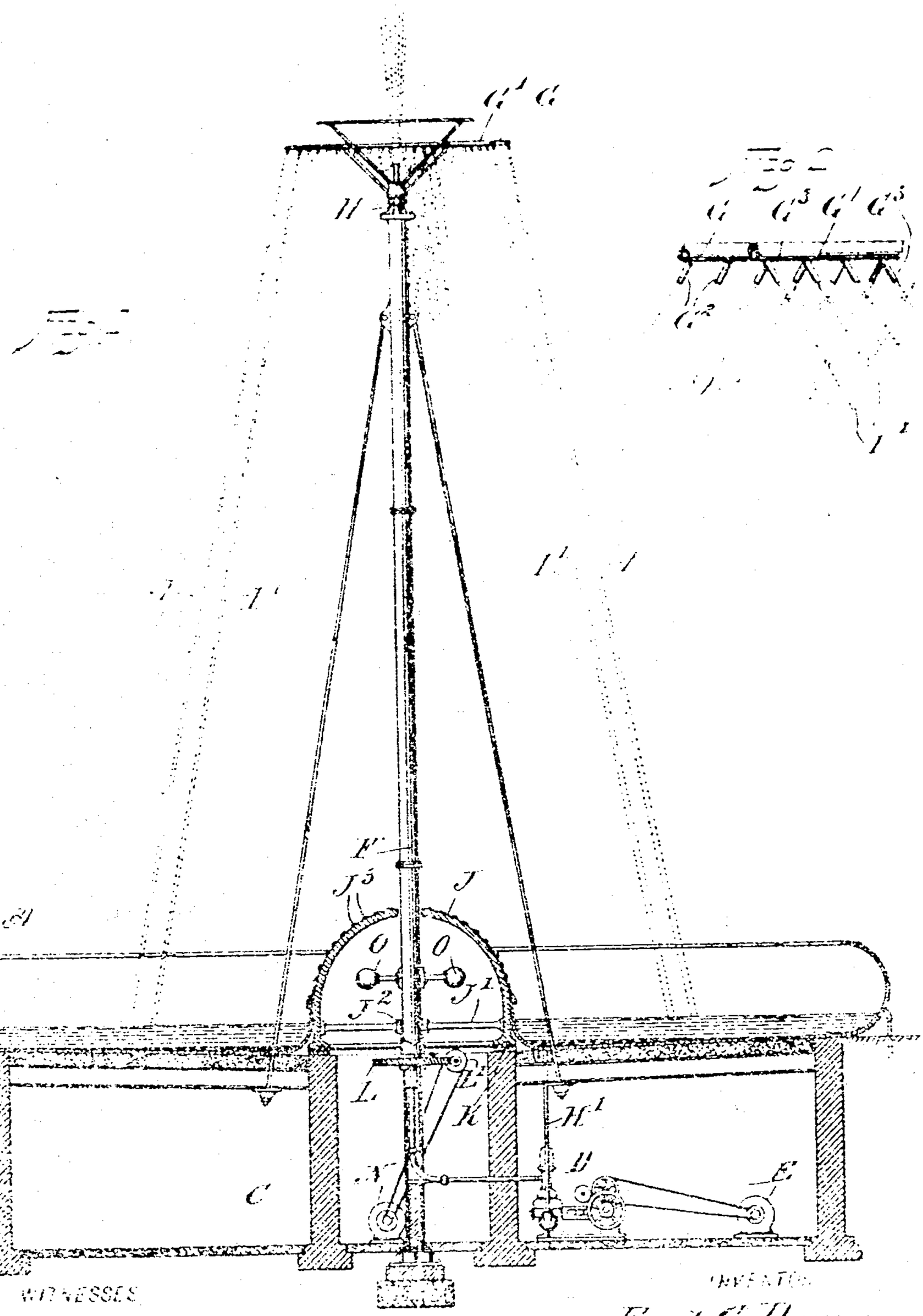
No. 755,114. PATENTED MAR. 22, 1904.

F. C. DAMM.

FOUNTAIN.

