

(No Model.)

2 Sheets—Sheet 1.

W. D. CRONIN.
CYCLOIDAL CHARIOT.

No. 567,580.

Patented Sept. 15, 1896.

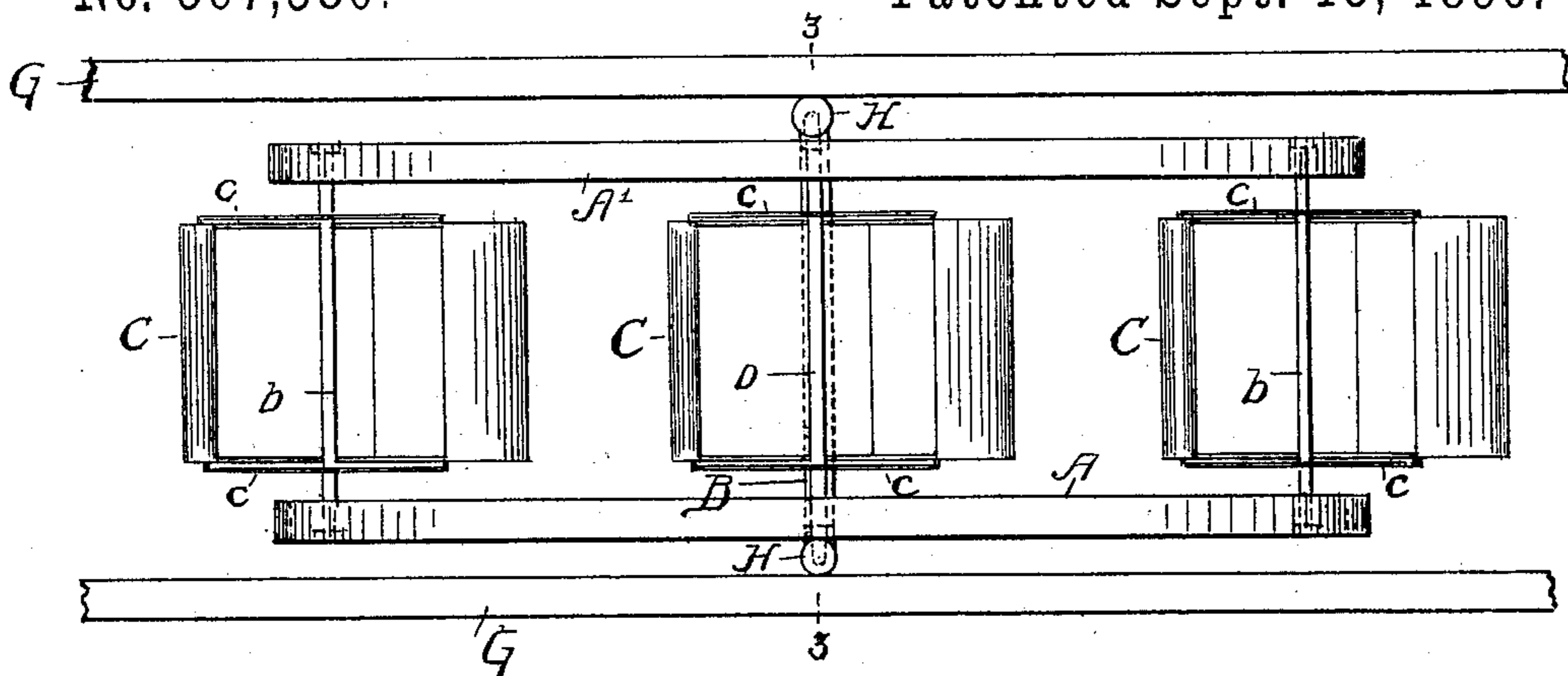
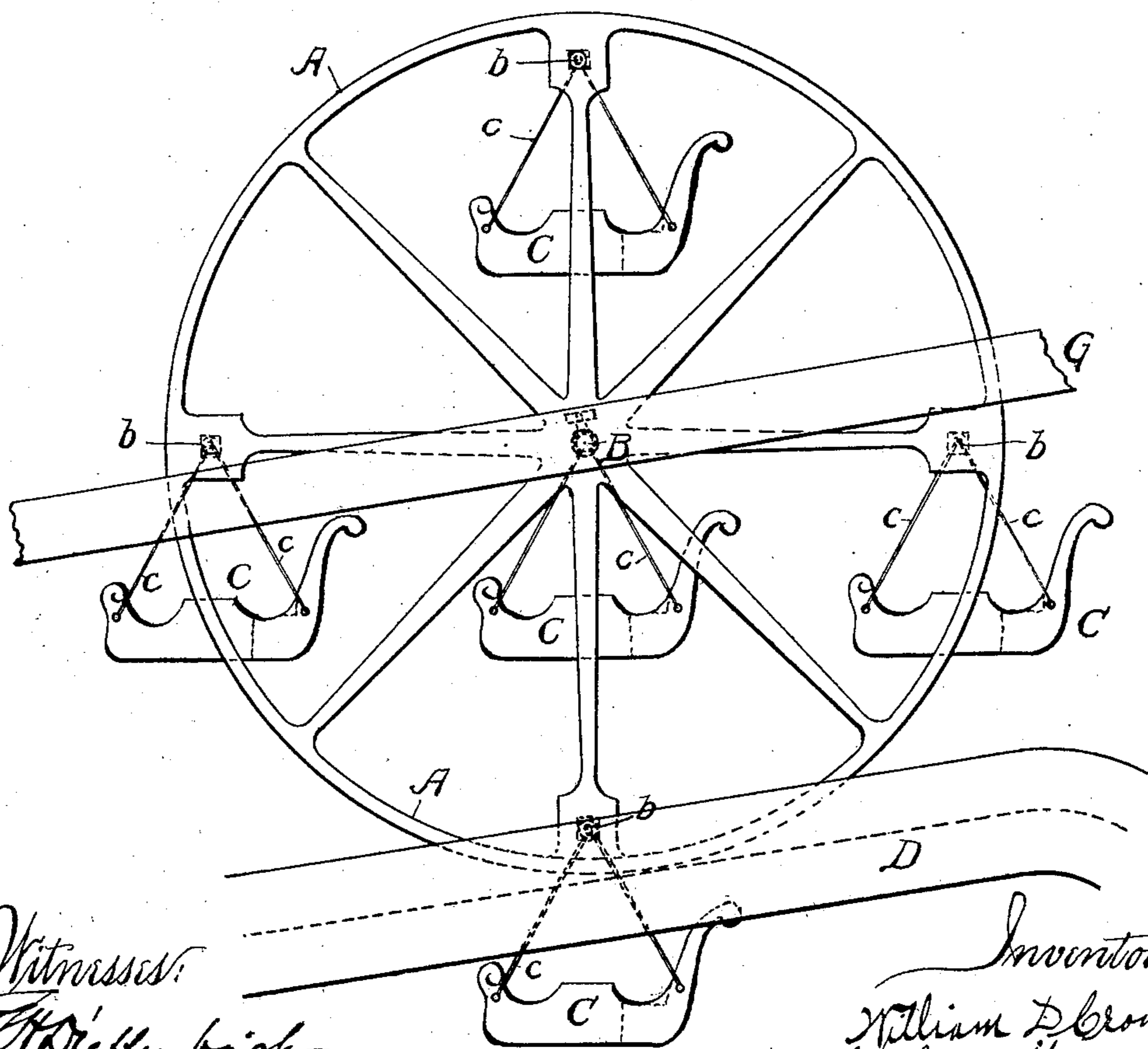


