No. 816,680. PATENTED APR. 3, 1906.

G. J. & H. G. PELSTRING.

CHANGEABLE ILLUMINATED SIGN.

APPLICATION FILED OCT. 18, 1905.

Fig. 1.

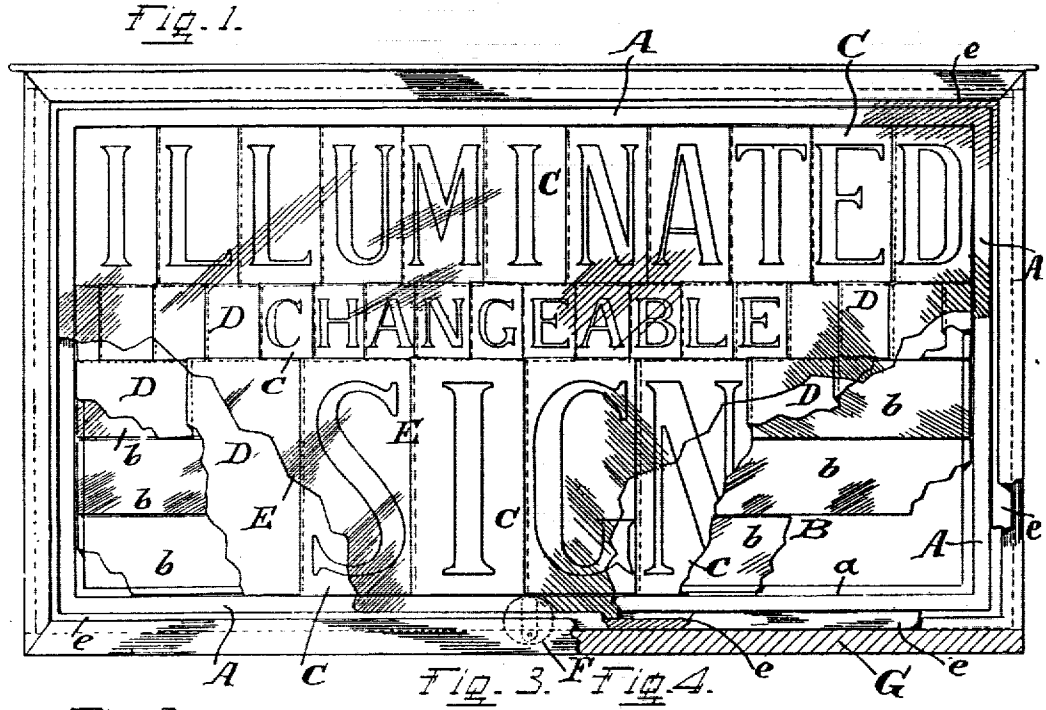


Fig. 2.

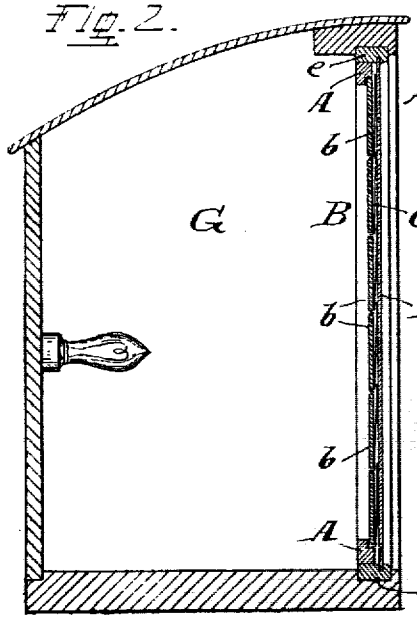


Fig. 3.

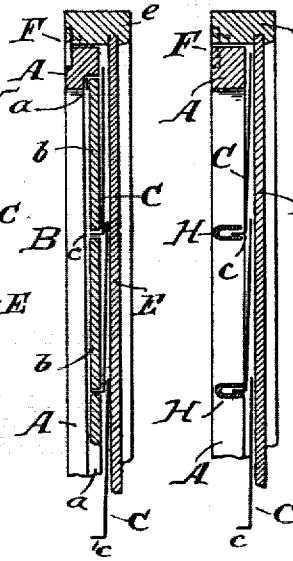


Fig. 4.

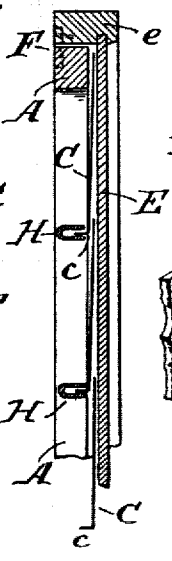
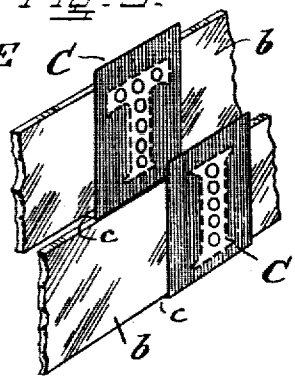


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE J. PELSTRING AND HENRY G. PELSTRING, OF LATONIA, KENTUCKY.

CHANGEABLE ILLUMINATED SIGN.

No. 816,680. Specification of Letters Patent. Patented April 3, 1906.

Application filed October 18, 1905. Serial No. 283,224.

To all whom it may concern:

Be it known that we, GEORGE J. PELSTRING and HENRY G. PELSTRING, citizens of the United States, residing at Latonia, Kenton county, State of Kentucky, have invented certain new and useful Improvements in Changeable Illuminated Signs; and we do declare the following to be a clear, full, and exact description of the invention, attention being called to the accompanying drawings, with the reference characters marked thereon, which form also part of this specification.

