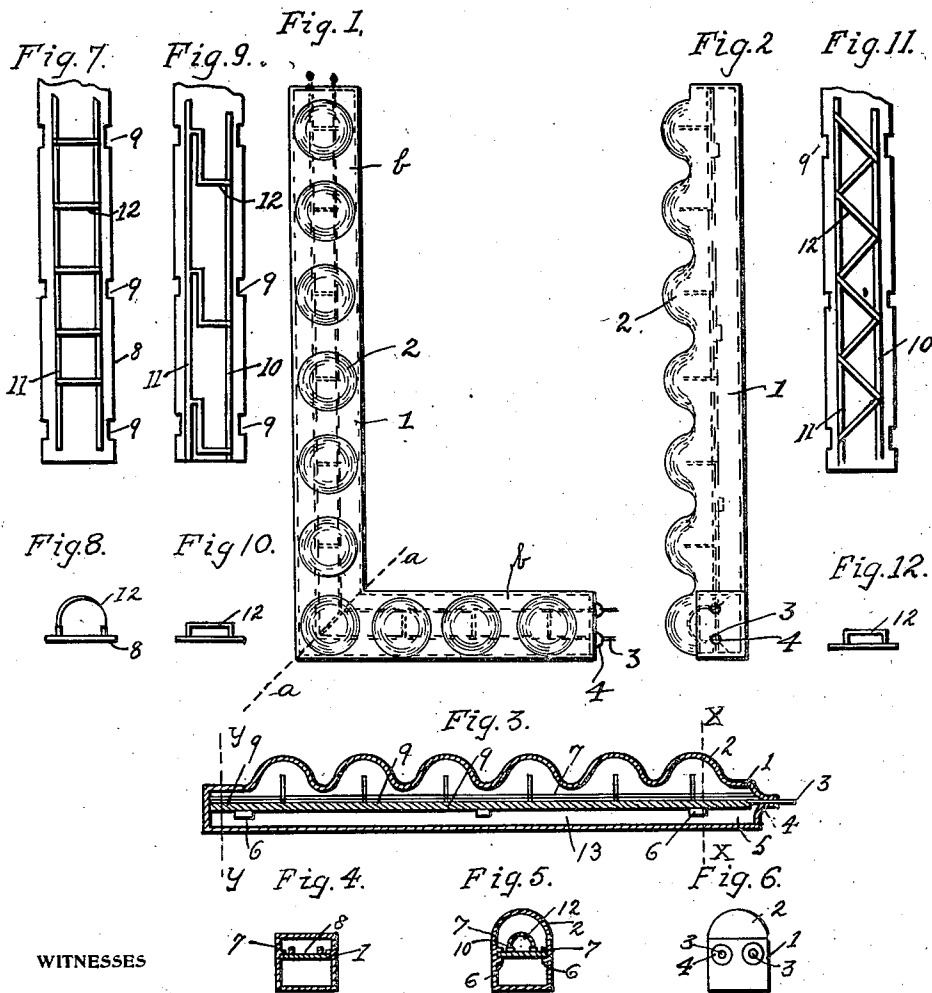


I. KITSEE.
ELECTRIC ILLUMINATION.
APPLICATION FILED FEB. 8, 1909.

1,017,263.

Patented Feb. 13, 1912.



WITNESSES

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ELECTRIC ILLUMINATION.

1,017,263.

Specification of Letters Patent.

Patented Feb. 13, 1912.

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To all whom it may concern:

Be it known that I, ISIDOR KITSEE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Electric Illumination, of which the following is a specification.

My invention relates to an improvement in electric illumination and has more special reference to electric signs representing letters or other required characters.

In the drawing, Figure 1 is a plan view illustrating an electric sign embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional view thereof. Fig. 4 is a section on the line *yy* of Fig. 3; Fig. 5 is a section on the line *xx* of Fig. 3. Fig. 6 is an end view of Fig. 3. Fig. 7 is a plan view of the filament holder. Fig. 8 is an end view of the same. Fig. 9 is a plan view of a filament holder having a modified arrangement of the filament. Fig. 10 is an end view of the same. Fig. 11 is a plan view of a filament holder showing another form of mounting. Fig. 12 is an end view of the same.

