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ELECTRONIC DEVICE WITH ADJUSTABLE PHOTOGRAPHIC DEVICE, SUPPORT ASSEMBLY AND BRACKET THEREOF

Abstract

An electronic device and a support assembly are provided. The support assembly includes a bracket and a frame. The bracket includes a bracket main body, a movable member, a first sliding member, and a second sliding member. The bracket main body has a receiving portion. The movable member is connected to the bracket main body and is in contact with the first sliding member. The first sliding member is movable relative to the bracket main body, and includes a contacting surface. The second sliding member is movable relative to the bracket main body, and has a force-receiving portion. Each contacting surface is in contact with each force-receiving portion. The frame includes a frame main body and an extension portion connected to the frame main body that is detachably located in the receiving portion. The movable member moves to enable each second sliding member to contact each of two extension portions.

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Background/Summary

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the priority and benefit of Taiwan Patent Application No. 113105367 filed on Feb. 15, 2024, the disclosure of which is hereby incorporated in its entirety by reference herein.

BACKGROUND

Technical Field

[0002] The disclosure relates to an electronic device, and in particular, to a support assembly and a bracket of an electronic device with an adjustable photographic device.

Related Art

[0003] A common photographic device usually needs to be disassembled and assembled through a complicated means such as a tool. In this way, when a camera needs to be replaced or adjusted, a user cannot intuitively and quickly perform an operation.

SUMMARY

[0004] An embodiment of the disclosure provides a support assembly. The support assembly includes a bracket and a frame. The bracket includes a bracket main body, a movable member, a first sliding member, at least one second sliding member, and an elastic element. The bracket main body has a receiving portion. The movable member is connected to the bracket main body, and includes an actuating portion. The first sliding member has a first end and a second end opposite to each other, and is movable relative to the bracket main body along a first direction. The second end of the first sliding member has at least one contacting surface. The actuating portion of the movable member is in contact with the first end. The at least one second sliding member each has a third end and a fourth end opposite to each other, and is movable relative to the bracket main body along a second direction, each third end has a force-receiving portion, and each of the at least one contacting surface of the first sliding member is in contact with the force-receiving portion of each of the at least one second sliding member. The frame includes a frame main body and at least one extension portion. The at least one extension portion is connected to the frame main body, and is detachably located in the receiving portion. The fourth end of each of the at least one second sliding member is in contact with each of the at least one extension portion.

[0005] In some embodiments, the bracket further includes an elastic element, the at least one second sliding member is two second sliding members, and the elastic element is located between the two second sliding members and connected to the two second sliding members.

[0006] In some embodiments, a side of each extension portion toward the at least one second sliding member has a limiting structure, and when the fourth end of each of the at least one second sliding member contacts the corresponding extension portion, limiting structures limit movement of the bracket along the first direction.

[0007] In some embodiments, each limiting structure is a tooth-shaped limiting portion, the bracket further includes two elastic pieces, each elastic piece has an engaging portion corresponding to a shape of the limiting portion, and when the fourth end of each of the at least one second sliding member contacts each of the at least one extension portion, each engaging portion contacts the corresponding extension portion.

[0008] In some embodiments, two ends of each elastic piece are bent toward the extension portion to form the engaging portion.

[0009] In some embodiments, each limiting structure is a tooth-shaped limiting portion, the fourth end of each of the at least one second sliding member has a tooth section arranged along the first direction, when two extension portions of the frame extend into the receiving portion of the bracket, each tooth section corresponds to each limiting portion, and when the fourth end of each of the at least one second sliding member contacts each of the at least one extension portion, the tooth section of each of the at least one second sliding member is engaged with the corresponding limiting portion.

[0010] In some embodiments, each limiting structure is a convex portion protruding toward a side of each of the at least one second sliding member, the fourth end of each of the at least one second sliding member has a concave portion recessed inward along the second direction, when two extension portions of the frame extend into the receiving portion of the bracket, each convex portion corresponds to each concave portion, and when the fourth end of each of the at least one second sliding member contacts each of the at least one extension portion, the concave portion of each of the at least one second sliding member is engaged with the corresponding convex portion.

