Aug. 25, 1953 J. W. ZIMMER 2,650,094

DRIVING SKILL TEST GAME APPARATUS

Filed Aug. 4, 1950 3 Sheets-Sheet 1

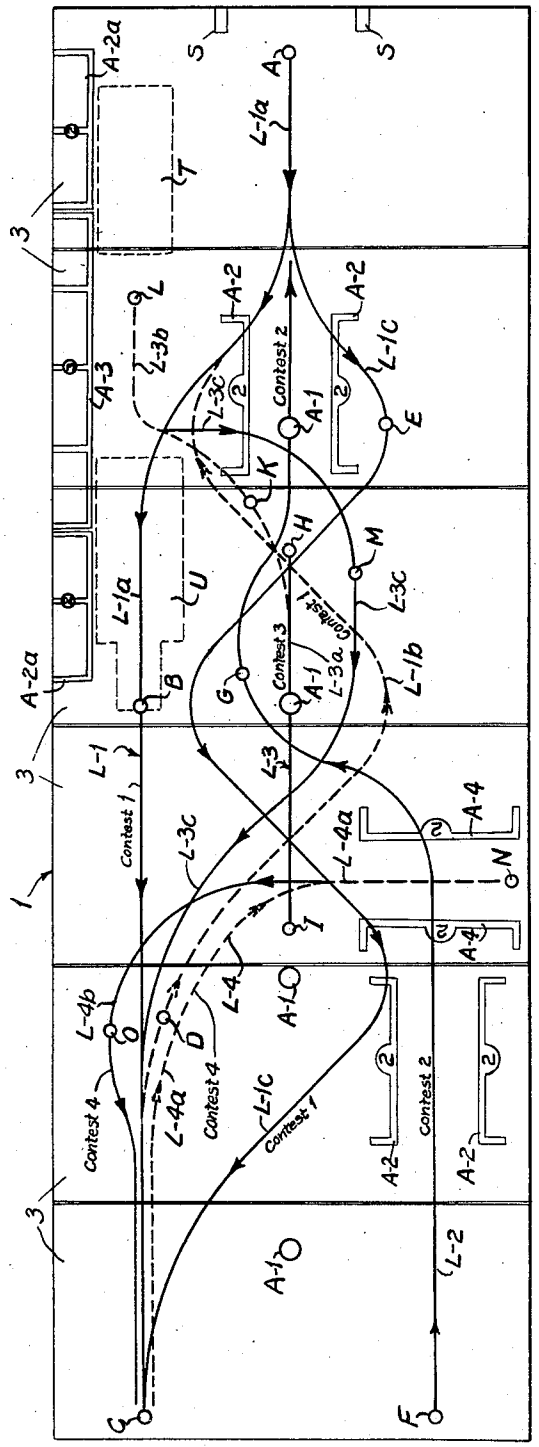



FIG. 1.

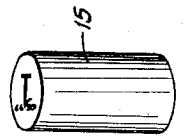



FIG. 4.

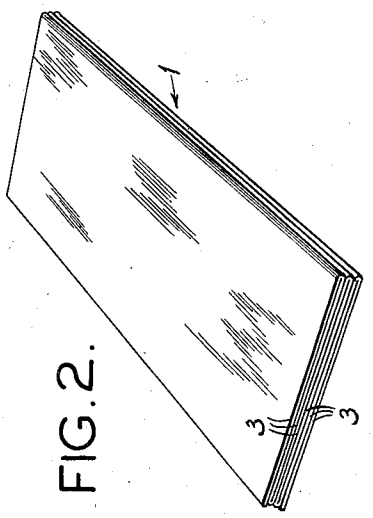



FIG. 2.

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FIG. 3.

