Feb. 10, 1970 E. G. PAQUETTE 3,494,058

FIREFLY SIMULATOR

Filed June 17, 1968 3 Sheets-Sheet 1

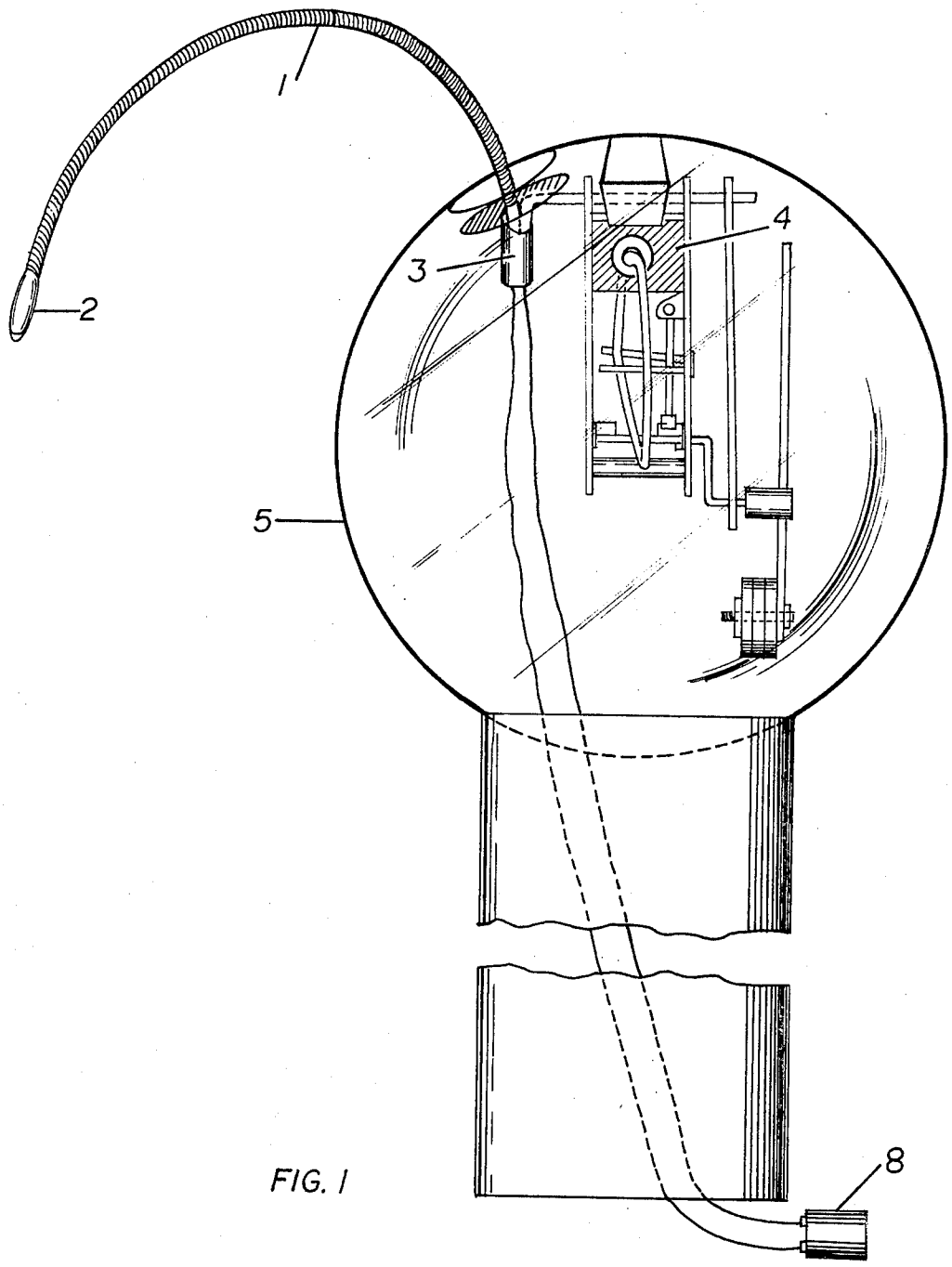


FIG. 1

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FIREFLY SIMULATOR

Filed June 17, 1968 3 Sheets-Sheet 2

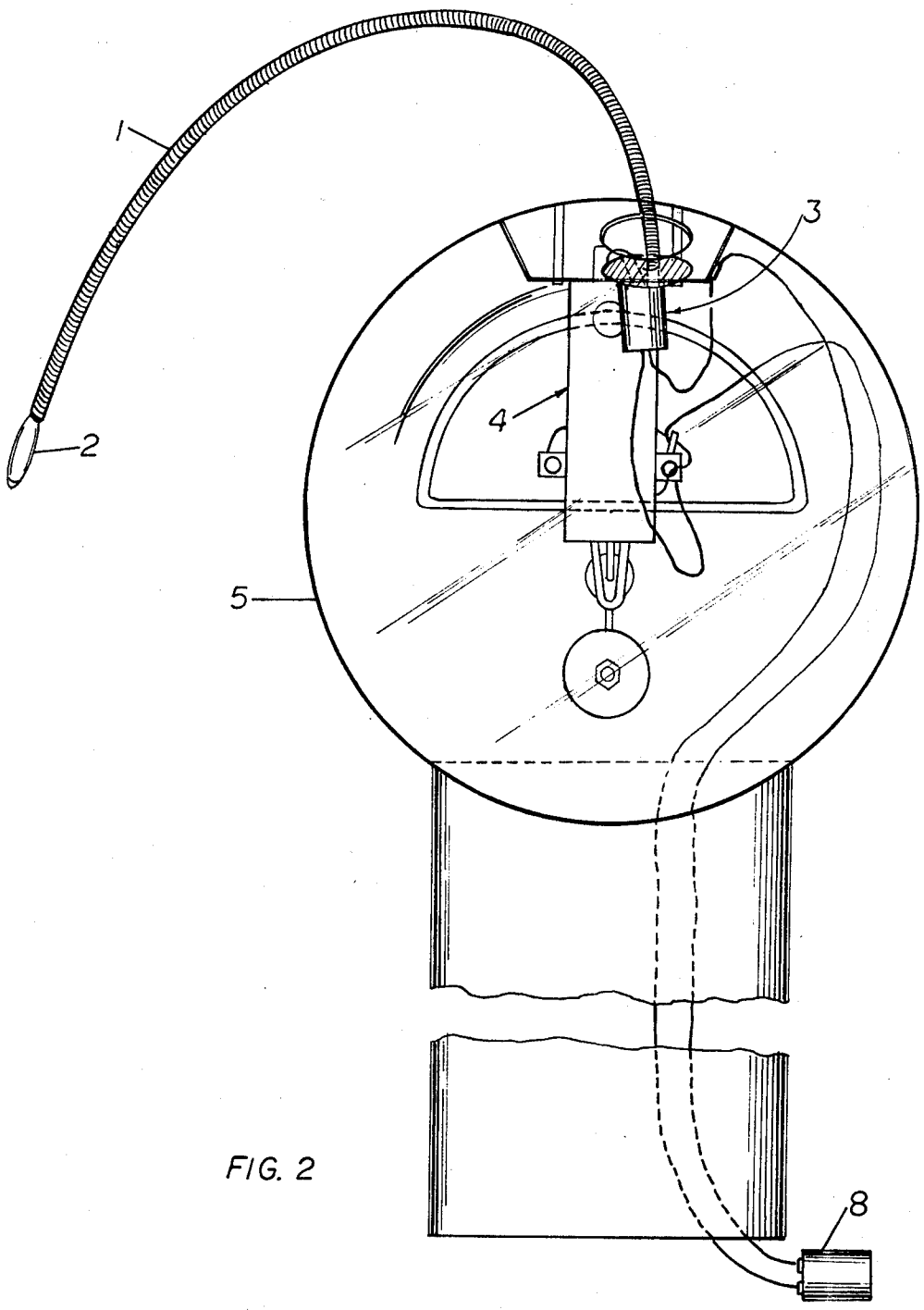


FIG. 2

Feb. 10, 1970 E. G. PAQUETTE 3,494,058

