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J. TASCHER

2,106,922

FLICKERING DEVICE

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FIG. 1

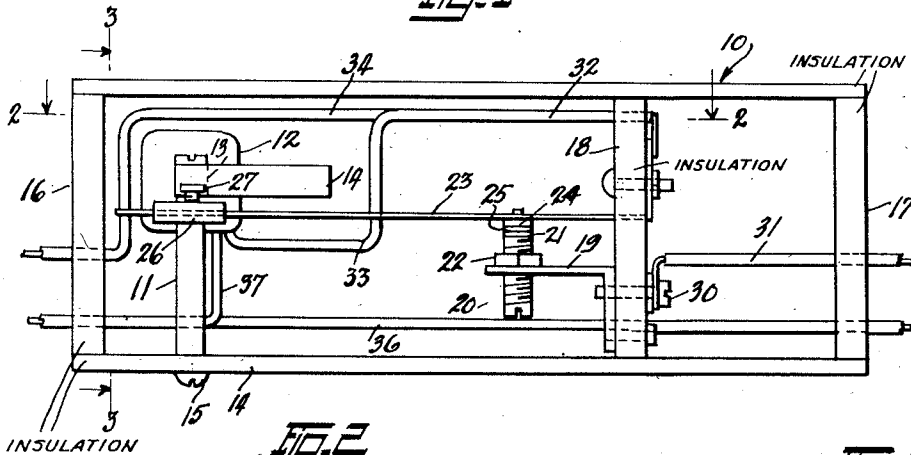


FIG. 2

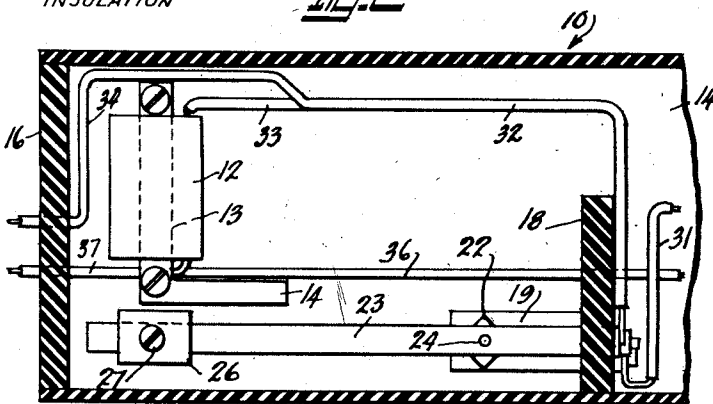


FIG. 5

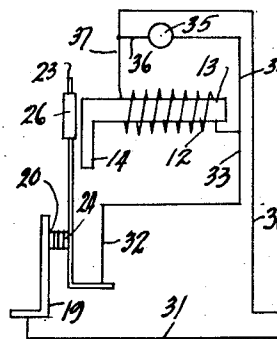
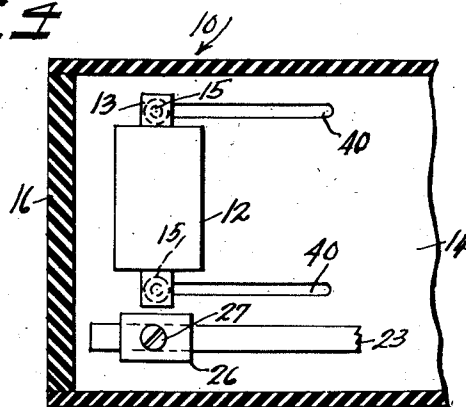
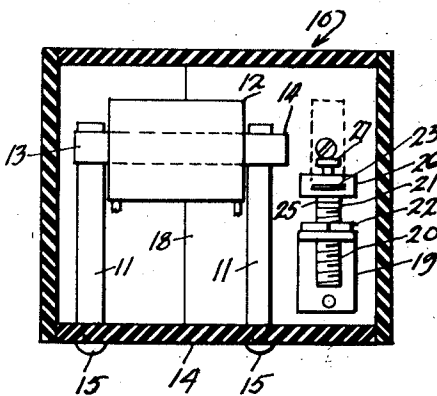


FIG. 3

FIG. 4



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FLICKERING DEVICE

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2 Claims. (Cl. 200—87)

This invention relates to electric flickering or pulsating devices adapted for use in connection with various types of electric, or neon signs, toys, display advertising, etc., etc.

One object of the invention is to provide a device of this nature, comprising gravity and electro-magnetic control means for making and breaking the electric circuit to cause the flickering action.

Another object of the invention is the provision of a device of the character referred to having a spring metal pulsating contact arm upon which there is slidably mounted a magnetically controlled weight for controlling the rate of pulsation of the said arm.

A further object of the invention is the provision of such a device in which the magnet as well as the pulsating arm weight is adjustably mounted for controlling the rate of pulsation of the device.

Another object is to produce a device of the character described in which the maximum simplicity of construction and operation is secured.

Other objects and advantages will appear as the nature of the improvements is better understood, the invention consisting substantially in the novel arrangement and co-relation of parts herein fully described, and illustrated in the accompanying drawing, wherein similar reference characters are used to describe corresponding parts throughout the several views, and then finally pointed out and specifically defined and indicated in the appended claims.

