H. W. WALDEN.

ELECTRIC SIGN.

APPLICATION FILED DEC. 17, 1915.

1,234,514.

Patented July 24, 1917.

2 SHEETS—SHEET 1.

Fig. 1.

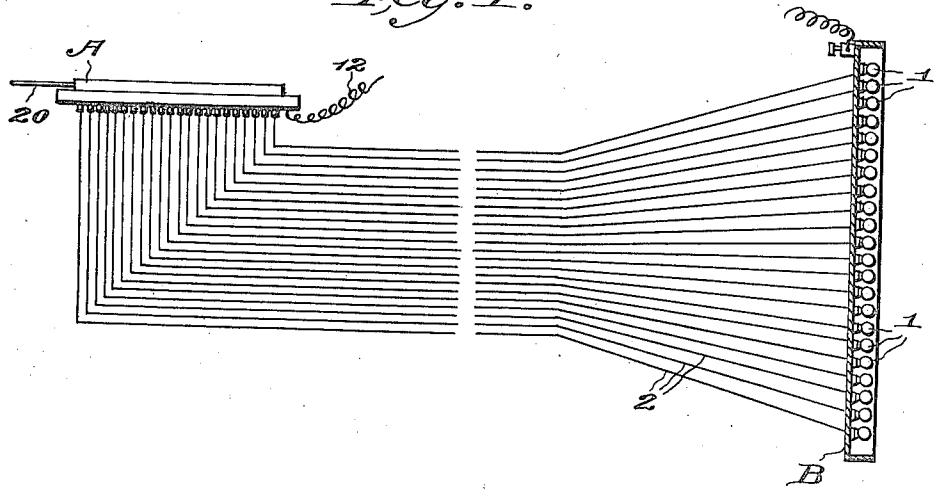


Fig. 2.

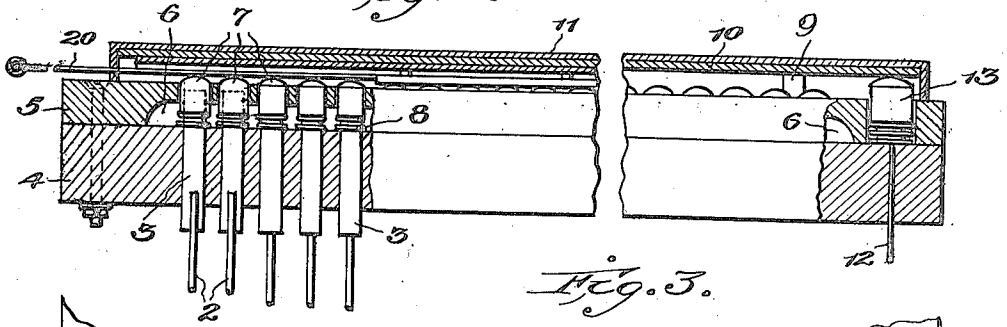
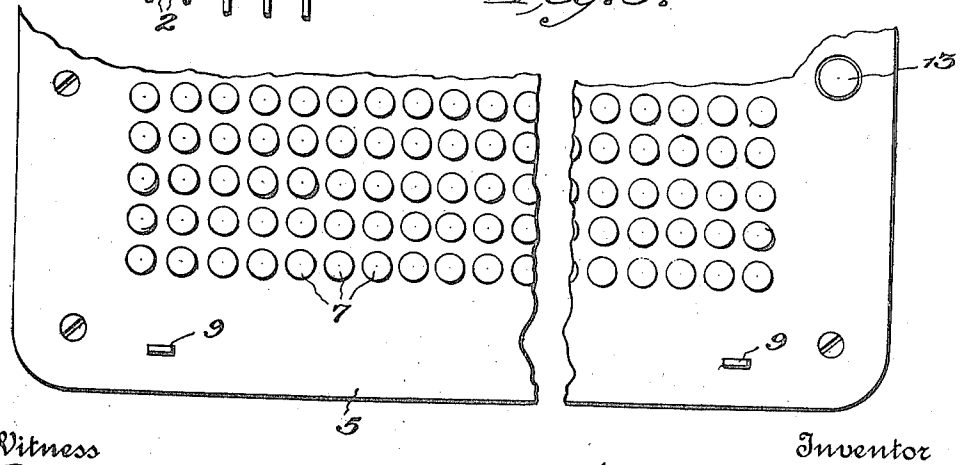


Fig. 3.



