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United States Patent	12383818
Kind Code	B2
Date of Patent	August 12, 2025
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### Puzzle platform

#### Abstract

A puzzle platform includes: a puzzle plate, having: a playing portion for carrying puzzle pieces; and a fixing portion; a base plate; and a support assembly, configured to mount and support the puzzle plate and the base plate. The support assembly includes a first extending member and a second extending member that is substantially parallel to and is spaced apart from the first extending member; each of the first extending member and the second extending member comprises a first fixing slot and a second fixing slot; the first fixing slot and the second fixing slot are substantially parallel to each other and are spaced apart from each other; the fixing portion of the puzzle plate is fixedly received in the first fixing slot, and an edge of the base plate is fixedly received in the second fixing slot.

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Family ID:	1000008748934
Appl. No.:	18/755730
Filed:	June 27, 2024

#### Prior Publication Data

Document Identifier	Publication Date
US 20240367032 A1	Nov. 07, 2024

#### Foreign Application Priority Data

CN	202111131554.1	Sep. 26, 2021
CN	202122334815.1	Sep. 26, 2021
CN	202330364018.X	Jun. 13, 2023

#### Related U.S. Application Data

continuation parent-doc US 18748158 20240620 PENDING child-doc US 18755730  
continuation parent-doc US 18530402 20231206 US 12053709 20240806 child-doc US 18748158  
continuation parent-doc US 18235896 20230821 US 12048885 20240730 child-doc US 18748158  
continuation parent-doc US 18235416 20230818 US 12059631 20240813 child-doc US 18748158  
continuation parent-doc US 17829359 20220601 US 12104744 20241001 child-doc US 18748158  
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18530402 20231206  
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18235416 20230818  
continuation-in-part parent-doc US 17505587 20211019 US 11890551 20240206 child-doc US  
18235896 20230821  
continuation-in-part parent-doc US 17829359 20220601 US 12104744 20241001 child-doc US  
18235896 20230821  
continuation-in-part parent-doc US 18235416 20230818 US 12059631 20240813 child-doc US  
18755730 20240627  
continuation-in-part parent-doc US 17829359 20220601 US 12104744 20241001 child-doc US  
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continuation-in-part parent-doc US 17829359 20220601 US 12104744 20241001 child-doc US  
18755730 20240627

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## Publication Classification

**Int. Cl.:** **A63F9/10** (20060101); **A47B25/00** (20060101); **A63F3/00** (20060101)

**U.S. Cl.:**

**CPC** **A63F9/1044** (20130101); **A63F3/00261** (20130101); A47B25/00 (20130101);  
A63F2003/00274 (20130101); A63F2003/00952 (20130101)

## Field of Classification Search

**CPC:** A63F (9/1044); A63F (3/00261); A63F (2003/00274); A63F (2003/00952); A47B  
(25/00); A47B (13/083); A47B (37/00); G03B (17/561)

**USPC:** 273/153R

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References Cited

U.S. PATENT DOCUMENTS

Patent No.	Issued Date	Patentee Name	U.S. Cl.	CPC
4111425	12/1977	Lathrop	40/768	A63F 9/1044
4257606	12/1980	Launzel	273/157R	A63F 9/1288
5243777	12/1992	Dedlow	40/781	A47G 1/0605
5405146	12/1994	Washington	40/773	A63F 9/1044
5624118	12/1996	Gottesman	40/739	A63F 9/1044
6276525	12/2000	Kobeluch	206/499	A63F 9/1044
8235207	12/2011	Dietenberger	273/148R	A63F 9/1044
9044688	12/2014	Janay	N/A	B65D 25/22

Primary Examiner: Smith; Nkeisha

Background/Summary

CROSS REFERENCES AND PRIORITIES (1) The present application is a continuation application of the U.S. patent application Ser. No. 18/748,158, filed on Jun. 20, 2024, which is continuation application of the U.S. patent application Ser. No. 18/530,402, filed on Dec. 6, 2023, continuation-in-part application of the U.S. patent application Ser. No. 18/235,896, filed on Aug. 21, 2023, continuation-in-part application of the U.S. patent application Ser. No. 18/235,416, filed on Aug. 18, 2023, and continuation-in-part application of the U.S. patent application Ser. No. 17/829,359, filed on Jun. 1, 2022. (2) The present application is a continuation application of the U.S. patent application Ser. No. 18/530,402, filed on Dec. 6, 2023, which is a continuation-in-part application of the U.S. patent application Ser. No. 17/829,359, filed on Jun. 1, 2022, and continuation-in-part application of the U.S. patent application Ser. No. 18/235,416, filed on Aug. 18, 2023. (3) The present application is a continuation-in-part application of the U.S. patent application Ser. No. 18/235,896, filed on Aug. 21, 2023, which is a continuation-in-part application of the U.S. patent application Ser. No. 17/829,359, filed on Jun. 1, 2022. (4) The present application is a continuation-in-part application of the U.S. patent application Ser. No. 18/235,416, filed on Aug. 18, 2023, which is a continuation-in-part application of the U.S. patent application Ser. No. 17/829,359, filed on Jun. 1, 2022. (5) The present application is a continuation-in-part application of the U.S. patent application Ser. No. 17/829,359, filed on Jun. 1, 2022. (6) All the above are hereby incorporated by reference in their entirety.

BACKGROUND OF THE PRESENT INVENTION

Field of Invention

(1) The present invention relates to puzzle game apparatus, and more particularly to a puzzle platform, wherein the puzzle platform is configured for retaining all the unfinished pieces and while allowing the player to conveniently play the puzzle.

Description of Related Arts

(2) Puzzles are devised over the years and are among the most popular board games generally played alone by an individual. It is well known that puzzles are good for the brain. Studies have shown that playing puzzles can improve cognition and visual-spatial reasoning, and can train concentration and patience.

(3) Other than as a means of entertainment and enjoyment, players would like to challenge themselves by playing higher piece counts of the puzzle. Generally speaking, the higher the piece

count, the harder the puzzle is. However, a common drawback or a burden for the player is that the finished size of the puzzles is relatively large. For example, a finished size of 1,000 piece puzzles is about 30"×24", a finished size of 5,000 piece puzzles is about 60"×40", and so on. It could take hours, days or even months to compete a larger scale puzzle. One or more puzzle pieces could be missed accidentally or unintentionally. It is sad that the player usually finds out there is a missing piece at the end. Furthermore, as a skilled player, the strategies for playing such huge size of puzzles are configured for classifying puzzle pieces by different feature such as puzzle pieces with a particular color or shape and preassembling a group of puzzle pieces. Therefore, how to avoid losing any pieces and classifying different puzzle pieces with preassembling puzzle groups, it is best to find a container to save and classify all the unfinished pieces.