[0011] In some embodiments, each limiting structure is a concave portion recessed inward at the side of each extension portion toward the at least one second sliding member, the fourth end of each of the at least one second sliding member has a convex portion protruding outward along the second direction, when two extension portions of the frame extend into the receiving portion of the bracket, each convex portion corresponds to each concave portion, and when the fourth end of each of the at least one second sliding member contacts each of the at least one extension portion, the convex portion of each of the at least one second sliding member is engaged with the corresponding concave portion.

[0012] In some embodiments, each limiting structure is an anti-slip sheet, attached to the side of each extension portion toward the at least one second sliding member.

[0013] In some embodiments, the frame main body further includes a plane support portion.

[0014] Further, an embodiment of the disclosure provides a bracket. The bracket includes a bracket main body, a movable member, a first sliding member, at least one second sliding member, and an elastic element. The bracket main body has a receiving portion. The movable member is connected to the bracket main body, and includes an actuating portion. The first sliding member has a first end and a second end opposite to each other, and is movable relative to the bracket main body along a first direction. The second end of the first sliding member has at least one contacting surface. The actuating portion of the movable member is in contact with the first end. The at least one second sliding member each has a third end and a fourth end opposite to each other, and is movable relative to the bracket main body along a second direction, the third end of each of the at least one second sliding member has a force-receiving portion, and each of the at least one contacting surface of the first sliding member is in contact with the force-receiving portion of each of the at least one second sliding member.

[0015] In some embodiments, the bracket further includes two elastic pieces, and two ends of each elastic piece are bent outward to form an engaging portion.

[0016] In some embodiments, the fourth end of each of the at least one second sliding member has a tooth section arranged along the first direction.

[0017] In some embodiments, the fourth end of each of the at least one second sliding member has a concave portion recessed inward.

[0018] In some embodiments, the fourth end of each of the at least one second sliding member has a convex portion protruding outward.

[0019] Further, an embodiment of the disclosure provides an electronic device with an adjustable photographic device. The electronic device includes a bracket, a frame, and a photographic element. The bracket includes a bracket main body, a movable member, a first sliding member, at

least one second sliding member, and an elastic element. The bracket main body has a receiving portion. The movable member is connected to the bracket main body, and includes an actuating portion. The first sliding member has a first end and a second end opposite to each other, and is movable relative to the bracket main body along a first direction. The second end of the first sliding member has at least one contacting surface. The actuating portion of the movable member is in contact with the first end. The at least one second sliding member each has a third end and a fourth end opposite to each other, and is movable relative to the bracket main body along a second direction, the third end of each of the at least one second sliding member has a force-receiving portion, and each of the at least one contacting surface of the first sliding member is in contact with the force-receiving portion of each of the at least one second sliding member. The frame includes a frame main body and at least one extension portion. The at least one extension portion is connected to the frame main body, and is detachably located in the receiving portion. The photographic element is fixed to the bracket main body. The fourth end of each of the at least one second sliding member is in contact with each of the at least one extension portion.

[0020] In some embodiments, the bracket main body further has two connecting arms, the two connecting arms are connected to the bracket main body, and the photographic element is fixed to the two connecting arms.

[0021] In summary, an electronic device with an adjustable photographic device and a support assembly thereof are provided in an embodiment. A photographic element may be selectively disassembled or assembled on a bracket. When a receiving portion of the bracket is inserted into an extension portion of a frame, a user may operate a movable member to pivot the movable member, to push a first sliding member through an actuating portion of the movable member, and then enable each second sliding member to contact each extension portion, to complete assembly. When the bracket is intended to be disassembled, only the movable member needs to be operated, to keep the second sliding member away from the extension portion, so that the bracket can be disassembled from the frame. The frame may be fixed to a different position based on a usage requirement.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

[0022] FIG. 1 is a three-dimensional view of an electronic device with an adjustable photographic device according to some embodiments;

[0023] FIG. 2 is an exploded view of the electronic device with an adjustable photographic device according to the embodiments of FIG. 1;

[0024] FIG. 3 is a partial sectional view (1) of a support assembly according to the embodiments of FIG. 1;

[0025] FIG. 4 is a partial sectional view (2) of a support assembly according to the embodiments of FIG. 1;

[0026] FIG. 5 is a schematic diagram (1) of an operation of a support assembly according to the embodiments of FIG. 1;

[0027] FIG. 6 is a schematic diagram (2) of an operation of a support assembly according to the embodiments of FIG. 1;

[0028] FIG. 7 is a bottom view of a support assembly according to some embodiments;

[0029] FIG. 8 is a bottom view of a support assembly according to some embodiments;

[0030] FIG. 9 is a bottom view of a support assembly according to some embodiments; and

[0031] FIG. 10 is a three-dimensional view of an electronic device with an adjustable photographic device according to some embodiments.

