No. 620,592. Patented Mar. 7, 1899.

P. C. JUST.

ORNAMENTAL FOUNTAIN.

(Application filed Dec. 14, 1898.)

(No Model.) 2 Sheets—Sheet 1.

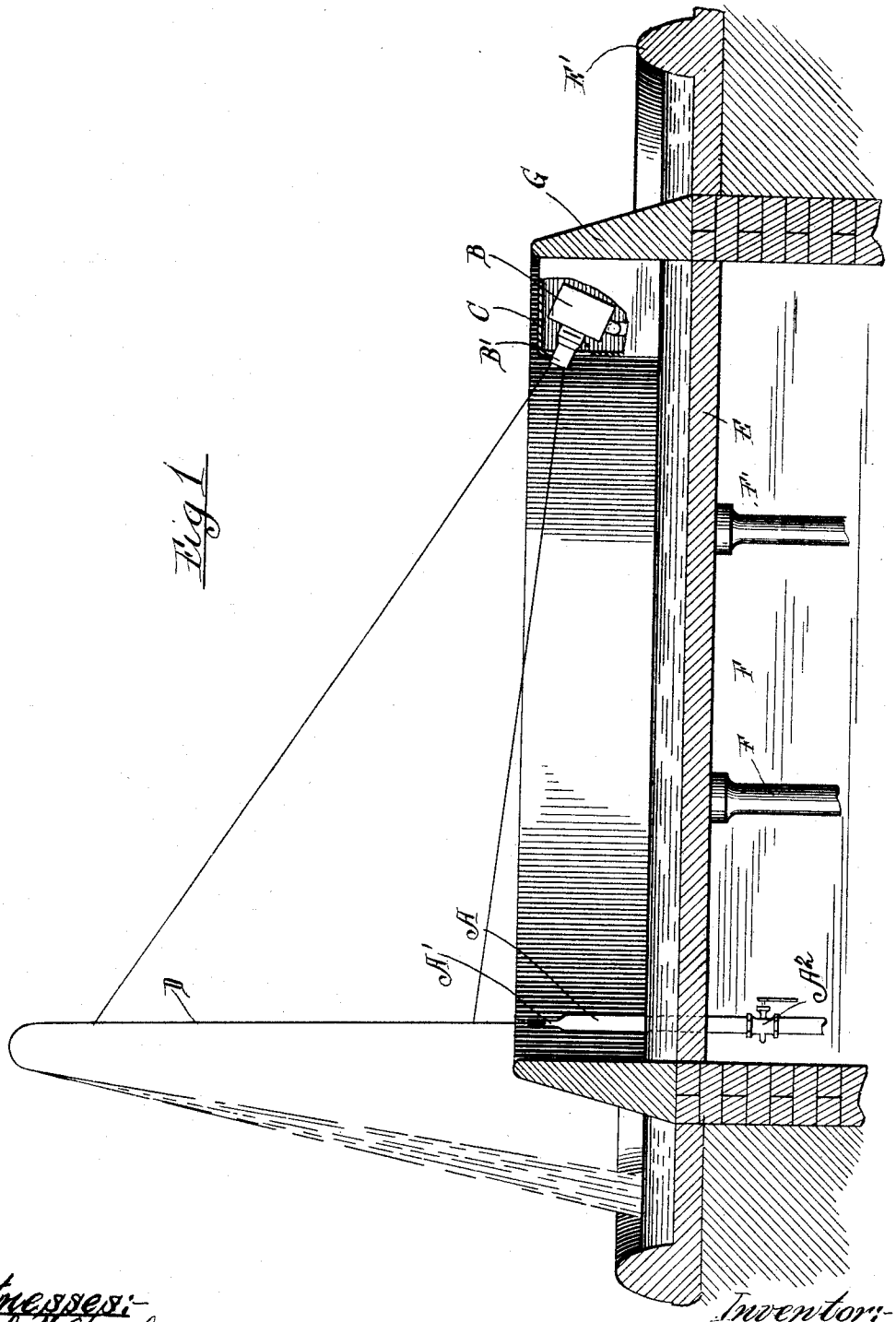


Fig 1

Witnesses:-
Earl H. Crawford
William L. Hall.

