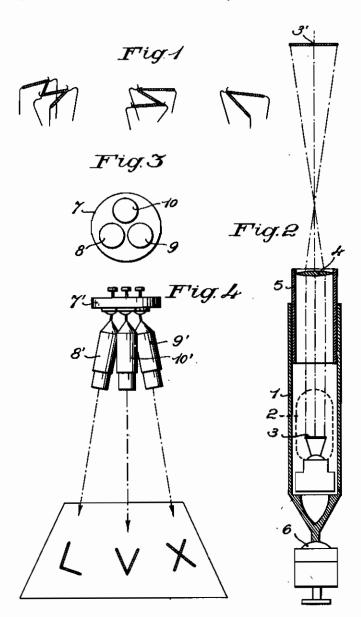
PUBLISHED M. FIORONI Serial No PROCESS AND DEVICE FOR OBTAINING THE PROJECTION OF LUMINOUS LETTERS AND DRAWINGS, PARTICULARLY 306,518 FOR THE PURPOSE OF PUBLICITY AND SIGNALLING Filed Nov. 28, 1939



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PROCESS AND DEVICE FOR OBTAINING THE PROJECTION OF LUMINOUS LETTERS AND DRAWINGS, PARTICULARLY FOR THE PURPOSE OF PUBLICITY AND SIGNALLING

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The present invention concerns a new process for obtaining the projection of luminous letters and drawings, particularly for the purposes of publicity and signalling. This new process is based essentially on the direct projection of luminous or incandescent objects and allows of the production, by means of a lens, of images of great luminosity.

The method known hitherto and more in use and drawings is characterized by the fact that the object to be projected is obtained by transparency, or its outline is fixed on a transparent background and illuminated by a source of light at the back thereof.

The process forming the subject matter of the present invention is instead substantially characterized by the fact that the object to be projected is obtained by making use of the body or luminous filament of electric bulbs and is, there- 20 fore, made of a material meant to become luminous or incandescent. The object and the source of light form thus an undivided whole, and that is a luminous or incandescent body of which a lens supplies the image which will appear so lu- 25 minous and incandescent as to be clearly visible also by day-light with effects hitherto unknown.

The practical realization of this new process, a form of embodiment of which will be illustrated hereinafter, may be destined especially 30 for obtaining projections of great luminosity for publicity advertisements and for signalling, with the following appreciable advantages:

1st.—Possibility of obtaining luminous images visible also by day-light, or in illuminated prem- 35

2nd.—Possibility of being able to change easily a writing or a drawing, and of directing the projection to any desired place (foot-path, facades

3rd.—Possibility of being able to easily render the projection intermittent or movable, thus obtaining many publicity effects.

4th.-Economy in manufacture, installation 45 and up-keep.

By way of example, in the figures of the annexed drawing there is illustrated one of the possible practical embodiments of the process in which allows of the projection of luminous let-

In said drawing:

Fig. 1 is a diagrammatic view of the outlines of using the filament, duly shaped, of incandescent electric bulbs:

Fig. 2 is a plan view, in horizontal cross section, of one of the projection devices in accordance with this invention:

Fig. 3 illustrates diagrammatically a support apt to hold the projection devices:

Fig. 4 illustrates, side upper most, the apparatus for obtaining the luminous projection of the word "LUX."

As is shown by said drawing in which the same 5 numbers distinguish the same parts, Fig. 1 represets a form of embodiment in which, in order to obtain the incandescent outline of the object to be projected, use is made of the body or luminous filament of incandescent electric bulbs. The for obtaining the projection of luminous letters 10 threads of refractory metal (and for this purpose the more adapt is tungsten), meant to become incandescent in consequence of the passage of the electric current, are extended horizontally with regard to the support and, sustained 15 by the little hooks, they are arranged so as to form the outlines of the three letters M. N. V.

It is obvious that, by resorting to the same system, one can obtain the outlines of any other letter of the alphabet, or of any special sign which may be needed to form a drawing.

The projection apparatus may vary according to the requirements of practical realization; in Flg. 2 there is represented only diagrammatically a very simple device made of a case I in which is enclosed the special bulb 2 which contains outline 3, apt to become incandescent, of the object which it is desired to project; the object glass 4, which may be made of one double convex lens only, or of a system of lenses, supplies the luminous and enlarged image 3' of the said object. The lens is fixed to a case 5 with turning annular packing for bringing into focus, while case i is meant to be fixed to a Cardan or spherical joint 6 to enable one to direct and fix the projection in the manner desired.

Fig. 3 represents diagrammatically a support 7 fit to contain three projection devices which are fixed in holes 8-9-10, while Fig. 4 represents the three device 8'-9'-10' mounted together on of buildings, interior of shops and of show-win- 40 the same support I' so as to obtain the luminous projection of the word "LUX."

Besides the one described above, there can be many other practical appliances or realizations of the new method in question, especially as regards both the particulars of construction and the material employed to obtain the luminous or incandescent outlines of the object to be projected, in particular in air-ports for signalling during landing and taking off at night, as well question, and precisely there is shown a device 50 as for special auxiliary signalling from motorcars travelling during the night, as also with regard the device which allows of the luminous projection of the object, (a writing, a drawing, cypher, and the like), which may consist either of the letters M. N. V to be projected, obtained by 55 the union of several outlines projected by one or more devices, or one single outline constituting the whole object and projected by one apparatus only, without, however, coming out from the aim of the present invention.