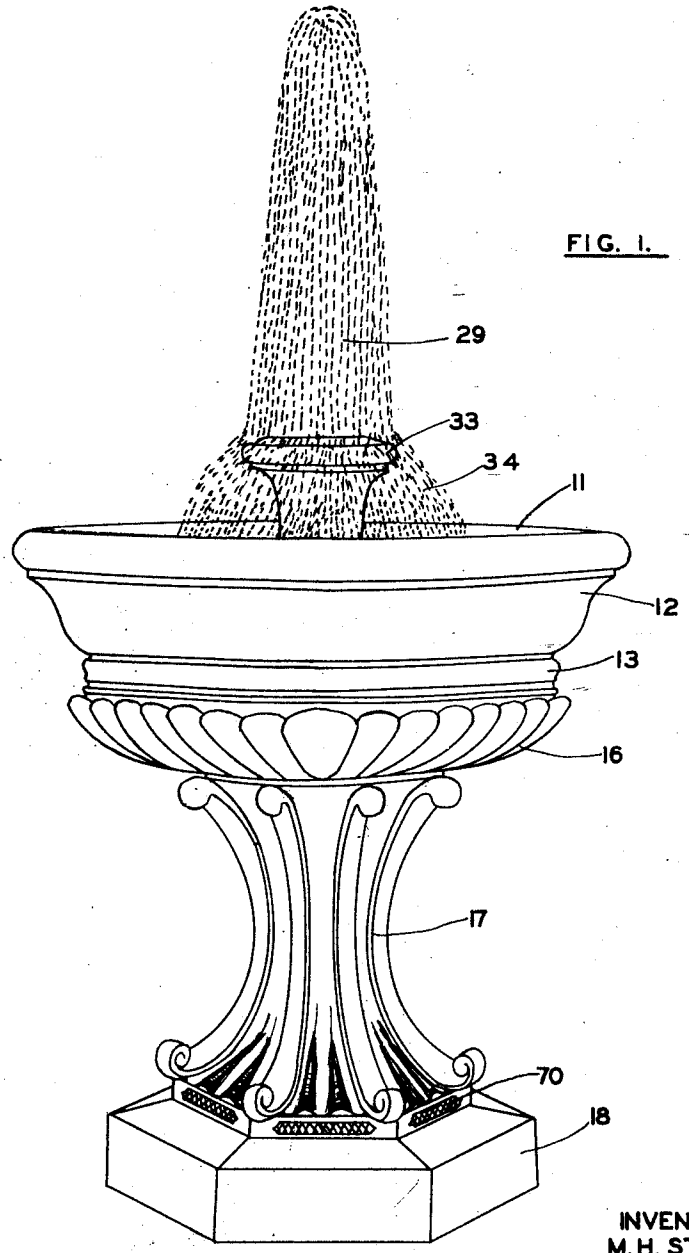
Sept. 17, 1929. M. H. STUEWE 1,728,456

ILLUMINATED FOUNTAIN

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FIG. 1.



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ILLUMINATED FOUNTAIN

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FIG. 2.

