O. F. BATTAGLIA.

ELECTRIC WATER FOUNTAIN.

APPLICATION FILED APR. 3, 1911.

1,136,995. Patented Apr. 27, 1915.

3 SHEETS—SHEET 1.

Fig. 1

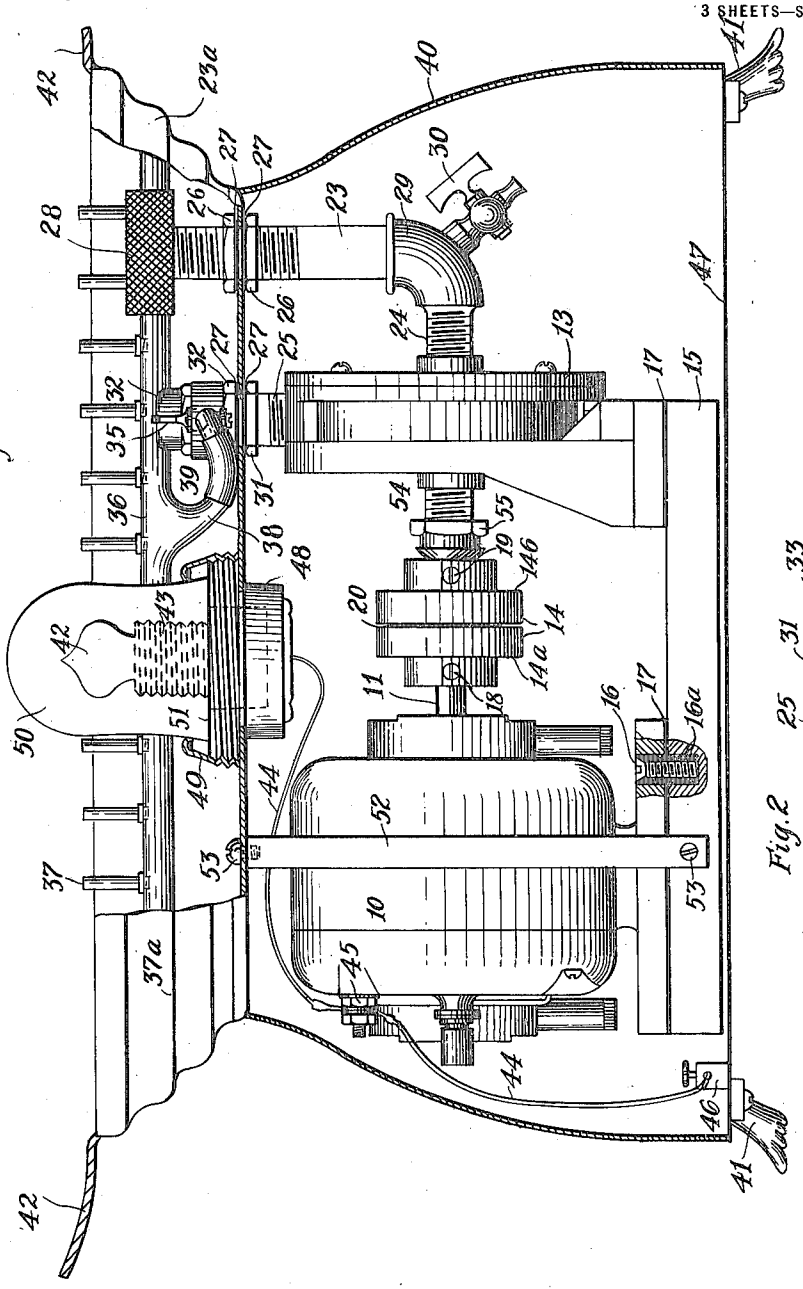
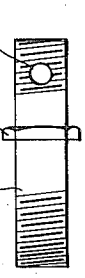


