

Nov. 11, 1969

E. G. PAQUETTE
ADVERTISING DISPLAY

3,477,157

Filed Dec. 14, 1967

4 Sheets-Sheet 1

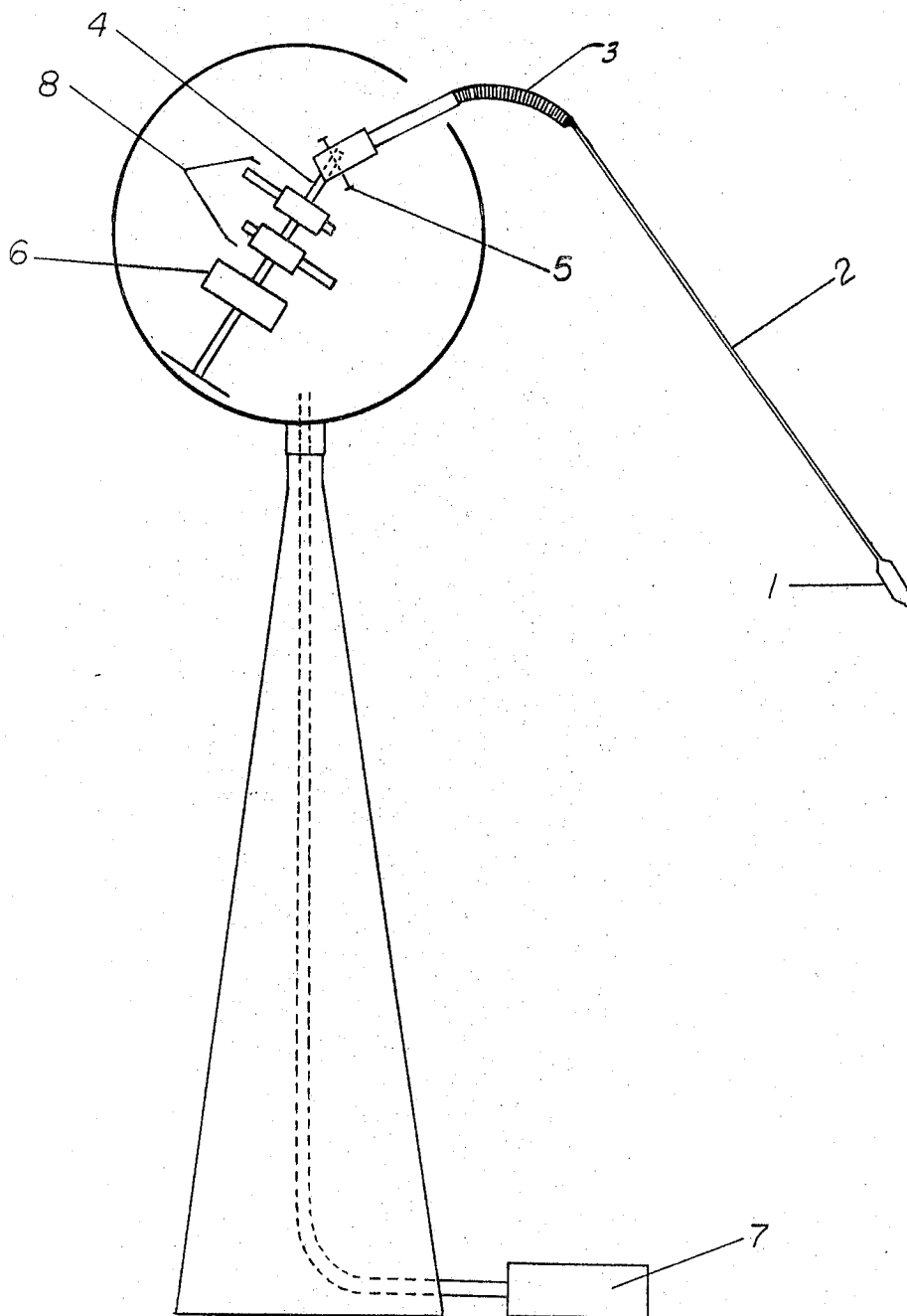


FIG. 1