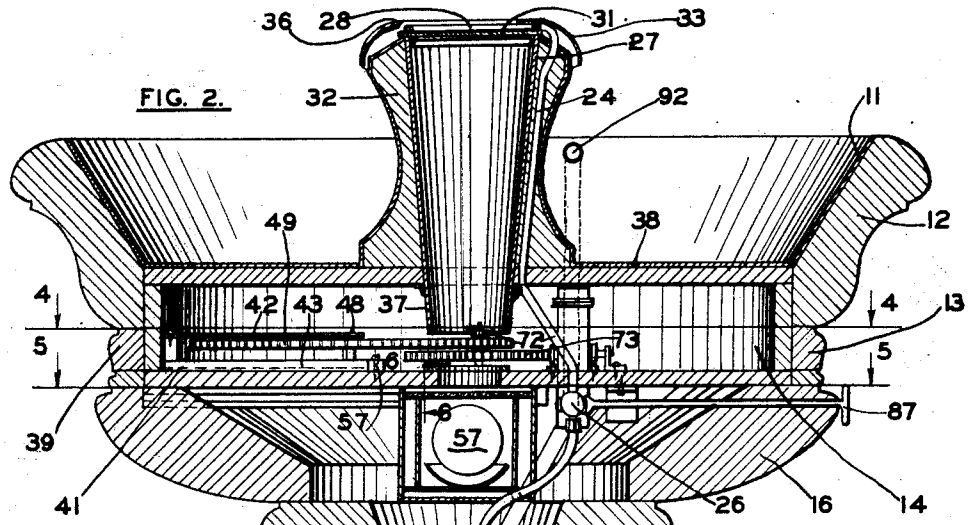
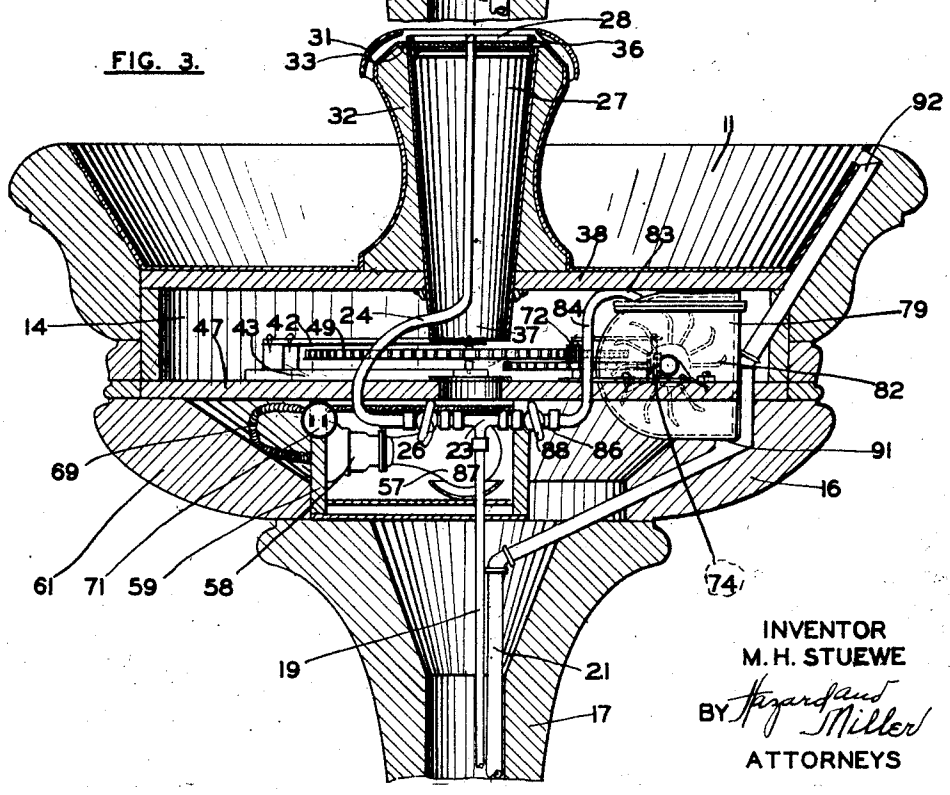


FIG. 3.



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ILLUMINATED FOUNTAIN

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FIG. 4.

