

Interactive toys having standardized pieces and complying with educational methods, safety requirements and children's toy blocks

Patent no: WO2021/055516


Publication date: 2021-03-25

Applicant(s): Monti Kids

Inventor: KASSAM ZAHRA, KAWAE YUKI, FLEMING CANDACE

Abstract

Toys that comply with at least American Society for Testing and Materials educational and safety standards are standardized so that the standardized parts fit existing Duplo™ and Lego™ pieces and can be used interchangeably with other toys.

<p>FIG. 1</p>	<p>ORIGINAL WOODEN TOY: OBJECT PERMANENCE BOX 1 </p> <p>110</p>	
	<p>STANDARDIZED PARTS USED IN THIS TOY:</p>	<p>SHARED WITH PRODUCTS BELOW: 140</p>
<p>111</p> <p>X1</p>	<p>141</p>	
<p>112</p> <p>X3</p>	<p>142</p>	
<p>113</p> <p>X3</p>	<p>143</p>	
<p>114</p> <p>X1</p>	<p>144</p>	

Toy arrow projectile

Patent no: US10976142

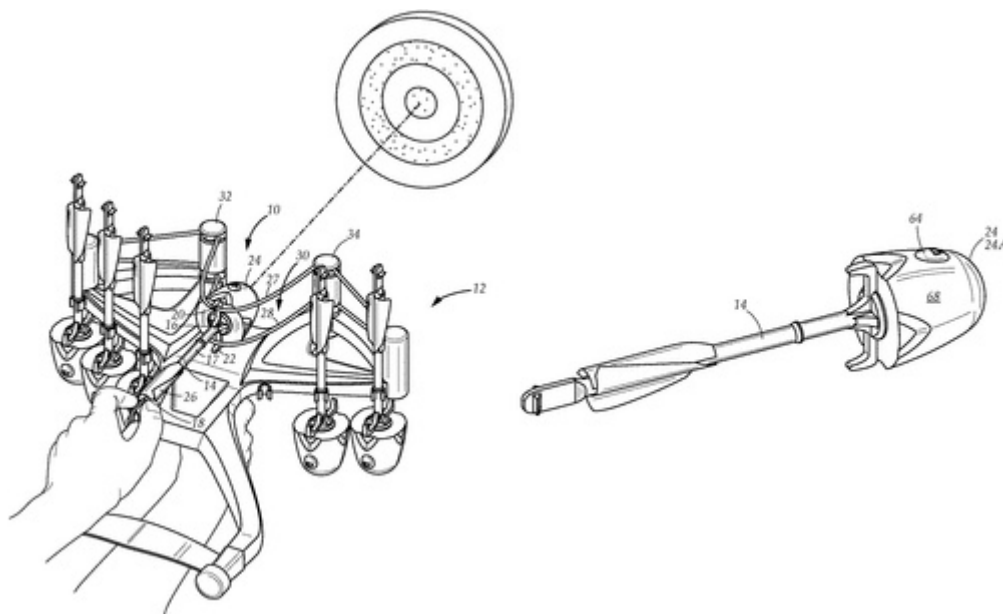
Publication date: 2021-04-13

Applicant(s): HILT GARRETT

Inventor: HILT GARRETT

Abstract

A toy arrow projectile for use with a toy projectile launching assembly is disclosed. The toy arrow projectile includes a shaft including a front end and a tail end, a pair of hook elements extending outwardly from the front end, a safety-tipped toy arrowhead attached to the front end, and arcuate fletching attached to the tail end. The pair of hook elements are configured to engage launching elements of the toy projectile launching assembly to stretch the launching elements therewith. The fletching includes arcuate fins extending along the shaft towards the front end. The arcuate fins include curved surfaces that curve outwardly from the shaft and generate spin in the toy arrow projectile during flight. The fletching includes a cross-sectional diameter having a distance that is less than the distance between the launching elements to allow passage of the toy arrow projectile through the launching elements without obstruction thereby.



