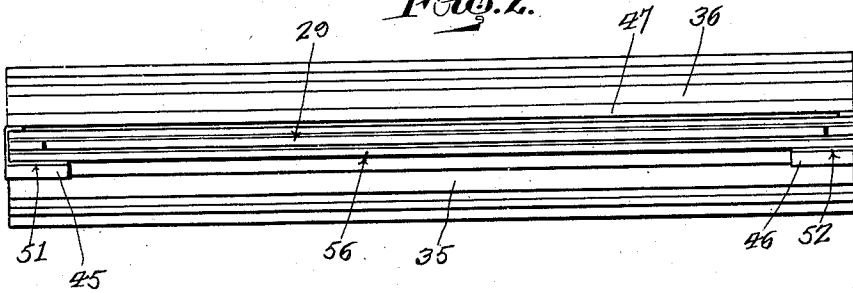
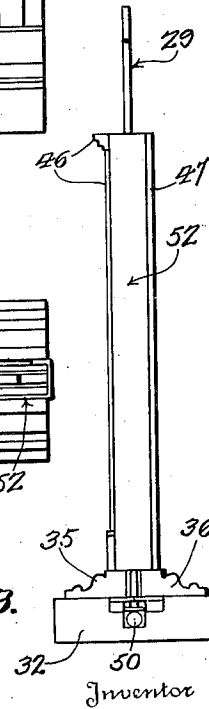


Fig. 3.



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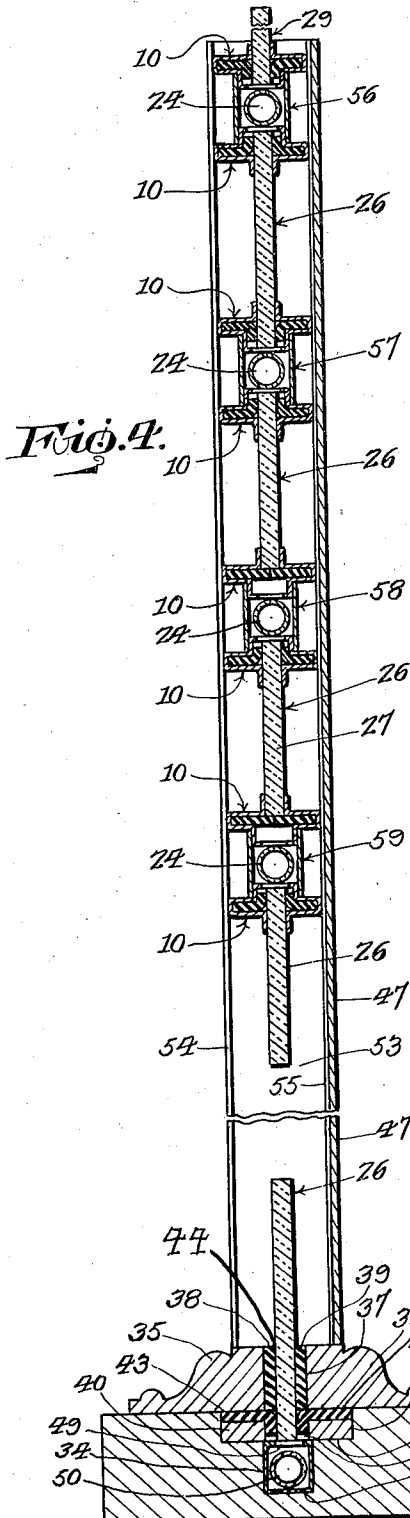
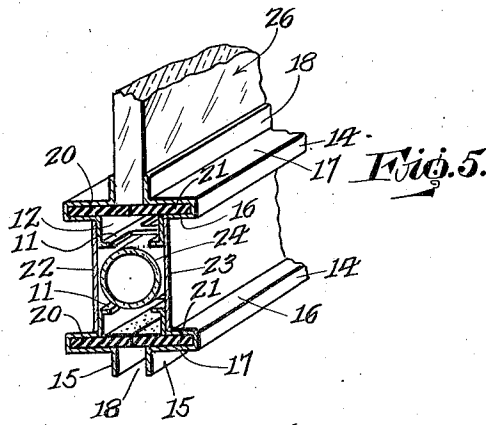
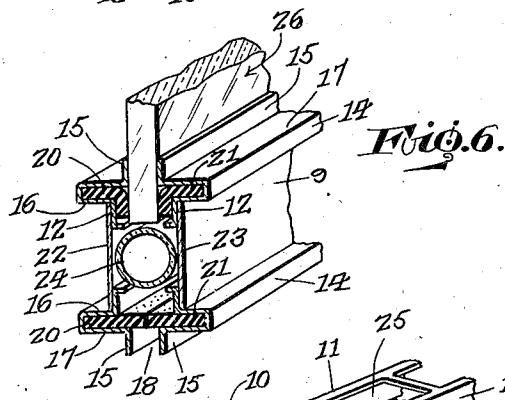
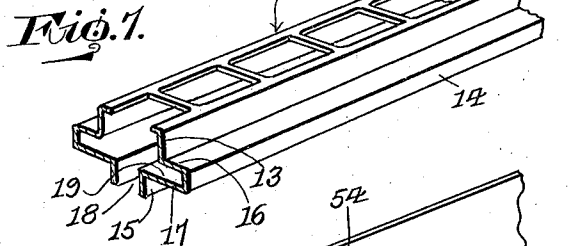
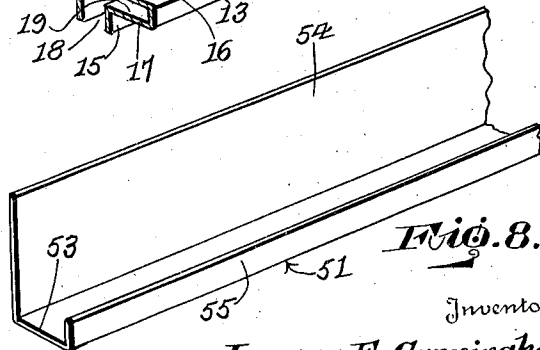
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SIGN STRUCTURE

