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(54) A BRIGHT-LINE FRAME CAMERA VIEWFINDER

(71) We, BALDA WERKE PHOTOGRAPHISCHE GERÄTE UND KUNSTSTOFF R. GRUTER KOMMANDITGESELLSCHAFT, a German Company, of 16—20 Steinmeisterstrasse, 4980 Bunde, Westphalia, Germany, 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:—

This invention relates to the construction of a housing for a camera viewfinder in which a frame bounding the image area and photographic guide symbols are superimposed by reflection on the viewfinder image, and to a method of producing such viewfinder housings.

Camera viewfinders in which a frame bounding the image area is superimposed by reflection on the viewfinder image are known as bright-line frame viewfinders and enable the user of the camera to select a required portion of a picture. The basic principle of such bright-line frame viewfinders is generally known. For example, the Applicants have already indicated proposals for inexpensive bright-line frame viewfinders, one of which comprises, for example, a bright-line frame viewfinder wherein the optically important elements, i.e. a collimator lens, mirrors, etc., are introduced into the interior of a viewfinder housing from the front and are held in place by mounting members which engage in position and are provided with contact pressure springs, the said optical elements being prevented from slipping by the use of adhesives or varnish. The disadvantage of this construction, however, is that the positional accuracy of the optically important elements is dependent upon the manufacturing accuracy of their retaining mounting members, so that if the latter have dimensional inaccuracies, the bright-line frame which is to be viewed in the viewfinder image has to be adjusted in an additional operation via a first mirror, by means of an adjusting screw.

In addition, the operation of securing the components by adhesive or varnish is time-consuming and therefore not well suited to production-line assembly.

In another construction proposed by the Applicants the above disadvantages are obviated, by providing guide recesses for the optical elements in a viewfinder housing which is open at the top, the lens and mirrors being pushed from above into said recesses, the dimensions of which must meet close tolerances to ensure that the optical elements remain firmly in the required end positions and are secured against slipping due to vibrations. The disadvantage of this construction is that the stable three-point support has to be dispensed with, at the expense of accuracy, for reasons associated with the moulding technique, and that deep non-conical slots which are unfavourable from the point of view of moulding technique are required for the guide recesses, while very close production tolerances are necessary for the slot width in order to ensure a rigid fit for the optical parts. Another disadvantage has proved to be a lack of essential torsional stability of a viewfinder housing which is open at the top, so that temperature variations and the existing internal stresses have resulted in distortion, causing the bright-line frame to be out of adjustment in the viewfinder image.

The other bright-line frame viewfinders conventional heretofore also have disadvantages in many respects, particularly from the aspect of inexpensive production, simple and rapid assembly, and adjustment in the minimum amount of time.

An object of the present invention is to provide a solution to the design and manufacture of a bright-line frame viewfinder of a very simple and convenient construction, which obviates the above disadvantages and errors with a high positional accuracy of the optical elements, while being suitable for mass-production assembly and favourable as regards manufacture.

[Price 25p]

To this end, according to the broadest aspect of the invention there is provided a bright-line frame camera viewfinder comprising a box-shaped viewfinder housing which is open at the front and in which is provided resilient and/or rigid securing means for retaining the optical elements of the viewfinder in position, such securing means being integrally moulded on opposite inside surfaces of the housing.

According to another aspect of the invention, there is provided a bright-line frame camera viewfinder comprising a box-shaped viewfinder housing which is open at the front and in which is provided resilient and/or rigid securing means for retaining the optical elements of the viewfinder in position and means for reducing stray light and reflection, said securing and stray light-reducing means being integrally moulded on opposite inside surfaces of the housing so as to project into the interior of the housing and/or so as to be countersunk in the opposite inside surfaces.

A bright-line frame viewfinder embodying the invention can also take into account a new tendency in the development of camera construction as disclosed by the Applicants in United Kingdom Patent No. 1,240,082. This camera differs from the hitherto conventional camera construction, in which a camera housing has a deep-drawn camera top fitted and screwed thereto for receiving the ancillary units such as a viewfinder, exposure meter and rangefinder, and in which a base is screwed to the underside of the housing, in that the camera is formed solely from a moulded box-shaped basic member which already has the final dimensions, the said ancillary units being built-in in the camera interior.

