

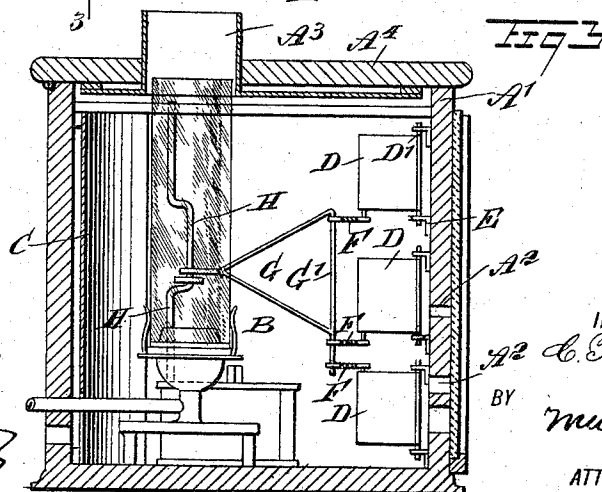
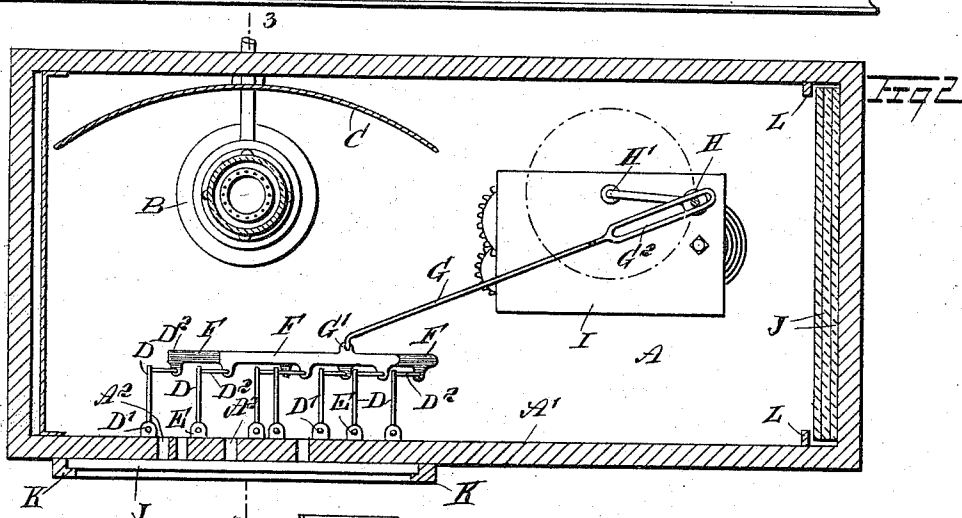
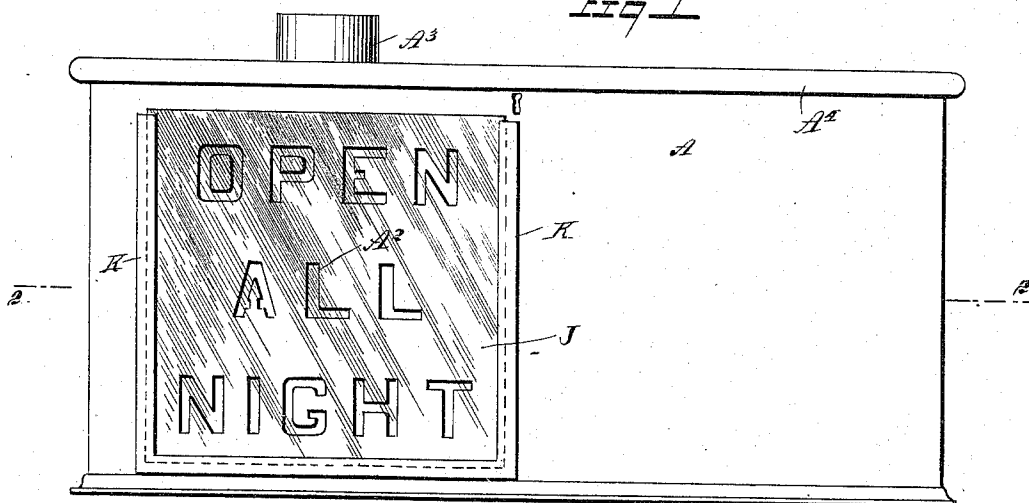
(No Model.)

C. P. GATES.
ILLUMINATED SIGN.

No. 579,343.

Patented Mar. 23, 1897.

Fig 1



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES PHILIP GATES, OF BROOKLYN, NEW YORK.

ILLUMINATED SIGN.

SPECIFICATION forming part of Letters Patent No. 579,343, dated March 23, 1897.

