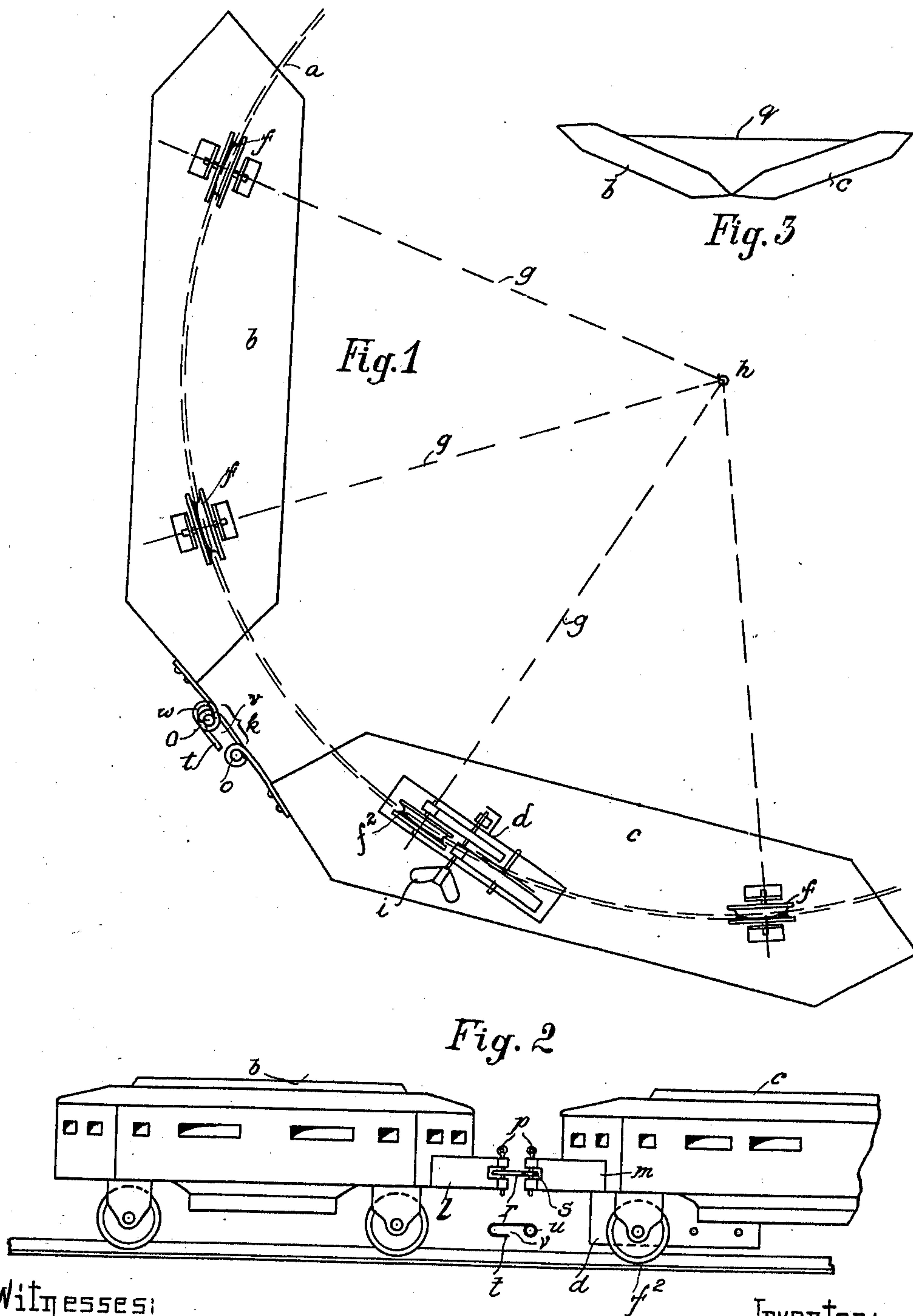


H. REHBACH.
TOY MONORAIL SYSTEM.
APPLICATION FILED MAY 12, 1910.

993,104.

Patented May 23, 1911.



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UNITED STATES PATENT OFFICE.