Safety guard attached on wall surface

Patent no: WO2021/162438

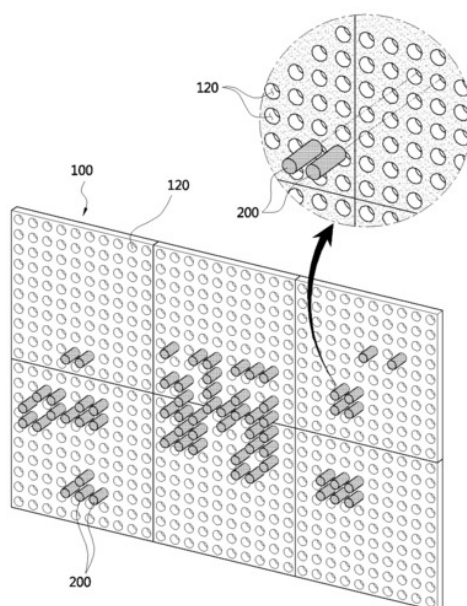
Publication date: 2021-05-24

Applicant(s): KIM, HYUNG-ILL

Inventor: KIM, HYUNG-ILL

Abstract

The present invention relates to a safety guard to be attached on a wall surface, wherein the safety guard can be variously utilized as an interior decoration or a teaching tool and comprises a buffering pad installed on the wall surface and formed of an elastic material for absorbing shocks applied by a user. The buffering pad has an insertion unit of a circular shape or a polygonal shape, wherein a plurality of the insertion units are arranged throughout the entire buffering pad. Block units corresponding to cross-sectional shapes of the insertion units are provided to be selectively inserted into some of the plurality of insertion units to realize a pattern or a design, or can be assembled to be used as a toy or a teaching tool, and thus, the safety guard can be installed on the wall surface at low costs and can be decorated to achieve an interior effect. Moreover, the safety guard can be used for various purposes such as a toy or a teaching tool by assembling the blocks.



Magnetic and electromagnetic repulsive non-physical-material-contact moving train cars and vehicles

Patent no: US20210260493

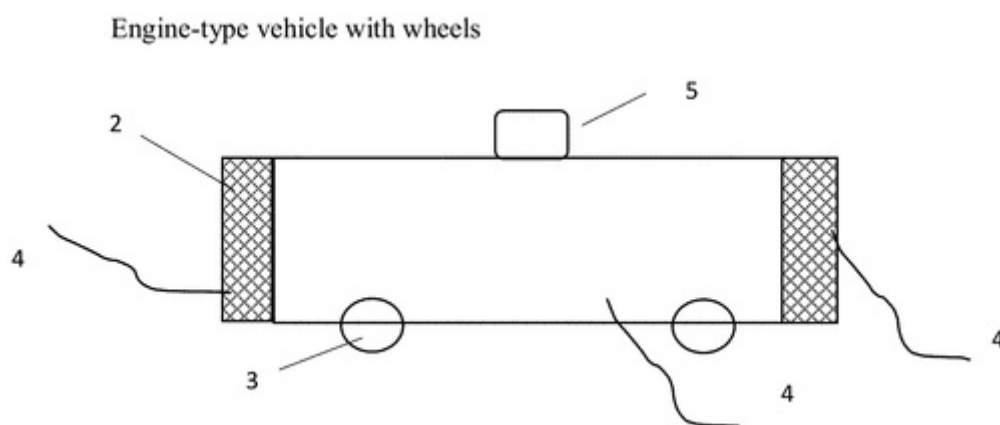
Publication date: 2021-08-26

Applicant(s): BELISLE WILLIAM REDVERS

Inventor: BELISLE WILLIAM REDVERS

Abstract

Specific classroom tools, toys, and vehicles including a connected plastic and non-conductive materials including encasements around front and back positioned same polarity magnets only and electromagnets train car including train cars with and without energy sources for the purpose of providing invisible contact repulsion between cars and vehicle movement when force is applied to the first car. The invention includes attaching magnetic and electromagnet encasements to the front and back of train cars. The encasements allow close and distant magnet and electromagnet impactful interactions between cars with and without bottom-positioned wheels. The invention is usable for classrooms, toys, and as vehicles and provides a permanently-attached-to-train car thick plastic fence-net-type encasements around magnets providing reduced contact potential and possible magnet-to-magnet contact and desired magnet type, size, power, and only one polarity one-side magnets to reduce magnet attraction and hence provides safety and protection for younger users.



