Nov. 8, 1938. F. J. CARGILL 2,135,484

ILLUMINATED ADVERTISING DEVICE

Filed Dec. 13, 1937 2 Sheets-Sheet 1

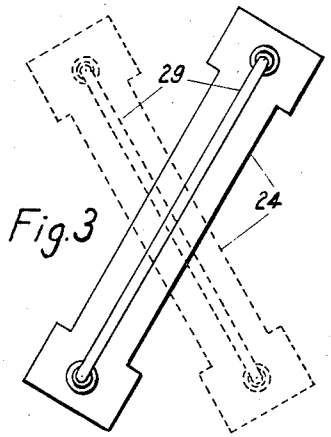


Fig.3

Fig.1

Fig.2

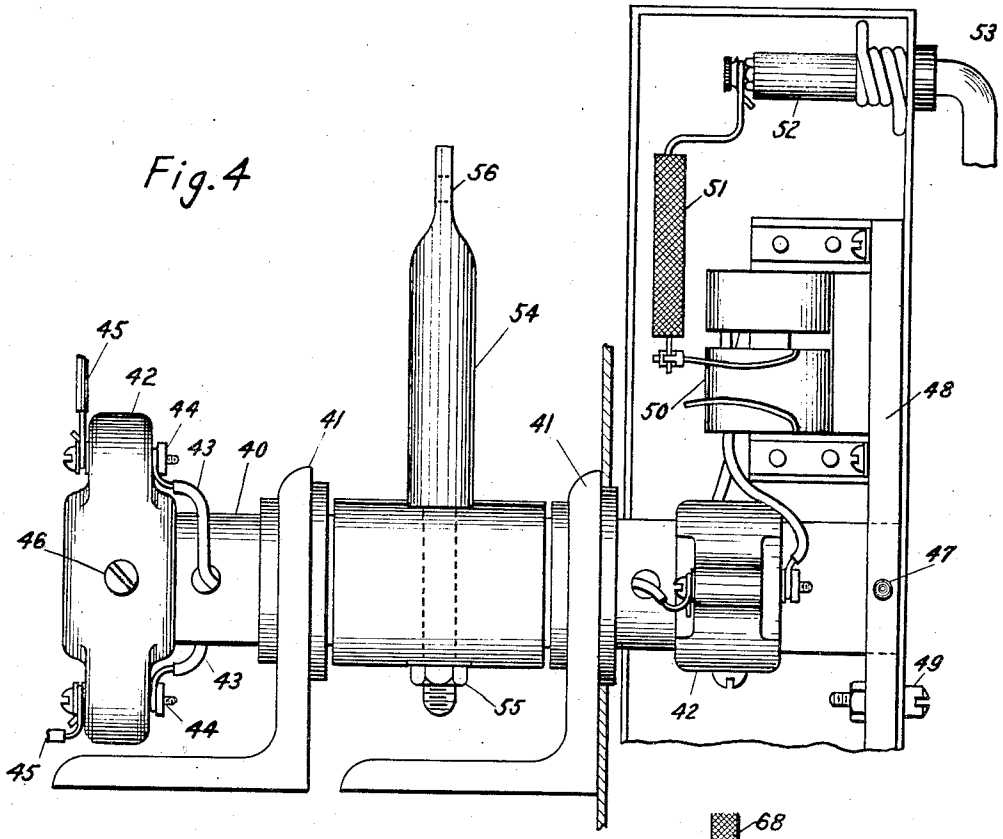
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Fig. 4