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23 Claims. (Cl. 40—64)

This invention relates to a sign structure.

The object of the invention is to provide, in a manner as hereinafter set forth, a structure of the class referred to, including display elements of vitreous material, illuminable from an edge or a plurality of edges thereof.

A further object of the invention is to provide, in a manner as hereinafter set forth, a structure of the class referred to, including elements of vitreous material having a design etched or sand-blasted thereon and illuminable, for display purposes, from an edge or edges thereof and with the designs in the form of letters, figures, other objects or compositions, and further providing for the changing, interchanging and adjusting of the elements when desired.

A further object of the invention is to provide, in a manner as hereinafter set forth, a structure of the class referred to, including display elements of vitreous material and illuminable from an edge or edges thereof in a manner to produce new and pleasing color effects and color combinations of gas tube illumination.

A further object of the invention is to provide, in a manner as hereinafter set forth, a structure of the class referred to, including illuminable display elements of vitreous material capable of being arranged in groups, and with the groups capable of being interchanged relatively to each other, and further, with each group capable of being vertically adjusted independent of any of the other groups.

A further object of the invention is to provide, in a manner as hereinafter set forth, a sign structure for improving the economy of illuminated advertising composition, displays or decorative effects, and further for improving economy relative to the facility of composing the advertising composition, displays and decorative effects.

A further object of the invention is to provide, in a manner as hereinafter set forth, a sign structure including illuminable display elements and further including provisions for varying, alternating and combining the colors and color effects and appearance of the illuminated elements.

A further object of the invention is to provide a means to improve the effectiveness of the illumination of the design on a display element of vitreous material by preventing light from being conducted along and reflected from the marginal portions of the faces of the element bordering the edge or edges of the latter through which pass the light rays for illuminating purpose.

Further objects of the invention are to provide, in a manner as hereinafter set forth, an illumin-

able sign structure that is comparatively simple in its construction and arrangement, strong, durable, compact, including display elements capable of being conveniently arranged, adjusted and interchanged, thoroughly efficient in the use intended thereby, readily assembled, and comparatively inexpensive.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts as will be hereinafter more specifically described and are as illustrated in the accompanying drawings wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications may be resorted to as fall within the scope of the invention as claimed.