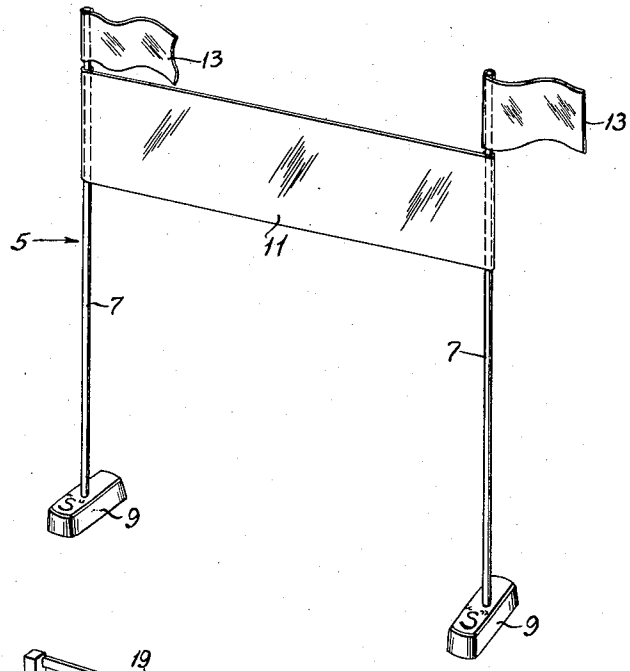
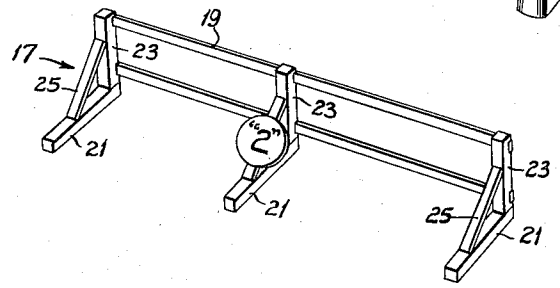



FIG. 5.



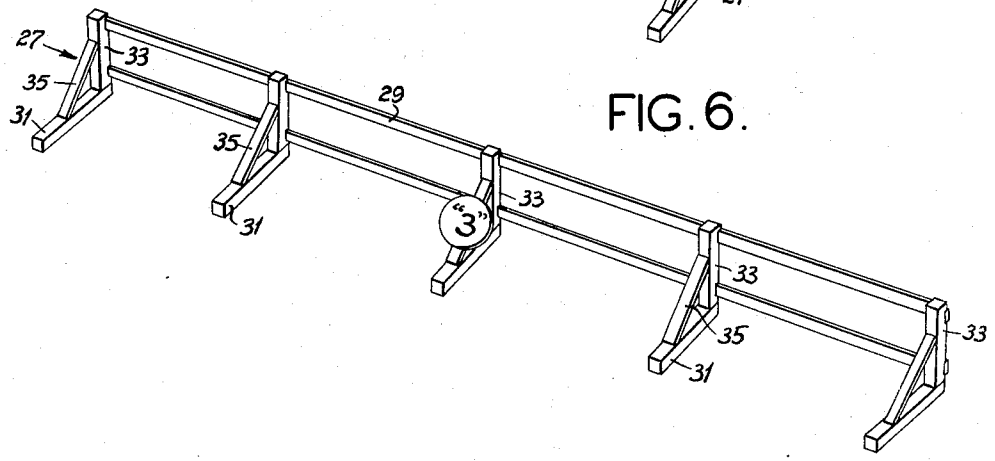




FIG. 6.

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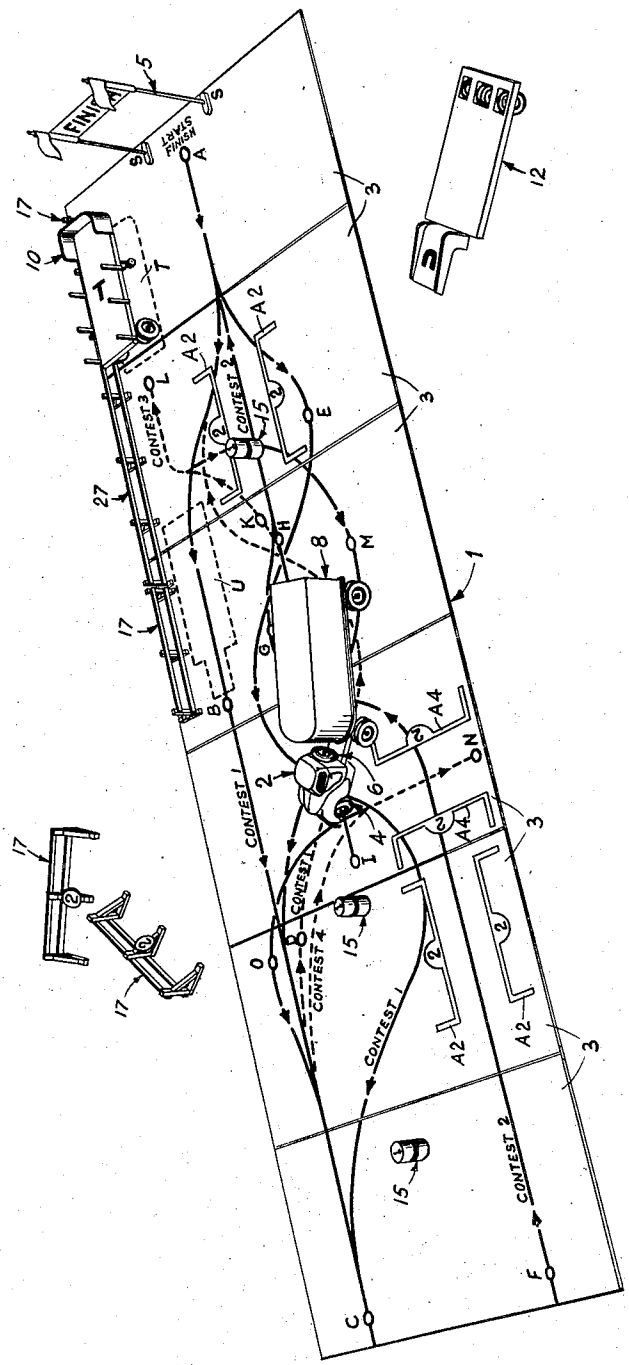



