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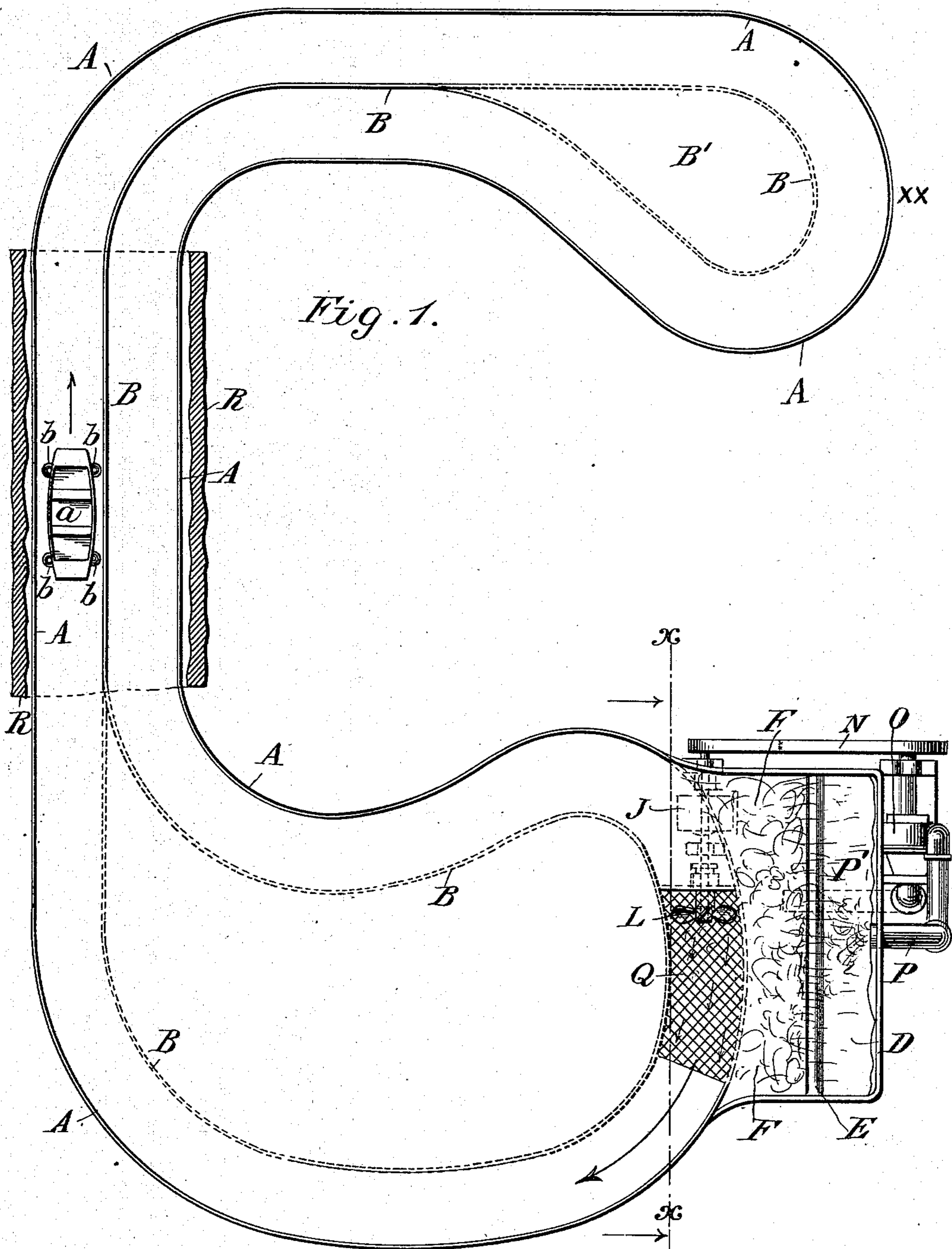
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EXHIBITION AND AMUSEMENT APPARATUS.

(Application filed Feb. 5, 1902.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

Fig. 2.

