

No. 746,467.

PATENTED DEC. 8, 1903.

G. S. CRANE  
PLEASURE RAILWAY.  
APPLICATION FILED AUG. 25, 1903.

NO MODEL.

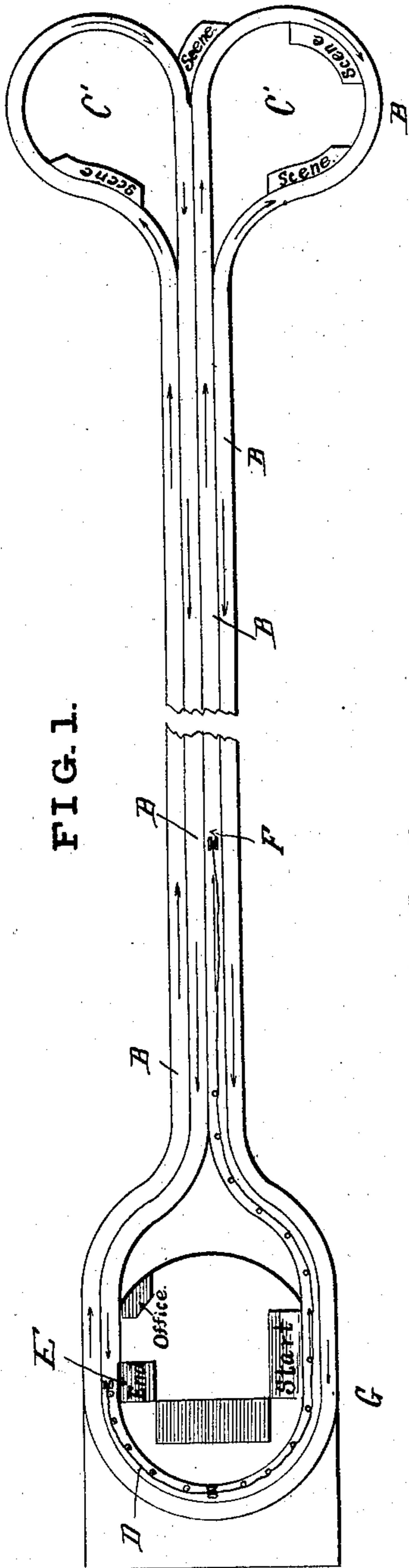


FIG. 1.

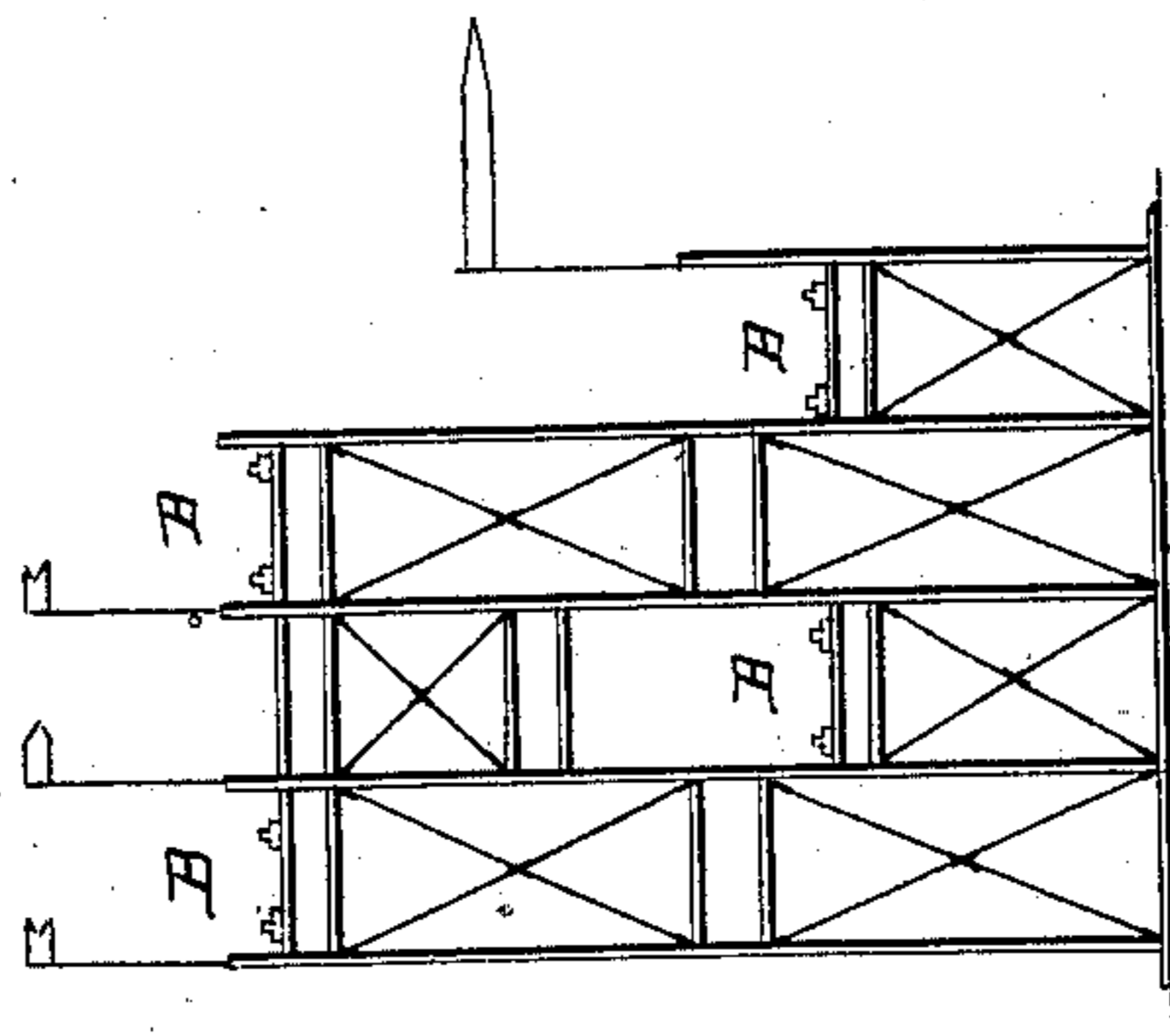


FIG. 3.