(4) U.S. Pub. No. 20210170267A1 describes a jigsaw puzzle on which the puzzle pieces are assembled. Referring to FIG. 2, a perimeter edge **18** and a first side edge **22** is a type of two-piece and a multi-layer structure. The perimeter edge **18** is stacked on the first side edge **22** and a drawer **40** positioned such that it is extendable outwardly away from the first side edge **22**. In order to assemble the drawer **40**, the perimeter edge **18** and the first side edge **22** should be placed at an appropriate location. However, in order to place the perimeter edge **18** and the first side edge **22** precisely at specific location, the locations of the perimeter edge **18** and the first side edge **22** should be adjusted repeatedly. So, the perimeter edge **18** and a first side edge **22** must be assembled together by additional assembly steps, which complicates the manufacturing process. Therefore, the jigsaw puzzle has complicated structures and is difficult to be manufactured with low cost.

(5) A need exists for a tool that retains all the unfinished pieces classified. It is to the provision of such a tool that the present disclosure is primarily directed.

#### SUMMARY OF THE PRESENT INVENTION

(6) The present disclosure provides a puzzle platform including: a puzzle plate, a base plate; and a support assembly. The puzzle plate has a playing portion for carrying puzzle pieces; and a fixing portion. The support assembly is configured to mount and support the puzzle plate and the base plate. The support assembly includes a first extending member and a second extending member that is substantially parallel to and is spaced apart from the first extending member; each of the first extending member and the second extending member comprises a first fixing slot and a second fixing slot; the first fixing slot and the second fixing slot are substantially parallel to each other and are spaced apart from each other; the fixing portion of the puzzle plate is fixedly received in the first fixing slot, and an edge of the base plate is fixedly received in the second fixing slot.

(7) The present disclosure further provides a puzzle platform, including: a puzzle board, having a playing portion configured for playing a plurality of puzzle pieces thereon; and a support assembly, configured to mount and support the puzzle board. The support assembly includes: a first extending member; a second extending member that is substantially parallel to and is spaced apart from the first extending member; and two support members that are substantially parallel to each other, wherein, each of the two support members is connected between an end of the first extending member and an end of the second extending member. Each support member comprises: an upper part and a middle part, wherein the upper part is configured to support the puzzle board; the middle part extends downwardly from a lower side of the upper part. The middle part includes: a first side wall connected to the upper part and the first extending member; a second side wall connected to the upper part and the second extending member; and a partition wall connected to the upper part and spaced from the first side wall and the second side wall.

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## Description

### BRIEF DESCRIPTION OF THE DRAWINGS

(1) FIG. 1 is an illustrative isometric view of a puzzle platform according to a first embodiment of

the present invention.

(2) FIG. 2 is an illustrative isometric view of the restricting wall and the supporting portion of the puzzle platform shown in FIG. 1, but from another aspect.

(3) FIG. 3 is a partly exploded perspective view of the puzzle platform shown in FIG. 1.

(4) FIG. 4 is an exploded perspective view of the puzzle platform shown in FIG. 1.

(5) FIG. 5 is a partly exploded perspective view of a board assembly of the puzzle platform shown in FIG. 1.

(6) FIG. 6 is an illustrative isometric view of a supporting member of the puzzle platform shown in FIG. 1.

(7) FIG. 7 is an illustrative isometric view of a supporting member of the puzzle platform shown in FIG. 1, but from another aspect.

(8) FIG. 8 is an illustrative isometric view of a first extending member of the puzzle platform shown in FIG. 1.

(9) FIG. 9 is an illustrative isometric view of a second extending member of the puzzle platform shown in FIG. 1.

(10) FIG. 10 is an illustrative isometric view of a reinforcing member of the puzzle platform shown in FIG. 1.

(11) FIG. 11 is an illustrative isometric view of the puzzle platform shown in FIG. 1.

(12) FIG. 12 is a cross-sectional view of the puzzle platform taken along line A-A of FIG. 11.

(13) FIG. 13 is a cross-sectional view of the puzzle platform taken along line B-B of FIG. 11.

(14) FIG. 14 is an illustrative isometric view of the puzzle platform shown in FIG. 1, but from another aspect.

(15) FIG. 15 is a cross-sectional view of the puzzle platform taken along line C-C of FIG. 14.

(16) FIG. 16 is a cross-sectional view of the puzzle platform taken along line D-D of FIG. 14.

(17) FIG. 17 is an illustrative isometric view of a puzzle drawer of the puzzle platform shown in FIG. 1.

(18) FIG. 18 is an illustrative isometric view of a bracket of the puzzle platform shown in FIG. 1.

(19) FIG. 19 is a partly exploded perspective view of a puzzle platform illustrating another mode of a board assembly.

(20) FIG. 20 is a partly exploded perspective view of a board assembly of the puzzle platform shown in FIG. 13 and a base and a part of drawers thereof being removed away, but from another aspect.

(21) FIG. 21 is an illustrative isometric view of a board assembly of the puzzle platform shown in FIG. 13 and a base thereof being removed away.

(22) FIG. 22 is an illustrative isometric view of the puzzle platform shown in FIG. 13, but from another aspect.

(23) FIG. 23 is an exploded perspective view of the puzzle platform shown in FIG. 13.

(24) FIG. 24 is an exploded perspective view of the puzzle platform shown in FIG. 13, but from another aspect.

(25) FIG. 25 is an exploded perspective view of a puzzle platform illustrating third mode of a board assembly.

(26) FIG. 26 is an illustrative isometric view of the puzzle platform shown in FIG. 25.

(27) FIG. 27 is a partly exploded perspective view of the puzzle platform shown in FIG. 25.

(28) FIG. 28 is an illustrative isometric view of a reinforcing member of the puzzle platform shown in FIG. 25.

(29) FIG. 29 is an illustrative isometric view of a supporting member of the puzzle platform shown in FIG. 25.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

(30) The following description is disclosed to enable any person skilled in the art to make and use the present invention. Preferred embodiments are provided in the following description only as

examples and modifications will be apparent to those skilled in the art. The general principles comprised in the following description would be applied to other embodiments, alternatives, modifications, equivalents, and applications without departing from the spirit and scope of the present invention.

