

PATENT SPECIFICATION

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(72) Inventor DAVID EASTON BEACH

(54) PHOTOGRAPHIC CAMERAS

(71) We, EASTMAN KODAK COMPANY, a Company organized under the Laws of the State of New Jersey, United States of America, of 343 State Street, Rochester, New York 14650, United States of America, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to photographic cameras for use with percussion-ignitable flash lamp units (hereinafter referred to as "of the kind defined") comprising a plurality of flashlamps mounted on a base and each having a primer and pre-energized striker which is accessible through an associated access opening in the base for release from its energized condition to strike its primer and activate its lamp.

In our Letters Patent No. 1,287,455 there is described and claimed a photographic flashlight device for receiving such a percussion-ignitable flashlamp unit, and locating a flashlamp in a firing position, wherein sensing means engageable with a deformable or displaceable element of a flashlamp located in the firing position gives rise to an indication of the fired and unfired condition of the flashlamp. Further the sensing means may cause actuation of a signal flag to indicate the fired or unfired condition of an inserted flashlamp unit.

In our Letters Patent No. 1,323,941 is described and claimed a photographic flashlight device or camera comprising a holder for receiving a multi-lamp percussion-ignitable flashlamp unit of the kind defined, the holder being indexable to position, an unfired lamp in a firing position, an actuating member which, with a lamp unit inserted in the holder, normally extends into the lamp unit for actuation to cause ignition of an unfired lamp in the firing position, and means responsive to indexing of the holder for retracting the actuating member from the lamp unit to allow indexing thereof.

As described, the operator may manually rotate the flashlamp unit to place an unfired

flashlamp in firing position, with consequent rotation of the camera socket. Moreover, the camera socket is automatically indexed in response to actuation of the film advance mechanism or other known camera mechanisms to place an unfired flashlamp in firing position. Since the sensing member is inserted through an access opening in the flash lamp unit whenever the unit is coupled to the socket, it is necessary to withdraw the sensing member during rotation of the socket and flash unit. Withdrawal is achieved by means of a cam surface on the camera socket, which engages a cam follower coupled to the sensing member to cause the sensing member to be withdrawn from the access opening during rotation of the socket. During withdrawal, sufficient force must be imparted to the cam follower to overcome the inertia of the sensing member, the force biasing the sensing member into its sensing position and any other forces which impede movement of the sensing member.

In accordance with the present invention there is provided a photographic camera comprising a rotatable socket for receiving a percussion-ignitable flash lamp unit of the kind defined and rotatable by means of a film advancing mechanism, a sensing and actuating member movable from a retracted position, upon insertion of a flash lamp unit into the socket, into non-releasing engagement with a pre-energized striker located in a firing position or to an extended position in the absence of a pre-energized striker in the firing position, a first mechanism actuatable by the rotation of the socket for withdrawing the sensing and actuating member out of the flash lamp unit to its retracted position during the rotation of the socket, and a second mechanism actuatable in response to actuation of the film advancing mechanism for withdrawing the sensing and actuating member to its retracted position prior to withdrawal of the sensing and actuating member by said first mechanism.

In the accompanying drawings:—

Figure 1 is a front view of a portion of a photographic camera constructed according



to the present invention with the sensing and actuating mechanism thereof in the position it assumes in the absence of a flash lamp unit in the flash socket;

5 Figure 2 is a view similar to Fig. 1, but showing the mechanism in the position it assumes upon insertion of a flash lamp unit in the flash socket and with a pre-energized striker in the firing position;

10 Figure 3 is a view similar to Fig. 2, but showing the mechanism in the position it assumes after releasing the pre-energized striker in the firing position;

15 Figure 4 is a view similar to Fig. 3 and shows the dead bulb signal indication when a pre-energized striker is not positioned in the firing position;

20 Figure 5 is a view similar to Figs. 2 to 4 and shows the withdrawal of the sensing and actuating member to its retracted position in response to manual rotation of the flash socket; and

25 Figures 6 and 7 illustrate two views, to an enlarged scale, of the cam follower on the cam lever together with the cam surface located on the camera socket.

30 Because photographic apparatus is well known, the present description will be directed in particular to elements forming part of, or cooperating more directly with, the present invention. Camera elements not specifically shown or described herein are understood to be selectable from those known in the art.

