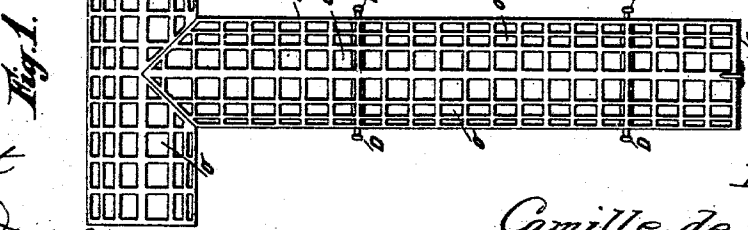
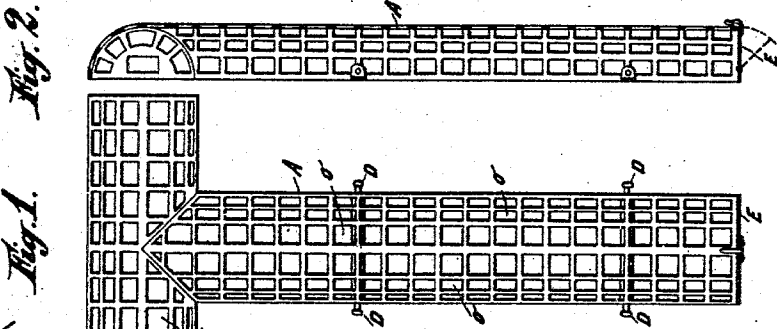
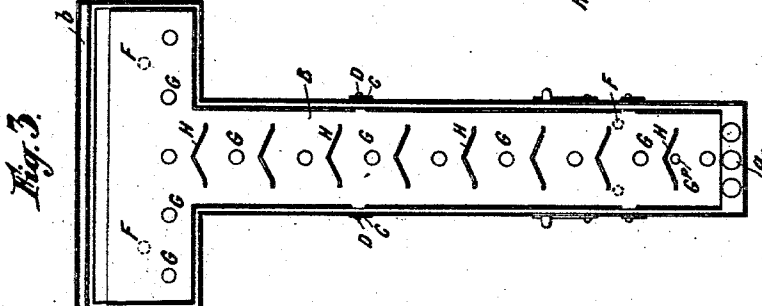
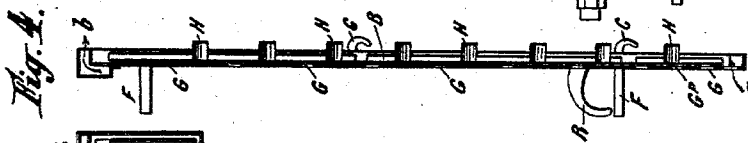
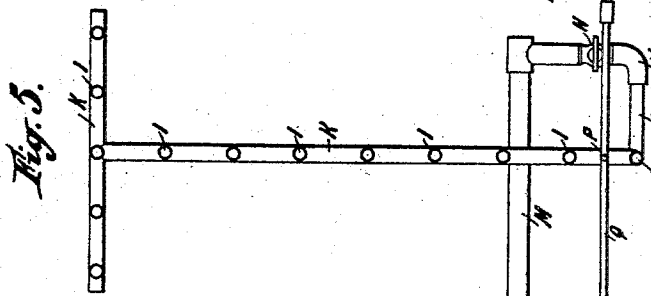
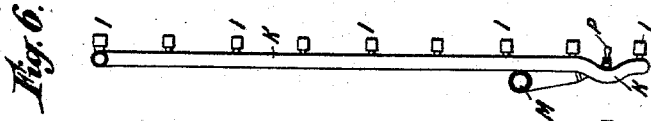
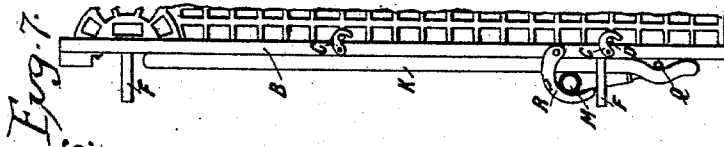


(No Model.)

C. DE BORMAN & C. ALKER.
TRANSPARENCY LETTER.

No. 514,539.

Patented Feb. 13, 1894.



Attest
J. L. Middleton

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Charles Alker
by Richards & Co.
ATTYS.

UNITED STATES PATENT OFFICE.

CAMILLE DE BORMAN AND CHARLES ALKER, OF BRUSSELS, BELGIUM.

TRANSPARENCY-LETTER.

SPECIFICATION forming part of Letters Patent No. 514,539, dated February 13, 1894.

Application filed January 19, 1893. Serial No. 458,941. (No model.) Patented in Belgium July 16, 1892, No. 100,538; in France October 11, 1892, No. 211,670, and in England October 11, 1892, No. 18,187.

To all whom it may concern:

Be it known that we, CAMILLE DE BORMAN and CHARLES ALKER, manufacturers, both of Brussels, in the Kingdom of Belgium, have invented certain new and useful improvements in the application of all kinds of lights to the illumination, by transparency of letters, of "so-called" signs, figures, trade names or marks usually placed on the façades of or at a distance from houses, hotels, or other like buildings with the object of drawing the attention of the public to some given object, letters, figures, attributes, or marks, which we wish to describe under the general title of lighthouse-letters, (for which no patent has been obtained in any country, except in Belgium July 16, 1892, No. 100,538; in France October 11, 1892, No. of Certificate 211,670, and in England October 11, 1892, No. 18,187,) of which the following is a specification.