Fig. 2



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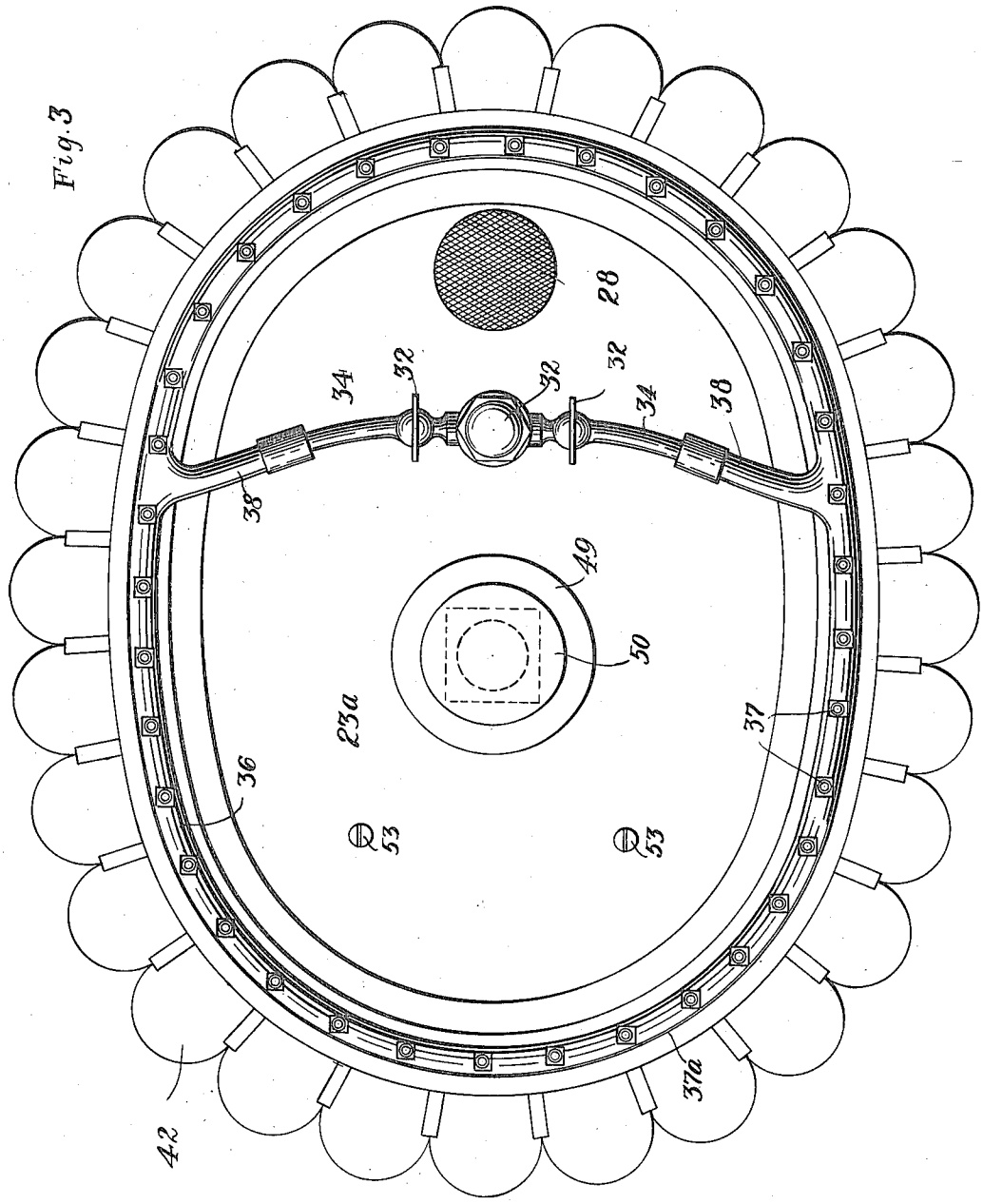
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3 SHEETS—SHEET 2.

Fig. 3



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3 SHEETS—SHEET 3.

