

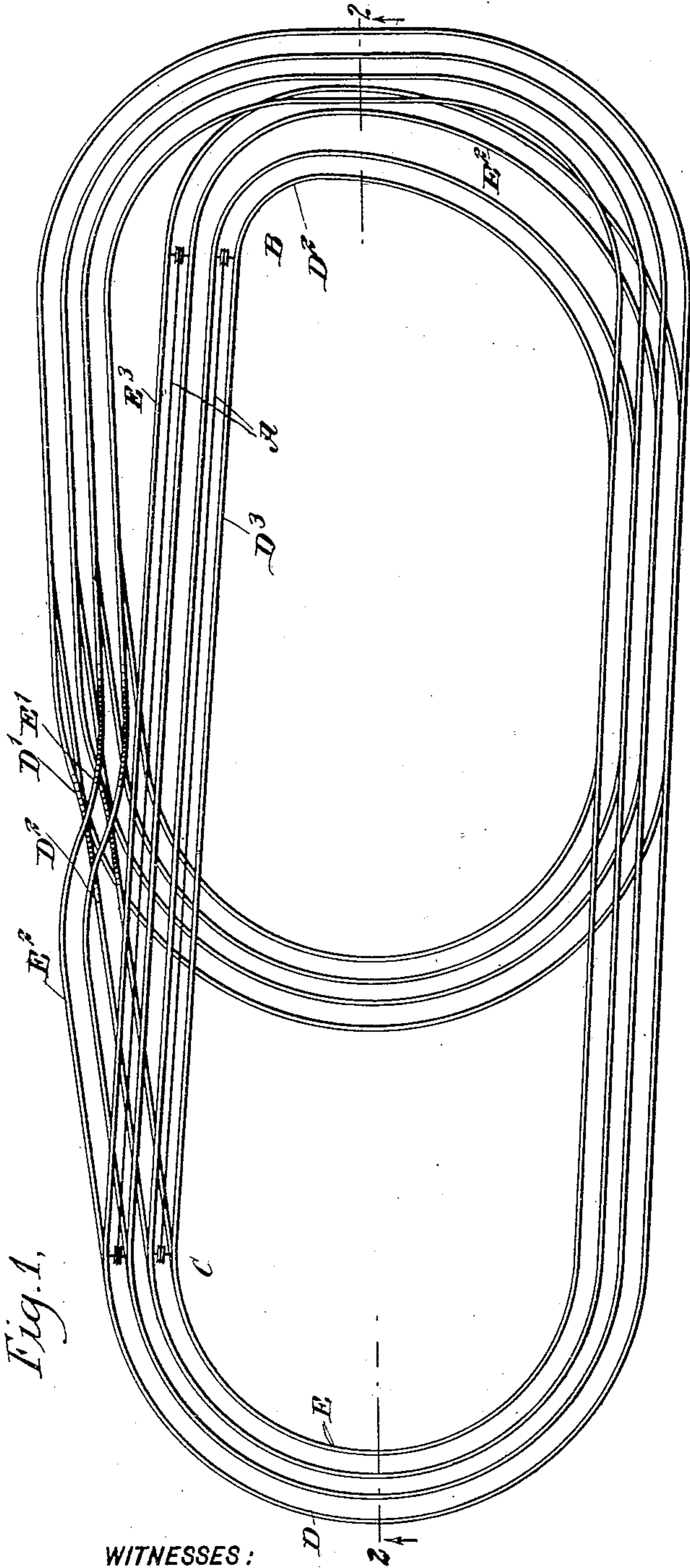
No. 702,982.

Patented June 24, 1902.