Inventor:-
Paul C. Just
by Poole & Brown his Attys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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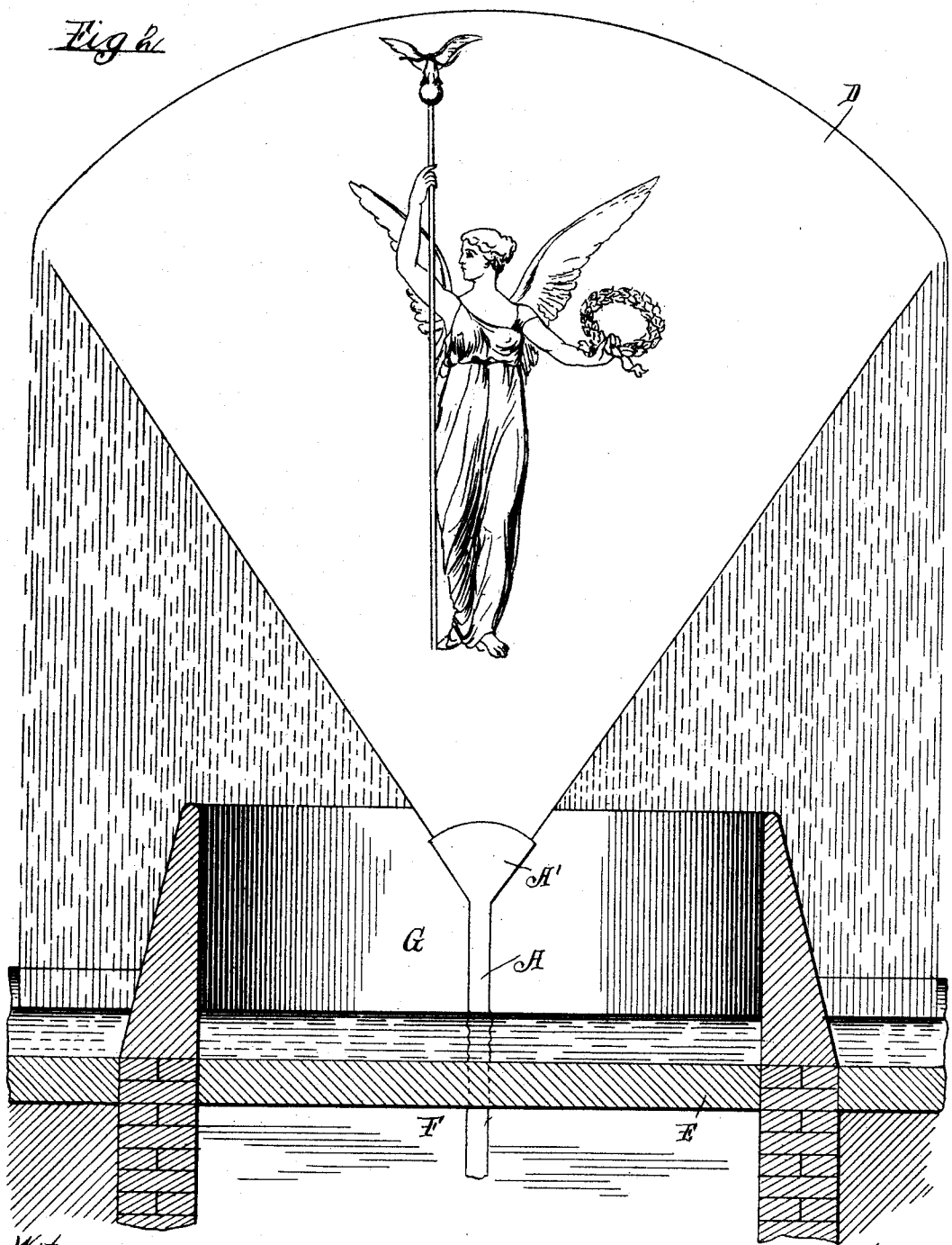
P. C. JUST.

ORNAMENTAL FOUNTAIN.

(Application filed Dec. 14, 1898.)

(No Model.) 2 Sheets—Sheet 2.

Fig 2.



Witnesses:-
Carl H. Crawford
Williams Hall

Inventor:-
Paul C. Just
by Poole & Brown his Attys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PAUL C. JUST, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO JOHN M. ROACH, OF SAME PLACE.

ORNAMENTAL FOUNTAIN.

SPECIFICATION forming part of Letters Patent No. 620,592, dated March 7, 1899.

Application filed December 14, 1898. Serial No. 699,220. (No model.)

To all whom it may concern:

Be it known that I, PAUL C. JUST, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ornamental Fountains; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in ornamental fountains, and refers more particularly to that class of fountains known as "illuminated" fountains and which are designed to be exhibited at night-time.

