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ILLUMINATED FOUNTAIN DISPLAY

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Fig. 1

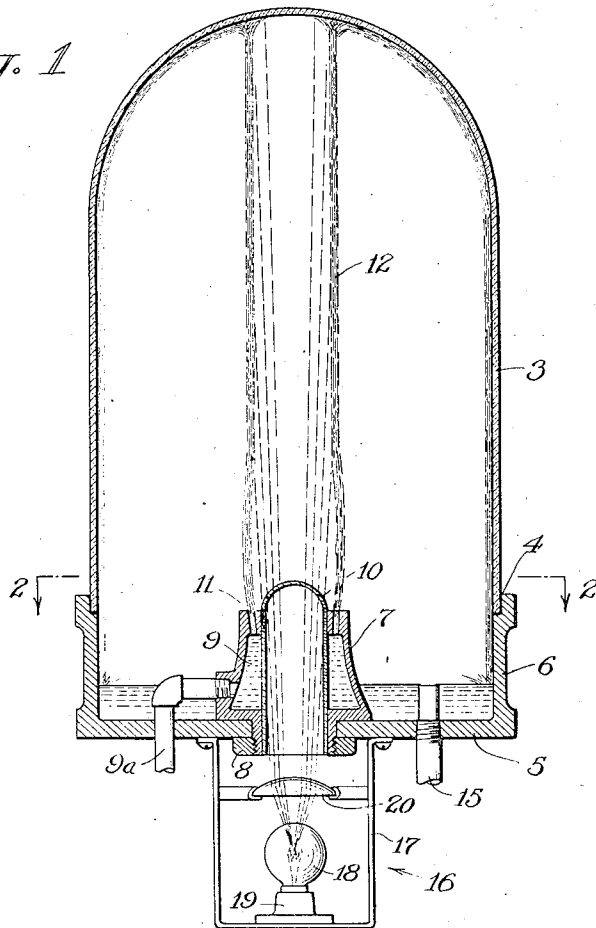
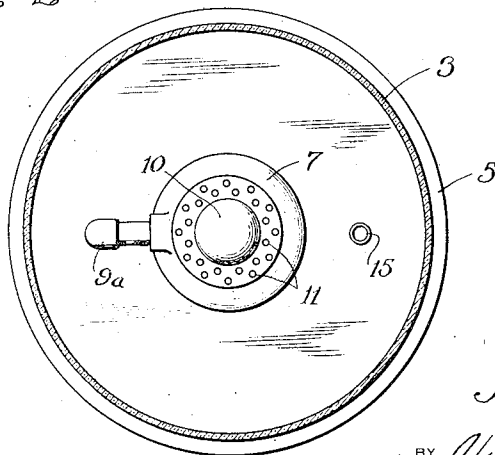


Fig. 2



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ILLUMINATED FOUNTAIN DISPLAY

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1 Claim. (Cl. 299—4)

This invention relates to illuminated fountains for display purposes and more particularly to such devices in which the fountain is contained within a transparent dome.

I am aware that display devices of a similar character have heretofore been used. Some of these devices however possess objectionable operating features, such as, difficulty of projecting rays of light thru a mass of water so as to illuminate the fountain display. It is therefore the primary object of my invention to provide a novel arrangement of a fountain display in which the fountain water is projected in an improved manner in a glass dome and is caused to flow down the sides of the dome so as to facilitate the illumination of the entire visible surface of the display, thus simulating the well-known outdoor fountain in a spectacular manner.

A further object of my invention is to provide in conjunction with the above arrangement a particularly effective means for illuminating the falling water within the dome by which to facilitate the illumination of the fountain in various colors as well as white light.

The invention will be fully and comprehensively understood from a consideration of the following detailed description when read in connection with the accompanying drawing which forms part of the application, with the understanding, however, that the improvement is capable of extended application and is not confined to the exact showing of the drawing nor to the precise construction described and, therefore, such changes and modifications may be made therein as do not affect the spirit of the invention nor exceed the scope thereof as expressed in the appended claim.