FIG. 2

FIG. 1



Witnesses:
J. H. Dieffenbach
W. H. Hallan

Inventor:
William D. Brown
By his attorney
Walter W. Calhoun

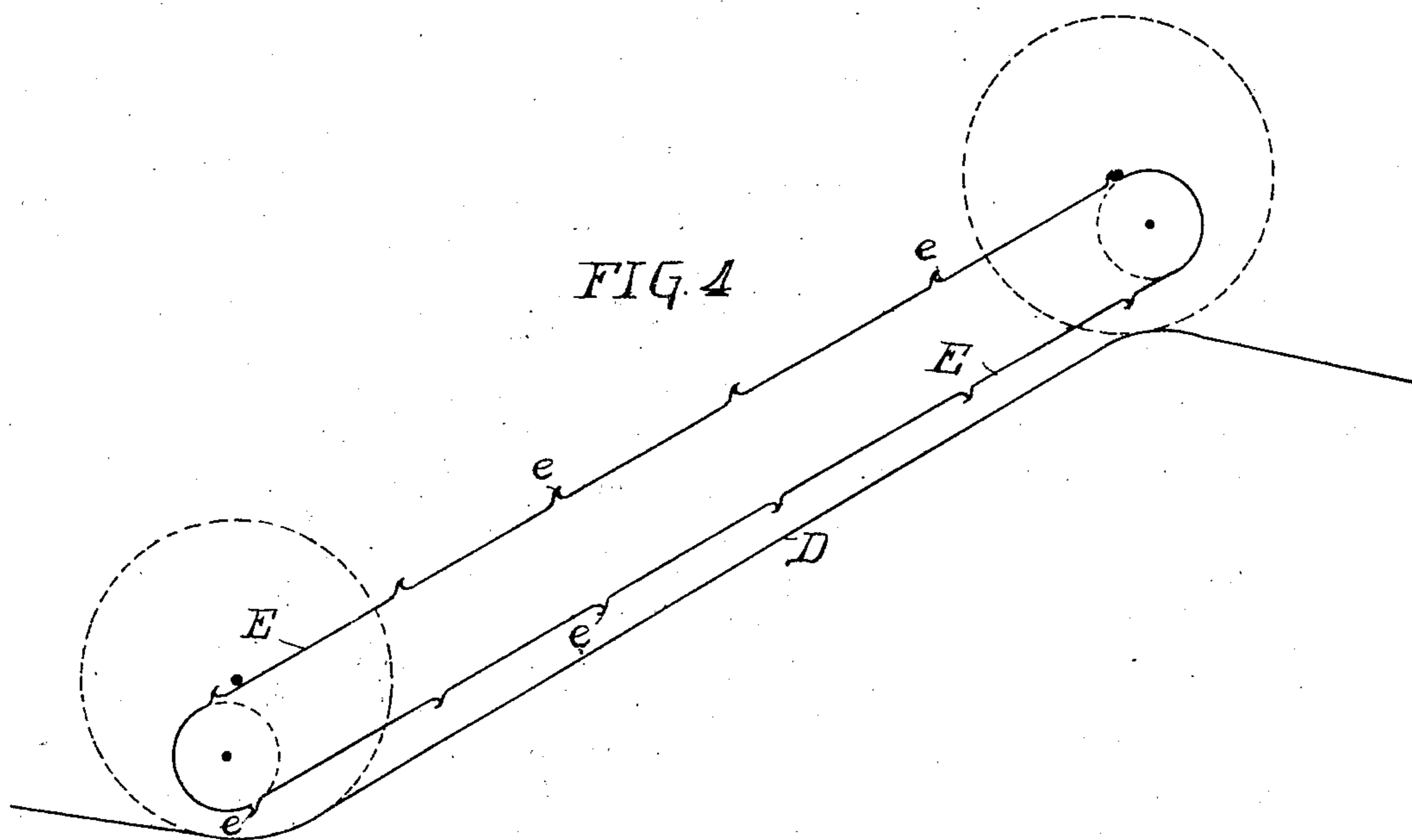