HUGO REHBACH, OF NUREMBERG, GERMANY.

TOY MONORAIL SYSTEM.

993,104.

Specification of Letters Patent.

Patented May 23, 1911.

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To all whom it may concern:

Be it known that I, HUGO REHBACH, manufacturer, whose post-office is 233 Schnieglingerstrasse, at Nuremberg, Germany, have
5 invented certain new and useful Improvements in Toy Monorail Systems; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art
10 to which it appertains to make and use the same.

This invention relates to toys and has for its object a toy monorail system, which is adapted to travel on a circular track and in
15 which by a suitable arrangement of the wheels of the carriages or by coupling several carriages together, two or more supporting points are created to prevent the carriages overturning. In this manner the carriages are enabled to travel on a monorail by
20 the simplest of means, without employing gyrostats, and the use of lateral stay rollers is rendered unnecessary.

Reference will now be made to the accompanying drawings, in which—

Figure 1 is a reverse plan view of one embodiment of the invention, Fig. 2 is a side elevation, and Fig. 3 is a plan view of a modification.

30 In carrying the invention into effect a is a rail which may be bent in the form of a circle; b and c are the carriages, the lower part of the carriage c being provided with the mechanism d for driving the carriages. The
35 planes of the wheels f are displaced relatively to the longitudinal axis of the carriages b and c , to which they belong, in such a way that the center lines of the wheel axles intersect at a point h , the center of curvature
40 of the rail. A wheel f^2 acts as the driving wheel and forms part of the driving mechanism d , wound up by a key i . A connecting coupling k is provided between the two carriages b and c and effectively prevents lateral
45 swaying. The component parts of this coupling consist of two flat parts l and m and a central member r . The former are connected to the ends for the carriage and are fork-shaped, while in plan view the latter is rectangular, it being moreover provided
50 with a closed eye piece s and an open eye or hook t . Eyes are provided in each of the ends of the parts l and m for receiving the coupling pins p . By rolling up or bending
55 the ends of the central member there are formed firstly a hole u and secondly a slot-

ted guide v , both adapted to engage the coupling pins p . The parts l , m , r are thus connected by means of the pins p and, owing to the provision of the central member, insure a small free space w to allow play to the carriage in the direction of the longitudinal axis.

To set the toy in motion, it is first of all placed on the rail and the driving mechanism is wound up with the key i , whereupon the toy will travel around and around the track until the driving power is exhausted.

The carriages form a rigid body after being placed on the rail and coupled together, and this rigidity is maintained while the toy is in motion. Consequently, the carriages may primarily be rigidly connected together, for instance by being soldered, screwed or riveted together. The first described method of coupling is however preferable, since it permits of the toy being more easily packed. A rigid coupling may also be obtained by connecting the carriages by a rigid member such as, for instance, a rod q (Fig. 3). Finally a further modification consists in constructing a carriage the length of which is sufficient to permit of the wheels being arranged at corresponding distances apart. The carriages may also be constructed in any other manner as may be required, for instance to resemble motor vehicles, goods vehicles, tramway cars or the like.

What I claim and desire to secure by Letters Patent is:

1. In a toy railway the combination of a curved monorail track, a plurality of interconnected vehicles, propelling means for said vehicles, and wheels connected to said vehicles and in engagement with said track, said wheels being so disposed with respect to said vehicles that they support the same in at least three points.

2. In a toy railway the combination of a curved monorail track, a plurality of separately interconnected vehicles, propelling means for said vehicles, wheels connected to said vehicles and in engagement with said track, and means for rigidly interconnecting said vehicles, said wheels being so disposed with respect to said vehicles that they support the same in at least three points.

3. In a toy railway the combination of a curved monorail track, a plurality of separately interconnected vehicles, propelling means for said vehicles, a plurality of wheels connected to each of said vehicles and in en-

gagement with said track, and means for rigidly interconnecting said vehicles said means being attached to the vehicles on the side directed away from the center of the curved
5 portion, and said wheels being so disposed with respect to said vehicles, that they support the same in at least three points.

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

HUGO REHBACH.

Witnesses:

MAX SCHNEIDER,
PAUL BACHHOFFER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