This invention relates to improvements in signs of the kind which serve both by day and at night, in which latter case they are illuminated. The letters are interchangeable, so that with given means and devices at hand different reading-matter may be arranged for. Color effects are added, which are also interchangeable.

The invention consists of certain features of construction, as hereinafter described.

In the following specification, and particularly pointed out in the claims at the end thereof, is found a full description of our invention, together with its manner of use, parts, and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 is a front view of the entire outfit with parts broken away. Fig. 2 is a vertical cross-section of the same. Fig. 3 is part of a vertical cross-section through the sign proper, shown at enlarged scale. Fig. 4 in a similar view shows a modification. Fig. 5 in a perspective detail view shows manner of supporting the letters.

The sign consists, substantially, of transparent letters interchangeably held behind a transparent surface formed by a plate or sheet of suitable material and secured within a suitable frame or case of which it forms the front. In day-time the letters may be seen through this transparent sheet in front of the letters. At night, the space between the letters being impervious to the passage of light, they will become visible as soon as light is applied behind them. The letters are held behind this transparent sheet on suitable supports or on or by an additional transparent sheet behind them, which may contain one or more colors, so that the letters will accordingly appear at night in these colors. The letters if of sufficient thickness, might also simply rest edgewise against each other and be thus held between the two transparent surfaces.

A preferable way to assemble the various parts of the sign is as follows: In a frame A, provided with a recess or rabbet *a*, is placed first a backing B, consisting of transparent material, like glass, and of a size sufficient to fill the frame and composed of a number of horizontally-arranged strips *b*, which collectively fill the frame. The letters C are placed upon this surface arranged and set to present the desired words and sentences. They consist of blocks of sheet material, (see Fig. 5,) which may be paper, glass, sheet metal, &c. The letters proper are produced by being stenciled or cut out of these blocks in case the material is paper or sheet metal, while in the case of glass they are produced by closing the background or space surrounding the letter to the passage of light by application of paint or otherwise. The spaces between words and lines not filled by letters are closed by spacers D, so that no light may pass except such which passes through the letters. These latter and the spacers are held on their supports in their assembled order by a transparent retaining-front in shape of a sheet of glass E and preferably held by a frame *e*. The two frames are locked together in any suitable way, as by catches F. The sign proper is now complete, and as a whole it is inserted endwise into a closed case G, into which it is slid from the side and of which it forms the front, so that when light in any suitable form, usually electric, is applied the sign may be distinctly noticed at night. In day-time, the letters being colorless or of the color of backing B, they may be readily seen behind the transparent front E. To render them better noticeable, the body of the letters—that is, the surface of the block which surrounds each letter—is painted black. To increase the contrast, surfaces within the letter itself, and where the same is not entirely cut out, but merely produced by perforations, as shown in Fig. 5, may be painted white.

Front E may be clear glass; but by preference we use milk-white or ground glass, which, while not interfering with the observation of the letters, hides the edges between adjoining letter-blocks and spacers, so that the front of the sign has the appearance of an even unbroken surface.

The sign may be readily changed by simply removing it from the case G and by separating the two frames, after which the reading-matter may be changed by rearranging the letters. Where the letters are of glass, they may, as before remarked, rest against each other edgewise, and thus retain their positions between the two surfaces B and E after they are brought together. A preferable way is to have them of paper or sheet metal and provided with a flange *c*, which is inserted between the edges of two adjoining strips *b b*, thus holding the letter in position. The materials mentioned permit also placing of the letters and spacers in a manner that they slightly overlap at their edges to produce light-proof joints, it being necessery to prevent all possibility of passage of light otherwise than through the letters, which would spoil the proper effect. The height of the letters and spacer-blocks should have a certain proportional relation to the width or height of strips *b*, so as to permit various changes or arrangements with given means. In the drawings three sizes of letters are shown, which may be arranged in any position within the frame and always find a support on strips *b*. These latter if of various colors may also be readily changed and always be in position to serve as supports for the letters. Instead of the strips of glass strips of metal H, presenting grooves for reception of flanges *c*, might be used, as shown in Fig. 4, which strips are secured in frame A.

Having described our invention, we claim as new—

1. In a sign, the combination of two frames, one fitted within the other to form a sign-frame complete, a case into which the two frames are removably fitted as a whole, transparent material in sheet form supported in each frame and blocks containing stenciled letters interchangeably supported between the transparent material of the two frames.

2. In a sign, the combination of a front of a material permitting passage of light, a frame provided with horizontally-arranged letter-supports behind the same and letter-blocks having stenciled letters interchangeably supported on these supports and being held thereon by the front mentioned.

3. In a sign, the combination of a retaining-front of a material permitting passage of light, strips of glass supported horizontally behind the same and arranged edgewise one below the other and letter-blocks having stenciled letters interchangeably supported on these strips.

4. In a sign, the combination of a frame provided with horizontally-arranged letter-supports, letter-blocks having stenciled letters and provided with flanges whereby they are interchangeably supported on the letter-supports mentioned and a front in front of these letter-blocks to retain them in position on their supports.

5. In a sign, the combination of series of letter-blocks having stenciled letters, supports for these blocks and a front in front of these letter-blocks to hold them in position on their supports said front being of a material which permits passage of light.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

GEORGE J. PELSTRING.
HENRY G. PELSTRING.

Witnesses:
C. SPENGEL,
C. MEYER.