US012392585B2

(12) **United States Patent**
Lee

(10) **Patent No.: US 12,392,585 B2**
(45) **Date of Patent: Aug. 19, 2025**

(54) **DART GAME DEVICE**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 417 days.

(21) Appl. No.: **17/769,842**

(22) PCT Filed: **Aug. 10, 2020**

(86) PCT No.: **PCT/KR2020/010543**
§ 371 (c)(1),
(2) Date: **Apr. 18, 2022**

(87) PCT Pub. No.: **WO2021/075685**
PCT Pub. Date: **Apr. 22, 2021**

(65) **Prior Publication Data**

US 2022/0381539 A1 Dec. 1, 2022

(30) **Foreign Application Priority Data**

Oct. 18, 2019 (KR) 10-2019-0129955

(51) **Int. Cl.**
F41J 5/04 (2006.01)
F41J 3/00 (2006.01)
F41J 5/056 (2006.01)
F41J 5/10 (2006.01)
F41J 5/14 (2006.01)

(52) **U.S. Cl.**
CPC ***F41J 3/0019*** (2013.01); ***F41J 5/056*** (2013.01); *F41J 5/10* (2013.01); *F41J 5/14* (2013.01)

(58) **Field of Classification Search**
None
See application file for complete search history.

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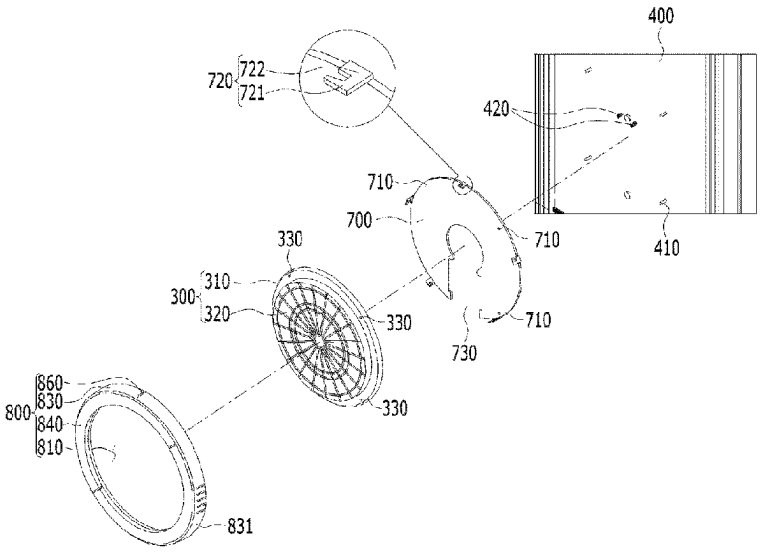
(57) **ABSTRACT**

Provided is a dart game apparatus including: a body part forming an external appearance of a dart game apparatus; a target fixation plate provided in one area of a front surface of the body part; a dart target unit seated on the front surface of the target fixation plate; and a target cover unit formed to cover at least a part of the dart target unit, and fixed and coupled to the target fixation plate.

12 Claims, 10 Drawing Sheets



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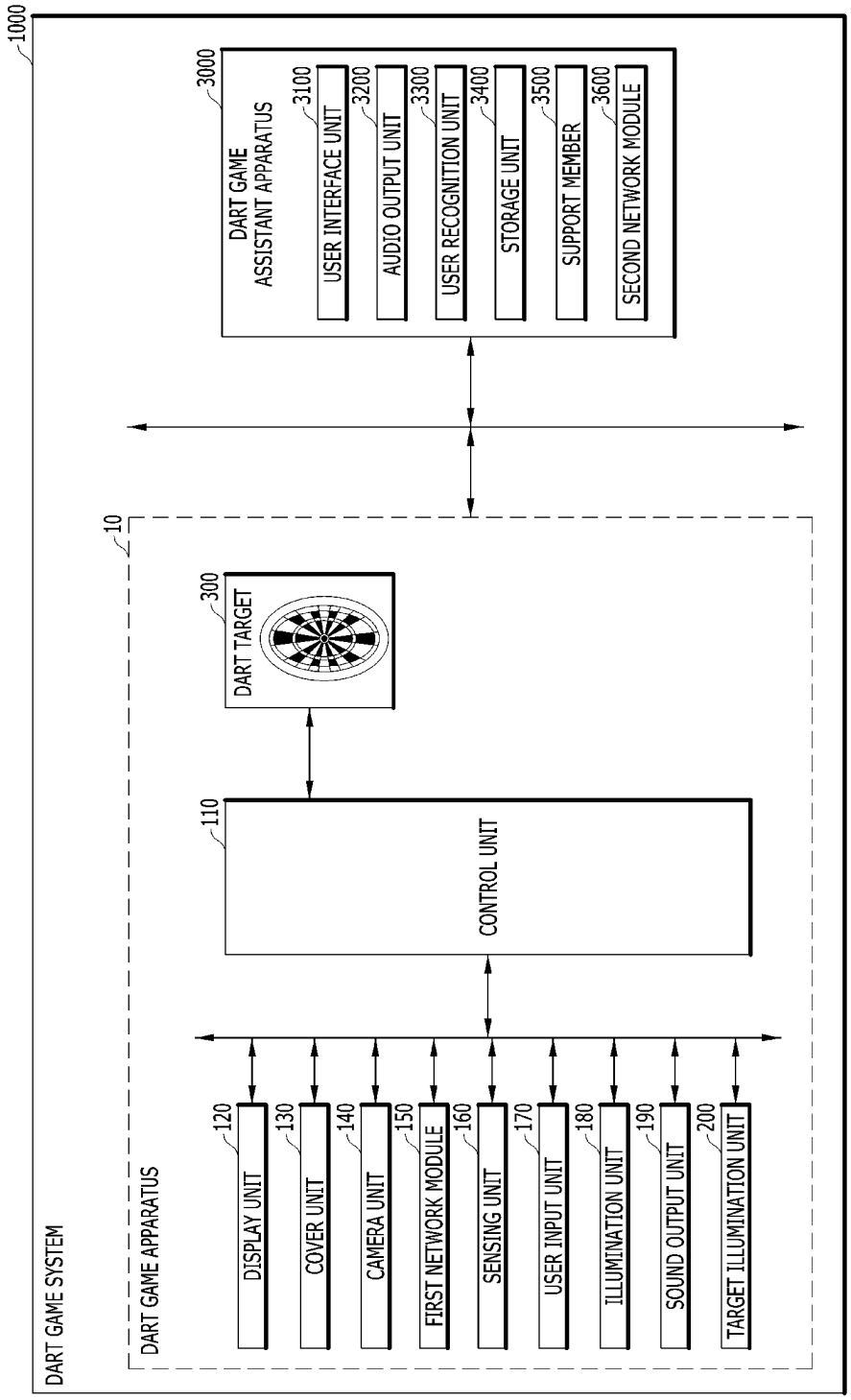
1000
DART GAME SYSTEM
3000
DART GAME ASSISTANT APPARATUS
3100
USER INTERFACE UNIT
3200
AUDIO OUTPUT UNIT
3300
USER RECOGNITION UNIT
3400
STORAGE UNIT
3500
SUPPORT MEMBER
3600
SECOND NETWORK MODULE
10
DART GAME APPARATUS
300
DART TARGET
110
CONTROL UNIT
120
DISPLAY UNIT
130
COVER UNIT
140
CAMERA UNIT
150
FIRST NETWORK MODULE
160
SENSING UNIT
170
USER INPUT UNIT
180
ILLUMINATION UNIT
190
SOUND OUTPUT UNIT
200
TARGET ILLUMINATION UNIT

