

(No Model)

J. L. KILLMER.

ELECTRIC ADVERTISING AND DISPLAY APPARATUS.

No. 582,649.

Patented May 18, 1897.

FIG. 1.

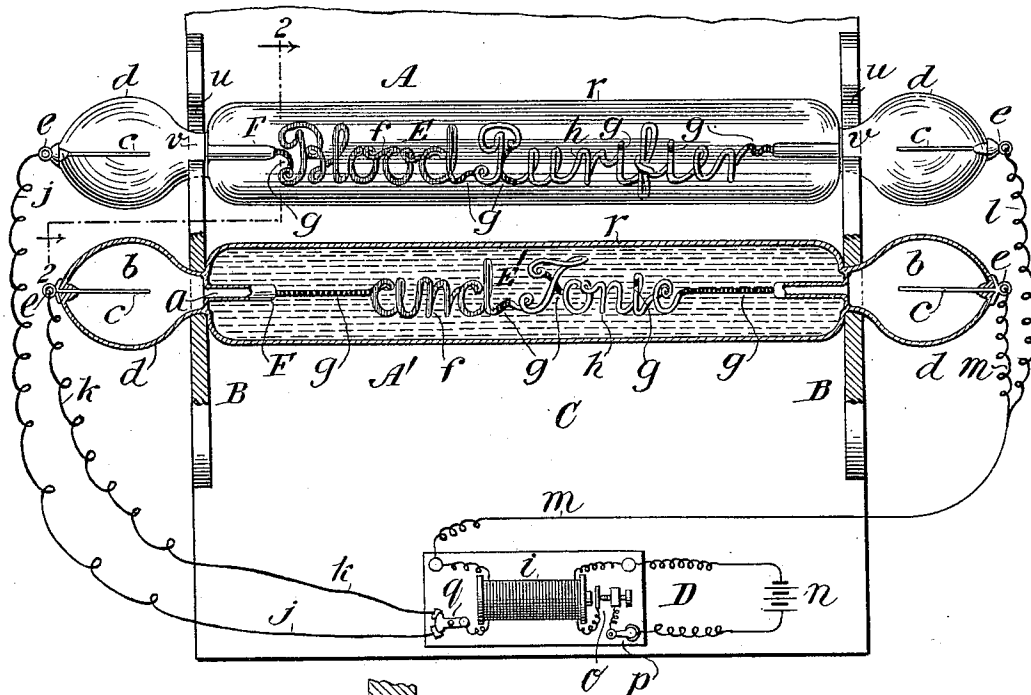


FIG. 2.

FIG. 3.

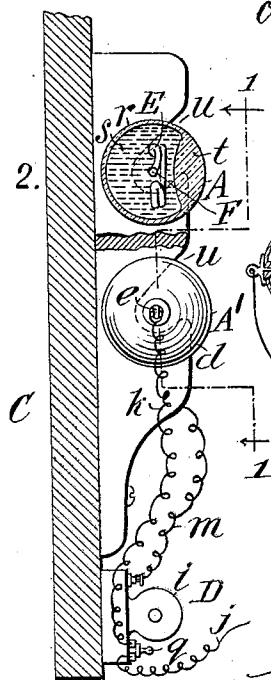
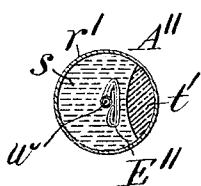
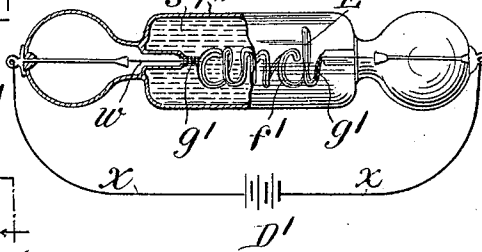


FIG. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN L. KILLMER, OF NEW YORK, N. Y., ASSIGNOR TO THE ELECTRIC SIGN
AND NOVELTY COMPANY, OF SAME PLACE.

