

No. 753,449.

PATENTED MAR. 1, 1904.

LA MARCUS A. THOMPSON.  
AMUSEMENT APPARATUS.

APPLICATION FILED DEC. 6, 1903.

NO MODEL.

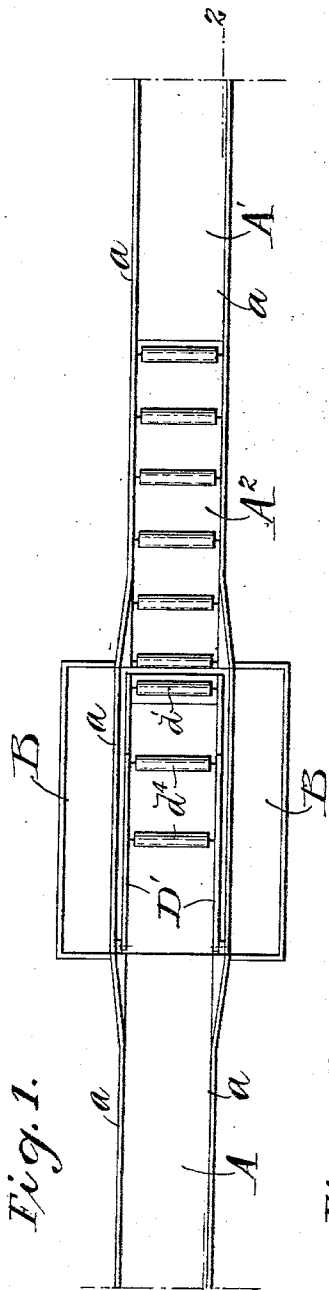


Fig. 1.

Fig. 2.

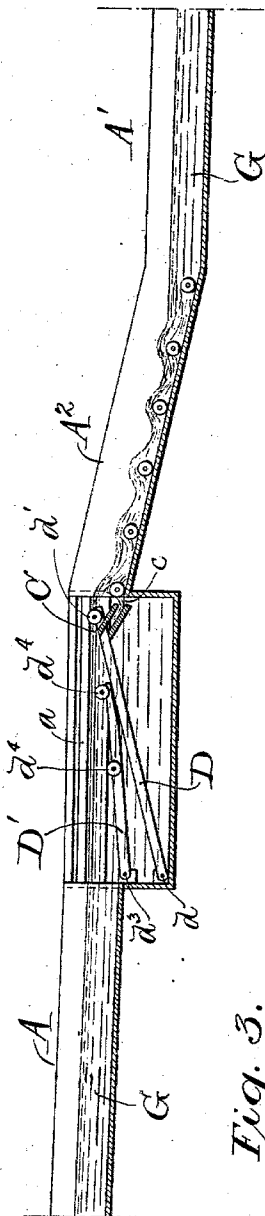
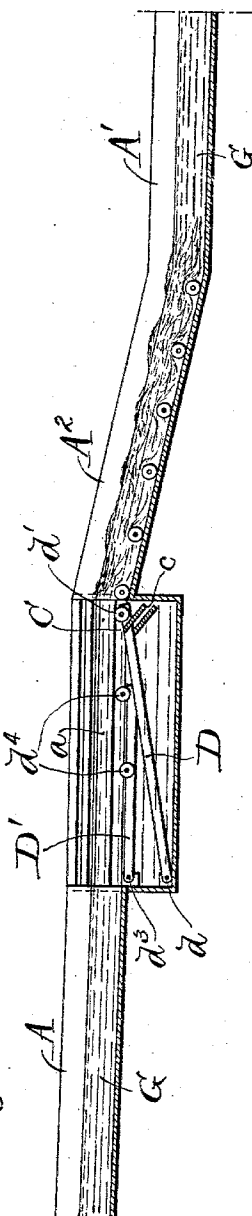


Fig. 3.