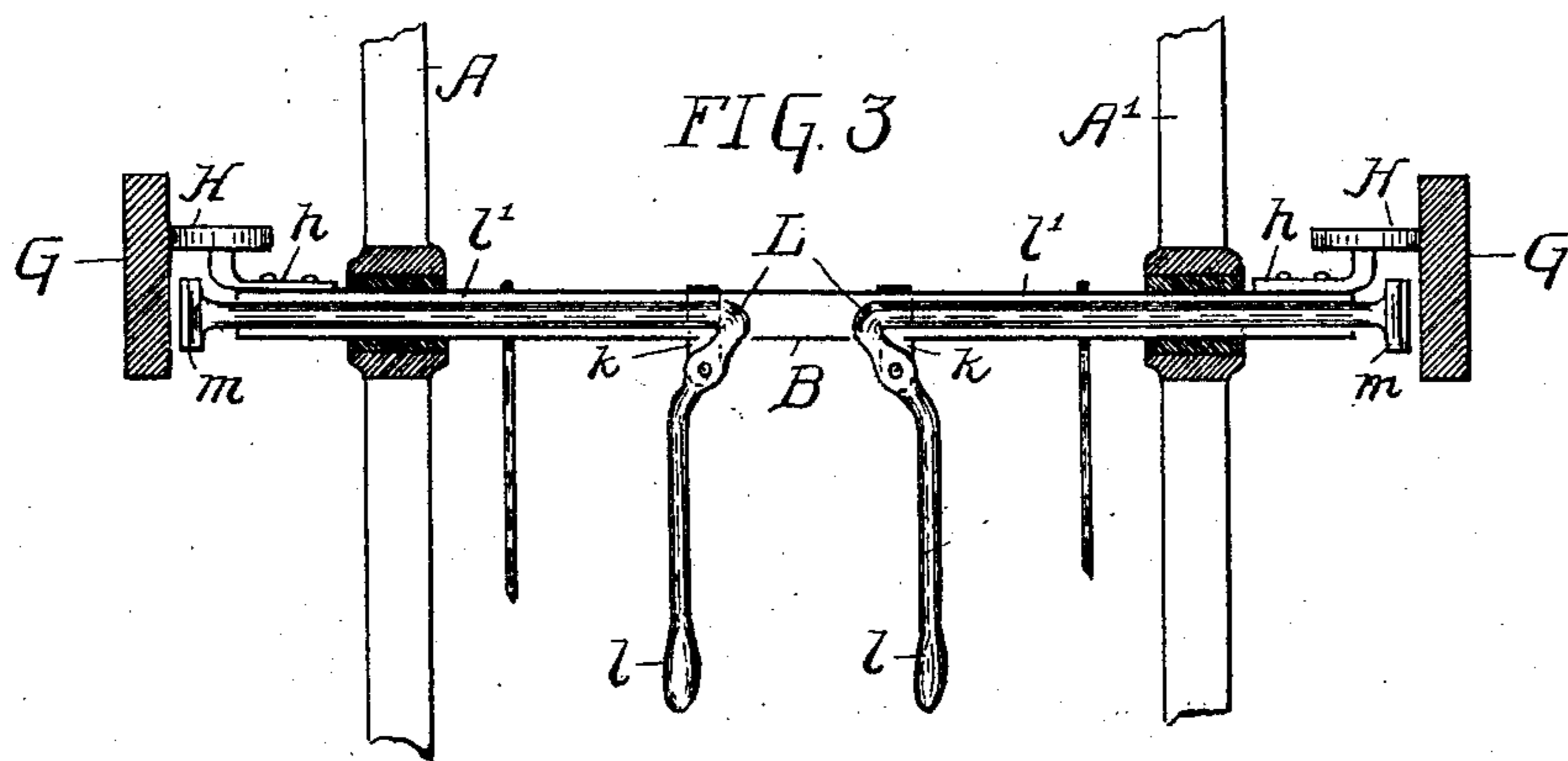
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UNITED STATES PATENT OFFICE.

