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[54] **RAILROAD CAR SWITCHING GAME**

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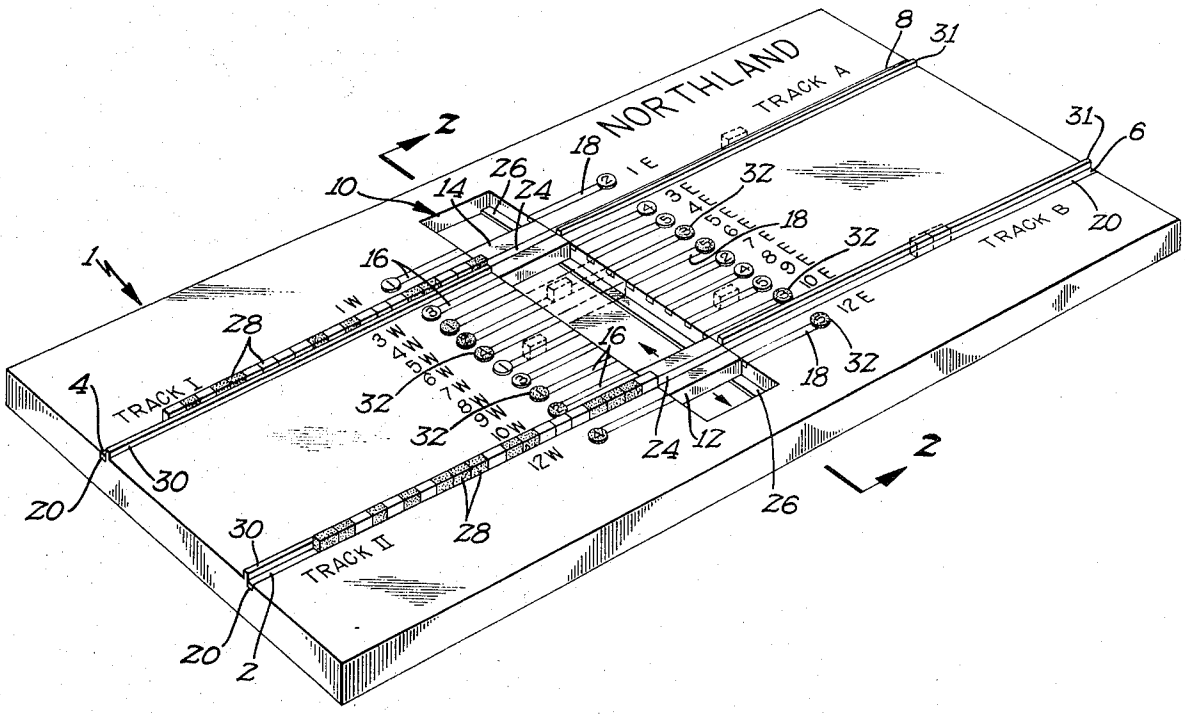
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[57] **ABSTRACT**

A railroad car switching game played on a board having a pair of incoming tracks and a pair of outgoing tracks formed thereon, these two pairs of tracks being separated at their inner ends by a bridge zone on which a pair of car receiving and conveying bridges are shiftably positioned. A plurality of classification track segments on opposite sides of the bridge zone serve to receive and store movable car members from the shiftable bridges in the process of shifting cars onto and off of the bridges to classify the two incoming trains and to make up a pair of outbound trains on the outgoing tracks. The objective of the game is to classify the two incoming trains and to make up a pair of outbound trains in a minimum number of moves of a bridge member.