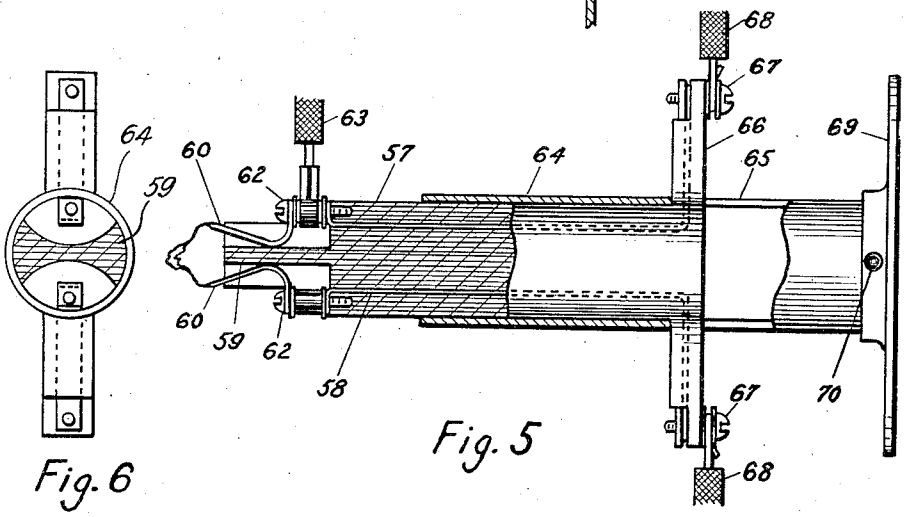


Fig. 6

Fig. 5

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ILLUMINATED ADVERTISING DEVICE

Frank J. Cargill, Minneapolis, Minn.

Application December 13, 1937, Serial No. 179,525

5 Claims. (Cl. 40—139)

This invention relates to signs or advertising structures and is more particularly directed to signs in which all or part of the characters move. The principal object is to provide signs that will capture the attention of persons coming into its vicinity.

Another object of the invention resides in the provision of a sign of the kind wherein the operating connection between the moveable characters of the sign and the means for moving the characters is such that vibration of the characters while moving is reduced to a minimum.

A further object is to provide a sign of simple construction, involving a minimum of parts which should require very little attention for their operation.

With the foregoing and other objects in view the invention consists of the novel construction, combination and arrangement of parts hereinafter more specifically described and illustrated. In the accompanying drawings wherein is shown embodiments of the invention it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the claims hereunto appended.

In the drawings

Figure 1 is a view of one unit of a sign,

Figure 2 is a view of the shaft for supporting the unit of the sign and means for moving the shaft,

Figure 3 is a view of the letter I showing how the letter moves,

Figure 4 is a view with part broken away of modified form of a moveable unit shown in Figure 1,

Figure 5 is a view of a modified form of the shaft for supporting characters,

Figure 6 is an end view of Figure 5.

Referring to the drawings in detail, 10 is a shaft made of fiber or "Bakelite". Conductor 12 extends through the hollow shaft 10 and the conductors are generally provided with securing end means 13. To prevent any contact between the conductors 11 and to assist in securing the shaft 10, to the end members 14 and 19, member 11 is extended through the shaft 10.

The end member 14 is secured to shaft 10 and is fastened to member 11 by any suitable means such as set screw 15. Secured to the outer ends of member 14 are terminal connectors 16, to which are secured conductors 12 and conductors 18. The conductors 18 are secured to the next character or letter to be moved or to a suitable source of power. Secured to terminal members 16 are members 17 which can be adjusted to control the gap between the ends of 17. Should, for any reason, the current flowing through conductors 12 be obstructed the current will bridge the gap between the ends of members 17 as it will be the path of least resistance.

Secured to one end of shaft 10 is member 19 which is similar in construction to member 14. Terminal posts 20 have secured thereto conductors 21 which in turn are connected to contact members 26 by suitable means 27.

The shaft 10 is secured to the moveable letter or character 24 by means of plate 23 and pin 22. The plate 23 can be secured to the letter or character by any suitable means such as screws 25. The letters or characters 24 extend backward from the face as at 28 to form a housing of sufficient depth to house the members connected to the front end of shaft 10.

The illuminating means shown at 29 is in the form of "neon" lights which are supported by members 30. These supports are secured to the face of letters or characters 24 by suitable screws or the like 31.