In the drawing:

Fig. 1 is a central vertical section of my device; and

Fig. 2 is a horizontal section on line 2—2 of Fig. 1.

Referring now to the drawing for a more detailed description thereof, the numeral 3 indicates a transparent dome of suitable material and of a vertical cylindrical shape, the upper end of the cylinder converging substantially into a hemisphere. The dome 3 is securely sealed at 4 to a disklike base 5 having upstanding cylindrical sides 6. Centrally disposed within the base 5 is the nozzle 7 secured to the base by the screw collar 8 and having a hollow annular chamber 9 adapted to receive water or other suitable liquid under pressure from a supply pipe 9a. Thru the center of the nozzle 7 is a vertical

transparent tube 10, the upper end of which projects above the nozzle 7 in convex formation.

The upper surface of nozzle 7 is provided with a series of spaced jets 11 arranged in annular rings about the tube 10. The function of jets 11 is to project a substantially vertical, tubular or cylindrical stream 12 of water centrally up into the dome 3 and against the top thereof. In that the disposition and operation of these jets is one of the features of my invention, a detailed description of their arrangement follows. It has been observed during the extensive experiments in the development of my device that certain difficulties arise in providing means for suitably projecting the above described stream of water. One of these difficulties arises from the tendency of the respective water jets comprising the stream to draw together into a solid stream due to the molecular attraction of the liquid particles and other causes. Such a solid stream would defeat the satisfactory illumination of the fountain in that it has been found entirely unsatisfactory to project a beam of light thru a compact mass of liquid. The jets 11 of my device have therefore been disposed in a plurality of concentric rings in which the jets are arranged in staggered relation to each other, as illustrated clearly in Fig. 2. Thus the series of jets 11 in aggregate provide a sufficient volume of water to form the desired cylindrical stream 12. To further counteract the tendency of respective water streams emanating from the jets 11 to converge into a solid stream, the respective jets 11 are disposed at diverging angles, the angles of divergence being equal on either side of the center of the nozzle 7. The respective streams will normally issue from the jets 11 at diverging angles but due to the molecular attraction the streams will converge somewhat toward the common center to form the cylindrical stream 12. This arrangement is shown more clearly in Fig. 1, the disposition of jets 11 being slightly exaggerated as to the degree of inclination. The cylindrical stream 12 of water, being thus suitably projected against the interior top of the dome 3, is thus caused to flow or trickle down the vertical sides of the dome, thereby simulating the outdoor fountain. The water being received in the base 5 of my device is drawn off thru the overflow pipe 15, from which it may be suitably disposed or recirculated into the device by pumping into the supply pipe 9a.

To provide particularly effective illumination for the fountain within the dome, a light source 16 is provided which comprises a housing 17 de-

pending from the base 5, in which is contained an electric bulb 18 or suitable illuminating means supported on a base 19. A condenser lens 20 is disposed above the light bulb 18 by which to gather the rays of light emanating from the filament of the bulb 18 to project same in a slightly diverging light beam up thru the tube 10 and into the cylindrical water stream 12 so that the various rays of light constituting the projected beam will impinge against the interior of the stream 12 at various elevations. In this manner the entire cylindrical stream 12 is illuminated, from which the light will radiate out to the water flowing down the sides of the dome 3, thereby effectively illuminating the entire visible surface of same.

What is claimed as new is:

In a device of the character described, a light-transmitting dome, a hollow member within said dome and adapted to receive a supply of liquid under pressure and having a top with a plurality of outlet openings for the liquid, a tube within said hollow member, and having a light-transmitting upper end, and a light source directly under said tube, said outlet openings being arranged in an annular ring and diverging slightly in outward and upward direction whereby to project separate jets of liquid so that said jets transform into a continuous annular spout of liquid.

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