Fig. 4

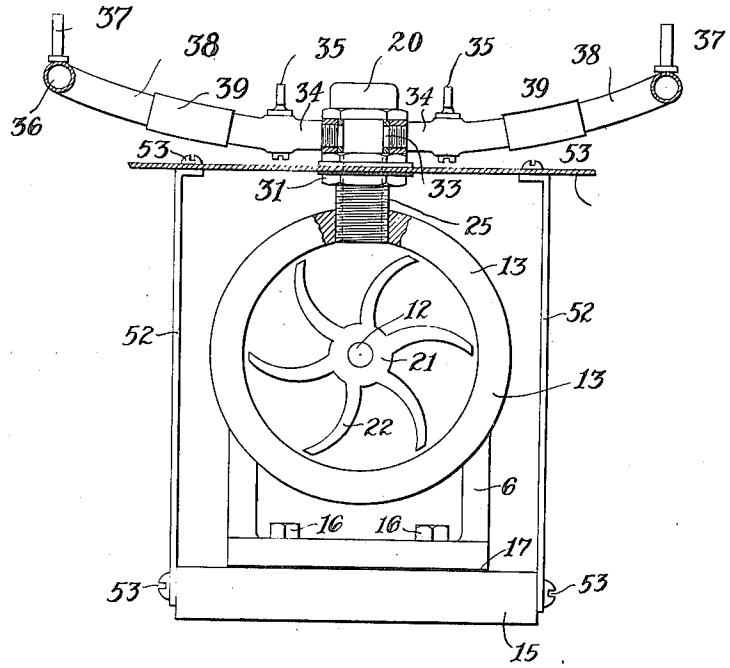
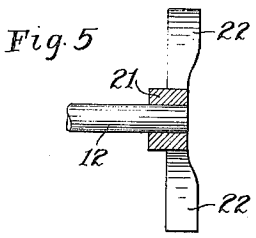


Fig. 5



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ELECTRIC WATER-FOUNTAIN.

1,136,995. Specification of Letters Patent. Patented Apr. 27, 1915.

Application filed April 3, 1911. Serial No. 618,644.

To all whom it may concern:

Be it known that I, ORLANDO F. BATTAGLIA, a citizen of the United States, and resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Electric Water-Fountains, of which the following is a full, clear, and exact specification.

This invention relates more particularly to an electrically operated water fountain of a construction so as to be easily portable, and permitting said fountain to be placed wherever desired, such as upon a table, bracket, or any other suitable support.

My invention has for its object primarily, to provide an electric water fountain, which, when filled with a proper quantity of water, will operate by having the water continuously circulated therein, thus dispensing with the necessity of using an outside source for the supply of water to the fountain.

Another object of my invention is to construct an electric water fountain of simple arrangement and of relatively small and compact size, which may be made at a moderate cost of manufacture.

My invention further consists in employing means adapted to readily adjust the water jets projected from the fountain for regulating the force of the jets, and to provide a further adjustment of the several jets to produce uniformity in the shape of the sprays of water.

A still further object of my invention is to provide means for attractively illuminating the water, as it is projected from the fountain, by electricity, whereby either a spectral effect may be obtained or any color thrown upon the water, as desired.

A practical embodiment of my invention is represented in the accompanying drawings forming part of this specification, in which similar characters of reference indicate corresponding parts in all the views, the said invention being more fully described hereinafter and then pointed out in the appended claims.

In the drawing, Figure 1 is a front-view of my improved apparatus, the outer part thereof being shown in cross-section. Fig. 2 is a detail front-view of a discharge tube forming part of my apparatus. Fig. 3 is a plan-view of my improved apparatus. Fig. 4 is an inside view, representing a centrifugal pump employed in my apparatus for supplying water through a supply-tube to the nozzles of the fountain. Fig. 5 is a detail view of the rotating element of said pump.

My electric water fountain comprises an electric motor 10 of any preferred design, the shaft 11 of which is connected with the shaft 12 of a turbine or centrifugal pump 13 by means of an adjustable metal coupling 14. Said motor 10 and said pump 13 are mounted upon a bed-plate 15 by any convenient means, for instance, by a number of screws 16, which are preferably rubber-bushed, as indicated at 16^a, in Fig. 1. Between the bed-plate 15 and each of the bases of motor 10 and pump 13 is inserted a rubber-pad 17 for the purpose of securing a smooth and noiseless running of the motor and pump. The motor 10 and the pump 13 are positioned so as to have the shafts directed in a horizontal line and in alinement so as to be easily coupled one to the other. The coupling 14 more particularly consists of two identical parts 14^a and 14^b, the former being mounted upon the shaft 11 of the motor by a set-screw 18, and the latter upon the shaft 12 of the pump 13 by a set-screw 19. In order to properly adjust the two parts 14^a and 14^b of the coupling a rubber-sheet 20 is inserted between the faces of the two parts of the coupling, as indicated at 20 in Fig. 1. The rubber-pads 17 and 20, as well as the rubber-bushings 16^a, will particularly contribute to secure a smooth and noiseless running of the motor and pump.

