No. 861,798. PATENTED JULY 30, 1907.

D. E. BOHANNON.

ADVERTISING DEVICE.

APPLICATION FILED JULY 1, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

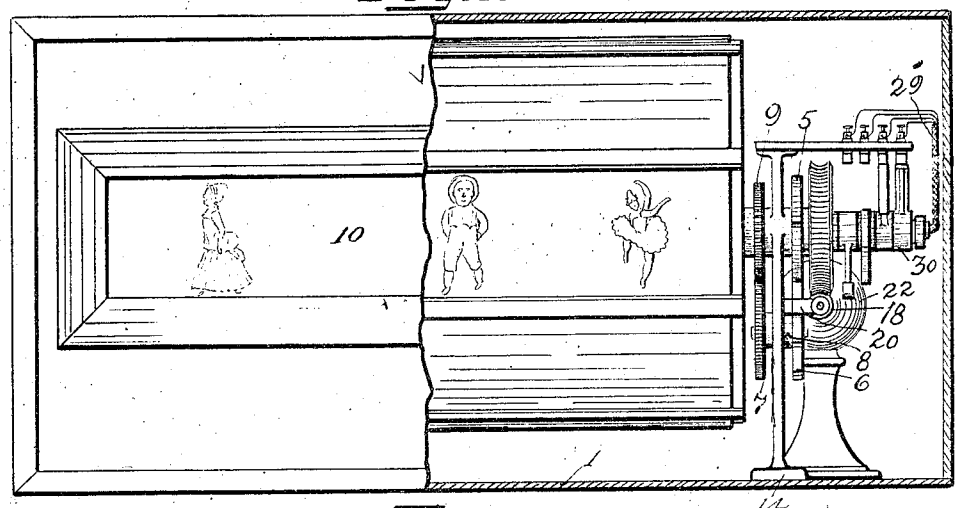


Fig. 2.

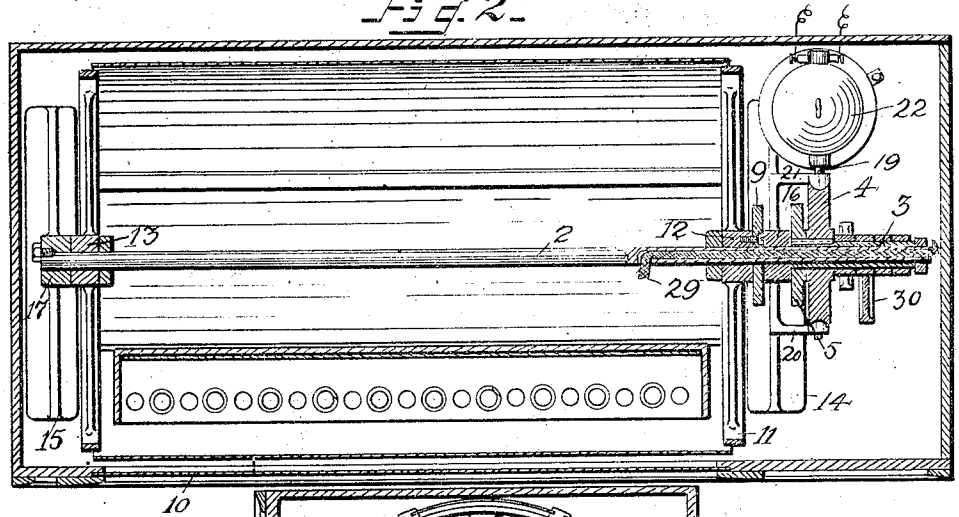
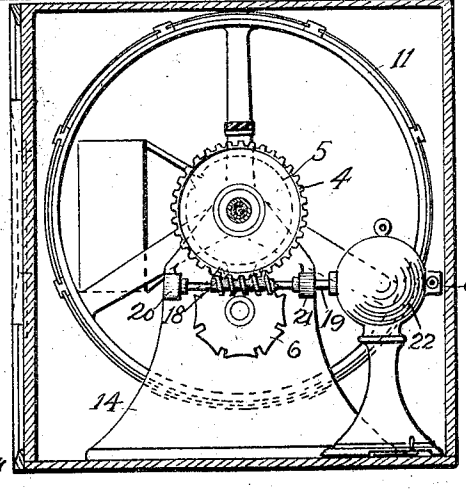


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

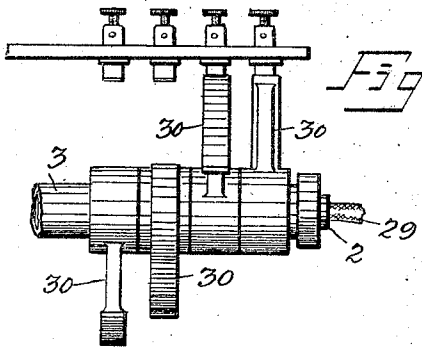


Fig. 5.

