

May 11, 1954

A. A. CLEVINGER ET AL  
ILLUMINATED ROTATING SIGN

2,677,908

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2 Sheets-Sheet 1

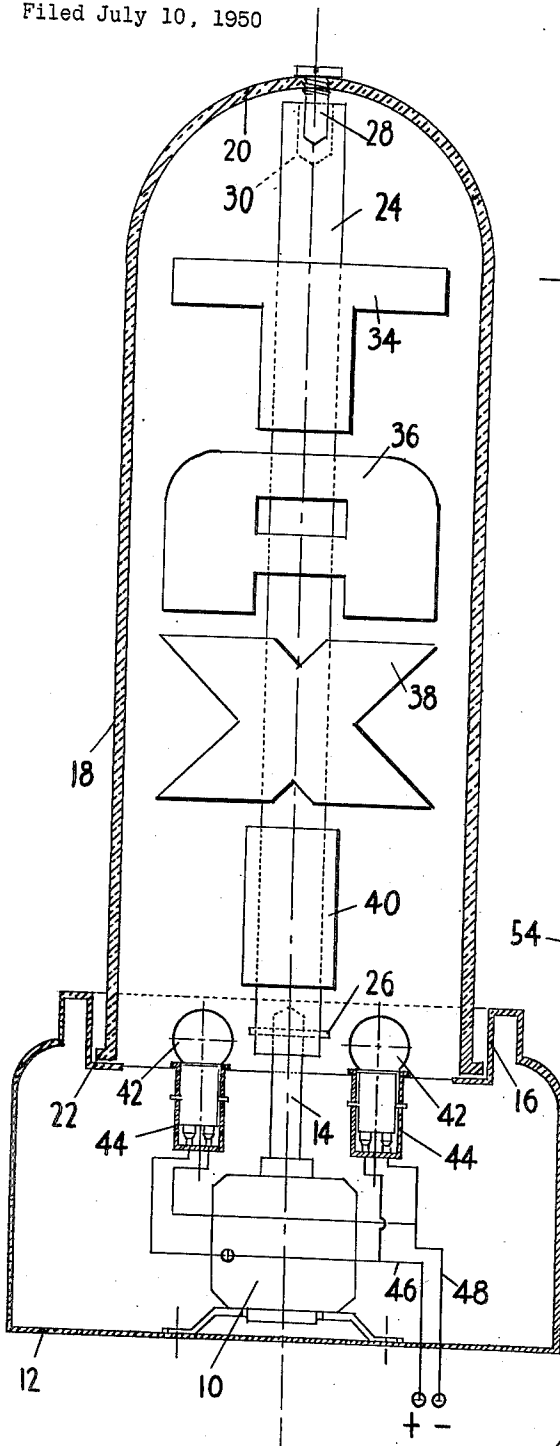


**Fig. 1.**

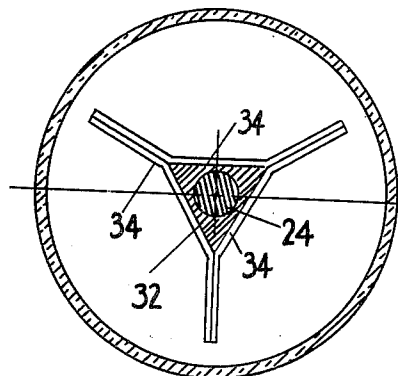


**Fig. 2.**

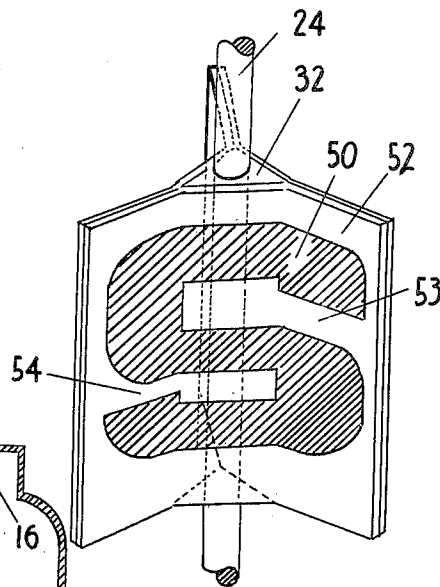


**Fig. 3.**

INVENTORS:  
*Averett A. Clevenger*  
*Gordon H. Clevenger*  
By *Kent W. Womell* Atty.