Fig. 1

Fig. 2

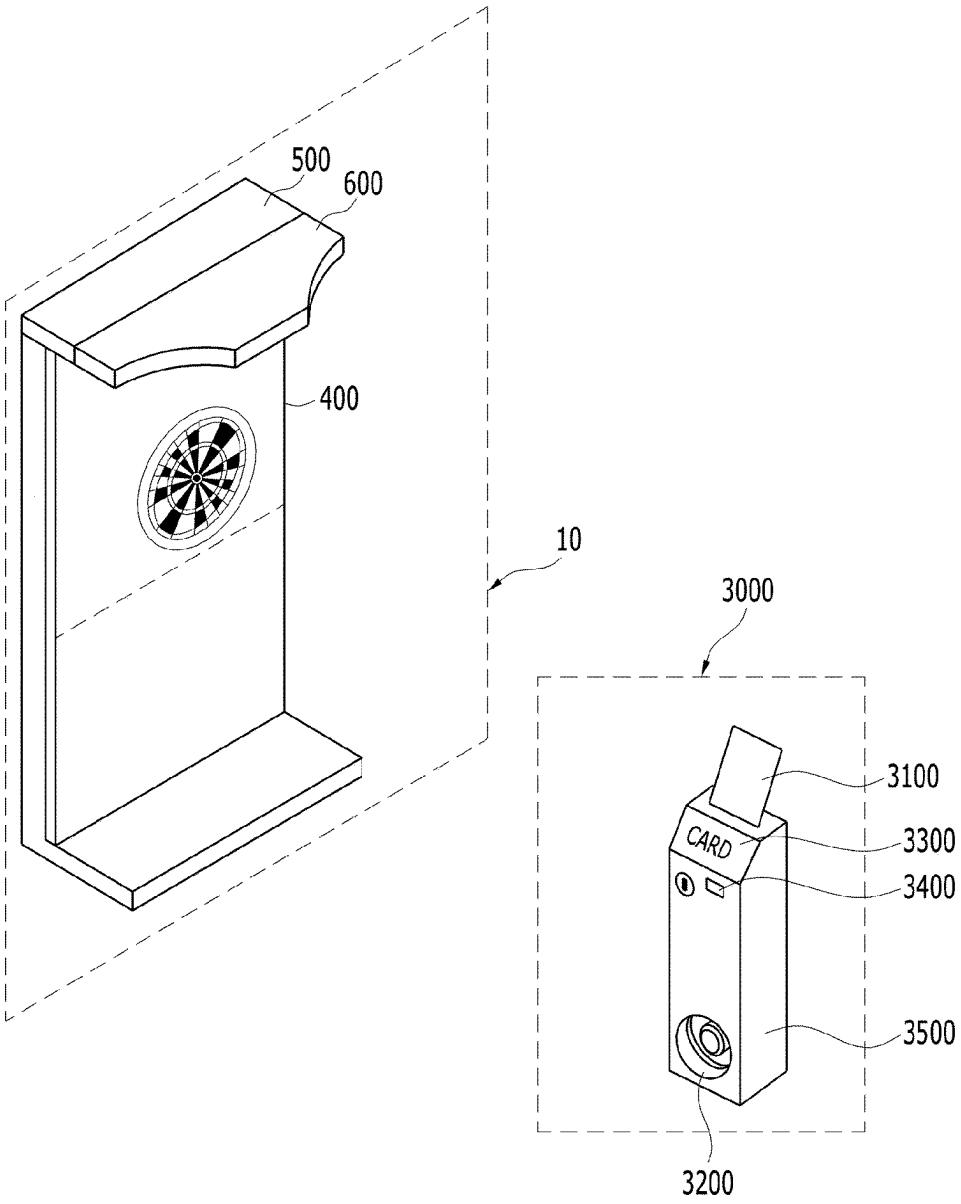

Fig. 3

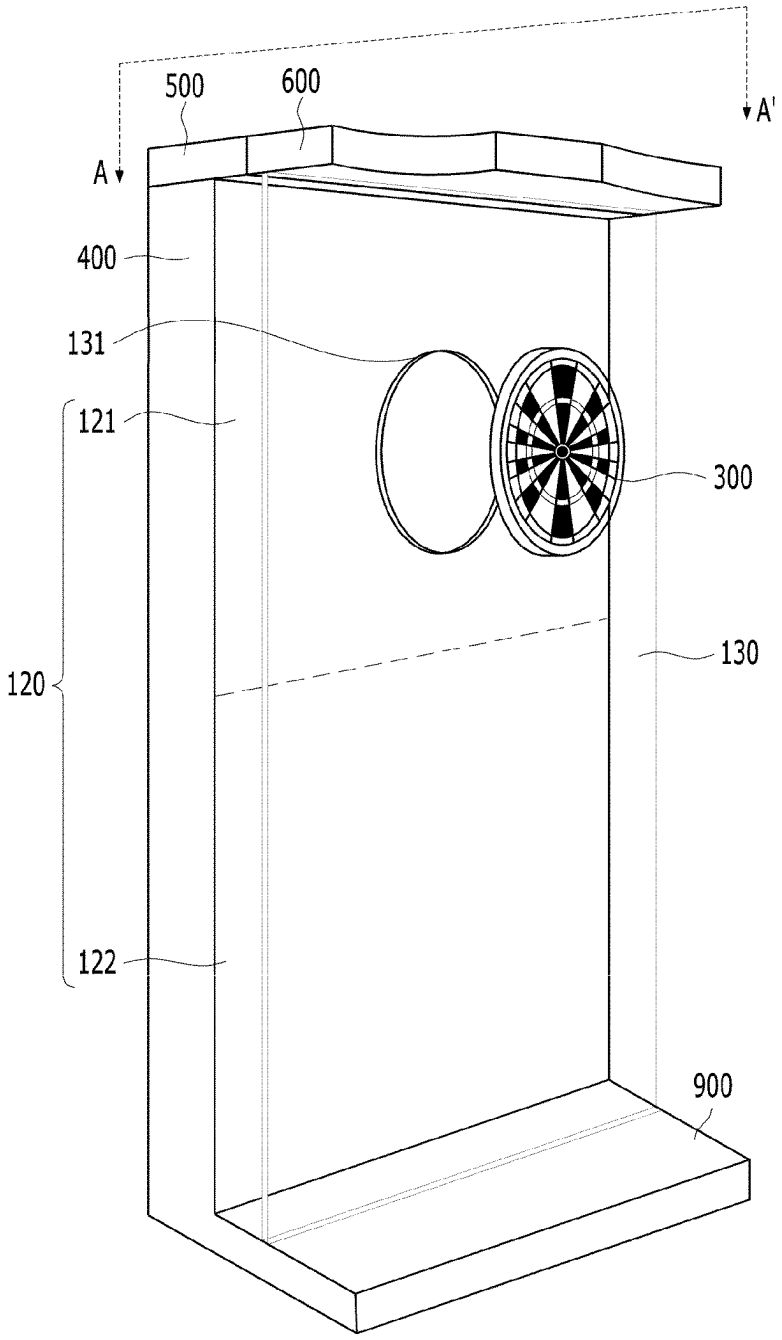

Fig. 4

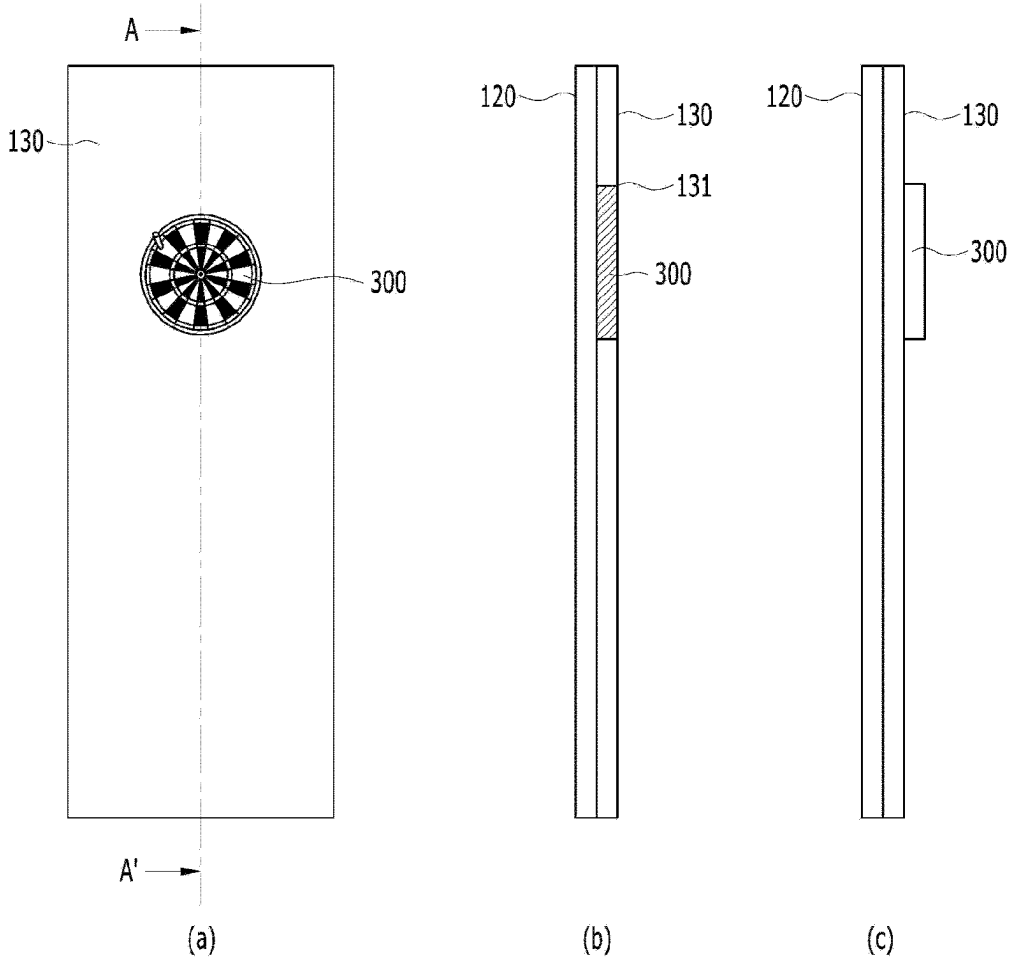

Fig. 5

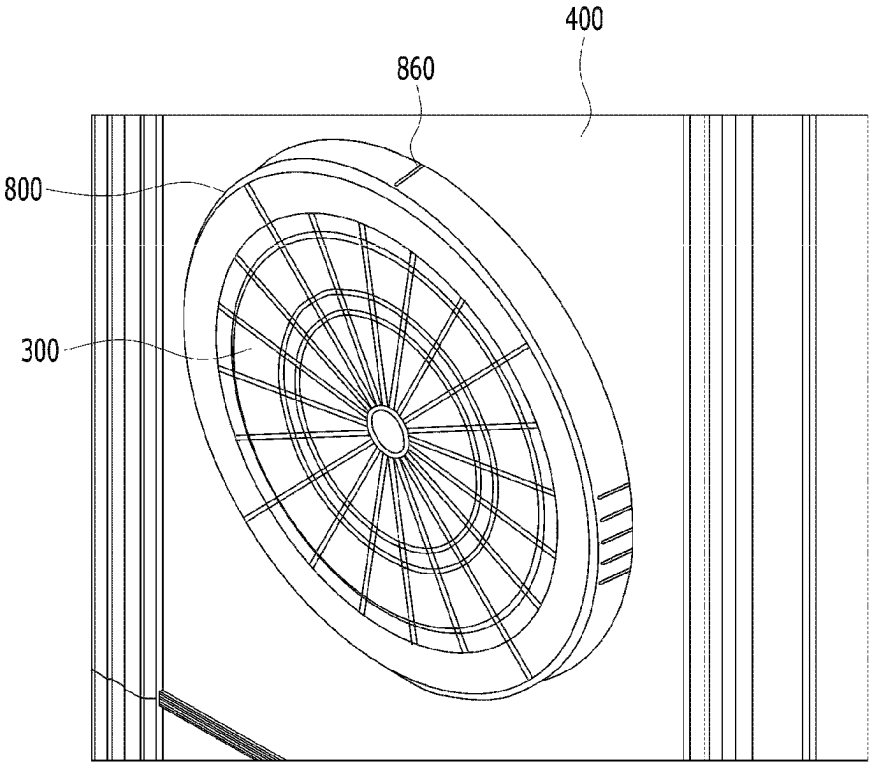

Fig.6

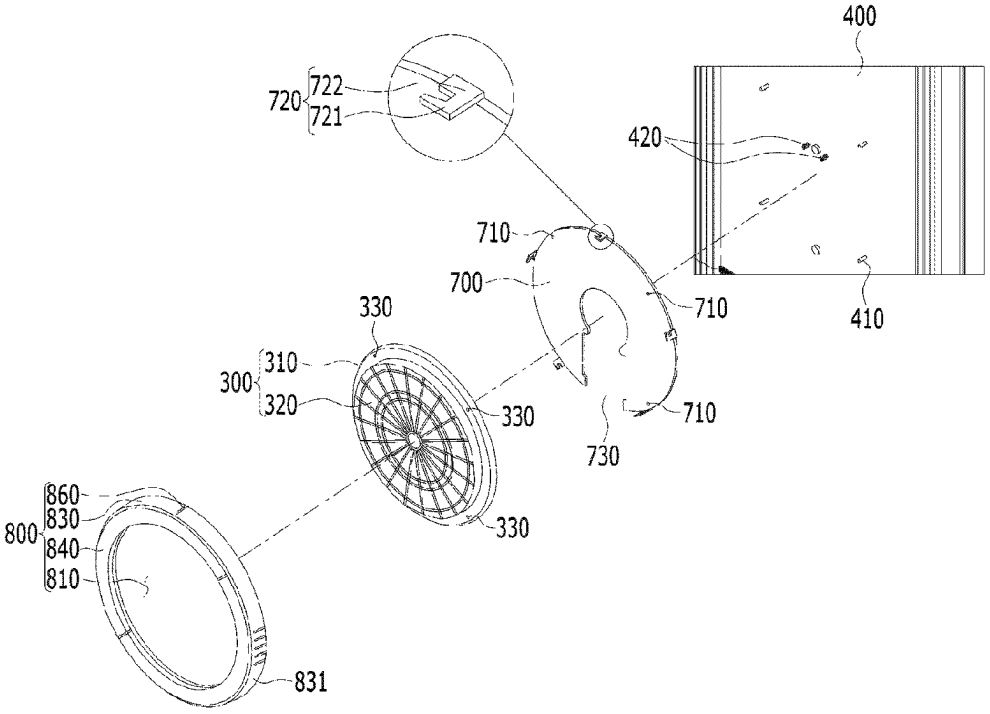
400
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Fig. 7