35 In Figure 1 there is shown a photographic apparatus constructed according to the present invention which is adapted for use with a multi-lamp flash unit, shown generally as 10, which is of the type known in the art. 40 Flash unit 10 consists of a plurality of individual flashlamps 12, each of which has associated with it a pre-energized striker 14 which is releasable to strike against a primer 16 associated with each flashlamp 12. Striking 45 of primer 16 by a released pre-energized striker 14 results in ignition of flashlamp 12 and the generation of artificial light. Flash unit 10 further includes a base 18 for releasably mounting flash unit 10 in a flash socket 50 associated with the camera.

55 The photographic camera comprises a camera body 20 in which are mounted the various mechanisms which are to be described in detail below, including: a flash socket 22, a control lever 30, a sensing lever 40, a sensing and actuating slide 60, a cam lever 70, a flash actuating lever 80, a film advance slide 90, and a dead bulb signal 60 mechanism 100. Socket 22 is adapted to 60 releasably receive and hold the base 18 of flash unit 10. Socket 22 further has associated with it a socket ring 24 which is movable along the axis of socket 22 and which has arms 26 that extend upwardly into a 65 position in the path of movement of a flash

unit 10 which is being coupled to socket 22. Engagement of arms 26 by a flash unit 10 will cause downward movement of arms 26 and socket ring 24. Socket 22 further has associated with it a cam surface 27 and an indexing base 28 with indexing lugs 29.

70 Control lever 30 is mounted on a pin 32, fixed within the camera, and is biased in a clockwise direction by means of a spring 34. Control lever 30 includes a cam surface 36, 75 engageable with socket ring 24, and a cam surface 38. Movement of socket ring 24 downwardly as a flash unit 10 is coupled to socket 22 will cause counterclockwise rotation of control lever 30 by engagement of 80 cam surface 36 with socket ring 24.

Sensing lever 40 is mounted on a pin 42, fixed within the camera, and is biased in a clockwise direction by means of a spring 44. 85 Sensing lever 40 includes a cam follower 46 engageable by cam surface 38, a signal arm 48 terminating in a signal lug 50, a withdrawing lug 52, an actuating and withdrawing arm 54 which terminates in an actuating 90 lug 56 and a sector gear 58. When no flash unit 10 is in socket 22, sensing lever 40 is biased, in a manner to be described hereinafter, so that cam follower 46 engages 95 cam surface 38 with a force which is not sufficient to rotate sensing lever 40 against the bias of spring 34 on control lever 30 and spring 44.

Sensing and actuating slide 60 is movably mounted within the camera by pins 62 which extend through slots 64 in slide 60. Slide 60 100 is elongated in form and terminates in sensing and actuating end 66 and a sector gear 68 which meshes with sector gear 58.

Cam lever 70 is movably mounted on a pin 72, fixed within the camera. Cam lever 70 includes a cam follower 76 engageable 105 with cam surface 27 and an arm 78 engageable with withdrawing lug 52 on sensing lever 40.

Actuating lever 80 is mounted on a pin 82, 110 fixed within the camera, and is biased in a clockwise direction by means of a spring 83, for movement toward a stop 81, fixed within the camera. Actuating lever 80 includes an actuating arm 84 having a cam surface 85, 115 a cocking arm 86 and a latching pin 87 engageable by a latch 88 having a cam surface 89. Latch 88 is movable in response to operation of a release member (not shown) 120 by the camera operator in any manner which is known in the art to release actuating lever 80 and cause actuation of a flashlamp 12.

Film advance slide 90 is movable mounted within the camera by means of pins 92 which extend through slots 94. Slide 90 is biased to 125 the rest position illustrated in Figure 1 by means of a spring 96. Slide 90 includes a cocking lug 98 and an indexing lug 99. Cocking lug 98 is engageable with cocking arm 86 of actuating lever 80 and indexing lug 99 is 130

engageable with an indexing lug 29 on indexing base 28 of socket 22.