FIG. 7.

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# UNITED STATES PATENT OFFICE

2,650,094

## DRIVING SKILL TEST GAME APPARATUS

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Application August 4, 1950, Serial No. 177,739

4 Claims. (Cl. 273—1)

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This invention relates to driving skill test game apparatus, and more particularly to game apparatus for use in a game simulating on a model scale the aspects of driving skill contests such as are engaged in by truckers to determine their skill in driving trucks hauling truck-trailers.

The game to which this invention pertains involves the use of steerable model trucks, having a steering gear for the front wheels, such as are disclosed, for example, in my copending application for Toy Truck, Serial No. 172,544, filed July 7, 1950, which issued June 23, 1953, as Patent 2,642,700, a game board on which a model truck and truck-trailer coupled thereto are hand-maneuvered in accordance with the rules of the game, and model barriers which are placed on the game board to introduce a requirement for considerable skill in maneuvering. The game is of considerable value from the educational standpoint, inasmuch as it is instructive in respect to the rudiments of maneuvering a truck and truck-trailer. For example, it drives home the point that if it is desired to turn a truck-trailer in one direction while backing up, it is necessary to turn the truck in the opposite direction.

The game board is the essential feature of the invention, this constituting a playing field on which a steerable model truck and one of several types of model truck-trailers coupled to the truck are hand-maneuvered. In general, the game board is characterized in having a plurality of different lines thereon, each of which denotes a different and definite course over which a truck and trailer are to be steered in taking a specified type of test. At least one of these course lines has one portion of its length designated in a different manner from another portion to indicate that the truck and trailer are to be moved forward on one portion and backed up on the other. Marked areas on the board designate positions for barriers. These areas correspond in outline to the outline of the bases of model barriers to be placed thereon, and are positioned relative to the course lines as to allow only limited room for maneuvering the truck and trailer without touching the barriers, when the barriers are properly placed on the board. Other features will be in part apparent and in part pointed out hereinafter.

The invention accordingly comprises the elements and combinations of elements, features of construction, and arrangements of parts which will be exemplified in the structures hereinafter described, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings, in which one

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of various possible embodiments of the invention is illustrated,

Fig. 1 is a plan view of a foldable game board of this invention as spread out flat;

Fig. 2 is an edge elevation showing the board as folded up;

Fig. 3 is a perspective of a model entrance and exit gate used on the board;

Fig. 4 is a perspective of one type of barrier used on the board;

Fig. 5 is a perspective of a second type of barrier used on the board;

Fig. 6 is a perspective of a third type of barrier used on the board; and

Fig. 7 is a perspective of the game of the present invention showing exemplary positioning of barriers, model truck, and model truck-trailers.

Figs. 3–6 are on a larger scale than Fig. 1.