The shaft 12 of the turbine or centrifugal pump 13, as indicated in Fig. 5, carries the turbine wheel 21 having a number of properly curved arms 22, which will press the water introduced into the pump against the casing thereof in a radial direction. The water-conduits for the pump 13 consist of a vertical supply-tube 23 suitably mounted in the casing of the pump and carrying interiorly thereof the shaft 12, and a vertical discharge-tube 25. The vertical supply-tube 23 is conducted through a suitable opening in the bottom of the basin 23^a and held thereto by means of nuts 26 on opposite sides of said bottom, said tube 23 being provided at its upper part with a thread fitting into said nuts 26. Between the bottom of the basin and each of the nuts 26 is inserted a rubber-washer 27 to secure a tight and water-proof connection between the bottom of the basin and the tube 23. The upper

part of tube 23 extends to a proper height in the basin to receive water therefrom, and is provided at its end with a screen 28 or similar appliance to prevent dirt or air-bubbles from entering the supply-tube 23. The connection between the supply-tube 23 and the horizontal tube 24 is secured by an elbow 29, which may be soldered to said tubes 23 and 24 or tightened therewith in any other suitable way. A cock 30 is fitted into said elbow for removing the water from the supply-tube 23, when out of operation. The tube 24, as shown in Fig. 1, discharges horizontally into the casing of the pump and carries the water to the wheel 21, from which it is thrown into the discharge-tube 25. The discharge-tube 25 is carried vertically through an opening formed in the bottom of the basin 23^a, in a similar manner as described for the supply-tube 23, and said discharge tube 25 is provided with a flange 31 abutting against the underside of the bottom of the basin. The discharge tube 25 has a threaded end extending through the bottom of the basin and upon said threaded end at the top-surface of the basin is a cap 32. The lower end of the discharge-tube is similarly threaded into the casing of the pump 13 at its upper part, as clearly represented in Figs. 1 and 2. Between the bottom of basin 23^a and said flange is interposed a rubber-washer 27, and another washer is likewise interposed between said bottom and the nut 32, for providing a water-proof connection between the discharge-tube and the bottom of the basin. At the upper end of discharge-tube 25, which extends into the basin 23^a, are provided openings 33—33 at diametrically opposed sides of the tube, said openings forming passages for the branch-conduits leading from the cap 32. The cap 32, as shown in Figs. 1 and 3, has a wrench seat and is threaded upon the discharge-tube 25 thereby closing its upper end, and said cap is further provided with two integral branch tubes 34, the passages of which communicate with the openings 33, to receive the water therefrom. A valve 35 is inserted in each of the said branch-tubes 34, as shown in Figs. 1 and 3, said valves permitting a regulation of the quantity of water conducted through one of the branch-tubes with respect to the quantity of water carried through the other, as well as a general regulation of the water discharged by the pump.

A ring shaped tube 36, having a number of evenly spaced nozzles 37 extending upwardly therefrom, is placed in the basin 23^a and is of a form so as to run parallel with the circumference thereof. The ring-shaped tube 36 is preferably supported upon a ledge 37^a extending around the basin, as shown in Figs. 1 and 3 of the drawings. At two points of the ring-shaped tube 36, conduits 38 are projecting toward said branch tubes 34 and are connected therewith by sleeves 39, which may be made of any suitable material, such as rubber.

The water-basin is of oval or elliptical shape, and is mounted upon a hollow support or casing 40, as shown in cross-section in Fig. 1, said casing inclosing the motor 10, pump 13 and the appliances connected therewith as above described. The casing 40 may be made of any suitable material and of plain or ornamental design, and is provided with a number of feet, as at 41.

Along the upper circumference of basin 23^a are provided catch-flanges 42, which may be of glass or other material. Said catch-flanges form a catch-basin for collecting all water distributed from the jets projected from the nozzles 37 and from which it returns to the main-basin.

For illuminating the water-mass projected through the nozzles 37, I employ an electric incandescent lamp, mounted in a socket 43, which is connected in the ordinary manner by a wire 44 with one terminal 45 of the motor 10 and from there to a binding-post 46, all as shown by what is called a "single-wire diagram" in Fig. 1. The binding post 46 may be secured to the base of the casing 48, said base being indicated by the line 47 in Fig. 1 of the drawings. The lamp 42 is mounted in the bottom of the basin and for the purpose of providing a water-proof connection therefor a brass cup 48 is soldered into an opening formed in the bottom of the basin, said brass cup having a threaded upper edge, upon which a ring-like brass-band 49 may be screwed. The band 49 is formed so as to snugly fit around a glass-globe 50 which is vertically disposed centrally of the fountain and has an outwardly curved lower end in order to be gripped by an interiorly extending rim of the brass-band. To secure a water-proof engagement between the glass-globe and the upper part of said cup, a rubber washer or flat rubber band 51 is inserted therebetween.

