No. 892,215. PATENTED JUNE 30, 1908.

A. F. BIAVATI.

CAR RELEASE.

APPLICATION FILED APR. 13, 1908.

2 SHEETS—SHEET 1.

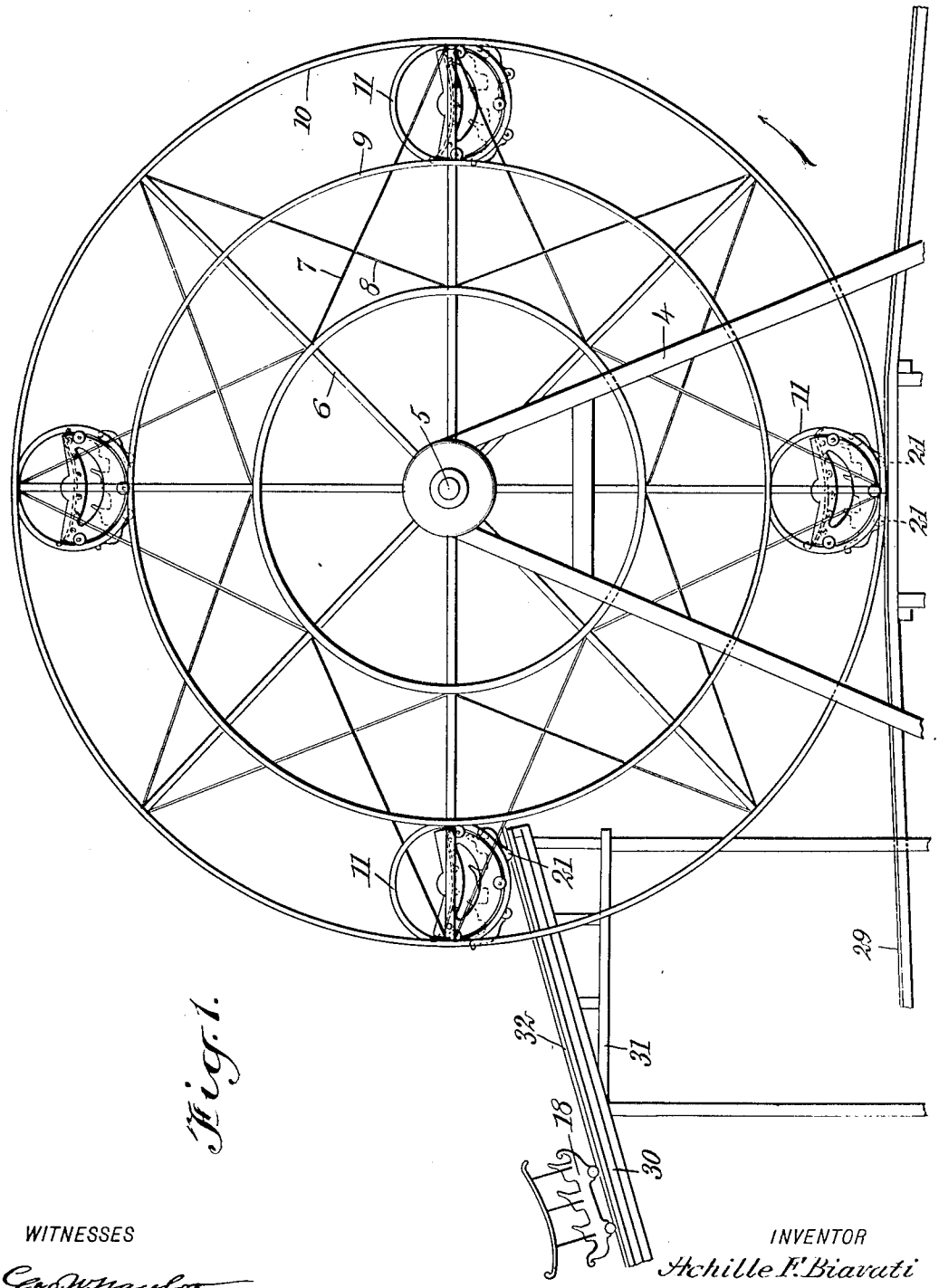


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

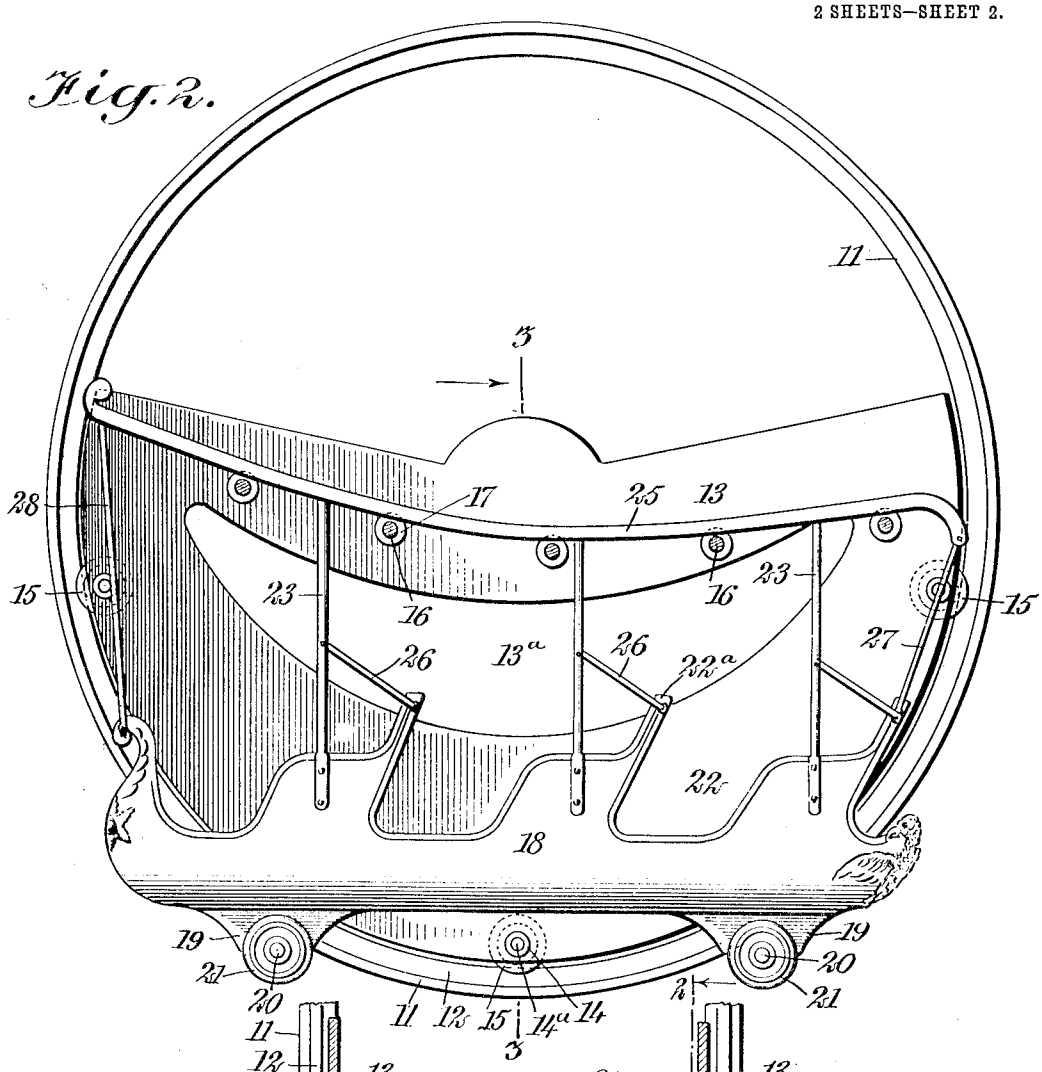
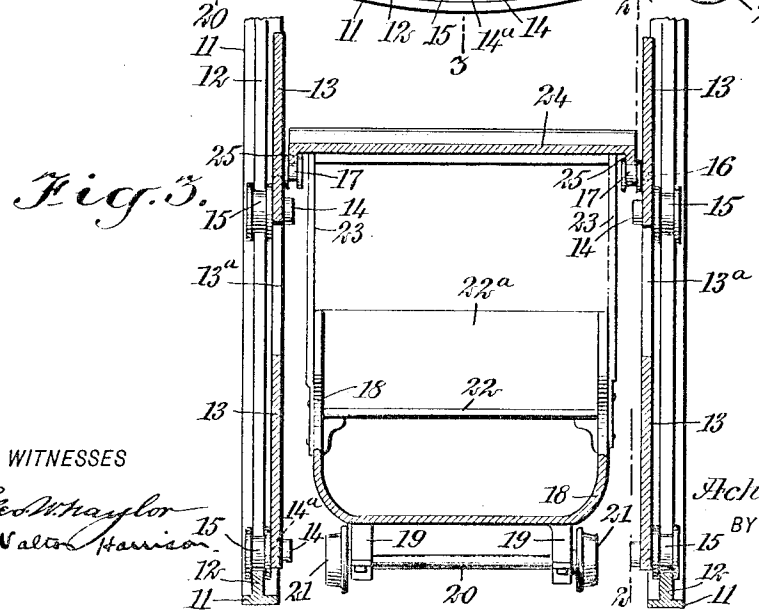



Fig. 3.

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# UNITED STATES PATENT OFFICE.

ACHILLE F. BIAVATI, OF FREEPORT, NEW YORK.

## CAR-RELEASE.

No. 892,215. Specification of Letters Patent. Patented June 30, 1908.

Application filed April 18, 1908. Serial No. 426,777.

*To all whom it may concern:*

Be it known that I, ACHILLE F. BIAVATI, a citizen of the United States, and a resident of Freeport, in the county of Nassau and State of New York, have invented a new and Improved Car-Release, of which the following is a full, clear, and exact description.

My invention relates to car releases, my more particular purpose being to provide an improved type of car release suitable for use upon observation wheels.