In the drawings:

Figure 1 is a front elevation of an illuminable sign structure in accordance with this invention,

Figure 2 is a top plan view thereof,

Figure 3 is a view looking towards one end of the structure,

Figure 4 is a vertical sectional view on line 4—4, Figure 1,

Figure 5 is a perspective view of a display element holder assembly having a display element mounted thereon,

Figure 6 is a view similar to Figure 5 with a display element extended through the top of the holder assembly,

Figure 7 is a fragmentary view in perspective of a gas or neon tube support or retainer, and

Figure 8 is a fragmentary view in perspective of the form of the securing and suspending elements for the display element holder assemblies.

The sign structure includes a plurality of superposed display element holder assemblies 9. The number of assemblies 9, as illustrated, is four, but it is obvious that this number may be increased or diminished. Each assembly 9 includes a pair of oppositely disposed spaced neon tube retainers 10 of like form. Each retainer includes a lattice-like body 11 terminating at each side in a rigid clamping member 12. Each member 12 consists of vertical flanges 13, 14 and 15. The flange 13 merges at one side thereof with one side of the body portion 11 and at its other side the flange 13 terminates in an outwardly directed right angularly disposed arm 16 which merges into one side of the flange 14. The latter is disposed outwardly with respect to flange 13 and merges at its other side into an inwardly extending right angularly disposed arm 17 which is of greater width than the arm 16 and extends inwardly with respect to the

latter. The arm 17 terminates into one side of the flange 15 and the latter is arranged inwardly with respect to the flange 13. The flanges 13 oppose each other in spaced relation. The arms 16 align with each other in spaced relation. The flanges 14 oppose each other in spaced relation. The arms 17 align with each other in spaced relation, and the flanges 15 are arranged in opposed spaced relation to provide a passage 18 for a purpose to be referred to. The arms 16 and 17 and flange 14 of each clamping member 12 provide a socket 19 which opens inwardly. The sockets 19 of the members 12 oppose each other in spaced relation. Mounted in one of the sockets 19 of a member 12 is a resilient fastener member 20. Mounted in the socket 19 of the other clamping member 12 is a resilient fastening member 21. The members 20, 21 project towards each other and normally abut when in non-securing position. The members 20, 21 are constructed of oblong bodies of rubber possessing the desired resiliency. The members 20, 21 extend inwardly beyond the flanges 15 of the clamping members 12 and these latter tend to normally maintain the members 20, 21 in abutting relation and in a direction towards each other. Each assembly 9 further includes a pair of side plates 22, 23 which are arranged in spaced relation and, when in position, extend from the arm 17 of one retainer 10 to the arm 17 of the other retainer 10. The plates 22, 23 abut against the outer faces of the flanges 13 of the retainers 10. The plates 22, 23 are suitably secured to the retainers 10. When the assembly is set up, the flanges 13 and lattice portion 11 of one retainer are arranged between the upper portions of the plates 22, 23, and the flanges 13 and lattice portion 11 of the other retainer are arranged between the lower portions of plates 22, 23, the flanges 15 of one retainer extend upwardly with respect to the arms 17 of such retainer and the flanges 15 of the other retainer extend downwardly from the arms 17 of the other retainer, and in this connection see Figure 5.

The lattice portion 11, flanges 13, 14, 15 and walls 16 and 17 of each retainer, as well as the members 20 and 21, are of the same length. The width of the members 20 and 21 is greater than the width of the wall 17 of a retainer.

Extending through the assembly 9 is a neon tube 24 which seats upon the lattice portion of the lower retainer of the assembly and is arranged in close proximity to, or it may abut, the lattice portion 11 of the upper retainer of the assembly. The neon tube 24 is connected at its ends by any suitable means to the conductors of an illuminating circuit having interposed therein a suitable controlling switch. The connections and circuit may be of any suitable arrangement. The openings 25 in the lattice portions 11 of the retainers 10 provide windows for the passage of light rays from the neon tube 24.