Accordingly, in one form of the invention, the viewfinder housing is moulded in a camera housing and is made integrally therewith, the camera back wall and adjacent outer walls being used to form the box shape.

The bright-line frame viewfinder according to the invention also advantageously allows for the new camera design inasmuch as the moulded viewfinder housing, like the camera housing, can be removed from the front of the mould, since, in the method of making such a viewfinder provided by the invention, the internal surfaces of the viewfinder housing, including all the abutment, clamping, retaining, detent and receiving devices and all the devices for reducing or eliminating stray light and reflection are moulded by displaceable mould parts which are pivotally mounted or slid on inclined planes.

The use of such movable parts in plastics injection moulds is general practice, but no example of application has hitherto been

disclosed whereby a viewfinder housing of such an advantageous design and inexpensive construction has been manufactured in the advantageous manner according to the invention by means of such mould parts, with the possibility of uncomplicated assembly in conjunction with a new camera design.

The main advantage provided by the form of the invention in which the viewfinder is integral with the camera is that such a viewfinder housing gives a camera of small dimensions, since the space required for means for attaching the viewfinder to the camera is dispensed with and the integral moulding and incorporation of the viewfinder housing in the camera housing eliminates the need for separate walls and the other wall thicknesses can be greatly reduced.

There is also considerable simplification in respect of manufacture and assembly while the optical parts have high positional accuracy, and no additional fixing means, adhesive or varnish are required and the expensive adjustment operation can be dispensed with.

The advantageous construction of the bright-line frame viewfinder according to the invention also enables electrical monitoring or indicating devices provided when electronic shutters are used to be incorporated with savings in space, and also provides a functional and space-saving accommodation of the photo-conductive cell required for electronic exposure time indication, said cell being accommodated in the centre of the two viewfinder beams. It is also possible, with little outlay, to display the monitoring or indicating signals in a striking and foolproof form in the viewfinder image so that any operating errors are eliminated and optimum photographic results ensured.

In order that the invention may be clearly understood, an embodiment thereof will now be described in more detail, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of a viewfinder chamber formed in the interior of a camera housing;

Figure 2 is a plan view of the viewfinder chamber, with the top cut away, showing the arrangement of viewfinder lenses and mirrors and a camera front plate, together with a bright-line frame plate and a viewfinder screen;

Figure 2a is a section on the line IIa-IIa in Figure 2, showing the eyepiece lens and viewfinder screen fitted into the viewfinder, parts having been omitted for clarity;

Figure 2b is a front view of Figure 2a looking towards the eyepiece lens.

Figure 2c is a fragmentary section like

Figure 2a, showing another possible way of fixing the eyepiece lens;

Figure 2d is a plan view of Figure 2c showing the construction of a retaining tongue;

Figure 3 is a front elevation showing the bright-line frame plate together with the viewing opening and a bush for a photo-conductive cell, a cutaway lamp cover housing and a film strip containing the photographic guide symbols, which is secured by adhesive;

Figure 4 is a section like Figure 2a showing a plastics injection mould for the viewfinder housing, the mould being shown closed;

Figure 5 shows the halves of the injection mould of Figure 4 in opened condition, together with the slidable mould members which slide on inclined planes when the mould is opened and which mould abutment and clamping supports and retaining ribs on the opposite inside surfaces of the viewfinder housing;

Figure 5a is a half-section in the same plane as Figure 5 showing another form of the plastics injection mould using mould parts which are displaceable perpendicularly to the viewfinder axis and which mould the opposite inside surfaces; and

Figure 5b is a half-section like Figure 5a showing another form of the plastics injection mould using pivotally mounted mould parts which pivot towards the centre of the viewfinder to enable the opposite inside surfaces to be removed from the mould.