WITNESSES:

W. H. Leuby  
M. M. Hamilton

INVENTOR  
La. Marcus A. Thompson  
BY  
Harding & Harding  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

LA MARCUS A. THOMPSON, OF NEW YORK, N. Y., ASSIGNOR TO THE L. A. THOMPSON SCENIC RAILWAY COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

## AMUSEMENT APPARATUS.

SPECIFICATION forming part of Letters Patent No. 753,449, dated March 1, 1904.

Application filed December 5, 1903. Serial No. 183,898. (No model.)

*To all whom it may concern:*

Be it known that I, LA MARCUS A. THOMPSON, a citizen of the United States, residing at New York, county of New York, and State of New York, have invented a new and useful Improvement in Amusement Apparatus, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to that class of amusement apparatus in which a boat traverses from one end to another of a flume in which there is a moving stream of water, producing a current in the flume or artificial channel. In this class of amusement apparatus there is a pitch in the flume from the highest point to the lowest point, which in most cases is a constant pitch. The object of my invention is to produce in such an amusement apparatus the effect of rapids or sudden accelerations of the speed of the boat. To this end, speaking generally, I provide the flume with sections at different levels, which are connected by means of an inclined passage. If there was an uninterrupted connection through the inclined passage between the flume at the different levels, there would be a tendency of the water to assume different heights in the different sections or portions of the flume, and, moreover, the acceleration due to the increase in the pitch in the inclined portions of the flume would tend to reduce the level at that point and not give the effect of rapids or a rapid acceleration.

I will first describe the embodiment of my invention as illustrated in the accompanying drawings.

In the drawings, Figure 1 is a plan view; and Fig. 2, a section on the line 2-2, Fig. 1, with the gate closed. Fig. 3 is a view similar to Fig. 2 with the gate open.

In the drawings I have shown two sections of the flume A and A', each slightly inclined upon different levels, connected by an inclined portion A<sup>2</sup> of considerable pitch. The walls *a* of these sections or flumes are of width

slightly greater than the boat which travels therein, and which, as is well known, acts as guides and restrainers for the boat. At a point contiguous to the top of the incline A<sup>2</sup>, I form an enlarged portion B of the flume, which acts, essentially, as a reservoir. Through the length of this portion B the walls *a* of the flume are made of open-work, so that the water can pass freely from side to side of the enlarged portion through the walls of the flume. Where the flume A meets the top of the inclined portion A<sup>2</sup>, I provide a gate C, which gate has through it the passages *c*, which incline downwardly, and thereby prevent the full passage of the water. This gate is connected to the arm D, which is pivoted to a bracket *d*, extending from the wall of the reservoir B. Upon the arm D are the rollers *d'*.

D' is a second arm, pivoted at *d''* and contacting with the arm D, the arm D' having the rollers *d''*. The normal position of the gate is that shown in Fig. 2, under which conditions, due to the contracted passages *c* and their angle acting as a resistance to the passage of the water, only the excess of water over that necessary to maintain the flume at the point B full will pass therethrough. On the other hand, when the boat in the flume A reaches the arm D' it will force the arm D', and with it the arm D, downward, moving the gate downward, opening fully the passage between the sections A and A<sup>2</sup>, and the water stored up in the reservoir B will rush down the incline A<sup>2</sup>, carrying the boat with it at greatly-accelerated speed. By placing the rollers *f* on the incline the effect of rapids may be obtained and also any risk of the boat striking the bottom of the incline avoided. After the boat has passed beyond the enlarged portion B the gate will by floatation rise and close the orifices at the mouth of the section A, and the reservoir B will again fill up, due to the fact that the resistance to filling the reservoir will be less than the resistance to the water passing through the openings *c* in the gate C. I have not shown the means by which the water G is introduced into the flume. It

may be introduced by any well-known means desired

I do not intend to limit myself to the application of this invention to any specific amusement apparatus having the general characteristics described, nor do I intend to limit myself to any length of flume or number of sections. In fact, my improvement is applicable where there are but two sections at different levels connected by an inclined portion and of course is equally applicable to a case where there are a plurality of such sections at different levels connected by inclined portions; nor do I intend to limit myself to the specific form of gate unless the same be specifically claimed.