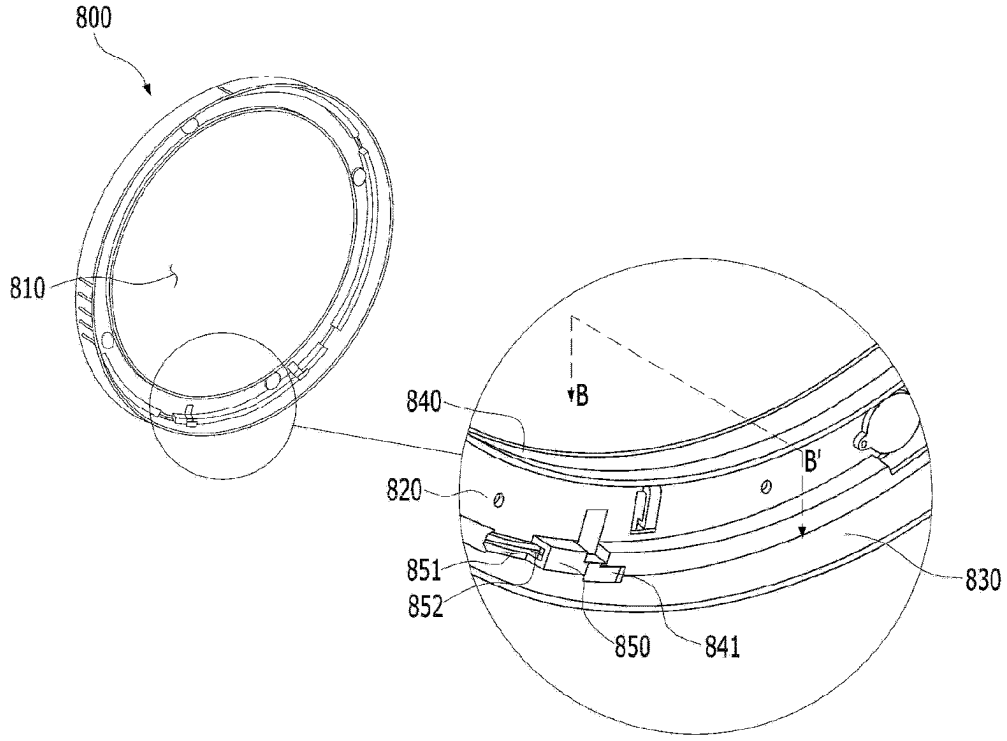


Fig. 8

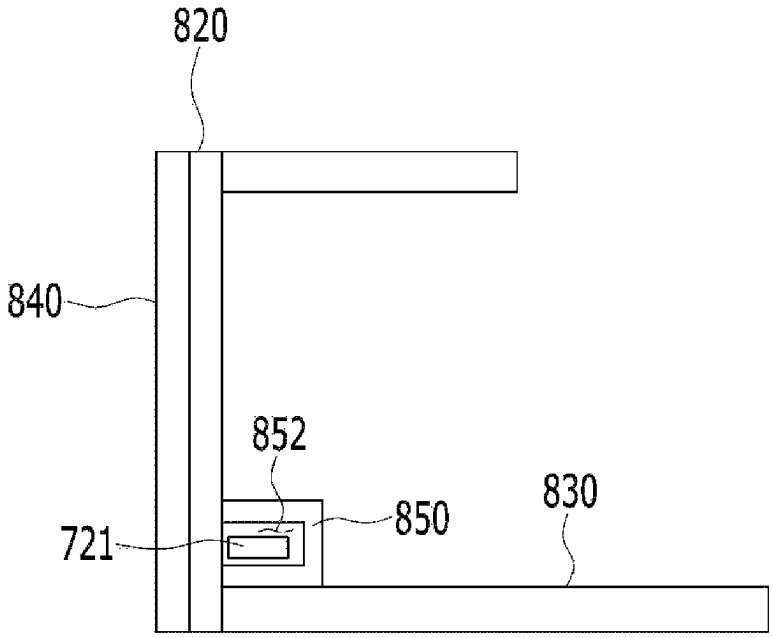


Fig. 9

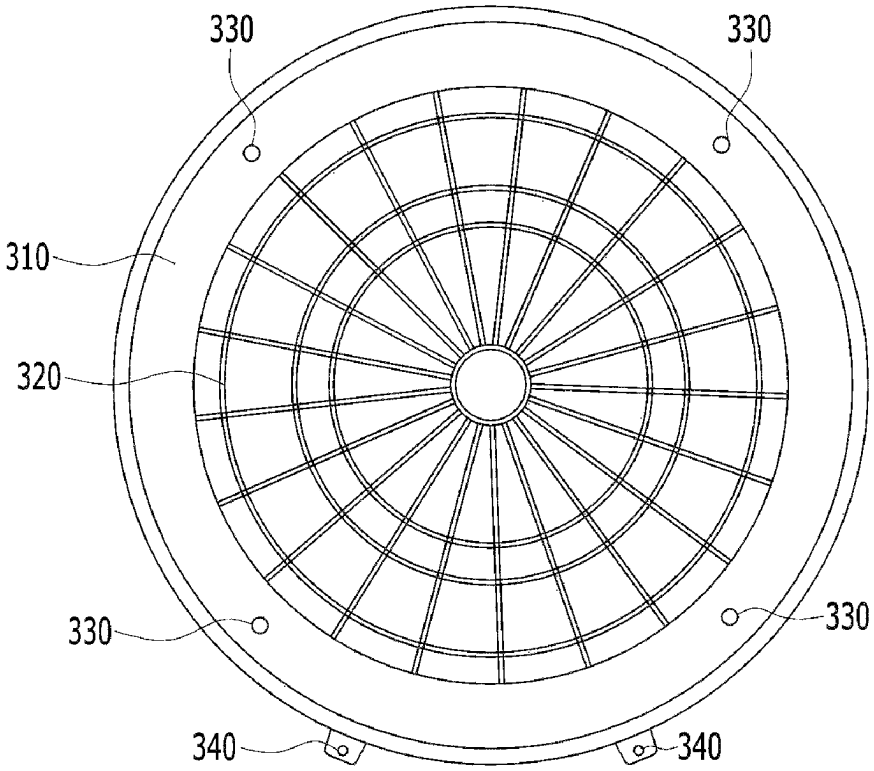
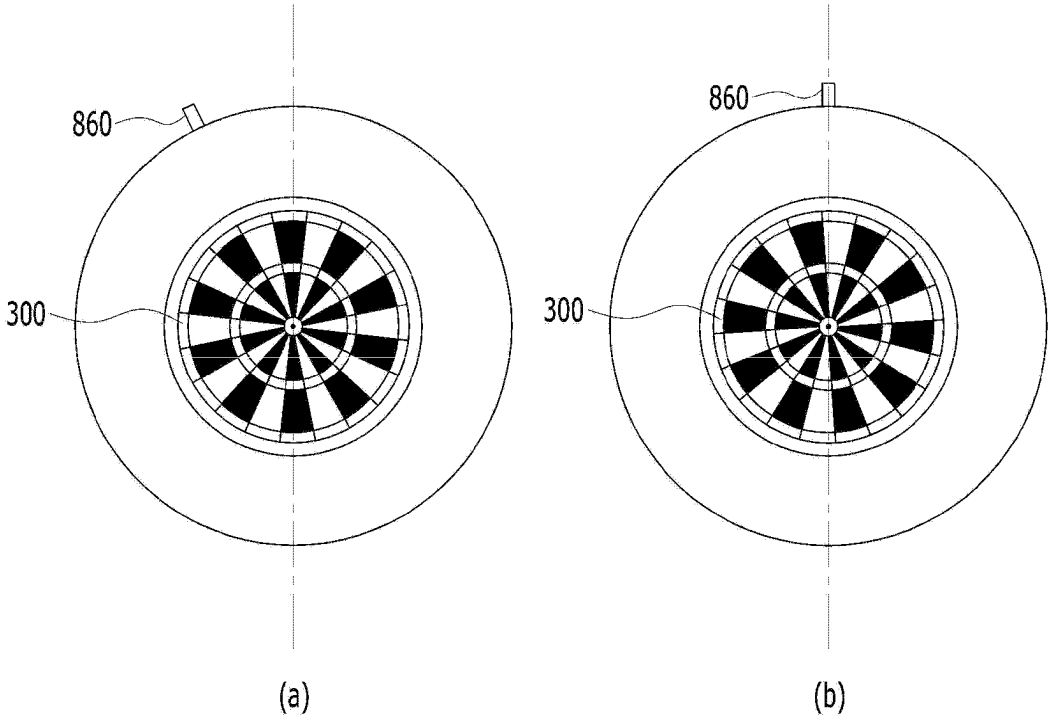


Fig. 10



DART GAME DEVICE

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims priority to and the benefit of Korean Patent Application No. 10-2019-0129955 filed in the Korean Intellectual Property Office on Oct. 18, 2019, the entire contents of which are incorporated herein by reference.

TECHNICAL FIELD

The present disclosure relates to a dart game apparatus.

BACKGROUND ART

In general, a dart refers to a 'small arrow' and is a game that makes marks by throwing an arrow-shaped dart to a centrifugal target marked with figures. The dart game has an advantage in that anybody can enjoy the dart game anytime if there are an arrow-headed dart and a dart game apparatus. In recent years, as various game methods have been developed and scoring methods have been organized, the dart game has been developed as worldwide leisure, and therefore, men and women of all ages have conveniently enjoyed the dart game.

As the demand for dart games is increasing, there are often places where a dart game apparatus is provided in commercial facilities such as a café, a restaurant, a bar, etc., and dart game fields that have a plenty of dart game apparatuses and provide entertainment to persons are also generated.

However, unlike the days when a player throws a pointed dart pin with a needle to a dart target made of wood or cork to simply calculate a score, dart game apparatuses which are electrically operated form a mainstream for a safety reason or in order to add various entertainment factors, nowadays.

The electronic dart game apparatus primarily has a piezoelectric element inside the dart target. In addition, in the dart game apparatus, a score of a dart game is counted by an electrical signal generated when a dart pin thrown by a user reaches the dart target and a change occurs in the piezoelectric element.

In order for the dart pin thrown by the user to be stuck in a groove which may be provided in the dart target, a sharp shaped part such as an arrowhead called a tip is assembled to a front surface as the dart pin.

However, the dart tip that cannot but have a sharp structure is significantly low in durability and the dart tip is often broken while being stuck in the dart target. In this case, a user who operates the dart game apparatus may have to inconveniently call a visit repair engineer in order to repair the dart target. Further, the dart game apparatus may not be used until the dart target is repaired. The situations cannot but be a burden to a business owner who conducts business by using the dart game apparatus.

The dart game apparatus may have a foul line so as to check whether the dart pin thrown from the user is fouled on an outline of the dart target. However, the foul line may not be a component particularly required in an official game. As a result, some users may find a dart game apparatus having another component installed therein instead of the foul line. Manufacturing apparatuses of various specifications for some users may be a burden to a company which manufactures the dart game apparatus.

Accordingly, there is a demand for a dart target and components which may be replaced according to whether a problem occurring in the dart target or according to a taste of the user who uses the dart game apparatus.

SUMMARY OF THE INVENTION

The present disclosure is contrived to correspond to the background art, and has been made in an effort to provide a method for being capable of providing a dart game apparatus in which it is easy to replace a dart target unit and a target cover unit.

However, technical objects of the present disclosure are not restricted to the technical object mentioned as above. Other unmentioned technical objects will be apparently appreciated by those skilled in the art by referencing to the following description.

An exemplary embodiment of the present disclosure provides a dart game apparatus. The dart game apparatus may include: a body part forming an external appearance of a dart game apparatus; a target fixation plate provided in one area of a front surface of the body part; a dart target unit seated on the front surface of the target fixation plate; and a target cover unit formed to cover at least a part of the dart target unit, and fixed and coupled to the target fixation plate.

The dart target unit may include a seating unit seated on the front surface of the target fixation plate and having a first diameter, and a dart plate formed to be projected toward the front surface of the seating unit and having a second diameter smaller than the first diameter.

The dart game apparatus may further include at least one guide pin formed to be projected toward the front surface of the body part and guiding locations at which the target fixation plate and the dart target unit are seated on the front surface of the body part, and the target fixation plate may include at least one first guide hole provided at a location corresponding to the at least one guide pin, and the seating unit may include at least one second guide hole provided at the location corresponding to the at least one guide pin.

When the target fixation plate and the seating unit are seated on the front surface of the body part, the at least one guide pin may penetrate at least one first guide hole and the at least one second guide hole.

The body part may include at least one first guide groove into which the at least one guide pin is inserted so that the at least one guide pin is coupled to the body part.

The target cover unit may include a front surface unit having an opening unit for exposing the dart plate to outside and covering at least a part of the dart target unit, and a lateral surface unit having at least one fastening hole into which at least one bolt is inserted so that the target cover unit is coupled to the target fixation plate.

The target fixation plate may include at least one suspension protrusion unit for fixing the target cover unit to an outer peripheral surface, the target cover unit may include a projection unit formed on a rear surface of the front surface unit to be projected toward the rear surface of the front surface unit, and the projection unit may include at least one dented unit formed along an inner peripheral surface of the lateral surface unit and dented toward the front surface unit, and at least one receiving groove provided inside in at least one area of the projection unit exposed through the at least one dented unit.

The at least one suspension protrusion unit may include a suspension member formed so that at least a part is inserted into the at least one receiving groove, and a connection

member formed to extend toward the front surface of the target fixation plate, and connecting the suspension member and the target fixation plate.

When the target cover unit is seated on the target fixation plate, the suspension member may be inserted into the at least one dented unit, and when the target cover unit rotates in a first direction, the suspension member may be inserted into the at least one receiving groove.

The target fixation plate may include an opening unit provided in at least a part thereof, and the body part may include at least one elastic member provided to contact the rear surface of the dart target unit through the opening unit.

The dart target unit may be in close contact with the target cover unit by restoration force of the at least one elastic member.

The target cover unit may include a projected display unit formed to be projected on an outer peripheral surface, and the projected display unit may be disposed at a predetermined location when a part of the suspension protrusion unit is inserted into the at least one receiving groove.

The target cover unit may include at least one vibration sensor unit disposed on the front surface of the front surface unit, and at least one first power terminal provided on the rear surface of the front surface unit and delivering power to the at least one vibration sensor unit, and the seating unit may include at least one second power terminal delivering power to the vibration sensor unit by being in contact with the at least one first power terminal.

When a part of the suspension protrusion unit is inserted into the at least one receiving groove, the at least one first power terminal and the at least one second power terminal may contact each other.

Technical solving means which can be obtained in the present disclosure are not limited to the aforementioned solving means and other unmentioned solving means will be clearly understood by those skilled in the art from the following description.

According to an exemplary embodiment of the present disclosure, a dart game apparatus can be provided in which it is easy to replace a dart target unit and a target cover unit.

Effects which can be obtained in the present disclosure are not limited to the aforementioned effects and other unmentioned effects will be clearly understood by those skilled in the art from the following description.

BRIEF DESCRIPTION OF THE DRAWINGS

Various aspects are now described with reference to the drawings and like reference numerals are generally used to designate like elements. In the following exemplary embodiments, for the purpose of description, multiple specific detailed matters are presented to provide general understanding of one or more aspects. However, it will be apparent that the aspect(s) can be executed without the specific detailed matters. In other examples, known structures and apparatuses are illustrated in a block diagram form in order to facilitate description of the one or more aspects.

FIG. **1** is a block diagram for describing components of a dart game system according to some exemplary embodiments of the present disclosure.

FIG. **2** is a diagram for describing an example of a dart game system according to some exemplary embodiments of the present disclosure.

FIG. **3** is a perspective view for describing a dart game apparatus according to some exemplary embodiments of the present disclosure.

FIG. **4** is a cross-sectional view for describing an example of a method in which a dart target unit is coupled to at least one of a display unit or a cover unit according to some exemplary embodiments of the present disclosure.

FIG. **5** is a perspective view for describing a dart target unit according to some exemplary embodiments of the present disclosure.

FIG. **6** is an exploded perspective view for describing an example of a method in which the dart target unit is coupled according to some exemplary embodiments of the present disclosure.

FIG. **7** is a bottom view for describing an example of a target cover unit according to some exemplary embodiments of the present disclosure.

FIG. **8** is a diagram illustrating a cross-sectional view taken along line B'-B' of FIG. **7** in order to describe the target cover unit according to some exemplary embodiments of the present disclosure.

FIG. **9** is a front view for describing an example of the dart target unit according to some exemplary embodiments of the present disclosure.

FIG. **10** is a diagram for describing an example of a motion in which when the target cover unit rotates in a first direction, a projected display unit rotates.

DETAILED DESCRIPTION

Various exemplary embodiments and/or various aspects will be disclosed with reference to the drawings. In the following descriptions, for explanation, multiple specific details are disclosed in order to provide overall understandings of one or more aspects. However, it will also be appreciated by those skilled in the art that this aspect(s) may be practiced without these specific details. The following descriptions and the accompanying drawings are provided for disclosing specific exemplary aspects of the one or more aspects in detail. However, these aspects are exemplary. Thus, some of the various methods in the principles of the various aspects may be used, and the descriptions are intended to include all such aspects and their equivalents. Specifically, "an exemplary embodiment", "an example", "an aspect", and the like used in this specification may not be construed as any aspect or design described being better or advantageous than other aspects or designs.

Hereinafter, the same or similar constituent elements are assigned with the same reference numerals regardless of reference numerals, and the repetitive description thereof will be omitted. In addition, in the description of the exemplary embodiment disclosed in the present specification, the specific descriptions of publicly known related technologies will be omitted when it is determined that the specific descriptions may obscure the subject matter of the exemplary embodiment disclosed in the present specification. In addition, the accompanying drawings are provided only to allow those skilled in the art to easily understand the exemplary embodiments disclosed in the present specification, and the technical spirit disclosed in the present specification is not limited by the accompanying drawings.