Witness

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2 SHEETS—SHEET 2.

Fig. 4.

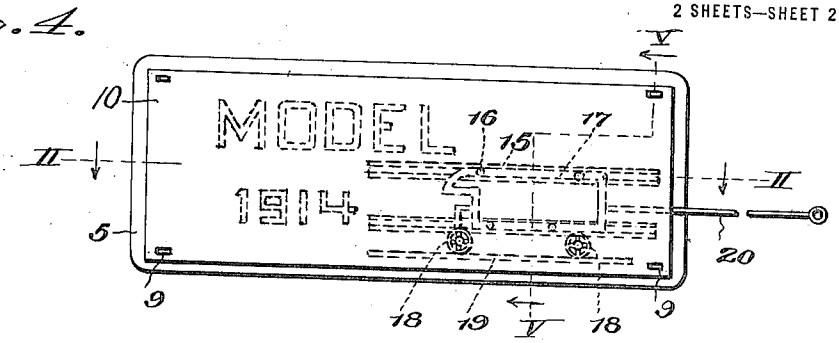


Fig. 5.

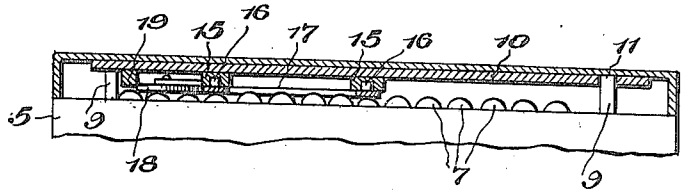
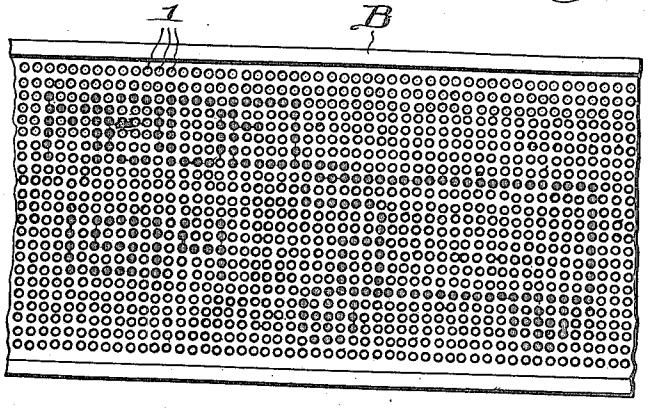


Fig. 6.



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UNITED STATES PATENT OFFICE.

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ELECTRIC SIGN.

1,234,514. Specification of Letters Patent. Patented July 24, 1917.

Application filed December 17, 1915. Serial No. 67,399.

To all whom it may concern:

Be it known that I, HENRY W. WALDEN, a citizen of the United States, residing at New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Electric Signs, of which the following is a specification.

My invention relates to electric signs of that type in which the letters or characters are portrayed by means of electric lamps, and in which a pattern plate is employed for closing the circuits to the various lamps, whereby an illuminated design will be produced, and has for its primary object to provide a novel means for producing a moving effect in the illuminated sign by mechanism connected with the pattern plate.

Certain minor details of construction will be hereinafter pointed out and claimed, reference being had to the accompanying drawing, in which:—

Figure 1 is a diagrammatic view of the sign board and switch board, the former being shown in section, and the wires connecting the two being shown diagrammatically.

Fig. 2 is an enlarged detail view, partly in section, of the switch board, the section being taken on the line II—II of Fig. 4.

Fig. 3 is a fragmentary top plan view of the switch board, certain portions of the same being removed.

Fig. 4 is a plan view of the switchboard with the cover plate thereof removed, the design on the underside of the pattern plate being shown in dotted lines.