WILLIAM D. CRONIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
CYCLOIDAL TRANSIT AMUSEMENT COMPANY, OF NEW JERSEY.

CYCLOIDAL CHARIOT.

SPECIFICATION forming part of Letters Patent No. 567,580, dated September 15, 1896.

Application filed December 24, 1894. Serial No. 532,792. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. CRONIN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Cycloidal Chariots, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain improvements in that class of pleasure-railways used exclusively at seashore resorts and like places, and has for its object to provide a new construction which will combine the advantages of several of the devices now in use, and at the same time present certain novel features which will tend to improve the device and render it more attractive and entertaining.

In the accompanying drawings, Figure 1 is an elevation of a combined pleasure-railway and hoisting-wheel constructed in accordance with my invention. Fig. 2 is a plan view of the same. Fig. 3 is a sectional elevation of a portion of the apparatus on the line 3 3, Fig. 2; and Fig. 4 is a diagram illustrating the preferable manner of hauling the hoisting-wheel up an inclined portion of the track.

The device in general comprises two wheels of large diameter coupled together and carrying any desired number of swiveled passenger-carrying chariots or cars, which, in the operation of the device, move in a cycloidal line. These wheels are adapted to supporting and guiding tracks, which are preferably inclined, and as the wheels run by gravity or are mechanically propelled along the tracks they revolve and carry with them the chariots or cars, so that the passengers have an enjoyable ride.

Referring to the drawings, A A' represent two wheels of large diameter, which are coupled together by a central shaft B and a series of cross-bars *b* in such manner as to form a solid unyielding structure. The wheels may be formed of structural iron and braced in any desired manner, and the number of cross-bars *b* may be increased or diminished to any desired extent, the number of bars, however, being preferably equal to the number of chariots or cars which it is desired to employ, and

each serving as a support for one of the chariots.

The chariots C are each provided with rods *c*, extending to and swiveled upon the bars *b*, so that the weight of the chariot will always insure its maintaining a position immediately below the bar to which it is attached.

The supporting and guiding tracks D are arranged in any desired manner, either on a level or inclined, but preferably are so disposed as to form a series of alternate ascending and descending planes, as shown in the diagram Fig. 4, the wheels running down the descending planes by gravity and being hauled up the ascending planes by any suitable mechanism, preferably by a link belt E, running over sprocket-wheels at the top and bottom of the incline, and provided with teeth *e*, which engage with the ends of the central shaft B.

The guiding-tracks G run parallel to the supporting-tracks D on a line with the path of travel of the shaft B. The shaft B is hollow for its entire length, and at its opposite ends is provided with brackets *h*, on which are pivoted antifriction-rollers H, which bear against the inner surfaces of the guiding-tracks G and serve to keep the wheels in proper position on the supporting-tracks D, while the latter also act as guides for the peripheral flanges of the wheels.

Near the central portion of the hollow shaft B are collars forming lugs *k*, to which are pivoted levers L, having depending handles *l* and laterally-extending rods *l'*, which project through the ends of the shaft and carry at their outer ends brake-shoes *m*, adapted to press against the guide-bars G and arrest or check the movement of the wheels when traveling down an inclined plane. To the central shaft B is hung a car C in such manner that an operator seated in this car may have the handles *l* of the brake-shoes within easy reach and may readily operate them to check the speed of travel of the wheel when necessary.

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

1. A hoisting-wheel having one or more passenger-carrying chariots pivotally hung

thereon, and a supporting-track upon which said wheel may travel.

2. A hoisting-wheel having one or more passenger-carrying chariots, a supporting track
5 or tracks upon which said wheel may travel, and guiding-tracks running parallel to the supporting-tracks, on a line with the line of travel of the axial center of the wheel.

3. In combination, a hoisting-wheel having
10 one or more passenger-carrying chariots, supporting-tracks upon which said wheels may travel, a central shaft for said wheel, anti-friction-rollers provided at the opposite ends of said shaft, and guiding-tracks with which
15 said anti-friction-wheels are kept in contact during the travel of the wheel, substantially as specified.

4. In combination, a hoisting-wheel having one or more chariots, a hollow shaft at the
20 center of said wheel, supporting-tracks upon which the wheel may travel, guiding-tracks on a line with the central shaft, brake-shoes adapted to be forced into contact with said guiding-tracks, carrying-rods for said brake-

shoes extending through the hollow shaft, 25 and operating-handles on said carrying-rods, substantially as specified.

5. A hoisting-wheel having one or more passenger-carrying chariots, an inclined supporting-track on which said wheel may travel and
30 mechanism for hoisting said wheel up said inclined track, substantially as specified.

6. In combination, the hoisting-wheels, A, A', hollow shaft B, cross-bars *b*, chariots C, swiveled to said cross-bars, a chariot, C, hung
35 upon the shaft B, supporting-tracks D, guiding-tracks, G, anti-friction guiding-rollers, H, upon the opposite ends of said shaft, brake-shoes *m*, carrying-rods, *l'* therefor, and levers L, having handles, *l*, connected to said
40 shoe-carrying rods, substantially as specified.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM D. CRONIN.

Witnesses:

FRED. TAYLOR PUSEY,
HERMAN L. HECHT.