Dec. 8, 1931. A. K. KRAKAU 1,835,311

ELECTRICAL ADVERTISING APPARATUS

Filed June 3, 1931

FIG. 1.

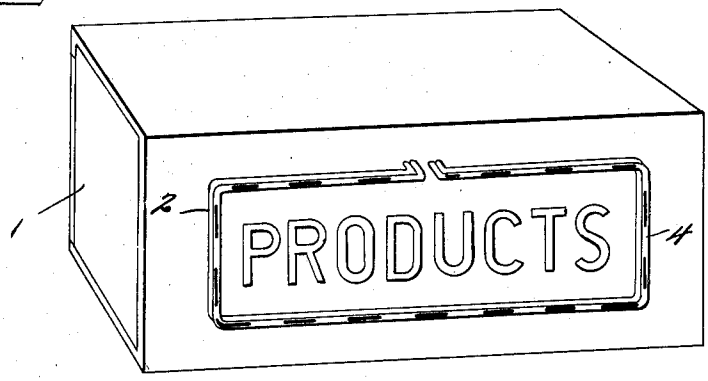


FIG. 2.

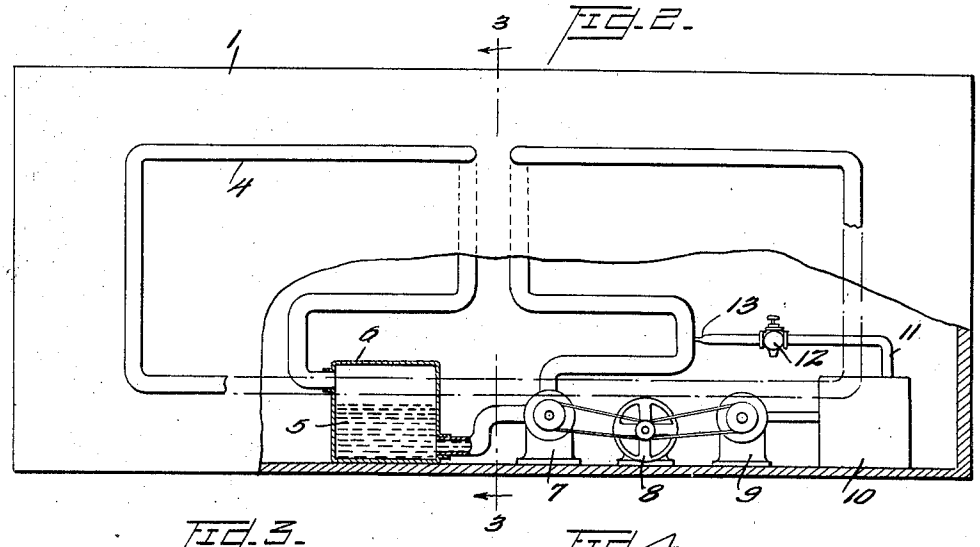


FIG. 3.

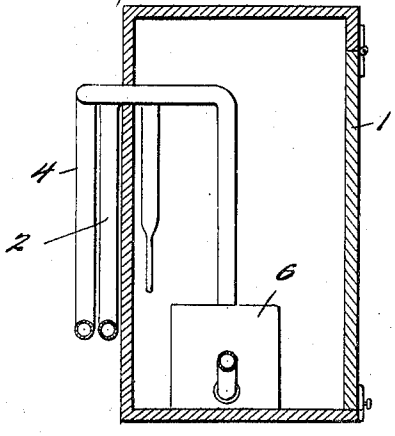
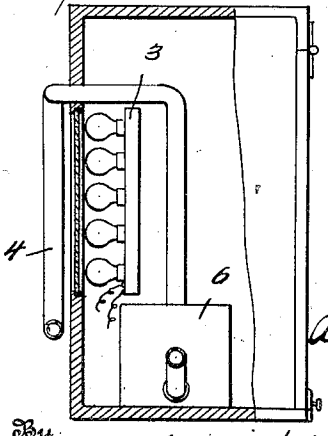


FIG. 4.