The invention consists in the combination of a nozzle or other means for throwing a flat jet or sheet of water into the air and a picture-projecting apparatus, such as a stereopticon or kinetoscope, so located with reference to said flat jet or sheet of water as to throw a picture or image upon said sheet, which latter takes the place of the screen usually employed in connection with projecting apparatus. Said sheet of water will preferably be directed from a nozzle of such form as to give to said flat jet or sheet a flaring or fan-like shape with the widest part thereof uppermost, and this arrangement permits a relatively wide sheet of water to be thrown from a single and relatively small discharge-pipe.

I have shown the invention in connection with a fountain of special form in which operative parts thereof are inclosed; but it will be understood that the form of the fountain may be varied to suit varying conditions.

In the drawings, Figure 1 is a transverse section taken centrally through a fountain provided with my invention. Fig. 2 is a section taken through said fountain at right angles to the plane of view in Fig. 1.

As shown in said drawings, A designates a vertical water-delivery pipe which is adapted to be connected at its lower end with a source of water-supply under pressure and is provided at its upper end with a nozzle A′, having a relatively long and narrow discharge-opening. Said water-pipe is provided with a valve A^2, by which discharge of the water therethrough is controlled. The nozzle A′ has preferably a flaring or fan-like form, so that the sheet or jet of water D, upon which the picture is projected, is of fan shape and of considerable width at its upper end and adapted to receive a picture of considerable dimensions.

B designates a picture-projecting apparatus of any preferred construction. Said apparatus will preferably be located within a water-tight inclosure C, which is provided on one side thereof with an opening through which the lens-tube B′ of the projecting apparatus extends. Said projecting apparatus is located at some distance at one side of the water-discharge pipe and arranged with its lens-tube directed in a plane at right angles, or practically so, to the plane of the flattened portion of the nozzle A of the water-pipe, so that the rays of light issuing from the projecting apparatus will be thrown at right angles upon the flat jet or sheet. In order to produce an image having clear and distinct outlines, it is necessary that the sheet or jet of water be of uniform thickness throughout. If the sheet be of varying thickness, the outlines of the image will be distorted, owing to the difference in reflection and refraction of the light.

In the special form of fountain embodying my invention, as herein illustrated, E designates a horizontal floor through which the water-pipe A projects and which is adapted to receive the water which falls from the upthrown jet D. A low wall E′ surrounds said floor to prevent the escape of water from the inclosure, and suitable outlets will be provided for draining the space inclosed by said wall. Under the central part of the floor E will desirably be located an excavation F of suitable size to receive such operative parts of the fountain as it may be desired to there locate, and said central part of the floor is supported upon columns F′ F′. Within the wall E′ is desirably located a second and higher wall G, adapted to completely close from view the water-discharge pipe A and projecting apparatus B, so that neither of these parts of the apparatus will be visible to an onlooker standing outside of said wall and on or below the level of the floor E. Said pipe A is shown as located closely adjacent to the wall G at one

side of the inclosure, while the projecting apparatus is located closely adjacent to the wall on the diametrically opposite side of said inclosure.

The arrangement herein shown and described is capable of producing extraordinary and exceedingly artistic and pleasing effects. The screen D, formed by the flat jet or sheet of water, is not visible at night or in the dusk or darkness, and in the preferred construction the water-discharge pipe from which the jet or sheet issues will not be visible, so that the image appears to the onlooker to be suspended or floating in the air. The projecting apparatus will preferably be arranged so as to focus the image at some distance above the wall G, and is also shown as pivoted to its support, so that the location of the figure upon the jet may be changed, and thus in the use of a stereopticon give the appearance of movement to said image. The upward movement of the water, although not visible in itself, has the effect of changing to some extent the position of the image with relation to the onlooker, so as to give said image an animated appearance. The outlines of the image are very plain and distinct and can be seen as well from the side of the sheet or jet remote from the projecting apparatus as from the side adjacent thereto. Instead of employing a projecting apparatus which projects still images upon the screen an apparatus may be employed, such as a kinetoscope, which projects animated or moving pictures with equally desirable and striking effects. It will of course be understood that a suitable flat sheet of water may be produced by the use of more than one jet or jet-nozzle.

The main or principal feature of my invention is involved in the use of a jet-nozzle or like device giving an upwardly-moving continuous sheet of water of uniform thickness in all its parts, upon which the picture is projected. The effect of the combination is distinctly novel and greatly increases the artistic value of illuminated fountains.

I claim as my invention—

The combination with means for producing a flat jet or sheet of water, of a picture-projecting apparatus located at one side of said sheet and adapted to project an image thereon.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two witnesses, this 5th day of December, A. D. 1898.

PAUL C. JUST.

Witnesses:
CHARLES W. HILLS,
R. CUTHBERT VIVIAN.