Signal mechanism 100 comprises a signal flag 102 and a signal arm 104. Signal flag 102 is mounted on a pin 106, fixed within the camera, and is biased in a clockwise direction by means of a spring 108 into a rest position in abutment with stop 110, wherein signal flag 102 is not visible within viewfinder 112. Signal arm 104 is an elongated slide which is movably held within the camera by pins 114 that extend through slots in signal arm 104 and is biased in a leftward direction by means of a spring 105. Signal arm 104 includes a sensing end 116, positioned for engagement with signal lug 50 on sensing lever 40, and a signal end 118 positioned for engagement with signal flag 102. Signal arm 104 is biased by means of the spring 105 so that sensing end 116 is held in engagement with signal lug 50 and thereby biases sensing lever 40 so that cam follower 46 engages cam surface 38 when no flash unit is in socket 22. However, spring 105 is not strong enough to rotate sensing lever 40 against the combined bias of spring 34 on control lever 30 and spring 44.

As illustrated in Figure 1, the camera mechanisms are positioned as they would be with no flash unit coupled to the camera. Socket ring 24 is held in its upward position by engagement with cam surface 36 on control lever 30 which is biased in a clockwise direction by means of the spring 34. Cam surface 38 on control lever 30 engages cam follower 46 on sensing lever 40 and holds that lever in a position in which actuating lug 56 is not engageable by actuating arm 84 of actuating lever 80 as it rotates under the bias of spring 83 and signal lug 50 holds signal arm 104 out of engagement with a signal flag 102. Furthermore, slide 60 is held within the camera by meshing of sector gears 58 and 68. Thus, the flash actuating and sensing mechanisms of the camera will not function during operation of the camera without a flash unit 10 coupled to camera socket 22.

Figure 2 illustrates the camera mechanisms in the position they assume when a flash unit 10 is coupled to flash socket 22. Arms 26 engage the base of flash unit 10 and urge socket ring 24 in a downward direction as the flash unit is coupled to socket 22. Control lever 30 is rotated in a counterclockwise direction, against the action of spring 34, by engagement of socket ring 24 with cam surface 36, thereby freeing cam follower 46 from engagement by cam surface 38. Thus, sensing lever 40 is free to rotate about pin 42 under the bias of spring 105, which is sufficiently strong to overcome the counter bias of spring 44. Such rotation causes movement of sensing and actuating slide 60 in an upward direction by engagement of sector gears 58 and 68,

until sensing and actuating end 66 comes into engagement with a pre-energized striker 14. Movement of sensing lever 40 also brings actuating lug 56 into a position wherein it is engageable by cam surface 85 on actuating arm 84. It may also be seen that signal lug 50 and signal arm 104 have both leftward under the bias of spring 105 but the amount of movement thereby is not sufficient to actuate signal flag 102, since a pre-energized striker 14 is in position above slide 60 and has been sensed by sensing and actuating end 66, the spring 105 not being strong enough to dislodge the striker 14. The camera is now in condition for flash operation by the operator.

As the operator depresses the release member in a manner well known in the art, such movement is coupled to latch 88 and causes movement of latch 88 in proper synchronization with the shutter actuating mechanism of the camera to free actuating lever 80 for movement to a flash firing position under the urging of spring 83. Cam surface 85 of actuating arm 84 strikes actuating lug 56 on the actuating and withdrawing arm 54 and causes counterclockwise rotation of sensing lever 40 about pin 42 against the action of the spring 44. Such movement is coupled through sector gears 58 and 68 to cause release of pre-energized striker 14 by means of sensing and actuating end 66 of slide 60. Actuating lever 80 continues to move to an uncocked position in abutment with stop 81 (see Fig. 3). In so doing, cam surface 85 disengages from actuating lug 56, with sensing lever 40 continuing to move until the bias of spring 44 overcomes its inertial energy. Prior to that time, signal arm 104 will reach its leftward limit of travel when pins 114 engage slot ends. Signal lug 50 will thus be disengaged from sensing end 116 and will continue to move relative thereto until the sensing lever 40 is returned under the bias of spring 44 to the position illustrated in Figure 3, in which the camera mechanisms are shown in the positions they assume after firing of a flashlamp 12. Actuating lever 80 has been moved to its uncocked position. Sensing lever 40 has been returned from its counterclockwise position under the bias of spring 44 so that actuating lug 56 moves past cam surface 85 into engagement with actuating arm 84, and signal lug 50 is engaged with sensing end 116. Moreover, since the spring 105 is stronger than the spring 44, the signal arm 104 will remain in its leftward position in which the signal flag 102 is visible in the viewfinder 112.

The camera mechanisms may be prepared for subsequent operation of the camera by actuation of film advance slide 90. As the slide is moved to the right from its rest position shown in Fig. 3, cocking lug 98 engages cocking arm 86 of actuating lever 130.