E. C. MERRILL.  
TOBOGGAN SLIDE.

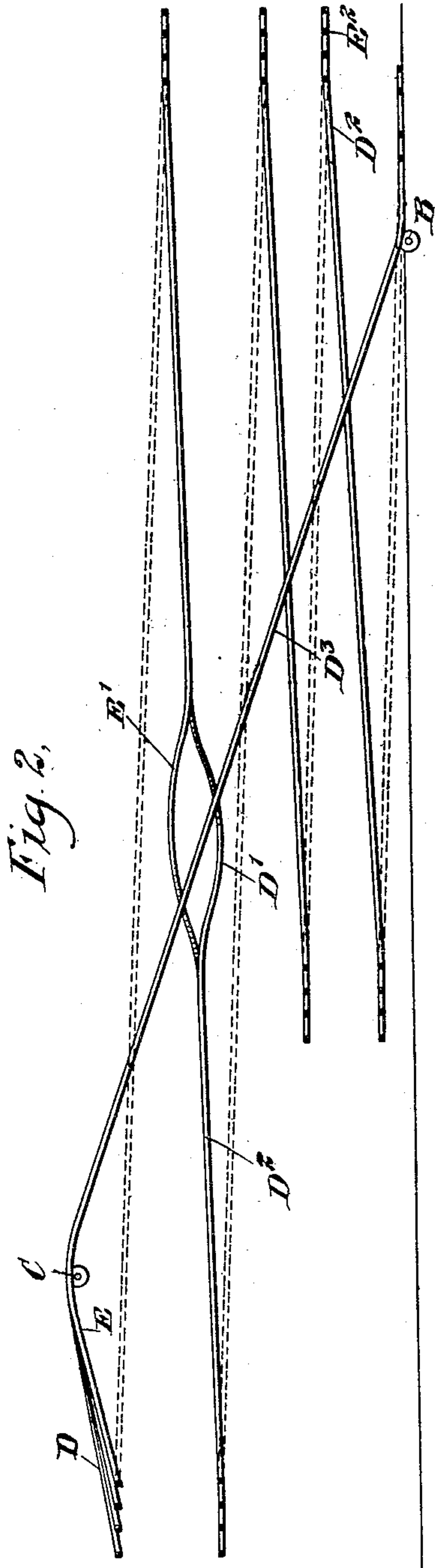
(Application filed Sept. 20, 1900.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

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## TOBOGGAN-SLIDE.

SPECIFICATION forming part of Letters Patent No. 702,982, dated June 24, 1902.

Application filed September 20, 1900. Serial No. 30,562. (No model.)

*To all whom it may concern:*

Be it known that I, EMERSON C. MERRILL, a citizen of the United States, and a resident of the city of New York, (Coney Island,) borough of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Toboggan-Slides, of which the following is a full, clear, and exact description.

10 My invention relates to amusement devices known as "roller-coasters" or "toboggan-slides," and has for its object to provide a device of this class which will be simple in construction and by which there will be secured  
15 the novel effect of cars racing side by side at a varying rate of speed, whereby it becomes possible for the cars to take the lead alternately, thus adding considerably to the enjoyment of the occupants of the cars.

20 The invention will be fully described hereinafter and the features of novelty pointed out in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

25 Figure 1 is a diagrammatic plan of a double-track toboggan-slide embodying my invention, and Fig. 2 is a sectional elevation on line 2 2 of Fig. 1.

30 In the drawings I have for the sake of clearness refrained from showing the posts or other supports on which the tracks rest, and any person skilled in the construction of devices of this class will be readily able to design an appropriate supporting structure.

As illustrated, the device comprises two tracks located side by side.

35 A is the common chain or any suitable elevating mechanism for carrying the cars from the landing B (at which passengers are taken and let off) to the highest point C of the tracks, at which the cars are started on their free run or downward course. Each track is not  
40 a mere duplication of its neighbor; but at some adjacent points of the tracks the inclination of one track is greater than that of the other, (see the portions lettered D E,) so that one car will gather greater momentum  
45 than its companion and shoot ahead of it. At some succeeding portion of the device