The disclosure made the basis of exemplifying the present inventive concept suggests a practical embodiment thereof, but the invention is not to be restricted to the exact details of this disclosure, and the latter, therefore, is to be understood from an illustrative, rather than a restrictive standpoint.

The inventive idea involved is capable of receiving a variety of mechanical expressions, one of which, for the purpose of illustration, is shown in the accompanying drawing, in which—

Figure 1 is a front view of my improved flickering device with the front wall of the casing removed therefrom;

Figure 2 is a fragmental sectional view thereof taken on line 2—2 Fig. 1;

Fig. 3 is a cross sectional view taken on line 3—3 Fig. 1;

Fig. 4 is a fragmental sectional view similar to Fig. 2 showing a modified form of the invention and

Fig. 5 is a diagrammatic view of the electrical connections or circuit.

Referring now to the drawing in detail, 10 indicates a casing in which my improved pulsating device is enclosed. Mounted upon a pair of supports 11 is an electro-magnetic coil 12 having a core 13 provided with an arm or extension 14 at right angles thereto. The posts 11 are secured to the base 14 of the casing 10 by means of screws 15.

Between the end walls 16 and 17 of the casing there is provided a central wall 18 to which is suitably secured a bracket 19 in which there is screw threadedly maintained a threaded post 20, terminating in a tungsten tip 21. When properly adjusted the post 20 is locked in position by a lock nut 22. Secured to the wall 18, directly above the bracket 19 is an arm 23 preferably made of spring sheet brass of suitable thickness. The said spring arm is provided intermediate its ends with a stud or post 24 having a tungsten tip 25 adapted to normally contact the terminal or tip 21 of the screw post 20. The free end of the spring arm 23 is provided with a slidable iron or steel weight 26 which may be secured in place by means of a screw 27.

Electrically connected by means of a screw 30 to the bracket 19, is a wire 31 which leads to an electric source of current supply which may be an electric battery or an alternating or direct current generator not shown. Connected to the spring pulsating arm 23 is a wire 32 having a branch 33 connected to one end of the electro-magnetic coil 12 and a second branch 34 which may lead to an electric socket or as shown in Fig. 5 to one terminal of an electric light bulb 35. The circuit is completed by means of a wire 36 which leads from the electric light bulb 35 to the electric source of supply and is connected to the opposite end of the electro-magnetic coil 12 by a branch wire 37.

The operation of the device is as follows: When the current is turned on, it will flow through the wire 31 to bracket 19 thence through the posts 20 and 24 to the arm 23 wires 32 and 33 to the coil 12 and through the electric light bulb 35 and thence back to the source of supply through the wire 36. When the current flows through the coil 12 the armature 13 and arm 14 will become magnetically energized and draw the weighted spring arm 23 upwardly and break the electric contact between the posts 20 and 24 causing a deenergizing of the armature 13 and a consequent dropping of the arm 23 to again contact the posts 20 and 24 to once more

complete the electric circuit and energize the armature to again break the circuit, the said operation continuing until the current is turned off. It will be understood that with each pulsation of the arm 23 the electric light 35 goes on and off or flickers.

The duration and frequency of the pulsations may be varied by moving the weight 26 towards or away from the contact posts 20 and 24. The nearer the weight is moved to the contact points the more rapid the pulsations and the further away the slower the pulsations, the effective result of such adjustment being the shortening or lengthening of the arm 23, and the consequent shortening or lengthening of the duration of the pulsations.

In Fig. 4, I have shown a modified form of the invention wherein the armature 13 is not provided with the extension 14, but the entire electro-magnetic coil 12 may be moved inwardly or outwardly to correspond with the movement of the weight 26 so as to maintain the said weight within the magnetic field of the coil 12. This is accomplished by providing slots 40 through which the screws 15 which secure the posts 11 to the base 14 pass. By loosening the said screws 15 the coil 12 may be moved to any desired position.

From the foregoing it will be seen that I have provided a simple and efficient pulsating device which may be used wherever a flickering light is desirable.

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

35 1. A pulsating device comprising a base, an electro-magnet supported above said base and having a core provided at one end with a lateral

extension, a support rising from said base and spaced from the magnet longitudinally of the side arm of the core, a bracket carried by said support and adapted to have a conductor connected thereto, a contact carried by said bracket, a resilient arm of nonmagnetic material extending from said support over said bracket and carrying a contact disposed over the contact of the bracket, said arm extending in overlapped and parallel spaced relation to the side arm of the core, and a weight of magnetic material carried by said arm and shiftable along the same opposite the side of the core and constituting an armature.

2. A pulsating device comprising a base, a support rising from said base, a bracket extending horizontally from the support and carrying a contact, a vibratory arm of resilient nonmagnetic material extending horizontally from said support over said bracket and provided with a contact over the first contact, posts rising from said base at one side of said arm and spaced from each other transversely of the arm, an electro-magnet between said posts having a core provided with extended end portions secured upon the posts, one end portion of the core being formed with a side extension extending longitudinally of said arm with said arm in spaced parallel relation to one side thereof and a weight of magnetic material slidable along the portion of said arm opposite the side extension of the core and constituting an armature for the magnet, and means for securing said weight in an adjusted position in spaced relation to the free end of the arm.

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