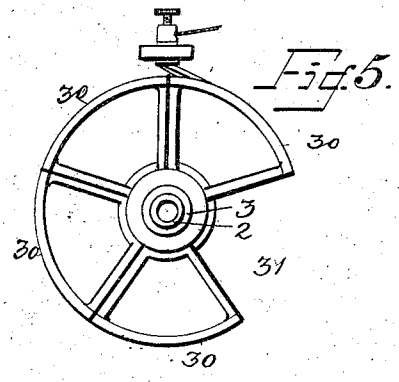


Fig. 6.

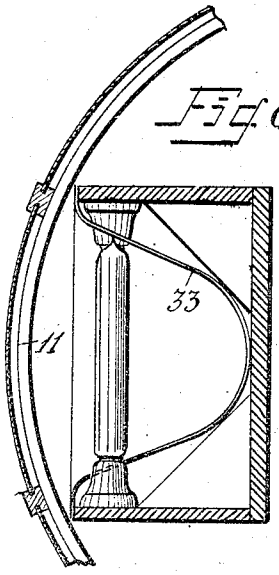


Fig. 7.

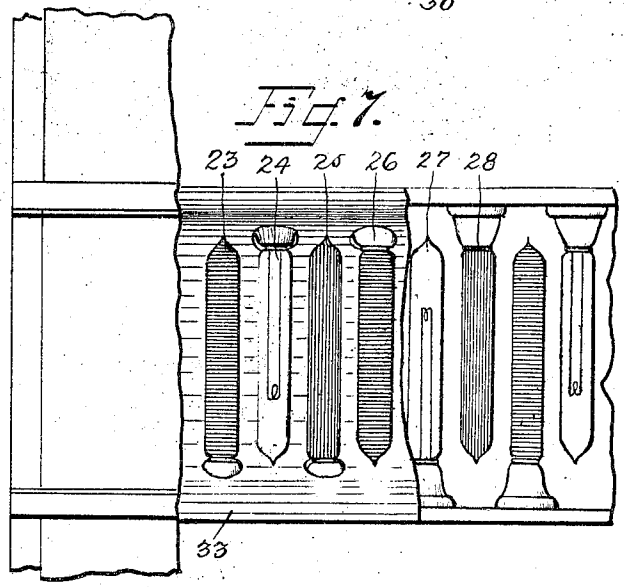
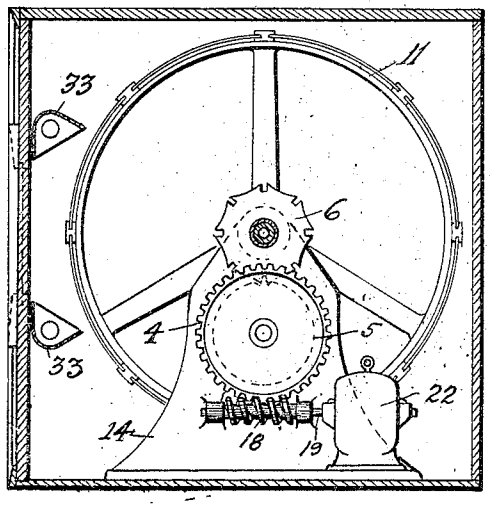


Fig. 8.



Witnesses

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UNITED STATES PATENT OFFICE.

DAVID EUGENE BOHANNON, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO WORLD ADVERTISING COMPANY, OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

ADVERTISING DEVICE.

No. 861,798. Specification of Letters Patent. Patented July 30, 1907.

Application filed July 1, 1905. Serial No. 267,973.

To all whom it may concern:

Be it known that I, DAVID EUGENE BOHANNON, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented a new and useful Improvement in Advertising Devices, of which the following is a specification.

My invention relates to advertising devices which have means of making the advertisements, as they are shown, attractive to the eye, and which have means of showing a number of advertisements *seriatim*.

The object of my invention is to provide an advertising device for automatically showing at intervals each of a series of advertisements through a window in an ornamental casing, and of changing the colors of each of the advertisements during its visual period.

I accomplish my object in two ways in both of which, the mechanism for showing the advertisements in series is the same; but the device for changing the colors of each advertisement during its visual period in the first way consists in providing banks of electric lamps having different colored bulbs, which are cut in circuit at intervals and which shine through or upon the advertisement, giving it the color of each bank of lamps in its turn. In the second way, I provide a single bank of lamps which shine through translucent colored sheets passing at intervals between said lamps and said advertisement.

The means whereby my object is attained are illustrated in the accompanying drawing forming part of this application and in which similar numerals of reference mark similar parts throughout the several views.

Figure 1. is a front elevation of my advertising device with part of the outside casing broken away to show a drum carrying the series of advertisements, and the driving mechanism therefor. Fig. 2. is a central horizontal section through Fig. 1. Fig. 3. is an end view of my device, collector rings being removed. Fig. 4. is a detail view of the collector rings and brushes. Fig. 5. is an end view of Fig. 4. Fig. 6. is a sectional end view of the reflector part of my device. Fig. 7. is a front view of Fig. 6 with casing and window broken away to show the reflector and lamps. Fig. 8. is an end view, showing a modified form of driving mechanism, and reflector arrangement.