conditions are reversed, so as to allow the car left behind to pick up all or part of the distance lost. It is my intention that the starting-points C and the terminals B should  
50 be at the same level for each track—that is, the total drop should be the same for each car—so that each car will have about an even chance of reaching the landing B first. The tracks form one or more loops or circuits, and  
55 it will be obvious that the inner track if the tracks were approximately parallel in their entire length would be shorter, and therefore more steeply-inclined than the outer track. To compensate for this in a measure,  
60 I provide a crossing of the tracks, so that the track which is the outer track in the upper portion of the structure becomes the inner track in the lower portion thereof. As a level crossing would be objectionable on account  
65 of the possibility of collisions, I prefer to make one track cross under the other. Thus Fig. 2 clearly shows that the inner track rises at E', while the outer track dips at D' to pass under the inner track, crossing to the inside  
70 thereof, so that the outer track E<sup>2</sup> is a continuation of the inner track E and the inner track D<sup>2</sup> a continuation of the outer track D. The tracks D<sup>2</sup> E<sup>2</sup> then continue in one or more circuits of any approved shape and  
75 finally connect with the rising portions D<sup>3</sup> E<sup>3</sup>, which respectively lead to the track portions E D. It will be seen that the arrangement comprises not two independent and separate tracks, but a continuous or endless track, and  
80 that a car which is started on the outside track D will reach the landing on the track D<sup>2</sup> and, continuing, will on the next trip be started on the inside track E, so that alternate trips are different, and the passengers  
85 on account of the pleasing variation are induced to take a greater number of trips.

While I have shown two tracks, which is the arrangement most likely to be observed in practice, it will be obvious that three or  
90 more tracks may be employed embodying the features hereinbefore described. By "tracks" I do not necessarily mean sets of rails, since my invention is applicable to any device in which cars, slides, or other bodies adapted to  
95 hold passengers are allowed to travel down an incline.



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

1. In a toboggan-slide or the like, a plurality of inclined tracks located side by side, the inclination of one track at certain points being greater than that of the other track at the corresponding point, and at certain other points the conditions being reversed, whereby provision is made for securing the novel effect of cars racing side by side at varying rate of speed, as set forth.

2. In a toboggan-slide or the like, a plurality of inclined tracks located side by side and forming a plurality of loops or circuits of parallel tracks arranged in different horizontal planes, the inclination of one track at certain points being greater than that of the other and at certain other points the conditions being reversed, as and for the purpose set forth.

3. In a toboggan-slide or the like, a plurality of inclined tracks arranged side by side and forming a plurality of loops or circuits of parallel tracks arranged in different horizontal planes, said tracks crossing each other so that portions of different tracks form the outside track at different portions of the structure, whereby the length of the tracks and the inclination thereof will in a measure be equalized.

4. In a toboggan-slide or the like, a plurality of inclined tracks arranged side by side and forming a series of loops or circuits of parallel tracks arranged in different planes, said tracks crossing each other so that portions of different tracks form the outside track at different portions of the structure, the track portions being at different levels at the crossing to allow the car on one track to pass

under the other track, whereby the length of the tracks and the inclination thereof will in a measure be equalized and the danger of collision avoided.

5. In a toboggan-slide or the like, a plurality of inclined tracks having adjacent rising or elevating portions, and mainly descending or coasting portions connecting the ends of the rising portion by loops or circuits of parallel tracks arranged in different horizontal planes, the tracks crossing each other in said circuits, so that what is the outer track in the upper portion of the structure becomes the inner track in the lower portion thereof, and vice versa, the tracks forming one the continuation of the other, so that the plurality of tracks form one endless track.

6. In a toboggan-slide or the like, a plurality of inclined tracks located side by side and forming a plurality of loops or circuits of parallel tracks arranged in different horizontal planes, said tracks crossing one under the other so that portions of different tracks form the outside tracks at different portions of the structure, whereby the length of the tracks and the inclination thereof will in a measure be equalized and the danger of collision avoided and the tracks so arranged that the inclination of one track at certain points will be greater than that of the other, and at certain other points the conditions being reversed, as and for the purpose set forth.

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

EMERSON C. MERRILL.

Witnesses:

JOHN LOTKA,

JNO. M. RITTER.