G. R. PYPER.

ILLUMINATED SIGN.

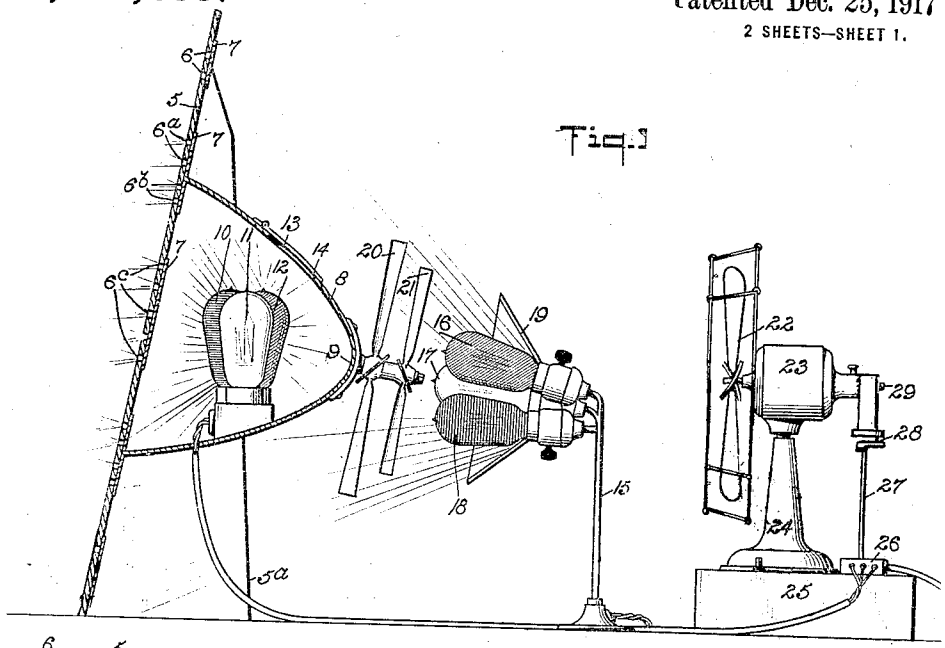
APPLICATION FILED MAR. 20, 1917.

1,251,283.

Patented Dec. 25, 1917

2 SHEETS—SHEET 1.

Fig. 1



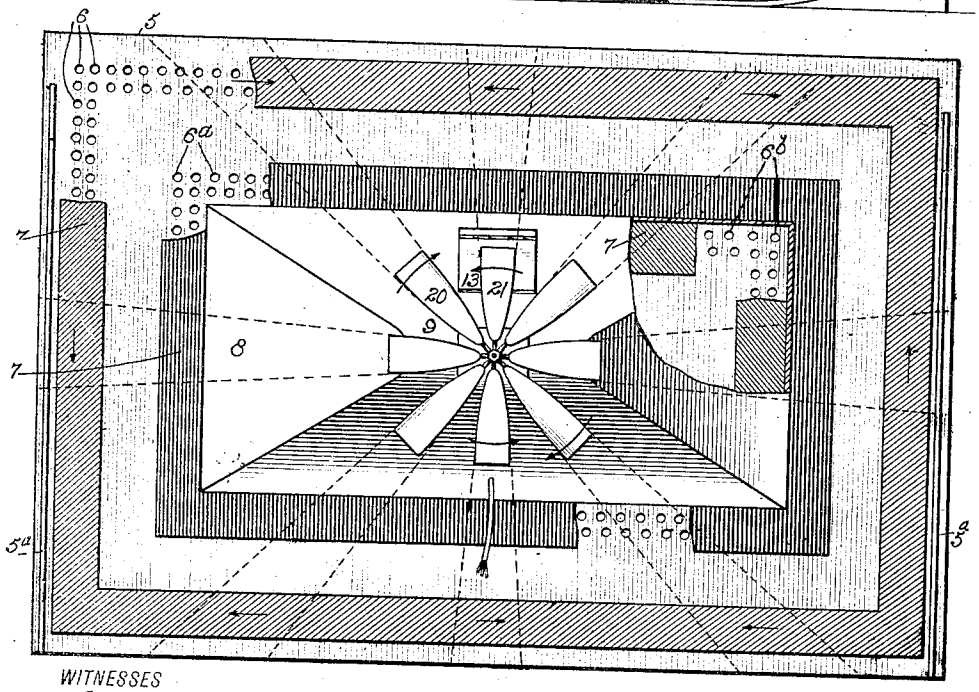


Fig. 2.

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3.