APPLICATION FILED MAY 2, 1903.

NO MODEL. 2 SHEETS—SHEET 1.



WITNESSES

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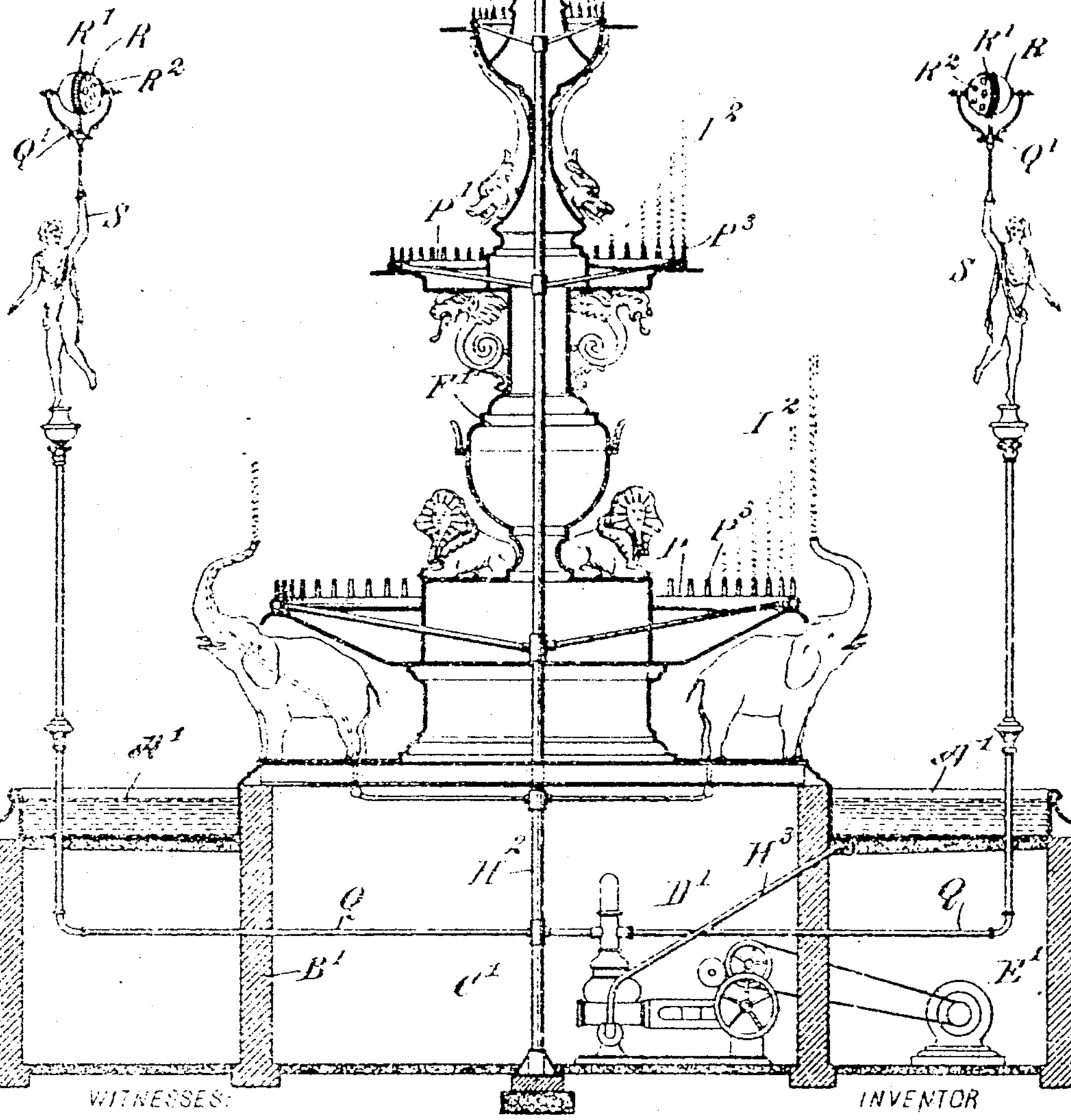
FIG. 3



WITNESSES:

INVENTOR

Fred C. Damm.