Terms "first", "second", and the like may be used to describe various elements and components, but the elements and components are of course not limited by these terms. These terms are merely used to distinguish one element or component from another element or component. Therefore, the first element or component mentioned hereinafter may of course be the second element or component within the technical spirit of the present disclosure.

Unless otherwise defined, all terms (including technical and scientific terms) used in the present specification may be used as the meaning which may be commonly understood by the person with ordinary skill in the art, to which the present disclosure belongs. In addition, terms defined in a generally used dictionary shall not be construed in ideal or excessively formal meanings unless they are clearly and specially defined in the present specification.

The term of "or" is intended to mean not an exclusive "or" but an inclusive "or". That is, unless specified or clear in context, "X uses A or B" is intended to mean one of the natural implicit substitutions. That is, "X uses A or B" can be applied to any of the cases where X uses A, X uses B, or X uses both A and B. Moreover, it is to be understood that the term of "and/or" used in this specification refers to and includes all possible combinations of one or more of the listed related items.

It is to be understood that the terms of "comprises" and/or "comprising" mean that the feature and/or a component is provided, but one or more other features, other components and/or the presence or addition of groups thereof are not excluded. In addition, unless specified or clear in the context of indicating a singular form, the singular in this specification and claims should generally be construed to mean "one or more".

The terms "information" and "data" used in the present specification may sometimes be interchangeably used.

The suffixes "module" and "unit" used to describe some constituent elements in the following description are used together or interchangeably in order to facilitate the description, but the suffixes themselves do not have distinguishable meanings or functions.

When one constituent element is described as being "connected" or "coupled" to another constituent element, it should be understood that one constituent element can be connected or coupled directly to another constituent element, and an intervening constituent element can also be present between the constituent elements. When one constituent element is described as being "connected directly to" or "coupled directly to" another constituent element, it should be understood that no intervening constituent element is present between the constituent elements.

When an element or layer is referred to as being "on" another element or layer, it can be directly on the other element or layer or intervening elements or layers may be present. In contrast, when an element is referred to as being "directly on" another element or layer, there are no intervening elements or layers present.

Spatially relative terms, such as "below," "beneath," "lower," "above," "upper," and the like, may be used herein for ease of description to describe one constituent element or a correlation between one constituent element and other constituent elements, as illustrated in the drawings. It should be understood that the spatially relative terms encompass different orientations of the elements in use or operation in addition to the orientation depicted in the drawings.

For example, if the constituent element in the drawings is turned over, the constituent element described as "below" or "beneath" the other constituent element may then be oriented "above" the other constituent element. Thus, the exemplary term "below" can encompass both orientations of above and below. The constituent elements may be oriented in different directions, and the spatially relative terms used herein may be interpreted in accordance with the orientations.

Objects and effects of the present disclosure and technical constituent elements for achieving the objects and effects will be clear with reference to the exemplary embodiments described in detail below together with the accompanying drawings. In addition, in the description of the present disclosure, the specific descriptions of publicly known functions or configurations will be omitted when it is determined that the specific descriptions may unnecessarily obscure the subject matter of the present disclosure. In addition, the terms used herein are defined considering the functions in the present disclosure and may vary depending on the intention or usual practice of a user or an operator.

The scope of the claims for the method in the claims of the present disclosure arises from the functions and features described in each step and is not affected by the order in which each step in the claims disclosed if a sequence relationship of the disclosure order in respective steps constituting the method is not specified. For example, in the claims set forth in the method including steps A and B, the scope of rights is not limited to the fact that step A precedes step B, even if step A is described before step B.

However, the present disclosure is not limited to the exemplary embodiments disclosed herein but will be implemented in various forms. The exemplary embodiments of the present disclosure are provided so that the present disclosure is completely disclosed, and a person with ordinary skill in the art can fully understand the scope of the present disclosure. The present disclosure will be defined only by the scope of the appended claims. Therefore, the definition of the terms should be made based on the entire contents of the technology of the present specification.

A dart game apparatus **10** according to the present disclosure may have an electronic dart target unit capable of checking a location of a dart pin thrown by a user according to an electrical signal. Further, the dart target unit may be fixed to the dart game apparatus **10** and a target cover unit capable of checking the dart pin thrown from the user is fouled may be provided to cover at least a part of the dart target unit. In this case, the dart target unit may also be frequently replaced due to a reason such as breakage, etc. Further, the target cover unit may also be occasionally replaced due to a reason such as a taste of the user, etc.

To this end, the present disclosure discloses the dart target unit and the target cover unit capable of replacing the dart target unit. Hereinafter, the dart game apparatus **10** including a dart target and a dart game system **1000** according to the present disclosure will be described through FIGS. **1** to **10**.

FIG. **1** is a block diagram for describing components of a dart game system according to some exemplary embodiments of the present disclosure.

According to some exemplary embodiments of the present disclosure, a dart game system **1000** may include a dart game apparatus **10** and a dart game assistant apparatus **3000**. However, components described above are not required in implementing the dart game system **1000** and the dart game system **1000** may thus have components more or less than components listed above.

The dart game apparatus **10** may include a control unit **110**, a display unit **120**, a cover unit **130**, a camera unit **140**, a first network module **150**, a sensing unit **160**, a user input unit **170**, an illumination unit **180**, a sound output unit **190**, a target illumination unit **200**, and a dart target **300**. However, the present disclosure is not limited thereto.

The control unit **110** generally controls all motions of the dart game apparatus **10**. The control unit **110** processes a signal, data, information, and the like input or output through the components mentioned above or drives the

application program stored in a memory (not illustrated) to provide or process information or a function appropriate for the user.

For example, the control unit **110** may aggregate a score input through the dart game play for each game participant. In addition, the control unit **110** may share an aggregated result with another dart game apparatus through a network.

The display unit **120** may be formed in a first area other than an area in which the dart target **300** is provided on a front surface of the dart game apparatus **10**. Here, the front surface of the dart game apparatus **10** may be a surface visually exposed when the user views the dart game apparatus **10** beyond a throw-line. In addition, the first area may be an entire area other than a second area in which the dart target is positioned on the front surface of the dart game apparatus **10**, and may be an area other than the second area and a periphery area of the dart game apparatus **10** on the front surface of the dart game apparatus **10**. However, the present disclosure is not limited thereto.

By constituting the first area of the front surface of the dart game apparatus **10** by the display unit **120**, it is possible to express a visual effect that is differentiated from the dart game apparatus in the related art. However, the present disclosure is not limited thereto.

Specifically, due to characteristics of the dart game, primary plays on the game may be conducted primarily on the dart target **300**. In addition, in the dart target **300** and the first area positioned around the dart target **300**, a visual concentration of the player is relatively high. That is, the first area may be an area in which the visual concentration of the user is high. Accordingly, the dart game apparatus **10** according to the present disclosure outputs various visual effects to the first area to enhance satisfaction or immersion of the user. Hereinafter, the first area will be described below through FIGS. **2** to **3**.

The display unit **120** may include at least one of a liquid crystal display (LCD), a thin film transistor-liquid crystal display (TFT LCD), an organic light-emitting diode (OLED), a flexible display, a 3D display, and an electronic ink (e-ink) display. However, the present disclosure is not limited thereto.

The cover unit **130** may be provided adjacent to the display unit **120** on the front surface of the display unit **120** to protect the display unit **120**. For example, the cover unit **130** may be positioned between a throw-line on which a player who throws a dart pin and the display unit **120**. In this case, the cover unit **130** is positioned adjacent to the display unit **120** on the front surface of the display unit **120** to reduce a risk of damage to the display unit **120**. As another example, the cover unit **130** may be provided in contact with the display unit **120**. However, the present disclosure is not limited thereto.

In the present disclosure, a dart target unit **300** may be seated on a cover unit **130**. For example, the dart target unit **300** may be coupled to a front surface of the cover unit **130** through a fixation member provided on the front surface of the cover unit **130**, etc. Hereinafter, a method in which the dart target unit **300** is coupled to the front surface of the cover unit **130** will be described below through FIGS. **4** to **10**.

Meanwhile, at least a part of the cover unit **130** may have optical transmittance. For example, a part of the cover unit **130** may be transparent, the other part may be translucent, and another part may be opaque. However, the present disclosure is not limited thereto.

The camera unit **140** may include at least one camera. An image frame processed by the camera unit **140** may be stored in the memory or transmitted to the outside through the first network module **150**. Two or more camera units **140** may be provided according to a use environment.

Specifically, the camera unit **140** may include a first camera disposed to face a front surface of the body part (**400** in FIG. **2**). Further, the camera unit **140** may include a second camera disposed on the front surface of the body part to photograph at least one user who uses the dart game apparatus. However, the present disclosure is not limited thereto. Here, the first camera may photograph the dart target and the second camera may photograph the user.

The image photographed by the camera unit **140** may be output to the display unit **120** through control by the control unit **110**.

In this case, the image photographed by the camera unit **140** may be output to different areas within the display unit **120**. For example, an area in which the image photographed by a first camera included in the camera unit **140** is displayed may be different from an area in which the image photographed by a second camera included in the camera unit **140** is displayed. In this case, the image photographed by the first camera may include an image for the dart target. Further, the image photographed by the second camera may include an image of the dart game user. However, the present disclosure is not limited thereto.

A location at which the image photographed by the camera unit **140** is output may vary depending on the dart game user. For example, a location where the photographed image is displayed when the camera unit **140** photographs an image related to the dart game of a first user and a location where the photographed image is displayed when an image related to the dart game of a second user is photographed by the camera unit **140** may be different from each other.

In the exemplary embodiment of the present disclosure, at least one of the cameras constituting the camera unit **140** may be used to measure a throwing speed of the dart pin. For example, at least one camera photographs two or more dart pin images at a predetermined time interval to measure a movement speed of the dart pin. As another exemplary embodiment, the movement speed of the dart pin may be measured using the images of the dart pins photographed by the two or more cameras and positional relationship information of the two or more cameras, which is preset. However, the present disclosure is not limited thereto.

The first network module **150** may perform a communication function with the dart game assistant apparatus **3000** and at least one user terminal under the control by the control unit **110**.

The first network module **150** may use various wired communication systems such as public switched telephone network (PSTN), x digital subscriber line (xDSL), rate adaptive DSL (RADSL), multi rate DSL (MDSL), very high speed DSL (VDSL), universal asymmetric DSL (UADSL), high bit rate DSL (HDSL), and local area network (LAN).

The first network module **150** presented here may use various wireless communication systems such as code division multi access (CDMA), time division multi access (TDMA), frequency division multi access (FDMA), orthogonal frequency division multi access (OFDMA), single carrier-FDMA (SC-FDMA), and other systems.

In the present disclosure, the first network module **150** may be configured regardless of communication modes such as wired and wireless modes and constituted by various communication networks including a personal area network (PAN), a wide area network (WAN), and the like. Further, the network may be known World Wide Web (WWW) and

may adopt a wireless transmission technology used for short-distance communication, such as infrared data association (IrDA) or Bluetooth.

The sensing unit **160** may sense the play of a dart game player (e.g., a real player) input into the dart target **300**.

For example, the sensing unit **160** may sense the hit location of the dart pin. The sensing unit **160** may electrically convert a score corresponding to the area which the dart hits to transmit the converted score to the control unit **110**. In this case, the control unit **110** may acquire a score based on information on the hit location of the dart, which is acquired from the sensing unit **160**.

Meanwhile, the sensing unit **160** may include piezoelectric elements. The piezoelectric elements may mean any type of element that generates an electrical signal in response to a change or change rate of pressure applied to the element. When the dart pin hits the dart target **300**, the electrical signal may be generated by the piezoelectric element in accordance with the pressure applied to the corresponding segment. At least partially based on the electrical signal, the control unit **110** may determine a speed of the dart pin.

For example, the dart pin is thrown and flies, and reaches the dart target and stops. When the dart pin is completely stopped and there is no change in the shape of the piezoelectric element due to the dart pin, the electrical signal of the piezoelectric element also disappears. Therefore, an interval between the time when voltage starts to be generated by the piezoelectric element and the time when the generation of the electrical signal by the piezoelectric element disappears may be measured. When the measured time and acceleration are known, a throwing speed of the dart pin may be calculated.

The user input unit **170** receives an input of the user for controlling the dart game apparatus **10**. The user input unit **170** may be implemented by at least one of a keypad, a dome switch, a touch pad (resistive/capacitive), a jog wheel, and a jog switch. However, the present disclosure is not limited thereto.

In the present disclosure, the user input unit **170** may also include a short-range communication unit (not illustrated). When the user input unit **170** includes the short-range communication unit of the first network module **150**, the user input unit **170** may be configured to receive the user input which is input by an external device.

For example, when the user input unit **170** performs the short range communication using infrared communication, the external device may be an infrared remote controller. As another example, when the user input unit **170** performs the short range communication using a Bluetooth function, the external console device may be a mobile device including a Bluetooth module. The mobile device including the Bluetooth module may be, for example, a smartphone.

In the present disclosure, the user input unit **170** may receive information on the dart pin. For example, the dart game system **1000** may be input with information included in a dart pin identification module such as an NFC chip or an RFID chip embedded in the dart pin through the user input unit **170**. As an example, the information on the dart pin may include mass information, weight information, manufacturer information, length information, shape information, and/or predetermined identification information for identifying the dart pin.

Meanwhile, in the present disclosure, the user input unit **170** may be provided in the dart game assistant apparatus **3000**. In this case, the motion and the function which may be performed through the user input unit **170** may be replaced or paralleled with at least one of the components provided in the dart game assistant apparatus **3000**. A detailed description for the dart game assistant apparatus **3000** will be described below.