Aquatic play equipment

Patent no: WO2021/059543

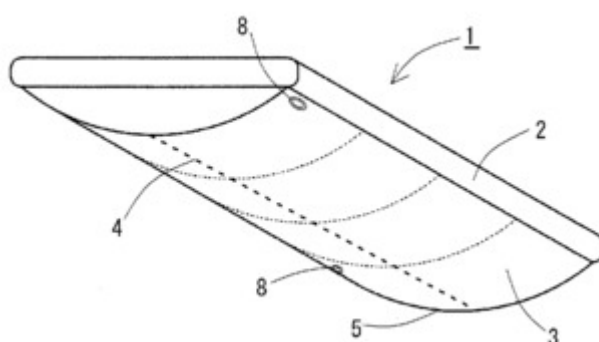
Publication date: 2021-04-01

Applicant(s): SAKAMOTO Ichiro

Inventor: SAKAMOTO Ichiro

Abstract

The present invention addresses the problem of providing safe aquatic play equipment having a bottom face with a convex portion which, when a person dives below the aquatic play equipment, allows the person to go up to the water surface easily. Aquatic play equipment 1 has a hermetically sealable space formed with a thin film of soft material, and which is floated on the water surface by having the space sealed and/or filled with a fluid. The aquatic play equipment 1 is characterized by having a convex portion 4 on the bottom surface thereof and comprising: an aquatic floating unit 2 in an upper part of the aquatic play equipment 1 in which air as a fluid is sealed; and a surfacing guiding unit 3, including the convex portion 4 in the lower part of the aquatic play equipment 1, which is filled with water as a fluid. The aquatic play equipment 1 is characterized in that a partition 9 is provided between the floating unit 2 and the surfacing guiding unit 3 to isolate the fluids from each other.



Smart interactive game module to prevent dementia

Patent no: TWM603136

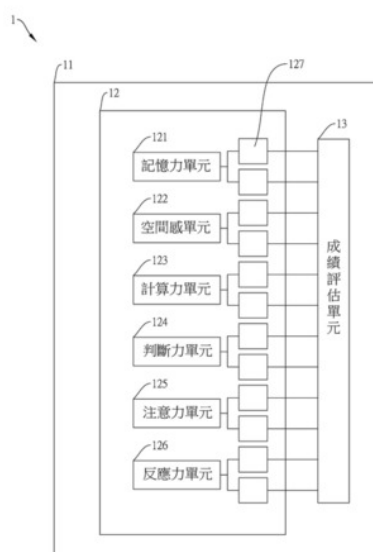
Publication date: 2020-10-21

Applicant(s): TAJEN UNIVERSITY

Inventor: SU CHEN-YING, GUO DAIHUANG, LI CHUNYAN

Abstract

An intelligent interactive game module, comprising interactive means for providing game interaction by a user to prevent insanity, a training option unit disposed within the interactive means, and a performance evaluation unit; the training option unit comprising a memory unit, a space sensing unit, a computing force unit, a discriminating force unit, an attention unit, a memory unit connected to at least one corresponding game training module, respectively. Response Unit; The game training module is connected to the performance evaluation unit, The trained reference performance data may be transmitted to the performance evaluation unit; The user selects the corresponding game training module from the training option unit in the interactive apparatus, The game training module will transmit the reference performance data to the performance scoring unit, after the training is completed for the user to understand the status of prevention of unintelligence.