80 and causes counterclockwise rotation of actuating lever 80 against the bias of spring 83 until latching pin 87 engages cam surface 89 on latch 88 and is latched behind latch 88. During the initial movement of actuating lever 80 toward its cocked position, actuating arm 84 engages actuating lug 56 on actuating and withdrawing arm 54 and causes clockwise movement of sensing lever 40 about pin 42 so that sector gears 58 and 68 cause downward movement of sensing and actuating slide 60 out of the access opening in flash unit 10. At the same time, withdrawing lug 52 is disengaged from arm 78 of cam lever 70. Further movement of actuating lever 80 causes indexing lug 99 to engage one of the indexing lugs 29 on base 28 of flash socket 22 and causes rotation of flash socket 22 to bring an unfired flashlamp 12 into the camera firing position. Such rotation of socket 22 causes the cam surface 27 to displace the cam lever 70 downwardly until the cam follower 76 leaves the cam surface 27. Continued movement of actuating lever 80 disengages actuating arm 84 from lug 56, thereby permitting sensing and actuating slide 60 to be moved upwardly once more under the urging of sensing lever 40 as it moves in a counterclockwise direction under the urging of spring 105. Upward movement of slide 60 brings sensing and actuating end 66 into engagement with the bottom surface of flash unit 10, in position to enter the next access opening as its associated flashlamp is brought into firing position. Thus the sensing mechanism instantly senses the operability of each flashlamp as it is brought into firing position and indicates that condition in a manner which will now be described.

In the event that a pre-energized striker 14 is not in proper position within the flashlamp 12 which is in firing position, sensing and actuating slide 60 will move toward its extended position as illustrated in Figure 4. Such movement is caused by the counterclockwise movement of sensing lever 40 under the urging of spring 105 and permits signal arm 104 to move to its signal position. Signal end 118 engages signal flag 102 and causes it to rotate in a counterclockwise direction into signalling position within the camera viewfinder. As the camera operator is aligning the object within the viewfinder in preparation for taking the next exposure, he will notice the signal flag indicating that a fired flashcube is in the firing position. He will now rotate the flash unit manually and sensing and actuating slide 60 must be withdrawn from the flash unit during such rotation.

Manual rotation of the flash unit causes rotation of socket 22, with cam follower 76 engaged by cam surface 27 on camera socket 22. Cam follower 76 will move downwardly, causing counterclockwise rotation of

cam lever 70. As cam lever 70 rotates, arm 78 engages withdrawing lug 52 and causes clockwise rotation of sensing lever 40 which is transmitted by means of sector gears 58 and 68 to cause downward movement of sensing and actuating slide 60, thereby withdrawing sensing and actuating end 66 from the access opening in the flash unit during manual rotation of the flashcube. Rotation of sensing lever 40 also moves signal arm 104 out of engagement with signal flag 102, permitting signal flag 102 to move out of the viewfinder. As the next flashlamp moves into firing position, cam follower 76 moves upwardly with consequent resultant rotation of cam lever 70 and sensing lever 40. Movement of sensing lever 40 is coupled by sector gears 58 and 68 to cause sensing and actuating slide 60 to move upwardly, with sensing and actuating end 66 moving to sense the presence or absence of a pre-energized striker 14. It may thus be seen that the camera mechanism provides for ensuring withdrawal of the sensing mechanisms when the flash unit is being manually rotated by the operator. In addition, the mechanism provides for automatically withdrawing the sensing mechanism from the flash unit when the flash unit is being automatically indexed by operation of the camera mechanisms. The latter mechanism will operate to withdraw the sensing member prior to engagement of cam follower 76 by cam surface 27 on socket 22, thereby minimizing the stress and wear on cam follower 76 and cam surface 27.

Figures 6 and 7 further illustrate the interaction of cam follower 76 and cam surface 27. Cam follower 76 includes a cam surface 120 and a generally triangular shaped cutout 122. Cam surface 27 includes a lip 124. Cutout 122 and lip 124 are designed to permit rotation of flash unit 10 in only one direction. When flash unit 10 is rotated in the direction illustrated in Figure 5, cam surface 120 engages cam surface 27 and sensing and actuating slide 60 will be withdrawn from flash unit 10 as has been described hereinbefore. When the operator attempts to manually rotate flash unit 10 in the opposite direction, cut out 122 engages lip 124 and blocks movement of socket 22. Thus, the flash unit and socket may only be rotated in one direction.

