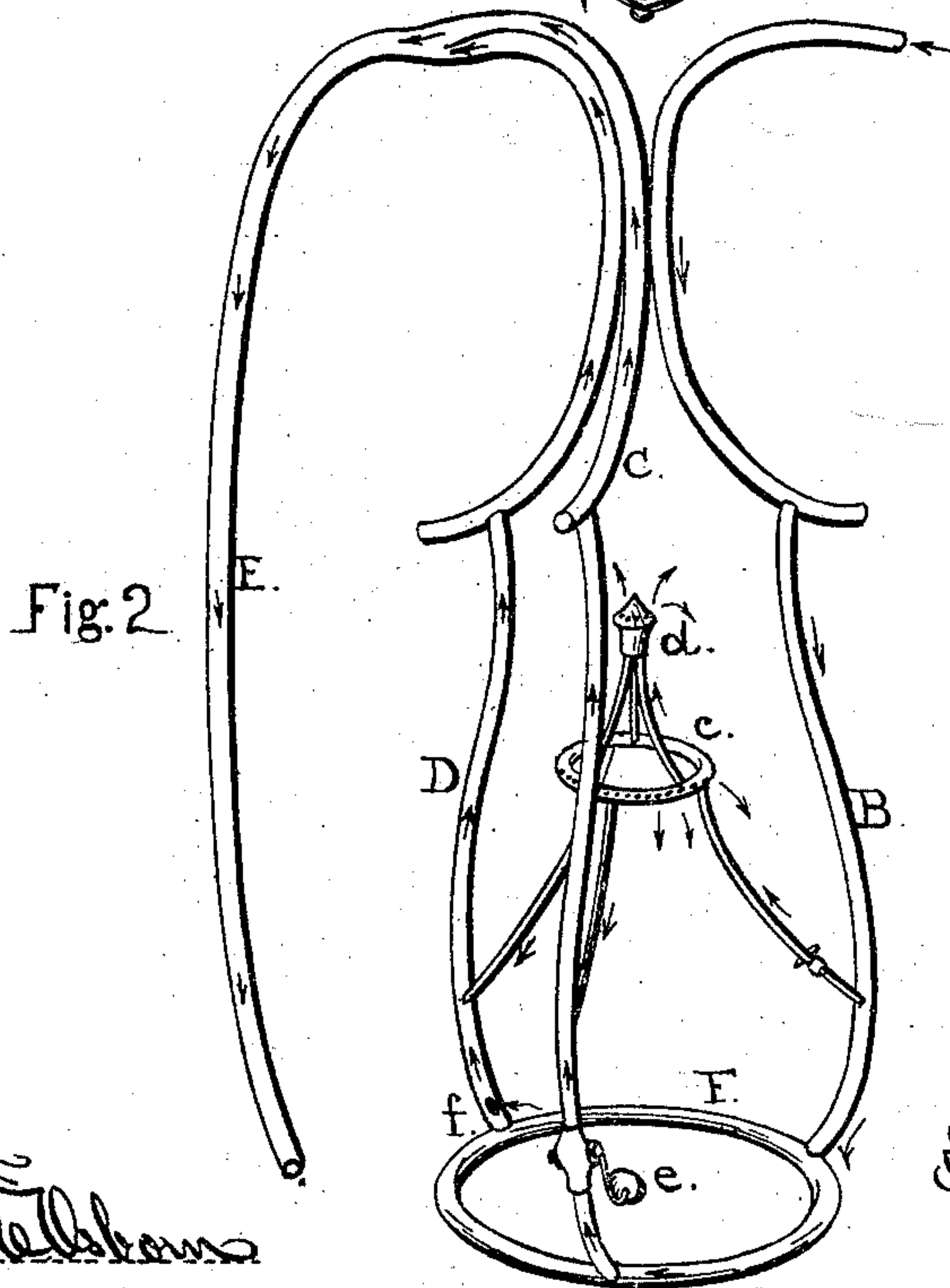
