



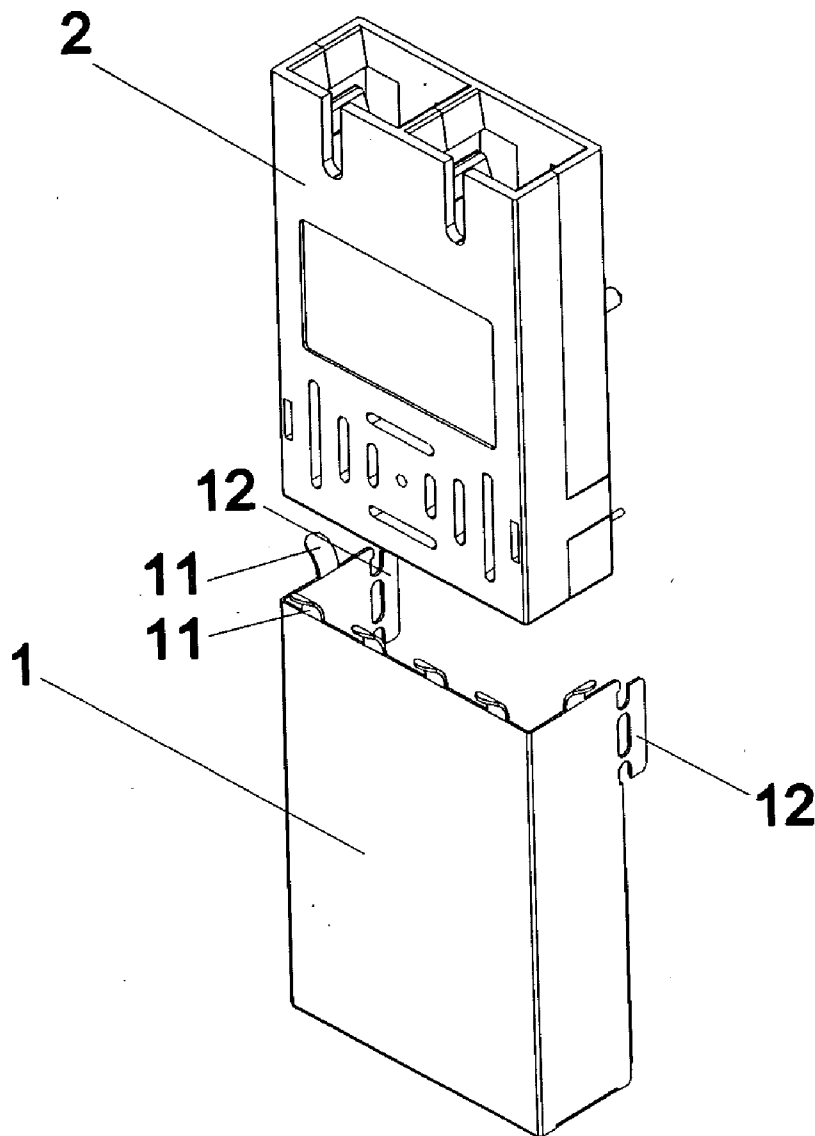
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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0255751 A1****Chou et al.**(43) **Pub. Date: Nov. 17, 2005**(54) **ANTI-ELECTROMAGNETIC WAVE CASING
FOR THE PHOTOELECTRIC CONVERTER****Publication Classification**(76) Inventors: **Yu-Te Chou**, Hsin-Chu City (TW);
Chien-Feng Yu, Hsin-Chu City (TW)(51) **Int. Cl.⁷ H01R 13/648**(52) **U.S. Cl. 439/607**

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**BIRCH STEWART KOLASCH & BIRCH
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FALLS CHURCH, VA 22040-0747 (US)**(57) **ABSTRACT**

An anti-electromagnetic wave casing for the photoelectric converter includes two casings for photoelectric converter: 1. a front protruding casing and 2. a rear protruding casing. The casings are made of stainless steel and can be inserted to complete rapid assembly, providing features of convenient assembly, easy disassembly and multiple uses.