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 side elevation showing an observation wheel provided with my improved car release and adapted by aid thereof to discharge cars one at a time so as to allow them to run down an inclined track; Fig. 2 is an enlarged fragmentary section upon the line 2—2 of Fig. 3, looking in the direction of the arrow, and showing a car, together with its appurtenances, all as supported within one of the holders which are carried by the observation wheel; and Fig. 3 is a central vertical section upon the line 3—3 of Fig. 2, looking in the direction of the arrow, and showing how the car is supported temporarily upon rollers within the holder, and further showing how the holder and the car are both maintained in a predetermined position relatively to the ground while the observation wheel is turning.

A pair of A-frames, one of which is shown at 4, support a revoluble shaft 5, the latter carrying the observation wheel 6. This wheel has various brace rods 7, 8 whereby it is strengthened, and it is provided with circular rims 9, 10 which support annular rails 11 arranged in pairs, as indicated in Fig. 3, each rail being provided with a tread portion 12 of less thickness than the general body of the rail.

A pair of plates 13 are each provided with an opening $13^a$ of substantially crescent shape. Extending through these plates 13 are pins $14^a$ provided with heads 14, and mounted upon the pins $14^a$ are flanged rollers 15 for engaging the rails 11. A number of smaller pins 16 likewise extend through the plates 13, and mounted upon these pins 16 are flanged rollers 17. At 18 is a car body which may have, as shown, the shape of a gondola and is provided with bearing brackets 19. Revolubly journaled within these brackets are axles 20 and mounted upon the ends of said axles are service wheels 21.

The car is provided with seats 22, these seats having backs $22^a$. A number of supporting rods 23 are secured to the sides of the car body, and connected rigidly with these supports is the car roof 24. The latter is provided with overhangs 25 having substantially the form of rails and resting, together with the weight of the car, upon the rollers 17. Braces 26 connect the seat backs $22^a$ with the supporting rods 23. Various braces 27, 28 are provided for strengthening the parts and for promoting the safety of the passengers.

At 29, Fig. 1 is a track by aid of which the cars are brought to the wheel. Another track 30 rests upon a supporting frame 31 and is inclined as shown at the left of Fig. 1. This track is provided with rails 32 upon which the cars are free to run when released from the observation wheel.

The operation of my device is as follows: The observation wheel is rotated in such manner that the annular rails 11 are from time to time brought into the position indicated in Fig. 1. When the parts are in this position, a car resting upon the track 29 is moved directly into the wheel and in so doing the overhangs 25 (see Fig. 3) of the car roof engage the rollers 17, the car being thus lifted bodily off the track 29 and left hanging from the rollers 17. As above explained, the frame plates 13 rest, by aid of rollers 15, upon the annular rails 11, which are carried by the observation wheel. The rotation of the observation wheel now lifts the car one quarter of a turn, and this permits another car to be connected with the wheel, as just described. Each time a car arrives at the approximate level of the track 30 (see left of Fig. 1) it is let down gently upon the inclined track 30, the service wheels 21 engaging the rails 32 at approximately their most elevated point, and the car being gradually released as the wheel turns until its weight is entirely supported by the rails 32. The car then glides down the incline, being ultimately brought back upon the track 29 in any appropriate manner.

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

1. The combination of an observation

wheel, a plurality of rails of annular form carried thereby, cars, frames carried by said observation wheel and provided with revoluble members engaging said rails so as to support said frames, a stationary track disposed partially within the path of said cars, and mechanism controllable by rotation of the observation wheel for releasing said cars to run upon said stationary track.

2. The combination of an observation wheel, a track having a portion disposed adjacent to a predetermined part of said wheel, a car adapted to run upon said track and provided with means for suspending it from said observation wheel, a second track having a portion disposed adjacent to the path of movement of said observation wheel, and mechanism controllable automatically by motions of said observation wheel for releasing said car to run upon said track.

3. The combination of a car body provided with overhangs, a frame provided with revoluble members to be engaged by said overhangs so as to temporarily support said car, an observation wheel, and mechanism connecting said frames with said observation wheel.

4. The combination of a car body provided with overhangs, frame members disposed upon opposite sides of said car body, rollers mounted upon said frame members and engaged by said overhangs, rollers mounted upon said frame members for supporting the same, annular rails engaging said rollers and mounted upon said observation wheel. and a track disposed adjacent to said observation wheel for receiving a car therefrom.

5. The combination of an observation wheel, a car to be carried thereby, mechanism for maintaining said car in a predetermined position relatively to the ground while said car is turning, and means controllable by rotation of said observation wheel for releasing said car therefrom while said wheel is in motion.

6. The combination of an observation wheel, a car carried thereby, a track disposed adjacent to said observation wheel and adapted to receive said car, and mechanism controllable automatically by the rotation of said observation wheel for releasing said car upon said track.

7. The combination of an observation wheel, annular rails mounted thereupon and disposed in pairs, frame members disposed within said annular rails and provided with rollers engaging the same so as to allow said frame members to normally maintain a predetermined position by virtue of their own gravity, a car supported by said frame members, and means controllable by the rotation of said observation wheel for releasing said car from said frame members.

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

ACHILLE F. BIAVATI.

Witnesses:
M. H. STOERGER,
RUDOLPH SCHUSTOK.