Nov. 5, 1929. L. C. LOTZ 1,734,736

SIGN

Filed Oct. 22, 1927

Fig. 1



Fig. 4

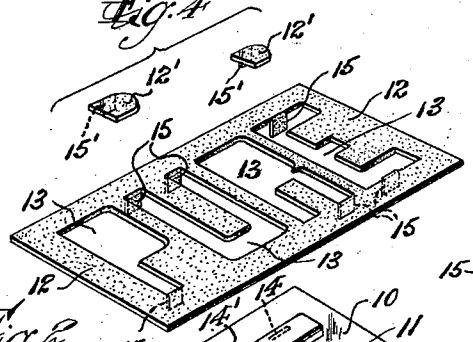


Fig. 6

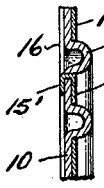


Fig. 5

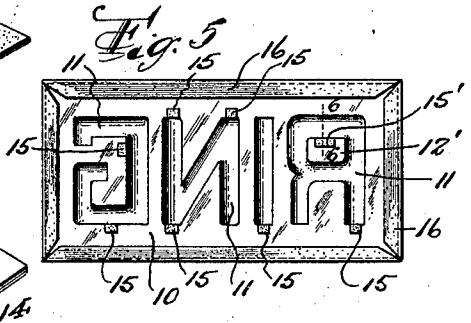


Fig. 2

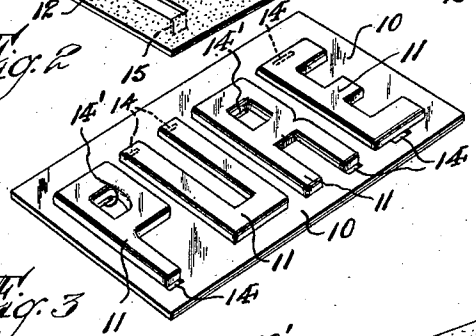


Fig. 3

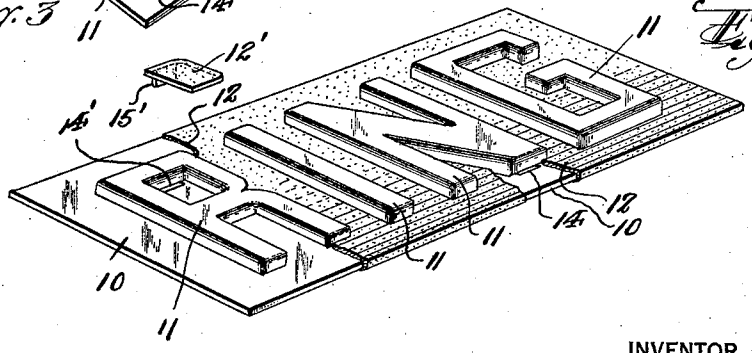


Fig. 7

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UNITED STATES PATENT OFFICE

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SIGN

Application filed October 22, 1927. Serial No. 227,898.

This invention relates to improvements in signs adapted for general use and for advertising purposes, and which are of such character that they are both clearly visible in daylight and subject to illumination at night.

The invention has for its principal object to provide a sign in which the letters, numerals or other symbols are pressed out of and are intgeral with a base sheet of pyroxylin material, which may be either transparent or translucent, and in which the letters, numerals or other symbols are embossed or raised above the face plane of the pyroxylin sheet so as to be in relief with respect thereto. The invention also contemplates the provision of means to provide a contrasting background surrounding the letters, etc., which back-ground may be opaque or of translucent material of a color in contrast to the color of the letter bearing sheet.

In a more specific aspect of this invention, the same has for an object to provide a novel means for superimposing upon and attaching to the letter bearing sheet a back-ground sheet to surround the letters, etc., said background sheet in such case preferably consisting of sheet metal, perforated to correspond to the letters, numerals, or symbols of the letter sheet.

Other objects of this invention, not at this time more particularly enumerated, will be clearly understood from the following detailed description of the same.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a face view of a sign made according to and embodying the principles of this invention; Figures 2, 3 and 4 illustrate in perspective the various elements making up the sign as arranged preparatory to assembling the same to produce the finished sign in one of the preferred forms according to this invention; Figure 5 is a rear face view of a sign with the elements comprising the same in assembled relation; Figure 6 is an enlarged fragmentary sectional view taken on line 6—6 in Figure 5; and Figure 7 is a perspective view of a sign showing portions of the background sheet broken away and other portions thereof disassembled.