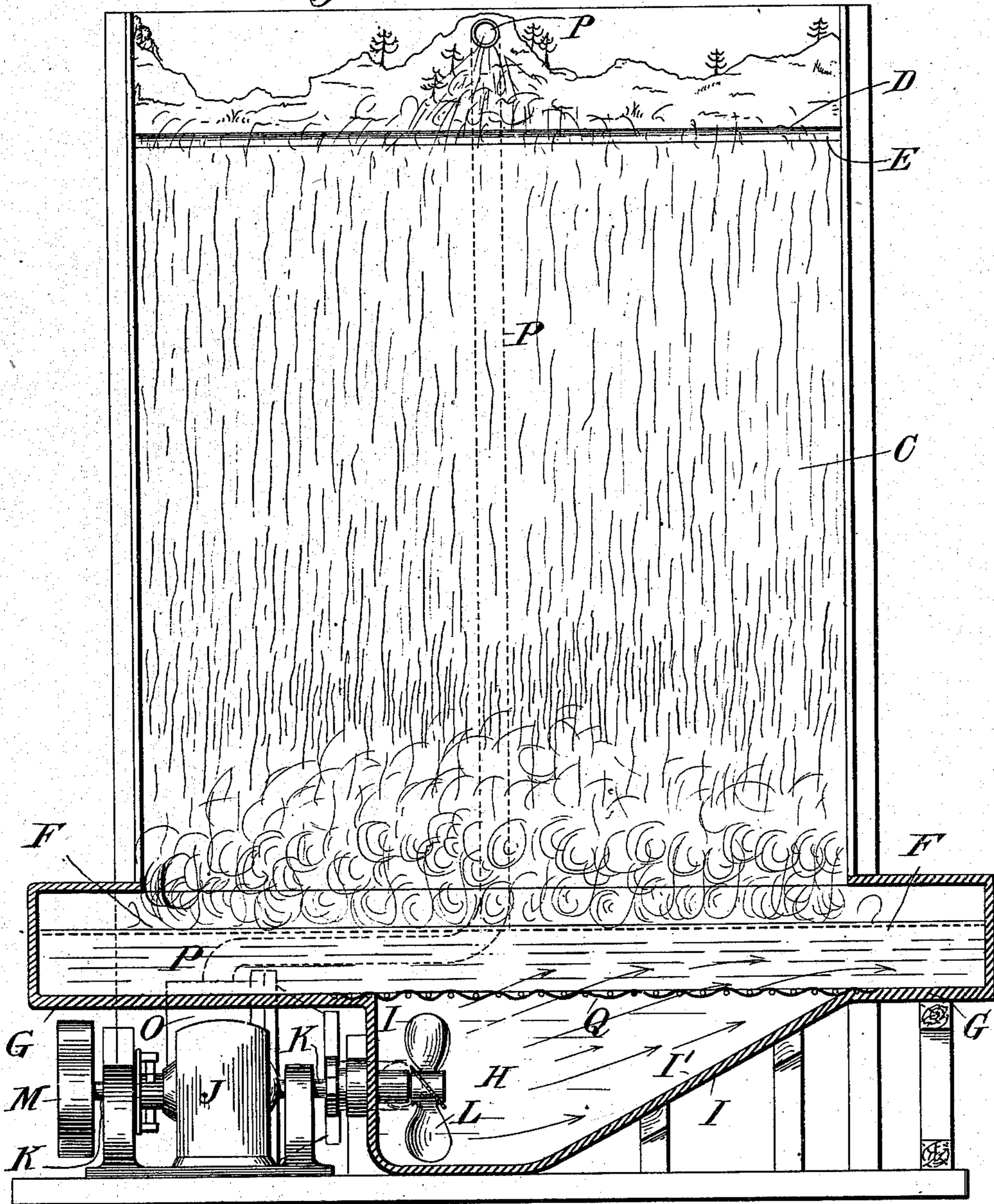
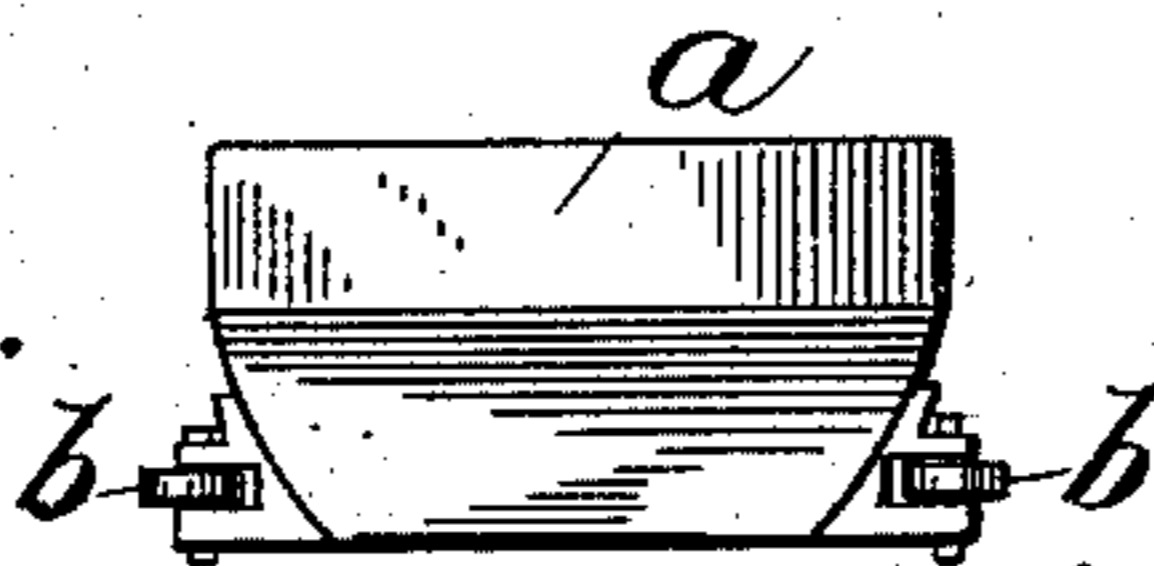