A bearing support member 32 having bearings 33 and 34 positioned near the upper end thereof. A member 35 is secured around the shaft 10 and between bearings 33 and 34. One end of the member 35 extends outward from the shaft encircling part and has the outer or free end 36 bent or made so as to be at substantially right angle to the lower portion member 35. The upper or outer end of member 35 is in a plane substantially parallel to the letters or characters 24. The end 36 is provided with an opening 37 which is adapted to be connected directly or indirectly to a motion imparting means (not shown). The member 35 is secured to the shaft at substantially the center of gravity of the shaft and the character or letter.

In Figure 3 is shown by the full and dotted lines the extent to which the letters or characters move. This movement is obtained by having the shaft 10 secured to about the middle of the letter or character.

In Figure 4 is shown a modified form of the invention and consists of a hollow shaft 40 supported by bearing members 41. Secured to one end of shaft 40 and mounted on the shaft near the other end are members 42 which are secured to the shaft by screws or other suitable means 46.

Extending through the shaft 40 are electrical conductors 43 which are attached to one end of terminal post 44. From the other end of terminal post 44 is secured conductors 45 which con-

nect directly or indirectly to a source of electrical energy.

The shaft **40** is secured to the letter through means of plate **48** and pin **47**. The plate **48** is rigidly secured to the letter or character by means of screw **49**. Supported by plate **48** is a transformer **50** and this arrangement permits of the normal low current to flow through the shaft **40**. One side of the transformer is connected through conductor **51** to contact member **52**. The illuminating means **53** is secured to the contact member **52**.

Secured to shaft **40** is motion imparting member **54** which is secured in place by nut **55**. The upper end **56** of member **54** is substantially parallel with the face of the letter or character.

In Figure 5 is shown a modified form of the shaft through which motion is imparted to letters or characters. In this form of the invention **64** represents a metallic casing adapted to be slipped over a fiber or "Bakelite" shaft **57**. The shaft **57** is substantially solid and has extending therethrough conductors **58**. The shaft **57** has a section **59** extending from one end which separates spark gap means **60**. The functions of means **60** are the same as members **17** shown in Figure 1. Members **60** and conductors **58** are secured to terminal post **62** and conductors **63** are also carried by post **62**.

The forward end of shaft **57** is provided with arms **66** which carry conductor securing means **67**. To means **67** is secured conductor **68** which carries electrical current for illuminating moveable characters. The metal casing **64** has secured to one end thereof plate **69** by means of key **70**.

The invention here shown is an improvement upon applications filed by Frank Cargill, Serial No. 153,029, filed July 10, 1937, and William Rydberg, Serial No. 156,711, filed August 12, 1937, for advertising devices.

What I claim is:

1. In an advertising device, a composition shaft having outwardly extending arms at one end, a metallic shield covering said shaft, a character supported by said shield, bearings for supporting the shielded shaft, means for imparting motion to said shaft, and illuminating means carried by said character.

2. In a sign, a letter pivoted whereby it can be moved through a limited arc of less than 180°, a shaft for supporting the letter, illuminating means on said letter, electrical conductors for supplying electrical current to said illuminating means, a spark gap across the circuit formed by said conductors whereby the illuminating means is protected from damage due to overload and the like, and means for imparting motion to said shaft whereby the letter is moved.

3. In an advertising device, a character adapted to move about a pivot, a shaft pivoted to the character, neon illuminating means carried by said character, a circuit for supplying electrical energy to said illuminating means, a spark gap across the said circuit, and means for imparting motion to said shaft.

4. In an advertising device, a composition shaft having outwardly extending arms at one end, a shield member covering said shaft, a character supported by said shaft, bearings for supporting the shielded shaft, and means for imparting motion to the shaft whereby the character is moved.

5. In an advertising device, a character adapted to move about a pivot, a shaft pivoted to the character, illuminating means carried by said character, a circuit passing through the said shaft for supplying electrical energy to said illuminating means, a spark gap across the said circuit, and means for imparting motion to the said shaft whereby the character is moved.

FRANK J. CARGILL.