(21) Appl. No.: **10/844,770**(22) Filed: **May 12, 2004**

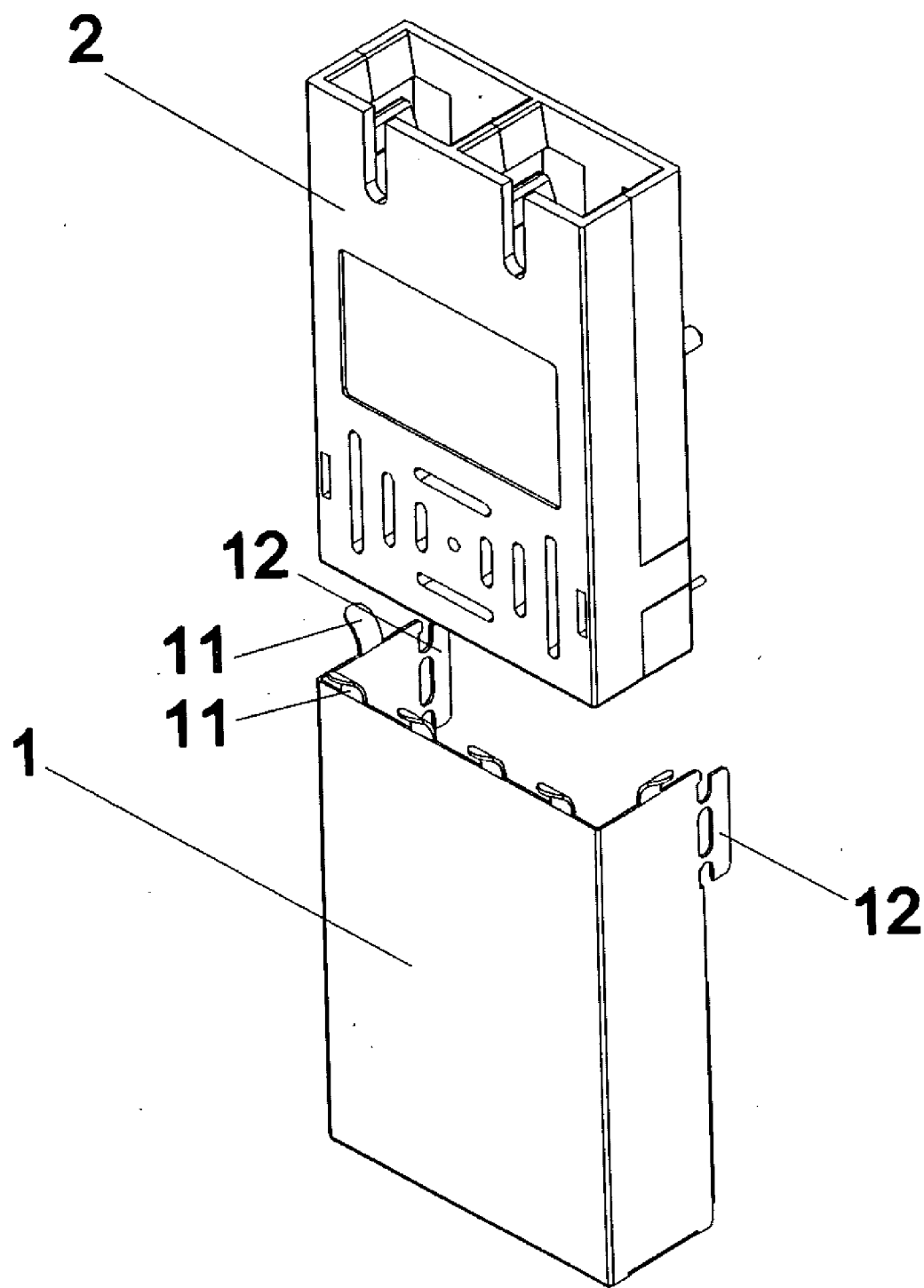


Fig.1

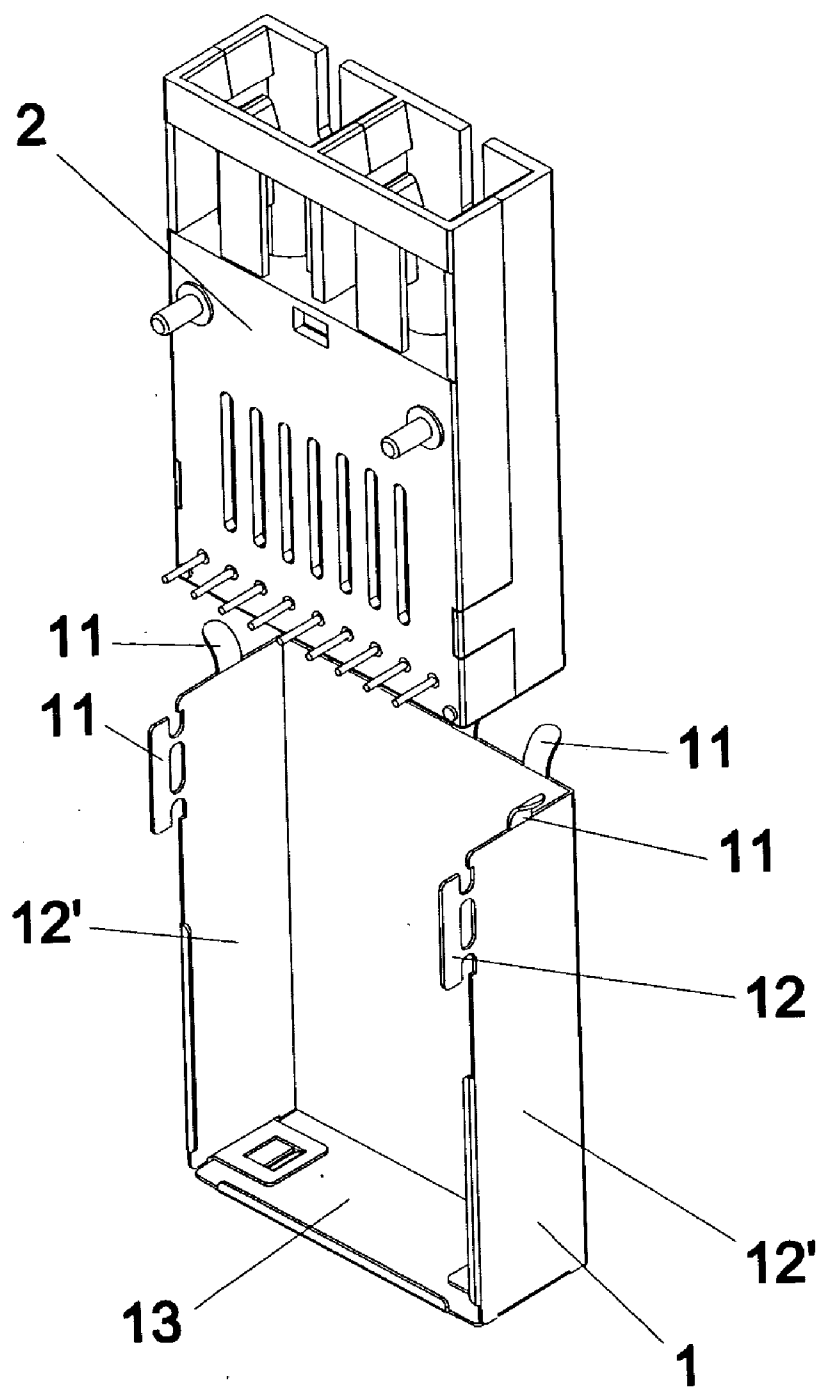


Fig.2

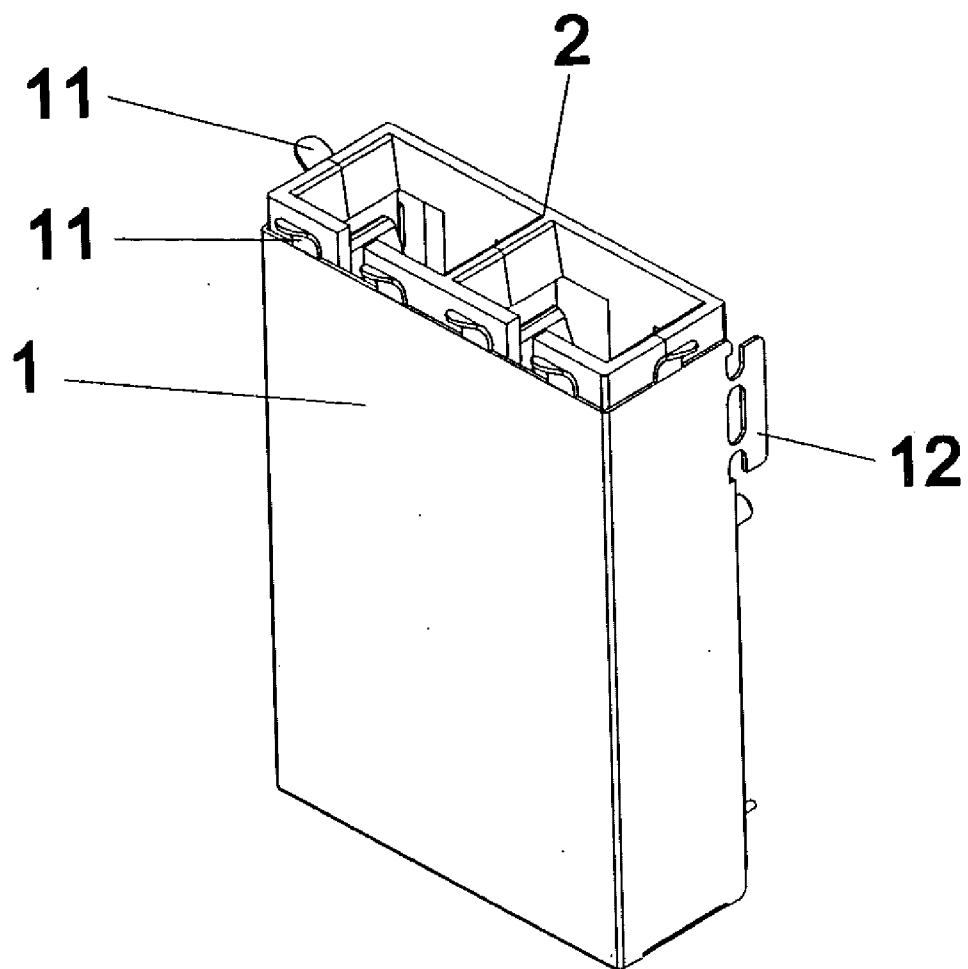


Fig.3

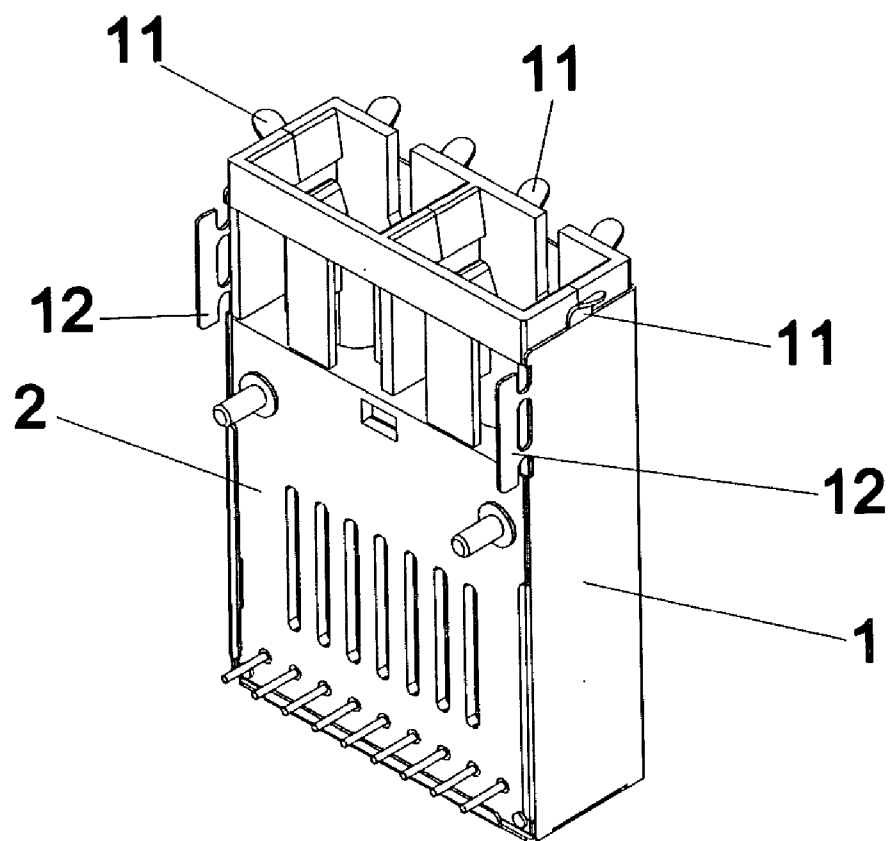


Fig.4

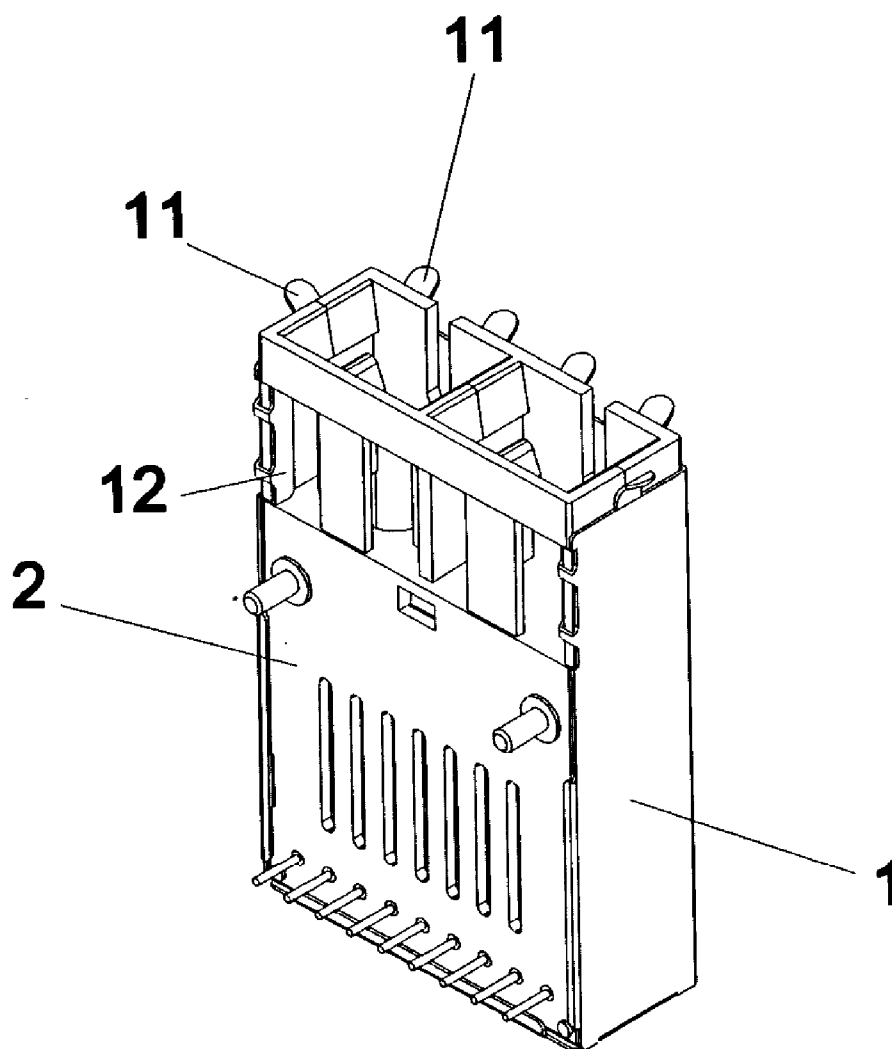


Fig.5

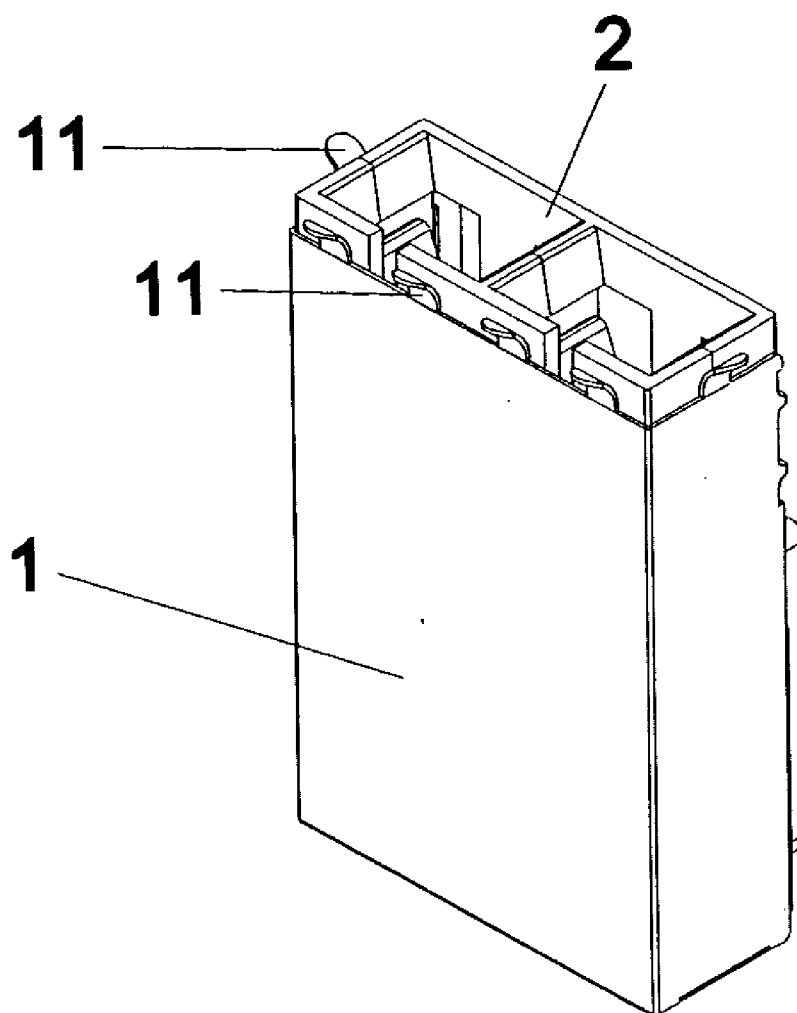


Fig.6

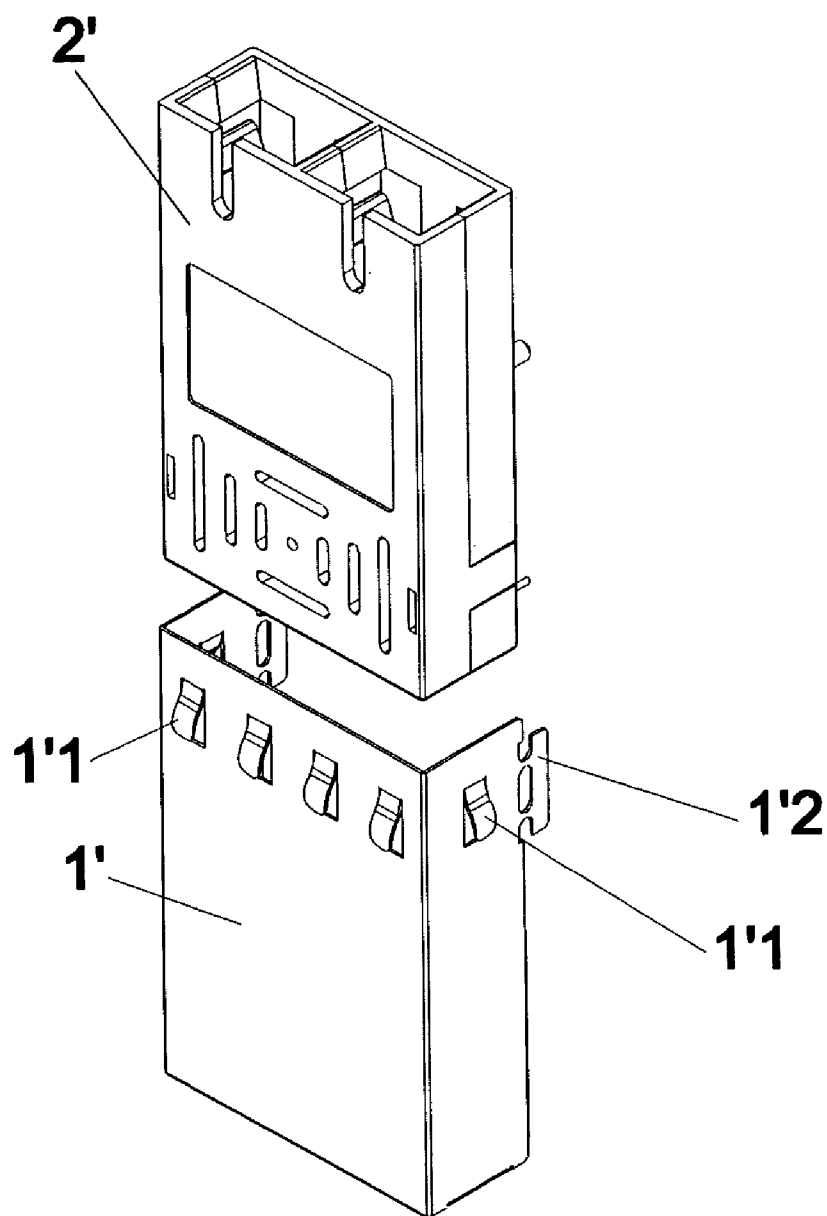


Fig.7

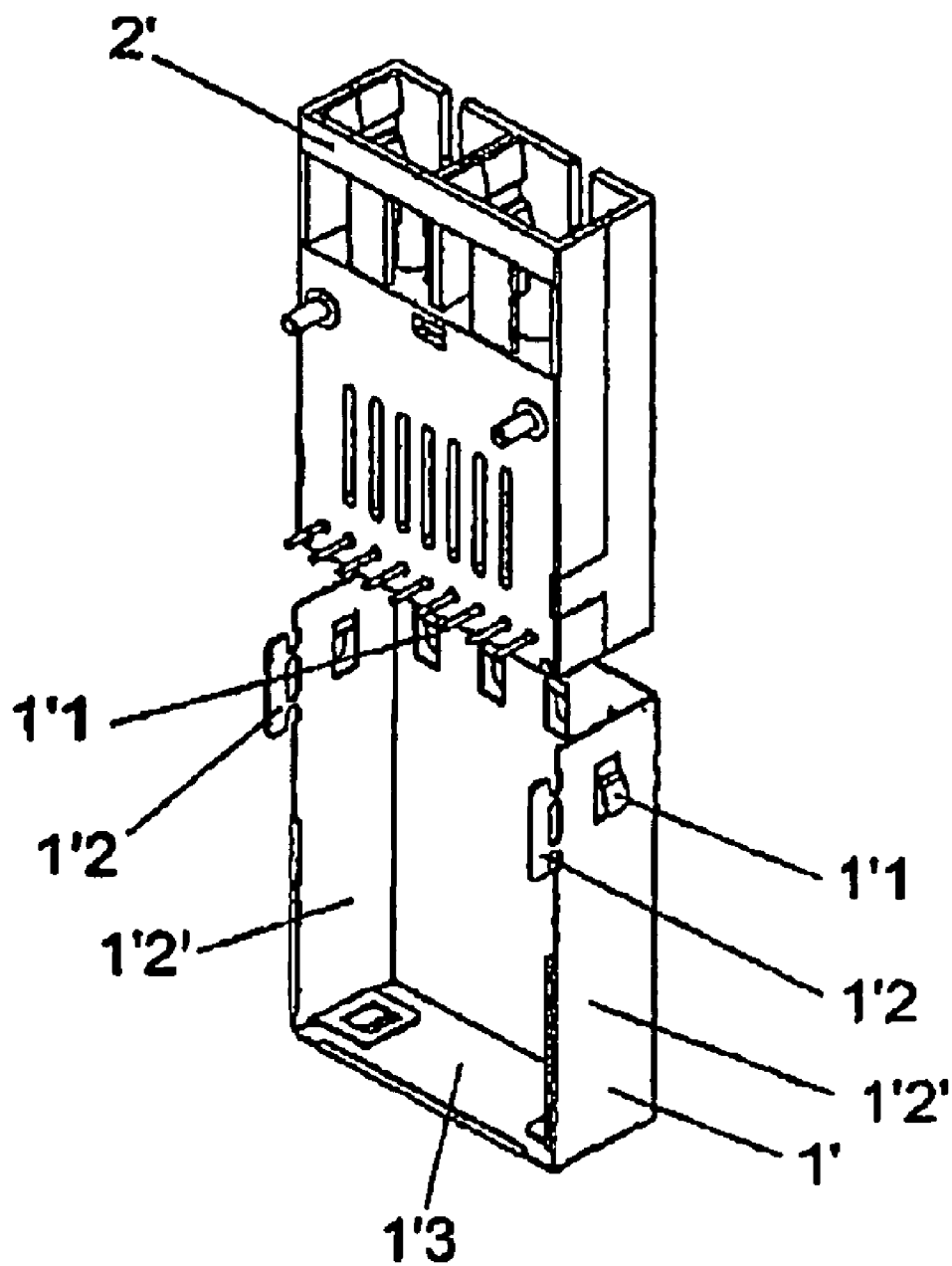


Fig.8