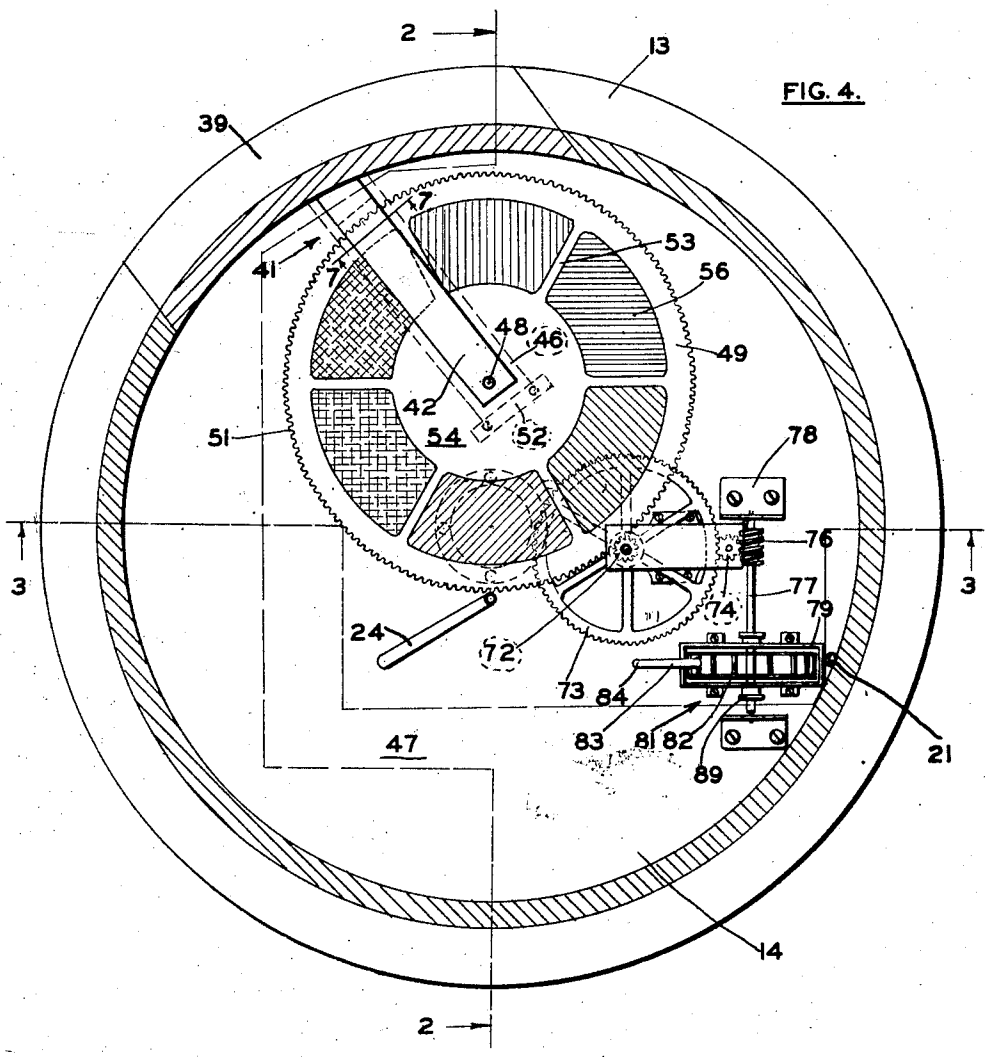
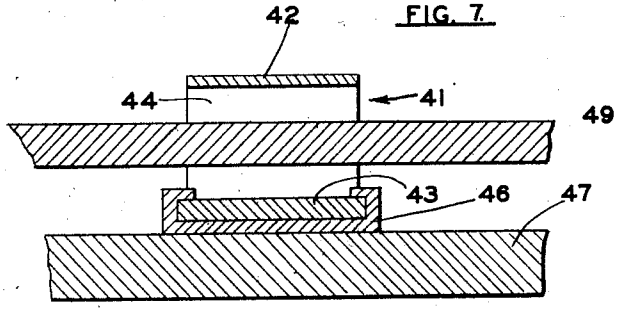


FIG. 7.



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ILLUMINATED FOUNTAIN

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FIG. 5.