Referring to Figure 1, a viewfinder housing 2 formed in a camera 1 includes a chamber 2d. The chamber 2d is bounded at its top by an upper wall 1a of the camera and at the right-hand side by a side wall 1b of the camera. A bottom boundary is formed by a viewfinder housing wall 2a moulded on to a back wall 1c of the camera, and a left-hand side boundary is formed by a similarly moulded viewfinder housing wall 2b. Abutment and clamping supports and retaining ribs for mirrors and lenses of the viewfinder are moulded to the upper wall 1a of the camera and viewfinder housing wall 2a in a mirror-image arrangement opposite one another. A first mirror 3 (Figure 2) is secured to the viewfinder housing wall 2a by fixed abutment supports 4a and 5a (Figures 1 and 2) and by a third resilient support 6a moulded on a resilient web 8a, and to the upper wall 1a of the camera by abutment supports 4b and 5b arranged in mirror-image relationship opposite one another and by a resilient support 6b. A semi-reflecting mirror 9 is similarly secured: it is secured to the viewfinder housing wall 2a by abutment supports 9a, 10a and by a resilient support 11a, and is secured to the upper wall 1a of the camera by abutment

supports 9b, 10b and by a resilient support 11b. The resilient supports 6a, 6b (11a, 11b) press their respective mirrors against the corresponding abutment supports and the necessary contact pressure is obtained by providing two recesses 7a, 7b (12a, 12b) laterally of each resilient support, said recesses being so dimensioned as to leave the narrow web 8a, 8b (13a, 13b) therebetween. If suitable material is used, this web yields resiliently under pressure so that, if the distances between the abutment supports 4a, 5a (4b, 5b; 9a, 10a; 9b, 10b) and the resilient supports 6a (6b; 11a, 11b) have appropriate values, the resilience of the web 8a (8b; 13a, 13b) is sufficient to produce a contact pressure for the mirrors 3 and 9 sufficient to obviate any rattling or slipping of the mirrors, even in the event of considerable vibration. Respective retaining ribs 14a, 14b for a collimator lens 15 (Figures 1 and 2) are also moulded as mirror images internally on the bottom housing wall 2a of the viewfinder and the upper wall 1a of the camera.

Ribs, lugs, screening means and roughened portions which, for the sake of clarity, have not been shown in the drawings may be provided as an effective means against stray light and reflection, on the opposite inside surfaces 1f, 2f of the viewfinder housing 2, together with the abutment, clamping and receiving means (4a, 5a; 6a; 14a etc.) for the optical viewfinder elements. Vertical ribs may also be provided internally on the back wall 1c (Figure 1) of the camera in order to reduce or eliminate stray light. In the exemplary embodiment, only one such rib 16 (Figures 1 and 2) is shown and this rib, in conjunction with a rib 42 of a bright-line frame plate 20 (Figures 2 and 2a) also holds the collimator lens 15 in the required position.

The camera back wall 1c is formed with a viewfinder opening 17, in front of which an eyepiece lens 18 is fitted as will be explained hereinafter. A retaining rib 17a (Fig. 2) is moulded on the inside surface 2f of the bottom wall 2a of the viewfinder housing beneath the viewing opening 17 to fix the eyepiece lens 18 in conjunction with a corresponding retaining lug 17b (Figure 2a) moulded on the opposite inside surface 1f of the upper wall 1a of the camera. A projection 18b is moulded on the eyepiece lens 18 in the centre of its upwardly extending edge 18c and an extension 18a (Figures 2a and 2b) is moulded on the opposite edge. The projections 18b on the eyepiece lens 18 engages, when the lens is fitted, behind the retaining lug 17b and the prolongation 18a engages behind the retaining rib 17a of the viewfinder housing 2 and presses the eyepiece lens 18 into the required position.

Figures 2c and 2d show another possible fixing system by means of a resilient retain-

ing tongue 18d, which is formed by a U-shaped recess 18e in the wall 1a of the camera and behind which the lug 18b of the eyepiece lens 18 engages firmly.