Similar characters of reference are employed in the above described views to indicate corresponding parts.

In the simplest form of sign, according to the instant invention, I take a sheet 10 of pyroxylin material and by means of properly prepared dies the sheet is moulded to produce integral therewith, and raised in relief above the face surface of the same, the desired letters, numerals or other symbols adapted to provide the sign legends desired, said parts being generally indicated in the drawings by the reference numeral 11. This sheet of pyroxylin material, with the letters integrally formed in raised relief relative to the face surface thereof, may be made either transparent or translucent, and the same may be tinted if desired to produce color effects. In order to pick out the character elements 11, so that the same stand out clearly and definitely I may provide the main body of the sheet of pyroxylin material 10 either on the face thereof or on the rear side thereof, with a background material of contrasting color or of a character adapted to render the sheet body opaque, in the areas thereof surrounding the characters 11 while the said characters remain transparent or translucent as the case may be. Such form of sign would be substantially that shown in Figure 3, but without the perforations in the sheet body, which will be hereinafter referred to. The sign body thus comprised is adapted to be easily applied and affixed to a show window or other similar place by means of cement or any other convenient form of attaching means so that the sign may be easily read in daylight, while in the dark or at night light from the interior of the show window may be transmitted through the characters 11 to illuminate the same.

I have shown in the drawings another development of the sign structure, the basic character sheet of which, however, comprises the sheet of transparent or translucent pyroxylin material 10 having integral therewith the raised characters or the like 11, and which is arranged to receive the assembly therewith of a background sheet 12 having perforations or cut-out portions 13 to cor-

respond to the particular letters, numerals or other symbols making up the sign legend or display. The background sheet 12 is preferably made of sheet metal and is consequently opaque. The exposed surface of the metal background sheet may be painted, enamelled or otherwise treated for the production of such color effects as may be desired. In order to firmly and securely engage the background sheet 12 in desired superimposed and attached relation to the character bearing sheet 10, and so as to closely interfit the two sheets without bulges, gapings or other undesirable effects likely to mar the finished appearance of the sign. I provide in the character bearing sheet 10, at various points adjacent to the letters or other characters 11, perforations or slots 14. In stamping out the perforations or cut-out portions 13 of the background sheet 12 provision is made to produce at the same time in connection with the margins of the perforation or cut-out portions 13, a plurality of lugs or ears 15 corresponding to the relative positions of the perforations or slots 14 associated with the characters 11 of the character sheet 10; said series of lugs or ears 15 thus integrally formed with background sheet 12 are adapted to be initially turned at right angles thereto so as to extend rearwardly therefrom. When assembling the background sheet 12 with the character sheet 10, the perforations or cut-portions 13 of the former are registered over the corresponding character 11 of the latter, and when so related the lugs or ears 15 will be opposed to the slots or perforations 14 so that as the background sheet is superimposed upon the character sheet the letters or other characters 11 will project through the perforations or cut-out portions 13 of the background sheet, and the lugs or ears 15 of the background sheet will extend rearwardly through the slots or perforations 14 of the character sheet, whereupon said lugs or ears 15 are turned or clinched over the rear face of said character sheet 10 in the manner clearly shown in Figures 5 and 6 of the drawings. It will thus be apparent that the background sheet 12 and character bearing sheet 10 will be securely interlocked together at a multiplicity of points closely adjacent to the respective letters making up the sign legend, and consequently the background sheet will be smoothly retained in the desired superimposed relation to the character sheet and in such manner that the raised characters 11 of the latter will project through the perforations or cut-out portions 13 of the background sheet so as to stand out in relief relative to the face thereof. In cases where the sign legend includes letters, numerals, or symbols having portions entirely encircling or isolating a portion of the background, as is the case with letters such as, O, B, R, D, P, A, etc., I provide supplemental background pieces 12′ having integral therewith, and so as to extend rearwardly from some portion of the periphery thereof, attaching ears or lugs 15′; and in connection with the character sheet 10 I provide, within and adjacent to such encircling or background isolating portions of the letters or character 11, additional slots 14′. Either before or after the main background sheet 12 is applied, I then apply the supplemental background pieces 12′ at the proper points and in association with the proper letters or other characters so that the lugs or ears 15′ thereof are caused to extend through the perforations or slots 14′, and are thereupon clinched over on the rear side of the character sheet 10 so as to retain said supplemental background pieces in operative assembled position.

