

I. J. KUSEL.
ILLUMINATED SIGN.
APPLICATION FILED APR. 6, 1916.

1,400,296.

Patented Dec. 13, 1921.

2 SHEETS—SHEET 2.

Fig. 3.

Fig. 8.

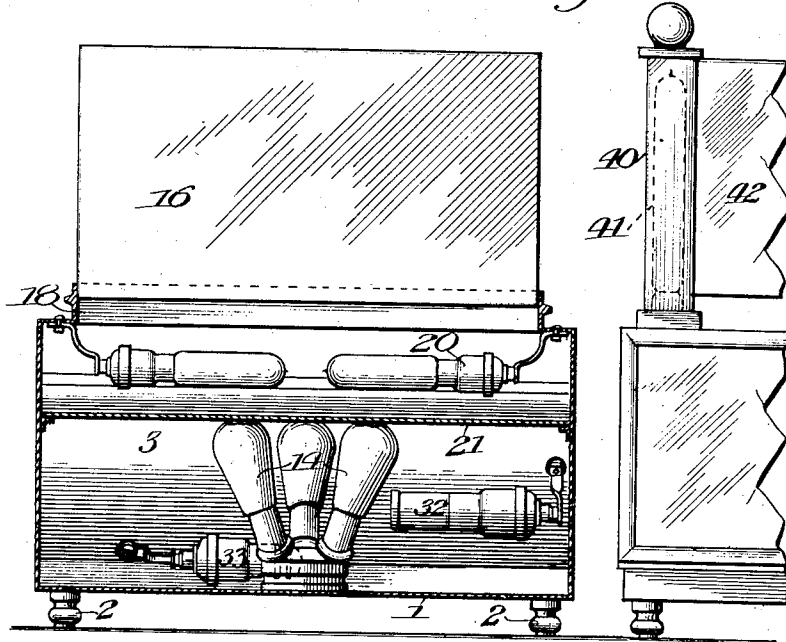
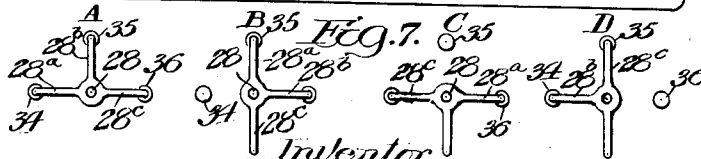
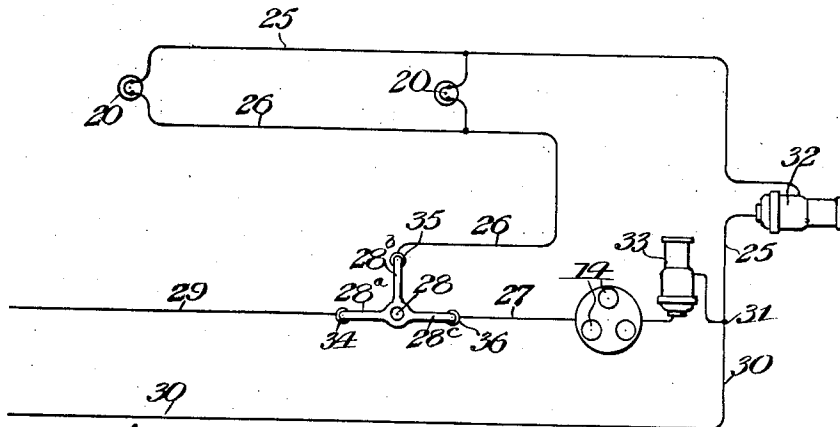


Fig. 6.



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2 SHEETS—SHEET 1.

Fig. 1.