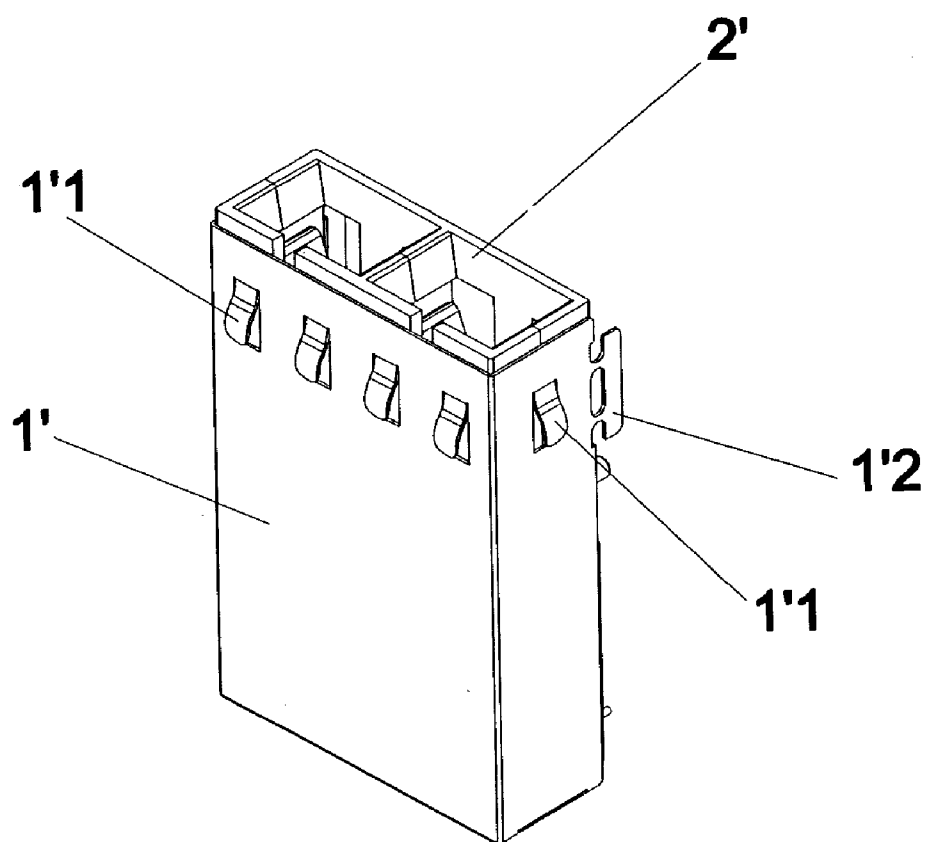


Fig.9

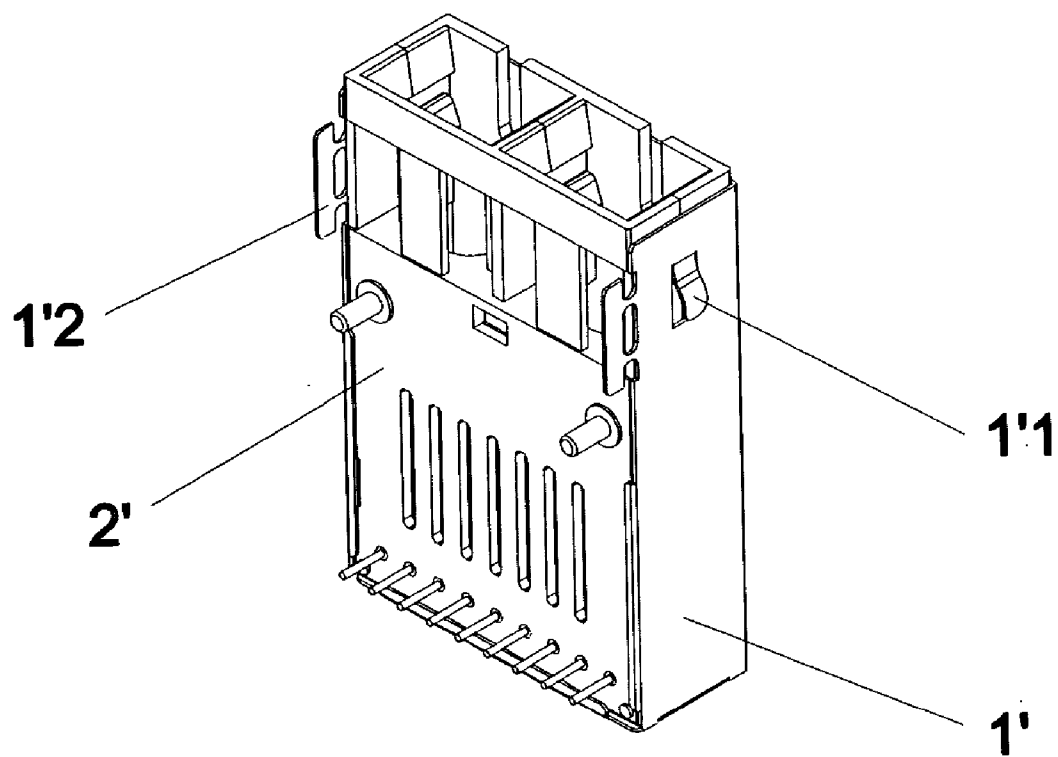


Fig.10

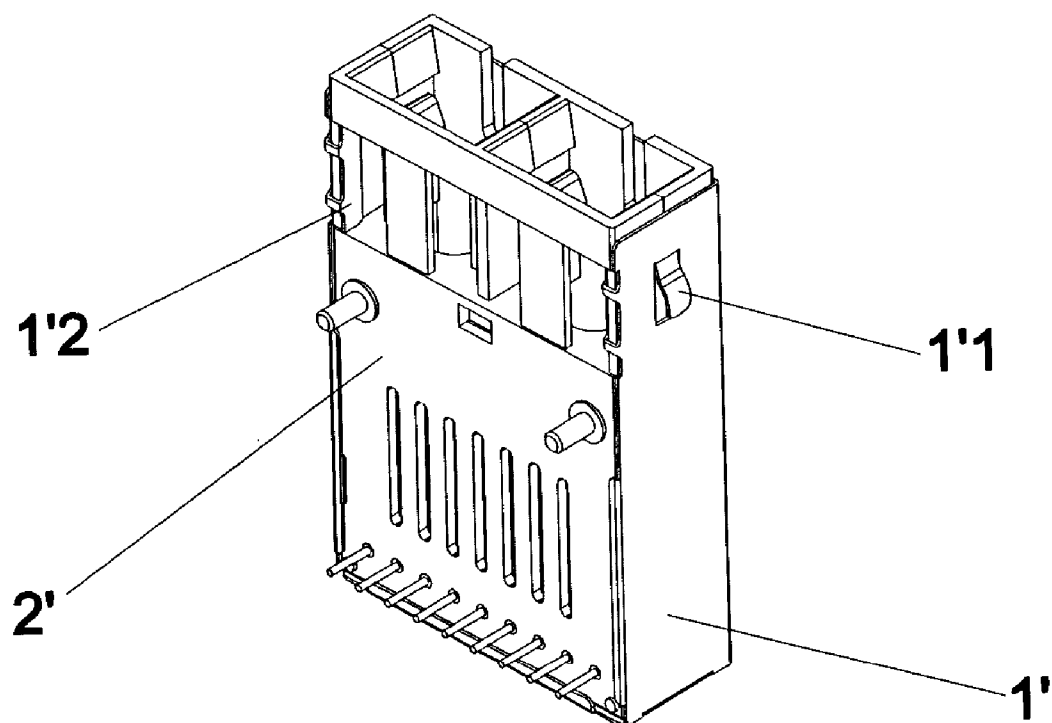


Fig.11

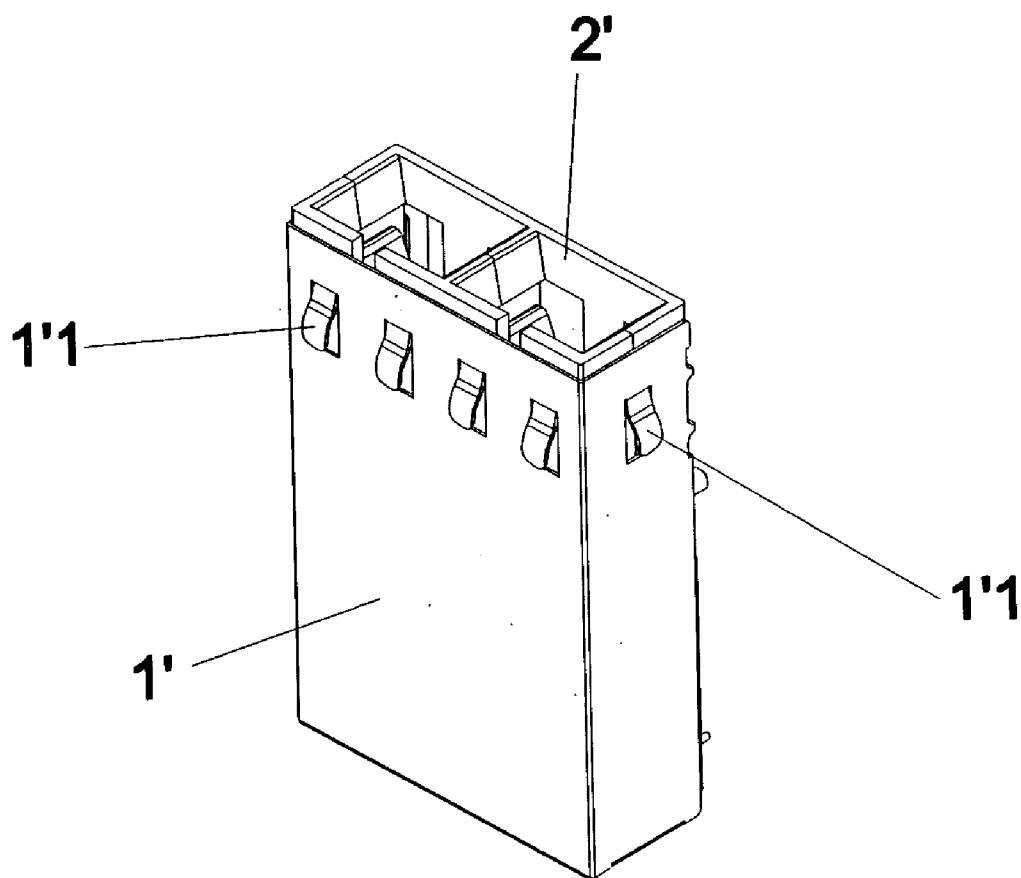


Fig.12

ANTI-ELECTROMAGNETIC WAVE CASING FOR THE PHOTOELECTRIC CONVERTER

FIELD OF THE INVENTION

[0001] The present invention relates to an anti-electromagnetic wave casing for the photoelectric converter, particularly to a structural improvement of the anti-electromagnetic wave