The sign structure includes lower display elements 26 capable of being arranged in sidewise relation with respect to each other and in group-like form. The elements of each group may be changed or interchanged. The groups may be interchanged with relation to each other and the groups may also be vertically adjusted. Each lower display element is formed of a body of vitreous material, as glass, having etched or sand-blasted on one face a design 28. By way of example, the designs are shown as letters, figures and cent-mark abbreviations. By way of example, the elements 26 are shown as of

rectangular contour. The elements may be of the same size or some may be larger than the other, and this arrangement is illustrated. The sign structure further includes a top display element 29 which is of a length to extend from one end of the sign body to the other. The element 29 is also formed of vitreous material, as glass and has spaced designs etched or sand-blasted on one face thereof. A group of the designs on element 29 and as indicated at 30 will set forth the name of a person or the name of the proprietor of the establishment for which the sign is used. The other designs, indicated at 31, on element 29 are merely for ornamental purposes and shown, by way of example, as windmills. The edges of the elements 26 are squared. The bottom edge of the element 29 is squared.

The manner in which the display elements 26 and 29 are arranged so as to be illuminated by the neon tube 24 will be hereinafter referred to. The sign structure includes a rectangular base 32 formed with a lengthwise extending groove 33 in its top and extending from end to end thereof. The groove 33 is of rectangular cross-section. The base 32 centrally thereof and below and communicating with groove 33 is formed with a channel 34 lengthwise thereof and which corresponds in length to the length of base 32. Secured upon the upper face of the base 32 and arranged in spaced parallel opposed relation is a pair of oppositely disposed mouldings 35, 36. The length of the base 32 corresponds to the length of the assemblies. The mouldings 35, 36 form a groove 37 centrally of the top of the base 32 and which opens into the groove 33. Arranged against the walls of groove 37 and spaced from each other are resilient insulating members 38, 39 which coact to form a groove 44. Mounted in the groove 33 is a pair of spaced strips 40, 41 of less height than the depth of groove 33. The strips 40, 41 coact to provide a groove 42 which opens into the top of the channel 34. Interposed between the mouldings 35, 36 and the strips 40, 41, as well as seating on and extending from said strips, is a pair of resilient fastener members 43. Secured upon the ends of the moulding 35 are vertically disposed spaced parallel side members 45, 46. Secured to the moulding 36, spaced rearwardly from the groove 37, is a vertically disposed back 47 of the same height as the height of the members 45, 46. The back 47 may be constructed of any suitable material. Mounted in the channel 34 is a hollow casing 48 having a lattice-like top 49. Arranged in the casing 49 is a neon tube 50 suitably connected in an illuminating circuit therefor. The lattice part of the top 49 of the casing 50 is arranged directly below the groove 33, aligns with groove 44 and its top is flush with the bottom of groove 33.

The sign structure further includes a pair of oppositely disposed rigid securing members 51, 52 for the assemblies which are arranged above the base 32. Each of the securing members is formed from a length of suitable metallic material of plate-like form bent to provide an intermediate fold 53 and a pair of end folds 54, 55. The folds are the same length, but the width of fold 54 is materially greater than that of fold 55. The folds 54, 55 are rigid and form a channel in which the assemblies arranged above the base may be adjusted vertically and held in position by a set screw or other suitable means. The folds 53, 54 and 55 provide each securing member in the form of a channel but with one side of the wall of the channel of greater width than

the other side of the wall of the channel. The securing members 51, 52 correspond in height to the height of the members 45, 46 and back 47. The said securing members 51, 52, when active, are interposed between the back 47 and the members 45, 46.

The members 38, 39, and 43, coact with the mouldings 35, 36 and strips 40, 41 for detachably anchoring a display element 26 in upstanding position with respect to the base 32 and in edge-wise related position with respect to the neon tube 50 whereby the latter will illuminate the display element from its lower edge. The display element 26 is slidably mounted in upstanding position with respect to tube 50, and when two or more display elements are arranged to be illuminated from tube 50, they are disposed in sidewise relation.

With reference to Figures 1 and 4, a plurality of superposed display element holder assemblies are shown and which are generally referred to on Figures 1 and 4 by the reference characters 56, 57, 58 and 59. The assemblies 56, 57 are shown as having detachably secured thereto oppositely extending display elements 26. The assemblies 58, 59 are each shown as supporting a display element 26 and having anchored thereto a display element 26. The display element supported by assembly 58 is anchored to assembly 57 and is illuminated only from the neon tube 24 of assembly 57. The display element supported by the assembly 59 is illuminated from the neon tube 24 of the assembly 58. The display elements which are detachably anchored to the assemblies 56, 57 are illuminated by the neon tubes 24 of the said assemblies. The lower display element detachably anchored to the assembly 56 is also detachably anchored to the assembly 57 and is not only illuminated by the neon tube of assembly 56, but also by the neon tube of the assembly 57.

