

SPECIFICATION

A Still Photographic Camera

This invention relates to a still photographic camera of the kind having a pivotable cover, preferably closing a recess for receiving a film or cassette, and a slidable cover, preferably closing a recess for receiving a battery.

An object of the present invention is to provide a camera of the kind specified having an advantageous locking arrangement for the pivotable cover.

Accordingly, the invention resides in a still photographic camera including a pivotable cover, and a slidable cover defining in its closed position a lock for securing the pivotable cover in its closed position.

In the camera described in the preceding paragraph, the locking arrangement for the pivotable cover utilises an existing component of the camera, i.e. the slidable cover, and hence constitutes a saving in space and material.

Preferably, where the slidable cover closes a recess for receiving a battery, the slidable cover is provided internally with a conductive contact member arranged so that, when a battery is received in said recess, the contact member engages a terminal of the battery when the slidable cover is in its closed position, but is disengaged from said terminal when the slidable cover is moved out of its closed position.

Using the arrangement described in the preceding paragraph provides a simple and reliable manner of effecting an electrical connection to the battery exclusively when the slidable cover is in its closed position.

The invention will now be more particularly described with reference to the accompanying drawings, in which:

Figure 1 is a plan view of a camera according to one example of the invention, with the pivotable and slidable covers in their closed positions.

Figure 2 is a plan view of the camera shown in Figure 1 with the pivotable cover in its open position.

Figure 3 is a plan view of the camera shown in Figure 1 with the slidable cover in its open position, and,

Figure 4 is a plan view of the inside of the slidable cover of the camera shown in Figures 1 to 3.

Referring to the drawings, the camera includes a housing 1 and a lens 2 which is mounted in the housing at one end of a light propagating passage 3. At its other end, the passage 3 opens into a recess 5 for receiving a film cassette 4. Located to one side of the recess 5 is a further recess 8 for receiving a pair of batteries 7 (only one shown) and mounted in the housing between the recesses 5, 8 is a viewfinder 6.

The cassette recess 5 is closed by a cover 10 which necessarily extends only over the recess 5 and which is pivotable about a pin 9 supported by the housing 1 at the side of the recess 5 remote

from the recess 8. At its free end, the cover 10 is stepped to define an edge 10c and a projecting shoulder 10a formed with grooves 10b. A further cover 11 is provided for the battery recess 8 and is slidable towards and away from the cover 10 to permit closure and opening of the battery recess.

The cover 11 is mounted for sliding movement relative to the housing 1 by means of inwardly projecting ribs 11a which slide in grooves 12 formed in the housing along the longitudinal edges of the battery recess opening and the viewfinder eye piece. When the cassette recess cover 10 is in its closed position, the grooves 10b define extensions of the grooves 12. Thus, as can be seen from Figure 1, when the cover 10 is in its closed position, by pushing the cover 11 into abutment with the cover edge 10c it is possible not only to close the battery recess 8 but also to cause the ribs 11a to engage the grooves 10b to lock the cover 10 in its closed position.

In order to prevent accidental opening of the cover 11, the walls of the grooves 12 may be provided with small projections 12a which, in the closed position of the cover 11, engage in respective complementary recesses 11b provided in the ribs 11a. Moreover, in order to prevent inadvertent opening of the cassette recess cover 10, when the battery recess cover 11 is open or has been removed, the free end of the cover 10 may be provided with small projections 10d engageable in respective, complementary recesses 12b formed in the walls of the innermost ends of the grooves 12.

In order to allow the viewfinder 6 to be used when the battery recess cover 11 is closed, the cover 11 is formed with a cut-out 11c which is arranged to be aligned with the viewfinder when the covers 10, 11 are closed. In addition, pressure or contact springs for the battery 7 may be provided on the cover 11.

When it is required to change the film cassette 4 in the camera described above, the cover 11 is moved in the direction of the arrow 13 (Figure 2) until it clears the shoulder 10a of the cassette recess cover 10. The cover 10 is then urged to overcome the detent means defined by the projections 10d and recess 12b and pivot the cover into its open position, whereafter exchange of the cassette 4 can be effected. The cover 10 is then closed so that the projection 10d is re-engaged in the recess 12b and the cover 11 is pushed back over the shoulder 10a up to the edge 10c.

In order to change the battery 7, the battery recess cover 11 is pushed in the direction of the arrow 13 until the battery recess 8 is completely open. The cassette recess cover 10 is thereby released, but remains in its closed position by virtue of the detent means 10d, 12 and can be maintained in this position by hand, as may be seen in Figure 3. After insertion of one or more new batteries, the ribs 11a of the cover 11 are re-engaged with the grooves 12 respectively and the cover 11 is moved back towards the edge 10c until it closes the battery recess 8 and locks the

cassette recess cover in its closed position.

The internal surface of the cover 11 is provided with a conductive contact strip 11d which has been stamped to produce two projecting studs 11e, 11f. The studs 11e, 11f are provided to make electrical contact with the batteries 7 respectively and are arranged to have sharp-edged contours so as to minimise the contact resistance.

10 In the position shown in Figure 2, in which the cover 11 has been moved from its closed position to release the cover 10, the studs 11e, 11f are spaced from the adjacent terminals of the batteries 7 so that bridging contact between the batteries is interrupted. Thus, the electrical components connected to the batteries, such as the film transportation motor, are not energised when the cover 11 is released from its closed position.