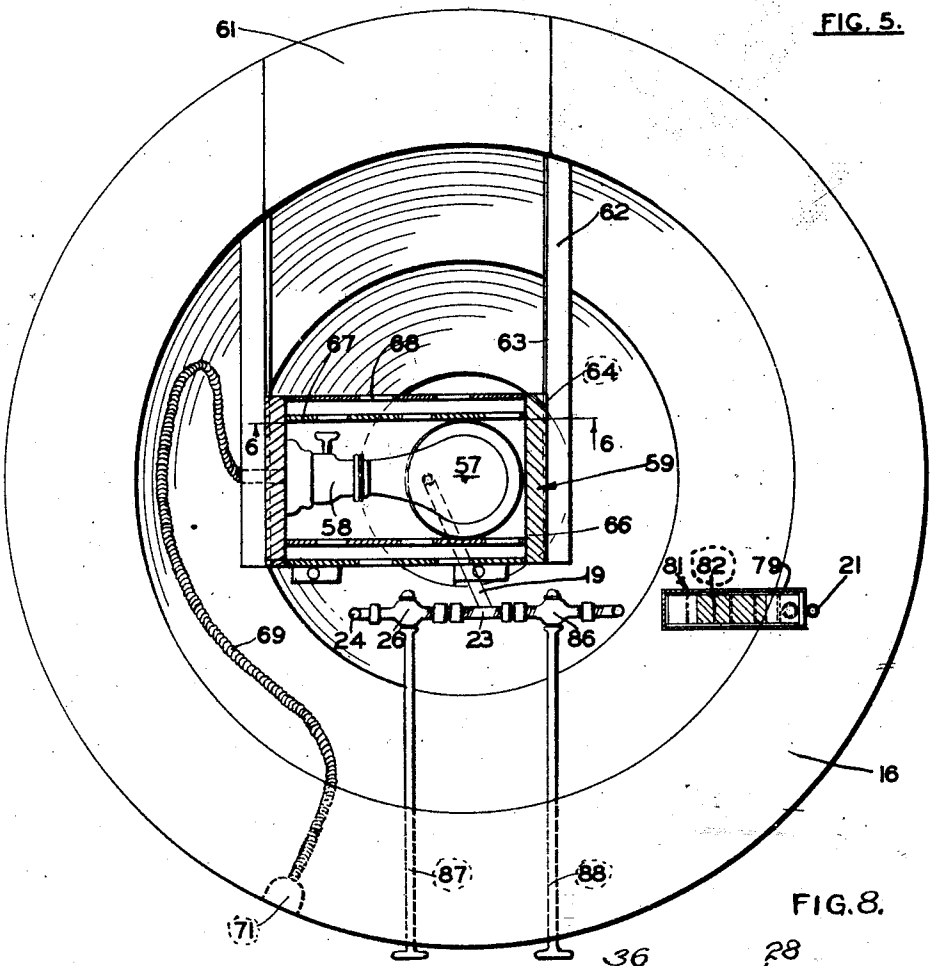


FIG. 8.

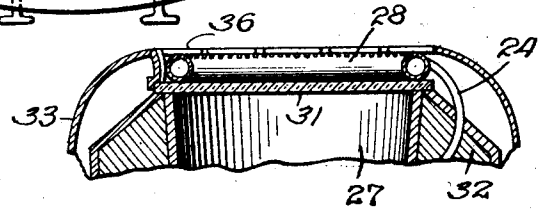
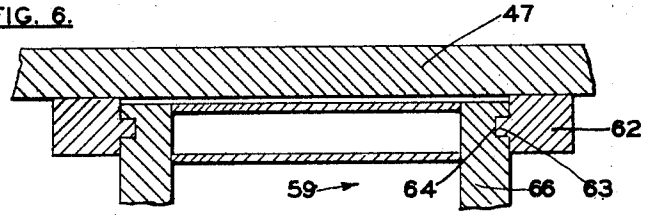


FIG. 6.



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UNITED STATES PATENT OFFICE

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ILLUMINATED FOUNTAIN

Application filed April 25, 1928. Serial No. 272,580.

This invention relates to illuminated fountains, and has for an object the provision of a fountain adapted to direct a conical spray upward from a catch basin, and provided with means for projecting lights of various colors upon the spray.