The fastener members 20, 21 of each pair of assemblies, when in abutting relation, arrest the passage of the light rays from a neon tube to a display element, and in this connection attention is directed to the assemblies 58, 59, Figure 4. Each pair of fastener members, when active to detachably anchor a display element to an assembly, has its inner portions bent away from each other as the element 26 is passed entirely through passage 18 to abut the lattice portion 11. The bent portions of the members 20, 21 are interposed by the display element between the latter and the inner faces of the flanges 13 and act as a frictional latch to detachably anchor the element to an assembly.

When the members 51, 52 are in securing position relative to the assemblies 56, 57, 58 and 59, they frictionally engage the rear and forward faces of the flanges 14, of said assemblies and between the folds 54, 55, wherein the said assemblies are held in position either by friction, set screws or other suitable means.

The tubes 24 may be of a like color or of different colors. The tube 50 may be of a different color from that of the tubes 24. The arrangement of the neon tubes relatively to the display elements provides for the illuminating of these latter from an edge or edges thereof. As the tubes may be of different colors a display element may be illuminated from a blending of colors. The assemblies, if desired, may be spaced from each other and have detachably anchored thereto in suspending relation a single display element or a plurality of display elements in sidewise opposed

relation. The assemblies may have anchored to the top and bottom thereof a display element or a plurality of display elements in sidewise opposed relation. A lower assembly may be disposed to support or have detachably anchored thereto one or more display elements detachably anchored to an assembly next above. The display elements carried by an assembly may be conveniently changed or interchanged when desired, and this applies in connection with the means carried by the base for detachably anchoring the display elements thereto. The members 51, 52, when in active position, conceal the ends of the display element holder assemblies.

What I claim is:

1. In a sign structure, a pair of superposed edged display elements, a holder assembly therefor, including a pair of oppositely disposed luminous tube retainers formed with opposed lattice-like portions, said assembly including anchoring means carried by said retainers for said elements, each of said portions opposing an edge of one of said elements, and a luminous tube arranged between said lattice-like portions for illuminating said elements from an end thereof.

2. In a sign structure of that type including illuminable display elements, a holder having a passage for the insertion therein of a display element, a lattice-like portion opposing the passage and a pair of side edgewise aligning normally abutting resilient members having opposed portions arranged in the path of and bendable by the display element to a position to anchor the latter to the holder on the insertion of the element, said members arranged adjacent to one side of said lattice-like portion, and a luminous element arranged in said holder at the other side of said lattice-like portion for illuminating the inserted display element from an edge thereof.

3. In a holder for a luminous tube and illuminable display elements, the combination of a pair of oppositely disposed combined display element receivers and a luminous tube retainer structure, each consisting of a hollow body formed with a display element passage, a lattice-like portion opposing in spaced relation the inner end of the passage and a pair of inwardly opening spaced aligning sockets interposed between said portion and passage, a pair of flat inner edgewise aligning resilient normally abutting display element securing members mounted in the sockets of each body and having bendable parts normally closing the inner end of a passage and bendable to engage the display element in anchoring relation to the latter on the extending of the display element through the passage, and coupling means interposed between said bodies for connecting them together, the lattice-like portion of one body being spaced from that of the other to provide an opening for the reception of the luminous tube to illuminate the display elements from an edge thereof.

4. In an illuminable sign structure of that type including display elements illuminable from an edge thereof, a hollow body open at its ends and including a lattice-like horizontally disposed wall forming portion for the passage of light rays from a luminous element, a pair of oppositely disposed side wall forming portions, said side wall forming portions being formed with flanges terminating into a pair of inwardly opening horizontally disposed aligning spaced sockets for the reception of display element anchoring means, each socket including an inner and an outer wall arranged in superposed relation, said outer wall being of

greater width than said inner wall, and said side wall forming portions being provided with spaced parallel means disposed outwardly at right angles to the inner terminus of the said outer walls to form a display element passage adjacent said horizontal wall and opening into the interior of said body for the positioning of the element in edgewise opposed relation with respect to said horizontal wall.