5 A continuous rebate 19 (Figure 1) along the end faces of the walls 1a, 1b, 2a enclosing the viewfinder interior 2d receives and fixes a bright-line frame plate 20 (Figure 2). The latter has a circular recess 22 in the centre to receive a photo-conductive cell 21 and has a concentric circular receiving and retaining edge 23 into which an integrally moulded flange 25 on one end of an aperture bush 24 is pressed so that the photo-conductive cell 21 cannot fall out (Figure 2). The other end of the aperture bush 24 has a concentric circular retaining edge 26 for an aperture disc 27 with an aperture 28. On the left of the aperture bush 24 in the bright-line frame plate 20 are openings 29a to 29d of the bright-line frame 29 (Figures 2 and 3), which is reflected into the viewfinder image. In the bottom half of the inside surface 30 of the frame 29 there is formed a rectangular depression 31 having an opening 32 and a continuous edge 33 which engages in a continuous recess 34 of a cover housing 35 and serves to receive and fix the latter. A film strip 39 is secured by adhesive to the base 36 of the depression 31 and bears photographic guide symbols 37, 38. An incandescent bulb 41 is accommodated in the interior 40 of the cover housing 35 (Figures 2 and 3). On the side of the bright-line frame plate 20 internal to the viewfinder chamber 2d, a rib 42 is provided in the region of the collimator lens 15 in order to reduce stray light and hold the collimator lens 15. A cover wall 43 is provided at the left-hand end (Figure 2) and closes a recess 2c in the side wall 2b of the viewfinder housing 2, said recess being required for the fitting of the mirror 3.

45 The cover wall 43 continues as far as the front of the plate 20 (43a) and engages in a recess 50 in the camera front wall 49 and together with the edge 51 and the edge 48 of the camera plate 49 secures the plate 20 against any lateral displacement to prevent it from dropping out. In the right-hand part of the bright-line frame plate 20 there is formed a viewing opening 44. The bright-line frame plate 20 is covered by a viewing screen 45 having moulded thereon a viewfinder lens 46 and a condenser lens 47 for the photo-conductive cell 21. The bright-line frame plate 20 and the viewer screen 45 are retained by the camera front wall 49, which, in order to receive and retain the two parts 20 and 45, has the recess 50 with the supporting edge 51 and an abutment edge 48 which on the left-hand side and on the underside extends around a

viewfinder window 52 in the camera wall 49. The wall 49 also has a stepped edge 53 having three steps. The first and second of the steps (54, 55) together with the recess 19 on the camera side are used for fixing purposes while the third step 56 forms the boundary for cover plates extending around the camera side in recess 57, or for a leather covering 58. To facilitate handling of the camera housing during the various assembly stages, viewing screen 45 is provided with retaining lugs 45a, 45b (Figure 2a) moulded thereon, on the opposite side surfaces 45c, 45d, said lugs engaging in corresponding recesses 1g, 2g of the viewfinder housing 2 and retaining the viewer screen 45 so that the fitted bright-line frame plate 20 and the parts 35, 24 fastened thereon are securely held. Conveniently, the remaining surfaces of the viewing screen are transparent-matt in order to screen the components situated therebehind, but to transmit sufficient light for the bright-line frame to be reflected into the viewfinder image and are furthermore adapted to increase the contrast of the bright-line frame in the viewfinder image by the application of paint, or by the fitting or glueing of coloured foil.

Figure 4 illustrates a plastics injection mould for use in constructing a viewfinder and, as is apparent from Figure 4, a left-hand half 59 of the mould defines the outside 1d of the camera back wall 1c with the viewfinder opening 17. A contour 60a of a right-hand mould half 60 defines the outer surface 1e of the upper wall 1a of the camera and the contour 60b of the mould half 60 defines the outer surface 2e of the bottom wall 2a of the viewfinder housing. Mould slides 63, 64 are disposed within the mould half 60 on respective inclined outer surfaces 61, 62 of a wedge 60c of the mould half 60 and serve to mould the inner surface 1f of the top outer wall 1a of the camera and the inner surface 2f of the bottom wall 2a of the viewfinder housing, including all the abutment, clamping, retaining and engagement means for the optical viewfinder elements and all the means for reducing and eliminating reflection and stray light. When the mould halves 59 and 60 are opened, along the line I—I, Figures 4 and 5, the mould slides 63, 64 follow the opening movement of the left-hand half 59 (Figures 5, direction of arrow A) and slide on the inclined outer surfaces 61, 62 of the wedge 60c into the position shown in Figure 5. At the same time, projections 65a, 65b; 66a, 66b; 67a, 67b on the mould slides, which projections mould the recesses 7a, 7b and 12a, 12b for the resilient webs 8a, 8b and 13a, 13b, the resilient supports 6a, 6b and 11a, 11b and the recesses 1g, 2g