20 Claims

1. A still photographic camera including a pivotable cover, and a slidable cover defining in its closed position a lock for securing the pivotable cover in its closed position.

25 2. A camera as claimed in Claim 1, wherein the pivotable cover closes a first recess defined in a housing of the camera and the slidable cover closes a second recess defined in the housing adjacent one side of said first recess, the pivotable cover being mounted for pivotal movement relative to the housing by a pin supported by the housing at the side of the first recess remote from the second recess.

3. A camera as claimed in Claim 1 or Claim 2, wherein the end of the pivotable cover adjacent the slidable cover includes a projecting shoulder and the slidable cover is engageable over said shoulder to secure the pivotable cover in its closed position.

40 4. A camera as claimed in Claim 3, wherein said shoulder is formed with grooves therein and the sliding cover is adapted to be slidably engaged in said grooves when the pivotable cover is in its closed position.

45 5. A camera as claimed in Claim 4, wherein further grooves are provided in the walls of the

second recess, said further grooves mounting a slidable cover for sliding movement relative to the camera housing.

50 6. A camera as claimed in Claim 5, wherein, when the pivotable cover is in its closed position, the first mentioned grooves define extensions of the further grooves respectively.

7. A camera as claimed in Claim 5 or Claim 6, wherein detent means is defined between the further grooves and the slidable cover for releasably retaining the slidable cover in its closed position.

8. A camera as claimed in any one of Claims 5 to 7, wherein further detent means is defined between the pivotable cover and the ends of the further grooves presented to the pivotable cover for releasably retaining the pivotable cover in its closed position when the slidable cover is open.

65 9. A camera as claimed in Claim 7 or Claim 8, wherein the detent means and/or the further detent means includes projections on one of the components defined by the respective cover and the grooves, and complementary recesses in the other of said components.

70 10. A camera as claimed in any one of the preceding claims, wherein the slidable cover closes a recess for receiving a battery and is provided internally with a conductive contact member arranged so that, when a battery is received in said recess, the contact member engages a terminal of the battery when the slidable cover is in its closed position, but is disengaged from said terminal when the slidable cover is moved out of its closed position.

80 11. A camera as claimed in Claim 10, wherein said contact member is a contact strip formed with a projecting stud for engaging said battery terminal.

85 12. A camera as claimed in Claim 11, wherein the contact stud has sharp-edged contours produced by a pressure forming operation.

90 13. A still photographic camera comprising the combination and arrangement of parts substantially as hereinbefore described with reference to, and as shown in, Figures 1 to 4 of the accompanying drawings.



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In the position shown in Figure 2, in which the cover 11 has been moved from its closed position to release the cover 10, the studs 11e, 11f are spaced from the adjacent terminals of the batteries 7 so that bridging contact between the batteries is interrupted. Thus, the electrical components connected to the batteries, such as the film transportation motor, are not energised when the cover 11 is released from its closed position.

20 Claims

1. A still photographic camera including a pivotable cover, and a slidable cover defining in its closed position a lock for securing the pivotable cover in its closed position.

2. A camera as claimed in Claim 1, wherein the pivotable cover closes a first recess defined in a housing of the camera and the slidable cover closes a second recess defined in the housing adjacent one side of said first recess, the pivotable cover being mounted for pivotal movement relative to the housing by a pin supported by the housing at the side of the first recess remote from the second recess.

3. A camera as claimed in Claim 1 or Claim 2, wherein the end of the pivotable cover adjacent the slidable cover includes a projecting shoulder and the slidable cover is engageable over said shoulder to secure the pivotable cover in its closed position.

4. A camera as claimed in Claim 3, wherein said shoulder is formed with grooves therein and the sliding cover is adapted to be slidably engaged in said grooves when the pivotable cover is in its closed position.

5. A camera as claimed in Claim 4, wherein further grooves are provided in the walls of the

second recess, said further grooves mounting a slidable cover for sliding movement relative to the camera housing.

6. A camera as claimed in Claim 5, wherein, when the pivotable cover is in its closed position, the first mentioned grooves define extensions of the further grooves respectively.

7. A camera as claimed in Claim 5 or Claim 6, wherein detent means is defined between the further grooves and the slidable cover for releasably retaining the slidable cover in its closed position.

8. A camera as claimed in any one of Claims 5 to 7, wherein further detent means is defined between the pivotable cover and the ends of the further grooves presented to the pivotable cover for releasably retaining the pivotable cover in its closed position when the slidable cover is open.

9. A camera as claimed in Claim 7 or Claim 8, wherein the detent means and/or the further detent means includes projections on one of the components defined by the respective cover and the grooves, and complementary recesses in the other of said components.

10. A camera as claimed in any one of the preceding claims, wherein the slidable cover closes a recess for receiving a battery and is provided internally with a conductive contact member arranged so that, when a battery is received in said recess, the contact member engages a terminal of the battery when the slidable cover is in its closed position, but is disengaged from said terminal when the slidable cover is moved out of its closed position.

11. A camera as claimed in Claim 10, wherein said contact member is a contact strip formed with a projecting stud for engaging said battery terminal.

12. A camera as claimed in Claim 11, wherein the contact stud has sharp-edged contours produced by a pressure forming operation.

13. A still photographic camera comprising the combination and arrangement of parts substantially as hereinbefore described with reference to, and as shown in, Figures 1 to 4 of the accompanying drawings.