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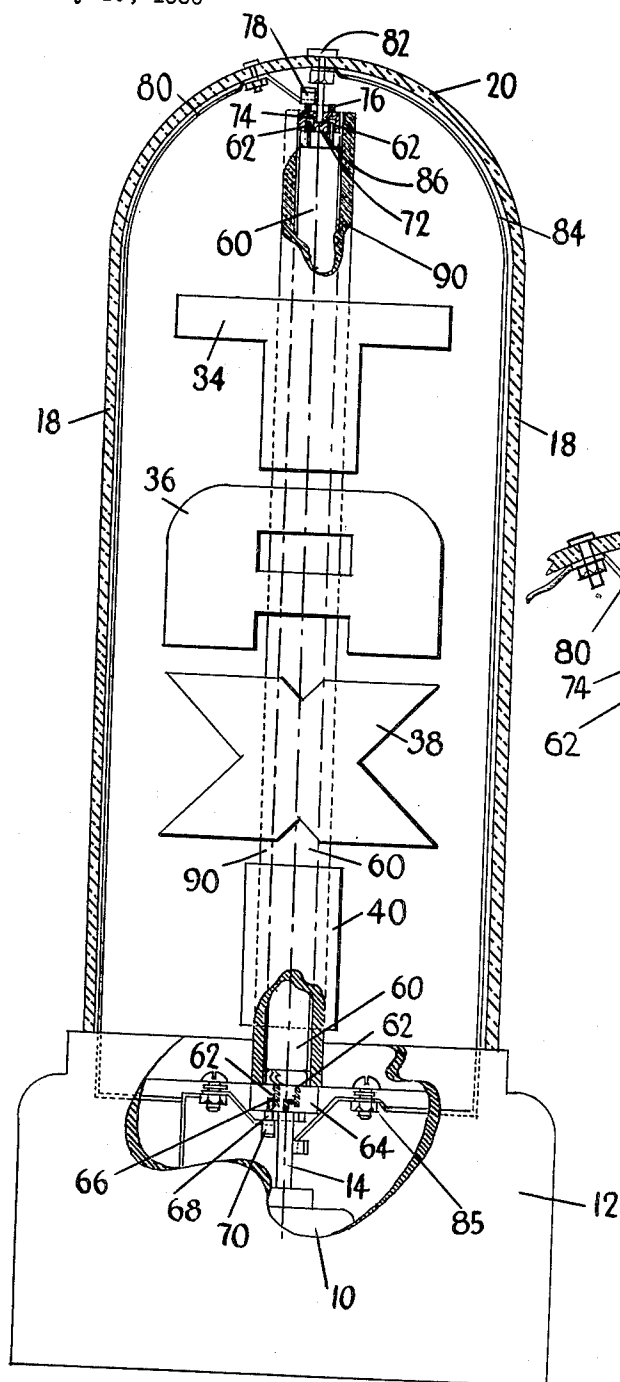


*Fig. 4.*

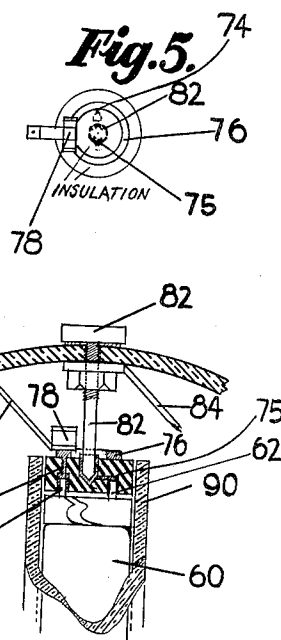


*Fig. 6.*

INVENTORS:  
**Averett A. Clevenger**  
**Gordon H. Clevenger**  
*By Kent H. Howell* Att'y.

# UNITED STATES PATENT OFFICE

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## ILLUMINATED ROTATING SIGN

Averett A. Clevenger and Gordon H. Clevenger,  
Chicago, Ill.

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4 Claims. (Cl. 40—33)

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This invention relates in general to an illuminated sign and is more particularly described as a sign of this kind which can be seen at all times from all directions.

The ordinary sign has opposite faces which are separately illuminated and can be seen only from one side thereof, or from both sides if both sides are illuminated.

