

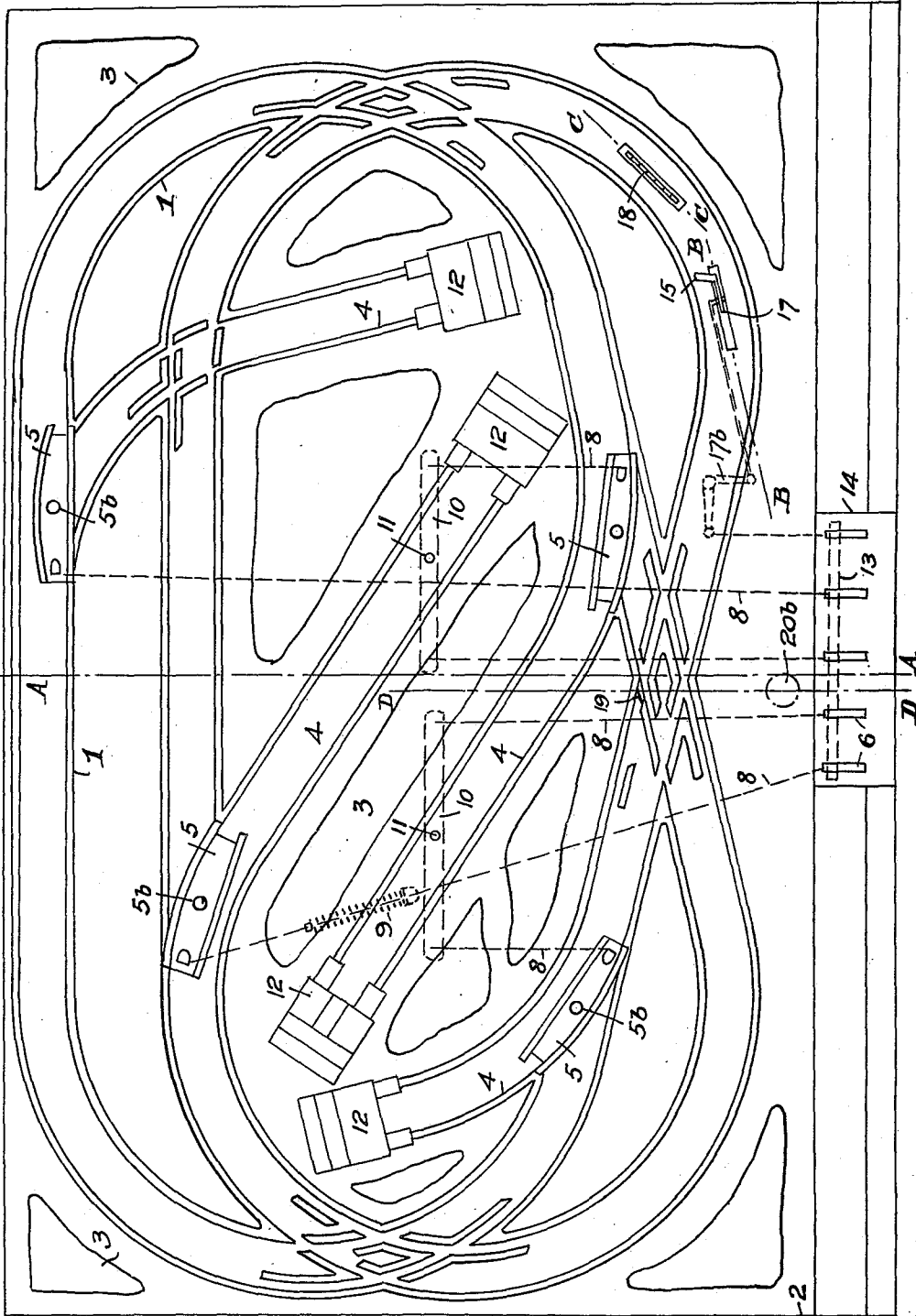
F. HORNBY.
TOY OR GAME.

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1,022,419.

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2 SHEETS—SHEET 1.



Witnesses
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Fig. 1.

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UNITED STATES PATENT OFFICE.

FRANK HORNBY, OF LIVERPOOL, ENGLAND.