(31) Referring to FIGS. **1-18**, a puzzle platform **1** is arranged for a user or a player to assemble a plurality of puzzle pieces **10** thereon and includes a board assembly **2**, a rotating assembly **500** attached on the board assembly **2**, and a bracket **400** disposed below the board assembly **2** and detachably connected to the board assembly **2**.

(32) The board assembly **2** comprises a puzzle board **100** configured for placing the puzzle pieces **10**, a support assembly **200** supporting the puzzle board **100** for forming a receiving space **3** cooperatively with the puzzle board **100**, and a base **600** attached on the support assembly **200**, at least two puzzle drawers **300** received in the receiving space **3**. The rotating assembly **500** is configured to provide accessibility for the board assembly **2** to move the board assembly **2** at different directions with respect to a playing place. The board assembly **2** is embodied to have a rectangular shape having two longer longitudinal sides provided along a longitudinal direction X and two shorter transverse sides provided along a lateral direction Y perpendicular to the longitudinal direction X. Although good results have been shown with the board assembly **2** that is rectangular in shape, it is within the scope of the present invention that numerous other shapes of the board assembly **2** could be used to achieve the desired functionality as described herein.

(33) The puzzle board **100** as shown is a rectangular board, which can be adapted to fit most of the puzzle patterns available on the market, however, within the scope of the present invention, many other shapes of puzzle boards can be used to fulfill the functions described herein, and the puzzle boards of uniform thickness can be of any shape, such as round, square, rectangular, and so on. The puzzle board **100** comprises a puzzle plate **120** and an anti-slipping layer **14** attached on the puzzle plate **120**. The puzzle plate **120** includes a playing portion **130** for playing the puzzle pieces **10** thereon and a fixing portion **140** extending from the edge of the playing portion **130** and fixed by the support assembly **200**. It is worth mentioning that an area of the playing portion **130** is not smaller than an area of the puzzle pieces **10** being put together. Preferably, the area of the playing portion **130** matches with the area of the puzzle pieces **10** after the puzzle pieces **10** are assembled. In other words, the puzzle board **100** serves as a puzzle frame for framing the puzzle pieces after the puzzle pieces **10** are assembled. It is worth mentioning that the puzzle board **100** has a predetermined size adapted for a larger scale puzzle, such as at least 1,000 puzzle pieces, being assembled on the puzzle board **100**. Preferably, the anti-slipping layer **14** has a self-adhesive bottom surface adhered on the puzzle plate **120**, wherein the anti-slipping layer **14** can be removed from the puzzle plate **120** without damaging the puzzle plate **120** and the anti-slipping layer **14**. Therefore, the anti-slipping layer **14** is reusable to place on the puzzle plate **120**. Furthermore, the anti-slipping layer **14** serves as a backing layer of the puzzle pieces **10** after the puzzle pieces **10** are assembled. The flat puzzle plate **120** is made of non-slip felt surfaces to keep the puzzle pieces **10** and prevent the puzzle pieces being slipped thereon. The area of the anti-slipping layer **14** matches with the area of the puzzle plate **120**. It's optional that the area of the anti-slipping layer **14** matches with the area of the puzzle plate **120**. The anti-slipping layer **14** is made of a plastic sheet, a silicone sheet, a transparent sheet, an opaque sheet, or a flexible sheet, and so on for retaining the puzzle pieces **10**.

(34) As shown in FIGS. **1-18**, the support assembly **200** is coupled with the puzzle plate **120** for forming at least two drawer cavities **301** and at least two puzzle drawers **300** received in the corresponding drawer cavities **301**. The puzzle board **100** of the puzzle platform **1** has a thin and big size. A length and/or a width of the puzzle board **100** is much greater than a thickness of the puzzle board **100**, so the support assembly **200** is configured for improving the structural strength of the puzzle board **100**. The support assembly **200** is substantially perpendicular to the puzzle board **100** and may take any shape, such as circular, square, rectangular and so on.

(35) The support assembly **200** comprises a pair of supporting members **210** formed at the transverse sides of the puzzle board **100**, a first extending member **220** connected with an end of the pair of supporting members **210** and a second extending member **230** spaced apart from the first extending member **220** in an extension direction of the supporting member **210** and connected with the other end of the pair of supporting members **210**. The pair of supporting members **210** is parallel to each other. The first extending member **220** is parallel to the second extending member **230**.

(36) Each of the supporting member **210** includes an upper part **4**, a lower part **5** spaced apart from the upper part **4**, and a middle part **6** connected the upper and lower parts **4**, **5**. It's optional that the lower part **5** can be omitted. Each of the supporting member **210** further comprises a top wall **211** arranged on the upper part **4** and connected to the puzzle board **100**, a partition wall **212** arranged on the middle part **6** and extending from the middle of the top wall **211** and a bottom wall **217** arranged on the lower part **5**, spaced apart from the top wall **211** and connected with the partition wall **212**. The top wall **211** includes a first end **201** and second end **202** opposite to the first end **201**. Each of the supporting member **210** further includes a first side wall **213a** arranged on the middle part **6** and connected to the first end **201** of the top wall **211**, the bottom wall **217** and the first extending member **220**, a first abutting portion **214a** arranged on the upper part **4**, connected to the top wall **211** and a side of the first side wall **213a** adjacent to the first extending member **220** and abutting against the first extending member **220**, a first engaging portion **215a** protruding from the first abutting portion **214a** in a direction away from the first side wall **213a** and engaged with the first extending member **220**, a second side wall **213b** arranged on the middle part **6** and connected to the second end **202** of the top wall **211**, the bottom wall **217** and the second extending member **230**, a second abutting portion **214b** arranged on the upper part **4** and connected to the top wall **211** and a side of the second side wall **213b** and abutting against the second extending member **230**, and a second engaging portion **215b** protruding from the second abutting portion **214b** in a direction away from the second side wall **213b** and engaged with the second extending member **230**. The first abutting portion **214a**, the first engaging portion **215a**, and the first side wall **213a** are integrated with each other to form a one-piece structure. The top wall **211**, the bottom wall **217**, the first side wall **213a**, the second side wall **213b**, and the partition wall **212** cooperatively comprise two openings **201**, and a corresponding one of the puzzle drawers **300** is exposed outside the receiving space **3** through the corresponding opening **201**.