3 Claims, 5 Drawing Figures



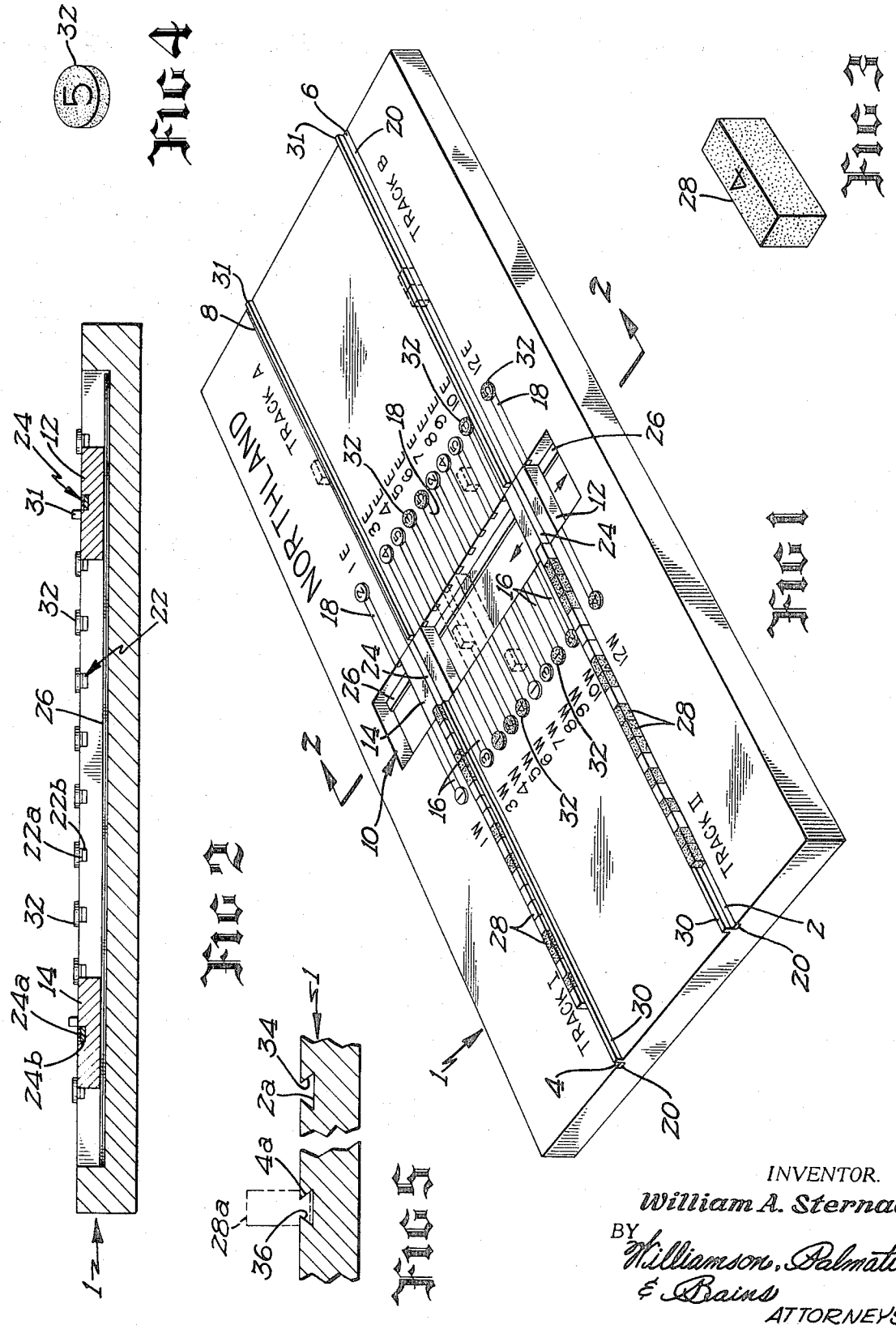


FIG 1

FIG 2

FIG 3

FIG 4

FIG 5

RAILROAD CAR SWITCHING GAME

BRIEF SUMMARY OF THE INVENTION

This invention is directed to a railroad car switching game constructed and played in such a manner as to simulate an actual car classifying and train make up system in a railroad switch yard.

The game includes as its basic structural component a playing board particularly characterized by at least two incoming tracks and two outgoing tracks formed thereon and terminating at their inner ends at opposite sides of a bridge zone delineated on the board and extending between the incoming and outgoing tracks. A plurality of classification and storage track segments arranged on opposite sides of the bridge zone terminate at their inner ends at opposite side edges of the bridge zone; and one or two bridge members shiftably positioned on the bridge zone are used to receive movable car members from the incoming tracks, convey the cars to an appropriately designated one of the classification track segments for storage thereon, and to ultimately carry the cars to the inner end of one of the outgoing tracks into which the cars are moved from the bridges to form outgoing trains.