The illumination unit **180** may output a signal for announcing occurrence of an event of the dart game apparatus **10**. Here, the event which occurs in the dart game apparatus **10** may be identification of the dart game player, direct hit of the dart, a change of the dart game player, game over, and the like.

The illumination unit **180** may include a light emission diode (LED) and announce the occurrence of the event to the user by flickering the LED. The illumination unit **180** may vary and output the type of light emission, the intensity of light emission, or the flicker cycle depending on the position at which the dart pin reaches the dart target.

Meanwhile, the illumination unit **180** may be disposed on the bottom of the dart target **300** and flickered according to a flickering pattern which is pre-stored according to the occurrence of the event. For example, one or more LEDs may be allocated to respective parts of the dart target **300**. The allocated LEDs are disposed on the bottom of the dart target **300** and may be disposed in a direction orienting the outside of the dart game apparatus **10**. When the LEDs irradiate light, the light irradiated by the LEDs may pass through the dart target **300** made of a transparent or translucent material to transfer a visual output to the user. Alternatively, the light irradiated by the LEDs may transfer the visual output to the user through a gap existing in the dart target **300**. As another example, the LEDs may be arranged linearly or nonlinearly along both sides of the dart game apparatus **10**. In this case, the LEDs may extend to a bottom along both sides of the dart game apparatus **10** and may be disposed additionally extend along the side of the throw-line. However, the present disclosure is not limited thereto.

The sound output unit **190** may output audio data received from the first network module **150** or stored in the memory during a motion such as a sound effect of the game, a game motion guide, a game method description, and the like. The sound output unit **190** may also output a sound signal related with a function (e.g., the game sound effect) performed by the dart game apparatus **10**. The sound output unit **190** may also output a speech of a game player or a third person using another dart game apparatus, which is received through the first network module **150**. The sound output unit **190** may include a receiver, a speaker, a buzzer, and the like. Additionally, the sound output unit **190** may vary and output a volume/a type of music according to the location where the dart pin reaches the dart target. However, the present disclosure is not limited thereto.

The target illumination unit **200** may irradiate light toward the front surface of the body part **400**. For example, the target illumination unit **200** may irradiate the light toward the dart target **300**. However, the present disclosure is not limited thereto.

Meanwhile, the target illumination unit **200** may output the signal for announcing the occurrence of the event of the dart game apparatus **10**.

For example, the target illumination unit **200** may include the LED to irradiate the light toward the front surface of the body part **400** through flicking of the LED. Additionally, the target illumination unit **200** may vary and output the type of light emission, the intensity of light emission, and/or the flicker cycle depending on the location at which the dart pin reaches the dart target **300**. However, the present disclosure is not limited thereto.

In the present disclosure, a target illumination unit **200** may be disposed in a lid unit (**600** in FIG. **2**). However,

although not limited thereto, the target illumination unit **200** may be disposed at least partially in contact with the cover unit **130**. For example, the target illumination unit **200** may be disposed on one surface of the cover unit **130** facing the dart game apparatus **10**.

Meanwhile, the control unit **110** may determine the area where the target illumination unit **200** irradiates the light at least partially based on the location which the dart pin hits.

For example, when the dart pin reaches the dart target **300**, the sensing unit **160** may obtain information on the location where the dart pin reaches the dart target **300** and the control unit **110** may determine the area to which the target illumination unit **200** irradiates the light at least partially based on the obtained location information.

Specifically, the control unit **110** may determine the area which the dart pin hits as the area where the target illumination unit **200** irradiates the light.

A portion adjacent to a point where a line extending from the center of the dart target **300** to the location which the dart pin hits meets the outline of the dart target may be determined as the area to which the target illumination unit **200** irradiates the light.

Meanwhile, the control unit **110** may determine a portion matching the location which the dart pin hits as the area to which the target illumination unit **200** irradiates the light. For example, when the dart pin hits a specific location, the control unit **110** may determine an area matching the hit location as the area to which the target illumination unit **200** irradiates the light.

The control unit **110** may determine a portion matching an area including the location which the dart pin hits as a location at which an event effect is to be displayed. For example, the dart target **300** may be divided into a plurality of fan-shaped areas and the control unit **110** may determine a portion adjacent to an arc of the fan-shaped area including the portion which the dart pin hits as the area to which the target illumination unit **200** irradiates the light.

The control unit **110** may determine an area which belongs to a predetermined distance range from the location within the dart target to which the dart pin is thrown as the area to which the target illumination unit **200** irradiates the light.

Meanwhile, the control unit **110** may determine at least one of a pattern in which the target illumination unit **200** irradiates the light and a duration of the irradiated light, at least partially based on the location which the dart pin hits.

Specifically, when the dart pin hits a predetermined location, the control unit **110** may determine a pattern based on the location where the dart pin is determined as the pattern in which the target illumination unit **200** irradiates the light.

As an example, in the case where the dart pin hits a double score area, the control unit **110** may control the target illumination unit **200** to flicker twice or control the target illumination unit **200** to irradiate the light during a duration which is relatively two times longer than the case where the dart pin hits a single score area.

As another example, in the case where the dart pin hits a triple score area, the control unit **110** may control the target illumination unit **200** to flicker three times or control the target illumination unit **200** to irradiate the light during a duration which is relatively three times longer than the case where the dart pin hits a single score area. However, the present disclosure is not limited thereto.

The dart target **300** may include a score board in which a bull's eye is positioned at the center and there are areas segmented by a concentric circle centering the bull's eye and straight lines extended radially from the bull's eye and granted with individual scores, respectively.

Multiple receiving grooves into which a tip of a dart may be inserted may be formed on the score board. In this case, shapes of areas at which the scores are arranged and to which the scores are granted in the dart target **300** may be variably changed. Further, the dart target **300** may be implemented in the form of a touch screen. However, the present disclosure is not limited thereto.

In the present disclosure, the dart game apparatus **10** may further include a memory (not illustrated).

The memory may store a program for a motion of the control unit **110** therein and temporarily store input/output data (e.g., a phone book, a message, a still image, a moving picture, or the like) therein.

The memory may store data regarding various patterns of vibrations and sounds output to correspond to the motion input through the user input unit.

The memory may include at least one type of storage medium of a flash memory type storage medium, a hard disk type storage medium, a multimedia card micro type storage medium, a card type memory (for example, an SD or XD memory, or the like), a random access memory (RAM), a static random access memory (SRAM), a read-only memory (ROM), an electrically erasable programmable read-only memory (EEPROM), a programmable read-only memory (PROM), a magnetic memory, a magnetic disk, and an optical disk. The dart game apparatus **10** may operate in connection with a web storage performing a storing function of the memory on the Internet. However, the present disclosure is not limited thereto.

In the present disclosure, the dart game assistant apparatus **3000** may have various components for the function which may be performed by the dart game apparatus **10** and a function which may be autonomously performed. Further, the dart game assistant apparatus **3000** may be disposed on the ground while being spaced apart from the dart game apparatus **10** by a predetermined distance in an opposite direction to the dart target **300**. However, the present disclosure is not limited thereto.

The dart game assistant apparatus **3000** may include a user interface unit **3100**, an audio output unit **3200**, a user recognition unit **3300**, a storage unit **3400**, and a support member **3500**. However, the present disclosure is not limited thereto.

The user interface unit **3100** may be a device that receives an input of the user for controlling the dart game apparatus **10**. The user interface unit **3100** may include a keypad, a dome switch, a touch pad (resistive/capacitive), a jog wheel, a jog switch, a touch screen having a display function, and like. However, the present disclosure is not limited thereto.

The user interface unit **3100** may receive an input of the user for controlling the display unit **120** of the dart game apparatus **10**. For example, the dart game user may adjust the size of the variable screen displayed on the display unit **120** through the user interface unit **3100**. Specifically, the display unit **120** may be divided into a plurality of areas and at least one of the sizes of the plurality of respective areas may be adjusted by the user interface unit **3100**.

At least one location among the plurality of areas may be adjusted by the user interface unit **3100**. Specifically, the location of at least one of the plurality of areas may be moved to the upper portion of the display unit **120** by an input of a user input from the user interface unit **3100**. Further, the location of at least one of the plurality of areas may be moved to the lower portion of the display unit **120** by an input of a user input from the user interface unit **3100**.

A screen displayed in at least one area among the plurality of areas included in the display unit **120** may be adjusted by the user interface unit **3100**. For example, when the variable screen for the dart game user is preset to be displayed in a first area, the preset display of the variable screen may be changed to displaying the screen for the dart target **300** by the control signal input through the user interface unit **3100**. As another example, the screen for game progress information may be set to be displayed in the first area by the control signal input through the user interface unit **3100**.

In this case, the screen adjusted by the user interface unit **3100** may include at least one of the image photographed by the camera unit **140**, an image received from another dart game apparatus, an image received from the external device, information on the dart game which is currently progressed, acquired information depending on a current dart hitting location, the event effect of the dart game, a lesson image for the dart game, an expected acquired score, and an advertisement image. However, the present disclosure is not limited thereto.

Meanwhile, the screen may be displayed even in the user interface unit **3100**. Here, the screen displayed in the user interface unit **3100** may include at least one of the image photographed by the camera unit **140**, an image received from another dart game apparatus, an image received from the external device, information on the dart game which is currently progressed, acquired information depending on a current dart hitting location, the event effect of the dart game, a lesson image for the dart game, an expected acquired score, and an advertisement image.

In this case, the screen displayed in the display unit **120** and the screen displayed in the user interface unit **3100** may be interlocked. For example, the screen displayed in the user interface unit **3100** may be the same as at least one of the variable screens displayed in the display unit **120**.

Alternatively, the screen displayed in the user interface unit **3100** may be a reduced screen of at least one of the screens displayed in the display area.

In this case, the screen displayed on the user interface unit **3100** may be at least one of the images displayed in the display unit **120**, which may be adjusted by the control signal received by the user interface unit **3100**. For example, a plurality of screens may be displayed in the display unit **120**, and a screen selected by the user through the user interface unit **3100** among the plurality of variable screens may be displayed in the user interface unit **3100**. However, the present disclosure is not limited thereto.

The control unit **110** may adjust the input information that may be input by the user interface unit **3100**, partially based on at least one of the identification information of the user and pre-stored user designation information. For example, each of the dart game users may pre-store the information that may be input through the user interface unit **3100** and when the user is identified based on the identification information acquired by the dart game apparatus **10**, the control unit **110** may adjust the information which may be input through the user interface unit **3100** based on the pre-stored information. In this case, the adjusted information may include at least one of the information on selection and cancellation of the game mode, the information on selection and cancellation of the player, information on a dart game execution history, information on user authentication, and information related with payment of a dart game expense, but is not limited thereto.

The control unit **110** may determine whether to activate the user interface unit **3100** partially based on at least one of the identification information of the user and the pre-stored user designation information. For example, each of the dart game users may pre-store information indicating whether to use the user interface unit **3100** and when the dart game user is identified based on the identification information acquired by the dart game apparatus **10**, the control unit **110** may determine whether to activate the user interface unit **3100** based on the pre-stored information. However, the present disclosure is not limited thereto.

The audio output unit **3200** interlocks with the dart game apparatus **10** to output a sound related to an event generated in the dart game apparatus **10**. For example, the audio output unit **3200** may output audio data received from the first network module **150** or stored in the memory in a sound effect of the game, a game motion guide, game method description, and the like. The audio output unit **3200** may output a sound signal related with the function (e.g., the game sound effect) performed by the dart game apparatus **10**. The audio output unit **3200** may also output a speech of a game player or a third person using another dart game apparatus, which is received through the first network module **150**. The audio output unit **3200** may include a receiver, a speaker, a buzzer, and the like. However, the present disclosure is not limited thereto.

Meanwhile, the audio output unit **3200** may vary and output a volume/a type of music according to the location where the dart pin reaches the dart target **300**. Additionally, the audio output unit **3200** may vary and output the volume/the type of music so as to correspond to the speed of the dart pin.

In this case, the audio output unit **3200** is positioned relatively closer to the dart game user than the sound output unit **190** provided in the dart game apparatus **10** and generates the sound to enhance an interest of the dart game.

The user recognition unit **3300** may recognize unique information of a long-range user by using a radio wave through the radio frequency identification (RFID) technology which is a kind of the short range communication technology. For example, the user may possess a card, a mobile terminal, or unique dart game equipment (for example, his/her own personal dart equipment) which includes an RFID module. Information (e.g., a personal ID, an identification code, and the like of the user registered in the database server) for identifying the user may be recorded in the RFID module possessed by the user. The user recognition unit **3300** may identify the RFID module possessed by the user to identify a dart game player which plays the game by using the dart game apparatus **10** and update a database for the identified dart game player or accumulate new data.

Meanwhile, the user recognition unit **3300** may use various technologies (e.g., the short-range communication technology such as the Bluetooth, and the like) that may transmit and receive unique information of the user by a contact/non-contact method in addition to the RFID technology. Further, the user recognition unit **3300** may include a biodata identification module that identifies biodata (speech, a fingerprint, and a face) of the user by interworking with the microphone of the user interface unit **3100**, the touch pad, the camera unit **140**, and the like.

Meanwhile, the user recognition unit **3300** may include at least one camera which may recognize a QR code, a barcode, etc.