As further means for supporting or interconnecting the different parts of my apparatus, I provide standards 52, each having its upper end bent at a right angle and which is screwed, as at 53 to the bottom of the basin and to the bed-plate 15. Also for water-proofing the passages through the casing of the pump in which the shaft 12 rotates, I employ a tube 54 which is exteriorly threaded, connected to the turbine casing opposite to tube 24. The tube 54 has a nut 55 screwed upon the end which is directed toward the coupling 14. The nut 55 is conical at one of its ends, and the shaft 12 of the pump is passed horizontally therethrough.

In operating my improved water fountain the basin 23^a is filled with a proper quan-

tity of water for supplying the centrifugal pump 13 through the screen 28 and tubes 23 and 24. The pump being driven by the motor 12 discharges the water introduced thereinto through tube 25, openings 33, valves 35 and branch-tubes 34 into the ring-shaped tube 36, from whence it is projected upwardly through the nozzles 30 in a corresponding number of water-jets. All water falling down from said jets will be collected by the catch-flanges 42 and basin 23^a, from whence it will in turn be supplied to the centrifugal pump 13 in a continuous and uninterrupted circulation.

In the foregoing description I have embodied the preferred form of my invention, but I do not wish to be understood as limiting myself thereto, as I am aware that modifications can be made therein without departing from the principle or sacrificing any of the advantages of this invention, therefore I reserve to myself the right to make such changes as fairly fall within the scope thereof.

Having thus described my invention I claim as new and desire to secure by Letters Patent:

1. An electric water fountain having in combination, a base, a casing, a frame, an outer casing and a support, within the casing an electric motor mounted in bearings, and upon a horizontal shaft, said shaft adapted to serve as a drive shaft, a centrifugal pump having a horizontal shaft mounted in bearings, said shaft being in alinement with the shaft of the motor, and having connections with the drive shaft whereby the power from the drive shaft is transmitted to the shaft of the pump, a basin surmounting the casing of the structure adapted to contain water, a supply pipe connecting the basin with the pump, an open mesh metal strainer over the inlet to the pipe and a joint provided in the pipe, a cock for connecting a hose with the pipe, a transmission pipe leading from the pump upwardly to the basin, a tubular ring concentric with the wall of the basin positioned in a horizontal plane, branch pipes connecting the transmission pipe with the opposite sides of the tubular ring, a cock in each of the branch pipes for regulating the flow of water to the tubular ring, a plurality of nozzles seated in the upper side of the tubular ring, and an electric lamp centrally located in the bottom of the basin, means for supplying said lamp and said electric motor with electrical energy, and a globe of glass surrounding the electric lamp, all arranged and combined to operate in the manner set forth and for the purposes stated.

2. An electric water fountain of the character described, having in combination with a support, a frame and a base and a casing, an open basin of elliptical contour, and having slanting slides, and extended flanges; within the casing beneath the basin mounted upon bearings and fixed to the base, an electric motor and a turbine pump, means for connecting the motor with a source of electrical supply, and means for transmitting the power from the motor to the pump, comprising a drive shaft forming a part of the engine positioned in a horizontal plane, and a horizontally disposed rotatable shaft forming a part of the pump and engaging with the drive shaft of the motor in such manner that the power of the motor is transmitted to the pump, a pipe leading from the basin to the pump having a grating over the inlet, and having a cock provided in a joint for connecting with a hose adapted to conduct water as may be required, a transmission pipe leading from the pump to the basin, and a tubular ring having connected therewith a plurality of nozzles, at spaced intervals in the tubular ring on the upper surface thereof, a plurality of branch connecting pipes leading from the transmission pipe to the tubular ring, a cock in each connecting pipe adapted for regulating the flow of water through the pipes, a glass globe adapted to exclude moisture, seated in the bottom of the basin, and an electric lamp seated within the glass globe and means connecting the lamp with a source of electrical energy, substantially as set forth and for the purposes stated.

This specification signed and witnessed this first day of April A. D. 1911.

ORLANDO F. BATTAGLIA.

Witnesses:

ROBT. B. ABBOTT,

E. M. JERKE.