The aforesaid bridge zone advantageously takes the form of an elongate recess, preferably extending transversely of the board and the tracks. The bridge members extend across substantially the entire width of the recess, and when slidably positioned therein, have their top, car receiving surfaces at the same level as the top surface of all of the tracks so as to facilitate the shifting movement of cars onto and off of the bridges to and from incoming tracks, outgoing tracks and classification track segments.

A particularly beneficial feature of the game structure resides in the use of magnetic tape strips to form the incoming tracks, outgoing tracks and classification track segments, the tape strips being adhesively affixed to the playing board. The movable car members are of ferrous or magnetic material on at least their bottom surfaces so as to be slidably held on the tape strips by magnetic attraction.

To facilitate classification of incoming cars and to add an element of strategy to the game, each car is marked with an identifying designation and each classification track segment is marked with a designation corresponding to that of one of the cars. The classification track markers are preferably removeable, and may be selectively positioned on particular ones of the classification track segments as desired by a player after viewing the incoming train of car members randomly assembled on his incoming track. Opposing players each elect one train to classify and to make up on an outgoing track; and the objective is for each player to classify and make up his train on an outgoing track, with designated cars in a predetermined order in the least number of bridge moves. Each movement of a bridge member is considered a turn.

These and other objects and advantages of my invention will become readily apparent as the following description is read in conjunction with the accompanying drawings wherein like reference numerals have been used to designate like elements throughout the several views.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top, perspective view of the game board and structural elements comprising the railroad car switching game of this invention;

FIG. 2 is a vertical section view taken along lines 2—2 of FIG. 1;

FIG. 3 is a perspective view, on an enlarged scale, of one of the movable railroad car members;

FIG. 4 is a perspective view, on an enlarged scale, of one of the classification track markers; and

FIG. 5 is a vertical section view of the playing board showing an alternative form of track and car construction.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, I have shown in FIG. 1 a perspective view of the game board and associated structure and movable elements utilized to play the railroad car switching game. The game is based on a modern concept of a railroad classification yard. Whether referred to as a switch yard, marshalling terminal, or classification yard, it is the terminus within a railroad system where incoming trains are separated, classified, stored and subsequently reassembled into new, outgoing trains in a predetermined order to be delivered to subsequent destinations along particular routes. The game board designated generally by reference numeral 1 simulates such a switch yard or classification yard.

Board 1 may be made of any suitable material, such as plastic, metal, wood, or cardboard. Preferably, board 1 assumes the elongated, rectangular shape shown in FIG. 1. Any desired dimensions for playing board 1 may be established. A particular size which I have found to be suitable is a board 30 inches long, 14 inches wide, and 1 inch thick. Formed on playing board 1 are a plurality of incoming tracks 2 and 4, and an equal number of outgoing tracks 6 and 8, these tracks preferably extending longitudinally of the board in the manner shown in FIG. 1. Although various numbers of incoming and outgoing tracks may be used, I have found it desirable to use two incoming tracks and two outgoing tracks. For game playing purposes, the two incoming tracks are designated on the board as tracks I and II; and the two outgoing tracks are marked on the board as tracks A and B. Although not necessary for satisfactory shifting of railroad cars and playing of the game, I have found it preferable to align the incoming and outgoing tracks, with tracks I and A being in alignment, and tracks II and B being in alignment. Henceforth throughout this description, the incoming tracks and outgoing tracks will be referred to by their reference numeral designations 2, 4, and 6, 8 respectively. Extending transversely of playing board 1 at a location between the inner ends of incoming and outgoing track sections 2, 4, and 6, 8, is a bridge zone generally indicated by reference numeral 10. Bridge zone 10 preferably takes the form of a rectangular area to accommodate the shifting movement of a pair of bridge members 12 and 14 positioned thereon. I contemplate that bridge zone 10 may be delineated on playing board 1 in various ways. For example, bridge zone 10 could simply be marked off or printed on the surface of board 1. However, I have found it desirable for playing and mechanical positioning of the various game elements to form an elongated recess transversely of board 1 to define bridge zone 10 in the manner illustrated in FIGS. 1 and 2. Bridge recess or zone 10 may have a depth ap-