ELECTRIC ADVERTISING AND DISPLAY APPARATUS.

SPECIFICATION forming part of Letters Patent No. 582,649, dated May 18, 1897.

Application filed March 2, 1896. Serial No. 581,467. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. KILLMER, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Electrical Advertising and Display Apparatus and the Like, of which the following is a specification.

This invention relates to apparatus for advertising, display, or writing, and aims to provide improvements in such apparatus.

To this end in carrying out the preferred form of the invention means are employed for making a luminous exhibition of the matter to be displayed, for presenting this matter in various colors and with great brilliancy and beauty of the light, and a great variety of color effects. Means are employed for magnifying the whole or a part of the luminous matter, and the matter to be displayed is arranged for successive illumination of part or parts thereof. Preferably Geissler tubes are employed for the luminous portion of the apparatus. A suitable source for supplying an interrupted, alternating, or other suitable electric current is provided. Switches controlling the action of the tubes are used. A liquid medium for heightening the brilliancy of the effect surrounds the tubes, and magnifying-lenses are arranged outwardly of this medium, and certain detail features of improvement in the construction and arrangement of the tube and the parts of the apparatus are provided.

In the accompanying drawings, which show certain adaptations of my invention, Figure 1 is a front elevation, partly in vertical section, on the line 1 1 of Fig. 2, of an advertising, display, or writing apparatus embodying the preferred form of my improvement. Fig. 2 is an end elevation thereof, partly in section, on the line 2 2 of Fig. 1. Fig. 3 is a fragmentary cross-section of a modified form of apparatus; and Fig. 4 is a side elevation, partly in vertical axial section, thereof.

Referring to the drawings, I will first describe in detail the features of construction and arrangement shown in Figs. 1 and 2, constituting the preferred form of my invention. In this apparatus let A and A' indicate the advertising or display members as a whole;

B, brackets or holders carrying the advertising members; C, a frame or board carrying the several parts of the apparatus, and D a source of electric energy sufficing to illuminate the matter to be exhibited or displayed.

The members A and A', of which any suitable number may be employed, comprise, essentially, a luminous portion E and E', respectively. This portion has the form, shape, and appearance desired for exhibition and is illuminated electrically, preferably by the peculiar rays or illumination incident to a Geissler tube, for which purpose each member E is best constructed as a long sinuous transparent or translucent tube F, of glass or other suitable material, bent, blown, or otherwise formed into the desired shape and having a continuous hollow interior or cavity *a* extending from end to end and terminating in chambers *b*, in which are the platinum of other terminals *c* of an electric circuit. The chambers *b* consist of the hollow interiors of transparent glass or other suitable bulbous casings *d*, into which the platinum points are fused and beyond which the heads *e* of the terminals project and serve as binding-posts for receiving the line-wires of an electric circuit.

Each luminous portion, when used for an advertising or similar display, is formed or contorted to approximate the shape of the words, letters, and characters desired to be exhibited. In the construction shown the first word is of a peculiar shade or color to render it distinctive—for example, red—this being accomplished by forming the corresponding portion of the tube F of red or colored glass or of a quality having peculiar fluorescence. To accentuate the beginning and end of this word and isolate it from the rest of the tube, the portions of the tube immediately in advance of and beyond it are made opaque, or of a dark or distinctive color, terminating the peculiar light or appearance of the portion of the tube devoted to the word. In the member E the portion *f* is of a neutral color and the portions *g* are of a dark color or are opaque. Next following the word or part composed of the portion *f* is another portion *h*, of colorless glass or of a quality or fluorescence of appearance distinctively dif-

ferent from the first portion *f*, and this portion is of the shape desired for the succeeding word or part. This portion is terminated by an opaque or dark part *g* at the end of the

5 the several portions the opaque or dark parts *g* are provided to make the interruptions requisite to the formation of the letters and words.