Another object is the provision of a fountain of the character described, in which the illuminating means comprises a light source positioned behind a wheel carrying a plurality of transparent screens of variegated colors through which the light is adapted to pass to be projected up into the conical spray from the fountain orifices.

Another object is the provision of a fountain having a color wheel as described, in which the color wheel is rotated by a small water turbine adapted to derive its energy from the same water supply pipe which supplies the fountain orifices with water.

A further object is the provision of a fountain adapted to direct a conical spray upwards from a catch basin, and which is provided with a flange extending outwards and downwards from adjacent the fountain orifices to engage the water from the spray as it falls and produces a beautiful splashing effect at the base of the falling water column.

A still further object is the provision of a fountain of the character described, which is of a high ornamental nature when playing either with or without the described illumination and even when the water also is turned off.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawings accompanying and forming part of the specification. It is to be understood that I do not limit myself to the showing made by the said drawings and description, as I may adopt variations of the preferred form within the scope of my invention as set forth in the claims.

Referring to the drawings:

Figure 1 is a perspective view of the fountain of my invention, in operation.

Fig. 2 is a compound vertical sectional view taken upon the lines 2—2 of Fig. 4, with the direction of view indicated by the arrows. A portion of the figure is broken away to reduce its length.

Fig. 3 is a vertical sectional view taken upon the line 3—3 of Fig. 4, with the direction of view indicated by the arrows; a portion of the figure being broken away to reduce its length.

Fig. 4 is a compound horizontal sectional view, the planes of section being taken upon the lines 4—4 of Fig. 2, with the direction of view indicated by the arrows.

Fig. 5 is a horizontal sectional view, the plane of section being taken upon the line 5—5 of Fig. 2, with the direction of view indicated by the arrows.

Fig. 6 is an enlarged detail sectional view, the plane of section being indicated by the lines 6—6 of Figs. 2 and 5, with the direction of view indicated by the respective arrows.

Fig. 7 is an enlarged detail sectional view, taken upon the line 7—7 of Fig. 4, with the direction of view indicated by the arrows.

Fig. 8 is an enlarged, vertical sectional view of the upper end of the light tube and associated parts.

In terms of broad inclusion, the fountain of my invention comprises a suitable catch basin having an orifice therein arranged to direct a spray of water therefrom. Means for illuminating the spray thus directed are provided; and means are also provided for coloring the light from the illuminating means.

In greater detail, my improved illuminated fountain comprises a catch basin 11 supported within an ornamental shell 12, the

lower portion 13 of which constitutes the rim or walls of the housing 14 for the operating mechanism. The bottom 16 of the housing 14 supports the basin and housing upon a pedestal 17, which, in turn, stands upon a base 18. This structure is made of any suitable material and is preferably highly ornamented according to any selected design.

The pedestal 17 and base 18 are hollow, to accommodate a supply pipe 19 and overflow pipe 21 which extend through the bore 22 thereof. The upper end of the supply pipe is provided with a T 23; and a suitable conduit 24 controllable by a valve 26, leads upwards alongside a light tube 27 to an annular tube 28 which is disposed about the upper end of the light tube 27. This annular tube 28 is provided with a plurality of foraminations which serve as orifices, and are adapted to direct their respective jets upwards and inwards from the tube 28, to produce a substantially conical spray 29, as clearly shown on Fig. 1.

The top of the light tube 27 which is so constructed as to be waterproof, is closed by a transparent screen of any suitable nature such as a glass shield 31. A housing 32 surrounds the light tube 27 and serves as a support for a flange 33 which extends outwards and downwards from the tube 28 over the upper end of the light tube housing 32. When water from the spray 29 falls, a portion of it strikes upon the glass shield, splashing over and upon the flange 33 to produce a beautiful splashing effect 34 at the bottom of the falling water column. A plurality of perforations 36 are provided in the flange 33, through which that portion of the water caught by the plate 31 may pass to flow down over the sides of the light tube housing 32. The bottom 37 of the light tube 27 extends through the bottom 38 of the basin 11; and means are provided for directing a shaft of colored light upwards through the light tube 27 to illuminate the conical spray 29.