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UNITED STATES PATENT OFFICE

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ELECTRICAL ADVERTISING APPARATUS

Application filed June 3, 1931. Serial No. 541,910.

This invention relates to an improvement in advertising and other like apparatus, and especially to chaser or running border types, illuminated by a luminescent tube, electric bulbs or other suitable means.

The novel feature of my invention consists of a transparent tube which is superimposed on the luminescent member and which is adapted to contain opaque or transparent liquid, said liquid being moved to produce a chaser or running border effect by means hereinafter to be described.

A practical embodiment of the invention is represented in the accompanying drawings which form a part of this specification, in which similar parts are marked with like numerals of reference throughout the views.

Figure 1 is a perspective view of the improved sign.

Figure 2 is a side elevation with part of the side removed to show the reservoir for the opaque or transparent liquid, the air reservoir, motor, air and water pumps and air intake valve.

Figure 3 is an end sectional view showing the luminescent element as one continuous tube.

Figure 4 is an end sectional view showing the luminescent element as a series of electric bulbs.

For a more specific description of the invention, reference is made to the accompanying drawings, in which 1 indicates the case of the sign, 2 indicates a luminescent member which may be fixed on the outside of the case or imbedded in the face of the same. Said luminescent member, as shown on the drawings, is a neon tube, but it may be a series of electric bulbs or other suitable means, 3 indicates a second form of luminescent member comprising a series of electric bulbs.

Superimposed on the luminescent member and parallel therewith is a transparent tube 4, adapted to permit the passage through it of an opaque or transparent liquid 5 which is taken from and returned to reservoir 6 by means of pump 7, operated by an electric motor 8. On the shaft of said motor are two pulleys, one of which operates liquid pump 7 by means of a belt, and the other of which, by means of a belt, operates an air pump 9, which stores air under pressure in reservoir 10. The air from said reservoir passes through a tube 11 to an adjustable intake air valve 12, then through a constricted point in the air channel 13, which forms bubbles or air pockets in the liquid passing through the tube 4.

The operation of this device is as follows:—

Light from the luminescent member is constant or intermittent. The opaque or transparent liquid is pumped from the reservoir 6 through the tube 4. When it passes the air tube 13, air is forced into the stream of opaque or transparent liquid in measured quantities by means of the air pump and the adjustable air intake valve, forming air pockets or bubbles, and thus alternate air and liquid sections are formed in the stream of the liquid. The passage of these alternate dark and clear sections over the luminescent member gives a chasing or running border effect. This border is kept continually in motion as long as the device is in operation.

The transparent tube 4 may be in the form of a design or in the form of letters. I do not limit myself to the precise construction shown in the drawings.

What I claim as new and desire to secure by Letters Patent is:

1. An advertising device, comprising a luminescent member, a second member superimposed thereon and parallel therewith through which a continuous flow of liquid passes, means for forcing said liquid through said member and returning it to a reservoir for re-use, and means for forcing fixed quantities of air into said member to form air pockets or air bubbles in the liquid.

2. An advertising apparatus, comprising a case, a luminescent member secured within said case, a transparent tube superimposed on the luminescent member, a liquid in said transparent tube, means for forcing said liquid through the tube to cause a continuous flow, means for forcing fixed quantities of air into said tube to form air pockets or air bubbles in the liquid.

3. An advertising device, comprising a case,

a luminescent element secured to the face of said case, a transparent tube superimposed on the luminous element and parallel therewith, an opaque liquid in said transparent tube, means for forcing the liquid through said tube and means for forcing fixed quantities of air intermittently into the tube to form air pockets or air bubbles in the liquid.

4. An advertising apparatus, comprising a case, a luminescent member secured to said case, a transparent tube superimposed on the luminescent member and parallel therewith, an opaque liquid in said transparent tube, means for forcing said liquid through the tube, an adjustable air intake valve adapted to admit air intermittently into said tube and means for forcing air through the valve.

In testimony whereof I hereunto affix my signature.

AUSTIN K. KRAKAU.