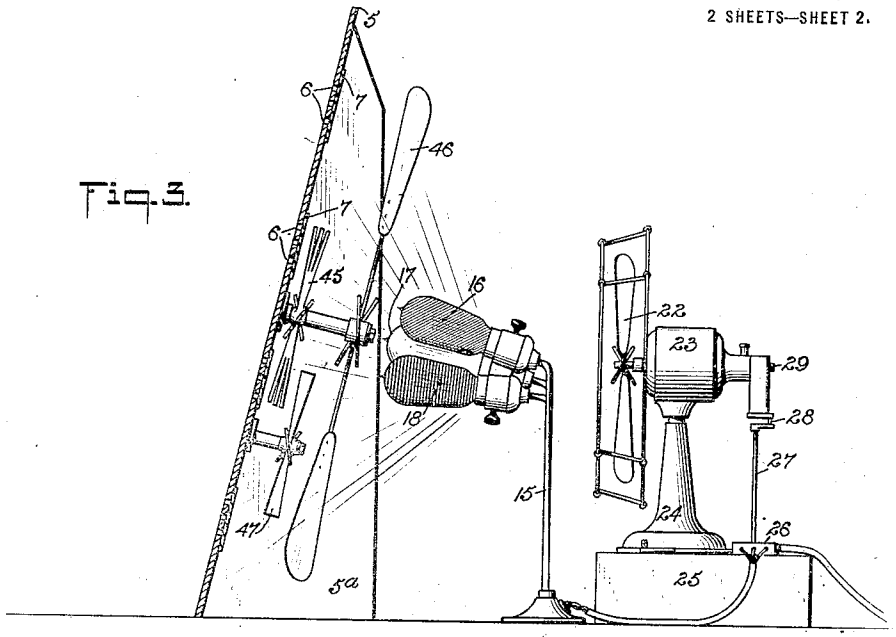
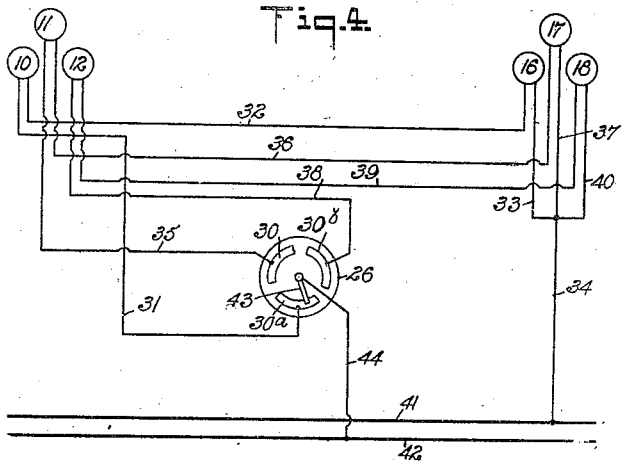


Fig. 4.



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ILLUMINATED SIGN.

1,251,283. Specification of Letters Patent. Patented Dec. 25, 1917.

Application filed March 20, 1917. Serial No. 156,094.

To all whom it may concern:

Be it known that I, GEORGE R. PYPER, a citizen of the United States, and a resident of Midvale, in the county of Salt Lake and State of Utah, have invented a new and Improved Illuminated Sign, of which the following is a full, clear, and exact description.

My invention has for its object to provide an illuminated sign which is simple in construction and which may be manufactured at little expense. The sign is constructed with translucent portions which are illuminated from behind, members with rotating blades being mounted between the illuminating means and the translucent portions of the sign.

Other objects of the invention are to construct the rotatably mounted members as fans, and operate them by air propelled by a driven fan, the driven fan also serving to operate a flasher switch, wires from which lead to the lamps used to illuminate the sign.

Additional objects of the invention will appear in the following specification, in which the preferred form of the invention is disclosed.

In the drawings similar reference characters denote similar parts in all the views, in which—

Figure 1 is a side elevation showing my sign in section, the means for operating the sign being also illustrated;

Fig. 2 is a rear view of the sign, parts being broken away to illustrate the construction;

Fig. 3 is a sectional side elevation illustrating a modified form of the invention; and

Fig. 4 is a diagrammatic view illustrating the circuits which are operated by the flasher switch.

By referring to the drawings, it will be seen that the illuminated sign is constructed with a sign member 5 which may be manufactured of cardboard, openings 6 being cut in the cardboard over which translucent paper 7 may be disposed, the said paper being pasted to the frame 5. In Figs. 1 and 2 of the drawings the member 5 is illustrated with an outer border formed by the openings 6, and two inner borders, the outer of which is formed by the openings 6^a, and the inner of which is formed by the openings 6^b. A casing 8 is disposed in the rear of the member 5, the edges of which are secured to the member 5 between the borders 6^a and 6^b. There are additional openings 6^c in the member 5 within the border 6^b. All the openings 6, 6^a, 6^b, and 6^c are covered by translucent paper 7.

The sides of the casing 8 converge rearwardly to the back 9 of the casing, which unites the said converging sides. Three lamps 10, 11 and 12 are mounted within the casing 8, it being possible to reach these lamps through the door 13 which is provided for closing an opening 14 in the casing. At the rear of the casing 8 there is a support 15 on which lamps 16, 17 and 18 are mounted, there being preferably a reflector 19 which is provided for directing rays from the lamps 16, 17 and 18 in the direction of the border openings 6 and 6^a. Rotatably mounted at the rear 9 of the casing 8 there are two fans 20 and 21, the pitch of one of the fans 20 being preferably different from the pitch of the other fan 21, so that when the fans 20 and 21 are rotated by a jet of air, they will not move in unison. The path of the fans 20 and 21 is between the lamps 16, 17 and 18 and the border openings 6 and 6^c, so that when one of the lamps 16, 17 or 18 is lighted and the fans are rotated, the said fans will serve to interrupt the rays of light which would otherwise pass at all times to the openings 6 and 6^a through the translucent paper 7. At the rear of the lamps 16, 17 and 18 there is an electrically driven fan 22 having a motor disposed in the casing 23 which is mounted on a pedestal 24. This pedestal is disposed on a base 25, and there is also disposed on the base 25 a flasher switch 26 which is operated by a rod 27 which is rotated by means of a crank 28 connected by gearing with the shaft 29 of the fan 22.

