

(No Model.)

J. A. ALLEN.
TOY.

No. 482,957.

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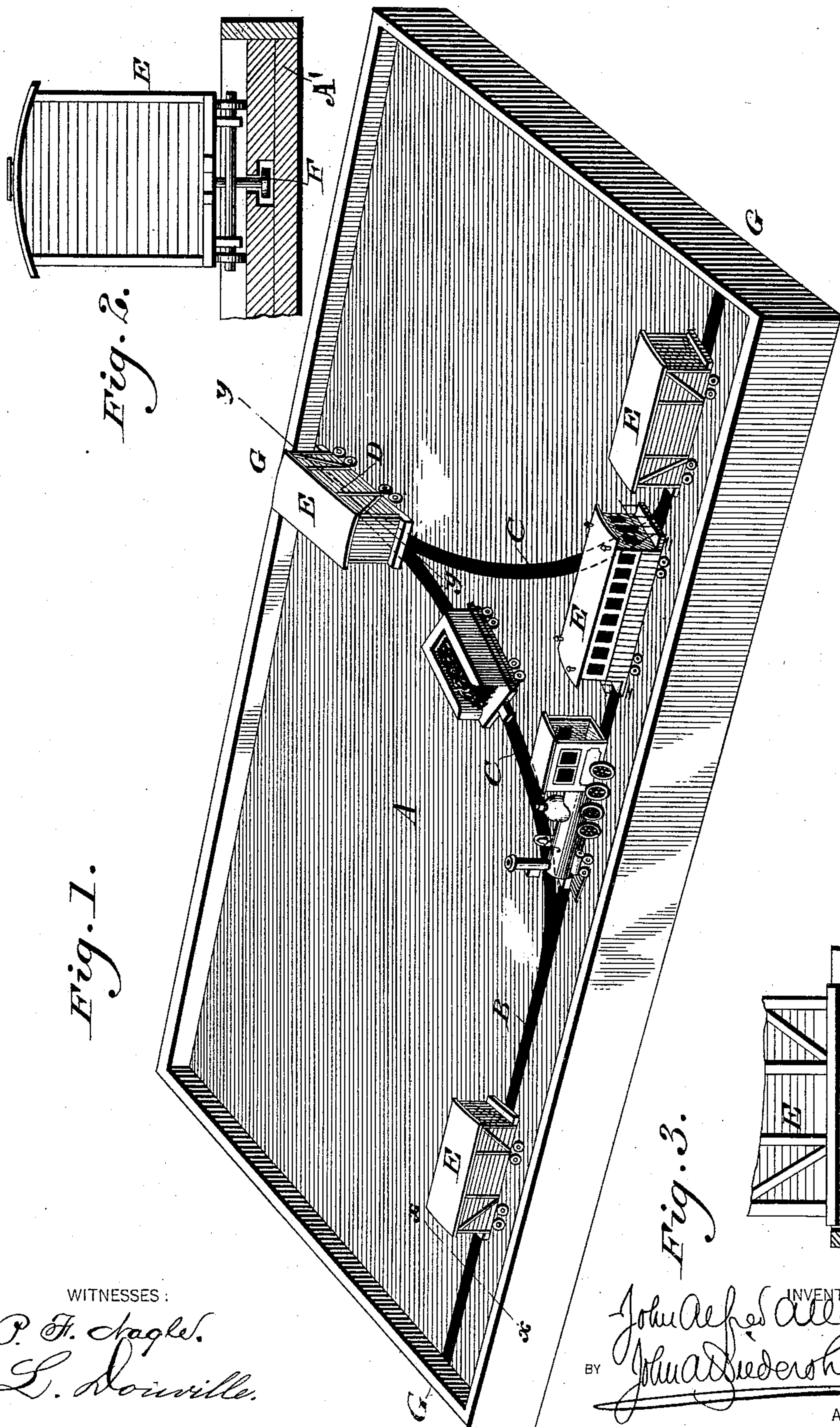


Fig. 1.

Fig. 2.

Fig. 3.

WITNESSES:

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TOY.

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To all whom it may concern:

Be it known that I, JOHN ALFRED ALLEN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Toys or Puzzles, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a puzzle embodying a railroad-track and cars, substantially as hereinafter described and claimed, whereby trains may be made up and broken in play, the cars being connected with the track in such manner that they will not be easily displaced when in use and may be run with less friction than when solid blocks are employed, all as will be set forth.