DETAILED DESCRIPTION

[0032] Refer to FIG. 1 and FIG. 2. FIG. 1 is a three-dimensional view of an electronic device with an adjustable photographic device according to some embodiments. FIG. 2 is an exploded view of the electronic device with an adjustable photographic device according to the embodiments of FIG. 1. An electronic device **20** with an adjustable photographic device is hereinafter referred to as the electronic device **20**. The electronic device **20** includes a support assembly **10** and a photographic element **15**. The support assembly **10** includes a bracket **11** and a frame **13**. As shown in FIG. 1 and FIG. 2, there are X, Y, and Z axes orthogonal to each other, and the bracket **11** may be assembled to the frame **13** along an X-axis direction. An assembly structure is to be described in detail later. In the embodiments, the photographic element **15** such as a camera may be assembled on the bracket **11**. A structure of assembling the photographic element **15** is to be described in detail later. The frame **13** may be fixed to, for example, a wall, a screen, or a desktop, based on a usage condition.

[0033] Refer to FIG. 3 to FIG. 6. FIG. 3 is a partial sectional view (1) of a support assembly according to the embodiments of FIG. 1. FIG. 4 is a partial sectional view (2) of a support assembly according to the embodiments of FIG. 1. FIG. 5 is a schematic diagram (1) of an operation of a support assembly according to the embodiments of FIG. 1. FIG. 6 is a schematic diagram (2) of an operation of a support assembly according to the embodiments of FIG. 1. FIG. 5 and FIG. 6 omit a housing on a top side of a bracket main body **110**, to clearly illustrate an internal structure. The bracket **11** includes the bracket main body **110**, a movable member **111**, a first sliding member **112**, and two second sliding members **113**.

[0034] Refer to FIG. 2 again, and refer to FIG. 5 and FIG. 6. The bracket main body **110** has a receiving portion **1101**. In the embodiments, the receiving portion **1101** is located in a hollow part of the bracket main body **110**. As shown in FIG. 3 and FIG. 4, the movable member **111** is connected to the bracket main body **110**, and includes an actuating portion **1111**. In the embodiments, the movable member **111** is pivotally connected to the bracket main body **110**, and is pivotable relative to the bracket main body **110**.

[0035] As shown in FIG. 3 to FIG. 6, the first sliding member **112** has a first end **112A** and a second end **112B** opposite to each other, and is movable relative to the bracket main body **110** along the X-axis direction. The actuating portion **1111** of the movable member **111** is in contact with the first end **112A**. As shown in FIG. 3 and FIG. 4, when a long axis of the movable member **111** is substantially perpendicular to the first sliding member **112**, the actuating portion **1111** pushes the first sliding member **112**, to enable the first sliding member **112** to move relative to the bracket main body **110**. In the embodiments, a quantity of at least one contacting surface **1121** of the second end **112B** of the first sliding member **112** is two.

[0036] The at least one second sliding member **113** each has a third end **113A** and a fourth end **113B** opposite to each other, and is movable relative to the bracket main body **110** along a Z-axis direction. In the embodiments, a quantity of second sliding members **113** is two. The third end **113A** of each second sliding member **113** has a force-receiving portion **1131**, and each contacting surface **1121** of the first sliding member **112** is in contact with the force-receiving portion **1131** of each second sliding member **113**. In the embodiments, as shown in FIG. 5 and FIG. 6, the two second sliding members **113** are movable relative to the bracket main body **110** along the direction of the Z-axis orthogonal to the X-axis. In the embodiments, when the first sliding member **112** is pushed by the actuating portion **1111** and moves along the X-axis, the contacting surface **1121** pushes the force-receiving portion **1131**, to enable the two second sliding members **113** to move in opposite directions respectively along the Z-axis. In the embodiments, each contacting surface **1121** is arranged obliquely at an acute angle with the Z-axis direction, and each force-receiving portion **1131** corresponding to each contacting surface **1121** is also arranged obliquely at an acute angle with the Z-axis direction.