Fig. 5 is a transverse section of the switch board, taken on the line V—V of Fig. 4.

Fig. 6 is a fragmentary view of the sign board, showing the electric bulb thereon, some of which are shown as illuminated to produce a design.

Similar numerals of reference denote corresponding parts in the several views.

In the said drawing, the reference letter A denotes the switch board as a whole, and B the sign board, the latter being provided with a plurality of electric light globes 1, from which wires 2 run to suitable circuit terminals 3, fixed in the base board 4 of the switch board, there being one circuit terminal 3 for each electric light globe, as shown. Bolted to the upper surface of the base board 4 is a plate 5, the same being recessed on its under side at 6 and being apertured to receive the contact caps 7 therein, the latter being normally projected somewhat above the upper surface of said plate 5 by means of springs 8 of insulating material, and when in such projected position breaking contact with the circuit terminals 3. The plate 5 near its corners is provided with projections 9, which are adapted to register with apertures in a pattern plate 10, whereby the latter may be mounted in fixed relation upon the plate 5, a cover plate 11 being employed to protect said plate 10. Leading through the base plate 4 at one side is the return wire 12 of the circuit, the same being connected with a contact cap 13, which is pressed into circuit making contact therewith by the plate 10 when the latter is applied to position. The fixed design upon the underside of the plate 10 may be of any desired configuration, and as shown in Figs. 4 and 6 in the present case consists of the word "Model" and the number "1914". Also fixed to the underside of the pattern plate are suitable tracks 15 adapted to receive guide pins 16, fixed to a movable pattern 17, here shown in the form of an automobile truck, the pins 16 moving in the tracks 15, whereby said movable pattern truck may be reciprocated in a right line, the pattern acting upon the underlying contact caps 7 as it is moved to give an appearance of a movable wagon. Also rotatably mounted upon said pattern 17 are the wheels 18, the same running on a track 19, whereby they are rotated as the pattern is reciprocated, the reciprocation being accomplished through the projecting rod 20 manipulated in any suitable manner.

In operation, the pattern plate 10 is applied to the pattern member A and its design will depress the underlying contact caps 7, whereby the corresponding lamps 1 in the sign board will be brought into closed circuit and illuminated, giving the effect of the design upon the sign board. At the same time the movable pattern 17 will similarly depress the underlying contact caps, whereby its outline will be reproduced upon the sign board, and by reciprocating said pattern by means of the rod 20, a moving effect will be given to the sign and the wheels 18 being rotated will produce a similar rotating effect upon the sign board, this being accomplished by reason of the fact that the spokes of the wheels 18 in their

movement will contact successively with different contact caps so as to produce an effect of rotation in a manner readily understood.

While I have shown and described the movable pattern element 17 as adapted to be reciprocated on the switch board, I do not wish to be understood as limiting myself to this construction, as I contemplate employing other means for obtaining the moving effect. Thus, the movable pattern may be in the form of an endless belt adapted to be moved through the pattern plate, and guided by the tracks 15, or other suitable means. Or the movable element may be a rotating element solely, instead of a reciprocating or endless belt element provided with rotating members.

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

1. A switchboard for electric signs, comprising a plurality of contacts normally in open position and each controlling an electric light, a pattern plate removably disposed with respect to said contacts and when positioned operatively in respect thereto moving to closed circuit position certain of the contacts in accordance with the design thereon, a movable pattern carried by said pattern plate, and means for moving said pattern to make contacts in conformity with its design while being moved.

2. A switchboard for electric signs, comprising a plurality of contacts normally in open position and each controlling an electric light, a pattern plate removably disposed with respect to said contacts and when positioned operatively in respect thereto close circuiting certain of the contacts in accordance with the design thereon, tracks on said pattern plate, a movable pattern carried by said pattern plate and guided by said tracks, and means for moving said pattern to make contacts in conformity with its design while being moved.