Specifically, when the QR code or the barcode is provided in the dart pin of at least one user or the user terminal of at least one user, at least one camera may recognize at least one of the QR code or the barcode. In addition, information recognized by at least one camera may be transmitted to the dart game apparatus **10** under the control by the control unit

110. In this case, the dart game apparatus **10** may check a game credit of at lest one user based on at least one received information or at least one user may display a preset screen in the display unit **120**. However, the present disclosure is not limited thereto.

The storage unit **3400** may store a bill or a coin for performing the dart game. For example, the storage unit **3400** may store bills such as 1000 won or 5000 won directly from the dart game user.

The storage unit **3400** can acquire game credits from the dart game user. For example, the storage unit **3400** may acquire the game credits through the RFID card of the dart game user and acquire the game credits through the first network module **150**. Here, the game credit may mean money required for performing the dart game.

Meanwhile, a credit card or a check card for performing the dart game may be inserted into the storage unit **3400**. In this case, the control unit **110** settles the game credit by using the credit card or the check card inserted into the storage unit **3400** to generate the dart game credit. Further, although not limited thereto, the storage unit **3400** may acquire the game credit from the user by various methods.

The support member **3500** may form an external appearance of the dart game assistant apparatus **3000**.

Specifically, the support member **3500** may be provided by forming a predetermined height from the ground so that the user conveniently uses the user interface unit **3100**.

The second network module **3600** may perform a communication function with the dart game apparatus **10** and at least one user terminal under the control by the control unit **110**.

The second network module **3600** may use various wired communication systems such as public switched telephone network (PSTN), x digital subscriber line (xDSL), rate adaptive DSL (RADSL), multi rate DSL (MDSL), very high speed DSL (VDSL), universal asymmetric DSL (UADSL), high bit rate DSL (HDSL), and local area network (LAN).

The second network module **3600** presented here may use various wireless communication systems such as code division multi access (CDMA), time division multi access (TDMA), frequency division multi access (FDMA), orthogonal frequency division multi access (OFDMA), single carrier-FDMA (SC-FDMA), and other systems.

In the present disclosure, the second network module **3600** may be configured regardless of communication modes such as wired and wireless modes and constituted by various communication networks including a personal area network (PAN), a wide area network (WAN), and the like. Further, the network may be known World Wide Web (WWW) and may adopt a wireless transmission technology used for short-distance communication, such as infrared data association (IrDA) or Bluetooth.

According to the above-described configuration, the dart game system **1000** may provide, to the user, a dart game including various convenience and entertainments through the dart game apparatus **10** and the dart game assistant apparatus **3000** provided outside the dart game apparatus **10**. Hereinafter, a shape of the dart game system **1000** which may be implemented in the present disclosure will be described through FIG. **2**.

FIG. **2** is a diagram for describing an example of a dart game system according to some exemplary embodiments of the present disclosure. The contents disclosed in FIG. **1** are referred to for a feature duplicated with the feature described above in relation to FIG. **1** among the features for the contents illustrated in FIG. **2** and here, a description thereof will be omitted.

Referring to FIG. **2**, the dart game system **1000** may include the dart game apparatus **10** and the dart game assistant apparatus **3000**.

The dart game user may enjoy the dart game through the dart game apparatus **10**.

When the dart game apparatus **10** is provided in one area, the dart game assistant apparatus **3000** may be disposed spaced apart by a predetermined distance in an opposite direction to the dart target **300**.

In this case, the input for the dart game apparatus **10** is performed through the user interface unit **3100** provided in the dart game assistant apparatus **3000**, and as a result, various situations may not occur, which are inconvenient for the dart game user.

For example, the dart game user may perform the input in the dart game apparatus **10** through the user interface unit **3100** provided in the dart game assistant apparatus **3000**, and as a result, there is no need to move to the dart game apparatus **10** in order to perform the input in the dart game apparatus **10**. In particular, this allows the dart game user to directly perform the input for the dart game without the need to move to the dart game apparatus **10** when the dart game user is a disabled person (e.g., a person with a leg injury, etc.).

Meanwhile, the support member **3500** may include the user interface unit **3100** provided on the upper surface thereof. Further, the storage unit **3400** for acquiring the game credit from at least one user may be provided on the front surface of the support member **3500**. Accordingly, at lest one user may conveniently use the dart game assistant apparatus **3000**. However, the present disclosure is not limited thereto.

Meanwhile, in the present disclosure, the display unit **120** may be provided in an area other than an area in which the dart target **300** is provided on the front surface of the dart game apparatus **10**. Hereinafter, the shape of the dart game apparatus **10** in the present disclosure will be described through FIG. **3**.

FIG. **3** is a perspective view for describing a dart game apparatus according to some exemplary embodiments of the present disclosure.

Referring to FIG. **3**, the dart game apparatus **10** may include a display unit **120**, a cover unit **130**, a dart target unit **300**, a body part **400**, a support unit **500**, a lid unit **600**, and a lower support unit **900**. However, components described above are not required in implementing the dart game apparatus **10** and the dart game apparatus **10** may thus have components more or less than components listed above.

In the present disclosure, the display unit **120** may be formed in an area other than an area in which the dart target unit **300** is provided on the front surface of the dart game apparatus **10**. However, although not limited thereto, the display unit **120** may be formed on at least a part of the front surface of the dart game apparatus **10**.

The display unit **120** may include a first display area **121** and a second display area **122**. However, although not limited thereto, the display unit **120** may include at least one display area.

For example, the display unit **120** may be formed by one display unit area. As another example, the display unit **120** may also include three or more display areas.

Each display area provided in the display unit **120** may be independently controlled by the control unit **110**.

For example, different images may be output to the first display area **121** and the second display area **122**, respectively. As another example, the first display area **121** and the second display area **122** may also interlock with each other

and output a single image or video. However, the present disclosure is not limited thereto.

Meanwhile, according to some exemplary embodiments of the present disclosure, the dart target unit **300** may be provided on the front surface of the display unit **120**. For example, the dart target unit **300** may be coupled to the display unit **120** through a target fixation plate which may be provided on the front surface of the display unit **120**, etc. Hereinafter, a method in which the dart target unit **300** is coupled to the display unit **120** will be described below through FIGS. **4** to **10**.

The cover unit **130** may be provided adjacent to the display unit **120** and protect the display unit **120**. For example, the cover unit **130** may be provided spaced apart from the display unit **120** by a predetermined distance. As another example, the cover unit **130** may be provided in contact with the display unit **120**. In this case, the cover unit **130** may reduce a damage risk to the display unit **120**. Meanwhile, the cover unit **130** may also include a hole (**131** in FIG. **3**) for receiving the dart target unit **300**. Hereinafter, the hole **131** provided in the cover unit **130** will be described below through FIG. **4**.

The body part **400** may form the external appearance of the dart game apparatus **10** in a rectangular plate form erected from the ground. However, although not limited thereto, the body part **400** may be formed in various forms such as a rectangular pillar shape or a polygonal shape. Further, a space may be provided inside the body part **400**. In this case, the control unit **110** may be provided in an internal space of the body part **400**. However, the present disclosure is not limited thereto.

The support unit **500** may be provided on an upper side of the body part **400** and serve to connect and support the lid unit **600** to be described subsequently and the body part **400**.

The lid unit **600** may be rotatably coupled to the support unit **500** through at least one hinge.

Specifically, one side of at least one hinge may be coupled to a lower surface of the lid unit **600**. The other side of at least one hinge may be provided on the lower surface of the support unit **500**. Accordingly, the lid unit **600** may be unfolded so as to be formed in a "¬" shape with the body part **400** when the dart game apparatus **10** is used, and folded when carrying is required. However, the present disclosure is not limited thereto.

The lower support unit **900** may be formed to extend in a throw-line direction from an end portion contacting the body part **400** along the ground. Further, the lower support unit **900** may serve to support the body part **400** to be erected from the ground. Meanwhile, according to some exemplary embodiments of the present disclosure, at least one of the camera unit **140**, the illumination unit **180**, and the sound output unit **190** may be provided even in the lower support unit **900**. However, the present disclosure is not limited thereto.

According to the above-described components, the dart game apparatus **10** may include the display unit **120** capable of outputting the screen to the front surface of the body part **400**.

Meanwhile, according to some exemplary embodiments of the present disclosure, the dart target unit **300** may be provided on at least one of the front surface of the display unit **120** or the cover unit **130**. Hereinafter, an example of a method in which the dart target unit **300** will be described through FIG. **4**.

FIG. **4** is a cross-sectional view for describing an example of a method in which a dart target unit is coupled to at least one of a display unit or a cover unit according to some exemplary embodiments of the present disclosure.

Referring to FIG. **4**A, the dart target unit **300** may be seated on at least one of the display unit **120** or the cover unit **130**.

Meanwhile, FIGS. **4**B and **4**C are diagrams illustrating a cross-sectional view taken along line A-A' of FIG. **4**A.

Specifically, referring to FIG. **4**B, the hole **131** through which the dart pin may pass may be generated in the cover unit **130** to correspond to the size of the dart target unit **300**. In addition, the dart target unit **300** may be seated on the front surface of the display unit **120**. Accordingly, the dart pin thrown by a player may reach the dart target unit **300** by passing through the hole **131** provided in the cover unit **130**.

Meanwhile, referring to FIG. **4**B, the hole **131** may not be provided in the cover unit **130**. In this case, the dart target unit **300** may be coupled to the cover unit **130** through the target fixation plate which may be provided on the front surface of the cover unit **130**, etc. However, the present disclosure is not limited thereto.

Meanwhile, according to some exemplary embodiments of the present disclosure, the dart target unit **300** and the target cover unit provided on the front surface of at least one of the display unit **120** or the cover unit **130** may be detachably coupled through the target fixation plate, etc. Hereinafter, a method in which the dart target unit **300** is detached will be described through FIGS. **5** to **10**.

FIG. **5** is a perspective view for describing a dart target unit according to some exemplary embodiments of the present disclosure.

Referring to FIG. **5**, the dart game apparatus **10** may include a dart target unit **300**, a body part **400**, and a target cover unit **800**. However, the present disclosure is not limited thereto.

The body part **400** may form the external appearance of the dart game apparatus **10**. Further, the display unit **120** and the cover unit **130** may be provided on the front surface of the body part **400**. However, the present disclosure is not limited thereto.

The dart target unit **300** may be provided on the front surface of the body part **400**.

As an example, the dart target unit **300** may be seated on the cover unit **130** provided on the front surface of the body part **400**. In addition, the dart target unit **300** may be fixed to the front surface of the cover unit **130** through the cover unit **800** to be described below. However, the present disclosure is not limited thereto.

The dart target unit **300** may be seated on the display unit **120** provided on the front surface of the body part **400**. In addition, the dart target unit **300** may be fixed to the front surface of the display unit **120** through the target cover unit **800**.

In this case, the hole **131** through which the dart pin may pass may be generated in the cover unit **130** to correspond to the size of the target cover unit **800**. In addition, the dart target unit **300** may be seated on the front surface of the display unit **120**. Accordingly, the dart pin thrown by a player may reach the dart target unit **300** by passing through the hole **131** provided in the cover unit **130**.

Meanwhile, the target fixation plate for fixing the dart target unit **300** may be provided in one area of the front surface of the body part **400**. In this case, the target fixation plate may be fixed to at least one o the display unit **120** or the cover unit **130** provided on the front surface of the body part **400** through a bolt, etc. However, although not limited thereto, the target fixation plate may also be formed integrally with the cover unit **130**, etc.

When the target fixation plate is provided on the front surface of the body part **400**, the dart target unit **300** may be seated on the front surface of the target fixation plate.

Meanwhile, according to some exemplary embodiments of the present disclosure, at least one guide pin may be provided on the front surface of the body part **400**, which guides a location at which the dart target unit **300** is seated on the front surface of the body part **400**.

Specifically, the dart target unit **300** may include a score board in which there are areas segmented by a concentric circle centering the bullseye and straight lines extended radially from the bullseye and granted with individual scores, respectively. The score board may be an important area for determining a score of the dart game. Accordingly, at least one guide pin may be provided on the front surface of the body part **400**, which guides the score board to be provided at an accurate location.

The target cover unit **800** may seat the dart target unit **300** on the body part **400**.

Specifically, the target cover unit **800** may be formed to cover at least a part of the dart target unit **300** and may be fixed and coupled to the target fixation plate while covering at least a part of the dart target unit **300**. Accordingly, the dart target unit **300** may be fixed to the front surface of the body part **400**. Hereinafter, a method in which the target cover unit **800** fixes the dart target unit **300** will be described below through FIG. **6**.

Meanwhile, in the present disclosure, a part of the front surface of the target cover unit **800** may also be a foul area. In this case, at least one vibration sensor unit may also be provided in a part of the front surface of the target cover unit **800**, which may sense an impact amount or a vibration amount of the dart pin thrown from the user. In this case, the control unit **110** may recognize whether the dart pin thrown from the user is fouled based on information received from at least one vibration sensor unit. However, the present disclosure is not limited thereto. Hereinafter, the vibration sensor unit will be described below through FIG. **6**.

Meanwhile, the target cover unit **800** may include a projected display unit **860** which is formed to be projected on an outer peripheral surface. Here, the projected display unit **860** may display, to the user, that the target cover unit **800** is disposed at a predetermined location. Here, the predetermined location may be predetermined by a manufacturer or the user.

Specifically, in some exemplary embodiments of the present disclosure, the target cover unit **800** may be coupled to the target fixation plate while rotating in a first direction. Here, the first direction may be predetermined by the manufacturer or the user. In this case, the user may check a location at which the projected display unit **860** is disposed through a sense of a sense of touch or a sense of sight.