WHAT WE CLAIM IS:—

1. A photographic camera comprising a rotatable socket for receiving a percussion-ignitable flash lamp unit of the kind defined, and rotatable by means of a film advancing mechanism, a sensing and actuating member movable from a retracted position, upon insertion of a flash lamp unit into the socket, into non-releasing engagement with a pre-energized striker located in a firing position

80 and causes counterclockwise rotation of actuating lever 80 against the bias of spring 83 until latching pin 87 engages cam surface 89 on latch 88 and is latched behind latch 88. During the initial movement of actuating lever 80 toward its cocked position, actuating arm 84 engages actuating lug 56 on actuating and withdrawing arm 54 and causes clockwise movement of sensing lever 40 about pin 42 so that sector gears 58 and 68 cause downward movement of sensing and actuating slide 60 out of the access opening in flash unit 10. At the same time, withdrawing lug 52 is disengaged from arm 78 of cam lever 70. Further movement of actuating lever 80 causes indexing lug 99 to engage one of the indexing lugs 29 on base 28 of flash socket 22 and causes rotation of flash socket 22 to bring an unfired flashlamp 12 into the camera firing position. Such rotation of socket 22 causes the cam surface 27 to displace the cam lever 70 downwardly until the cam follower 76 leaves the cam surface 27. Continued movement of actuating lever 80 disengages actuating arm 84 from lug 56, thereby permitting sensing and actuating slide 60 to be moved upwardly once more under the urging of sensing lever 40 as it moves in a counterclockwise direction under the urging of spring 105. Upward movement of slide 60 brings sensing and actuating end 66 into engagement with the bottom surface of flash unit 10, in position to enter the next access opening as its associated flashlamp is brought into firing position. Thus the sensing mechanism instantly senses the operability of each flashlamp as it is brought into firing position and indicates that condition in a manner which will now be described.

In the event that a pre-energized striker 14 is not in proper position within the flashlamp 12 which is in firing position, sensing and actuating slide 60 will move toward its extended position as illustrated in Figure 4. Such movement is caused by the counterclockwise movement of sensing lever 40 under the urging of spring 105 and permits signal arm 104 to move to its signal position. Signal end 118 engages signal flag 102 and causes it to rotate in a counterclockwise direction into signalling position within the camera viewfinder. As the camera operator is aligning the object within the viewfinder in preparation for taking the next exposure, he will notice the signal flag indicating that a fired flashcube is in the firing position. He will now rotate the flash unit manually and sensing and actuating slide 60 must be withdrawn from the flash unit during such rotation.

Manual rotation of the flash unit causes rotation of socket 22, with cam follower 76 engaged by cam surface 27 on camera socket 22. Cam follower 76 will move downwardly, causing counterclockwise rotation of

cam lever 70. As cam lever 70 rotates, arm 78 engages withdrawing lug 52 and causes clockwise rotation of sensing lever 40 which is transmitted by means of sector gears 58 and 68 to cause downward movement of sensing and actuating slide 60, thereby withdrawing sensing and actuating end 66 from the access opening in the flash unit during manual rotation of the flashcube. Rotation of sensing lever 40 also moves signal arm 104 out of engagement with signal flag 102, permitting signal flag 102 to move out of the viewfinder. As the next flashlamp moves into firing position, cam follower 76 moves upwardly with consequent resultant rotation of cam lever 70 and sensing lever 40. Movement of sensing lever 40 is coupled by sector gears 58 and 68 to cause sensing and actuating slide 60 to move upwardly, with sensing and actuating end 66 moving to sense the presence or absence of a pre-energized striker 14. It may thus be seen that the camera mechanism provides for ensuring withdrawal of the sensing mechanisms when the flash unit is being manually rotated by the operator. In addition, the mechanism provides for automatically withdrawing the sensing mechanism from the flash unit when the flash unit is being automatically indexed by operation of the camera mechanisms. The latter mechanism will operate to withdraw the sensing member prior to engagement of cam follower 76 by cam surface 27 on socket 22, thereby minimizing the stress and wear on cam follower 76 and cam surface 27.