FIREFLY SIMULATOR

Filed June 17, 1968 3 Sheets-Sheet 3

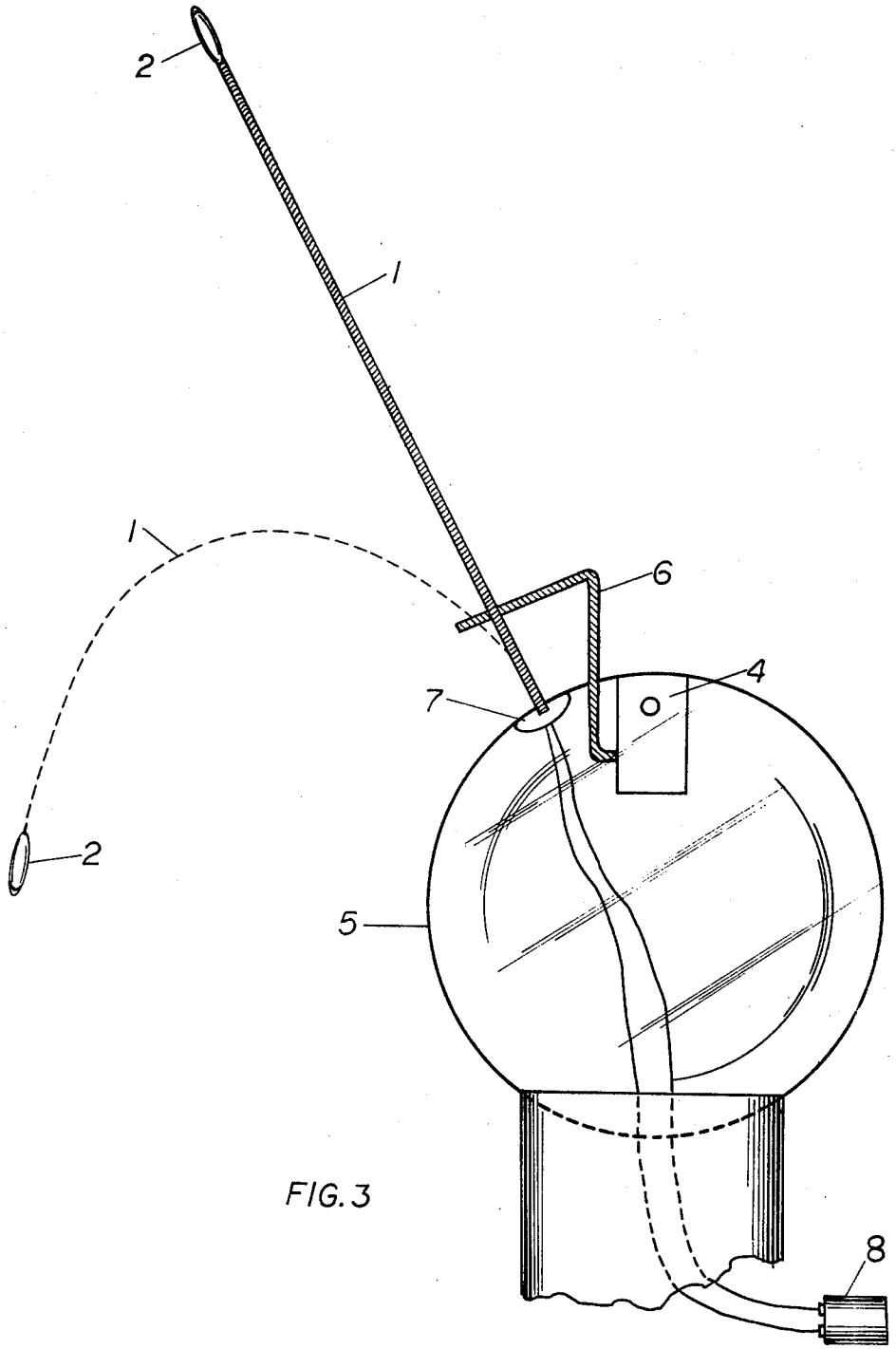


FIG. 3

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FIREFLY SIMULATOR

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Continuation-in-part of application Ser. No. 690,521, Dec. 14, 1967. This application June 17, 1968, Ser. No. 737,661

Int. Cl. G09f 19/02

U.S. Cl. 40—126 7 Claims

ABSTRACT OF THE DISCLOSURE

An advertisting display which simulates a firefly, comprising a flashing light attached to an elongated, flexible, elastic member, and means to cause the member to move in a random motion by applying forces of changing direction to said flexible member.