[0037] In the embodiments, as shown in FIG. 5 and FIG. 6, the bracket **11** further includes an elastic element **114**, and the elastic element **114** is located between the two second sliding members **113** and connected to the two second sliding members **113**. In the embodiments, the elastic element

114 is connected to the two second sliding members **113** respectively along the Z-axis direction. In the embodiments, when the movable member **111** is in a buckled state, the actuating portion **1111** pushes the first sliding member **112** to move along the X-axis, and enables the first sliding member **112** to push the two second sliding members **113** to move in the opposite directions along the Z-axis, so that the elastic element **114** is elastically deformed and is stretched along the Z-axis. When the movable member **111** is released from the buckled state, the elastic element **114** contracts and enables the two second sliding members **113** to get close to each other along the Z-axis direction. [0038] Refer to FIG. 2, FIG. 5, and FIG. 6 again. The frame **13** includes a frame main body **131** and at least one extension portion **132**. In the embodiments, a quantity of extension portions **132** is two. The extension portions are integrally connected to the frame main body **131**, but are not limited thereto, and may alternatively be connected in an assembly manner. In the embodiments, the two extension portions **132** is detachably located in the receiving portion **1101**, to be assembled with the bracket **11**. In the embodiments, the frame main body **131** may be fixed to a wall, a screen, a desktop, or the like through screwing or attaching.

[0039] As shown in FIG. 3 to FIG. 6, in the embodiments, the movable member **111** selectively moves between a first position (a position of the movable member **111** shown in FIG. 3) and a second position (a position of the movable member **111** shown in FIG. 4). When the movable member **111** is at the second position, the movable member **111** is in the buckled state, the actuating portion **1111** pushes the first end **112A** of the first sliding member **112**, to enable the first sliding member **112** to move along the X-axis, and enable two contacting surfaces **1121** of the second end **112B** to push force-receiving portions **1131** of third ends **113A** of the two second sliding members **113** respectively, to enable the two second sliding members **113** to move in the opposite directions along the Z-axis, so that the fourth end **113B** of each second sliding member **113** contacts the extension portion **132**. In this way, through buckling of the movable member **111** and mutual abutting between the fourth ends **113B** and the extension portions **132**, the bracket **11** is assembled on the frame **13**, and movement along the X-axis is limited, to prevent the bracket **11** from being separated from the frame **13**.

[0040] Specifically, when a user intends to assemble the bracket **11**, the user may insert the receiving portion **1101** of the bracket **11** into the extension portion **132** of the frame **13**. Then, the user may operate the movable member **111** to pivot the movable member **111**, to push the first sliding member **112** through the actuating portion **1111** of the movable member **111**, and then enable each second sliding member **113** to contact each extension portion **132**, to complete assembly. When the bracket **11** is intended to be disassembled, only the movable member **111** needs to be operated, to keep the second sliding member **113** away from the extension portion **132**, so that the bracket **11** can be disassembled from the frame **13**. In this way, the user can quickly and intuitively disassemble the bracket **11**. Alternatively, the frame **13** may be fixed to a different position based on a usage requirement.

[0041] In the embodiments, as shown in FIG. 1 and FIG. 2, the bracket main body **110** further has two connecting arms **1102**. The two connecting arms **1102** are connected to the bracket main body **110**. In the embodiments, the two connecting arms **1102** are pivotally connected to the bracket main body **110**, and are pivotable relative to the bracket main body **110**. In the embodiments, the photographic element **15** may be fixed to the two connecting arms **1102**, and adjust an angle through the two connecting arms **1102**.

[0042] In the embodiments, a side of each extension portion **132** toward the second sliding member **113** has a limiting structure, and when the fourth end **113B** of each second sliding member **113** contacts a corresponding extension portion **132**, the limiting structures limit the bracket **11** to move along the X-axis direction. This prevents a bracket **11** in an assembled state from moving relative to the frame **13**. In the embodiments, the limiting structure has various implementation forms, and a detailed structure of the limiting structure is to be described in detail later.