Figures 6 and 7 further illustrate the interaction of cam follower 76 and cam surface 27. Cam follower 76 includes a cam surface 120 and a generally triangular shaped cutout 122. Cam surface 27 includes a lip 124. Cutout 122 and lip 124 are designed to permit rotation of flash unit 10 in only one direction. When flash unit 10 is rotated in the direction illustrated in Figure 5, cam surface 120 engages cam surface 27 and sensing and actuating slide 60 will be withdrawn from flash unit 10 as has been described hereinbefore. When the operator attempts to manually rotate flash unit 10 in the opposite direction, cut out 122 engages lip 124 and blocks movement of socket 22. Thus, the flash unit and socket may only be rotated in one direction.

WHAT WE CLAIM IS:—

1. A photographic camera comprising a rotatable socket for receiving a percussion-ignitable flash lamp unit of the kind defined, and rotatable by means of a film advancing mechanism, a sensing and actuating member movable from a retracted position, upon insertion of a flash lamp unit into the socket, into non-releasing engagement with a pre-energized striker located in a firing position



or to an extended position in the absence of a pre-energized striker in the firing position, a first mechanism actuable by the rotation of the socket for withdrawing the sensing and actuating member out of the flash lamp unit to its retracted position during the rotation of the socket, and a second mechanism actuable in response to actuation of the film advancing mechanism for withdrawing the sensing and actuating member to its retracted position prior to withdrawal of the sensing and actuating member by said first mechanism.

2. A photographic camera according to claim 1, wherein the first mechanism for withdrawing the sensing and actuating member to its retracted position comprises a cam movable with the socket and a cam follower for actuating the actuating and sensing member.

3. A photographic camera according to claim 1, wherein the cam is carried on a cylindrical portion of the socket and the cam follower includes a pivotally mounted cam lever having a pin which extends from the cam lever and rides against a surface of the cam as the socket is rotated.

4. A photographic camera according to claim 1, 2 or 3, wherein the second mechanism comprises a pivotally mounted sensing lever having a segment gear in mesh with a segment gear on the sensing and actuating member, the sensing lever being spring urged in a direction to move the sensing and actuating member towards its extended position and, in the presence of a pre-energized striker in the firing position, into non-releasing engagement therewith.

5. A photographic camera according to claims 3 and 4, wherein the cam lever includes an arm which is urged against a lug on the sensing lever during the manual rotation of the socket to urge the sensing lever in a direction which will cause withdrawal of the sensing and actuating member to its retracted position.

6. A photographic camera according to claim 4 or 5, wherein the film advancing mechanism comprises a slide carrying an indexing lug and a cocking lug which, upon actuation of the slide, causes movement of the sensing and actuating member to its retracted position prior to the indexing lug

engaging an indexing base of the socket to rotate the socket.

7. A photographic camera according to claim 6, wherein the movement of the slide is transmitted to the sensing lever by means of an actuating lever having one arm engageable with the cocking lug and a second arm engageable with an actuating and withdrawing arm carried by the sensing lever.

8. A photographic camera according to claim 7, wherein the actuating lever is urged by the cocking lug, against the action of a spring, to a cocked position in which it is retained by means of a latch which is released by actuation of a shutter releasing member, whereby the actuating lever is spring urged in a direction that causes its second arm to strike the actuating and withdrawing arm and move the sensing lever, when a flash lamp unit is received in the socket with a pre-energized striker in the firing position, in the direction for moving the sensing and actuating member from its non-releasing engagement with the striker to its extended position.

9. A photographic camera according to claim 8, wherein the spring acting on the sensing lever is connected to a signal arm having a sensing end engageable with a signal lug on the sensing lever and a signal end engageable with a signal flap so that upon movement of the sensing lever to move the sensing and actuating member to its extended position the spring causes the signal arm to move the signal flap to a position in which it is visible in the camera viewfinder.

10. A photographic camera according to claim 9, including a control lever which in the absence of a flash lamp unit in the socket retains the sensing lever in a position in which the sensing and actuating member is located in its retracted position, the control lever being moved to an inoperative position by the insertion of a flash lamp unit into the socket to allow movement of the sensing lever to urge the sensing and actuating member towards its extended position.

11. A photographic camera according to claim 1, substantially as hereinbefore described with reference to, and as shown in, the accompanying drawings.

L. A. TRANGMAR, B.Sc., C.P.A.,
Agent for the Applicants.