(37) In this embodiment, each of the supporting member **210** is a monolithic structure. The partition wall **212** is integral with the top wall **211**. The first side wall **213a** and the second side wall **213b** is integral with the top wall **211**. The bottom wall **217** is integral with the partition wall **212**, the first side wall **213a**, and the second side wall **213b**. Further, the first abutting portion **214a**, the first engaging portion **215a**, and the first side wall **213a** are integrated with each other to form a one-piece structure. The second abutting portion **214b**, the second engaging portion **215b**, and the second side wall **213b** are integrated with each other to form a one-piece structure. That is, each of the supporting member **210** is a one-piece structure, and is not a laminated multi-layer structure, which makes the assembling process much easier, the service life of the device is increased, the support force applied on the puzzle plate **120** is increased, thereby greatly reducing material cost and assembly cost. Particularly, each of the supporting member **210** is a one-piece of plastic. The partition wall **212** and the top wall **211** are manufactured by injection molding, thereby forming an integral unit and placing the partition wall **212** precisely at specific location. There is no need to place and adjust the partition wall **212** precisely at specific location. So, it simplifies the manufacturing process of the board assembly **2**. It's optional that at least one of the first side wall **213a** and the second side wall **213b** is integral with the top wall **211**, which makes the assembling process much easier. The bottom wall **217** is integral with at least one of the partition wall **212**, the first side wall **213a**, or the second side wall **213b**. In an alternative embodiment, the bottom wall, the first side wall, and the second side wall can be omitted. The partition wall **212** is integral with

the top wall **211** for forming the pair of openings **201** communicated with the receiving space **3**.  
(38) Referring to FIGS. **19-24**, in another mode of a board assembly **2'** of a puzzle platform **1'**, the board assembly **2'** is a monolithic structure. A puzzle plate **120'** and a support assembly **200'** are manufactured by injection molding, thereby forming an integral unit, improving the mechanical strength of the board assembly **2'** and reducing the assembly cost. Particularly, a puzzle plate **120'**, a first extending member **220'**, a second extending member **230'**, a top wall **211'**, a first side wall **213a'**, a second side wall **213b'**, and a partition wall **212'** are integrated with each other to form the monolithic structure of the board assembly **2'**, which further reduces assembly cost and improves the mechanical strength of the board assembly **2'**. The first extending member **220'** and the second extending member **230'** is integral with the top wall **211'** to form a one-piece structure. Further, the first extending member **220'** and the second extending member **230'** is integral with the pair of the supporting member **210'**. The first extending member **220'** and the second extending member **230'** is substantially strip-shaped, respectively. It's optional that at least one of the first extending member **220'** and the second extending member **230'** is integral with a corresponding one of the first side wall **213a'** or second side wall **213b'** to form a one-piece structure.

(39) The support assembly **200'** of the board assembly **2'** further comprises a plurality of reinforcing ribs **140'** with different pattern integrally extended from the puzzle plate **120'** to solve the problem of the distortion or deformation of the board assembly **2'**, a plurality of reinforcing members **240'** integrally extended from the puzzle plate **120'** for fixing puzzle drawers **300'**, and a plurality of coupling members **25'** integrally extended from the puzzle plate **120'** for fixing a base **600'**. The reinforcing member **240'** comprises a plurality of limiting bars **244'** and the puzzle drawers **300'** comprises a plurality of limiting groove **300a'** matching with the limiting bar **244'**, so that the puzzle drawers **300'** are easily and smoothly actuated to slide in-and-out of a receiving space **3'** through the openings **201'**. Preferably, the reinforcing member **240'** further comprises a plurality of limiting openings **245'** adjacent to the corresponding limiting bar **244'** for providing the limiting bars **244'** with good elasticity.

(40) The coupling members **25'** comprises three first groups **251'** extending along the longitudinal direction X and at least one second group **252'** extending along the lateral direction Y, thereby fixing the base **600'** on the puzzle plate **120'** firmly. The three first groups **251'** have a same structure to another and spaced apart from another. Each of the first groups **251'** comprises a plurality of longitudinal members **2511'** intervally and integrally extended from the puzzle plate **120'**. The second group **252'** comprises a plurality of lateral members **2521'** intervally and integrally extended from the puzzle plate **120**. However, the amount of the first groups **251'** is not limited or restricted to three, and according to different desires, amount of the first groups **251'** can be various. The number of the second group **252'** is not limited either one or two. The first groups **251'** cooperate with the second group **252'** for stabilizing and balancing the fixation of the base **600'**.

(41) Each of the coupling members **25'** has a coupling slot **253'** formed thereon to detachably couple at the base **600'** by inserting screws **254'** through the corresponding coupling slot **253'** to the base **600'**. It is worth mentioning that a plurality of screw holes **601'** formed at the base **600'**, such that the screws **254'** can engage with the screw holes **601'** through the corresponding coupling slot **253'** to couple the base **600'** at the puzzle plate **120'**. Referring to FIG. **22**, the base **600'** is completely received in an inner periphery of the support assembly **200'** and do not expose from the openings **201'**. It's optional that the base **600'** can be omitted and the rotating assembly **500'** is directly attached on the support assembly **200'**.

(42) Turning back to FIGS. **1-18**, the first extending member **220** comprises a first engaging frame **221**, a first clamping structure **222** extending from the first engaging frame **221** configured to fix the fixing portion **140** of the puzzle plate **120** cooperatively with the first engaging frame **221**, and a first fixing structure **227** extending from the first engaging frame **221** for fixing the base **600**. The first engaging frame **221** includes a first upper fixing wall **2211** supporting a bottom of the fixing



potion **140**, a first lower fixing wall **2212** spaced apart from the first upper fixing wall **2211** and opposite to the first upper fixing wall **2211**, a first inner wall **2213** connected the first upper fixing wall **2211** and the first lower fixing wall **2212**, and a first outer wall **2214** connected the first upper fixing wall **2211** and the first lower fixing wall **2212**. The first engaging frame **221** further includes a first engaging groove **225** surrounded by the first upper fixing wall **2211** together with the first lower fixing wall **2212**, the first inner wall **2213** and the first outer wall **2214** for being engaged with the first engaging portion **215a** of the supporting member **210**. In this embodiment, each of the supporting member **210** is detachably inserted into the first extending member **220** and the second extending member **230**. The first upper fixing wall **2211** is closer to a center of the puzzle board **100** than the first inner wall **2213** for fixing the puzzle board **100** firmly. The first lower fixing wall **2212** is closer to a center of the puzzle board **100** than the first inner wall **2213** for fixing the base **600** firmly.