BY

ATTORNEYS.

755,114

March 22, 1904
page 1

755,114. FOUNTAIN. Fredrich C. Damm, Guthrie, Okla. Filed May 2, 1903. Serial No. 155,375. (No model.)

To all whom it may concern:

Be it known that I, FREDRICH C. DAMM, a citizen of the United States, and a resident of Guthrie, in the county of Logan and Territory of Oklahoma, have invented a new and Improved Fountain, of which the following is a full, clear, and exact description.

The invention relates to hydraulic engineering; and its object is to provide a new and improved fountain arranged to produce color effects of great brilliancy by the use of mercury as the flowing medium and colored electric lights.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is an enlarged side elevation of part of the concentric jet-pipes and their nozzles, and Fig. 3 is a sectional side elevation of a modified form of the improvement.

The improved fountain (illustrated in Figs. 1 and 2) is provided with a suitably-constructed basin A of circular or other shape, mounted on a foundation B, containing a room C for containing a pump D, dynamo E, and other suitable machinery necessary for the proper operation of the fountain. A column F rises centrally in the basin A and supports at its upper end concentric jet-pipes G and G′, preferably made ring shape, and provided at their under side with nozzles G^2 and G^3, extending downwardly and slightly outwardly, as plainly indicated in Fig. 1, and the said jet-pipes G and G′ are connected by branch pipes with the upper end of a stand-pipe H, leading from the discharge end of the pump D, connected at its suction end by a pipe H′ with the bottom of the basin A. Now the flowing medium for the fountain is mercury, forced by the pump D through the stand-pipe H to the jet-pipes G and G′, so that the nozzles G^2 G^3 thereof throw jets of mercury I and I′ downward and slightly outward into the basin A, as plainly indicated in Fig. 1, and into the water standing in the said basin, so that the falling of the mercury into the water produces extremely loud sounds, and at the same time the water prevents spattering of the mercury, as the water is of less specific gravity than the mercury, and consequently the mercury passes through the water to the bottom of the basin to return by the pipe H′ and the pump D to be reused, as above described. The nozzles G^2 and G^3 stand at right angles one to the other, as plainly indicated in Fig. 2, so that the jets I and I′ cross each other, thereby producing diamond-shaped spaces, as indicated in the said figure, to heighten the effect and brilliancy of the appearance of the fountain.

In the middle of the basin A also rises a hemisphere J, having its base mounted on a suitable annular ball-bearing K, supported on the foundation B, and the said hemisphere J is provided with arms J′, attached to a hub J^2, mounted to rotate on the column F, and on the said hub J^2 is secured a worm-wheel L in mesh with a worm L′, driven from a suitable motor N, located in the room C. Thus when the motor N is set in motion a slow rotary motion is given to the hemisphere J, preferably studded with search-light lenses J^3, illuminated from within the hemisphere J by powerful electric lamps O, connected with a suitable source of electricity located in the room C. Now by the arrangement described the colored rays of light emanating from the lenses J^3 intersect in rotation the different jets of mercury I and I′ and produce a very fine effect, mainly owing to the reflection of the rays from the flowing or dropping metallic medium.

In the fountain illustrated in Fig. 3 a basin A′ is mounted on a foundation B^2, containing a room C′ for a pump D′, motor E, and the like, and the standard F′, rising from the middle of the basin A′, is highly ornamental, and a plurality of circular jet-pipes P, P′, and P^2 are disposed one above the other and preferably made of different diameters, and each pipe P, P′, and P^2 is provided with upwardly-extending nozzles P^3, through which the mercury is projected in an upward direction, to then fall down into the water in the basin A′, to finally return by a pipe H^3 to the pump D′, which forces the mercury upward through a stand-pipe H^2 to the pipes P, P′, and P^2. Mercury-supply pipes Q also lead from the pump