This invention relates to an advertising display device, and more particularly to a simulated firefly. It is a continuation-in-part of my application, Ser. No. 690,521, filed Dec. 14, 1967.

Previous lighted advertising displays employ a complex sequence of lights to achieve the effect of motion. These involve intricate systems of multiple light sources which result in limited effects and an expensive display.

An object of this invention is an advertising display which actually has a moving light source.

Another object is the simulation of a firefly.

Another object is a flashing light that has random motion.

Further objects will become apparent as the following detailed description proceeds.

In accordance with my invention, I simulate the movement of a firefly by a flashing light attached to a flexible wand. This wand is then subjected to forces of changing direction which cause random motion.

With particular reference to the drawings in which:

FIGURE 1 is a side view.

FIGURE 2 is a front view.

FIGURE 3 is a perspective view of another embodiment of the invention.

In the invention a wand-like, elongated, flexible, elastic member **1** has a light source **2** attached to it, preferably at the end. This wand is flexible enough to be easily bent while still having sufficient stiffness to straighten when unaffected by an external force.

The wand is attached to a movable base **3** which is in turn connected to a means **4** for moving the base and the wand. This means of movement, for example, could be an electric motor which causes oscillation, such as, for example, the advertising display motor produced by Hankscraft of Reedsburg, Wis., and designated as Model 1240–L6B.

When the base is oscillated, the flexible wand moves. As the direction of this motion changes, the momentum will cause the end of the flexible wand and the light source thereon to continue in the direction of the preceding motion. As the wand is subjected to mechanical impulses from different directions, this causes the end of the wand and the light thereon to "overshoot" and oscillate in wide amplitudes in an unpredictable fashion. The combination of the flexibility of the wand and the movement of its base cause the motion of the wand to become random.

The electric bulb **2** is supplied with current through a flashing means **8** such as a conventional relaxation oscillator circuit comprising resistors, capacitors, transistors and rectifiers. If a neon light bulb is used, transistors are not required. The wiring connecting the bulb and the flashing means should preferably be located inside the wand.

A possible variation of the present invention is shown in FIG. 3. There the wand is connected to a fixed base **7**. Movement of the wand is achieved by a device **6** which strikes the flexible member 5–200 times per minute. This striking mechanism could, for example, be a pendulum-type device such as one employed in clocks.

The randomly moving wand with the attached flashing light, when viewed in semi-darkness, creates the illusion of a firefly fluttering about.

This device can be housed in a casing **5** to cover the necessary mechanisms which will help achieve the effect of a live firefly.

The wand could be constructed, for example, of a coiled steel spring, resilient plastic such as a polyoxymethylene, glass, or other suitable material with the property of bending at each change in direction so that its mean arc would be twice as great as it would be were the wand inflexible.

The flashing light could, for example, be an incandescent or neon bulb, or any other type of light source which is electrically activated and of sufficiently luminosity. The rate of flashing should preferably be 10–500 flashes per minute.

The housing can be made of any structural plastic, wood, metal, glass, or any other suitable material.

Having thus disclosed my invention, I claim:

1. A firefly simulator comprising a light attached to an elongated, flexible, elastic member, means for causing said light to flash at intervals of 10 to 500 flashes per minute, and means to cause said elastic member to move so that the said member is sent by its momentum at each change of direction of its motion, causing its mean path to be at least twice as long as it would be were the said elongated member inflexible.

2. As claim **1**, said means for causing movement being an oscillating means.

3. As claim **1**, said flexible member being wand-like and having the ability to straighten itself when the means of movement is discontinued.

4. As claim **1**, said means for causing movement being a device which strikes the flexible member at regular intervals, said striking of the flexible member occurring 5–200 times per minute.

5. As claim **1**, said flexible member being a coiled steel spring.

6. As claim **1**, said flexible member being a plastic rod.

7. As claim **1**, said flexible member being a glass rod.

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U.S. Cl. X.R.

40—139; 272—8; 340—90