H. A. SHAULES.

AMUSEMENT DEVICE.

APPLICATION FILED DEC. 26, 1908.

933,790.

Patented Sept. 14, 1909.

2 SHEETS—SHEET 1.

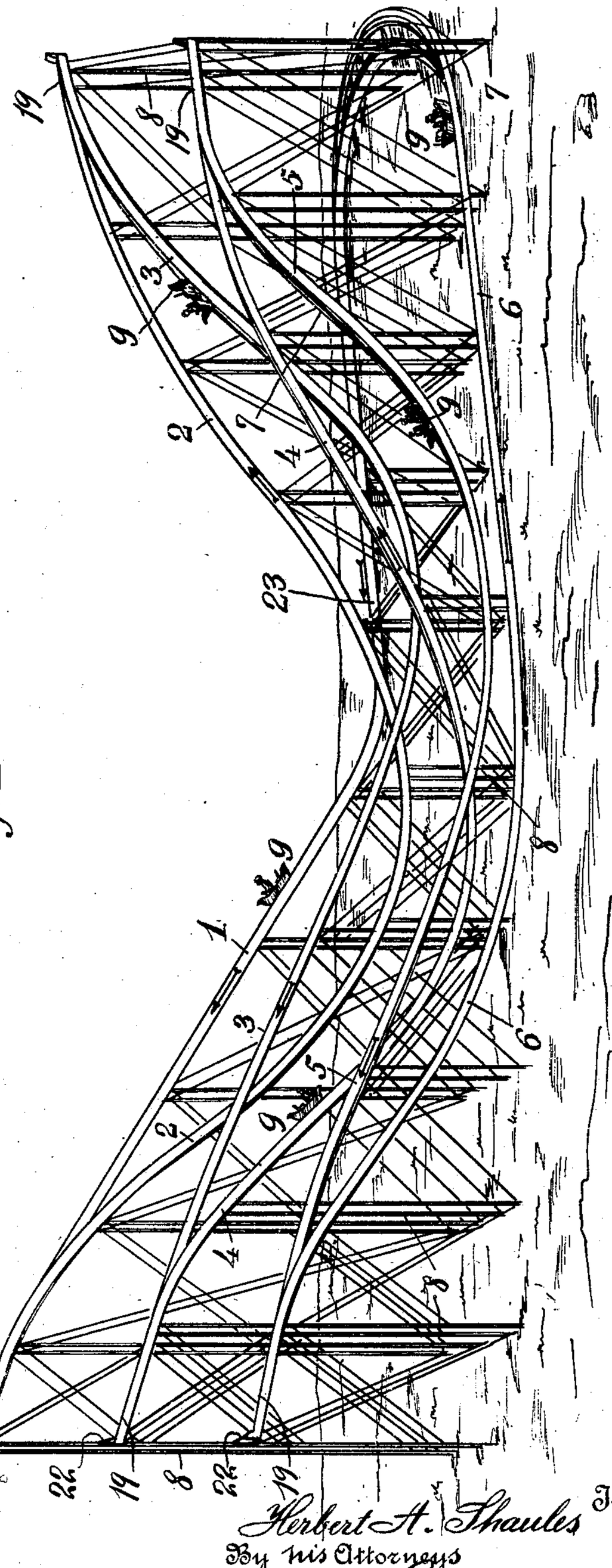

Fig. 1.