Having now fully described my invention, what I claim, and desire to protect by Letters Patent, is—

1. In an amusement apparatus, a flume having sections at different levels connected by inclined portions, means to supply said flume with water, a storage-reservoir in constant communication with the water-supply communicating with said flume contiguous to the top of said inclined portion.

2. In an amusement apparatus, a flume having sections at different levels connected by inclined portions, means to supply said flume with water, a storage-reservoir in constant communication with the water-supply communicating with said flume contiguous to the top of said inclined portion, and means to restrain the water passing to said incline.

3. In an amusement apparatus, a flume having sections at different levels connected by inclined portions, means to supply said flume with water, a storage-reservoir in constant communication with the water-supply communicating with said flume contiguous to the top of said inclined portion, means to restrain the water passing to said incline and means to release the water from said reservoir on the passage of a boat.

4. In an amusement apparatus, a flume having sections at different levels connected by inclined portions, means to supply said flume with water, a storage-reservoir in constant communication with the water-supply communicating with said flume contiguous to the top of said inclined portion, and a gate adapted, when closed, to restrain the water passing to said inclined portion.

5. In an amusement apparatus, a flume having sections at different levels connected by inclined portions, means to supply said flume with water, a storage-reservoir in constant communication with the water-supply communicating with said flume contiguous to the top of said inclined portions, a gate adapted, when closed, to restrain the water passing to said inclined portion, and means to automatically open said gate on the passage of a boat.

6. In an amusement apparatus, a channel or flume having sections at different levels connected by inclined portions, said flume being enlarged contiguous to the upper portion of said incline, said enlarged portion of the flume being in constant communication with the water-supply and means to restrain the water passing to said incline.

7. In an amusement apparatus, a channel or flume having sections at different levels connected by inclined portions, said flume being enlarged, contiguous to the upper portion of said incline, said enlarged portion of the flume being in constant communication with the water-supply, means to restrain the water passing to said incline, and means to remove said restraint on the passage of a boat.

8. In an amusement apparatus, a channel or flume having sections at different levels connected by inclined portions, said flume being enlarged, contiguous to the upper portion of said incline, said enlarged portion of the flume being in constant communication with the water-supply and a gate adapted, when closed, to restrain the water from passing to said inclined portion.

9. In an amusement apparatus, a channel or flume having sections at different levels connected by inclined portions, said flume being enlarged, contiguous to the upper portion of said incline, said enlarged portion of the flume being in constant communication with the water-supply and a gate adapted, when closed, to restrain the water passing to said inclined portion, and means to automatically open said gate on the passage of a boat.

10. In an amusement apparatus of the character described, in combination with a flume, of a gate, an arm to which said gate is secured, said arm being pivotally mounted, said gate normally projecting above the bottom of the flume and adapted when moved by said arm to descend below the bottom of the flume.

11. In an amusement apparatus of the character described, in combination with a flume, of a gate, an arm to which said gate is secured, said arm being pivotally mounted, said gate normally projecting above the bottom of the flume, and said arm normally being in line of movement of a boat in said flume and adapted when struck by said boat to move on its pivot and move said gate.

12. In an amusement apparatus of the character described, in combination with a flume, of a gate, an arm to which said gate is secured, said arm being pivotally mounted, said gate normally projecting above the bottom of the flume, and said arm normally being in line of movement of a boat in said flume and adapted when struck by said boat to move on its pivot and move said gate, and means to return said gate and arm after the passage of the boat.

13. In an amusement apparatus of the char-

acter described, in combination, with a flume,  
of a gate, an arm to which said gate is secured,  
said arm being pivotally mounted, said gate  
normally projecting above the bottom of the  
5 flume and a second arm pivotally mounted ex-  
tending along said flume and connected to the  
first-mentioned arm.

In testimony of which invention I have here-  
unto set my hand, at Philadelphia, on this 30th  
day of November, 1903.

LA MARCUS A. THOMPSON.

Witnesses:

M. F. ELLIS,

M. M. HAMILTON.