(43) The first extending member **220** and the extending member **230** further comprises at least one third guiding rail **223** at a side adjacent to the one of the puzzle drawers **300** and humps **224** protrudes from the first upper fixing wall **2211** of the first engaging frame **221** and the second upper fixing wall **2311** of the second engaging frame **231**, respectively. The puzzle plate **120** is rested on the humps **224** and in contact with the first clamping structure **222** and the second clamping structure **232**. For example, as shown in FIG. **8**, the first extending member **220** includes the first upper fixing wall **2211**, a first fixing slot **2224** and a receiving slot **2213a**. The first fixing slot **2224** and the receiving slot **2213a** are substantially parallel to each other and are located respectively at two sides of the first upper fixing wall **2211**.

(44) The first clamping structure **222** extends from the first upper fixing wall **2211** for fixing the fixing portion **140** of the puzzle plate **120** cooperatively with the first upper fixing wall **2211** of the first engaging frame **221**. The first clamping structure **222** comprises a first clamping wall **2221** extends from the first upper fixing wall **2211** and connected to the first outer wall **2214**, a second clamping wall **2222** connected to the first clamping wall **2221** and spaced apart from the first upper fixing wall **2211** of the first engaging frame **221**, and a third clamping wall **2223** bent from the second clamping wall **2222** in a direction close to the first upper fixing wall **2211** of the first engaging frame **221** for forming a first fixing space **2224** together with the first upper fixing wall **2211**, the first clamping wall **2221** and second clamping wall **2222**. The fixing portion **140** of the puzzle plate **120** is sandwiched between the third clamping wall **2223** and the first upper fixing wall **2211** of the first engaging frame **221** and embedded in the first fixing space **2224**, so that the puzzle plate **120** is fixedly arranged inside the support assembly **200**.

(45) The second extending member **230** comprises a second engaging frame **231**, a second clamping structure **232** extending from the second engaging frame **231** configured to fix the fixing portion **140** of the puzzle plate **120** cooperatively with the second engaging frame **231**, and a second fixing structure **237** extending from the second engaging frame **231** for fixing the base **600**. The second engaging frame **231** includes a second upper fixing wall **2311** supporting a bottom of the fixing potion **140**, a second lower fixing wall **2312** spaced apart from the second upper fixing wall **2311** and opposite to the second upper fixing wall **2311**, a second inner wall **2313** connected the second upper fixing wall **2311** and the second lower fixing wall **2312**, and a second outer wall **2314** connected the second upper fixing wall **2311** and the second lower fixing wall **2312**. The second engaging frame **231** further includes a second engaging groove **226** surrounded by the second upper fixing wall **2311** together with the second lower fixing wall **2312**, the second inner wall **2313** and the second outer wall **2314** for being engaged with the second engaging portion **215b**. In this embodiment, each of the supporting member **210** is detachably inserted into the first extending member **220** and the second extending member **230**. The second upper fixing wall **2311** is closer to a center of the puzzle board **100** than the second inner wall **2313** for fixing the puzzle board **100** firmly. The second lower fixing wall **2312** is closer to a center of the puzzle board **100** than the second inner wall **2313** for fixing the base **600** firmly.

(46) It's optional that the first abutting portion **214a** and the second abutting portion **214b** can be omitted. A first engaging portion **215a** extends from the first side wall **213a** for being engaged with the first engaging groove **225** of the first extending member **220**. The second engaging portion **215b** extending from the second side wall **213b** for being with the second engaging groove **226** of the second extending member **230**.

(47) The second clamping structure **232** extends from the second upper fixing wall **2311** for fixing the fixing portion **140** of the puzzle plate **120** cooperatively with the second upper fixing wall **2311** of the second engaging frame **231**. The second clamping structure **232** comprises a fourth clamping wall **2321** connected to the second upper fixing wall **2311** of the second engaging frame **231**, a fifth clamping wall **2322** connected to the fourth clamping wall **2321** and spaced apart from the second upper fixing wall **2311** of the second engaging frame **231**, and a sixth clamping wall **2323** bent from the fifth clamping wall **2322** in a direction close to the second upper fixing wall **2311** of the second engaging frame **231** for forming a second fixing space **2324** together with the fourth clamping wall **2321** and the fifth clamping wall **2322**. The fixing portion **140** of the puzzle plate **120** is sandwiched between the sixth clamping wall **2323** and the second upper fixing wall **2311** of the second engaging frame **231** and received in the second fixing space **2324**.

(48) Referring to FIGS. **6-14**, a periphery of the first abutting portion **214a** abuts against peripheries the first clamping structure **222** and the first upper fixing wall **2211** of the first engaging frame **221**, directly. A periphery of the second abutting portion **214b** abuts against peripheries the second clamping structure **232** and the second upper fixing wall **2311** of the second engaging frame **231**, directly. The first engaging portion **215a** is detachably inserted into the first engaging groove **225** of the first engaging frame **221** and is not exposed from the supporting member **210** and the first extending member **220**. An outer wall of the first engaging portion **215a** is engaged with an inner wall of the first engaging frame **221**. The second engaging portion **215b** is detachably inserted into the second engaging groove **226** of the second engaging frame **231** and is not exposed from the supporting member **210** and the second extending member **230**. An outer wall of the second engaging portion **215b** is engaged with an inner wall of the second engaging frame **231**.

(49) The support assembly **200** further comprises a reinforcing member **240** disposed below the puzzle board **100** and located between the first extending member **220** and the second extending member **230**. When assembled, the partition wall **212** is engaged with the reinforcing member **240** to divide the receiving space **3** into drawer cavities **301**. The drawer cavities **301** are in one-to-one correspondence with the puzzle drawers **300** and configured to at least partially receive the puzzle drawers **300**. It will be understood that in some embodiments, the reinforcing member **240** can be omitted.