Fig. 3.



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EXHIBITION AND AMUSEMENT APPARATUS.

SPECIFICATION forming part of Letters Patent No. 714,717, dated December 2, 1902.

Application filed February 5, 1902. Serial No. 92,726. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. LAPORTE, a citizen of the United States, residing at No. 700 Hancock street, in the borough of Brooklyn, county of Kings, city and State of New York, have invented a new and useful Exhibition and Amusement Apparatus, of which the following is a specification, reference being had to the drawings accompanying this application, in which—

Figure 1 is a plan view of the apparatus partly in section. Fig. 2 is an elevation, likewise partly in section, taken on the line $x x$ of Fig. 1 and looking in the direction of the arrows in that figure; and Fig. 3 is an elevation of one of the ends of one form of boat or vessel which may be used in conjunction with the apparatus.

It will be obvious to those who are familiar with the general subject-matter involved in this invention that the details of the apparatus may be very greatly modified and that its essential principles may be employed in a great variety of special arrangements without departing from the essentials of the invention. It will therefore be distinctly understood that the construction and arrangement of the apparatus which I illustrate in the accompanying drawings is one plan only upon which the essential or salient features of the invention may be arranged.

The intent and purpose of the invention is to provide apparatus whereby an entertaining and, if so desired, an educational exhibition may be made of natural phenomena and such accessories thereto as may be desired. The instance selected for illustration in the drawings herewith is that of Niagara Falls or similar natural phenomena, in conjunction with a cavern or cave, together with open fields, the foliage of trees, &c. Obviously any other suitable natural or physical elements may be combined in this or some other adequate arrangement of the parts.

Referring now to the drawings, A illustrates an embankment or water-tight structure which is continuous in extent and which surrounds an inclosed space adapted to hold water to the depth of from one to several feet, preferably two feet, or thereabout. It may be made of timber, cement, brickwork, or otherwise, as preferred.

B illustrates a continuous partition or wall, which runs about centrally through the narrow portion of the space inclosed between the exterior walls A and at the ends this partition or wall B expands into two loop-shaped forms, being always about equidistant from the exterior bank or wall A. The construction and arrangement is preferably such that the upper edge of the partition B is slightly beneath the surface of the water—say two or three inches—so that its presence will not be readily detected. The partition may, however, if preferred, appear above the surface of the water; but if so the illusion is not so complete.