TOY OR GAME.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK HORNBY, a subject of the King of Great Britain, and a resident of Liverpool, England, have invented certain new and useful Improvements in Toys or Games, of which the following is a specification.

This invention relates to an improved toy in which a movable body such as an engine or the like, which may be propelled by its own power or actuated by the operator, is adapted to travel along a track, various points on the track requiring to be closed in order to insure that the engine or the like shall reach its final destination.

The invention is illustrated in the accompanying drawings, in which,

Figure 1. is a plan view of a toy constructed in accordance with this invention. Fig. 2. is a transverse section on the line A—A of Fig. 1. Fig. 3. is a fragmentary section on the line C—C. Fig. 4. is a similar fragmentary section on the line B—B, and Fig. 5. is a further fragmentary section on the line D—D.

In carrying out the invention the track is preferably constructed by stamping up rails 1 from a sheet metal plate 2 the rails curving around the plate and crossing at certain points as shown. The metal plate may be also embossed at certain places 3 to imitate the undulating character of a country. At intervals along the curves of the track are arranged branch sidings 4, controlled by pivoted plates carrying points 5, which are normally kept in such position that the engine or the like will tend to pass into the sidings from the main track. These points are operated by levers 6 mounted in a casing 14 on the side of the track, and articulated to the points 5 by means of rods 8 connected to lugs 5^a on the points 5 pivoted at 5^b. These rods 8 may be coupled above or below the pivots of the levers 6, as shown in Fig. 2, so as to require different or opposite movements to effect the closing of the points, and in this way more care is needed to remember the manner in which each lever acts, and the difficulty of the game correspondingly increased. The rods 8 are fitted with springs 9 inclosed between a collar 9^a on the rod and an abutment 9^b carried from the plate, so that the operation of any point results in the compression of the springs 9. The levers 6 may be coupled direct to the points,

or through the medium of rocking levers 10 pivoted at 11 to the plates. The ends of the sidings are provided with spring buffers 12, and the operating levers 6 are conveniently mounted on a shaft 13 disposed within a curved casing 14.

A starting mechanism consisting of a trigger 15 may be provided, said trigger being pivoted at 16, and adapted to work within a slot 17 in the plate and being articulated by a spring controlled rod 17^a and bell crank 17^b to one of the levers 6 in the manner previously described, the engine or the like movable object being placed over the trigger mechanism and released by the operation thereof, in any well known manner.

In utilizing the toy as a scoring game, a number is allocated to each siding and a larger number to the end destination of the line where such is provided. In this way the score is made by noting the siding into which the engine or the like is allowed to pass by the player neglecting to operate any particular point, or if the engine successfully arrives at the final destination the larger score is made. Or, in the arrangement of the track shown, the starting point being at the trigger 15, by suitably closing the track points the engine may be diverted back to the starting point, and so returned again to the circuit of the track, an expert operator in this way being enabled to keep the engine running continuously around the track.

A scoring device 18 may be provided to count the number of times the engine or the like has been caused to circuit the track, this scoring device consisting of a toothed wheel 18 mounted beneath a slot 18^a in the plate, in such manner, that only one tooth of the wheel 18 projects above the track, such projecting tooth being caught as the engine passes this point, and the wheel turned through an angular distance corresponding to the pitch of the teeth. These teeth are numbered and the number of times the engine encircles the track is thus automatically recorded. To further increase the difficulty of the game a projection 19, mounted on a lever 20 pivoted at 20^a and provided with a spring controlled push button 20^b, may be provided, normally projecting in the track in such position as to wreck the train or the like, such projection, however being cleared from the track by

depressing the button 20^b. Instead of an engine moving by its power—such an a clockwork train—a rolling ball may be utilized, corresponding modifications being effected in the track, the base plate being in such a case tilted by the operator to cause the ball to be propelled along the track by its own rolling action.

I claim:

10 An improved toy comprising; a set of track rails stamped from a sheet metal plate; branch sidings to said track rails; switch points controlling the entrances to the sidings; spring controlled rods nor-
15 mally holding the said points to the sidings

open; hand levers connected to the spring controlled rods; a starting trigger connected to one of said levers; a scoring device comprising a toothed wheel projecting above the track; and a projection on the track normally in such a position as to wreck a train passing along the rails but adapted to be cleared therefrom by operating a button.

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

FRANK HORNBY.

Witnesses:

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