proximately one-half the thickness of board **1**. Bridge members **12** and **14**, which may be formed out of wood or any other material, are of such a length as to snuggly fit across the width of bridge zone **10** to permit their sliding movement therein. The thickness of bridges **12** and **14** is selected so that the top surface of these bridge members will be flush or even with the top surface of board **1** and of tracks **2, 4**, and **6, 8**. Bridges **12** and **14** are typically 1 7/16 inches long, 1 inch wide and ½ inch thick. Incoming tracks **2, 4** and outgoing tracks **6, 8** terminate at their inner ends at the opposite sides of bridge zone or recess **10**. Also formed on playing board **1** along opposite sides of bridge zone **10** are a plurality of classification or storage track segments **16** and **18**. These track segments also terminate at their inner ends along the opposite side edges of bridge zone or recess **10**, and for reasons hereinafter explained, are preferably arranged in aligned pairs. That is to say, each of the classification track segments **16** on one side of bridge **10** is aligned with a track segment **18** on the opposite side of bridge **10**. All of the tracks and track segments including incoming and outgoing tracks **2, 4** and **6, 8** and the classification track segments **16** and **18** are parallel with each other to facilitate the playing of the game by the shifting movement of railroad car members. The top surfaces of classification track segments **16** and **18** are also flush or even with the top surface of bridge members **12** and **14**. As is hereinafter explained with respect to the operation and playing of the game, this arrangement of the track and track segments with respect to the bridge members **12** and **14** facilitates the handling of railroad car members as they are shifted onto and off of bridge members **12** and **14**.

It will be appreciated that incoming and outgoing tracks **2, 4** and **6, 8** respectively, as well as classification track segments **16, 18** may be formed or delineated on the top of playing board **1** in various ways. My preferred manner of accomplishing the forming of the railroad tracks is to form slots in the top surface of playing board **1**, and to secure magnetic tape strips within the slots, with the top surface of each of the tape strips being flush with the top surface of playing board **1**. The magnetic tape strips defining incoming and outgoing track segments **2, 4** and **6, 8** are designated by reference numeral **20**. Such magnetic tape strips are commercially available, and are provided with an adhesive bottom layer which adheres to the surface of board **1**, and with a magnetic top layer. Classification track segments **16** and **18** are likewise formed by a plurality of magnetic tape strips **22** laid in slots formed in the top surface of board **1**. The double layer magnetic tape strips are the same for all of the tracks and track segments, this tape structure being clearly illustrated in FIG. **2** with respect to classification track tape strips **22**. The upper, magnetic layers of tape strips **22** are designated by reference numeral **22*a***, and the lower, adhesive layers of the tape strips are designated by numerals **22*b***. Also, with reference to FIG. **2**, it will be seen that bridge members **12** and **14** are also slotted lengthwise, and provided with magnetic tape strips **24** inserted therein. The upper, magnetic layer **24*a*** of strips **24** is flush with the top surface of bridge members **12** and **14**, and the lower adhesive layer **24*b*** is pressed into tight, adhesive engagement with bridges **12** and **14**. A pair of magnetic tape strips **26**, one of which is shown in FIGS. **1** and **2**, are also laid in place on the bottom of bridge recess **10**, along the opposite side walls thereof. These tape strips **26** serve as a sliding surface for bridges **12** and **14**.

The game is played with a plurality of shiftable railroad car members **28** shown aligned on incoming tracks **2** and **4**. One of the railroad car members **28** is shown on an enlarged scale in FIG. **3**. These railroad car members **28** may be formed from a variety of materials to take any desired configuration. They may even be formed to the general configuration of freight cars, if desired. In the illustrative embodiment shown in FIGS. **1** and **3** the railroad car members **28** are small rectangular solids have flat bottom surfaces by means of which they may be slidably shifted on incoming tracks **2, 4**, outgoing tracks **6, 8**, bridges **12** and **14**, and classification track segments **16, 18**. At least the base portion of each of the railroad car members **28** is provided with a ferrous layer or coating by means of which the car members **28** are magnetically attracted and held on magnetic strips **20, 22** and **24** defining the various tracts and track segments. Railroad car members **28** are further guided and restrained for sliding movement on incoming and outgoing tracks **2, 4** and **6, 8**, by means of elongated, upright support strips **30** and **31** which are coextensive with these tracks along one edge thereof. The back faces of railroad car members **28** slidably bear against support strips **30** and **31** as the railroad cars are shifted along the tracks. Bridge members **12** and **14** are also provided with a ferrous coating on their base surfaces for magnetic attraction to strips **26** on which they are slidably shiftable back and forth within bridge recess **10**. Bridge members **12** and **14** are removable, and are simply inserted within recess **10** when a game is to be played.