For example, when the projected display unit **860** is positioned in a 12 o'clock direction, the user may recognize that the target cover unit **800** is normally coupled while rotating in the first direction. Hereinafter, a method in which the target cover unit **800** is rotatably coupled to the target fixation plate will be described through FIG. **6**.

FIG. **6** is an exploded perspective view for describing an example of a method in which the dart target unit is coupled according to some exemplary embodiments of the present disclosure.

Referring to FIG. **6**, the dart game apparatus **10** may include the body part **400**, the target fixation plate **700**, the dart target unit **300**, and the target cover unit **800**. However, components described above are not required in implementing the dart game apparatus **10** and the dart game apparatus **10** may thus have components more or less than components listed above.

The body part **400** may include at least one guide pin **410** and at least one elastic member **420**. However, the present disclosure is not limited thereto.

At least one guide pin **410** may be formed to be projected toward the front surface of the body part **400**, and may guide locations at which the target fixation plate **700** and the dart target unit **300** are seated on the front surface of the body part **400**.

For example, at least one first guide hole **710** which at least one guide pin **410** may penetrate may be provided in the target fixation plate **700**. Further, at least one second guide hole **330** which at least one guide pin **410** may penetrate may be provided in the dart target unit **300**. At least one guide pin **410** may penetrate at least one first guide hole **710** and at least one second guide hole **330** when the target fixation plate **700** and the dart target unit **300** are seated on the front surface of the body part **400**. Accordingly, at least one guide pin **410** may guide the target fixation plate **700** and the dart target unit **300** to be disposed at predetermined locations. Here, the predetermined locations may be predetermined by the manufacturer or the user. However, the present disclosure is not limited thereto.

At least one guide pin **410** is provided in the body part **400** as described above, and as a result, the dart target unit **300** may be seated on the target fixation plate **700** so that the score board provided on the front surface may be provided at an accurate location.

Meanwhile, according to some exemplary embodiments of the present disclosure, at least one guide pin **410** may be coupled to at least one first guide groove (not illustrated) provided in the body part **400**.

Specifically, the body part **400** may include at least one first guide groove to which at least one guide pin **410** is fastened so that at least one guide pin **410** may be coupled to the body part **400**.

For example, a female thread may be processed in the first guide groove. In addition, a male thread may be processed in at least a part of at least one guide pin **410**. In this case, at least one guide pin **410** may be fastened to at least one first guide groove through screw coupling. However, the present disclosure is not limited thereto.

Meanwhile, according to some exemplary embodiments of the present disclosure, the body part **400** may include at least one elastic member **420**.

At least one elastic member **420** may provide elastic force so as to fix the dart target unit **300** to the target cover unit **800**.

Specifically, when the target cover unit **800** is coupled to the target fixation plate **700** while covering at least a part of the dart target unit **300**, at least one elastic member **420** may push the dart target unit **300** toward the target cover unit **800**. In such a case, the dart target unit **300** may be in close contact with the target cover unit **800** fixed and coupled to the target fixation plate **700**. Accordingly, the dart target unit **300** may be fixed. However, the present disclosure is not limited thereto.

Meanwhile, the target fixation plate **700** may include at least one first guide hole **710**, at least one suspension protrusion unit **720**, and an opening unit **730**. However, the present disclosure is not limited thereto.

At least one guide pin **410** may penetrate at least one first guide hole **710**.

Specifically, at least one first guide hole **710** may be provided at a location corresponding to at least one guide pin

410. When the target fixation plate **700** is seated on the front surface of the body part **400**, at least one guide pin **410** may penetrate at least one first guide hole **710**. Accordingly, the target fixation plate **700** may be disposed at a predetermined location on the front surface of the body part **400**. However, the present disclosure is not limited thereto.

Meanwhile, at least one suspension protrusion unit **720** is provided on the outer peripheral surface of the target fixation plate **700** to fix the target cover unit **800**.

Specifically, when the target cover unit **800** rotates in the first direction, at least one suspension protrusion unit **720** may have a hook shape so as to be received in at least one receiving groove provided in the target cover unit **800**. Here, at least one receiving groove may be provided on a rear surface of the target cover unit **800**. A shape for at least one receiving groove will be described below through FIG. **7**.

Meanwhile, at least one suspension protrusion unit **720** may be provided in a "⊏" shape so as to be coupled to at least one receiving groove. Alternatively, at least one suspension protrusion unit **720** may also be provided in a "¬" shape. However, the present disclosure is not limited thereto.

Here, at least one suspension protrusion unit **720** may include a suspension member **721** and a connection member **722**.

When the target cover unit **800** rotates in the first direction, the suspension member **721** may be inserted into at least one receiving groove provided in the target cover unit **800**.

Specifically, the suspension member **721** may be formed so that the suspension member **721** is spaced apart from the target fixation plate **700** by a predetermined distance, and at least a part is inserted into at least one receiving groove provided in the target cover unit **800**. However, the present disclosure is not limited thereto. Hereinafter, a method for coupling at least one receiving groove and the suspension member **721** which may be provided in the target cover unit **800** will be described below through FIGS. **7** and **8**.

The connection member **722** is formed to extend toward the front surface of the target fixation plate **700** to connect the suspension member **721** and the target fixation plate **700**.

Specifically, the connection member **722** may be provided in at least a part of an outer surface or the front surface of the target fixation plate **700** and may be formed to extend toward the front surface of the target fixation plate **700**.

As an example, the connection member **722** may be formed to be projected toward the front surface of the target fixation plate **700** in a "|" shape so as to connect the target fixation plate **700** and the suspension member **721**. In this case, a shape of the suspension protrusion unit **720** formed by coupling the suspension member **721** and the connection member **722** may be the "¬" shape.

As another example, the connection member **722** which has a "⌙" shape may be formed to be projected toward the front surface of the target fixation plate **700**. In this case, the shape of the suspension protrusion unit **720** formed by coupling the suspension member **721** and the connection member **722** may be a "⊏" shape. However, the present disclosure is not limited thereto.

Meanwhile, the opening unit **730** may be provided in at least a part of the target fixation plate **700** so that at least a part of the front surface of the body part **400** is exposed.

Specifically, at least one elastic member **420** may be provided on the front surface of the body part **400**. In this case, the opening unit **730** may be provided in at least a part of the target fixation plate **700** so as to correspond to a location at which at least one least elastic member **420** is provided. Accordingly, at least one elastic member **420** may be in contact with the rear surface of the dart target unit **300** through the opening unit **730**.

In this case, the dart target unit **300** may be in close contact with the target cover unit **800** by restoration force of at least one elastic member **420**. Accordingly, the dart target unit **300** may be fixed in close contact with the target cover unit **800** fixed and coupled to the target fixation plate **700**.

Meanwhile, the dart target unit **300** may include a seating unit **310** and a dart plate **320**. However, the present disclosure is not limited thereto.

The seating unit **310** may be seated on the front surface of the target fixation plate **700** and may have a first diameter. Here, the first diameter may be equal to or smaller than a diameter of the target fixation plate **700**.

Specifically, when at least one suspension protrusion unit **720** is provided on the outer surface of the target fixation plate **700**, the first diameter may be equal to or smaller than the diameter of the target fixation plate **700**. Meanwhile, when at least one suspension protrusion unit **720** is provided on the front surface of the target fixation plate **700**, the first diameter may be smaller than the diameter of the target fixation plate **700**.

That is, the seating unit **310** may have the first diameter so as to be seated on the front surface of the target fixation plate **700** without interference with at least one suspension protrusion unit **720** provided in the target fixation plate **700**. However, the present disclosure is not limited thereto.

Meanwhile, the seating unit **310** may include at least one second guide hole **330** provided at a location corresponding to at least one guide pin **410**.

When the seating unit **310** is seated in the target fixation plate **700**, at least one guide pin **410** may penetrate the second guide hole **330**. Accordingly, when the dart target unit **300** may be fixed to the target fixation plate **700**, the dart target unit **300** may be disposed at a predetermined location. However, the present disclosure is not limited thereto.

Meanwhile, the dart plate **320** may be formed on the front surface of the seating unit **310** and may include the score board.

Specifically, the dart plate **320** may be formed to be projected toward the front surface of the seating unit **310** and may have a second diameter smaller than the first diameter. Here, the second diameter may also be determined by the score board provided on the front surface of the dart plate **320**.

For example, a size of 15.5 inch of the dart target is used as a current International standard. In this case, the second diameter of the dart plate **320** may be 15.5 inch. In such a case, the dart game apparatus **10** may be used even in an International/domestic game and further, used for a practice for a player/ordinary person who participates in the game.

However, although not limited thereto, the second diameter of the dart plate **320** may also be smaller or larger than an International standard size so as to enhance an interest of the user.

Meanwhile, the target cover unit **800** may include an opening unit **810**, a front surface unit (**820** in FIG. **7**), a lateral surface unit **830**, and at least one vibration sensor unit **840**. However, the present disclosure is not limited thereto.

The front surface unit may be formed to include the opening unit **810** for exposing the dart plate **320** to the outside, and cover at least a part of the dart target unit **300**. Here, the opening unit **810** may be formed to correspond to the second diameter of the dart plate **320** In this case, the dart plate **320** may be exposed to the outside of the front surface unit through the opening unit **810**, and the dart pin thrown

by the user may reach the dart plate **320**. That is, the front surface unit may cover the seating unit **310** of the dart target unit **300**. However, the present disclosure is not limited thereto.

Meanwhile, the lateral surface unit **830** may form a lateral surface of the target cover unit **800**. In addition, the lateral surface unit **830** may cover the lateral surface of the dart target unit **300**.

The lateral surface unit **830** may have a height corresponding to a distance by which the dart plate **320** is projected from the front surface of the body part **400**.

Specifically, at least one vibration sensor unit **840** to be described below may be disposed on the front surface of the front surface unit. In this case, a first height by which at least one vibration sensor unit **840** is projected from the front surface of the body part **400** needs to be correspond to a second height by which the dart plate **320** is projected from the front surface of the body part. Accordingly, the lateral surface unit **830** may be formed so that the first height may correspond to the second height.

In such a case, the dart target unit **300** viewed by the dart game user may be viewed smooth as if a step is not generated between the dart plate **320** and the target cover unit **800**. However, the present disclosure is not limited thereto.

Meanwhile, at least one fastening hole **831** into which at least one bolt is inserted may be provided in the lateral surface unit **830** so that the target cover unit **800** is coupled to the target fixation plate **700**.

Specifically, the target cover unit **800** may rotate in the first direction and may be partially coupled to the suspension protrusion unit **720** provided in the target fixation plate **700**, and fixed to the target cover unit **800** through at least one bolt inserted into at least one fastening hole **831**.

Meanwhile, at least one fastening member to which at least one bolt may be fastened may also be provide on the lateral surface of the target fixation plate **700**.

Specifically, at least one fastening member may be formed to extend toward the front surface of the target fixation plate **700** on the outer peripheral surface of the target fixation plate **700**. In addition, at least one fastening member may include at least one hole having the female thread so that at lest one bolt is fastened. In this case, when the target cover unit **800** rotates in the first direction, at least one hole may be formed to correspond to a location at which at least one fastening hole **831** is provided. However, the present disclosure is not limited thereto.

In such a case, fixation force with the target cover unit **800** is fixed through at least one bolt may be added to fixation force with which the target cover unit **800** is fixed to the target fixation plate **700** by at least one suspension protrusion unit **720**.

Meanwhile, at least one vibration sensor unit **840** may be provided on the front surface of the target cover unit **800**.

Specifically, the vibration sensor unit **840** at lest one vibration sensor unit **840** may be provided on the front surface of the front surface unit, and may be positioned on the outer peripheral surface of the dart plate **320** when the target cover unit **800** is coupled to the dart target unit **300**. In this case, since the vibration sensor unit **840** is provided outside the dart plate **320**, the vibration sensor unit **840** may also be classified into the foul line by a rule of the dart game.

Meanwhile, the control unit **110** may recognize whether the dart pin thrown from the user is fouled by recognizing the vibration amount received from at least one vibration sensor unit **840**. For example, when the dart pin thrown from the user hits at least one vibration sensor unit **840** and vibration of a predetermined impact amount or more is generated, the control unit **110** may recognize that the dart pin thrown from the user is fouled. However, the present disclosure is not limited thereto.

Meanwhile, the projected display unit **860** may be provided in the lateral surface unit **830** of the target cover unit **800**.

When the target cover unit **800** rotates in the first direction and is coupled to the target fixation plate **700**, the projected display unit **860** may be provided be disposed at a predetermined location. In this case, when the target cover unit **800** rotates in the first direction, the user may check the location of the projected display unit **860** and fasten at least one bolt.

According to the above-described configuration, the dart target unit **300** and the target cover unit **800** may be provided to be detachable from the front surface of the dart game apparatus **10**.

Meanwhile, a component for fixing the dart target unit **300** may be provided on the rear surface of the target cover unit **800**. Hereinafter, the target cover unit **800** will be described in more detail through FIGS. **7** and **8**.

FIG. **7** is a diagram for describing an example of a target cover unit according to some exemplary embodiments of the present disclosure. FIG. **8** is a diagram illustrating a cross-sectional view taken along line B'-B' of FIG. **7** in order to describe the target cover unit according to some exemplary embodiments of the present disclosure.

Referring to FIG. **7**, the target cover unit **800** may include an opening unit **810**, a front surface unit **820**, a lateral surface unit **830**, and at least one vibration sensor unit **840**, and a projection unit **850**. However, the present disclosure is not limited thereto.