Corresponding reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to Figs. 1 and 7, reference character 1 denotes a folding game board of this invention consisting of a plurality of hingedly connected panels 3 of such outline that when the board is spread out flat it is of rectangular outline. The game board may be made of heavy cardboard or any other suitable material. Marked on the board at its right end, which is referred to as its starting end, are two areas S indicating the position for the bases of a model entrance and exit gate 5, the gate being shown in Fig. 3. As illustrated, the gate consists of a pair of standards 7 having bases 9 and a cross-panel 11 spanning the standards adjacent their upper ends. Flags 13 are shown at the upper ends of the standards. The standards are spaced far enough apart and the cross-panel 11 is high enough to allow for passage of a truck and a truck-trailer 8 of the van type. As shown in Fig. 3, the bases of the gate are marked "S" to indicate that they are to be placed on areas S.

Marked on the board is a line L–1 denoting a course over which truck 2 and truck-trailer 8 are to be steered in taking a first test which I denote Contest 1, and which is so indicated on the board. The line L–1 starts at a point marked A located adjacent the starting end of the board and centered with respect to the areas S. It has a portion L–1*a* which proceeds straight forward for a short distance, then curves toward what is the right side of the board as viewed from its starting end, and then proceeds straight forward through a point B to a point C at the other end of the board. This portion L–1*a* of line L–1 is a solid line, to indicate that the truck 2 and

trailer 8 are to be moved forward thereon, rather than backed up. Arrowheads on this portion of the line indicate the direction of movement.

The line L–1 also includes a portion L–1*b*, indicated as a dotted line, which takes off from portion L–1*a* a distance rearward of the point C about equal to the combined length of model truck 2 and truck-trailer 8, and which follows a serpentine course starting at a point D leading back to the portion L–1*a* near the starting point A. The portion L–1*b* is a dotted line, as distinguished from the solid-line portion L–1*a*, to indicate that truck 2 and trailer 8 are to be backed up thereon, rather than being moved forward. Arrowheads on portion L–1*b* indicate the direction of movement.

The line L–1 also includes a third portion L–1*c* indicated as a solid line, which takes off from the initial part of portion L–1*a* and follows a sepentine course passing through point E leading forward to the point C. The marking of portion L–1*c* as a solid line indicates that truck 2 and truck-trailer 8 are to be moved forward on this portion, the same as in the case of portion L–1*a*. Arrowheads on portion L–1*c* indicate the direction of movement.

Marked on the board are four areas A–1 denoting positions for model barriers 15, one of which is shown in Fig. 4. Each barrier 15 is simply a little cylinder, so as to resemble a drum or barrel, each being marked "1" to indicate that it is used in connection with Contest 1. The areas A–1 are marked "1" to indicate that barriers 15 (also marked "1") are to be placed thereon only for Contest 1. Each area A–1 is circular, corresponding in outline to the outline of a barrier 15. The areas are located in such relation to the backing-up portion L–1*b* and the forward-movement portion L–1*c* of line L–1 as to allow only limited room for passage of truck 2 and truck-trailer 8 between the barriers when the latter are placed on the areas. It will be seen that lines L–1*b* and L–1*c* zig-zag between areas A–1, intersecting one another midway between areas A–1.

Marked on the board is a second line L–2 denoting a second course over which truck 2 and truck-trailer 8 are to be steered in taking a second test which I denote Contest 2, and which is so indicated on the board. The line L–2 starts at a point F at the other end of the board from its starting end and adjacent the left side of the board and proceeds for some distance in a straight course parallel to the side of the board and then in a serpentine course through point G to a straight course leading to point A. Line L–2 is a solid line, indicating truck 2 and trailer 8 are to be moved forward, rather than backed up, and has arrowheads thereon indicating the direction of movement.

Marked on the board are four areas A–2 denoting positions for model barriers 17, one of which is shown in Fig. 5. Each barrier 17 consists of model fence 19 having supporting base members 21 which extend rearward from the bottom of fence posts 23, diagonal braces being shown at 25. The areas A–2 may be marked "2" to indicate that barriers 17 (which may also be marked "2") are placed thereon only for Contest 2. Each area A–2 corresponds in outline to the outline in plan of the base of a barrier 17. The areas are so located on opposite sides of the straight-line reaches of line L–2 that, with barriers 17 placed thereon, two narrow passages are established between pairs of barriers through which truck 2 and trailer 8 must be steered, with little room on either side.

Marked on the board is a third line L–3 denoting a third course over which truck 2 and truck-trailer 8 are to be steered in taking a third test which I denote Contest 3, and which is so indicated on the board. This line has a solid line forward-movement portion L–3*a* starting at a point H midway between the side edges of the board and following a straight course parallel to the side edges to a point I, and a dotted line backing-up portion L–3*b* which curves from a point near H through a point K back to a point L adjacent the right side of the board. Point L is located between two marked areas T and U. Area U indicates a parking position for a model carry-all type trailer 12 and area T indicates a parking position for a model platform or stake-side type trailer 10.