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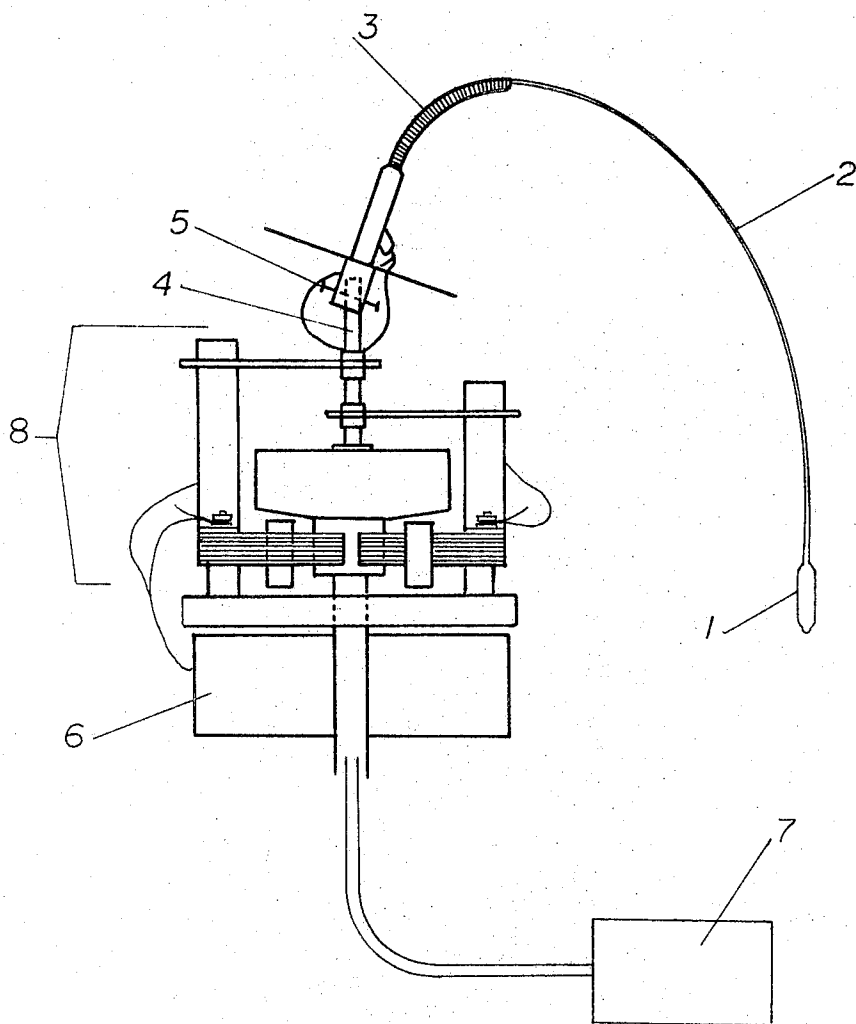


FIG. 2

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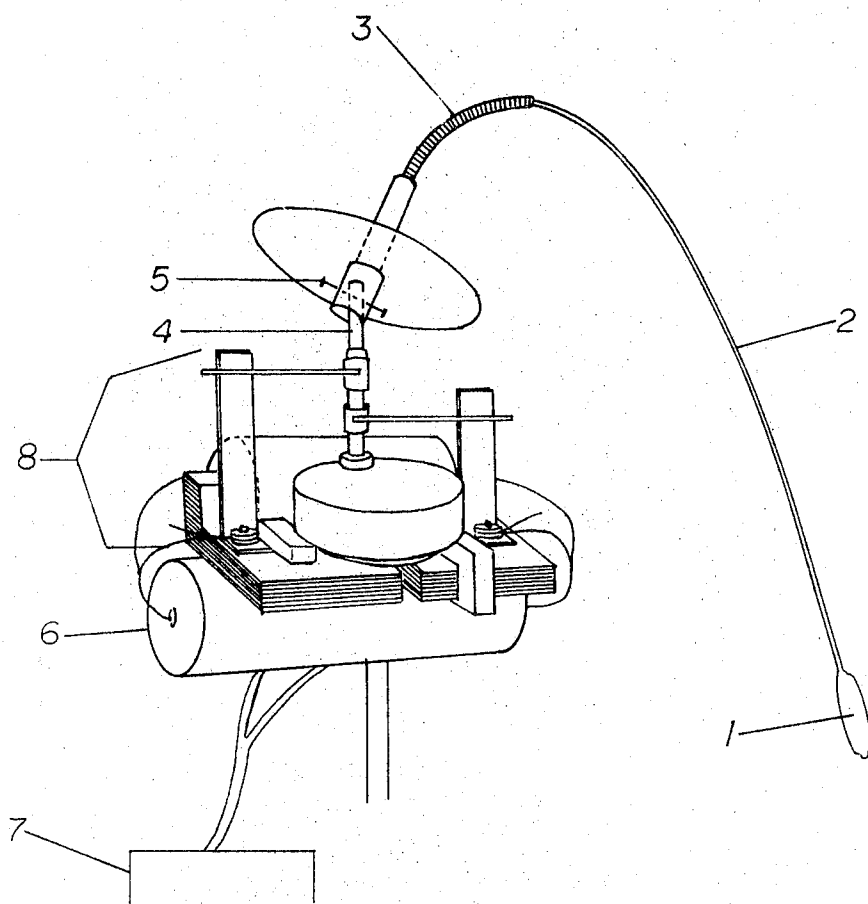