(50) The board assembly **2** has four puzzle drawers **300** received in the corresponding drawer cavity **301**. The storing capacity of drawers vary as per varying sizes of the puzzle pieces **10**. In this embodiment, the support assembly **200** is configured not only for improving the structural strength of the board assembly **2**, but also for forming the drawer cavities **301** together with the puzzle plate **120**. The four puzzle drawers **300** are formed at the transverse sides of the puzzle board **100** respectively. Particularly, a first puzzle drawer **302** and a second puzzle drawer **303** are spacedly formed at each of the transverse sides of the puzzle board **100**. A third puzzle drawer **304** and a fourth puzzle drawer **305** are spacedly formed at each of the other transverse sides of the puzzle board **100**. In other words, two corresponding puzzle drawers **300** are slidably coupled at each of the transverse sides of the puzzle board **100**. Therefore, four puzzle drawers **300** are slidably coupled at the transverse sides of the puzzle board **100**. It is worth mentioning that each puzzle drawer **300** is independently actuated to slide in-and-out of the corresponding drawer cavity **301** through the corresponding the opening **201**. Since the puzzle drawers **300** are slidably coupled at the transverse sides of the puzzle board **100**, each puzzle drawer **300** is relatively long enough and each drawer cavity **301** is deep enough to retain the puzzle drawer **300** therein so as to prevent the

puzzle drawer **300** being slid out of the drawer cavity **301** accidentally or unintentionally. Accordingly, a length of each puzzle drawer is slightly smaller than half of the length of the puzzle board between the transverse sides thereof.

(51) Each of the puzzle drawers **300** comprises a drawer body **310** and at least one tab **320** extending from an end of the drawer body **310**. Each of the puzzle drawers **300** is switchable between an extending state in which the drawer body **310** of each puzzle drawer **300** extends out of the drawer cavity **301** and an accommodating state in which the drawer body **310** of each puzzle drawer **300** is received in the drawer cavity **301**. The board assembly **2** further comprises recesses **2130** arranged on the first side wall **213a**, the second side wall **213b** and the partition wall **212**, respectively. When the puzzle drawer **300** is in the accommodating state, the tab **320** of the puzzle drawer **300** abuts against the recess **2130**. Referring to FIG. **10**, in order to support the puzzle drawers **300** and actuate the puzzle drawers **300** easily and smoothly, the reinforcing member **240** comprises a first guiding rail **242** adjacent to the first and third puzzle drawers **302**, **304** and a second guiding rail **243** adjacent to the second and fourth puzzle drawers **303**, **305**.

(52) Referring to FIGS. **6-10**, the reinforcing member **240** comprises a reinforcing frame **241** having a reinforcing groove **2411** engaged with each of the partition wall **212**. The first guiding rail **242** and the second guiding rail **243** are disposed at two opposite sides of the reinforcing member **240**. The supporting member **210** further comprises a first inserting portion **216** disposed at a side of the partition wall **212** facing the reinforcing member **240**, and the inserting portion **216** is detachably inserted into the reinforcing groove **2411** of the reinforcing member **240**.

(53) Each of the supporting member **210** further comprises an upper channel **219** formed continuously along an inner periphery **20** thereof and provided on the upper part **4**, which the upper channel **219** is adapted to cooperate with the first fixing space **2224** and the second fixing space **2324** to fix the puzzle board **100** firmly. Accordingly, each of the supporting member **210** may be installed about the puzzle board **100** by inserting the fixing portion **140** within the upper channel **219**. The inner periphery **20** of each of the supporting member **210** comprises a lower inner periphery **21** disposed below the puzzle board **100** and an upper inner periphery **22** spaced apart from the lower inner periphery **21**. The lower inner periphery **21** of each of the supporting member **210** is closer to a center of the puzzle board **100** than the upper inner periphery **22** of each of the supporting member **210** for fixing the puzzle board **100** firmly.

(54) The top wall **211** is adapted to cooperated with the first and second abutting portions **214a**, **214b** to form the upper part **4**. The upper channel **219** is arranged on the upper part **4**. The first inserting portion **216** is adapted to cooperated with the first and second side walls **213a**, **213b**, and the first and second engaging portion **215a**, **215b** to form the middle part **5**. The lower part **6** has the same structure as the upper part **4**. The bottom wall **217** is arranged on the lower part **6**. The lower part **6** further comprises a lower channel **217b** to receive and fix the base **600** firmly.

(55) In this embodiment, the board assembly **2** comprises a complementary conformation provided between each of the supporting members **210**, the first extending member **220** and the second extending member **230** for fixing each of the supporting members **210** on the first extending member **220** and the second extending member **230** firmly. Optionally, the engaging portions **215a**, **215b** are arranged on the first extending member **220** and the second extending member **230** and the engaging grooves **225**, **226** are arranged on each of the supporting member **210**, thereby each of the supporting members **210** is detachably inserted into the first extending member **220** and the second extending member **230**.

(56) Referring to FIGS. **25-29**, in a third mode of a board assembly **2''** of a puzzle platform **1''**, a supporting member **210''** comprises an inserting groove **218''** disposed at a side of a partition wall **212''** facing a reinforcing member **240''**, and the reinforcing member **240''** comprises a second inserting portion **246''** extending from a reinforcing frame **241''** and detachably inserted into the inserting groove **218''**. Comparing with the first mode of board assembly **2**, the reinforcing groove **2411** can be replaced with the second inserting portion **246''** and the first inserting portion **216** can

be replaced with the inserting groove **218''**.

(57) The support assembly **200''** further comprises a first stopping element **242a''** disposed on the reinforcing member **240''** and facing puzzle drawers **300''**. Particularly, the first stopping element **242a''** disposed on the first guiding rail **242''** and second guiding rail **243''**. When the puzzle drawer **300''** is in the accommodating state, the puzzle drawers **300''** abut against the first stopping element **242a''**. Further, A first extending member **220'''** and a second extending member **230''** further comprises a second stopping elements **242b''** facing the puzzle drawers **300''**. When the puzzle drawer **300''** is in the accommodating state, the puzzle drawers **300''** abut against the second stopping element **242b''**. That is, the first and second stopping elements **242a''**, **242b''** are configured to limit the displacements of the corresponding puzzle drawers **300''**.

(58) Turning back to FIGS. **1-18**, the bracket **400** is detachably connected to the support assembly **200**. The bracket **400** comprises a notch **410** facing the support assembly **200** and the support assembly **200** is partially received in the notch **410**.