C (see Fig. 2) represents a waterfall, which falls from an elevated basin D over a beam or equivalent structure E, which constitutes part of the front of the elevated basin D. The water falls thence in an uninterrupted sheet or in a divided cascade-like form, as preferred, into a lower basin F at the foot of the falls or cascade. In the lower basin the water is churned up into foam and spray, the same as in an ordinary waterfall, and it will be noted that the bank or wall A, (see Fig. 1,) the purpose of which is hereinafter to be described, touches the outer edge only of the lower basin F, and at that section it is reduced in height, so that it will be below the surface of the water, so optically, as well as actually, the water extends from the foot of the falls or cascade clear across the structure, as illustrated in Fig. 1, to the outer bank A, and thence throughout the circuit of the space inclosed between the outer banks.

The lower basin F may be built of plank, cement, or other suitable material G (see Fig. 2) and has a well or depressed pit H in its bottom, which is of course filled with water, and this depressed well or pit has water-tight walls and bottom I I.

J represents a suitable electric motor or equivalent device (or a pump and engine of any kind) which actuates through the shaft K a propeller L.

M is a belt-wheel on the shaft K, which carries a belt N, which actuates a suitable pump O, which may be of any suitable construction, as also may be the power that drives it. I prefer the ordinary centrifugal pump; but one of any kind or any other mechanism ade-

quate for the purpose may be substituted. This pump or its equivalent receives a portion of the water from the lower basin F through any suitable conduit and elevates it, as by the pipe P, to the upper basin D, and the capacity of this pump should be sufficiently great to always maintain a waterfall or cascade of a volume suited to the purpose.

The propeller L and its coacting mechanism are employed for the purpose of generating and maintaining a current throughout the two separated channels formed by the outer bank A and the inner partition or division B. It effects this in the following manner: The propeller L is a large and powerful affair, and it projects the water forcibly from it when in operation, and by reason of the inclined surface I' of the well or depressed pit H, in which the propeller is located, the water rises in a very rapid current, as indicated by the arrows in Fig. 2, up to the level of the bottom of the channels, and thence under the impulse it has received sweeps along through the channel, as indicated by the large and small arrows in Fig. 1, passing around the curve at the extreme ends of the two channels and thence back again to the propeller for a repetition of the impulse, and the propeller effects this movement or generates the current not only by reason of its propulsion of the water, but also by the almost equally effective suction formed at its rear side. Although there will be slight loss of power because of the dividing-wall or partition B being below the surface of the water, which will permit a portion of the propelled current to dissipate itself laterally, nevertheless there will be but little loss in this way, and, as previously stated, if need be the partition may be made to come just to the surface of the water or slightly above it. Also if the river or channel be of suitable extent there may be another propeller located as, for instance, at *xx* in Fig. 1. It is not illustrated, because it will be in all essential respects identical with the one already shown.

In order that there may be no danger of any one being killed by falling overboard adjacent to these propellers, I cover the wells or depressed pits in which they are or may be located with a strong metallic meshing or network Q, (see Fig. 2,) which will preclude the possibility of their coming in contact with the propeller even should they accidentally get overboard.

Any form of boat or vessel may be employed in conjunction with my apparatus.

I have shown in Figs. 1 and 3 a desirable form *a*—an ordinary skiff. *b b* are rollers set upon vertical axes and attached at the four quarters of the craft, whatever it may be, or substantially at such location, to the outside of the hull of the boat or vessel, whatever its construction may be, so that as the boat, with its passengers, is carried along under the impulse of the current when it encounters any curve in the channels one or the other of the

rollers referred to will come in contact with the planking or cement-work constituting the bank or exterior wall A or the partition or wall B, and thus with a smooth easy motion the vessel, with its passengers, will be impelled and guided throughout the entire circuit of the simulated river or channel, and when it comes to the place where the propeller and the bottom of the cataract or falls are located there will be a pleasurable sensation and excitement because of the somewhat-agitated motion which will be given to the boat owing to the boiling of the water at the base of the falls or cascade and also the result of the action of the propeller, and also there will be experienced a pleasurable excitement, because as the boat approaches the falls or cascade it will appear as though it would sail directly under the falls or cascade, whereas, as a matter of fact, the depressed portion of the outer bank or wall A, which is at this place beneath the surface of the water and covered from view by the foam, &c., will engage with the rollers on the quarters of the vessel and turn it in such manner as to sheer off from and escape the falls.