[0043] As shown in FIG. 5 and FIG. 6, each limiting structure is a tooth-shaped limiting portion

1321, and the bracket **11** further includes two elastic pieces **115**. The elastic piece **115** is sandwiched between the extension portion **132** and the second sliding member **113**. Each elastic piece **115** has an engaging portion **1151** corresponding to a shape of the limiting portion **1321**. When the two extension portions **132** of the frame **13** extend into the receiving portion **1101** of the bracket **11**, each engaging portion **1151** is correspondingly engaged with the corresponding limiting portion **1321**. In this state, because the elastic piece **115** has elasticity, a slight force exerted by the user may still enable the bracket **11** to move relative to the frame **13** for positioning. When positioning is completed and assembly is to be performed, the movable member **111** is pivoted to the second position to be in the buckled state, so that the fourth end **113B** of each second sliding member **113** enables each engaging portion **1151** to contact the corresponding extension portion **132**. In this way, the engaging portion **1151** of the elastic piece **115** is forced to contact the limiting portion **1321**, and the bracket **11** is less likely to move relative to the frame **13** due to an external force. In the embodiments, the tooth-shaped limiting portion **1321** is arc tooth-shaped, but is not limited thereto, and may alternatively be triangular tooth-shaped. In the embodiments, as shown in FIG. 5 and FIG. 6, two ends of each elastic piece **115** are bent toward the extension portion **132** to form a triangular engaging portion **1151** to be correspondingly engaged with the limiting portion **1321**.

[0044] Refer to FIG. 7 to FIG. 8. FIG. 7 is a bottom view of a support assembly according to some embodiments. FIG. 8 is a bottom view of a support assembly according to some embodiments. FIG. 7 and FIG. 8 omit a housing on a top side of a bracket main body **110**, to clearly illustrate an internal structure. In the embodiments of FIG. 7, each limiting structure is a tooth-shaped limiting portion **1321**, and the fourth end **113B** of each second sliding member **113** has a tooth section **1132** arranged along the X-axis direction. When the two extension portions **132** of the frame **13** extend into the receiving portion **1101** of the bracket **11**, each tooth section **1132** corresponds to each limiting portion **1321**. When positioning is completed and assembly is to be performed, the movable member **111** is pivoted to the second position to be in the buckled state, so that each tooth section **1132** of each second sliding member **113** is engaged with the corresponding limiting portion **1321**. In this way, through engagement between the limiting portions **1321** of a same shape and the tooth sections **1132**, movement of the bracket **11** relative to the frame **13** along the X-axis is limited.

[0045] In the embodiments of FIG. 8, each limiting structure is a concave portion **1322** recessed inward at the side of each extension portion **132** toward the second sliding member **113**, and the fourth end **113B** of the second sliding member **113** has a convex portion **1133** protruding outward along the Z-axis direction. When the two extension portions **132** of the frame **13** extend into the receiving portion **1101** of the bracket **11**, each convex portion **1133** corresponds to each concave portion **1322**. When positioning is completed and assembly is to be performed, the movable member **111** is pivoted to the second position to be in the buckled state, so that each convex portion **1133** of each second sliding member **113** is engaged with the corresponding concave portion **1322**. In this way, through engagement between concave and convex structures, movement of the bracket **11** relative to the frame **13** along the X-axis is limited. In the embodiments, the limiting structure is the concave portion **1322**, but is not limited thereto. Alternatively, the limiting structure may be a convex portion, and the second sliding member **113** may be provided with a concave portion. In some embodiments, each limiting structure is an anti-slip sheet, attached to the side of each extension portion **132** toward the second sliding member **113**. A friction force between the second sliding member **113** and the extension portion **132** is increased, to avoid movement of the bracket **11** relative to the frame **13** along the X-axis.

[0046] Refer to FIG. 9. FIG. 9 is a bottom view of a support assembly according to some embodiments. FIG. 9 omits a housing on a top side of a bracket main body **110**, to clearly illustrate an internal structure. The foregoing embodiments disclose that the extension portion **132** has a limiting structure, but is not limited thereto. Alternatively, the extension portion **132** may not be

provided with a limiting structure. As shown in FIG. 9, both a surface of a side of the extension portion 132 toward the second sliding member 113 and a surface of a side of the second sliding member 113 toward the extension portion 132 have no limiting structure. In the embodiments, a friction force of contact surfaces between the extension portion 132 and the second sliding member 113 is increased, to avoid movement of the bracket 11 relative to the frame 13 along the X-axis. To increase the friction force, the contact surfaces between the extension portion 132 and second sliding member 113 may be, for example, rough surfaces.

[0047] Refer to FIG. 10. FIG. 10 is a three-dimensional view of an electronic device with an adjustable photographic device according to some embodiments. As shown in FIG. 10, the frame main body 131 further includes a plane support portion 133 parallel to the extension portion 132. In this way, when the photographic element 15 is assembled on the bracket 11, the frame 13 may be steadily erected on a flat surface such as a desktop through the plane support portion 133.

