No. 706,467. Patented Aug. 5, 1902.

J. J. WEGNER.

SACK RACE STRUCTURE.

(Application filed Mar. 24, 1902.)

(No Model.)

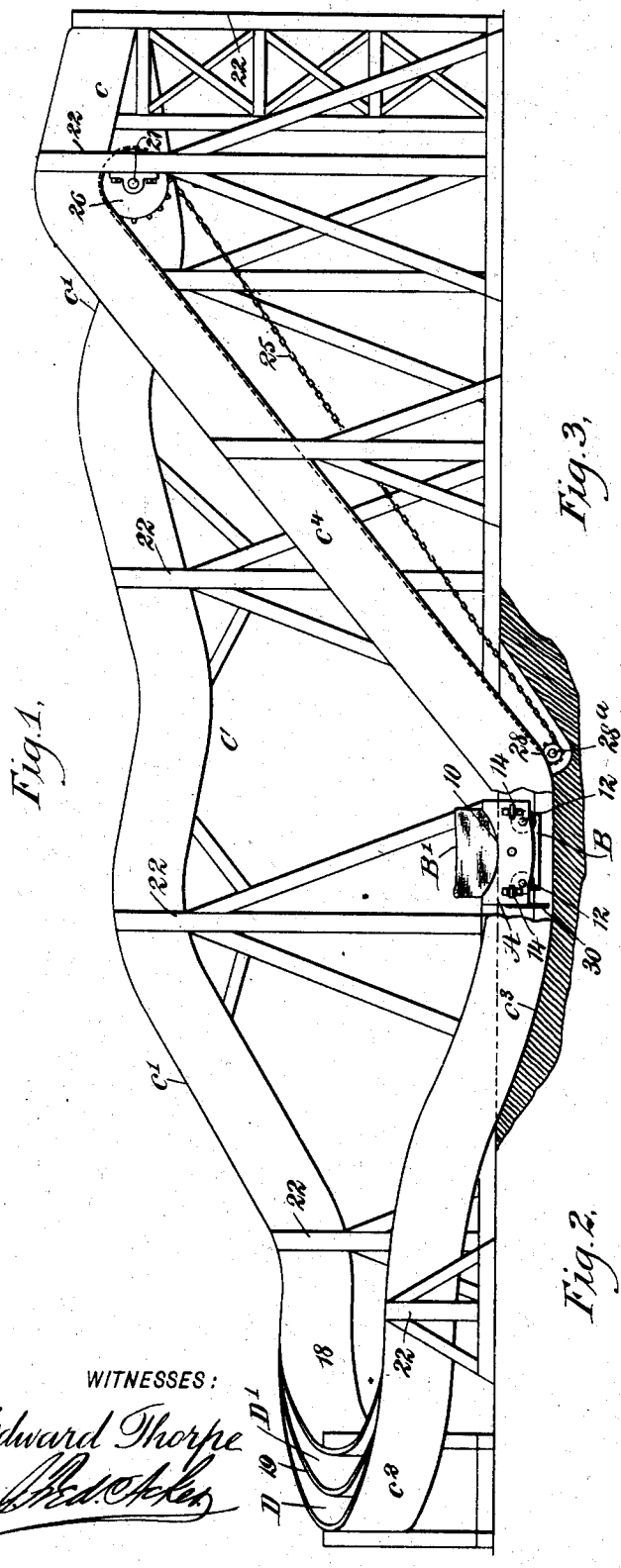

Fig. 1.

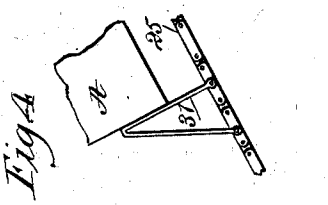

Fig. 4.

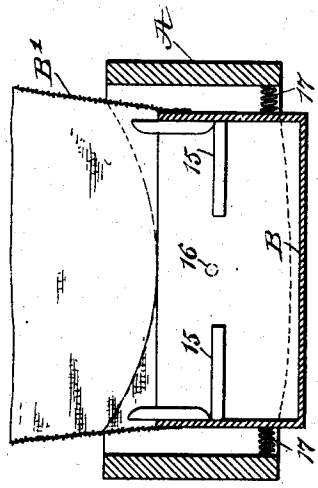

Fig. 3.

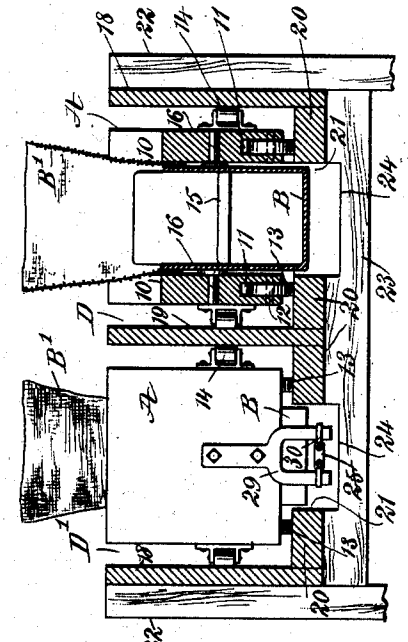

Fig. 2.