The present invention is distinguished from other signs by providing a three sided rotatable member upon which letters or other display matter is presented so that when the sign is rapidly rotated, it gives the same appearance and is easily read from all sides thereof.

An important object of the invention is to provide a rotating sign which has letters, characters or display matter thereon which is easily distinguished and read from all sides of the sign at the same time.

A further object of the invention is to provide a rotating sign with letters or characters arranged on three angular faces disposed at equal angles to each other.

A further object of the invention is to provide improved means for mounting a rotating sign of this type.

A still further object of this invention is to provide improved means for illuminating a rotating sign.

Other objects of the invention will appear in the specification and will be apparent from the accompanying drawings in which,

Fig. 1 is a side elevation with some of the parts in section showing a rotating illuminated sign, in accordance with this invention;

Fig. 2 is a sectional view as taken on the line 2—2 of Fig. 1; Fig. 3 is a perspective view of a letter for a sign which is not symmetrical at both sides of the vertical center thereof;

Fig. 4 is a side elevation of a sign with some of the parts in section of a sign which is illuminated by a central lighting tube; Fig. 5 is a plan view of a support and a contact brush at the upper end of the lamp; and Fig. 6 is a sectional detail view of the mounting and connection at the upper end of the lamp and dome.

This invention is described as a rotatable sign which extends in a vertical direction and is enclosed by a transparent guard or holder. The letters or characters may be illuminated by external lights at one end of the sign or by a lighting tube internally of the sign. By reproducing the sign at three sides and opaquing portions of the letters or characters that are not symmetrical about a vertical axis, the sign appears the same

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and can be read from all sides at the same time.

Referring now more particularly to the drawings, an electric motor 10 is mounted at the bottom of a casing 12 open at the top with a shaft 14 of the motor in vertical direction. Around the top of the casing is a recessed flange 16 for seating an upright cylindrical container 18 having a rounded dome 20 at the top. This container is preferably made of glass, plastic, or other transparent material and preferably has an outwardly projecting flange 22 at the bottom by which it may be seated and sealed in the flange of the casing 12.

Extending centrally in the container is a post 24 having a pin 26 for securing it at the bottom to the upper end of the motor shaft 14 and at the upper end of the container is a bearing pin 28 extending through the top of the dome and into a bearing recess 30 at the upper end of the post.

Mounted upon the post 24 or formed integrally thereof are the supports 32 triangular in cross section, to which are secured letters or characters 34, 36, 38 and 40. In the present example, these characters are the letters T A X I, which in block form are all symmetrical about a vertical axis. The edges of the letters project beyond the triangular support 32 and these letters are secured to the faces of the support and the projecting edges are secured together by an adhesive which securely attaches the letters to the posts and to each other.

At the bottom of the container and at the sides thereof are electric lamps 42 supported by sockets 44 and having electrical conductors 46 and 48 extending therefrom outside of the casing.

When the motor is rotated, the post is also rotated carrying with it the letters which are illuminated by the lamps. The letters may be colored and the post may be made of a transparent light projecting material such as Lucite so that the letters or characters are visible through the transparent container from all sides thereof. When rapidly rotated with symmetrical letters, the sign gives the appearance of a solid letter and gives the same appearance in any direction substantially in the plane of vision of the sign whether the sign panels are opaque or translucent.

If the characters or letters are not symmetrical about a vertical axis, a character or letter 50 as shown in Fig. 3 may be printed or otherwise applied to material 52 having an opaque background such as paper, metal, fiber, or the like, and this material is then secured to a triangular support 32 by means of which the letter is mounted upon the rotating post 24. Instead

3 of overlapping the outer edges of the letter 50, the material 52 may be trimmed to the edge of the letter and the non-symmetrical spaces 53 and 54 may be opaqued by paint or other material so that these spaces will not show through upon the letters secured at the other sides of any of the characters. This will make the sign clearer and will not confuse the letters or cause the parts thereof to run together as they are rapidly rotated.

In the form of the invention shown by Fig. 4, a straight tubular lamp 60 of the commonly used fluorescent type is mounted at the center of a surrounding container and has projecting pins 62 at the ends for electrically connecting it to suitable supports. One support 64 is connected to the motor shaft 14 and provides an internal connection 66 with a bottom contact ring 68 engaged by an electrical contact bush 70. At the other end is a support 72 having an electrical connection 74 therein for making contact with one or both of the pins 62 and having an end ring 76 engaged by an electrical contact brush 78 secured to a conductor 80 at the inside of the container 18.