[0048] In summary, an electronic device 20 with an adjustable photographic device and a support assembly 10 thereof are provided in an embodiment. When a user wants to assemble a bracket 11, the user may insert a receiving portion 1101 of the bracket 11 into an extension portion 132 of a frame 13. Then, the user may operate a movable member 111 to pivot the movable member 111, to push a first sliding member 112 through an actuating portion 1111 of the movable member 111, and then enable each second sliding member 113 to contact each extension portion 132, to complete assembly. When the bracket 11 is intended to be disassembled, only the movable member 111 needs to be operated, to keep the second sliding member 113 away from the extension portion 132, so that the bracket 11 can be disassembled from the frame 13. In this way, the user can quickly and intuitively disassemble the bracket 11. Alternatively, the frame 13 may be fixed to a different position based on a usage requirement.

Claims

1. A support assembly, comprising: a bracket, including: a bracket main body, having a receiving portion; a movable member, pivot-connected to the bracket main body, and including an actuating portion; a first sliding member, having a first end and a second end opposite to each other, and movable relative to the bracket main body along a first direction, wherein the actuating portion of the movable member is in contact with the first end, and the second end of the first sliding member includes one or more contacting surfaces; and one or more second sliding members, wherein the one second sliding member or each of the second sliding members includes a third end and a fourth end opposite to each other, and, the one second sliding member or the second sliding members are movable relative to the bracket main body along a second direction different from the first direction; the third end of the one second sliding member or each of the second sliding members includes a force-receiving portion; and the one contacting surface or each of the contacting surfaces of the first sliding member is in contact with the force-receiving portion of the one second sliding member or each of the second sliding members; and a frame, including: a frame main body; and one or more extension portions, connected to the frame main body, and the extension portions detachably located in the receiving portion; wherein the fourth end of the one second sliding member or each of the second sliding members is in selective contact with the one extension portion or each of the extension portions.

2. The support assembly according to claim 1, wherein the bracket further comprises an elastic element, two second sliding members, and the elastic element is located between the two second sliding members and connected to the two second sliding members.

3. The support assembly according to claim 1, wherein a side of the one extension portion or each of the extension portions toward the one second sliding member or the second sliding members includes a limiting structure, and when the fourth end of the one second sliding member or each of the second sliding members is in contact with the corresponding extension portion, the limiting

structure limits movement of the bracket along the first direction.

4. The support assembly according to claim 3, wherein the limiting structure is a tooth-shaped limiting portion, the bracket further comprises two elastic pieces, each of two elastic pieces includes an engaging portion corresponding to a shape of the limiting portion, and when the fourth end of the one second sliding member or each of the second sliding members is in contact with the one extension portion or each of the extension portions, the engaging portion is in contact with the corresponding extension portion.

5. The support assembly according to claim 4, wherein the engaging portion is formed by two ends of two elastic pieces being bent toward the one extension portion or each of the extension portions.

6. The support assembly according to claim 3, wherein the limiting structure is a tooth-shaped limiting portion, the fourth end of one second sliding member or each of the second sliding members includes a tooth section arranged along the first direction, when the extension portions of the frame extend into the receiving portion of the bracket, each tooth section corresponds to the limiting portion, and when the fourth end of each of the one second sliding member or the second sliding members is in contact with each of the one extension portion or each of the extension portions, the tooth section of one second sliding member or each of the second sliding members is engaged with the corresponding limiting portion.

7. The support assembly according to claim 3, wherein the limiting structure is a convex portion protruding toward a side of one second sliding member or each of the second sliding members, the fourth end of one second sliding member or each of the second sliding members includes a concave portion recessed inward along the second direction, when two extension portions of the frame extend into the receiving portion of the bracket, the convex portion corresponds to the concave portion, and when the fourth end of the one second sliding member or each of the second sliding members is in contact with the one extension portion or each of the extension portions, the concave portion of the one second sliding member or each of the second sliding members is engaged with the corresponding convex portion.