WITNESSES:

Edward Thorpe

J. Ed. Akers

INVENTOR

John J. Wegner

BY Munn & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN J. WEGNER, OF BROOKLYN, NEW YORK.

SACK-RACE STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 706,467, dated August 5, 1902.

Application filed March 24, 1902. Serial No. 99,698. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. WEGNER, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Sack-Race Structure, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a structure for an amusement in which cars appearing to carry sacks are adapted to travel up and down undulating tracks, the sack-sections of the car, which contain passengers, being pivotally mounted in the cars and spring-controlled in two opposing directions, enabling the occupants of the sack-sections of the cars by energetic movement of their bodies to add to the velocity of the cars to a greater or less extent, and also to provide two adjacent tracks on which the cars travel in the same direction to enable parties traveling on one track to race with others moving upon the adjoining track, thus producing all the effects and giving all the amusement of the ordinary sack race without the attendant pedal exertion and danger of falling.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the 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 all the figures.

Figure 1 is a perspective view of the structure, a portion of one track being broken away to show a car at rest at the foot of the elevating mechanism for the car. Fig. 2 is an enlarged cross-section through adjoining tracks and an end view of a car on one track and a vertical transverse section through the car on the adjoining track. Fig. 3 is a longitudinal vertical section through one of the cars, the running-gear being omitted; and Fig. 4 is a detail view illustrating one manner in which the cars may be carried up an incline through the medium of suitably-driven endless chains.

The cars employed consist of a box-body A, of any approved construction, made of any suitable material and of any desired dimensions. The said box-body is open at the top and at the bottom, and the upper side edges 10 of the body are preferably more or less concaved, as is shown in Figs. 1 and 2. This body at its sides is provided at its bottom portion with longitudinal channels 11, and axles 12 extend across these channels, upon which axles supporting-wheels 13 are mounted to turn, or the said supporting-wheels may turn with the axles. These supporting-wheels 13 extend some distance below the under edges of the sides of the car-body A, and preferably the bottom of each car-body A is more or less convexed, so that the car may adapt itself to curvatures or undulations in the tracks upon which it is to travel. Each car-body A is also provided at its sides with friction-rollers 14, attached thereto in any suitable or approved manner, being adapted to engage with the guard-rails of the tracks upon which the car is supported, as will be hereinafter fully described.

Each car-body A is provided with a swinging section B, and the swinging sections B of the cars are adapted to contain the passengers, seats 15 being provided at the end portions of the swinging sections B, as is shown in Figs. 2 and 3. The swinging section B of a car is of less length than the body-section, and each swinging section of a car-body A is supported in said body by means of pivot-pins 16, carried by the side portions of the car-body A and extending into suitable sockets located upon the outer surface of the sides of the swinging section B, as is shown at the right-hand side of Fig. 2, and the rocking movement of each swinging section B of a car is limited by spring-cushions 17, which have bearing against the outer end faces of the swinging section B of the car and the inner end surfaces of the box-body A of the car, as is particularly shown in Fig. 3.

The swinging section B of each car may be made of any suitable material capable of sustaining the weight of two or more persons or of a single person, if so desired, and the swinging section B of each car is provided with an upper section B′, which is made of fabric, preferably of such material as that of which sacks are made, and this fabric may extend down along the sides and ends of the main swinging section B and along the bottom, being sewed along the bottom of the main swing-

ing section in the same manner as sacks are closed at their bottom portions. The swinging sections B of a car may be termed "basket-sections," and extend a suitable distance below the bottom surfaces of the body A of the car.

When persons are seated in the basket-section B of a car, the upper textile extension B′ of said basket is preferably drawn together by straps or other means, so as to bring the upper textile section more or less yet comfortably around the waists of the occupants of the basket, thus giving to an onlooker the impression that each individual in a basket is tied in a sack.

The track structure C for the cars consists of an inclined platform or main elevated section *c*, from which the cars start upon their journey, connecting with a downwardly-undulating section *c′*, which in its turn is connected at its lower end with a less elevated curved section c^2, which latter section c^2 is in direct communication with a tapering concaved section c^3, and this section c^3 communicates with an upwardly-inclined elevated section c^4, connected with the elevated inclined platform-section *c* first mentioned. The body of the track structure consists of continuous side guard-rails 18, a continuous central division guard-rail 19, and bottom rails 20, secured to the inner face of the side guard-rails and both faces of the division guard-rail, dividing the body of the structure C into two tracks D and D′, parallel with each other throughout their length. A space 21 is provided between the rails 20 of a track, as is shown in Fig. 2, and the body of the track structure C is supported by side uprights 22, suitably braced, and cross-beams 23, which extend between corresponding uprights, being secured thereto and to the bottom rails 20 of the tracks; but opposite the spaces 21 between the bottom rails the cross-beams 23 are provided with recesses 24 in their upper surfaces, so that the central downwardly-extending portions of the cars may pass unobstructed, the supporting-wheels of the cars traveling upon the bottom rails 20 and the friction-rollers at the sides of the cars in engagement with the side and central guard-rails 18 and 19.