Extending through the dome 20 of the container at the top thereof is a bearing pin 82 for engaging the support 72 to provide a bearing therefor. Connected to this pin is a conductor 84 extending at the inside of the container 18 to the bottom thereof. The bearing pin 82 has an electrical connection 86 in the support 72 with another of the lamp pins 62 and is connected to the conductor 84, and the lower end of the conductor is connected to a terminal 85 within the casing 12 so that electrical connections may be made with both ends of the tube lamp 60 for illuminating it.

Surrounding the lamp 60 and forming a support for the sign letters is a hollow transparent tube 90 which may have three outer surfaces for the attachment of the letters as shown in Fig. 2. The lower end of the tube 90 rests upon the upper edge of the support 64 and the tube may be placed about the lamp 60 before the lamp is inserted in the container 18.

With this construction, the sign is rotated and illuminated throughout the full length of the transparent container 18. A glow is given by the lamp to the letters and also to the container throughout the entire length thereof so that the letters may be more easily distinguished from all sides of the sign, both by day and by night.

In this form, the surrounding tube 90 may also be of plastic material and the tube may be opaqued by paint or other material wherever necessary to maintain the shape of the letters.

While preferred forms of the invention have been described in some detail, they should be regarded by way of illustrations and examples rather than restrictions or limitations thereof, as many changes in the construction, combination and arrangement of the parts may be made without departing from the spirit and scope of the invention.

We claim:

1. A rotating sign, comprising a central post and means at one end of the post for rapidly and continuously rotating it, the post being triangular in cross section, and characters for the post having three similar sets applied to the triangular surfaces of the post to rotate substantially about the vertical center line of each character

and the edges of the characters overlapping the post and secured together to present three substantially angular faces for each character.

2. A rotating sign, comprising a post having outer longitudinal faces at an angle to each other, a plurality of characters applied to the angular faces, characters of the same kind being applied to three adjacent angularly related portions of the post with the vertical center line of the letter substantially at the post, the overlapping edges of the characters being secured back to back so that there are three relatively angular surfaces for each character, and means for rapidly and continuously rotating the post about the axis thereof so that the characters appear continuous when viewed from all sides of the sign.

3. In an illuminated rotating sign, a transparent post having letter positions along the post comprising outer surfaces at angles to each other, a plurality of the same letter for each letter position secured along its longitudinal central portion to the angular surfaces of the post and projecting laterally from the edges of the post with the overlapping edges of the letters secured together back to back, a transparent container extending over the post and letters and closed at the outer end, a bearing in the outer end of the container for the end of the post, a supporting casing at the other end of the container, a motor in the casing secured to the adjacent end of the post for rapidly and continuously rotating it, and lamps in the casing for illuminating the container, the post, and the letters therein.

4. In an illuminated rotatable sign, a transparent hollow post having a post type of lamp therein, the outer face of the post having letter positions at angles to each other, a plurality of similar letters for each position, the similar letters being secured along its longitudinal central portion to the angular outer surfaces of the post and the edges of the letters projecting beyond the post and the backs of the projecting portion secured together, a container closed at one end to extend over the post, the lamp, and the letters, means forming a bearing at the closed end of the container for mounting the post and lamp for rotation therein, electrical connections from the closed end of the container engaging the lamp and extending at the inside of the container to the other end thereof, a supporting casing for the container, a motor in the casing secured to the adjacent end of the supporting post for rapidly and continuously rotating it, and electrical connections with the lamp at the motor end for completing a circuit through the lamp, the lamp illuminating the casing, the hollow post, the letters, and the casing.

#### References Cited in the file of this patent

##### UNITED STATES PATENTS

| Number    | Name      | Date          |
|-----------|-----------|---------------|
| 878,146   | Miller    | Feb. 4, 1903  |
| 926,781   | Townsend  | July 6, 1909  |
| 1,513,521 | Robertson | Oct. 28, 1924 |
| 1,700,328 | Nicholson | Jan. 29, 1929 |
| 1,739,592 | Hyatt     | Dec. 17, 1929 |
| 2,141,344 | Card      | Dec. 27, 1938 |

##### FOREIGN PATENTS

| Number  | Country       | Date         |
|---------|---------------|--------------|
| 447,078 | Great Britain | May 12, 1936 |