casing for a photoelectric converter that enables speedy and convenient assembly or disassembly of the casing.

BACKGROUND OF THE INVENTION

[0002] The conventional photoelectric converter serves to conduct bi-directional data transmission between an electric interface and an optical fiber data network. The anti-electromagnetic wave casing is attached to the photoelectric converter by a welding process, which involves the following shortcomings:

[0003] (1) Laborious and time consuming

[0004] (2) Difficult to disassemble

[0005] (3) Increased costs

SUMMARY OF THE INVENTION

[0006] It is the objective of this invention to provide a structural improvement of "anti-electromagnetic wave casing for the photoelectric converter", comprising two casing structures: 1. a front protruding casing that is fastened to the photoelectric converter, 2. a rear protruding casing that is fastened to the photoelectric converter. Wherein, installed at the front of the front protruding casing is a combination of front protruding press plates, and installed at the front of the rear protruding casing is a combination of rear protruding press plates, for fastening to the casings; installed at the end of two sides of the U-shaped front protruding casing and the U-shaped rear protruding casing respectively is a snap plate, which is pressed to engage with or disengage from the photoelectric converter; the snap plates have the function of speedy closing and opening to enable a convenient assembling and disassembling process.

DESCRIPTION OF THE DRAWINGS

[0007] In order that the present invention may more readily be understood, the following description is given, merely by way of example with reference to the accompanying drawings, in which:

[0008] **FIG. 1** is a top view of the invention when the front protruding casing is separated from the photoelectric converter.