3. A switchboard for electric signs, comprising a plurality of contacts normally in open position and each controlling an electric light, a pattern plate removably disposed with respect to said contacts and when positioned operatively in respect thereto close circuiting certain of the contacts in accordance with the design thereon, a movable pattern carried by said pattern plate, rotatable elements on said movable pattern, and means for moving said pattern to make contacts in conformity with the design thereon, said movement causing the rotating element also to make contacts to give a rotating effect.

4. A switchboard for electric signs, comprising a plurality of contacts normally in open position and each controlling an electric light, a pattern plate removably disposed with respect to said contacts and when positioned operatively in respect thereto close circuiting certain of the contacts in accordance with the design thereon, a movable pattern carried by said pattern plate, rotatable elements on said movable pattern caused to rotate by the movement of said pattern, and means for moving said pattern to make contacts in conformity with the design thereon, said movement causing the rotating element also to make contacts to give a rotating effect.

5. A switchboard for electric signs, comprising a plurality of contacts normally in open position and each controlling an electric light, a pattern plate removably disposed with respect to said contacts and when positioned operatively in respect thereto close circuiting certain of the contacts in accordance with the design thereon, tracks on said pattern plate, a movable pattern carried by said pattern plate and guided by said tracks, rotatable elements on said movable pattern caused to rotate by the movement of said pattern, and means for moving said pattern to make contacts in conformity with its design while being moved, said movement causing the rotating element also to make contacts to give a rotating effect.

6. A switchboard for electric signs, comprising a plurality of contacts normally in open position and each controlling an electric light, a pattern plate removably disposed with respect to said contacts and when positioned operatively in respect thereto close circuiting certain of the contacts in accordance with the design thereon, tracks on said pattern plate, a movable pattern carried by said pattern plate and guided by said tracks, rotatable elements on said movable pattern caused to rotate by their contact with said tracks during the movement of said pattern, and means for moving said pattern to make contacts in conformity with its design while being moved, said movement causing the rotating element also to make contacts to give a rotating effect.

7. A switchboard for electric signs, comprising a plurality of contacts normally spring pressed to open position and each controlling an electric light, a pattern plate removably disposed with respect to said contacts and when positioned operatively in respect thereto depressing to closed circuit position certain of the contacts in accordance with the design thereon, a pattern carried by said pattern plate and adapted to be moved thereon and to depress contacts in conformity with its design while being moved, and rotatable parts on said movable pattern adapted to be rotated as said pattern is moved and to depress certain contacts while being so rotated.

8. A switchboard for electric signs, comprising a plurality of contacts normally spring pressed to open position and each

controlling an electric light, a pattern plate removably disposed with respect to said contacts and when positioned operatively in respect thereto depressing to closed circuit position certain of the contacts in accordance with the design thereon, tracks on said pattern, a pattern engaged with said tracks and adapted to be moved thereon and to depress contacts in conformity with its design while being moved, and rotatable parts on said movable pattern adapted to be rotated as said pattern is moved and to depress certain contacts while being so rotated.

9. A switchboard for electric signs, comprising a plurality of contacts normally spring pressed to open position and each controlling an electric light, a pattern plate removably disposed with respect to said contacts and when positioned operatively in respect thereto depressing to closed circuit position certain of the contacts in accordance with the design thereon, a pattern carried by said pattern plate and adapted to be moved thereon and to depress contacts in conformity with its design while being moved, a track on said pattern plate, and rotatable parts on said movable pattern adapted to be rotated by contact with said track as said pattern is moved and to depress certain contacts upon being so rotated.

10. A switchboard for electric signs, comprising a plurality of contacts normally spring pressed to open position and each controlling an electric light, a pattern plate removably disposed with respect to said contacts and when positioned operatively in respect thereto depressing to closed circuit position certain of the contacts in accordance with the design thereon, tracks on said pattern, a movable pattern having pins engaging with certain of said tracks and adapted to be moved thereon and to depress contacts in conformity with its design while being moved, and rotatable parts on said movable pattern adapted to be rotated by contact with one of said tracks as said pattern is moved and to depress certain contacts while being so rotated.

In testimony whereof I have hereunto set my hand.

HENRY W. WALDEN.