Aug. 15, 1967

W. SCHMIDT ET AL

3,335,650

MOUNTING BRACKET FOR PHOTOGRAPHIC FLASHGUNS, MORE PARTICULARLY ELECTRONIC FLASHGUNS

Filed Dec. 21, 1964

2 Sheets-Sheet 1

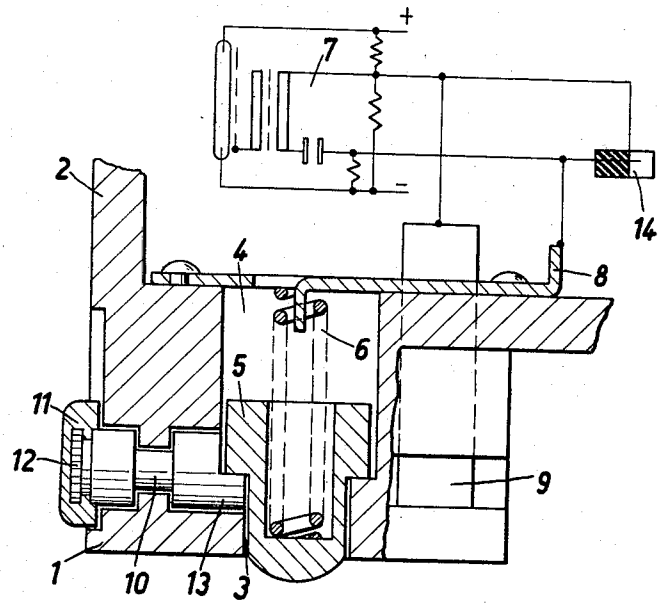


Fig. 1

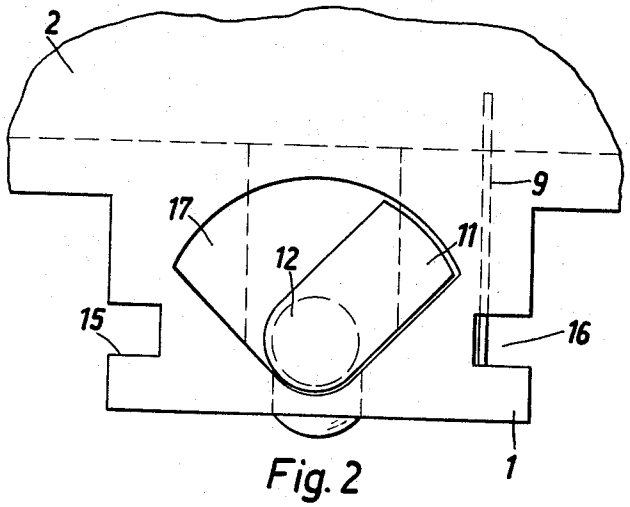


Fig. 2

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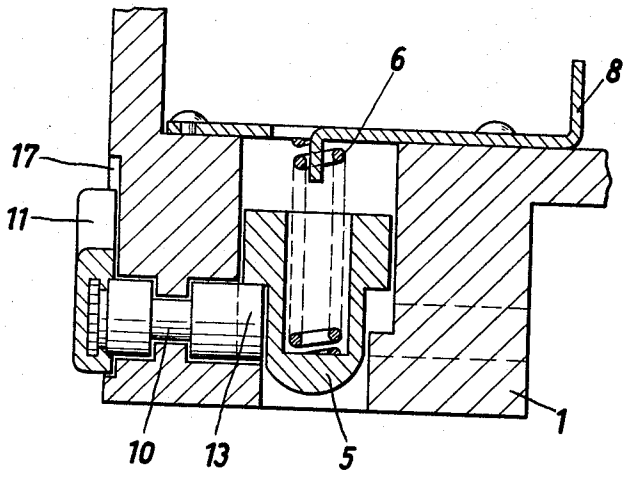


Fig. 3

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MOUNTING BRACKET FOR PHOTOGRAPHIC FLASHGUNS, MORE PARTICULARLY ELECTRONIC FLASHGUNS

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Claims priority, application Germany, Feb. 14, 1964, L 36,493
4 Claims. (Cl. 95—11)

The invention relates to a mounting bracket for photographic flashguns, more particularly electronic flashguns, for mounting the flashgun in the accessory shoe of a camera, with a built-in fixed side contact and a middle contact for connecting the ignition circuit of the flashgun over appropriate contacts at the accessory shoe of the camera with the synchronous switch in the camera shutter. The aim of the invention is in using such a mounting bracket to make the flashgun usable also for such cameras which have in their accessory shoe no electric contacts for connecting the ignition circuit. In such a case namely short-circuiting of the ignition circuit can easily occur, as the accessory shoe is most often metallic and the middle contact of the flashgun mounting bracket can in certain circumstances provide an undesired contact.