As will be seen by referring to Fig. 4 of the drawings, the flasher switch 26 has three contact plates 30, 30^a and 30^b, the contact plate 30^a communicating with the lamp 10 by means of a wire 31; the return wire 32 from the lamp 10 leading to the lamp 16 and a wire 33 leading from the lamp 16 to the wire 34. The contact plate 30 communicates with the lamp 11 by means of a wire 35; a wire 36 leading from the lamp 11 to the lamp 17, and a wire 37 leading from the lamp 17 to the wire 34. A wire 38 leads from the contact plate 30^b to the lamp 12; a wire 39 leading from the lamp 12 to the lamp 18, and

a wire 40 leading from the lamp 18 to the wire 34. The wire 34 communicates electrically with the wire 41 of the main, the other wire 42 of the main being connected with a contact arm 43 by a wire 44, this contact arm 43 being rotated by the rod 27. It will be understood that with this construction when the fan 22 is driven by the rotation of its shaft 29, the air propelled by the fan 22 will rotate the fans 20 and 21, the direction and the speed of rotation depending on the pitch of the said fans 20 and 21. The rotation of the shaft 29 will also by the means which have been described, light the lamps 10, 11 and 12 one at a time, and it will also light the lamps 16, 17 and 18 one at a time. The lamps 10, 11 and 12 are of different colored glass, and the lamps 16, 17 and 18 are also provided with glass of different colors.

The name which is to be displayed by the sign may be indicated by the openings 6c, and this name will be illuminated in different colors with the rotation of the flasher switch. The border openings 6 and 6a will also be illuminated in different colors with the operation of the flasher switch; in addition the different colored rays of light will be interrupted by the movement of the fans 20 and 21, in the manner which has been described.

In the modified form of the invention illustrated in Fig. 3 of the drawings, the casing 8 is dispensed with, as well as the lamps 10, 11 and 12, and a different arrangement of fans is provided, the fans in this construction being illustrated by the reference characters 45, 46 and 47. In other respects the modified construction illustrated in Fig. 3 of the drawings corresponds with the construction which has already been described.

The member 5 is preferably provided with rearwardly extending supporting portions 5a, which serve to hold it in position.

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

1. In an illuminated sign, a member having translucent portions, an illuminating means in the rear of the member, two rotatably mounted members disposed between the first member and the illuminating means and each having portions spaced apart to permit light to pass from the illuminating means to the first member, and means to rotate the two rotatably mounted members in opposite directions.

2. In an illuminated sign, a member having translucent portions, an illuminating means in the rear of the member, two rotatably mounted fans disposed between the member and the illuminating means, the pitch of the blades of one fan being different from the pitch of the blades of the other fan, and means for directing a jet of air against the fans for rotating the latter.

3. In an illuminated sign, a member having translucent portions which combine to produce a unitary sign, a casing inclosing some of the said portions, an illuminating means in the casing, another illuminating means in the rear of the casing, a rotatably mounted member between the casing and the second illuminating means, and means to rotate the rotatably mounted member.

4. In an illuminated sign, a member having translucent portions which combine to produce a unitary sign, a casing inclosing the rear of some of the said portions, an illuminating means in the casing, another illuminating means in the rear of the casing, a rotatably mounted fan disposed between the casing and the second mentioned illuminating means, and a driving fan for propelling air to drive the first fan.

5. In an illuminated sign, a member having translucent portions, a casing inclosing the rear of some of the said portions, a plurality of lamps of different colors in the casing, a plurality of lamps of different colors in the rear of the casing, a fan rotatably mounted between the casing and the second mentioned lamps, a flasher switch, wires connecting the flasher switch with the lamps for illuminating the lamps at predetermined times, a driven fan for propelling air to the first fan for rotating the latter, and means by which the driven fan is adapted to operate the flasher switch.

6. In an illuminated sign, a member having translucent portions, a plurality of lamps of different colors in the rear of the member, a fan rotatably mounted between the member and the lamps, a driven fan for propelling air to the first fan, a flasher switch, wires connecting the flasher switch with the lamps to light the lamps at predetermined times, and means by which the driven fan is adapted to operate the flasher switch.

7. In an illuminated sign, a member having translucent portions, an illuminating means disposed in the rear of the member, a plurality of fans of different pitch and shapes to produce desired effect rotatably mounted between the member and the illuminating means, and a driven fan for propelling air to the first mentioned fans for rotating the latter.

GEORGE ROBERT PYPER.