Application filed December 10, 1896. Serial No. 615,102. (No model.)

To all whom it may concern:

Be it known that I, CHARLES PHILIP GATES, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Illuminated Sign, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved illuminated sign which is simple and durable in construction, arranged to readily attract attention, and more especially designed for use on stores and like places for advertising and other purposes.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of the improvement. Fig. 2 is a sectional plan view of the same on the line 2 2 of Fig. 1, and Fig. 3 is a transverse section of the same on the line 3 3 of Fig. 2.

The illuminated sign is preferably arranged in the form of a box A, having its front A' formed with openings A², representing letters or other characters constituting the sign. Within the box A and directly in the rear of the sign is arranged a lamp B of any approved construction, and having either gas, petroleum, or electricity as the lighting medium.

On the back of the box A and directly in the rear of the lamp B is arranged a reflector C for throwing the rays of light to the openings A², constituting the same, so that when the light penetrates through the openings the sign can be easily read.

The openings A² are adapted to be closed at the inside of the front A' by shutters D, hinged at D' to suitable bearings E, attached to the inner face of the front A'. The shutters D are preferably arranged in tiers, as plainly indicated in Fig. 3, and the shutters in each tier are pivotally connected by arms D² with longitudinally-extending bars F, engaged by a vertical pivot-pin G', forming part of a pitman G, formed at its rear end with an elongated slot G², engaged by the crank-arm H of the driving-shaft H', forming part of the motor I of any approved construction.

As shown in the drawings, the motor is in the form of a clockwork, but it is evident that electric or other motors may be used for imparting a rotary motion to the shaft H', so that the crank-arm H imparts an intermittent forward-and-backward swinging motion to the pitman G, and the latter by the pin G' imparts an intermittent swinging motion to the bars F and shutters D. The pitman G has its elongated slot G² so arranged relatively to the length of the crank-arm H that the shutters D shut upon the inner surface of the front A' during part of the rotatable movement of the crank-arm H to close up the openings A², so as to prevent the rays of light emanating from the lamp B from reaching and illuminating the sign. The shutters D when swung into an open position by movement of the crank-arm, as shown in Fig. 2, stand at right angles to the front A', so that the rays of light from the lamp B can readily pass to the said openings A² and illuminate the sign. The shutters D are made of tin or other suitable opaque material.

It is evident that by the arrangement described the sign is alternately illuminated or darkened, so that it cannot be read from the outside. The shutters D remain a short time stationary both at the closed and opened positions to heighten the attractiveness of the sign.

By reference to Fig. 3 it will be seen that the bars F are arranged between the tiers of shutters and the openings A², so that the said bars do not obstruct the rays of light from passing to the openings A², so as to properly illuminate the latter when the shutters are in an open position.

In order to heighten the effect of the sign, I may cover the same with colored panes J, set in suitable guideways K, attached to the front A' of the box, as indicated in Figs. 1 and 3. A series of such panes J may be held in suitable guideways L within the box and used whenever desired.

The chimney of the lamp B preferably opens into an outlet-flue A³, held in the top or cover A⁴ of the box.

During the day an opaque sign over the openings A² may be used in the guideways K, bearing the legend "Watch this to-night."

From the foregoing it will be seen that the

device is very simple in construction and can be cheaply manufactured and readily set up in front of any store or other building, or in store-windows and the like, to attract the attention of passers-by.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with a casing, of a driving crank-shaft therein, a pitman connected to the crank-shaft, a series of shutters pivotally carried by the casing at the inner side thereof, and a bar pivotally connected to the shutters and to the pitman, the casing having orifices capable of being closed by the shutters when moved through the medium of the bar and pitman, substantially as described.

2. The combination with a casing having orifices therein, of a driving crank-shaft mounted within the casing, a plurality of horizontal lines of shutters pivotally mounted within the casing and capable of swinging to open and close the orifices within the casing, a bar pivotally connected with each horizontal line of shutters, a pitman connected to the

crank-shaft and having a vertically-elongated pivot-pin, the pivot-pin having connection with the horizontal bars whereby the shutters are operated in unison with each other, substantially as described.

3. The combination with a casing having orifices therein, of a driving crank-shaft mounted within the casing, a pitman one end of which is formed with a longitudinally-elongated slot receiving the crank-shaft, a series of horizontal lines of pivotally-mounted shutters, the shutters being movable to open and close the orifices, and a bar pivotally connected with each horizontal line of shutters, the pivot having the end opposite the crank-shaft forked and having a pivot-pin running vertically across the arms of the fork, the pivot-pin having connection with all of the horizontal bars and serving to transmit simultaneously operative movement to the swinging plate, substantially as described.

CHARLES PHILIP GATES.

Witnesses:

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