10 The interior of the tube *F* contains a highly-rarefied gas, the degree of rarefaction depending upon the light effects desired, and through this vacuum or partial vacuum chamber is passed an electric current of suitable

15 character, which is supplied by the generator *D*. The latter may be any suitable source of electricity. I have shown for the purposes of illustration an induction-coil *i*, the secondary terminals of which are connected by wires *j*,

20 *k*, *l*, and *m* with the terminal-points *c* of the tubes. The induction-coil is energized by a battery *n*, which has an interrupter *o* in the primary circuit of the coil. A switch *p* in this circuit controls the coil, and a switch *q*,

25 when more than one tube is used, suffices for connecting successively or collectively the several tubes employed in the apparatus.

When either tube is connected with the coil, brilliant and varying light effects are produced throughout the length of the tube, illuminating the translucent and transparent

30 portions thereof and producing a greater variety of color and fluorescent effects. These effects are largely suppressed or entirely concealed by the portions *g* of the tube, and are

35 clearly apparent at the portions *f* and *h* thereof, being modified at these portions according to the color or nature of the latter.

To increase the effect and beauty of the

40 exhibition, the luminous members of the apparatus are inclosed in transparent tubes *r*, the hollow interiors of which are sealed and filled with a colorless or other suitable liquid *s*, which transmits the light effects from the

45 members *E* with added brilliancy. To increase the effectiveness of the exhibition, magnifying-lenses or other suitable provisions *t* are disposed in front of the members *E* and suffice to magnify all or such portions of

50 these members as is desired. The lenses *t* preferably constitute part of the inclosing tube *r*, being fused into the wall of the latter.

One or more members may be employed, two being preferably used. When a plurality

55 of members is used, each member may be differentiated from the others, and the switches can be adapted to successively illuminate each, thus giving a writing effect as one member after another becomes luminous. Of the

60 two members shown in Figs. 1 and 2, the lower one *A'* only differs from the upper one

A in that its exhibition portion *E'* is of different shape corresponding to different words. Like the other it has portions *f*, *g*, and *h*, distinguishing and accentuating its words. The

65 brackets *B* serve as a convenient support for the several members, the brackets having notches *u* receiving the necks *v* of the members *A* and *A'*.

In operation the members will be illuminated by suitable switching to throw on or off the electric current, and from time to time, as desired, either or both of the members *A* and *A'* will be removed and other analogous

70 parts having different exhibition matter will be substituted.

It will be seen that my invention provides an improved advertising, display, or writing apparatus which will be pleasing and effective in operation, and can be readily and economically availed of for many purposes, and it will be understood that the invention is not

80 limited to the particular details of construction, arrangement, and operation, nor to the particular combination of features set forth as constituting its preferred form, since these

85 details of construction and arrangement and the combination of features employed in the apparatus can be variously modified as circumstances or the judgment of those skilled in the art may dictate without departing from

90 the spirit of the invention.

Figs. 3 and 4 show a modification in which the member *A''* has a luminous member *E''*, consisting of a hollow tube having differently colored or appearing portions *f''* and *g''*,

95 traversed by a carbon filament *w*, the ends of which are connected to the line-wires *x* of an electric generator *D'*. The tube *E''* is inclosed in a tube *r'*, filled with a liquid *s* and provided with a lens *t'*. With this construction,

100 while the light will be brilliant, it will be devoid of the variations and color effects obtained with the Geissler tube before described.

What I claim is, in electrical advertising and display apparatus and the like, the following-defined novel features and combinations, substantially as and for the purpose

105 hereinbefore set forth, namely:

In an advertising and display apparatus one or more Geissler's tubes bent and arranged to represent symbols or letters and having a

110 portion of the symbol or letters of a word different in color from the remainder of the symbol or word, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing

115 witnesses.

JOHN L. KILLMER.

Witnesses:

MAX SHEINAR,

FRANK BEAKBARE.