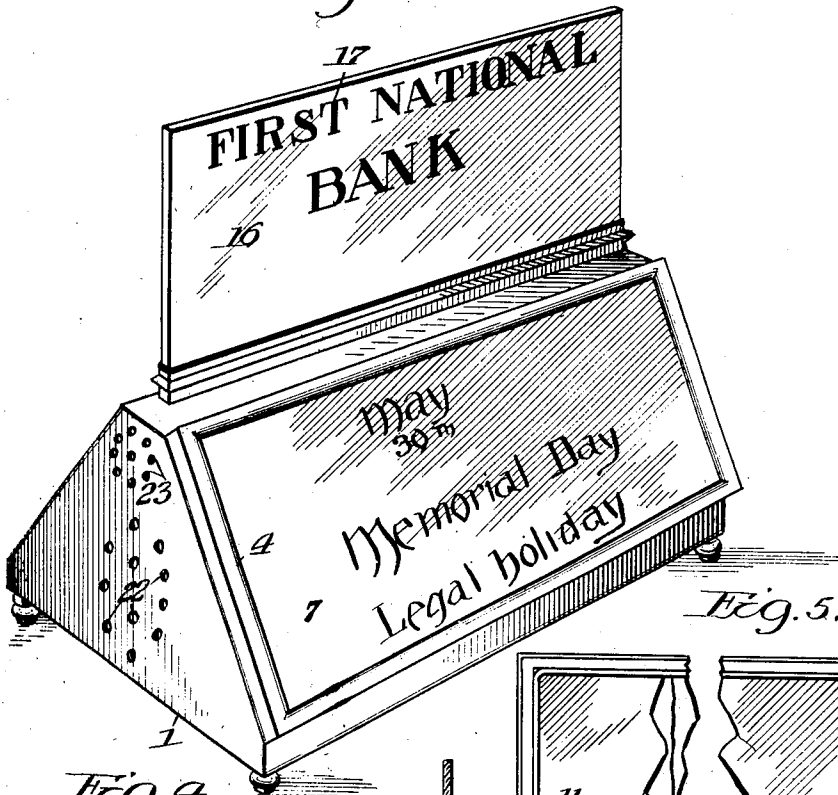


Fig. 4.



Fig. 2.

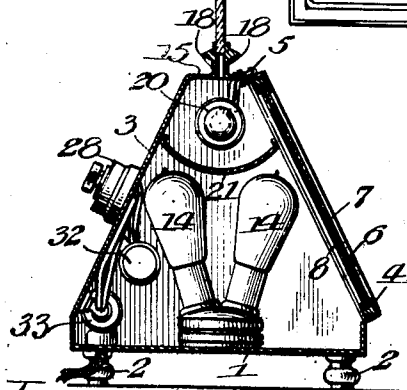
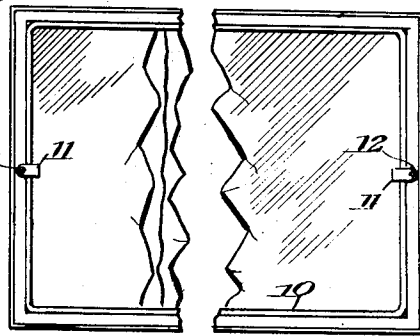


Fig. 5.



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UNITED STATES PATENT OFFICE.

ISIDOR J. KUSEL, OF CHICAGO, ILLINOIS, ASSIGNOR TO STRONGHART COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ILLUMINATED SIGN.

1,400,296.

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To all whom it may concern:

Be it known that I, ISIDOR J. KUSEL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Illuminated Signs, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to illuminated signs.

The principal object of the invention is to provide a device which shall comprise a plurality of signs so that the eye may be attracted by the different character of the display matter and thereby the sign may be more effective.

A further object of the invention is to provide means by which the lighting effect to the plurality of display devices may be varied, permitting the different signs to be lighted alternately or simultaneously as desired.

A further object of the invention is to acquire simplicity of design and inexpensiveness of construction.

Further objects of the invention will appear hereinafter.

In the accompanying drawing Figure 1 is a perspective view of an illuminated sign embodying my present invention;

Fig. 2 is a cross section of the same;

Fig. 3 is a longitudinal section of the same;

Figs. 4 and 5 are views of details of construction;

Fig. 6 is a diagrammatic view of the electrical arrangement and connections of the sign; and

Fig. 7 is a supplemental diagrammatic view showing the position of the switch included in Fig. 6;

Fig. 8 is a view of a modified form of sign.