5. In an illuminable sign structure, a pair of spaced opposed upright securing elements, a plurality of superposed holder assemblies extended at their ends into and suspended by said elements, display elements extending above and depending from said assemblies, said elements being inserted into and extended from said assemblies, said assemblies being provided therein with means for detachably anchoring the display elements thereto, a luminous element within each assembly, and each assembly being formed with superposed spaced means opposing the luminous element therein for the passage of light rays to illuminate the display elements from an edge of the latter.

6. In an illuminable sign structure, a pair of spaced opposed upright securing elements, a plurality of superposed holder assemblies extended at their ends into and suspended from said elements, said assemblies being bodily adjustable relative to said elements, an upright display element extended into each assembly, said assemblies being provided therein with resilient means engageable with said elements for detachably anchoring the display elements thereto, a luminous element within each assembly, and each assembly being formed with means for the passage of light rays to illuminate the display element carried thereby from an edge of the display element.

7. In an illuminable sign structure, a pair of spaced opposed upright securing elements, a plurality of superposed holder assemblies extended at their ends into and suspended from said elements, said assemblies being bodily adjustable relative to said elements, an upright display element extended into each assembly, said assemblies being provided therein with resilient means engageable with said elements for detachably anchoring the display elements thereto, a luminous element within each assembly, and each assembly being formed with means for the passage of light rays to illuminate the display element carried thereby from an edge of the display element, said securing elements being rigid, of channel-shaped contour and frictionally engaging with the sides of the assemblies to secure these latter in suspended position.

8. In an illuminable sign structure, a holder assembly for a pair of oppositely disposed display elements and a luminous tube, said assembly including a pair of oppositely disposed passages for the extending therein of the display elements and a pair of spaced lattice-like portions therein for the insertion therebetween of and for the passage of light rays from a luminous tube to illuminate the display elements from an edge of the latter, said portions being spaced from said passages to provide a space for receiving the tube, said assembly including a pair of normally inactive resilient securing means extending across the inner ends of said passages and each bendable to active position away from the inner end of a passage by and acting to detachably anchor a display element to the assembly on the extending of the element into the assembly through a passage, each of said securing means, when in inactive position, constituting a shutter to pre-

vent the passage of light rays in a direction towards a passage.

9. In an illuminable sign structure of the type including display elements for positioning to be illuminated from an edge thereof, a luminous tube for opposing an edge of a display element, a lattice-like wall forming portion opposing said tube for the passage of light rays, means to provide a passage spaced from said wall forming portion for the insertion of a display element to oppose in edgewise relation said wall forming portion, a pair of sidewise aligning resilient normally abutting inactive anchoring members extending across the inner end of said passage and providing, when active, to detachably anchor the display element in edgewise relation with respect to the tube, means disposed adjacent to the sides of said passage for supporting a portion of each of said members, the remaining portions of said members being disposed in the path of and bendable towards said lattice-like wall forming portion by the display element on the extending of the latter through said passage to make said member active to detachably anchor the display element in edgewise relation with respect to said lattice-like portion.

10. A sign structure comprising a plurality of like, relatively interchangeable display units, mounted in substantially edge to edge relation, and common supporting means therefor, each of said units comprising a plurality of similar, relatively changeable and interchangeable display elements, and supporting means therefor, said elements each being illuminable from a marginal edge thereof, and means to illuminate said elements from said marginal edge.

11. A sign structure comprising a plurality of like, relatively interchangeable display units, mounted in substantially edge to edge relation, and common supporting means therefor, each of said units comprising a plurality of similar, relatively changeable and interchangeable display elements, and supporting means therefor, said elements each being illuminable from a marginal edge thereof, and means to illuminate said elements from said marginal edge, the illuminating means for the elements of each unit being supported by and forming part of the respective units.

12. A sign structure comprising a plurality of like, relatively interchangeable display units mounted in predetermined spaced relation to each other and each comprising a plurality of similar, relatively changeable and interchangeable display elements, and supporting means therefor, said elements each being illuminable from a marginal edge thereof, means to illuminate said elements from said marginal edge, and means for adjusting the spacing of said units.