D′ to jets Q′, each directed against the toothed or roughened peripheral surface R′ of a sphere R, mounted to turn in suitable bearings on a bracket S, forming an inclosure for the pipe Q, as plainly indicated in Fig. 3, the said sphere R being provided on the side opposite the jets of mercury I^2 with search-light lenses R^2, and in each sphere R is a powerful electric lamp for sending colored rays of light through the lenses R^2 to the jets of mercury I^2 to illuminate the same in a manner similar to the one described above in reference to Fig. 1. The supply-wires for the electric lamps in the sphere R pass through the trunnions of the sphere and through the brackets S to a suitable source of electrical supply in the room C′. Now it is evident that by the jets of mercury directed by the nozzle Q′ against the sphere R the latter is rotated similarly to the hemisphere J, so that the colored rays of light emanating from the lenses R^2 successively intersect the jets of mercury I^2 from the nozzles P^3.

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

1. A fountain comprising a receptacle, a source of fluid-supply therefor, jet-pipes disposed above said receptacle and communicating with the source of fluid-supply, and nozzles provided in said jet-pipes; a part of said nozzles being arranged at an angle to the remaining part, whereby to project the fluid streams to produce a lattice or trellis extending from the jet-pipes to the receptacle, substantially as specified.

2. A fountain comprising a receptacle, a source of fluid-supply therefor, jet-pipes disposed above said receptacle and communicating with the source of fluid-supply, nozzles provided in said jet-pipes; a part of said nozzles being arranged at an angle to the remaining part, whereby to project the fluid streams to produce a lattice or trellis extending from the jet-pipes to the receptacle, and illuminating devices disposed in proximity to said lattice or trellis adapted to project beams of light thereupon, substantially as specified.

3. A fountain having concentric jet-pipes provided with nozzles, extending downwardly and outwardly, the nozzles in one pipe standing in an opposite direction to the nozzles in the other pipe, to cause the streams of liquid issuing from the nozzles to cross each other, to form diamond-shaped spaces, as set forth.

4. A fountain having a basin, a hemisphere rising centrally in the basin and provided with colored electric lights, a stand-pipe rising centrally in the basin, through the hemisphere jet-pipes arranged concentrically on the said stand-pipe and connected therewith, and nozzles in the said jet-pipes, extending downwardly and outwardly, to throw their streams of liquid into the basin, as set forth.

5. A fountain having a basin, a hemisphere rising centrally in the basin and provided with colored electric lights, a stand-pipe rising centrally in the basin, through the hemisphere, jet-pipes arranged concentrically on the said stand-pipe and connected therewith, and nozzles in the said jet-pipes, extending downwardly and outwardly, to throw their streams of liquid into the basin, the nozzles in one pipe standing in an opposite direction to the nozzles in the other pipe, to cause the streams of liquid issuing from the nozzles to cross each other, to form diamond-shaped spaces, as set forth.

6. A fountain provided with a basin adapted to contain water, and jets of mercury falling into the water, to produce loud sounds and to prevent the mercury from spattering and being lost, as set forth.

7. In a fountain, an illuminating device comprising a rotatable casing, translucid sections therein, a bearing for said casing, means for illuminating said casing, an annular section encircling said casing having angular faces, and operating means adapted to coöperate with the angular faces of the annular section to rotate the casing, substantially as specified.

8. In a fountain, an illuminating device comprising a rotatable casing, translucid sections therein, a bearing for said casing, means for illuminating said casing, an annular section encircling said casing, having transverse angular faces, and operating means adapted to cooperate with the angular faces of the annular section to rotate the casing; substantially as specified.

9. In a fountain an illuminating device comprising a rotatable casing, means for illuminating the same, translucid sections irregularly arranged in said casing, trunnions arranged upon opposite sides of said casing, an annular band encircling said casing intermediate the trunnions thereon, transverse serrations arranged upon said annular band, a bearing for said casing, a source of fluid-supply, and a nozzle arranged on said bearing communicating with the source of fluid-supply adapted to project the operating fluid against the serrations of the band encircling the casing whereby to rotate said casing, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRED. C. DAMM.

Witnesses:

H. H. ELDREDGE,

J. H. BENNETT.