It will be observed from the foregoing that the function and purpose of the partition or dividing-wall B is twofold—first, to act as a guide and director for the circulation of the water-currents, and, second, to compel the proper movement of the vessel by acting in conjunction with the exterior bank A as a guide and director for it.

In order that the illusion may be enhanced and the operation of the apparatus made more desirable, the banks of the river or channel should be filled in and decorated with shrubbery, rocks, scenery of various kinds, various trees, and the like, and the curves in the channel—as, for instance, the curve B' at the remote part of the channel, (see Fig. 1)—may be filled in and simulate an island. Also in this Fig. 1 the channels are made to pass through a cave, the walls of which are illustrated at R R and are of course carried up and over the channels at sufficient height so as not to interfere with the heads of the passengers in the boat. I also contemplate employing electric lights in different colors and different effects thrown upon or through scenery or screens of different character and color, so as to give beautiful optical effects, and in conjunction therewith I may incorporate any of the various effective arrangements, such as tableaux, copies of the world's well-known paintings, incidents in national or sacred history. In this manner I embody an educational as well as a merely entertaining feature in the apparatus.

As heretofore stated, my invention may be employed in a great variety of different arrangements, and, indeed, its main features—as, for instance, the waterfall, the river with its banks and dividing-partition, the water-pump, and the propeller or propellers—may be used in conjunction with a large variety

of different scenic accessories, whereby a great variety of entertainments differing in their character may be presented.

I prefer to inclose the entire structure in a suitable covering—as, for instance, a large tent or suitably-built structure, which may be darkened or not, as preferred.

Having described my invention, what I claim is—

10 1. The combination of a continuous unobstructed channel-way having a substantially level bottom, a body of substantially level water inclosed within such channel-way, means to divide the channel into separated
15 channels and a propeller located in a depression in the bottom of the channel-way, which generates and maintains water-currents through said channels by a combined suction and propelling action, for the purpose set
20 forth.

2. The combination with a confined body of water of means which divide it into separated channels, means whereby a portion of the water may be elevated and allowed to re-
25 turn again simulating a waterfall or cascade and level means for generating and maintaining water-currents through said channels by a combined suction and propelling action for the purpose set forth.

30 3. The combination with a confined body of water of means which divide it into separated channels, means whereby a portion of the water may be elevated and allowed to return again thus simulating a waterfall or cas-
35 cade, and means for generating and maintaining water-currents through said channels located adjacent to the foot of the falls or cascade, for the purpose set forth.

4. The combination with exterior banks or
40 walls, which confine a body of substantially level water, and a single interior partition or dividing-wall extending throughout the circuit of the exterior banks and substantially equidistant from each of them, of a propeller

for generating and maintaining water-cur- 45 rents through the channels thus formed by a combined suction and propelling action, for the purpose set forth.

5. The combination with exterior banks or walls which confine a body of water, of an in- 50 terior partition or dividing-wall extending throughout the circuit of the exterior banks and substantially equidistant therefrom, the upper edge whereof is below the water-level and means for generating and maintaining 55 water-currents through said channels, for the purpose set forth.

6. The combination with a confined body of water of means which divide it into sepa- 60 rated channels, means whereby a portion of the water may be elevated and allowed to return again to simulate falls or cascades, and a wall or dividing-partition dividing the basin into which the water falls from the water in 65 said channels, and means for generating and maintaining water-currents through said channels, for the purpose set forth.

7. The combination of a continuous unobstructed channel-way having a level bottom, a body of substantially level water confined 70 therein and a propeller which maintains water-currents through said channel, for the purpose set forth.

8. The combination with a confined body of water of means which divide it into sepa- 75 rated channels, means for generating and maintaining water-currents through said channels located in one of them, and means to prevent an object in the water from being injured by the means for generating and main- 80 taining said water-currents, for the purpose set forth.

Signed at the city of New York this 3d day of February, 1902.

GEORGE H. LAPORTE.

Witnesses:

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