The sign shown in the drawings for illustrating the invention comprises a box or casing 1 conveniently mounted on legs 2. The box or casing 1 is preferably made of triangular cross section as shown in Fig. 2. One of the inclined side walls 3 is preferably made stationary and integral with the bottom. The other side wall is provided with a swinging door 4 hinged at

5 so that it can be swung upwardly and outwardly about its upper horizontal edge. This swinging door is constructed to form one of the display devices of the sign. To such end it is made of two glass plates 6 mounted in a rectangular frame, and a sheet 8 of paper or other material located between said glass plates 6 and 7. This sheet 8 is provided with a suitable inscription which it is desired to display in the sign. For example in the sign shown said sheet 8 is provided with the words "May 30th Memorial Day legal holiday." To permit changing the sheet 8 and substituting another with a different inscription, a removable ring-like frame 10 is mounted on the inner side of said swinging door so as to hold said glass plates 6 and 7 with the sheet 8 between them in position in the swinging frame, said swinging frame being provided with pivoted dogs or catches 11 by which said frame 10 may be engaged and temporarily held in position, as shown in Fig. 5. By swinging said dogs 11 about their pivotal points 12 the frame 10 may be released and the two glass plates 6 and 7 removed and another sheet 8 with a different inscription or "slogan" upon it may be substituted. In this way as many different display devices as desired may be inserted and displayed in this portion of the sign.

Within the box 1 are shown suitable lighting devices, as for example a cluster of incandescent lamps 14, Figs. 2 and 3. These are suitably mounted upon the bottom of the box so that when lighted they will illuminate the display device formed by the swinging door 4, the sheet or sheets 8 being of sufficiently thin or translucent material so that said lamps will be effective.

Mounted upon the top 15 of the box 1 is a plate 16 of glass or other suitable material having suitable words or letters 17 (Fig. 1) etched or otherwise formed upon it. The words shown on said plate 16 are "First National Bank." Of course other words could be formed as occasion required and other plates with other words could be substituted in accordance with the construction which will be hereinafter set forth. Said plate 16 is mounted between side flanges 18 which are separated from one another all the way down to their lower edges.

Lighting devices such for example as the incandescent lamps 20, are mounted in the top of the box 1 and lengthwise of the same directly below the plate 16 and the side flanges 18. Thus the light from these lamps 20 illuminates the plate 16 and forms an illuminated sign or display device of the same, such devices being known sometimes in the trade as "X-ray" signs. In order to separate the two sets of lighting devices, a longitudinally extending partition 21 is arranged below the lamps 20 and secured to the side walls of the box 1 so as to be held firmly in position. For ventilation, the ends of the box 1 are provided with a group of apertures or holes 22 for the lower set of lamps 14, and another group of apertures 23 for the upper lamps 20. Thus it will be seen that the device comprises two separate and distinct signs by reason of the two separate and distinct display devices 4 and 16. Both of the display devices may be changed so as to vary their inscriptions, thus permitting practically unlimited elasticity to the sign.