Between point L and the right side of the board is marked an area A–3 for a long barrier 27 shown in Fig. 6. The barrier 27 consists of a model fence 29 having supporting base members 31 which extend rearward from the bottom of fence posts 33, diagonal braces being shown at 35. The area A–3 may be marked "3" to indicate that barrier 27 (which may also be marked "3") is placed thereon for Contest 3. Between areas T and U and the right side of the board are areas A–2*a* denoting positions for two of the short fence barriers 17, during Contest 3.

Line L–3 also has a solid line forward movement portion L–3*c* which leads out of the space between areas T and U and follows a curved path through point M off toward the left end of the board to point C.

Marked on the board is a fourth line L–4 denoting a fourth course over which truck 2 and trailer 8 are to be steered in taking a fourth test which I denote Contest 4, and which is so indicated on the board. This line has an initial dotted-line backing-up portion L–4*a* which curves into a straight reach between two areas A–4 denoting positions for two of barriers 17 during Contest 4, and ends at a point N at the left side of the board. The areas A–4 are so located that with barriers 17 placed thereon, a narrow passage is established between the two barriers, just wide enough to accommodate trailer 8, with little room on either side. Line L–4 also has a solid-line forward-movement portion L–4*b* leading away from this passage through the point O and curved toward the point C.

One board 1, a gate 5, four barriers 15, four barriers 17, one barrier 27, one steerable model truck 2 (having steerable front wheels 4 and a steering wheel 6), such as, for example, is shown in my aforesaid copending application, one model van trailer 8 simulating a commercial van, one model carry-all trailer 12 simulating a commercial carry-all trailer, and one model platform trailer 10 simulating a commercial platform trailer are needed to play the game. Play proceeds as follows:

The board is spread out flat on the floor or a large table allowing a truck and trailer coupled thereto to be maneuvered beyond the bounds of the board. The gate 5 is placed on the board in the position denoted by areas S.

Play begins with Contest 1. For this contest, the four barriers 15 are placed on the designated areas A–1. The truck 2 with the model van trailer 8 coupled thereto is moved through the gate 5 into starting position at point A, then moved forward following solid line L–1*a* through

point B until the front of the truck 2 is at point C, then backed up without stopping following dotted line L–1*b*, until the rear end of the trailer 8 is at point A, then moved forward off the field following line L–1*c* through points E and C, again without stopping. The object is successfully to steer the truck and trailer through the spaces between barriers 15 both in backing up on line L–1*b* and in moving forward on line L–1*c* without touching any of the barriers.

Upon completion of Contest 1, the barriers 15 are removed, and barriers 17 are then set up in place on areas A–2 for Contest 2. In Contest 2 the truck 2 with the van trailer 8 coupled thereto is moved into starting position at point F, and then moved forward along line L–2 through the passage between the first pair of barriers and then through the passage between the second pair of barriers, and then off the board through the gate 5, all without stopping. Again, the object is successfully to steer the truck and trailer through the passages between the barriers without touching the barriers.

Upon completion of Contest 2, two of the barriers 17 are placed on areas A–2*a*, and the long barrier 27 is placed on area A–3 for Contest 3. If desired, barrier 27 could have been placed at A–3 prior to the start of play. The other two barriers 17 may be placed on areas A–4 in preparation for the Contest 4, if desired, or simply placed aside. In Contest 3, the truck 2 with the flat-car trailer 10 is moved onto the board and this trailer is parked in area T. Then the truck 2 is deployed to pick up the carry-all trailer 12 and this is moved onto the board and parked in area T. Then the truck 2 is deployed to pick up the van trailer 8 and moved forward into position on line L–3*a*, with the front of the truck 2 at point I. Then, the van trailer 8 is backed up along line L–3*b* by backing up the truck 2 to park the trailer 8 parallel between the platform trailer 10 in area T and the carry-all trailer 12 in area U, closely adjacent the long barrier 27, without stopping. The object is to park the van trailer 8 without touching either of the other two parked trailers or the barrier 27. Then, the truck 2 and van trailer 8 are pulled out following the line L–3*c*, over point M and off the board at point C.