Figure 1 represents a perspective view of a game or toy embodying my invention. Fig. 2 represents a transverse vertical section of a portion on line $x x$, Fig. 1, on an enlarged scale. Fig. 3 represents a longitudinal vertical section thereof on line $y y$, Fig. 1, showing a different form of car.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the bed or base of the game or toy, the same being formed of wood or other suitable material, having on the face thereof a right-line track B, which may be a groove or slot, as shown fully in Fig. 1. Converging grooves or side slots C communicate with said groove or slot B, and an auxiliary groove or slot D is continuous of the grooves or slots C at the place of junction of the latter to form a spur, the several grooves or slots simulating a railroad-track, of which the grooves or slots C are switches and form a Y. In all the figures the said track is shown as formed by slots cut through the bed or base A, and a supplemental base or bottom A' is fastened against said bed or base, and thereby closes the grooves from below.

E designates toy cars or blocks representing a locomotive-engine and tender, together with baggage, passenger, and freight cars, each having depending therefrom a headed pin F, whose shank occupies either of the slots B C D, and whose head is on the under side of the respective slot, whereby the car may be moved or shifted from one slot to the other and

guided by said pin F, which also prevents the car or block from becoming disconnected from the base A. The heads of the said pins F are protected against contact from below by the base or bottom A', thereby obviating interference with the free movement of said pins and the parts attached thereto. The said pins F are preferably formed of metal, with heads on the lower ends thereof, the pins entering the slots and the heads being on the under side of the walls thereof. This admits of the use of narrow slots and produces greater strength in the connection of the heads with the blocks or cars without liability to be snapped or broken off, as where integral heads or necks are employed. As the pins are preferably cylindrical, they play with less friction in the slots, and as they are separated, occupying positions at opposite ends of the cars or blocks, the latter may be moved with greater freedom, and there is a minimum liability of the pins or heads jamming with the walls of the slots, owing to the space between in the longitudinal direction of the cars or blocks.

It will be seen that, owing to the several slots, the cars or blocks may be shifted or moved from one slot to the other, and thus trains may be made up or broken, it being evident that considerable manipulation is required to accomplish said result, especially in making up a train when the cars or blocks are on different slots and in reversed position, in which case it is necessary to shift the cars from one slot to the other, while care is being taken to prevent blocking of either slot.

The slot D provides a spur whereby either of the slots C may be entered or departed from at the converging point of said slots C, this causing the exercise of skill, which is materially increased by a rule of the game or toy that each car or block when moved at certain intervals must be accompanied by the locomotive-engine, and making the spur of such length as to hold only one car or the locomotive still further complicates the moves.

The objects to be attained by the puzzle or toy are of a manifold nature; but the main feature of the game is to break up trains by arranging the blocks irregularly on the bed and then making up the train in regular

order on the main track or to reverse the train to travel from left to right, or vice versa, or, further, to change the positions of the cars or blocks relatively to the locomotive-engine.

5 In moving the several cars or blocks the fingers of the hand are employed to connect the same with the engine, it being evident, however, that couplings may be provided for such purpose.

10 The main track B and the branches C C and spur D of the Y may be of any length, so long as the problem presented is observed; but to prevent a misunderstanding of the manner in which the puzzle is solved I make the spur
15 D long enough to hold only the locomotive-block or other car-block represented, as before set forth, and extend the main track B beyond the point of intersection of the main track and one of the branches far enough to
20 permit passage of only one block or car at a time from the said branch to said extension.

A fence or guard G is placed around the bed, especially covering the ends of the slots or tracks, to prevent the cars or blocks from be-
25 coming disconnected from said slots or tracks.

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

1. In a puzzle or toy, the combination, with
30 several blocks representing a locomotive and cars, of a base having a main track and two branch tracks diverging therefrom in reverse directions on the same side of the main track and uniting in a spur forming a Y, the spur
35 being of sufficient length to hold only the locomotive or one car, substantially as described.

2. The combination, in a puzzle, of several blocks or figures, one of which represents a

locomotive and the others cars, with a base having a main track and branches diverging 40 therefrom in reverse directions on the same side of the main track and uniting in a spur to form a Y, said spur being of a length to hold only the locomotive or one of the cars, and the main track extending beyond the point 45 of intersection of one of the diverging tracks therewith to hold the locomotive and one or more cars free of the Y, substantially as described.

3. A game or puzzle consisting of a base 50 with a rectilinear track or slot extending throughout the length of said base and opening out at the ends of the latter, a transverse track, slot, or spur opening out of one side of the base, curvilinear slots on one side only of 55 the rectilinear slot and connecting the said rectilinear and transverse slots, the transverse slot being of a length to hold the locomotive or one car only, an inclosing guard or rail attached to the sides and ends of the slots, and 60 cars having depending pins to move in said slots, substantially as described.

4. A game or puzzle consisting of a base with a rectilinear slot, curvilinear slots extending from said rectilinear slot and on one 65 side only thereof, said curvilinear slots merging into a transverse rectilinear slot of a length to hold only one car or block, which may be the locomotive or another car, and cars or blocks having headed pins to move in 70 said slots, substantially as described.

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Witnesses:

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