

## DESCRIPTION

### ELECTRONIC CAMERA

5

#### Technical Field

The present invention relates to an electronic camera device whose operational handiness is superior and the size thereof can be further decreased.

10

#### Background Art

In recent years, an electronic camera device has been put into practical use, in which a video signal of a subject image taken by an imaging means is recorded in the form of a still image or a moving image of comparatively short  
15 time by using a storing device such as a semiconductor memory or a disk shaped recording medium.

In the electronic camera device, the decrease of the size and the weight thereof has been strongly desired for improving the portability thereof due to the used-circumstance, which has resulted in a tendency that the operational  
20 handiness thereof has been sacrificed unwillingly in general.

#### Disclosure of Invention

The present invention aims to provide an electronic camera device whose size can be further decreased when the camera device is carried without  
25 sacrificing the operational handiness thereof.

For realizing the above aim, the camera device of the present invention comprises a first casing-member which holds an imaging means including a lens, and a second casing-member which is disposed on the back side of the first casing-member in such a manner as to be movable along the back side of the first casing-member up to a predetermined protruding-position in the state that one end of the second casing-member protrudes from the end of the first casing-member, wherein the second casing-member holds display means for displaying a video signal of an image taken by the imaging means, and a stroboscope on the protrusible-portion thereof which protrudes from the first casing-member when the second casing-member is positioned at the predetermined protruding-position, and, the first casing-member holds an operating member on the predetermined portion of the back side thereof, which becomes uncovered when the second casing-member is moved to the predetermined protruding-position.

In the above structure, the display means which requires a comparatively large area is disposed on the second casing-member which is disposed on the back side of the first casing-member in such a manner as to be movable along the back side of the first casing-member, and, when the electronic camera device is used, the second casing-member is moved to the predetermined protruding-position in the state that one end of the second casing-member protrudes from the end of the first casing-member, whereby the surface area of the electronic camera device is substantially increased, thus the operational handiness thereof is improved, also, when the electronic camera device is not used, the surface area thereof is decreased, thus the portability thereof is improved.

### Brief Description of the Drawings

Fig. 1 is a front view showing the in use state of an electronic camera device in an exemplary embodiment of the present invention,

5 Fig. 2 is a side view showing the same,

Fig. 3 is a back view showing the same, and

Fig. 4 is a side view showing the unused state of the electronic camera device in the same.

### 10 Detailed Description of Preferred Embodiment

Hereinafter an exemplary embodiment of the present invention is described referring to illustrations.

Fig. 1, Fig. 2, and Fig. 3 are respectively a front view, a side view and a back view showing the in use state of an electronic camera device in an exemplary embodiment of the present invention, and, Fig. 4 is a side view  
15 showing the unused state of the electronic camera device in the same.

As shown in the illustrations, a first casing-member 1, which constitutes the main portion of the camera device, is shaped into a substantially rectangular parallelepiped having a recessed-stage portion 12 on the back side  
20 thereof. The recessed-stage portion 12 shares substantially half of the whole area of the back side of the first casing-member 1. The first casing-member 1 holds an imaging means which takes an image of a subject and converts the image into a video signal. On the front side of the first casing-member 1, a lens 2, which is the part of the imaging means, is disposed.

25 On the recessed-stage portion 12 formed on the back side of the first

casing-member 1, a second casing-member 3, which is shaped into a substantially rectangular parallelepiped, is disposed in such a manner as to be movable along the recessed-stage portion 12 up to a predetermined protruding-position in the state that one end of the second casing-member 3 protrudes from the end of the first casing-member 1. On the back side of the second casing-member 3, display means 4, which selectively displays a video signal of an image taken by the imaging means or a video signal reproduced from a storing device, is disposed. Also, as shown in Fig. 1, on the front side of the protrusible-portion of the second casing-member 3, which protrudes from the end of the first casing-member 1 when the second casing-member 3 is moved to the predetermined protruding-position, a light emitting stroboscope 5 and a sound pick-up microphone 6 are disposed.

