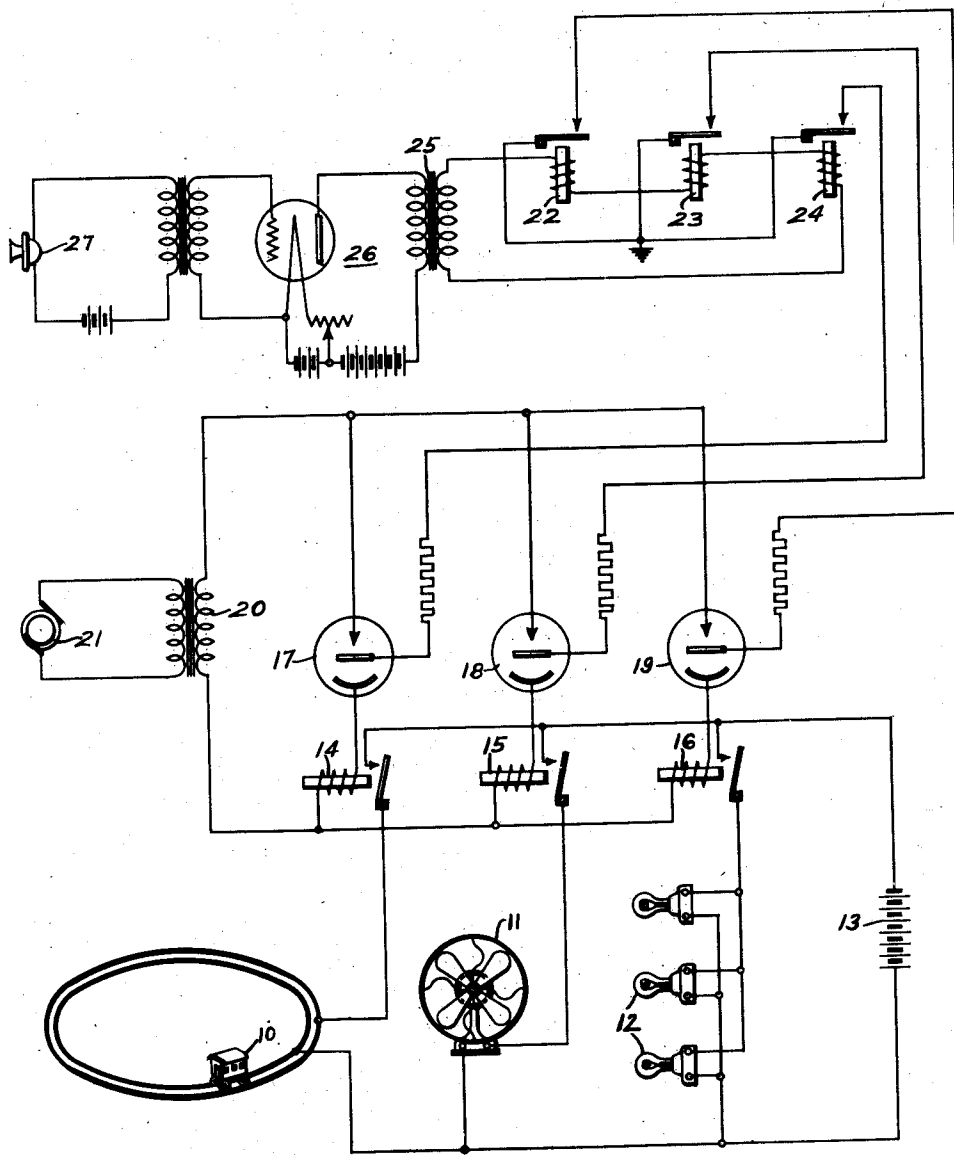


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ADVERTISING DEVICE
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ADVERTISING DEVICE

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This invention pertains to advertising systems and, more particularly, to systems including movable or operable units.

It is well known that moving advertising systems or window exhibits attract more attention than stationary displays. It is also known that the publicity value of an advertisement is increased if means are provided to enable the spectators to participate in the operation of the movable units.

It is the object of this invention to provide means whereby a spectator may control the operation of a number of movable devices in a show window.

A further object of the invention is to provide a system of the type designated by which one of a number of movable devices may be selected by means of sound waves of predetermined frequencies.

In accordance with my invention, I employ a plurality of tuned relays for controlling the operation of electrically operable advertising devices. In order to operate the tuned relays, I provide a microphone transmitter in conjunction with a thermionic amplifier so that an observer of my advertising system may control the operation of the units thereof by producing vocal sounds of different frequencies such as may be produced by whistling in the usual manner.