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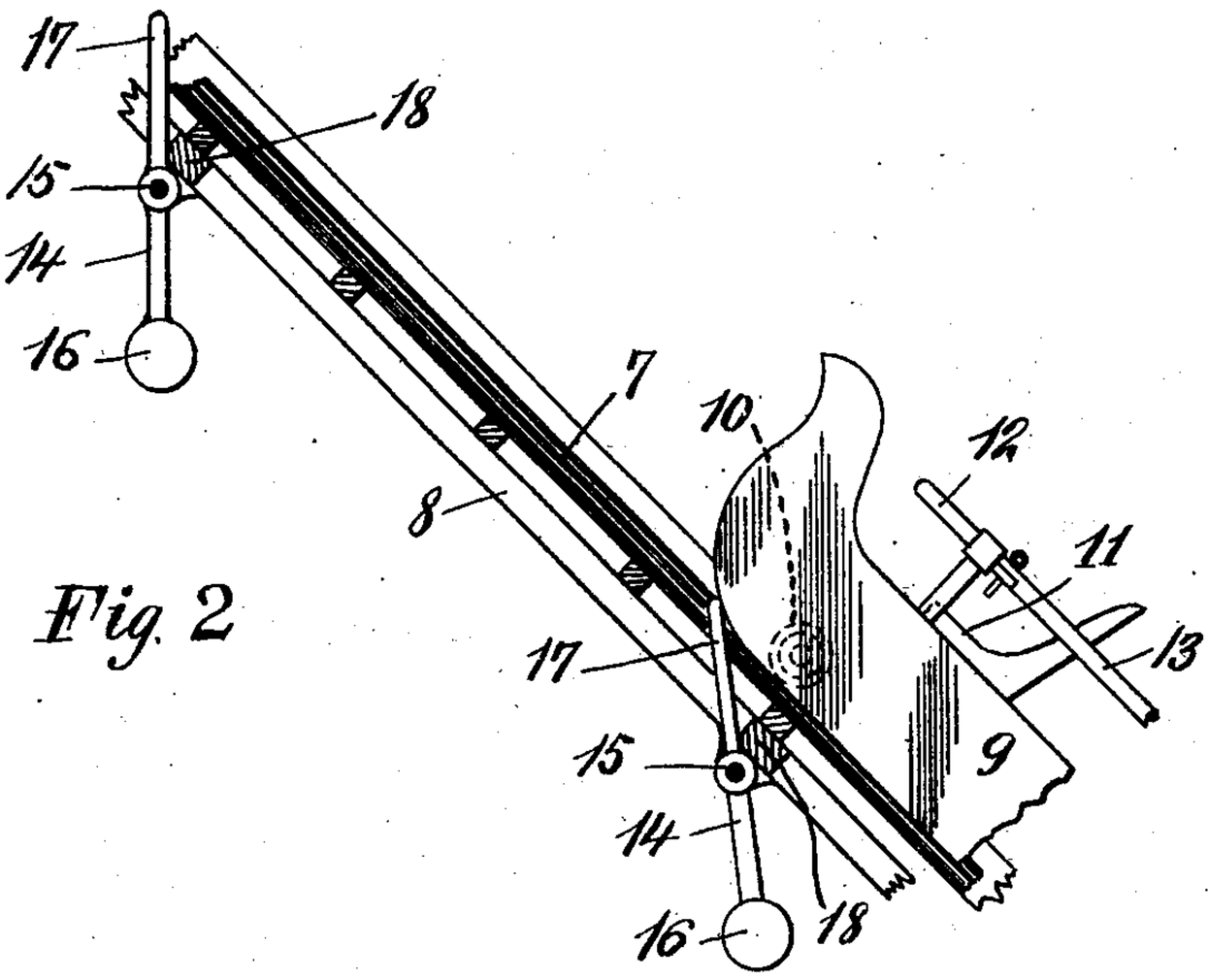