(59) The rotating assembly **500** comprises a first moving member **501** coupled at board assembly **2** and a second moving member **502** rotatably coupled to the first moving member **501**. It is worth mentioning that the rotating assembly **500** is preferred to be coupled coaxially with a center of gravity of the board assembly **2**, for example at a center portion of the board assembly **2**, such that the board assembly **2** can be moved on the playing place in a balancing manner. In this embodiment, the rotating assembly **500** is detachably coupled at the base **600** and disposed apart from the bracket **400**.

(60) According to this embodiment of the present invention, the board assembly **2** is adapted for being self-rotated  $360^\circ$  on the playing place via a rotation movement between the first and second moving members **501**, **502**. In other words, the user is able to selectively rotate the board assembly **2** from one longitudinal side to another opposed longitudinal side or to any one of the shorter transverse sides without walking around the board assembly **2**. For example, the user is able to assemble one puzzle piece **10** at one side of the board assembly **2** and to rotate the board assembly **2** at  $180^\circ$  in order to assemble another puzzle piece **10** at an opposed side of the board assembly **2**, so as to speed up the assembling time of the puzzle pieces **10**. It should be understood that a rotating angle of the puzzle board **100** can be adjusted to be smaller than  $360^\circ$ .

(61) The base **600** is assembled with the support assembly **200** for supporting the board assembly **2** on the playing place such as a table surface, a wall surface, a floor surface, and the like or even a support frame for supporting the board assembly **2** on ground. The base **600** is generally the type of one-piece with a whole entirety platy shape and have a rectangular shape for matching and covering the support assembly **200**. The base **600** disposed below the puzzle drawers **300** and a periphery of the base **600** is clamped by the support assembly **200**. It will be understood that in some embodiments, the guiding rails **242**, **243**, **223** can be omitted and the bottom of each of the puzzle drawers **32** is mounted on the base **600** and slid on the base **600** directly. So, the base is configured not only holding the puzzle drawer and preventing the puzzle drawer from falling off the supporting portion, but also for allowing each of the puzzle drawer to be slid in-and-out of the corresponding drawer cavity. The base **600** is stacked on the support assembly **200** by suitable chemical or mechanical methods such as but not limited to glue or wood screws. Optionally, a base is integral with at least a part of the support assembly **200** as a whole for forming a stable and reliable structure. For example, the base is integral with the bottom wall **217** of the supporting member **210**.

(62) The puzzle board **100** and/or the support assembly **200** are/is made of plastic, wood, or metal. When the support assembly **200** is made of plastic by molding, the partition wall **212** is integral with the top wall **211**, such that each of the supporting member **210** is a monolithic structure and is detachably inserted into the corresponding extending members **220**, **230**, which makes the assembling process much easier, the service life of the device is increased, the support force applied on the puzzle plate is increased, thereby greatly reducing material cost and assembly cost.

It's optional that each of the supporting member **210** are integrated with the corresponding extending members **220**, **230** to form a one-piece structure. Particularly, the puzzle board **100** is preferred to be integrally molded on the support assembly **200** as a whole.

(63) When the first extending member **220** and/or the second extending member **230** are/is made of metal by stamping, the first and second extending member **220**, **230** are preferred to be integrally molded as a whole, respectively. If the first extending member **220** and/or the second extending member **230** are/is made of aluminum, the weight of the puzzle platform **1** can be reduced. If first extending member **220** and/or the second extending member **230** are/is made of stainless steel or tempered steel, the structural strength of the puzzle platform **1** can be improved. Meanwhile, the puzzle board **100** and each of the supporting member **210** are/is made of plastic by molding. Each of the supporting member **210** is a monolithic structure and is detachably inserted into the corresponding extending members **220**, **230**. If the first extending member **220** is made of plastic or wood, comparing with metal, the manufacturing cost of the puzzle platform **1** can be reduced. The second extending member **230** has the same structure and material as the first extending member **220**.

(64) The first extending member **220** and the second extending member **230** are detachably inserted into both ends of the supporting member **210** to form a stable frame structure. The puzzle board **100** are set to be mutually removable and installable, such a setup can facilitate the transportation of the puzzle platform **1** in a disassembled form, and be installed by the user to form a product after receipt of the goods, thereby saving the space occupied by the puzzle platform **1** in the transportation process, and thus saving the transportation cost; furthermore, the user can disassemble the puzzle platform **1** provided by the present embodiment when it is not in use, thereby saving the space occupied by the puzzle platform **1**.

(65) In another aspect, the support assembly **200** are manufactured by injection molding to form a one-piece structure for improving the mechanical strength of the board assembly **2** and reducing assembly cost. Optionally, each of the supporting member may also be formed wholly or partially integrally, thereby providing structural stability of the board assembly **2**.

(66) In the other aspect, the puzzle plate **120** is integral with the support assembly **200** to form a one-piece structure, thereby improving the mechanical strength of the board assembly **2** and reducing assembly cost.

(67) It's optional that each of the pair of extending members comprises a first connection portion detachably inserted with a corresponding one of the side walls and a second connection portion detachably inserted with the first connection portion.

(68) It will thus be seen that the objects of the present invention have been fully and effectively accomplished. The embodiments have been shown and described for the purposes of illustrating the functional and structural principles of the present invention and is subject to change without departure from such principles. Therefore, this invention includes all modifications encompassed within the spirit and scope of the following claims.

## Claims

1. A puzzle platform, comprising: a puzzle plate, having: a playing portion for carrying puzzle pieces; and a fixing portion; a support assembly, configured to mount and support the puzzle plate; and at least one drawer, configured to store the puzzle pieces; and a rotating assembly, connected to a side of the puzzle platform away from the puzzle plate; wherein the rotating assembly is configured to enable the puzzle platform to self-rotate for 360° on a placement plane; wherein, the support assembly comprises a first extending member and a second extending member that is substantially parallel to and is spaced apart from the first extending member; each of the first extending member and the second extending member comprises a first fixing wall, a first fixing slot and a receiving slot; the first fixing slot and the receiving slot are substantially parallel to each

other and are located respectively at two sides of the first fixing wall; the fixing portion of the puzzle plate is fixedly and un-detachably received in the first fixing slot; wherein an edge of the at least one drawer is slidably received in the receiving slot; and the at least one drawer is slidable to be exposed out of or received in the puzzle platform.