Each of the cars **28** is provided with an identifying designation for classification and train assembly purposes. Color and number designations may be used. For illustrative purposes herein, half of the railroad car members are provided with a speckling as is illustrated in FIGS. **1** and **3**, and the other half of the shiftable railroad car members have plane faces. Each of the railroad car members has a numerical designation on its top face. For example, the railroad car member **28** shown in FIG. **3** has the number designation **4** on its top face. Because of size and space limitations, the numbers are not shown on all of the railroad car members in FIG. **1**. Each of the classification and storage track segments **16** and **18** is identified for game playing, and illustrative purposes herein, as either a west or an east track segment, in combination with a particular number designation. Thus, classification track segments **16** bear printed designations **1W** through **12W**, and classification track segments **18** bear the designations **1E** through **12E**. Each of the classification track segments is further identified by a label or marker **32** corresponding to a particular railroad car member designation. If the railroad cars bear the numbers **1** through **5**, then markers **32** also carry numbers **1** through **5**. The markers **32** which are to correspond to the speckled railroad car members are also provided with speckling thereon, as is clearly illustrated in FIG. **4**. Half of the markers **32** will be speckled.

With a total of **20** classification track segments **16** and **18** (**10** on each side of bridge zone **10**), the game will be played with **20** railroad car members **28**, and **20** of the classification track markers **32** will be required. Preferably, to add a strategy element to the game, markers **32** are separate, removable discs which may be

placed in position adjacent the classification track segments **16** and **18** at the beginning of the game in the manner illustrated in FIG. **2.** Alternatively, the numerical designations shown on markers **32** could be printed on the board **1** permanently adjacent the outer ends of the classification track segments **16** and **18.**

In the game illustrated herein, the process is limited to two incoming trains identified as I and II in FIG. **1,** and aligned on incoming track segments **4** and **2.** As illustrated, each of the incoming trains is made up of a random mixture of the speckled and plain railroad car members **28.** These two incoming trains are to be classified as two outgoing trains comprised of cars in a predetermined sequence on outgoing tracks **6** and **8.** The game can be played by one person who can, by means of different strategies, attempt to achieve a minimum number of railroad car moves to accomplish the task of properly assembling the outgoing trains. Two players can play using the same board, or with each player having his own board and railroad car members to move. When more than two players wish to play the game, a sufficient number of boards **1** have to be used to permit each player to have his own train to assemble in the least number of moves. As illustrated herein, each train has **20** car members **28.** With two players, as will normally be the case, utilizing a single playing board **1,** the first step in the game is to randomly assemble a pair of incoming trains I and II on tracks **4** and **2.** This is accomplished by the players' alternately drawing a car member **28** blindly and then placing the drawn car on their particular incoming tracks **4** or **2.** The player sitting on the south side of the board as viewed in FIG. **1** will be assigned the incoming train on track **2,** and will manipulate bridge member **12** in the course of assembling his outgoing train on track **6.** The opposing player, on the north side of board **1,** will have the train on incoming track **4** to classify, using his shiftable bridge member **14,** and will ultimately assemble his outgoing train in a desired order on track **8.** When the **40** car members **28** have been spotted on the two inbound or incoming tracks **2** and **4,** the players have now simulated two random car trains that the road engine might have brought into the switch yard to be classified into two outgoing trains. The head car of the train will be at the west edge of the pit or bridge recess **10.** The number on each car member **28** indicates where it is to be located on the outgoing train. The rules of the game will provide that each of the assembled outgoing trains must have their cars arranged in a particular numerical sequence. For example, if the car members **28** bear the numbers **1** through **5,** there will be four cars of each numerical designation to be assembled into the outgoing trains on tracks **6** and **8.** According to the game procedure, all of the cars bearing the number **1** designation will have to be at the head of the outgoing trains, with the numbered designations progressing numerically to require that the number **5** cars be at the rear of the outgoing trains on tracks **6** and **8.** This procedure simulates the actual practice according to which railroad cars must be in a predetermined order on assembled trains so as to be dropped off in sequence at various cities along the train routes. Thus, the cars at the rear of the departing or outgoing trains must be the cars (those designated by the numerals **5**) which are to be dropped off last. The solitary player will note the number of moves he uses to complete the classification of his two trains; and competing players seek to assemble their respective trains in the least number of moves. For purposes of playing the game, one shifting movement of one of the bridges **12** or **14** is considered a turn or a move.