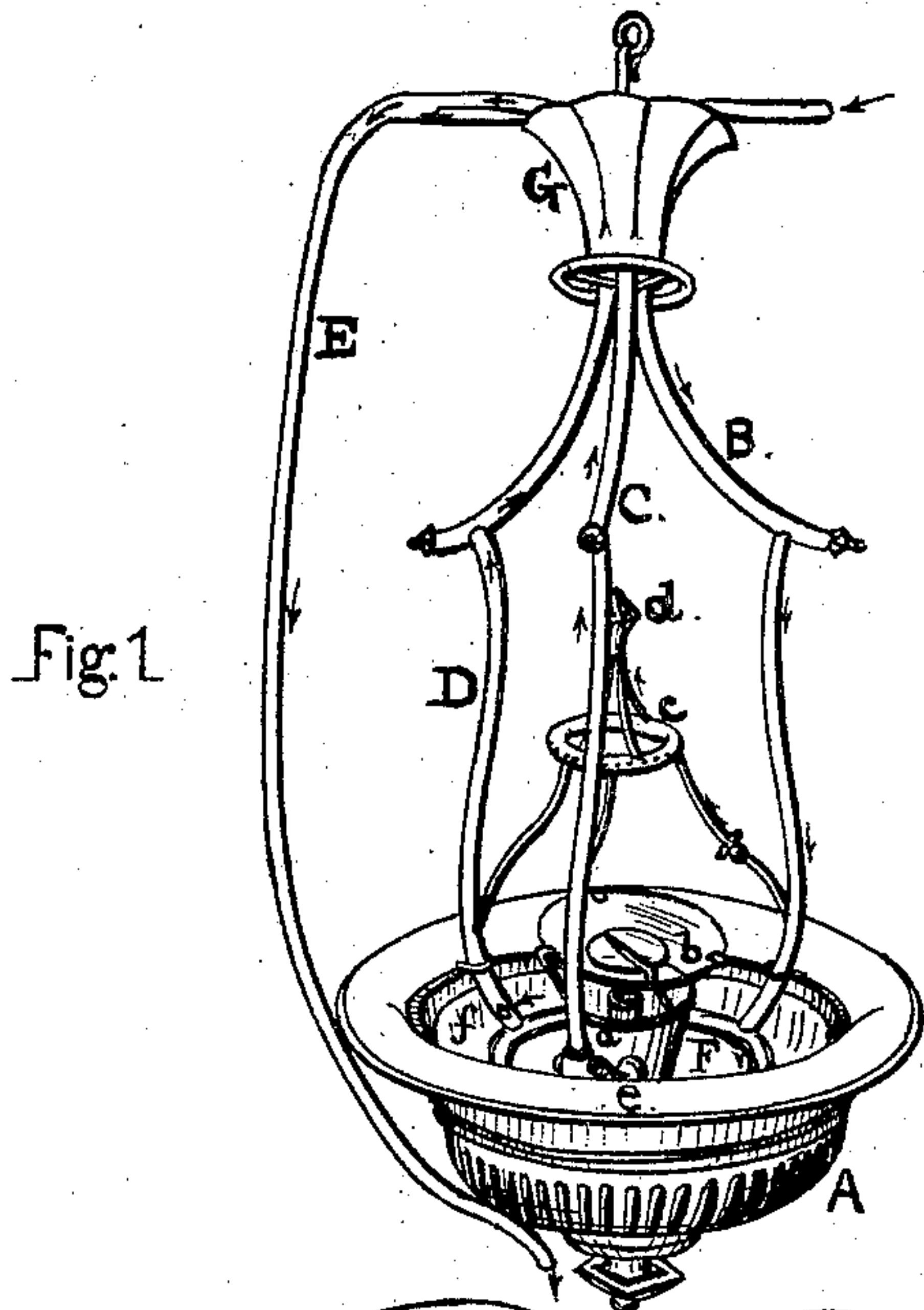