2. A puzzle platform, comprising: a puzzle plate, having: a playing portion for carrying puzzle pieces; and a fixing portion; and a support assembly, configured to mount and support the puzzle plate; wherein, the support assembly comprises a first extending member and a second extending member that is substantially parallel to and is spaced apart from the first extending member; each of the first extending member and the second extending member comprises a first fixing slot and a second fixing slot; the first fixing slot and the second fixing slot are substantially parallel to each other and are spaced apart from each other; the fixing portion of the puzzle plate is fixedly received in the first fixing slot; wherein, the support assembly further comprises two support members, the two support members are substantially parallel to and spaced apart from each other, each of the two support members is connected between an end of the first extending member and an end of the second extending member; each support member comprises: an upper part, receiving the puzzle plate; a middle part, extending downwardly from the upper part and supporting the puzzle plate cooperatively with the upper part; wherein, the middle part comprises: a first side wall connected to the first extending member; a second side wall connected to the second extending member; and a partition wall, connected to the upper part and spaced from the first side wall and the second side wall.

3. The puzzle platform according to claim 2, wherein, each support member comprises a first support end and a second support end opposite to the first support end, the first support end is connected to the end of the first extending member; the second support end is connected to the end of the second extending member.

4. The puzzle platform according to claim 3, wherein, each of the first support end and the second support end is arranged with a connection member, each of the end of the first extending member and the end of the second extending member defines an engaging space; the connection is inserted into the respective engaging space to enable the first support end to be connected to the end of the first extending member and to enable the second support end to be connected to the end of the second extending member.

5. The puzzle platform according to claim 4, wherein, each extending member comprises: an outer wall; an upper fixing wall, extending from the outer wall; a lower fixing wall extending from the outer wall and spaced from the upper fixing wall; and an inner wall, connected to the upper fixing wall and the lower fixing wall and being spaced from the outer wall; wherein, the outer wall, the upper fixing wall, the lower fixing wall, and the inner wall cooperatively define the engaging space.

6. The puzzle platform according to claim 5, wherein, each of the first support end and the second support end further comprises an abutting portion, the connection member is arranged on the abutting portion; the abutting portion abuts against peripheries of the outer wall, the upper fixing wall, the lower fixing wall, and the inner wall.

7. The puzzle platform according to claim 6, wherein, each extending support member further comprises: a first upper clamping wall, extending from the upper fixing wall; a second upper clamping wall, connected to the first upper clamping wall and spaced from the upper fixing wall; and a third upper clamping wall, connected to a side of the second upper clamping wall away from the first upper clamping wall and extending towards the upper fixing wall; wherein the upper fixing wall, the first upper clamping wall, the second upper clamping wall, and the third upper clamping wall cooperatively define the first fixing slot.

8. The puzzle platform according to claim 6, wherein, each extending support member further comprises: a first lower clamping wall, extending from the lower fixing wall; a second lower clamping wall, connected to the first lower clamping wall and spaced from the lower fixing wall;

and a third lower clamping wall, connected to a side of the second lower clamping wall away from the first lower clamping wall and extending towards the lower fixing wall; wherein the lower fixing wall, the first lower clamping wall, the second lower clamping wall, and the third lower clamping wall cooperatively define the second fixing slot.

9. The puzzle platform according to claim 8, wherein the abutting portion abuts against edges of the first lower clamping wall, the second lower clamping wall, and the third lower clamping wall.

10. The puzzle platform according to claim 2, further comprising a reinforcing member and a base plate, wherein, the reinforcing member is disposed between the puzzle plate and the base plate to support the puzzle plate; the support assembly is configured to mount and support the base plate; and an edge of the base plate is fixedly received in the second fixing slot.

11. The puzzle platform according to claim 10, wherein, the puzzle platform further comprises the reinforcing member, the reinforcing member is disposed between the puzzle plate and the base plate to support the puzzle plate; and two ends of the reinforcing member are connected to the two support members respectively.

12. The puzzle platform according to claim 11, wherein, the partition wall is arranged with an insertion portion, each of the two ends of the reinforcing member defines an insertion slot, and the insertion portion is inserted into the respective insertion slot.

13. The puzzle platform according to claim 2, wherein, the support member has a plurality of openings, located in the middle part, wherein the plurality of openings are respectively located between the first side wall and the partition wall and between the partition wall and the second side wall.

14. The puzzle platform according to claim 13, wherein, the puzzle plate, the bottom plate, the first extending member, the second extending member, and the reinforcing member cooperatively define a receiving space communicating with the plurality of openings.

15. The puzzle platform according to claim 13, further comprising a plurality of storage drawers, each of the plurality of storage drawers is received in the receiving space through a respective one of the plurality of openings.

16. A puzzle platform, comprising: a puzzle board, having a playing portion configured for playing a plurality of puzzle pieces thereon; a support assembly, configured to mount and support the puzzle board; and a rotating assembly, connected to a side of the puzzle platform away from the puzzle board; wherein the rotating assembly is configured to enable the puzzle platform to self-rotate for 360° on a placement plane; wherein, the support assembly comprises: a first extending member; a second extending member that is substantially parallel to and is spaced apart from the first extending member; and two support members that are substantially parallel to each other, wherein, each of the two support members is connected between an end of the first extending member and an end of the second extending member; each support member comprises: an upper part and a middle part, wherein the upper part is configured to support the puzzle board; the middle part extends downwardly from a lower side of the upper part; the middle part comprises: a first side wall connected to the upper part and the first extending member; a second side wall connected to the upper part and the second extending member; and a partition wall connected to the upper part and spaced from the first side wall and the second side wall.

17. The puzzle platform according to claim 16, wherein, the puzzle board further comprises a plurality of connection members, wherein the plurality of connection members comprise: a first set of connection members arranged in a first direction; and a second set of connection members arranged in a second direction, each of the plurality of connection members defines a connection slot.

18. The puzzle platform according to claim 17, wherein, a base plate defines a plurality of connection holes corresponding to a plurality of connection slots defined in the plurality of connection members; a plurality of screws are configured to be inserted into the plurality of connection holes and corresponding connection slots to connect the base plate to the puzzle board.

19. The puzzle platform according to claim 16, further comprising a reinforcing member, arranged on the puzzle board and connected to the partition wall, wherein the reinforcing member comprises a plurality of limiting ribs and a plurality of limiting slots, wherein, each of the plurality of limiting slots is located near a respective one of the plurality of limiting ribs.
20. The puzzle platform according to claim 19, further comprising a drawer, wherein, the drawer defines a plurality of limit grooves corresponding to the plurality of limit ribs to enable the drawer to be mounted to the reinforcing member.
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