Our invention relates to signs, advertisements, &c., adapted to be made luminous during the night by means of a source of light located within every letter, emblem, or figure, that goes to make up the sign or advertisement.

The principle of construction being the same either for letters, emblems or figures we will confine ourselves to the description of the working of our system with letters. Each letter consists of three essential parts, the exterior, visible part, that forms the letter itself, the support and the lighting apparatus.

In the example shown in the annexed drawings the source of light is gas, the form of the letter is a T, Figures 1 and 2 show a front and a side view of the exterior visible part of the letter. Figs. 3 and 4 show a front and side view of the part that supports the lighting apparatus and also the exterior cover. Figs. 5 and 6 show the piping of the lighting apparatus and Fig. 7 represents a side view of the whole of the three parts united for forming the letter.

As the drawings show, each of the parts constituting the letter has the shape of the letter that it is desired to make thus in this case the shape of a T. The cover A for instance, consists of a plate of sheet metal, bent or folded according to the shape of the letter it is desired to present. It is of open work or perforated

by a large number of small openings disposed symmetrically, for receiving crystals of white or stained glass which are inserted in every little opening. Under these conditions the cover looks in day time as a semi-metallic and semi-vitreous whole presenting a very ornamental effect; at night the same cover presents a unicolor multi-color surface, transparent for the light and of a very rich luminous effect. But it is obvious that any other arrangement can be employed for constituting the exterior cover A. It can for instance be constructed as a kind of glass window bent or folded the empty spaces of which are filled with very small panes of glass of different colors. The exterior cover A is connected to the support B by means of small hooks E disposed upon the support B which are fixed upon the pins D of the cover.

It will be seen further that the cover A has a small door E at its base through which access may be had to the interior for instance, for lighting. The support B consists of a metallic plate which has the shape of the letter it is desired to form as has been said above. The support B is the portion that is applied to the front of the houses, balconies, &c., to which it is desired to attract the attention. In order to prevent the immediate contact of the sign or of the more or less heated part with the building the support B of each letter carries at the back a certain number of spikes F, more or less long which rest directly against the building. The air may circulate through the letter by way of the openings *a, b*, Fig. 4.

The support is perforated with a series of openings G through which the piping or burners I (Figs. 5 and 6) of the gas lighting apparatus pass. Above every opening G of the vertical part a small cap H is disposed to cover or project over each of the little flames and to insure their steadiness by breaking the too violent draft that might pass through the letter.

The lighting apparatus itself (Figs. 5 and 6) comprises two essential parts; the illuminating device and the lighting device. The first consists of a gas pipe K of the shape of the letter the diameter of which varies according to the size of the letter; it carries a more or less large number of burners I varying accord-

ing to the desired luminous effect. It is connected to a second pipe L L' which is connected itself with a pipe M constituting a conduit that furnishes light to all the letters of the same sign, and which consists of a certain number of pipe ends the length of which depends upon the breadth of the letters. The pipe L' is provided with a regulating cock N of which we will speak later. The lighting device consists of a night light burner P disposed upon a small tube Q of a small diameter that extends across in front of a bent part of the pipe K. That burner just as the other burners I I I projects from the back through an opening G^p of the support.

It will be seen that the support B is connected to the gas supply pipes by means of movable hooks R which come to lie down upon the horizontal pipe M just as the cover A is connected to the support B by the hooks C, Fig. 7, shows clearly the whole of the thus connected parts.

A sign constructed of a series of letters placed one next to the other and connected by means of the pipes M is supplied from the main through a pipe connected with the pipe M. This latter pipe carries a cock by which the supply to the whole sign is regulated. Upon these conditions the cock N of every letter is once for all regulated and the night light P burns continuously. For lighting the whole, sign, or advertisement it is sufficient to open the main cock we have just alluded to which is located in any convenient part of the building. The gas passes into the piping M, L', L K and all the burners I I I are lighted

successively by the night lamp P the flame from which extends upwardly sufficiently far to ignite the burner I next above and the flame from this ignites the next higher and so on to the top.

In all the preceding we have spoken only of illuminating by gas. The same arrangement with some variation can be also used for illuminating by electricity. In certain cases the piping M, L, K is replaced by an electric wire that carry to each letter a certain number of incandescent lamps. It is obvious that the metallic supports are then replaced by non-conducting supports of a proper material and the night lamp is replaced by whatsoever convenient electric device.

It will be easily understood that the details of the construction can be varied.

We claim—

In combination, the outer casing and back plate of the shape of the letter, the said back plate having openings to the interior, the gas supply pipes of the general shape of the letter and having burners projecting through the rear openings into the interior of the casing, the detachable hook connections between the back plate and the front casing and rear lighting device, the vertical series of caps H arranged intermediate of the burners and the lighting device arranged at the bottom of the series of jets, substantially as described.

CAMILLE DE BORMAN.
CHARLES ALKER.

Witnesses:

JOSEPH GOFFIN,
GREGORY PHELAN.