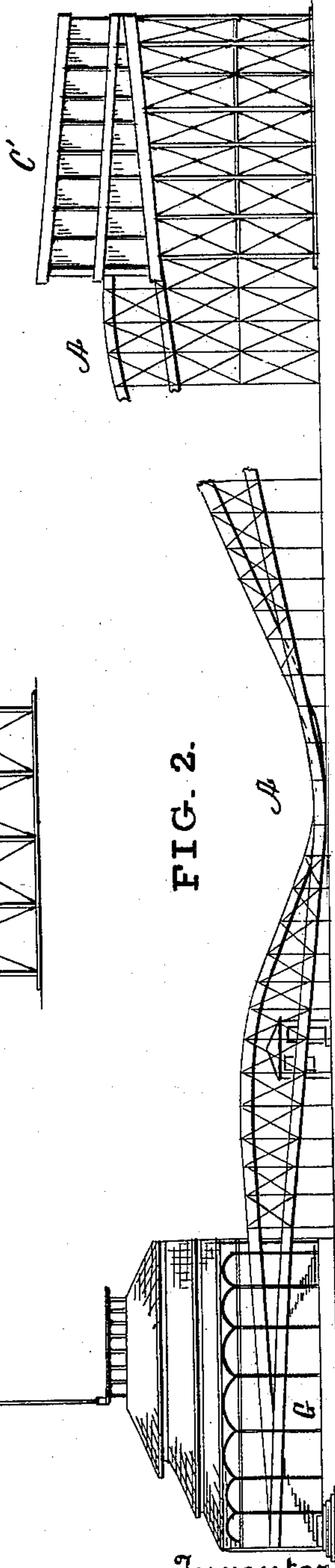


FIG. 2.

Witnesses  
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# UNITED STATES PATENT OFFICE.

GEORGE S. CRANE, OF PHILADELPHIA, PENNSYLVANIA.

## PLEASURE-RAILWAY.

SPECIFICATION forming part of Letters Patent No. 746,467, dated December 8, 1903.

Application filed August 25, 1903. Serial No. 170,702. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE S. CRANE, 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 Pleasure-Railways, of which the following is a specification.

My invention relates to amusement devices commonly known as "scenic" and "gravity" railways, "roller-coasters," "toboggan-slides," &c., and has for its object to provide a device of this class which will be novel in its construction and by which there will be secured increased enjoyment of its patrons from the fact of the cars running in opposite directions at all points of the structure, thus materially adding to the pleasure and exhilaration of the occupants of the cars.

The invention will be fully described hereinafter and the features of novelty and safety pointed out in the appended 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 the figures thereof.

Figure 1 is a diagrammatic plan of a four-track pleasure-railway embodying my invention. Fig. 2 is a cross-section of the roadway, showing more clearly the four tracks of said structure. Fig. 3 is a ground-plan exhibiting the four tracks with loops in the pavilion ends and the outer loops at the extreme or tunnel ends.

As illustrated, the device comprises a continuous track A, so arranged as to appear as four distinct tracks B B B B side by side in a portion of the structure, merging into loops C' at the extreme ends, the cars in traversing said tracks running in an opposite direction at all times, yet no crossing or switch, overhead or surface, being employed to accomplish said results.

D is a common chain cable or any other suitable elevating mechanism for carrying the cars from the landing E (at which passengers are taken on) to the highest point F, after leaving which the cars travel by their own momentum or gravity to the tunnels or outer loops G, thence return on the two incoming tracks to the pavilion end or start-

ing-point. The two outgoing tracks and the two incoming tracks are an exact duplication of each other, though they are separated, the duplications not being side by side, as is usual in other pleasure-railways. While I have shown exact duplication of outgoing and incoming grades, which is the arrangement most likely to be observed in practice, yet it is obvious that I am not necessarily bound to confine myself to such arrangement, as it is but a problem of gravity, contour of ground, &c., to allow for change of grades, according to conditions that may exist or arise.

My invention dispenses completely with all need of a crossing or switch, either surface or overhead, and thus removes all possibility of danger of collision and other objectionable features, all tracks being separately distinct from connection with each other, except in the continuous form previously described. By "tracks" I do not necessarily mean sets of rails, since my invention is applicable to any device in which cars, slides, or other bodies are elevated or allowed to travel down inclines.

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

1. In a pleasure-railway or the like, a continuous track so arranged as to appear as four distinct tracks, whereby one car or more cars connected together traverse over the entire structure in opposite directions without any switch or crossing, surface or overhead.

2. In a pleasure-railway or the like, a continuous track so arranged as to appear as four distinct and separate tracks, whereby one or more cars run in opposite direction through the pavilion (or starting-point) without any switch or crossing either surface or overhead, as accomplished by means of two loops (or tunnels) at the outer extremity of the structure and corresponding loops side by side in the pavilion or starting-point.

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

GEORGE S. CRANE.

Witnesses:

THOMAS J. BOWEN, Jr.,  
EDWARD G. COOK.