The front surface unit **820** may form the front surface of the target cover unit **800**. In addition, the front surface unit **820** may be formed to cover at least a part of the dart target unit **300**.

The opening unit **810** may be provided in the front surface unit **820**. In addition, the opening unit **810** may expose the dart plate **320** to the outside. Accordingly, when the opening unit **810** is provided in the front surface unit **820**, at least a part at which the front surface unit **820** covers the dart target unit **300** may be the seating unit **310**. However, the present disclosure is not limited thereto.

Meanwhile, the lateral surface unit **830** may form the lateral surface of the target cover unit **800**. Further, at least one fastening hole (**831** in FIG. **6**) for fixing the target cover unit **800** to the target fixation plate **700** may be provided in the lateral surface unit **830**.

In the present disclosure, the projection unit **850** may be provided on the rear surface of the front surface unit **820** of the target cover unit **800**. In addition, the projection unit **850** may be formed to be projected toward the rear surface of the front surface unit **820**.

For example, the projection unit **850** may be formed to be projected from the rear surface of the front surface unit **820** so that an arc shape is formed on an inner peripheral surface of the lateral surface unit **830**. Accordingly, the projection unit **850** may be projected toward the suspension protrusion unit (**720** in FIG. **6**) of the dart target unit **300** by a predetermined distance. However, the present disclosure is not limited thereto.

Meanwhile, at least one dented unit **851** may be provided in the projection unit **850**.

Specifically, at least one dented unit **851** may be formed along the inner peripheral surface of the lateral surface unit **830**, and formed to be dented toward the front surface unit **820**.

For example, at least one dented unit **851** may be dented up to the rear surface of the front surface unit **820** from the projection unit **850**. In this case, at least one dented unit **851** may be provided to correspond to the location of at least one suspension protrusion unit (**720** in FIG. **6**) provided in the target fixation plate **700**.

In this case, at least a part of at least one suspension protrusion unit (**720** in FIG. **6**) may be inserted into at least one dented unit **851**.

Specifically, when the target cover unit **800** is seated on the target fixation plate (**700** in FIG. **6**), the suspension member (**721** in FIG. **6**) of at least one suspension protrusion unit (**720** in FIG. **6**) may be inserted into at least one dented unit **851**. However, the present disclosure is not limited thereto.

Meanwhile, at least one receiving groove **852** may be provided inside the projection unit **850**.

Specifically, at least one receiving groove **852** may be provided inside in at least one area of the projection unit **850** exposed through at least one dented unit **851**. In this case, at least one receiving groove **852** may be provided inside the projection unit **850** according to the shape of the arc formed by the projection unit **850**. However, the present disclosure is not limited thereto.

Meanwhile, referring to FIG. **8**, when the projection unit **850** includes at least one receiving groove **852**, the suspension member **721** of at least one suspension protrusion unit **720** may be inserted into at least one receiving groove **852**.

Specifically, when the target cover unit **800** is seated on the target fixation plate (**700** in FIG. **6**), the suspension member **721** may be inserted into at least one dented unit **851**. In addition, when the target cover unit **800** rotates in the first direction, the suspension member **721** may be inserted into at least one receiving groove **852**. However, the present disclosure is not limited thereto.

In such a case, the target cover unit **800** may be coupled to the target fixation plate **700**.

Meanwhile, according to some exemplary embodiments of the present disclosure, when the suspension member **721** of the suspension protrusion unit **720** is inserted into at least one receiving groove **852**, the projected display unit **860** may be disposed at a predetermined location.

For example, when the projected display unit **860** is positioned in a 12 o'clock direction, the user may recognize that the suspension member **721** is inserted into at least one receiving groove **852**. However, the present disclosure is not limited thereto.

Meanwhile, at least one first power terminal **841** may be provided on the rear surface of the target cover unit **800**.

Specifically, referring back to FIG. **7**, at least one first power terminal **841** may be provided on the rear surface of the front surface unit **820**. In this case, at least one first power terminal **841** may deliver power to at least one vibration sensor unit **840**.

For example, when the first power terminal **841** is in contact with at least one second power terminal provided in the dart target unit **300** to be described below, the first power terminal **841** may deliver the power to at least one vibration sensor unit **840**. However, the present disclosure is not limited thereto.

According to the above-described structure, the target cover unit **800** may be detachable from the target fixation plate **700** through a motion of the target cover unit **800** which rotates in the first direction or rotates in the second direction opposite to the first direction.

Meanwhile, the target cover unit **800** may receive the power through at least one second power terminal which may be provided in the dart target unit **300**. Hereinafter, this will be described below through FIG. **9**.

FIG. **9** is a front view for describing an example of the dart target unit according to some exemplary embodiments of the present disclosure. The contents disclosed in FIG. **6** are referred to for a feature duplicated with the feature described above in relation to FIG. **6** among the features for the contents illustrated in FIG. **9** and here, a description thereof will be omitted.

Referring to FIG. **9**, the dart target unit **300** may include at least one second power terminal **340**.

Specifically, at least one second power terminal **340** may be provided on the front surface of the seating unit **310** to correspond to a location of at least one first power terminal **841** provided on the rear surface of the target cover unit **800**. In this case, at least one second power terminal **340** may be formed to be projected from the seating unit **310** for contacting at least one first power terminal **841**. However, the present disclosure is not limited thereto.

In such a case, at least one second power terminal **340** may deliver the power to the vibration sensor unit **840** in contact with at least one first power terminal **841**.

Meanwhile, at least one vibration sensor unit **840** that is supplied with the power through a contact of at least one first power terminal **841** and at least one second power terminal **340** may sense the vibration generated by the dart pin thrown from the user. In addition, the control unit **110** may recognize whether the dart pin thrown from the user is fouled by recognizing the vibration amount received from at least one vibration sensor unit **840**. For example, when the dart pin thrown from the user hits at least one vibration sensor unit **840** and vibration of a predetermined impact amount or more is generated, the control unit **110** may recognize that the dart pin thrown from the user is fouled. However, the present disclosure is not limited thereto.

Meanwhile, according to some exemplary embodiments of the present disclosure, a location at which at least one second power terminal **340** is provided on the front surface of the seating unit **310** may correspond to a location at which at least one first power terminal **841** is disposed when the target cover unit **800** rotates in the first direction.

In this case, at least one first power terminal **841** and at least one second power terminal **340** may contact each other when a part of the suspension protrusion unit **720** of the target fixation plate **700** is inserted into at least one receiving groove **852**. However, the present disclosure is not limited thereto.

Meanwhile, in the present disclosure, the dart target unit **300** may be supplied with the power from a power supply unit provided in the body part **400**. In this case, at least one third power terminal may be provided on the front surface of the body part **400** in order to deliver the power supplied from the power supply unit. However, although not limited thereto, a power terminal unit may also deliver the power to the dart target unit **300** through a cable, etc.

According to the above-described configuration, the dart target unit **300** and the target cover unit **800** may be provided with the power while being detachable from the body part **400**.

Meanwhile, according to some exemplary embodiments of the present disclosure, it may be indicated that the target cover unit **800** is coupled to the target fixation plate **700** through the projected display unit **860**. Hereinafter, an

example of a motion of the projected display unit which rotates when the target cover unit **800** rotates in the first direction will be described through FIG. **10**.

FIG. **10** is a diagram for describing an example of a motion in which when the target cover unit rotates in a first direction, a projected display unit rotates.

Referring to FIG. **10**, the target cover unit **800** may include the projected display unit **860** on the lateral surface.

Specifically, referring to FIG. **10**A, the projected display unit **860** may be positioned in an 11 o'clock direction of the target cover unit **800**. In this case, the user may recognize that the target cover unit **800** does not rotate in the first direction. That is, it may be recognized that the suspension member **721** of at least one suspension protrusion unit **720** is not inserted into at least one receiving groove **822** of the target cover unit **800**. However, the present disclosure is not limited thereto.

Meanwhile, referring to FIG. **10**B, when the target cover unit **800** rotates in the first direction and the suspension member **721** is inserted into at least one receiving groove **822**, the projected display unit **860** may be positioned in a 12 o'clock direction. In this case, the user may recognize that the target cover unit **800** is coupled to the target fixation plate **700** and insert at least one bolt into at least one fastening hole **831** provided on the lateral surface of the target cover unit **800**. However, the present disclosure is not limited thereto.

As described above, the dart target unit **300** in the present disclosure may be provided to be detachable from the body part **400** through the target cover unit **800**.

Specifically, when the dart target unit **300** should be fixed to the front surface of the body part **400**, the dart target unit **300** may be seated on the target fixation plate **700**. In addition, the target cover unit **800** may be fixed to the target fixation plate **700** while covering at least a part of the front surface of the dart target unit **300**. Accordingly, the dart target unit **300** may be fixed to the body part **400**.

When the dart target unit **300** needs to be replaced and should be thus separated from the body part **400**, the dart target unit **300** may be simply separated from the body part **400** only by releasing the coupling of the target cover unit **800** and the target fixation plate **700**. Accordingly, when the dart target unit **300** needs to be replaced due to various reasons, the user may easily separate the dart target unit **300** and the body part **400**.

Even when replacing the target cover unit **800** is required, the target cover unit **800** may be easily replaced without the need for touching other components. As replacement of the dart target unit **300** is described and mentioned above, the target cover unit **800** may be easily replaced if only fastening to the target fixation plate **700** is released. In this case, even though the target cover unit **800** is separated, the dart target unit **300** may be temporarily seated on the target fixation plate **700**. Accordingly, the user may also easily replace the target cover unit **800** alone.

The description of the presented exemplary embodiments is provided so that those skilled in the art of the present disclosure use or implement the present disclosure. Various modifications of the exemplary embodiments will be apparent to those skilled in the art and general principles defined herein can be applied to other exemplary embodiments without departing from the scope of the present disclosure. Therefore, the present disclosure is not limited to the exemplary embodiments presented herein, but should be interpreted within the widest range which is coherent with the principles and new features presented herein.

What is claimed is:

1. A dart game apparatus comprising:

a body part forming an external appearance of a dart game apparatus;

a target fixation plate provided in one area of a front surface of the body part;

a dart target unit seated on the front surface of the target fixation plate; and

a target cover unit formed to cover at least a part of the dart target unit, and fixed and coupled to the target fixation plate;

wherein the dart target unit includes:

a seating unit seated on the front surface of the target fixation plate and having a first diameter, and

a dart plate formed to be projected toward the front surface of the seating unit and having a second diameter smaller than the first diameter,

further comprising:

at least one guide pin formed to be projected toward the front surface of the body part and guiding locations at which the target fixation plate and the dart target unit are seated on the front surface of the body part,

wherein the target fixation plate includes at least one first guide hole provided at a location corresponding to the at least one guide pin, and

the seating unit includes at least one second guide hole provided at the location corresponding to the at least one guide pin.

2. The dart game apparatus of claim **1**, wherein when the target fixation plate and the seating unit are seated on the front surface of the body part, the at least one guide pin penetrates the at least one first guide hole and the at least one second guide hole.

3. The dart game apparatus of claim **1**, wherein the body part includes at least one first guide groove into which the at least one guide pin is inserted so that the at least one guide pin is coupled to the body part.

4. The dart game apparatus of claim **1**, wherein the target cover unit includes

a front surface unit having an opening unit for exposing the dart plate to outside and covering at least a part of the dart target unit, and

a lateral surface unit having at least one fastening hole into which at least one bolt is inserted so that the target cover unit is coupled to the target fixation plate.

5. The dart game apparatus of claim **4**, wherein the target fixation plate includes at least one suspension protrusion unit for fixing the target cover unit to an outer peripheral surface,

the target cover unit includes a projection unit formed on a rear surface of the front surface unit to be projected toward the rear surface of the front surface unit, and

the projection unit includes

at least one dented unit formed along an inner peripheral surface of the lateral surface unit and dented toward the front surface unit, and

at least one receiving groove provided inside in at least one area of the projection unit exposed through the at least one dented unit.

6. The dart game apparatus of claim **5**, wherein the at least one suspension protrusion unit includes

a suspension member formed so that at least a part is inserted into the at least one receiving groove, and

a connection member formed to extend toward the front surface of the target fixation plate, and connecting the suspension member and the target fixation plate.

7. The dart game apparatus of claim 6, wherein when the target cover unit is seated on the target fixation plate, the suspension member is inserted into the at least one dented unit, and

when the target cover unit rotates in a first direction, the suspension member is inserted into the at least one receiving groove.

8. The dart game apparatus of claim 5, wherein the target cover unit includes a projected display unit formed to be projected on an outer peripheral surface, and

the projected display unit is disposed at a predetermined location when a part of the suspension protrusion unit is inserted into the at least one receiving groove.

9. The dart game apparatus of claim 3, wherein the target cover unit includes

at least one vibration sensor unit disposed on the front surface of the front surface unit, and

at least one first power terminal provided on the rear surface of the front surface unit and delivering power to the at least one vibration sensor unit, and

the seating unit includes at least one second power terminal delivering power to the vibration sensor unit by being in contact with the at least one first power terminal.

10. The dart game apparatus of claim 9, wherein when a part of the suspension protrusion unit is inserted into the at least one receiving groove, the at least one first power terminal and the at least one second power terminal contact each other.

11. The dart game apparatus of claim 1, wherein the target fixation plate includes an opening unit provided in at least a part thereof, and

the body part includes

at least one elastic member provided to contact the rear surface of the dart target unit through the opening unit.

12. The dart game apparatus of claim 11, wherein the dart target unit is in close contact with the target cover unit by restoration force of the at least one elastic member.

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