With two players playing the game, they will take turns sliding car members **28** from incoming tracks **2** and **4** onto one of their respective bridge members **12** or **14** and then sliding the bridge member **12** or **14** within recess **10** to a position in alignment with one of the particular classification track segments bearing the same designation as the railroad car member which is being conveyed on the bridge. The railroad car member **28** is then slidably shifted off of the particular bridge member **12** or **14** onto its corresponding classification track segment **16** or **18.** In FIG. **1,** one of the bridges is shown in phantom transporting a car to a classification track segment, and several cars are shown in phantom on their proper classification track segments. Both of the incoming trains are fully classified and stored in this manner, with the players taking turns in moving cars off of their respective incoming tracks **2** or **4** onto their own bridge members **12** or **14** and then shifting the bridge member to the proper classification track segment. As noted above, bridge **12** is used to classify and store the cars on incoming track **2** and bridge **14** is used to classify and store the cars aligned on incoming track **4.** Each of the bridge members **12** and **14** is sized to accommodate two of the railroad car members **28.** Two of the car members **28** may be moved onto a bridge member, and classified in a single move if they are to be classified and stored on a pair of aligned track segments **16** and **18** on opposite sides of bridge zone **10.** For example, if the player using bridge member **12** moved a pair of plain railroad car members numbered **4** and **3** onto his bridge in that order, he could then shift his bridge member **12** to a position of alignment between classification track segments **8W** and **8E** and slide these two railroad cars onto their respective classification track segments designated **3** and **4** respectively. If the next two railroad car members to be picked up from one of the incoming tracks **2** or **4** are not to be classified on opposite sides of bridge zone **10,** then they can not be removed from a bridge member to their storage positions on classification tracks in a single move. As a preliminary, optional strategy step in the game, the players may decide to refrain from placing their classification markers **32** in place until after they have randomly assembled their incoming trains on tracks **2** and **4.** Then, having in mind the order in which their railroad car members **28** are assembled on incoming tracks, each player can then position his ten markers **32** on the ten classification track segments on his side of the board in order to be able to classify as many so-called double sets of cars in single moves as possible, and thus to complete the classification of his train in the least number of moves.

After each player has fully classified his incoming train, the players then proceed, in turns, to assemble their outgoing trains on tracks **6** and **8** in the predetermined order as stated above. This is accomplished by shifting bridge members **12** and **14** back and forth, as the players take their turns, and using the bridge members to pick up the classified railroad car members **28** from the classification track segments **16** and **18** in the proper order. After picking up one or two of the car members **28,** the bridge member **12** or **14** must be moved back into a position of alignment with its re-

spective outgoing track 6 or 8. The car or cars are then slidably shifted off of the bridge member onto the outgoing track to assemble the outgoing trains.

It is to be noted that bridge members 12 and 14 are so sized that they can not service adjacent classification tracks at the same time. For example, if bridge 12 is positioned between classification track segments 8W and 8E, then the other player can not, in his next move, shift bridge member 14 to a position serving classification track segments 7W and 7E. Thus, by selecting his moves to the classification track segments carefully, a player can block his opponent from making the necessary next move. In this event, the opponent must pass his turn until the other bridge member has been moved out of the way.