Fig. 2

Fig. 3

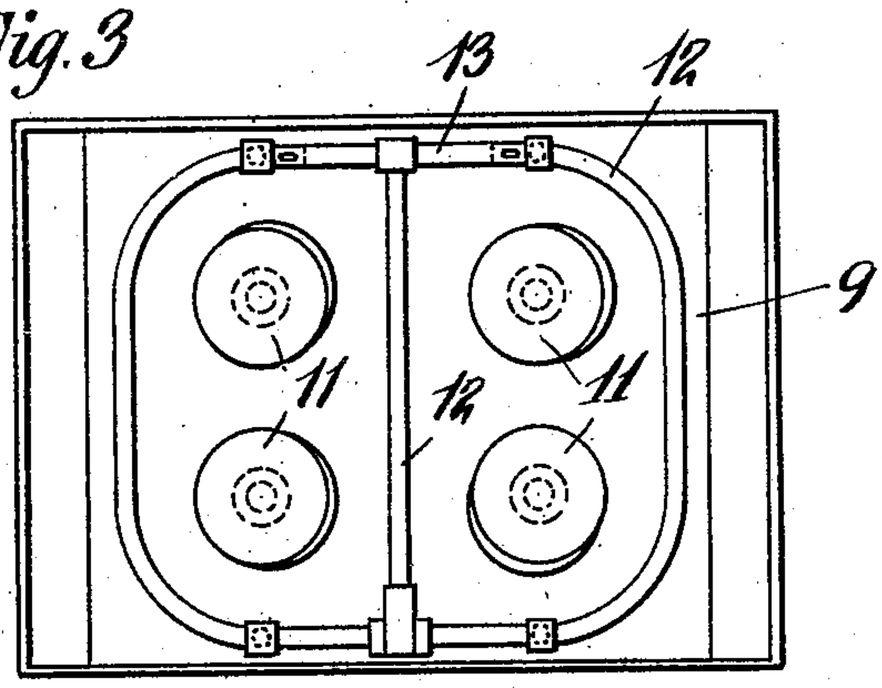
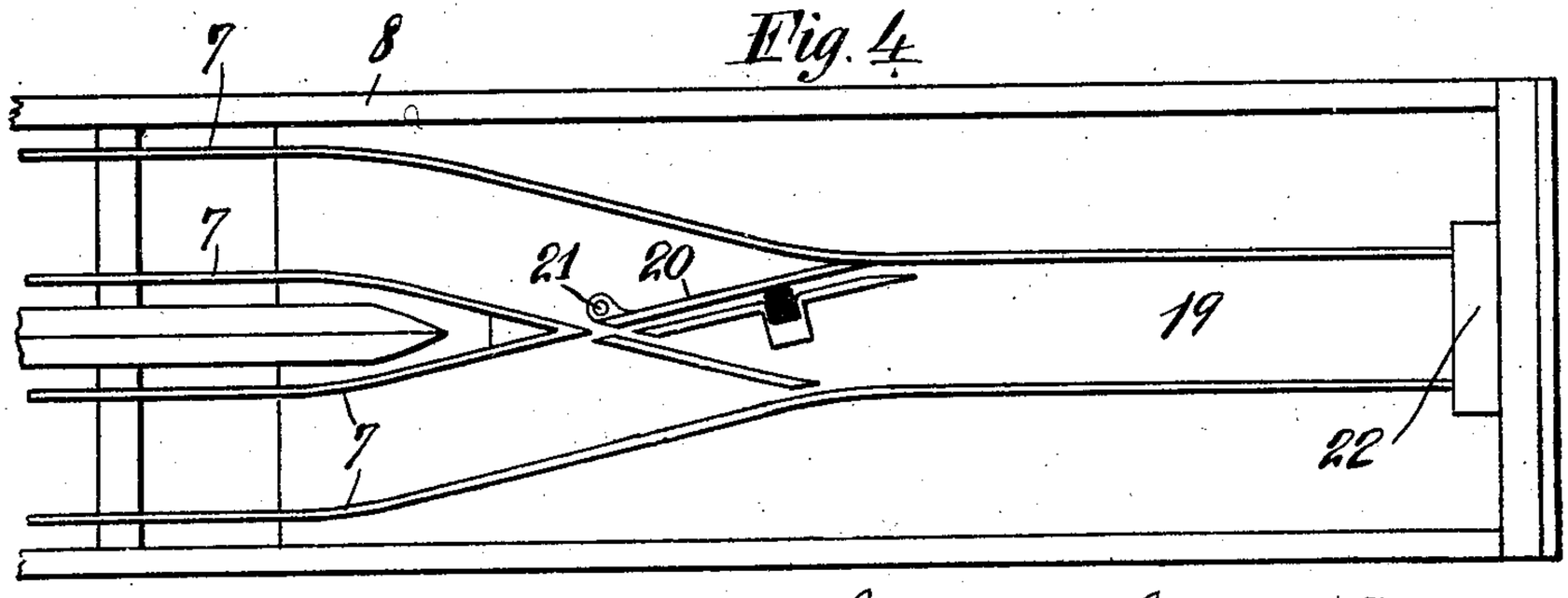


Fig. 4



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UNITED STATES PATENT OFFICE.

HERBERT A. SHAULES, OF NEW YORK, N. Y.

AMUSEMENT DEVICE.

933,790. Specification of Letters Patent. **Patented Sept. 14, 1909.**

Application filed December 26, 1908. Serial No. 469,343.

To all whom it may concern:

Be it known that I, HERBERT A. SHAULES, a citizen of the United States, residing at the borough of Manhattan, city, county, and State of New York, have invented a certain new and useful Improvement in Amusement Devices, of which the following is a specification.

My invention relates to improvements in amusement devices and has particular relation to that class of devices known as "roller-coasters".

In prior devices of this character it has been the practice to make them substantially circular in form with many sharp curves, because the space on which the device is set up is generally so contracted that the diameter of the circle is small and in order to make the proper turns in the long runs, curves of short radius are necessary. The turning of such sharp curves is dangerous, owing to the speed at which the cars travel, and results at times in serious accidents, owing to the cars leaving the tracks on said curves.

My device is adapted to have all of the advantages of the ordinary roller-coaster in so far as long runs and steep pitches are concerned, while the device may be set up in a much smaller space, and dangerous curves are entirely eliminated.

In the following I have described with reference to the accompanying drawings, one form of device illustrating my invention, the features thereof being more particularly pointed out hereinafter in the claims.

Figure 1 is a side elevation of a roller-coaster embodying my invention. Fig. 2 is a detailed view of a portion of the track showing a part of a car in connection with certain safety appliances. Fig. 3 is a plan view of one form of a car adapted to be used on my roller-coaster. Fig. 4 is a plan view of the end portion of each line of track of the roller-coaster showing the switching apparatus.