A section 39 of the rim 13 of the housing 14, is romovable from the remainder of the rim, and carries a bracket 41 which comprises an upper arm 42 and lower arm 43 extending inwards from a supporting block 44 rigid with the section 39. The lower arm 43 is slidable within a slideway 46 which is rigid with a plate 47 extending across the housing 14 below the lower end 37 of the light tube 27. The inner ends of the arms 42 and 43 support a pivot pin 48 which carries a large gear wheel 49 which is supplied with peripheral teeth 51. The gear wheel 49 is arranged horizontally, and the bracket 41 is of such length that when the section 39 is in position, a portion of the wheel 49 between the pivot pin 48 and the periphery, is immediately below the light tube 27. A stop 52 secured to the plate 47 serves to limit the inward movement of the bracket 41 and section 39 so that when inserted far enough to engage the stop 52, the section 39 just comes into alignment with the remainder of the rim 13, as clearly shown in Fig. 4.

The gear wheel 49 is provided with a plurality of spokes 53 radiating from a hub 54; and a plurality of translucent colored screens 56 fill the spaces between the spokes 53. These screens 56 are of variegated colors.

Means for directing a shaft of light upwards through the screens 56 and through the light tube 27 to illuminate the spray 29, are provided in the form of an electric light bulb 57 carried by a socket 58 which is secured inside a lamp housing 59. The lamp housing is removable and is carried by a removable section 61 of the bottom 16 of the housing 14. A slideway 62 is carried upon the under side of the plate 47 and is provided with tongues 63 fitting into the grooves 64 in the end walls 66 of the lamp housing 59. The side walls 67 of the lamp housing 59 are double and are provided with a plurality of ventilating apertures 68 in order that heat generated by the bulb 57 will not damage the housing 59 or the bulb itself, and a grille 70, adjacent the bottom of the pedestal 17, permits circulation of air through the bore 22 of the pedestal 17 to the lamp housing 59. A flexible electrical conductor 69 connects the socket 58 to an electrical plug 71 in the side of the housing 14, and is of such length that the lamp housing 59 may be slid far enough out of the housing 14 to permit replacement of the bulb 57.

Means are provided for rotating the gear wheel 49. A pinion 72 is mounted for rotation with a gear 73 and is adapted to engage the side of the gear wheel 49 opposite the removable section 39 when the section 39 and bracket 41 are in place. The gear 73 is engaged by a "silent" gear 74 enmeshed in a worm driving gear 76 which is carried by a shaft 77. One end of the shaft 77 is revolubly supported upon a bracket 78 which is rigid with the plate 47; and the other end of the shaft 77 extends through the housing 79 of a small water turbine 81.

A rotor 82 is positioned upon the shaft 77 within the housing 79 and is adapted to be engaged by the jet of water issuing from a nozzle 83 which is connected by a conduit 84 through a valve 86 to the other side of the T 23 at the top of the supply pipe 19. Both the valves 26 and 86 are provided with extension handles 87 and 88, respectively, which are accessible from the exterior of the housing 14 to control the flow of water through the conduits 24 and 84, respectively. The turbine 81 is provided with suitable

stuffing boxes 89 to prevent leakage of water to the interior of the housing 14; and an aperture 91 in the bottom of the turbine housing 79 leads into the overflow pipe 21 which is open at its upper end 92 adjacent the top of the wall of the catch basin 11, to carry away water from the catch basin after it has reached a certain depth.

I will now describe the method of operation of my improved electrical fountain.

The fountain may be started to play by turning the handle 87 to open the valve 26 and permit water to flow upwards through the conduit 24 and through the orifices of the tube 28 to produce the conical spray 29 with the splashing base 34. Then by connecting an electrical conductor to the plug 71, the bulb 57 may be energized to direct the light issuing therefrom upwards through one of the colored screens 56 and through the light tube 27 to illuminate the spray 29. This will impart to the spray 29 a constant color which corresponds to that of the selected screen 56.