In the form of sign construction last above described, the metal background sheet 12 will give rigidity to the completed sign, while at the same time affording an opaque background so that illumination of the sign will only be transmitted through the letters or characters 11. If desired, the metal background sheet may be made somewhat larger in dimensions than the underlying character sheet 10 to provide marginal portions 16 adapted to be turned back over and around the peripheral edges of the underlying character sheet 10, thus further assuring a secure assembled relation of the sheets one with the other and also adding to the rigidity of the sign as a whole. The novel sign thus constructed is capable of attachment to a show window or showcase panel either by cement or other fastening means; or the same may be arranged for suspension against a window or other glass; or the same may be arranged in a manner to form an illuminated panel in connection with various forms of advertising devices.

It will be understood that signs constructed and prepared in accordance with the principles of this invention, as above specified, may be made in various sizes and so as to include more or less subject matter. In fact signs of considerable size and containing a considerable length of reading matter may be produced without likelihood of bending, warping or other effects calculated to displace the relation to the background sheet to the character sheet for the reason that said respective sheets are interlocked together by the lugs 15 and corresponding perforations 14 at a great many variously located points throughout the entire area of the sign.

It will be obvious that many changes could be made in the above described construction any many widely different embodiments of this invention could be made without departing from the scope thereof, it is therefore intended that all matter contained in the above description or shown in the accompanying

drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:—

1. A sign structure, comprising a sheet of light transmitting pyroxylin material, an opaque background sheet cut out to correspond to characters making up the sign display and superimposed upon said pyroxylin sheet, said background sheet having rearwardly projecting lugs integral therewith and extending rearwardly therefrom in connection with the margins of the cutouts corresponding to the characters making up the sign display, said pyroxylin sheet having openings therethrough to receive said lugs, and the free ends of said lugs being clinched over the rear face of said pyroxylin sheet to bind said background sheet thereto at point adjacent to each sign character.

2. A sign structure, comprising a sheet of light transmitting pyroxylin material having integral therewith a plurality of characters, symbols or the like making up the sign display and outwardly pressed therefrom in raised relief relative to the face plane of said sheet, said pyroxylin sheet having at least one opening through its body adjacent each of its characters, symbols or the like, a background sheet perforated to correspond in kind and location with said characters, symbols or the like and adapted to be superimposed upon the face of said pyroxylin sheet so that said character, symbols or the like project through the perforations thereof, and said background sheet having rearwardly projecting lugs corresponding in location with the openings in said pyroxylin sheet so as to extend therethrough into clinched over relation to the rear face thereof.

3. A sign structure, comprising a sheet of light transmitting pyroxylin material having integral therewith a plurality of characters making up the sign display, and outwardly pressed therefrom in raised relief relative to the face plane of said sheet, said pyroxylin sheet having openings at points coincident with the junctures of its characters therewith an opaque metallic background sheet perforated to correspond in kind and location with the characters of said sign display and adapted to be superimposed upon said pyroxylin sheet so that said characters of the latter projects through said corresponding perforations of the former, and said background sheet having lugs integral therewith and springing from the margins of its character receiving perforations, said lugs being adapted to extend through said openings of said pyroxylin sheet in clinched over relation to the rear face thereof whereby said background sheet and pyroxylin sheet are bound together at points adjacent to each sign character displayed.

4. A sign structure, comprising a sheet of light transmitting pyroxylin material having integral therewith a plurality of characters making up the sign display, and outwardly pressed therefrom in raised relief relative to the face plane of said sheet, said pyroxylin sheet having openings at points coincident with the junctures of its characters therewith, an opaque metallic background sheet perforated to correspond in kind and location with the characters of said sign display and adapted to be superimposed upon said pyroxylin sheet so that said characters of the latter projects through said corresponding perforations of the former, and said background sheet having lugs integral therewith and springing from the margins of its character receiving perforations, said lugs being adapted to extend through said openings of said pyroxylin sheet in clinched over relation to the rear face thereof whereby said background sheet and pyroxylin sheet are bound together at points adjacent to each sign character displayed, and supplementary background elements for insertion in isolated areas entirely surrounded by sign character formations, said supplementary background elements also having lugs extending through said pyroxylin sheet into clinched over relation to the rear face thereof.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 4th day of October, 1927.

LEONARD C. LOTZ.