8. The support assembly according to claim 3, wherein the limiting structure is a concave portion recessed inward at the side of the one extension portion or each of the extension portions toward the one second sliding member or the second sliding members, the fourth end of the one second sliding member or each of the second sliding members includes a convex portion protruding outward along the second direction, when two extension portions of the frame extend into the receiving portion of the bracket, each convex portion corresponds to the concave portion, and when the fourth end of the one second sliding member or each of the second sliding members is in contact with the one extension portion or each of the extension portions, the convex portion of the one second sliding member or each of the second sliding members is engaged with the corresponding concave portion.

9. The support assembly according to claim 3, wherein the limiting structure is an anti-slip sheet, attached to the side of the one extension portion or each of the extension portions toward the one second sliding members or the second sliding members.

10. The support assembly according to claim 1, wherein the frame main body further comprises a plane support portion.

11. A bracket, comprising: a bracket main body, having a receiving portion; a movable member, pivot-connected to the bracket main body, and comprising an actuating portion; a first sliding member, having a first end and a second end opposite to each other, and movable relative to the bracket main body along a first direction, wherein the actuating portion of the movable member is in contact with the first end, and the second end of the first sliding member includes one or more contacting surfaces; and one or more second sliding members, the one second sliding member or each of the second sliding members having a third end and a fourth end opposite to each other, and, the one second sliding member or each of the second sliding members are movable relative to the bracket main body along a second direction different from the first direction, wherein the third end

of one second sliding member or each of the second sliding members includes a force-receiving portion, and the one contacting surface or each of the contacting surfaces of the first sliding member is in contact with the force-receiving portion of the one second sliding member or each of the second sliding members.

12. The bracket according to claim 11, wherein the bracket further comprises an elastic element, two second sliding members, and the elastic element is located between the two second sliding members and connected to the two second sliding members.

13. The bracket according to claim 11, wherein the bracket further comprises two elastic pieces, and two ends of each elastic piece are bent outward to form an engaging portion is formed by two ends of two elastic pieces being bent toward the one extension portion or each of the extension portions.

14. The bracket according to claim 11, wherein the fourth end of one second sliding member or each of the second sliding members includes a tooth section arranged along the first direction.

15. The bracket according to claim 11, wherein the fourth end of the one second sliding member or each of the second sliding members includes a concave portion recessed inward along the second direction.

16. The bracket according to claim 11, wherein the fourth end of the one second sliding member or each of the second sliding members includes a convex portion protruding outward along the second direction.

17. An electronic device with an adjustable photographic device, comprising: a bracket, including: a bracket main body, having a receiving portion; a movable member, pivot-connected to the bracket main body, and including an actuating portion; a first sliding member, having a first end and a second end opposite to each other, and movable relative to the bracket main body along a first direction, wherein the actuating portion of the movable member is in contact with the first end, and the second end of the first sliding member includes one or more contacting surfaces; and one or more second sliding members, the one second sliding member or each of the second sliding members having a third end and a fourth end opposite to each other, and, the one second sliding member or the second sliding members are movable relative to the bracket main body along a second direction different from the first direction, wherein the third end of the one second sliding member or each of the second sliding members includes a force-receiving portion; and the one contacting surface or each of the contacting surfaces of the first sliding member is in contact with the force-receiving portion of the one second sliding member or each of the second sliding members; a frame, including: a frame main body; and one or more extension portions, connected to the frame main body, and the extension portions detachably located in the receiving portion; and a photographic element, fixed to the bracket main body, and pivotable relatively to the bracket; wherein, the fourth end of the one second sliding member or each of the second sliding member selectively is in contact with the one extension portion or each of the extension portions.

18. The electronic device with an adjustable photographic device according to claim 17, wherein a side of the one extension portion or each of the extension portions toward the one second sliding member or each of the second sliding members includes a limiting structure, and when the fourth end of the one second sliding member or each of the second sliding members is in contact with the corresponding extension portion, the limiting structure limits movement of the bracket along the first direction.

19. The electronic device with an adjustable photographic device according to claim 18, wherein the limiting structure is a tooth-shaped limiting portion, the bracket further comprises two elastic pieces, each of two elastic pieces includes an engaging portion corresponding to a shape of the limiting portion, and when the fourth end of the one second sliding member or each of the second sliding members is in contact with the one extension portion or each of the one extension portions, the engaging portion is in contact with the corresponding extension portion.

20. The electronic device with an adjustable photographic device according to claim 17, wherein

the bracket main body further includes two connecting arms, the two connecting arms are connected to the bracket main body, and the photographic element is fixed to the two connecting arms.