FIG. 3

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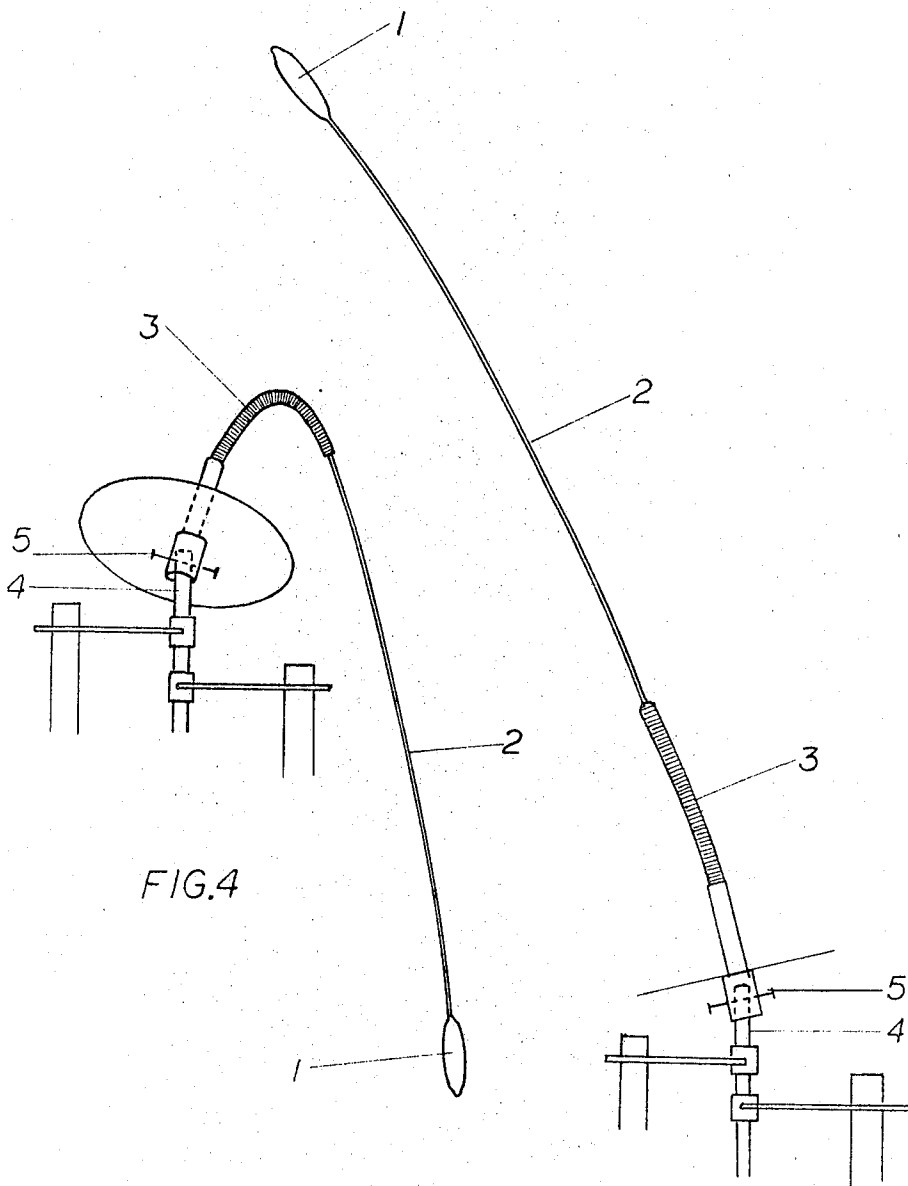


FIG. 4

FIG. 5

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ADVERTISING DISPLAY

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Filed Dec. 14, 1967, Ser. No. 690,521

Int. Cl. G09f 19/02, 13/30

U.S. Cl. 40—126

4 Claims

ABSTRACT OF THE DISCLOSURE

An advertising display simulating a firefly, comprising a flashing light source fixed at the end of an elongated, flexible, irregularly or randomly moving member.

This invention relates to an advertising display mechanism, more particularly to a simulated firefly.

Heretofore advertising displays showing simulated light figures have generally been based on lighting of multiple light sources, and according to predetermined sequences. However this limits the effects obtainable and involves a relatively high display cost.

An advertising display simulating a firefly, comprising a ing display. Another object is a simulated firefly. Another object is a randomly moving intermittently actuated light source. Further objects will become apparent as the following detailed description proceeds.

Referring now to the drawings, FIG. 1 is a schematic sectional drawing, FIG. 2 a diagrammatic drawing, and FIG. 3 a perspective view. FIG. 4 and FIG. 5 represent, also in perspective, parts of the same view as FIG. 3, however in different positions or stages.