It is important to note, that in the process of assembling the outgoing trains, all of the speckled cars must be on the same outgoing track, such as track 6; and all of the plain cars must be on the other outgoing track. Initially, one of two opposing players is assigned either the speckled train or the plain train to assemble on this particular outgoing track. Since there will be a mixture of both the speckled cars and the plain cars on both of the incoming tracks 2 and 4, each player will be classifying some cars of each type at his particular end of bridge zone 10. Each player has a set of ten of the classification track markers 32 to use on the ten classification track segments at his side of the playing board 1. Thus, there will ultimately be some car members 28 of the same designation, e.g., 1 - speckled, at both the top (North) and bottom (South) of bridge zone 10. The only restriction on the placing of classification track markers 32, is that tracks 1E, 1W, 3E and 3W should all be labeled with plain markers for use by the player at the north or top side of the board who is to assemble the plain car train on outgoing track 8; and in a like manner, classification tracks 10E, 10W, 12E and 12W should all bear markers 32 with speckling thereon for use by the opposing player who is to assemble his train of speckled cars on outgoing track 6. Since bridge 14 has to be moved as far as classification tracks 9E and 9W to pick up cars for the outgoing train which is to be assembled on track 8, bridge 14 can delay bridge 12 from moving beyond a position of alignment between incoming and outgoing tracks 2 and 6, when bridge 14 is positioned between classification tracks 9E and 9W. In a like manner, bridge 12, when moved to a car pick up position as far towards the upper or north side of the board as classification tracks 4E and 4W, can block the movement of bridge 14 towards the south or bottom side of board 1.

As noted above, other constructions than the magnetic tape strip device may be used to define the various tracks and track segments on board 1. One alternative is illustrated in FIG. 5. In this embodiment of the invention a tongue and groove slide coupling is used between the tracks and car members. To thus end, board 1 is provided with dovetail slots or grooves to form all of the tracks and track segments. A pair of incoming tracks 2*a* and 4*a* defined by such dovetail grooves 34 are shown in board 1 in FIG. 5. These tracks, as well as similarly formed outbound tracks, must extend all of the way to the ends of board 1 to permit car members 28*a* to be slidably inserted therein. Tongues 36 formed on the bottom of cars 28*a* conform to the shape of grooves 34 and are held therein against upward removal by the dovetail joints shown in FIG. 5. With thus type of track and car structure, bridges 12 and 14 would of course also have to be provided with dovetail slots flush with the incoming tracks, outgoing tracks and classification track segments to accommodate the sliding movement of the cars.

I anticipate that various other changes may be made in the construction and shape of board 1, and well as with respect to the tracks and railroad car members employed thereon, without departing from the spirit and scope of my invention as defined by the following claims.

I claim:

1. A railroad car switching game comprising:
a playing board;
an elongated bridge zone delineated on said board;
at least two bridge members independently and separately shiftable on said board back and forth over said bridge zone, each of said bridge members spanning substantially the entire width of said recess, whereby one bridge member may not be moved past the other along the length of said recess;
a plurality of incoming track means on said board terminating at their inner ends at one side of said bridge zone;
a plurality of outgoing track means terminating at their inner ends at the opposite side of said bridge zone;
a plurality of classification track means on opposite sides of said bridge zone terminating at their inner ends at opposite sides of said zone; and
a plurality of railroad car members shiftably positionable on said incoming track means, said bridge members, and said outgoing track means, whereby said railroad car members may be sequentially moved from one of said incoming track means, to one of said bridge members, shiftably moved with one of said bridge members for movement onto one of said classification track means, and then carried by one of said bridge members to a position of alignment with one of said outgoing track means for outgoing movement thereon.

2. A railroad car switching game as defined in claim 1, and further including:
an identifying designation on each of said railroad car members, and corresponding designations on each of said classification track means, said designations on said classification track means being on removably adjustable members which can be selectively placed on particular ones of said classification track means as desired.

3. A railroad car switching game comprising:
a playing board;
an elongated recess in said board;
at least one bridge member slidably shiftable in said recess;
a plurality of incoming track means on said board terminating at their inner ends at one side of said recess;
a plurality of outgoing track means terminating at their inner ends at the opposite side of said recess;
a plurality of classification track segments on opposite sides of said recess terminating at their inner ends at opposite sides of said recess; and
a plurality of railroad car members shiftably positionable on said incoming track means, said bridge member, said classification track segments and said

outgoing track means, whereby said railroad car members may be sequentially shifted from one of sid incoming track means onto said bridge member aligned therewith, then shifted on said bridge member within said recess to a particular one of said classification track segments for storage thereon, and ultimately carried by said bridge member to a position of alignment with one of said outgoing track means for shifting movement from said bridge member onto said outgoing track means;

identifying designations on each of said railroad car members, and the corresponding designations on each of said classification track segments, said designations on said classification track segments being on removably adjustable members which can be selectively placed on particular ones of said classification track segments as desired.

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