In Figs. 1, 2, 3, 4, 5 and 6; 1 is a casing formed of glass or other transparent material which may have its surface either straight or waved as shown at 2, and this waving may be of any shape or form, either smooth or prismatic. The material will necessarily be such that the lead wires 3 can be sealed as at 4, so that a vacuum can be produced by any of the well known methods in the interior of the casing 5, and on the side walls of this casing are the projections 6 and the longitudinal strip 7.

The filament holders are composed of a sheet of glass or other insulating material 8 which have notches as shown at 9 in their sides, and conductors 10 and 11 mounted upon their surface, and the filaments 12 of any desired shape or form made out of carbon or any other material are mounted between the conductors.

The filament holder is locked in position within the casing 1 through the medium of the projections 6, and to properly support said holder the notches 9 thereof are caused to register with the projections 6, and when so positioned the filament holder may be moved into contact with the strips 7, the notches 9 receiving the projections 6 during this movement. When the holder has been

brought into contact with said strips 7 the holder is given a slight longitudinal movement to carry the slots out of registry with the projections 6, and by reason of this movement of the holder the latter is held upon said projections and strips. When positioning the filament holder in the manner indicated, one of the filaments enters each of the bulb-like portions of the casing 1, thus giving to each of the bulb-like portions an appearance corresponding to the appearance of an individual incandescent lamp.

It is evident that when the leads 3 are sealed in, the filament holder will be locked permanently between the projections 6 and the longitudinal strip 7. It is also evident that this form of illumination can be adapted to a great many situations as well as that of illuminated signs.

When, as in Fig. 1, the character letter is formed in a manner so that it is impractical to provide the inner part of the tube with one continuous holder for the filaments, then this holder may be produced in sections and the two sections either joined together so that the lead wires may form one continuous circuit, or the lead wires may be connected to each section thereof.

In Fig. 1, the dotted lines "*a, a,*" show the termination of each of the two sections "*b, b.*"

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A luminous sign, comprising a casing, a filament holder arranged therein, a plurality of conductors associated with said holder and having line terminals at the exterior of the casing, a plurality of filaments connected in parallel to said conductors, and means for locking the filament holder in position within the casing.

2. A luminous sign, comprising a casing provided with bulb-like portions in simulation of individual incandescent lamps, a filament holder arranged within the casing, a plurality of conductors carried by said holder and having line terminals projecting at the exterior of the casing, a plurality of filaments connected in parallel to said conductors, one of said filaments being arranged in each of said bulb-like portions of the casing, and means for interlocking said filament holder with said casing to maintain the filaments in their respective bulb-like portions.

3. A luminous sign, comprising a casing, having inwardly-extending projections, a filament holder arranged within said casing, a plurality of conductors associated with
5 said holder and having line terminals extending at the exterior of the casing, a plurality of filaments connected in parallel to said conductors, and a plurality of other
10 projections carried by the casing and separated from the first-mentioned projections, whereby the filament holder is received between said two series of projections, the filament holder having notches to receive the
15 last-mentioned projections when said notches register therewith and to hold said filament holder in assembled relation to the casing when the filament holder has been moved to bring said notches out of alinement with the
20 last-mentioned projections.
4. A luminous sign, comprising a casing having inwardly-extending projections therein, said casing also having a series of bulb-like portions to simulate individual incandescent lamps, a filament holder ar-

2 ranged within said casing, a plurality of
conductors associated with said holder and
having line terminals at the exterior of the
casing, a plurality of filaments connected in
parallel to said conductors, one of said fila-
3 ments projecting into each of said bulb-like
portions of the casing, and a plurality of
other projections also arranged in said casing, the filament holder being provided with
notches adapted to register with the last-
mentioned projections, whereby to permit
4 the filament holder to be placed in assembled
relation with said casing, the last-mentioned
projections holding the filament holder in
assembled relation to said casing when said
notches have been moved out of alinement
with said last-mentioned projections.

In testimony whereof I affix my signature
in presence of two witnesses.

ISIDOR KITSEE.

Witnesses:

EDITH R. STILLEY,
MARY C. SMITH.