F. I. SHAFER.

HANGING, OR PORTABLE FOUNTAIN.

No. 171,437.

Patented Dec. 21, 1875.



Witnesses
Edward T. Johnson
J. B. Lu Gar

Inventor
Frank I. Shafer
By C. N. M. Smith
his Attorney

UNITED STATES PATENT OFFICE

FRANK I. SHAFER, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN HANGING OR PORTABLE FOUNTAINS.

Specification forming part of Letters Patent No. 171,437, dated December 21, 1875; application filed June 25, 1875.

To all whom it may concern:

Be it known that I, FRANK I. SHAFER, of San Francisco, State of California, have invented a new and Improved Hanging or Portable Fountain, of which the following is a specification:

My invention consists in a novel construction of portable fountains for purposes of ornament and illumination. It is composed of a glass bowl or basin, having a receptacle for a light, and a series of supply and discharge pipes provided with valves or cocks, and so arranged, in connection with a set of perforated pipes, that the water is led into the fountain and thrown in a spray or a number of jets over and around the light into the basin, and from thence drawn in a regular and automatic manner, as the water rises to the rim of the basin. By this is produced an illuminated self-operating fountain for parlors, conservatories, show-windows, &c., as will be fully described hereinafter.

In Figure 1 of the accompanying drawing, to which reference is made, is seen a perspective view of my fountain, with its basin A; cone and reflector *a b*, to hold the light; supply-pipe B, conducting the water to the jets *c d*; and discharge-pipes C D, connected with the pipe E, to draw off the water from the bowl or basin whenever its level reaches a certain height. These several pipes spring from the ring F within the basin, and rise in a curved or other suitable and ornamental form, to the top, where they are brought together and surrounded by the reflector G. In the center of the ring, within the basin, is placed the cone *a* and reflector *b*, to hold and protect the light, and above them, and connected with the pipes B C D by small branch pipes, are the perforated jets *c d*, through which the water is discharged in a spray around and over the light and into the bowl.

Fig. 2 shows the arrangement of the pipes detached from the bowl. B, the inlet-pipe, conducts the water to the ring F, and supplies the perforated jets *c d* through the branch pipe *g*. C, the second of the series, also connected with the ring F, has a valve operated by the ball-float *e*, that rises with the level of the water in the bowl and opens the valve when the water reaches a certain height.

This causes the water from the pipe B and the ring F to flow up through the pipe C and out through the discharge-pipe E, and, by creating a vacuum in the pipe D, causes the water in the bowl to be drawn off through the opening *f*, in the lower part of the pipe, and thence through the pipe E. The jet-pipes *c d* are supplied through the small pipes connected with them and with the pipes D F.

The pipes D E, as thus arranged, constitute a siphon, the water being drawn up through the opening *f*, within the basin, and discharged at the lower end of the pipe E, below the bottom of the basin, when the siphon is charged by the pipe C.

These pipes may be arranged with a gas-pipe to supply a burner placed within the cone *a*, instead of using the light of a lamp or candle, and in such case the pipe may take the same form as the other pipes, and be led from the top of the fountain down into the basin.

These several pipes and jets may be formed and arranged in any desired shape to give the fountain an ornamental appearance, and the shape and number of the perforated jets may be changed without affecting the character of my invention, which consists, essentially, of the supply-pipe B and the discharging and siphon pipes C D E, provided with suitable valve and openings, connected together by the pipe F, and combined with the bowl or basin A.

In the operation of the fountain the pipe B is connected with a service-pipe or other source of supply, and the water led by it to the jets *c d* is thrown in a spray, and caught by the bowl A, until the water-level rises high enough to act upon the ball-float *e*, and thus open the valve in the pipe C, when the water will flow up through the pipe and charge the siphon D E, and cause it to draw off the water in the basin until its level is reduced to a certain point. The float *e* will then fall and close the valve, and arrest the flow of water from the fountain.

In this manner the fountain acts automatically to keep the water in the basin always below a certain level, to prevent any overflow, and consequently it may be suspended in rooms and store-windows without any danger of injuring the furniture or articles beneath it,

and, in connection with the light, it forms a beautiful illuminator, as the water in the glass bowl below, and the jets falling over and around it from above, act to soften and diffuse the rays and increase the brilliancy of the light.

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

1. A hanging self-operating fountain, constructed as described, consisting of the supply and siphon discharge-pipes B C D E, provided with the valve *e* and opening *f*, and connected together by the pipe F, combined and arranged with the basin A and the jets *c d*, in the manner shown and described.

2. In combination with the self-operating fountain, as above described, the cone *a* and reflector *b*, within the basin, to hold and protect the light, as set forth and specified.

3. The combination and arrangement of the siphon-pipe D E with the pipe C, provided with the valve and ball-float *e*, and connected with the pipe F, operating in the manner and for the purpose set forth and specified.

FRANK I. SHAFER. [L. S.]

Witnesses:

C. W. M. SMITH,
PHILIP MAHLER.