Devices are already known in which the middle contact is raised by spring pressure. As against this the present invention proposes a different solution.

According to the invention there is suspended in the mounting bracket of the flashgun an eccentric shaft, whose cam can raise the middle contact element and thus draw it into the mounting bracket. This eccentric shaft can further be provided with a switch lever operable from the outside for selective adjustment of the middle contact element.

Details of the invention are now explained with the help of an exemplary design shown in the drawings:

FIG. 1 shows a longitudinal section through the mounting bracket of a photographic flashgun, the casing of the flashgun having been omitted for better visibility. Here the middle contact is in the lowest position, i.e. shown pushed out for contacting with the camera viewfinder shoe.

FIG. 2 shows the appropriate side view.

FIG. 3 shows again a longitudinal section through the mounting bracket without the flashgun casing, at the position of the eccentric shaft in which the middle contact is drawn into the mounting bracket.

In accordance with FIG. 1 mounting bracket **1** of the flashgun casing **2** has inside holes **3** and **4**, in which the middle contact element **5** is suspended so as to be slidable upwards against the elastic pressure of spring **6**. This middle contact element **5** is conductively connected over spring **6** with the metallic part **8**, which in turn is conductively connected e.g. with the minus pole of the ignition circuit **7**. Middle contact element **5** therefore represents the minus pole. **9** is the side contact fixedly incorporated in the mounting bracket, which contact is conductively connected with the other pole of the ignition circuit. **10** designates the eccentric shaft according to the invention, suspended inside the mounting bracket **1**. By means of switch lever **11**, which e.g. is an injection moulded plastics part on the head **12** of the eccentric shaft, this eccentric shaft **10** can be turned so that cam **13** pushes the middle contact element **5** upward, making its lower part disappear entirely in hole **3** (as shown in FIG. 3). **14** designates the synchronous contact plug of the synchronising cable of the flashgun. This synchronising cable

serves, in cameras without electric contact elements incorporated in the accessory shoe of a camera, in the conventional manner for the electric connection of the ignition circuit with the synchronous switch in the camera shutter.

The appropriate side view as in FIGURE 2 clearly shows the rectangular side grooves **15** and **16** in mounting bracket **1**. The shape of the switch lever **11**, which is seated on the head **12** of eccentric shaft **10**, is also visible.

As mentioned above, FIG. 3 shows the middle contact element **5** in the position as drawn into the mounting bracket by cam **13**, against the elastic pressure of spring **6**. It can be clearly seen that in this position no contacting of the middle contact element **5** may occur with the inside surface of the camera accessory shoe directly adjacent below mounting bracket **1**, if the flashgun is pushed with mounting bracket **1** into the accessory shoe.

17 is a recess in the wall of the mounting bracket in which recess the switch lever of eccentric shaft **10** is movable.

The arrangement according to the invention makes it possible by operating switch lever **11** to make middle contact element **5** disappear in the mounting bracket of the flashgun where a camera is used which has no contacts for the electric connection of the synchronous switch of the camera with the ignition circuit.

What we claim is:

1. In an electronic flashgun for photographic purposes comprising a casing including the electrical ignition circuit means for generating a flash light, a mounting bracket combined with said casing for attaching the flashgun to the accessory shoe of a camera, said mounting bracket containing side and middle contact elements for connecting the camera with said electrical ignition circuit means, a shaft for moving upwards and downwards said middle contact element within said bracket, and means for actuating said shaft, said shaft being rotatably arranged within said mounting bracket and supplied with a cam adapted to lift said middle contact element, if said shaft is rotated by operating said actuating means so that the lower part of said middle contact element generally protruding from said bracket disappears entirely in said bracket.

2. A mounting bracket as claimed in claim **1**, wherein said means for actuating said shaft consists of a lever attached to the outer end of said shaft protruding from said mounting bracket, said lever being thus adapted to be operable from outside and allowing selective adjustment of said middle contact element with respect to said bracket.

3. A mounting bracket as claimed in claim **1**, wherein said middle contact element is operating under the pressure of a spring, said spring being arranged within said bracket between said middle contact element and said casing.

4. A mounting bracket as claimed in claim **1**, wherein said middle contact element is operating under the pressure of a spring, said spring being arranged within said bracket between said middle contact element and said casing, and further forming a conductive connection between said middle contact and one pole of said ignition circuit, said side contact element being fixedly incorporated in said mounting bracket and being conductively connected with the other pole of said ignition circuit.

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JOHN M. HORAN, *Primary Examiner.*