Then, by turning the handle 88 to open the valve 86, water under pressure may be delivered through the conduit 84 to the nozzle 83 to cause the rotor 82 to turn and drive the gear wheel 49 by means of the connecting gear 73 and pinions 72 and 74. This will bring the screens 56 successively into register with the lamp bulb 57 and the light tube 27, to impart to the spray 29 a series of changing colors. It may be readily understood that as a result, a beautiful illuminated spray is attained. The removability of the gear wheel 49 permits easy repair or substitution of the color screens 56; and the light bulb 57 may be replaced by sliding the lamp housing 59 outwards with the removable section 61 of the bottom 16.

I claim:

1. An illuminated fountain comprising a housing, a catch basin in the top of said housing, a foraminated annular tube above the center of said basin and adapted to direct a plurality of jets upward to converge over the center of said annular tube, a supply pipe leading to said tube, a light tube extending downwards from said annular tube through the bottom of said basin, a housing surrounding said light tube, a curved flange extending outwards and downwards from the top of said light tube and having a plurality of apertures therein permitting a portion of the water caught by the flange to flow down around the outside of said light tube housing, and means within said housing for directing colored lights upwards through said light tube.

2. An illuminated fountain comprising a housing, a catch basin in the top of said housing, a foraminated annular tube above the center of said basin and adapted to direct a plurality of jets upward to converge over the center of said annular tube, a supply pipe leading to said tube, a watertight light tube extending downwards from said annular tube through the bottom of said basin, a transparent screen closing the upper end of said light tube, a bracket extending inwards from a removable section in the wall of said housing, a wheel journalled upon the inner end of said bracket for rotation about a vertical axis, a plurality of colored screens carried by said wheel below the bottom of said light tube, a light source below said screens, gear teeth arranged about the periphery of said wheel, a pinion revolubly mounted within said housing in position to be engaged by said gear teeth when said removable wall section is in place, and means for rotating said pinion.

3. An illuminated fountain comprising a housing, a catch basin in the top of said housing, a foraminated annular tube above the center of said basin and adapted to direct a plurality of jets upward to converge over the center of said annular tube, a supply pipe leading to said tube, a watertight light tube extending downwards from said annular tube through the bottom of said basin, a transparent screen closing the upper end of said light tube, a bracket extending inwards from a removable section in the wall of said housing, a wheel journalled upon the inner end of said bracket for rotation about a vertical axis, a plurality of colored screens carried by said wheel below the bottom of said light tube, gear teeth arranged about the periphery of said wheel, a pinion revolubly mounted within said housing in position to be engaged by said gear teeth when said removable wall section is in place, a lamp housing carried by a second removable section of the wall of said housing, an electric lamp within said housing, and a flexible conductor connecting said lamp to a plug accessible from the outside of said housing.

4. An illuminated fountain comprising a housing, a catch basin in the top of said housing, a foraminated annular tube above the center of said basin and adapted to direct a plurality of jets upward to converge over the center of said annular tube, a supply pipe leading to said tube, a watertight light tube extending downwards from said annular tube through the bottom of said basin, a transparent screen closing the upper end of said light tube, a bracket extending inwards from a removable section in the wall of said housing, a wheel journalled upon the inner end of said bracket for rotation about a vertical axis, a plurality of colored screens carried by said wheel below the bottom of said light tube, gear teeth arranged about the periphery of said wheel, a pinion revolubly mounted

within said housing in position to be engaged by said gear teeth when said removable wall section is in place, a lamp housing having a plurality of ventilating apertures in the walls thereof and carried by a second removable section of the wall of said housing, an electric lamp within said housing, and a flexible conductor connecting said lamp to a plug accessible from the outside of said housing.

In testimony whereof I have signed my name to this specification.

MAX H. STUEWE.