13. A sign structure comprising a plurality of like, relatively interchangeable display units mounted in predetermined spaced relation to each other and each comprising a plurality of similar, relatively changeable and interchangeable display elements, and supporting means therefor, said elements each being illuminable from a marginal edge thereof, means to illuminate said elements from said marginal edge, the illuminating means for the elements of each unit being supported by and forming part of the respective unit, and means for adjusting the spacing of said units.

14. A sign structure comprising a plurality of like, relatively interchangeable display units, each comprising a plurality of similar, relatively

changeable and interchangeable display elements, and supporting means therefor, said supporting means being constructed and arranged to receive additional similar display elements and to facilitate changing and interchanging of all of said elements, whereby various compositions and arrangements may be made with the same and with additional display elements, said elements each being illuminable from a marginal edge thereof, and means to illuminate said elements from said marginal edge.

15. A sign structure comprising a plurality of like, relatively interchangeable display units, mounted in substantially edge to edge relation, and common supporting means therefor, each of said units comprising a plurality of similar, relatively changeable and interchangeable display elements, and supporting means therefor, said elements each being composed of vitreous light transmitting material and illuminable from a marginal edge thereof, and means to illuminate said elements from said marginal edge.

16. A sign structure comprising a plurality of like, relatively interchangeable display units, mounted in substantially edge to edge relation, and common supporting means therefor, each of said units comprising a plurality of similar, relatively changeable and interchangeable display elements, and supporting means therefor, said elements each being composed of vitreous light transmitting material and illuminable from a marginal edge thereof, and means to illuminate said elements from said marginal edge, the illuminating means for the elements of each unit being supported by and forming part of the respective units.

17. A sign structure comprising a plurality of like, relatively interchangeable display units, mounted in substantially edge to edge relation, and common supporting means therefor, each of said units comprising a plurality of similar, relatively changeable and interchangeable display elements, and supporting means therefor, said supporting means including friction means for detachably receiving and retaining said display elements in position, to facilitate changing and interchanging said elements within a unit and from one unit to another, and means to illuminate each of said elements through a marginal edge thereof.

18. A sign structure comprising a plurality of changeable and interchangeable display means of vitreous material having a plurality of edges, means to support said display means in groups each forming a unit, said units being relatively interchangeable, and said display means being changeable and interchangeable within a unit,

and means in each unit to illuminate said display means.

19. A sign structure comprising changeable and interchangeable display means of vitreous material having a plurality of edges, means to support said display means in group units, means carried by said supporting means for illuminating said display means from one or more of the edges thereof, said supported group units being interchangeable with each other, and means carried by said supporting means for blocking passage of light along and reflected from the marginal portions of said display means bordering the said edge or edges, when the illumination of the display means is effected.

20. A sign structure comprising a plurality of like, relatively interchangeable display units mounted in predetermined spaced relation to each other and each comprising a plurality of similar, relatively changeable and interchangeable display elements, and supporting means therefor, means adjacent a marginal edge of said elements to illuminate the elements, and means for adjusting the spacing of said units.

21. A sign structure comprising a plurality of like, relatively interchangeable display units mounted in predetermined spaced relation to each other and each comprising a plurality of similar, relatively changeable and interchangeable display elements, and supporting means therefor, means carried by each of said units in a location adjacent a marginal edge of said elements to illuminate the elements, and means for adjusting the spacing of said units.

22. A sign structure comprising a plurality of display units, mounted in substantially edge to edge relation, and common supporting means therefor, each of said units comprising a plurality of similar relatively changeable and interchangeable display elements, means to suspend and thereby support said elements in their respective units, said elements being illuminable from a marginal edge thereof, and means to illuminate said elements from said marginal edge.

23. A sign structure comprising a plurality of display units, mounted in substantially edge to edge relation, and common supporting means therefor, each of said units comprising a plurality of similar relatively changeable and interchangeable display elements, means to suspend and thereby support said elements in their respective units, said elements being illuminable from a marginal edge thereof, and means in each of said units positioned adjacent said suspending means to illuminate said elements from said marginal edge.

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