(No Model.)

J. H. IRWIN.

ELECTRICAL SIGN.

No. 262,417. Patented Aug. 8, 1882.

Fig. 1.

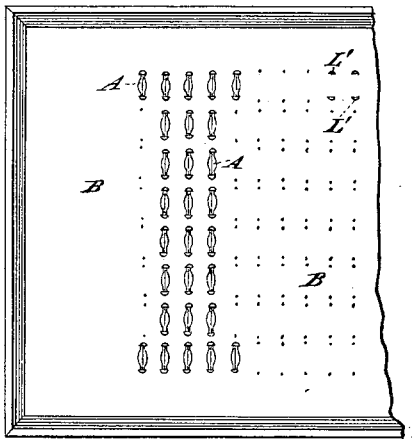
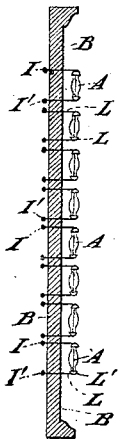


Fig. 2.



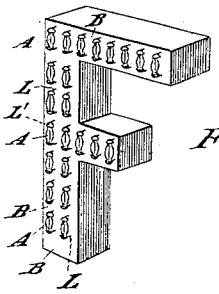
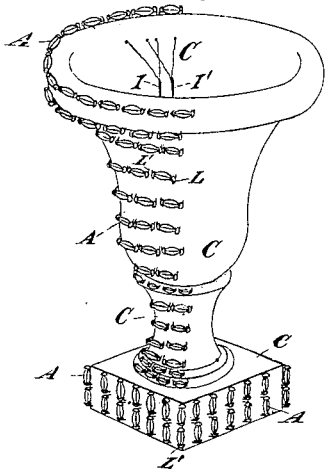


Fig. 3.

Fig. 4.



Witnesses—
Charles R. Searle.
L. F. Pierce

Inventor—
John H. Irwin,
By A. M. Pierce.
Atty

UNITED STATES PATENT OFFICE.

JOHN H. IRWIN, OF MORTON, PENNSYLVANIA.

ELECTRICAL SIGNS.

SPECIFICATION forming part of Letters Patent No. 262,417, dated August 8, 1882.

Application filed December 29, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. IRWIN, of Morton, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Electrical Signs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My present invention relates especially to the formation of objects from electric luminous vacuous cells, the same being mounted upon a suitable background; and it consists essentialy in arranging said luminous cells in the form of letters, constituting an elegant and attractive sign for use at night, and also arranging said cells upon the outside surface of a mold, cast, or shape of any desired form or material; and my invention involves certain novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a plan view of a fragment of a sign-board. Fig. 2 is a section through the letter formed upon the board, showing the arrangement of the lamps and their connections. Fig. 3 is a perspective view of a block-letter, and Fig. 4 is a like view of an urn or vase illuminated by my method.

Like letters of reference, wherever they occur, indicate corresponding parts in all the figures.

My present invention relates to the formation of objects by the use of small incandescent lamps or luminous beads placed upon a background to hold them in position, the method employed for certain portions of the construction of the devices being similar to that fully set forth in an application for patent for improvement in forming symbols and figures from electric luminous vacuous cells filed by me December 28, 1881; but the devices shown and described in the present application are composed of vacuous cells arranged upon a supporting background, whereby a different effect is produced from that set forth in the above-mentioned application.

The supporting background B, upon which the lamps are arranged, may be formed of any suitable material, and where employed for a permanent sign-board the letters back of the lamps may be painted on the board in the usual manner, being visible in the day-time. The lamps A may rest upon the surface of the supporting background or may fit into recesses prepared therein for their reception, and may be connected to conductors at the back of the support. If desired, the conducting-wires may be placed upon the front of the board, the material used for insulating them being of a color corresponding to the surface of the board or background, and the lamps may be held by depressions formed in the conductors, as fully set forth in my said former application.

As indicated in Fig. 2, the conductors I I′ are located closely together across the back of the support, I being the positive and I′ the negative conductor. L are pins or wires passing from said conductors through perforations in the board or supporting background to the front thereof, terminating in caps or grasping devices L′, for the purpose of making electric connection with the lamps. By this method of construction the letters or characters may be changed at pleasure by simply placing the lamps in the necessary form upon the surface of the board or supporting background.

The letter shown in Fig. 3 is formed of any suitable material, and signs may be made of such letters, either supported upon a background or simply suspended. By such an arrangement the letters will be plainly seen by day, and at night the surface may be brilliantly illuminated.

The device shown in Fig. 4 consists of a hollow cast or mold, C, of any suitable non-conducting material, and the same may be given any desired shape. The lamps may be placed at suitable distances apart upon the outside surface thereof and connected up in any desired manner—either by means of conducting-wires passing to the interior of the mold, forming electric connection with the line-wires concealed therein, or with the line-wires arranged upon the surface of the mold. It is obvious that when in multiple arc each lamp may be easily replaced, if broken. The device may be arranged so as to form electrical connection with the line through con-

ductors located in the bottom thereof, and which press against the poles of the line-wires when the device is placed in position upon a support.

When constructed and arranged in accordance with the above description signs and objects for use at night become not only very attractive, but by the use of a dark or absorbing background the light from the lamps is rendered more distinct and decided, and the desired striking effect is obtained.

I am familiar with the invention described in Letters Patent No. 224,060, granted to Wm. L. Voelker, February 3, 1880, and disclaim such invention, as it differs from mine in purpose, in the manner of operation, and in its principal constituent elements.

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

1. An electrically-luminous sign or object, the sign or object being composed of numerous removable vacuous cells arranged upon a background or support, with conductors passing through the same, and electrical wires arranged upon the interior or opposite side of such background or support, connecting said vacuous cells in multiple arc, substantially as and for the purposes described.

2. A supporting background for electrically-luminous cells A, having conductors I I′ and pins or wires L passing from the conductors to the front of the support, said pins terminating in devices L′, adapted and arranged to grasp the extremities of the vacuous cells, completing electric connection therewith, substantially as and for the uses and purposes shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

JOHN H. IRWIN.

Witnesses:
F. W. HANAFORD,
A. M. PIERCE.