Contest 4 involves backing up along line L–4*a* without stopping to park trailer 8 in the passageway between the varriers 17 on areas A–4, without touching the barriers, coming to a stop with the rear of the trailer 8 at point N, then pulling out forward over line L–4*b* over point O and off the board at point C.

In a physical embodiment of the game board, lines L–1, L–2, L–3 and L–4 are preferably indicated in different colors, for example, line L–1 (including its solid and dotted line portions) may be black, line L–2 may be red, etc., so that the courses to be steered in playing the different contents may be more readily distinguished. The various barrier areas may be colored corresponding to the color of the line in connection with which the appropriate barriers are used. For example, areas A–1 may be colored black in correspondence with the color of line L–1. It will be understood that I have not attempted to indicate such use of color in Fig. 1 of the drawings to avoid complication of illustration.

The arrangement allowing for placement of a group of barriers on the board for any one test and their subsequent removal, so as not to interfere with manipulation of the truck and trailer in any other test, is advantageous in that it allows for the play of a number of different contests on one board of a reasonable size. In a physical embodiment of the game board, for use with a model truck 2 about seven inches long and three inches wide, a model van-type trailer 8 about seven and one-half inches long, two and three-quarter inches wide and four inches high, a model carry-all trailer 12 about seven and one-half inches long and three inches wide, and a model platform trailer 10 about ten inches long and three and one-quarter inches wide, I make the board sixty inches long and twenty inches wide. Barriers 15 are about seven-eighths inch in diameter and one and one-half inches high. Barriers 17 are about six and three-quarter inches long, and barrier 27 is about thirteen and one-half inches long. Areas A–1 are spaced apart about eleven and one-half inches.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As many changes could be made in the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. A game comprising a steerable model truck, a model truck-trailer hauled by said truck, a game board constituting a playing field, said board having a plurality of different lines thereon occupying the same general area each of which denotes a definite course over which the truck and trailer are to be steered in taking a specified type of test, at least one of said lines having one portion thereof designated in a different manner from another portion thereof to indicate that the truck and trailer are to be moved forward on one portion and backed up on the other, with arrowheads on each line to indicate direction of movement, model barriers, and marked areas on the board designating positions for placement of said barriers during different tests, said areas corresponding in outline to the outline of the base of model barriers to be placed thereon and being positioned relative to the course lines as to allow only limited room for maneuvering the truck and trailer without touching the barriers when the barriers are in place, the arrangement being such that a group of barriers may be set up for any one test and subsequently removed so as not to interfere with manipulation of the truck and trailer in another test.

2. A game comprising a steerable model truck, a model truck-trailer hauled by said truck, a game board constituting a playing field, said board having a first line thereon denoting a first course over which the truck and trailer are to be steered in taking a first test, said line having two curved portions one of which is designated in a different manner from the other to indicate that the truck and trailer are to be backed up on one portion and moved forward on the other, model drum-type barriers, marked areas on the board designating positions for placement of said barriers on opposite sides of said portions to limit room for maneuvering the truck and trailer in following the course denoted by said portions, another line on the board occupying the same general area as the first line denoting a second course over which a truck and trailer are to be moved in taking a second test, model fence-type

barriers, and marked areas on the board designating positions for placement of said fence-type barriers on opposite sides of said second line defining a narrow passage through which the truck and trailer are to be maneuvered in taking the second test, the arrangement being such that barriers may be set up for one test and then removed so as not to interfere with manipulation of the truck and trailer in the other test.

3. A game comprising a steerable model truck, a model truck-trailer hauled by said truck, a game board constituting a playing field, said board having a line thereon denoting a course over which the truck and trailer are to be steered in taking a test, said line having two serpentine portions one of which is designated in a different manner from the other to indicate that the truck and trailer are to be backed up on one portion and moved forward on the other, model drum-type barriers, and marked areas on the board designating positions for placement of said barriers on opposite sides of said portions to limit room for maneuvering the truck and trailer in following the course denoted by said portions, said portions intersecting one another between the areas.

4. A game comprising a steerable model truck,



a model truck-trailer hauled by said truck, a game board constituting a playing field, said board having a line thereon denoting a course over which the truck and trailer are to be steered in taking a test, two model fence-type barriers, and marked areas on the board designating positions for placement of said barriers on opposite sides of the line, the areas being so spaced that when the barriers are placed thereon only limited room is allowed for steering between the barriers.

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