As a matter of further improvement I provide an arrangement by which the lighting devices are controlled to permit desired different lighting effects. Preferably the two groups or clusters of lamps are connected with circuit arrangements by which either one of said groups of lamps may be lighted alone or by which both groups may be lighted at the same time. The circuit arrangement for accomplishing this is illustrated in Fig. 6. In this arrangement there are shown the upper lamps 20 bridged across circuit wires 25 and 26. There are also shown the lower lamps 14 connected by conductor 27 with circuit wire 25. The wire 27 runs to a four way switch 28, as does also the conductor 26. The switch 28 is mounted on the rear wall of the box or casing 1, as shown in Fig. 2. Another conductor 29 extends to one side or pole of the source of energy; another conductor 30 is connected with the other side or pole of the same. This conductor 30 runs to and connects with the conductor 25 at 31. Preferably I include a flasher 32 in the conductor 25 and one or more flashers 33 in the conductor 27, as will be further explained. The four-way switch 28 has three arms 28^a, 28^b and 28^c, and three contacts 34, 35 and 36, this being a well known type of three-point, four-way switch such as now known on the market. In operation, with the switch 28 in its present position, connections will be made so that both the lights 14 and 20 will be lighted. This will appear by following the circuit as follows. From conductor 29 to arms 28^a and 28^b, conductor 26 to lamps 20, thence to conductor 25 and back to source of energy by way of conductor 30; also from conductor 29 and switch arm 28^a to switch arm 28^c, conductor 27, lamps 14, and back by conductor 30, the circuit thus being made in multiple through the two sets of lamps. This position of the switch 28 is indicated as position A in Fig. 7. When the switch 28 is turned one-quarter turn to the right, the arms are in the position indicated at B, Fig. 7. In this position it is obvious that the arm 28^a will be separated from the contact 34 and thereby no connection is made with either group of lamps, so that both groups will remain unlighted. By the next quarter turn of the switch 28 to the position shown at C, Fig. 7, the arm 28^a has come to make contact with contact 36 and the arm 28^c with contact 34. Thus connection will be made from conductor 29 and contact 34 to switch arms 28^c and 28^a, and thence to conductor 27, lamps 14 and return conductor 30, thereby lighting the lower lamps 14, but making no connection with the upper lamps 20, there being no switch arm connection with the contact 35 forming one terminal of the upper lamp circuit. When the switch 28 is turned to the position shown at D, Fig. 7, the circuit is made from conductor 29 to switch arms 28^b and 28^c to contact 35 and thence by conductor 26 to upper lamps 20 and back by conductors 25 and 30, thereby lighting the upper lamps 20. There being no connection with the lower lamp circuit terminal 36, the lower lamps remain unlighted. Thus by this three-point, four-way, switch either set of lamps may be independently lighted, the other remaining unlighted, or both groups of lamps may be lighted simultaneously, or both may be extinguished. This permits a wide variety of lighting effects.

The flashers 32 and 33 are devices of a well known type upon the market and are preferably introduced into the circuit as lending very interesting and attractive effects in the lighting result. These flashers operate in their respective circuits to dim and brighten the lights. For example, the flasher 32 will automatically dim and brighten the lamps 20 when the circuit is closed through those lamps. The flasher or flashers 33, one being used preferably for each of the lamps 14 and attached to the individual sockets thereof, cause said lamps individually to dim and brighten at different times, when the circuit is closed through said lamps 14. This gives an automatic brightening and dimming of the lamps which are lighted, thereby making the lighting effects more noticeable and effective by attracting attention of passers-by.

The modification shown in Fig. 8 has upright posts 40 containing lamps 41, and an X-ray sign 42 between them. This protects the ends of the sign 42 and also supports it against transverse breakage.

It will be understood that changes and modifications may be made without departing from the spirit of the invention.

What I claim is:

5 1. The combination of a box or casing made of elongated substantially triangular form, one of the inclined sides of said box or casing being hinged at its upper edge, said box or casing having its top pro-
10 vided with a longitudinally extending slot provided with a light pervious sign and lighting devices within said box or casing.

2. The combination of a box or casing made of elongated substantially triangular
15 form, with one of its inclined sides hinged at its upper edge to form a swinging door, said side being provided with translucent material to form an illuminated sign, said

box or casing having its top provided with a longitudinally extending slot provided 20 with a light pervious plate forming an illuminated sign, a group of lighting devices located in the lower part of said box or casing for the sign formed by said swinging door, a second group of lighting devices lo- 25 cated in the upper part of said casing for said light pervious sign, and a longitudinally extending partition between said groups of lighting devices.

In witness whereof, I hereunto subscribe 30 my name this 1st day of April, A. D. 1916.

ISIDOR J. KUSEL.

Witnesses:

A. LYDA JONES.

HAZEL A. JONES.