The means employed for carrying a car from the lowest point of the track structure to the highest or platform-section *c* consists of endless chain belts 25, which pass over large sprocket-wheels 26 on a shaft 27, mounted below the point where the elevated section c^4 of the track structure connects with the platform-section *c* and over smaller sprocket-wheels 28 on a shaft 28^a, mounted below the elevated section c^4 of the track structure at its lower end. These chain belts travel within the space between the bottom tracks 20, as is shown in Fig. 2, and one or more belts may be employed. In Fig. 2 the cars are shown provided with a fork 29, extending down below the lower edge of the box-body A at the back of the car. These forks span a chain belt 25, and when a car is passed into the elevated section horizontal projections 30 from the sides of the belt engage with the fork 29 of the car at the back portion of the fork and push the car up the inclined section c^4 of the track structure, releasing the fork when the platform *c* is reached.

In Fig. 4 I have illustrated another manner of pushing the car up the incline *c*, wherein the fork 30 is omitted, and brackets 31 are secured to and extend upward from the chain belt 25 and by engaging with the back of a car will carry the car steadily and safely up the said incline.

It will be observed that the carriage of a car is to all intents and purposes a sack and that the race is brought about by means of two cars being capable of traveling side by side on parallel tracks and also because it is in the power of the occupants of the car to add to the speed of the car, obtained through gravitation, by moving the body with more or less force in direction of the path of travel, the springs 17 assisting the occupants of the car in such endeavors, and at the same time the said springs take up any objectionable shock, rendering the ride comfortable and exciting.

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

1. In structures for amusement, a car comprising a body-section, a carriage adapted to receive occupants and pivotally mounted within the body-section, and springs concealed within the body-section and having bearing against the free upright walls of the carriage and opposing walls of the body-section, for the purpose described.

2. In a structure for amusement, a track, and a car adapted to travel on the rails of the track, the car comprising a body-section, a carriage adapted to receive occupants, pivotally mounted in the body portion, springs interposed between the body portion of the car and the carriage at opposite ends thereof, and a fabric extension from the upper portion of the said carriage, which fabric extension has the appearance of a sack extending above the body of the car, for the purpose described.

3. In a structure for amusement, an elevated endless track undulating for a portion of its length and inclined from its highest point in opposite directions to a lower point, each track consisting of side guard-rails and bottom rails, the bottom rails having a space between them, a car provided with supporting-wheels adapted to travel on the bottom rails of the track and with friction-rollers at its sides for engagement with the side rails of the track, the car being further provided with a pivoted basket mounted to rock in the body portion of the car, which basket is adapted to receive occupants, springs located at the end portions of the car, engaging with the body and with the basket, whereby the

basket has rocking movement in the car-body against the tension of the said spring, and a sack-like extension from the upper portion of the basket of the car, as and for the purpose described.

4. In a structure for amusement, the combination, with an elevated track inclined downward in opposite directions from an elevated point, the said track consisting of side guard-rails, an intermediate guard-rail and bottom rails attached to the side rails and to each side of the intermediate guard-rail, of cars adapted to travel on the rails of the track at each side of the intermediate guard-rail, said cars comprising a body open at the top and at the bottom, supporting-wheels journaled in the body and adapted for engagement with the bottom rails of the track, a basket pivotally mounted in the body and extending below the bottom of the same, springs engaging with the body and with the basket at opposite ends, a sack-like extension from the upper portion of the basket, and friction-rollers carried by the sides of the body of the cars for engagement with the car-rails, for the purpose set forth.

5. In a structure for amusement, the combination with an elevated track inclined downward in opposite directions from an elevated point, the said track consisting of side guard-rails, an intermediate guard-rail and bottom rails attached to the side rails and to each side of the intermediate guard-rail, of cars adapted to travel on the rails of the track at each side of the dividing guard-rail, said cars comprising a body open at the top and at the bottom, supporting-wheels journaled in the body and adapted for engagement with the bottom rails of the track, a basket pivotally mounted in the body and extending below the bottom of the same, springs engaging with the body and with the basket at opposite ends, a sack-like extension from the upper portion of the basket, friction-rollers carried by the sides of the body of the cars for engagement with the guard-rails, an endless chain belt located below the section of the track structure connecting the lowest point with its highest point, means for supporting the said endless belt, and devices carried by the said belt for pushing the car up the said connecting section of the track structure, for the purposes set forth.

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

JOHN J. WEGNER.

Witnesses:
J. FRED. ACKER,
JNO. M. RITTER.