The stroboscope 5 and the microphone 6 are covered with the recessed-stage portion 12 formed on the back side of the first casing-member 1 when the second casing-member 3 is moved from the predetermined protruding-position to an original position (i.e., closed-position) as shown in Fig. 4.

Also, on the predetermined portion of the back side of the first casing-member 1, which becomes uncovered when the second casing-member 3 is moved to the predetermined protruding-position, a shutter button 7 for operating the imaging means, and an image selecting button 8 for selecting either a still image or a moving image are disposed as shown in Fig. 3. The shutter button 7 and the image selecting button 8 are covered with the second casing-member 3 when the second casing-member 3 is moved to the closed-position as shown in Fig. 4.

Furthermore, when the second casing-member 3 is moved from the

closed-position to the predetermined protruding-position, the electronic camera device is automatically switched on and set to a mode for recording, and, when the second casing-member 3 is moved from the predetermined position to the closed-position, the electronic camera device is automatically  
5 switched off. Also, a lens protecting cover (not illustrated) disposed for protecting the lens 2 automatically opens when the second casing-member 3 is moved from the closed-position to the predetermined protruding-position, and automatically closes when the second casing-member 3 is moved from the predetermined protruding-position to the closed-position.

10 By constituting the camera device as described in the above, the camera device can be quickly set to the mode for recording by moving the second casing-member 3 to the predetermined protruding-position, also, the failures such as leaving the camera device without switching off after use, operating the camera device without opening the lens cover, and leaving the lens  
15 without covering after use, can be prevented.

As shown in the illustrations, operating buttons such as a lock releasing button 9 for releasing the second casing-member 3 to be movable from the state of lock at the predetermined protruding-position or at the closed-position, a zooming operation button 10 for the zooming operation of the imaging  
20 means, and various operating buttons 11 for the operations of the reproduction of an image and the like, are also disposed on the camera device.

In this exemplary embodiment, push-buttons are used for various operations. However, the same effect can be obtained by using levers or knobs instead of the push-buttons.

25 In the above structure, the display means which requires comparatively

large area is disposed on the second casing-member which is disposed on the back side of the first casing-member in such a manner as to be movable along the back side of the first casing-member, and, when the electronic camera device is used, the second casing-member is moved to the predetermined protruding-position in the state that one end of the second casing-member protrudes from the end of the first casing-member, whereby the surface area of the camera device is substantially increased, thus the operational handiness thereof is improved, and, when the electronic camera device is not used, the surface area thereof is substantially decreased, thus the portability thereof is improved.

Also, when the camera device is not used, the stroboscope 5, the microphone 6, the shutter button 7 and the image selecting button 8 for selecting either a still image or a moving image are covered with the first casing-member and the second casing-member, whereby these are protected from careless bumping or hitching, and the erroneous operation can be prevented, thus the portability is improved.

#### Industrial Applicability

In the present invention, as described in the above, when the electronic camera device is used, the surface area thereof is substantially increased, thus the operational handiness is improved, and, when the electronic camera device is not used, the surface area thereof is decreased, also the stroboscope and the operating members are covered, whereby the erroneous operation is prevented, thus the portability of the camera device is improved.

## CLAIMS

1. An electronic camera device comprising:

(a) a first casing-member holding imaging means including a lens; and

(b) a second casing-member disposed on the back side of said first casing-member in such a manner as to be movable along the back side of said first casing-member up to a predetermined protruding-position in the state that one end of said second casing-member protrudes from the end of said first casing-member,

wherein said second casing-member holds display means for displaying a video signal of an image taken by said imaging means, and a stroboscope on the protrusible-portion thereof which protrudes from said first casing-member when said second casing-member is positioned at said predetermined protruding-position, and, said first casing-member holds an operating member for operating said imaging means on the predetermined portion of the back side thereof, which becomes uncovered when said second casing-member is moved to said predetermined protruding-position.

2. The electronic camera device according to claim 1, wherein said electronic camera device is automatically switched on and set to a mode for recording when said second casing-member is moved to said predetermined protruding-position, and, automatically switched off when said second casing-member is moved from said predetermined protruding-position in the opposite direction.