In detail, my invention consists of the casing 1, inclosing the entire apparatus and its driving mechanism, and having a window 10 through which the advertisements are shown *seriatim*.

Referring to the first mode of attaining my object, I provide an advertisement carrying drum 11. Figs. 1, 2, 3, mounted on sleeves 12, 13, which is rotated on a fixed shaft 2 at intervals by means of the driving mechanism hereinafter explained. The advertisements are printed, stenciled or otherwise secured on sheets and are of a size suitable to show through window 10. The ends of the sheets are secured to the peripheries of the end faces of said drum, so as to present their reading matter to said window, as indicated in Fig. 1.

Shaft 2 is supported by standards 14, 15, carrying sleeves rigidly attached thereto, 16, 17. Sleeve 12, on drum 11, is provided with a gear wheel 9 meshing with gear 7, which is rigidly attached to the female part 6, of a Geneva movement by a shaft in bearing 8, the male part 5 of which is fixed to sleeve 3. Sleeve 3 rotates on said shaft and is driven by worm gear 4, worm 18, and shaft 19 supported by arms 20, 21 on standard 14. Shaft 19 is driven by an electric motor 22, or other suitable means, as a water-motor or gas engine, and operates rotatably to turn the drum 11 at intervals. Tracing the operation from the rotating shaft 19, worm 18 turns worm wheel 4, which, being rigidly mounted on sleeve 3, rotates the male part 5 of the Geneva movement. Said movement is adjusted to leave drum 11 stationary for a predetermined time after one of the aforesaid advertisements in the series on drum 11 is brought behind window 10. This time comprises the interval between the engagements of the male and female parts of said movement. Continuing to trace the operation of my device, when the male part of said movement engages the female part 6 thereof, gear 7 is rotated over a space corresponding to the time of said engagement, and imparts a like movement to the gear-wheel 9, which being attached to drum 11 carries said drum therewith. The length of these successive movements is such as to bring one advertisement after the other accurately behind window 10.

Describing now the first mode of changing the colors of the displayed advertisements during their visual period, which consists in lighting and extinguishing electric lamps of various colors, banks of electric lamps of various colors are provided, as shown in Fig. 7, where 23, 26 may be blue, 24, 27 may be white, 25, 28 may be red, the number of lamps in each bank being as large as may be desired, and the number of banks according to the number of different colors desired to be used. A terminal from the electric current source is electrically connected with a single terminal of every one of the lamps by a single conductor in cable 29. The blue lamps then have their remaining terminal connected with a single conductor, the white to another

conductor, the red to a third conductor, and so on, all the said conductors being brought through cable 29 to the commutator brushes, where a set of collector segments 30 are arranged to make and break the circuits through said banks of lamps successively. Collector segments 30 are rigidly attached to sleeve 3 and turn therewith; and their period of rotation is arranged to show the whole series of lights one bank after the other during the visual period of each advertisement.

Fig. 5 is an end view of Fig. 4. Attention is called to the open space 31 in the commutating devices, Figs. 4 and 5. During the passage of the brushes across said space the circuits remain open leaving the lamps in darkness; and this period of darkness is adjusted to fit the moment when the Geneva movement is active in turning drum 11 to change the advertisement.

I prefer to arrange my lamps inside drum 11, and have the lights thereof shine through the advertisements, fixing a reflector 33 behind them as in Figs. 6 and 7; but where the advertisements have their letters or designs opaque, the lights and reflectors 33 may be arranged outside the drum, as in Fig. 8.

I draw in Fig. 8 a modified form of driving mechanism, wherein the female part 6 of a Geneva movement is attached directly to the drum 11, the male part 5 being attached to the worm wheel shaft.

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

1. An advertising device comprising means of showing a series of advertisements in succession, a plurality of electric lamps arranged in banks of various colors and adapted to color said advertisements, and circuit connections to said lamps arranged to illuminate each of the banks thereof successively during the visual period of each advertisement.

2. An advertising device comprising an intermittently-driven rotatable drum carrying a series of advertisements, a casing having a window through which each advertisement may be shown in succession, a plurality of electric lamps arranged in banks of various colors and adapted to color said advertisements, and circuit connections to said lamps arranged to illuminate each of the banks thereof successively during the visual period of each advertisement.

3. In an advertising device the combination with a rotatable drum carrying a series of advertisements and having means of intermittently rotating said drum, of means of variously coloring said advertisements, comprising banks of vari-colored electric lamps arranged to shine thereon, and a commutator intermittently connecting each of said banks with an electric circuit.

In testimony whereof I have signed my name to this specification in the presence of two witnesses.

DAVID EUGENE BOHANNON.

Witnesses:
F. P. MEDINA,
EMMETT WALSH.