【圖1】

Safety mechanism for joystick control for controlling an unmanned vehicle

Patent no: US11106200

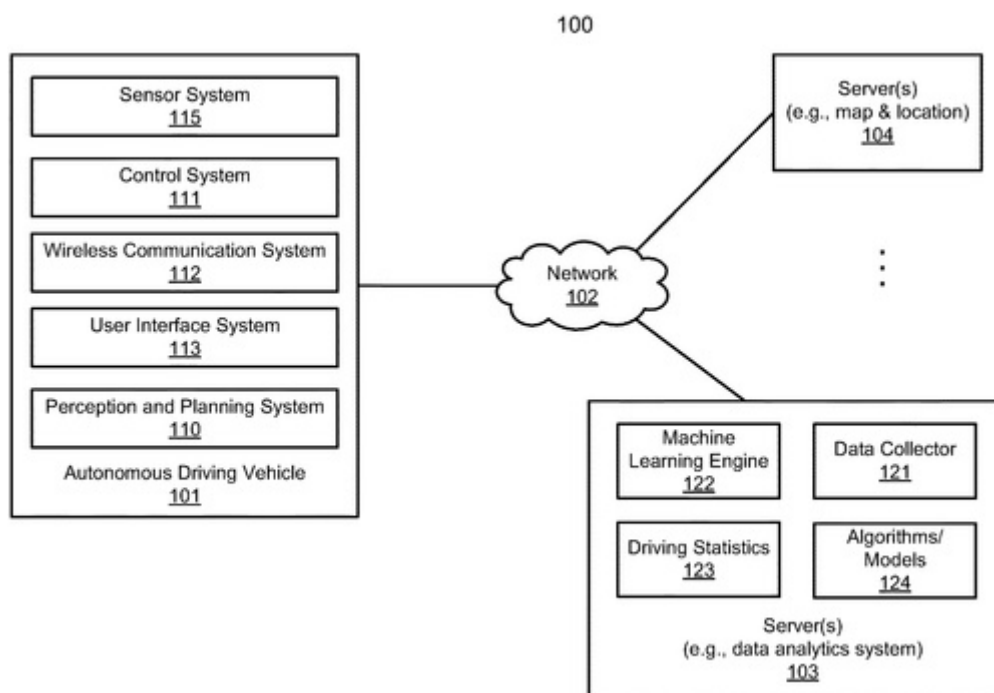
Publication date: 2020-12-31

Applicant(s): BAIDU

Inventor: ZHU FAN

Abstract

A method, apparatus, and system that improves operation safety of a remote vehicle controller is disclosed. The operations comprise: receiving, at an autonomous vehicle, controller outputs from a controller; determining that a first switch is activated at the controller based on the controller outputs, wherein the first switch being activated indicates a first vehicle control command; determining whether all of one or more second switches are activated at the controller based on the controller outputs; in response to determining that all of the one or more second switches are activated, executing the first vehicle control command; and in response to determining that not all of the one or more second switches are activated, ignoring the first vehicle control command.



Play structure with a mesh panel

Patent no: WO2021/043877

Publication date: 2021-03-11

Applicant(s): KOMPAN

Inventor: LØVFOLD GRØNFELDT

Abstract

Play structure for children, comprising two vertically arranged pillars and a first vertically arranged panel element connected between the two pillars, said two vertically arranged pillars each being longer than 2m and said first vertically arranged panel element being arranged such that its upper edge is located higher than 2m from the bottom of the two vertically arranged pillars. The first vertically arranged panel element comprises a rectangular frame comprising a top and a bottom horizontally arranged frame member and a left and a right vertically arranged frame member, said top, bottom, left and right frame members together defining an enclosed area, said enclosed area being greater than 0.5 m² and said enclosed area being filled with a mesh structure made from elongated metal elements arranged in a repeating pattern, each of the elongated metal elements being fastened to at least two different frame members, and in that the diameter of the largest inscribed circle between any adjacent frame members and/or elongated metal elements is greater than 20mm or less than 11mm. In this way, a structure is provided which can tolerate large wind loads since the wind can pass through the structure. Likewise, the children are kept safe in that they cannot fall out through the mesh panel and cannot get fingers caught in the structure.