[0009] **FIG. 2** is a bottom view of the invention when the front protruding casing is separated from the photoelectric converter.

[0010] **FIG. 3** is a top view of the invention when the front protruding casing is assembled to the photoelectric converter.

[0011] **FIG. 4** is a bottom view of the invention when the front protruding casing is assembled to the photoelectric converter.

[0012] **FIG. 5** is a bottom view of an embodiment of the invention when the front protruding casing is assembled to the photoelectric converter.

[0013] **FIG. 6** is a top view of an embodiment of the invention when the front protruding casing is assembled to the photoelectric converter.

[0014] **FIG. 7** is a top view of the invention when the rear, protruding casing is assembled to the photoelectric converter.

[0015] **FIG. 8** is a bottom view of the invention when the rear, protruding casing is assembled to the photoelectric converter.

[0016] **FIG. 9** is a top view of the invention when the rear, protruding casing is separated from the photoelectric converter.

[0017] **FIG. 10** is a bottom view of the invention when the rear, protruding casing is separated from the photoelectric converter.

[0018] **FIG. 11** is a bottom view of an embodiment of the invention when the rear, protruding casing is assembled to the photoelectric converter.

[0019] **FIG. 12** is a top view of an embodiment of the invention when the rear, protruding casing is assembled to the photoelectric converter.

DESCRIPTION OF PREFERRED EMBODIMENT

[0020] The present invention relates to a type of anti-electromagnetic wave casing for the photoelectric converter, please refer to **FIGS. 6 and 12**, wherein a structural improvement is made on a casing of a photoelectric converter **2,2'**. The casing refers to a front protruding casing **1** and a rear protruding casing **1'**. The front protruding casing **1** is shaped like a "U" figure. Installed at the front of the lower end of the U-shaped casing is a combination of front protruding press plates **11**; installed at the front of two sides of the U-shaped casing is a front protruding press plate **11**. Installed at the end of two sides of the U-shaped front protruding casing **1** is a snap plate **12**. Two side faces **12'** of the front protruding casing **1** are joined with the rear end face **13**, as shown in **FIGS. 1~6**. Please refer to **FIGS. 4 and 5**, by pressing the snap plate **12** below two sides of the front protruding casing **1**, the front protruding casing **1** is joined with the photoelectric converter **2**. By pulling up the snap plate **12**, the front protruding casing **1** is disassembled from the photoelectric converter **2**. **FIG. 6** shows an embodiment when the front protruding casing **1** is assembled with the photoelectric converter **2**.

[0021] As shown in **FIGS. 7~12**, the rear protruding casing **1'** is shaped like a "U" figure. Installed at the front of the lower end of the rear protruding casing **1'** is a combination of rear protruding press plates **1'1**, as shown in **FIG. 7**, installed at the front of two sides of the rear protruding casing **1'** is a rear protruding press plate **1'1**. Installed on two sides of the rear protruding casing **1'** is a snap plate **1'2**; the two sides **1'2'** of the rear protruding casing **1'** is joined with the rear end face **1'3**, as shown in **FIGS. 10 and 11**; wherein, when the snap plate **1'2** at lower part of two sides of the rear protruding casing **1'** is pressed down, the casing **1'** is joined with the photoelectric converter **2**. By pulling up the snap plate **1'2**, the casing **1'** is dis-

sembled from the photoelectric converter 2. FIG. 12 shows a second embodiment view of the rear protruding casing 1' and the photoelectric converter 2' in their assembled status.

[0022] Summing up, the present invention of anti-electromagnetic wave casing for photoelectric converter has the following characteristics:

[0023] 1. Convenient assembly.

[0024] 2. Easy disassembly.

[0025] 3. Multiple uses.

[0026] Having satisfied the requirements for a patent right, this application for a patent is duly filed for the present invention of a type of anti-electromagnetic casing for the photoelectric converter.

1. (canceled)

2. An anti-electromagnetic wave casing for a photoelectric converter, comprising:

a U-shaped front protruding casing, wherein said U-shaped front protruding casing is composed of two opposite side faces and a rear end face, said U-shaped front protruding casing having one end;

a combination of first front protruding press plates, wherein said combination of first front protruding press plates is installed at said one end of said rear end face;

two second front protruding press plates, wherein said second front protruding press plates are respectively installed at said one end of said side faces adjacent to said first front protruding press plates; and

a plurality of snap plates, wherein said snap plates are respectively installed at said one end of said side faces adjacent to said second front protruding press plates, and extend from said side faces in the direction perpendicular to said rear end face, and said U-shaped front protruding casing is designed to be fitted with said photoelectric converter, and, when said snap plates are pressed and folded down to said side faces, said U-shaped front protruding casing is joined with said

photoelectric converter, and, when said snap plates are pulled up, said U-shaped front protruding casing is disassembled from said photoelectric converter;

wherein said first front protruding press plates and said second front protruding press plates protrude respectively outwards and upwards from said side faces and said rear end face.

3. An anti-electromagnetic wave casing for a photoelectric converter, comprising:

a U-shaped rear protruding casing, wherein said U-shaped rear protruding casing is composed of two opposite side faces and a rear end face, said U-shaped rear protruding casing having one end;

a combination of first rear protruding press plates, wherein said combination of first rear protruding press plates is installed at said one end of said rear end face;

two second rear protruding press plates, wherein said second rear protruding press plates are respectively installed at said one end of said side faces adjacent to said first rear protruding press plates; and

a plurality of snap plates, wherein said snap plates are respectively installed at said one end of said side faces adjacent to said second rear protruding press plates, and extend from said side faces in the direction perpendicular to said rear end face, and said U-shaped rear protruding casing is designed to be fitted with said photoelectric converter, and, when said snap plates are pressed and folded down to said side faces, said U-shaped rear protruding casing is joined with said photoelectric converter, and, when said snap plates are pulled up, said U-shaped rear protruding casing is disassembled from said photoelectric converter;

wherein said first rear protruding press plates and said second rear protruding press plates are located within and protrude downwards and inwards to said side faces and said rear end face.

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