In accordance with my invention, I attach a flashing light source to the free end of an elongated elastically flexible irregularly moving member which is moved jerkily by suitable means, for example those shown below, the flexibility and elasticity of said elongated member being such as to cause its oscillation on each jerk. In a darkish room, the elongated member is not seen, and the repeated reoccurrence of light flashes at unpredictable nonrecurring points, creates the illusion of a firefly fluttering around.

Referring to the drawings, FIGS. 1, 2 and 3, I attach a light bulb at the end of a flexible supporting means, 2, which is attached to an angularly oriented, flippable holding member, 3, such as a sleeve or piece of a tube, which in turn is attached to a shaft 4, loosely, and by means of a single attaching means such as a bolt or shaft 5, which will flip on member 4 so as to cause a sudden displacement or jerk on the supporting member 2, causing a sudden spatial displacement of the light source 1 whenever shaft 4 moves so that the center of gravity of the shaft 2 and members connected with its shifts, causing a sudden displacement along axle 5. The shaft 4 is caused to rotate by a driving means 6 which is most suitably a small electric motor such as is used in clock movements. The electric bulb 1 is supplied with current through a flashing means such as a conventional relaxation oscillator circuit comprising resistors, capacitors, transistors and rectifiers. When a neon light bulb is employed, transistors are not required due to the breakdown characteristics of the neon bulb. The electric wiring connecting this means 7 to the lamp 1 is not shown for the sake of simplicity, nor is the electrical supply to the motor.

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When this assembly is energized, the motor 6 will cause the shaft 4 to revolve, preferably at about 1 to 20 r.p.m., and the intermittent current supplied, for example through a commutator assembly 8, will cause the lamp 1 to flash at say 20–150 flashes/minute. When the assembly is placed in a not-too-strongly illuminated room, this light source, mostly a neon or incandescent lamp will be visible only when energized. When the flashing occurs at intervals between $\frac{1}{2}$ of a second and 4 seconds, the impression is that of a firefly, because the device is revolving at such rate in relation to the flashing that the flash will become visible in different positions, thus creating the impression of a firefly fluttering about in a fairly wide radius. The rate of flashing should not equal the speed of rotation, however, so that flashing will occur in different positions of the light source.

It is possible to multiply the motion by using multiple sleeves and shafts, by attaching several rods and lamps to these, and by painting lamps in zones or stripes, so that the lights have a different color in different positions. This can give the illusion of a multiplicity of fireflies flashing in different colors, and in this case, in particular, higher rates of revolution and of flashing may be preferred, say within the ranges of $\frac{1}{2}$ to 50 r.p.m. and 10 to 500 flashes per minute.

The flexible holding means 2 can be made of steel spring such as is used in belting of movie projectors or of coiled plastic monofilament, or it can be made out of highly flexible glass or quartz rod or a rod of a plastic such as nylon or glass-reinforced plastic such as fishpole material or heavy monofilaments or bundles of monofilaments of plastics such as polypropylene, polyoxymethylene, polyacetals, and the like.

FIGURES 4 and 5 show different positions of the light source 1 in the course of operation. FIG. 5 shows the light source close to its apex, and FIG. 4 at a “nadir” point to which the light source has been carried by its momentum following a rapid jerk due to shift of the angle between shaft 4 and axle 5. It will then rebound elastically from this position, but by then the rotation of shaft and axle will have carried it sideways as it continues to oscillate. The path of a light source thus becomes a complicated compound motion, non-recurrent and impossible to predict, as the light source is visible only when it flashes.

The parameters of the invention can be varied-limited only by the claims in which it is my intent to cover all novelty inherent in the invention as broadly as possible in view of prior art. Having thus disclosed my invention, I claim:

1. As a firefly simulator, a flashing light source at the end of an elongated, elastically flexible irregularly moving member, means for moving said member jerkily, the flexibility and elasticity of said elongated member being such as to cause its oscillation on each jerk.

2. As a firefly simulator, a device comprising a flashing light source situated at the end of a flexible elongated supporting means, such supporting means being slippable, connected with rotating means, the rotation being between $\frac{1}{2}$ and 50 revolutions per minute, and the rate of flashing being different from the rate of rotation and within the range of 10 to 500 flashes per minute.

3. As claim 1, said light source being a neon light, the supporting means being rigid spiral, the slipping means being a hollow sleeve connected axle with a slipping joint, said rotating means being an electric motor, and said in-

intermittent flashing means being an electronic delay circuit.

4. As claim 1, the rate of rotation being about 1-20 r.p.m. and the rate of flashing about 25-150 flashes/min.

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U.S. Cl. X.R.

40-106.2, 139; 272-8; 340-90