Similar numerals of reference indicate similar parts throughout the several drawings.

1, 2, 3, 4, 5 and 6 indicate the trackways of the roller-coaster adapted to support suitable rails 7, 7 fastened thereto in any desirable manner.

8, 8, 8 indicate the framework for supporting these trackways in an elevated position, as shown in Fig. 1.

9, 9 indicate the cars adapted to run on rails 7, 7, said cars being provided with suitable wheels 10. Each of said cars may be supplied with a plurality of seats 11, swivelly supported so that the occupant thereof can turn the same around to face in any position.

12 indicates a railing around and between the seats 11, which railing the occupants of the seats may grasp to hold themselves firm. A gate 13 is provided in said railing 12, permitting access to the seats.

14 is a tripper or dog pivotally connected to the trackway as at 15, and provided with a counterweight 16 and a finger 17 normally adapted to project between rails 7, 7 and above the plane of the trackway and to contact the bottom of the car and be pressed downward thereby as the car passes over it, the counterweight bringing the same into vertical position again up against stop 18 behind the car after the car has passed.

19 is a platform at the highest point of each of the trackways where the trackways 1 and 2, 2 and 3, 3 and 4, 4 and 5 and 5 and and 6 respectively, switch into each other as shown in Fig. 1 and Fig. 4.

The platform 19 should be sufficiently large to accommodate an attendant if necessary and to permit of the reception of one or more of cars 9 as may be desired. Each of these platforms 19 is upwardly inclined toward the outside as is shown in Fig. 1.

20 is a spring controlled switch pivoted to the trackway at 21 and so arranged that the flanges of wheels 10 on a car coming up the trackway will press switch 20 away from the track and permit the car to pass up on to platform 19, the switch springing back into position behind said car so that when said car passes down the trackway, it will switch the same off on to the other line of tracks going down.

22 is a stop against which the car may strike if the momentum is sufficiently great.

The operation of the device is as follows: A car starts from point 23 on trackway 6 and is pulled up to the top of trackway 1 in the direction of the arrow, by cable, rack and pinion, or other suitable means (not shown). When the car has reached this highest point the occupants turn around in their seats and the car by reason of the incline of platform 19 starts down the incline of track 2, and then up to the platform from which trackway 3 branches down

again, the flanges of the wheels on the car opening switch 20. The inclination of the platform 19 is such that it overcomes the momentum of the car and at the same time permits the same to roll upward and then downward again, the switch 20 now being closed and switching the car on to trackway 3, the occupants again turning their seats. The car passes down trackway 3 and up to the platform where trackway 4 switches from trackway 3, where it is again switched from one track to the other as described. The car now passes down trackway 4 and up to the platform where trackway 5 branches into it and the car is switched on to trackway 5, as described, passing down trackway 5 and up to the platform where trackway 5 meets trackway 6. The car is then switched to trackway 6 and passes down trackway 6 along the level to the point 22 and the place of beginning. At each point where the direction of travel is reversed, the occupants of the car should turn their seats around as described. The trippers or dogs 14 are preferably so disposed along all of the trackways and at such a distance apart that as the car passes over one it is almost in contact with another, so that as the car passes off of one dog, it rises behind the car, and in case of accident prevents the same from rolling backward.

With the arrangement disclosed, it is possible to arrange a roller-coaster in a very compact form and to give rise to sensations of coasting which have heretofore been unknown in such arrangements.

The platforms 19 should be so inclined that the cars will remain thereon a sufficient time before reversing the direction of travel to allow the passengers to turn about in their seats.

It is obvious that the details of construction may be varied without departing from the spirit of my invention and I do not restrict myself to the details shown.

What I claim and desire to secure as Letters Patent of the United States is:

1. A roller-coaster comprising an initial trackway inclining upward from the ground level, intermediate trackways inclining upward in both directions from their lowest point, a final trackway inclining downward to the ground level and connecting with the initial trackway, a car and means for switching the car from one to another of said trackways.

2. A roller-coaster comprising a plurality of trackways substantially parallel with each other and including an initial trackway inclining upward from the ground level, intermediate trackways inclining upward in both directions from their lowest point and a final trackway inclining downward to the ground level and connecting with the initial trackway, a car and means for switching the car from one to another of said trackways.

3. A roller-coaster comprising an initial trackway inclining upward from the ground level, intermediate trackways inclining upward in both directions from their lowest point, a final trackway inclining downward to the ground level and connecting with the initial trackway, a car, seats swivelly supported in said car and means for switching the car from one to another of said trackways.

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

HERBERT A. SHAULES.

Witnesses:
SEABURY C. MASTICK,
K. G. LEARD.