For a complete understanding of my invention, reference should be made to the accompanying drawing, the single figure of which is a diagrammatic illustration of one embodiment of the invention.

Referring, in detail, to the drawing, a plurality of advertising devices, such as an electric train 10, a fan 11 and electric lamps 12, are arranged in a show window in any desired manner. It is to be understood, of course, that any other suitable or desired electrical devices may be employed for advertising purposes instead of those illustrated. The devices 10, 11 and 12 are adapted to be energized by a battery 13 or other source of current under the control of relays 14, 15 and 16, respectively.

The relays 14, 15 and 16, in turn, are controlled by intermediate relays, such as electron-discharge devices 17, 18 and 19. These

devices are similar to the Knowles grid-glow tube which consists of a pair of main electrodes in a rarefied atmosphere of one of the noble gases, and a third electrode designed and arranged to control the discharge between the main electrodes which are connected across a suitable source of alternating current. As is well understood, a discharge between the main electrodes is prevented so long as the third electrode retains a predetermined electrical charge.

The electron-discharge devices 17, 18 and 19 have their main electrodes connected across a source of alternating current, such as a transformer 20, energized from a generator 21. In series with the main electrodes of the devices 17, 18 and 19 are connected the windings of the relays 14, 15 and 16. The latter, therefore, will be energized as soon as the charge on the third electrode of the devices 17, 18 and 19 is removed by grounding or otherwise.

In order to control the flow of current through the devices 17, 18 and 19, I provide a plurality of tuned relays 22, 23 and 24. These relays are of a well known type and consist of a vibrating armature and a contact which is normally not engaged by the armature. When such relay is energized, the armature will be set in vibration and, if the frequency of the impulses energizing the relay is the same as the natural period of vibration of the armature, the amplitude of the armature vibrations will increase so that it will engage its fixed contacts.

The relays 22, 23 and 24 are connected in series with the output transformer 25 of a standard amplifying unit 26 which is adapted to amplify the output of a microphone transmitter 27.

It will be apparent from the foregoing that, when sounds of appropriate frequencies are produced at the microphone 27, the output of the microphone, after amplification, will energize the relays 22, 23 and 24. If the frequency of the sound vibrations produced at the microphone 27 corresponds to that of the natural vibration rate of one of the armatures of the relays 22, 23 and 24, a circuit will be completed through one of said armatures

to ground one of the grids of the tubes 17, 18 and 19. The sounds for effecting the operation of the tuned relays 22, 23 and 24 may be produced in any suitable manner; however, in this instance, it has been found that the most suitable sounds may be produced by whistling in the ordinary manner.

Since the system is intended primarily for use in connection with advertising displays, it is especially desirable that a spectator be able to effect its operation in any manner desirable to himself and entirely for his own amusement. By properly adjusting the tuned relays they may be easily made to respond to the frequencies produced by whistling.

As already explained, when the grids of the devices 17, 18 and 19 are grounded to remove the electrical charge thereon, the voltage across the remaining electrodes breaks down the resistance of the interelectrode gap, and the resulting flow of current energizes one of the relays 14, 15 and 16. These relays directly control the energization of the moving devices 10, 11 and 12.

The advantages of the system of my invention will, no doubt, be apparent from the foregoing explanation, and the novel features thereof will be pointed out in the annexed claims.

Although I have illustrated and described only a single embodiment of my invention, it is not to be construed as limited thereto, since changes and modifications will suggest themselves to those skilled in the art.

I claim as my invention:

1. In an advertising device, a plurality of different devices the operation of which can be visually observed, all said devices being located within the field of view of a spectator, a sound-responsive device located where it can receive sounds uttered by said spectator and means responsive to the frequency of the sounds received in said sound-responsive device for controlling the operation of said first-named devices.

2. In an advertising device, a plurality of devices the operation of which can be visually observed, all said devices located within an area and visible from a point without said area, a sound-responsive device located convenient to said point without the area and frequency-responsive means controlled by said sound-responsive device and controlling said first-named devices whereby a spectator may control the operation of said first-named devices by uttering sounds of corresponding pitch at said point without said area.

3. In an advertising device, a plurality of devices the operation of which may be visually observed, all said devices being located in a show window, a microphone located for operation from outside the show window, frequency-responsive devices selectively responsive to currents from said microphone, means

for controlling the operation of said first-named devices by the respective frequency-responsive devices, whereby a spectator without the show window may control the operation of said first-named devices by uttering sounds of respectively appropriate pitch into said microphone.

In testimony whereof, I have hereunto subscribed my name this 21st day of January, 1929.

ROY J. WENSLEY.