for engagement of the viewer screen 45, are disengaged from the upper wall 1a of the camera and the bottom wall 2a of the viewfinder housing. The mould halves 59 and 60 can now be moved apart beyond the position shown in Figure 5 so that the mould slides 63, 64 are withdrawn from the interior 2d of the viewfinder housing 2 and the completed camera housing 1 with the integrally moulded viewfinder housing 2 can be removed from the mould half 59.

Figures 5a and 5b show another two possible forms which the plastics injection mould may take.

In Figure 5a, the inner surfaces 1f, (2f) with all the said retaining and positioning means are formed by mould slides 69 (70). After withdrawal of the inclined wedge 71 (direction of arrow B) the slides 69 (70) move towards one another in the direction of the arrow C to disengage their projections 65a, 65b (66a, 66b) and 67a (67b) from the inner surfaces 1f (2f). After the mould part 72 has slid back in the direction of the arrow D, the mould halves 74, 75 are moved apart along the parting line III—III and the completed moulding can be removed from the mould.

In the mould shown in Figure 5b, a mould plunger 76 is initially withdrawn in the direction of the arrow E and a lug 76a (76b) thereon presses against an abutment lug 78a (79a) of a pivotable mould part 78 (79). The latter pivots about a pivot 78b (79b) in the direction of the arrow F to disengage from the inner surface 1f (2f) of the viewfinder housing 2 with all the integrally moulded means. The mould halves 80, 81 are then moved apart along the parting line IV—IV and the completed moulding can be removed.

The construction described for the plastics injection mould can of course also be used for the production of a separate viewfinder housing with all the said advantages, such housing then subsequently being secured to the camera housing in conventional manner.

A bright-line frame viewfinder embodying the invention is assembled with the eyepiece lens 18 first being introduced from inside to a position in front of the viewfinder opening 17. This is done as follows: the eyepiece lens 18 is placed in the viewfinder interior 2d in front of the viewfinder opening 17 with the projection 18a situated behind the retaining rib 17a (Figure 2a) and with the integrally moulded lug 18b to the right or left adjacent the retaining lug 17b (Figure 2b). The eyepiece lens 18 is then pushed towards the centre of the viewfinder opening 17 and in so doing its lug 18b moves behind the retaining lug 17b fixed to the housing. A press fit can readily be obtained in these conditions by

appropriate dimensioning, to hold the eyepiece lens 17 rigidly in position.

Alternatively, referring to the fastening system shown in Figures 2c and 2d, the eyepiece lens 18 is placed in the centre of the viewer opening 17 with the projection 18a behind the retaining rib 17a, and then the eyepiece lens 18 with its integrally moulded lug 18b is pressed behind the resilient retaining tongue 18d formed by U-shaped recess 18e in the outer wall 1a of the camera so as to engage firmly (Figure 2c). The mirrors 3 and 9 can then be pushed from the front between the abutment supports 4a, 5a (4b, 5b and 9a, 10a, and 9b, 10b) and resilient supports 6a (6b and 11a, 11b). The collimator lens 15 is similarly pressed between the retaining ribs 14a, 14b. The bright-line frame plate 20 in the completely assembled state, i.e. provided with the film strip 39, bulb 41, cover housing 35, photo-conductive cell 21, aperture bush 24 and aperture disc 27, is then placed in the continuous rebate 19 on the supporting edge 19a at the front of the viewfinder housing 2 and the viewer screen 45 is placed over the plate 20 and pressed into contact. The viewer screen 45 engages by its integrally moulded lugs 45a, 45b in the recesses 1g, 2g on the housing side and prevents the bright-line frame plate 20 from falling out during the subsequent operations.

On completion of all the operation, the camera front wall 49 can finally be pressed on to the camera housing 1, where it is retained by means not shown in detail, e.g. retaining tongues or screws. At the same time, the bright-line frame plate 20 and the viewer screen 45 engage in the recess 50 and by means of the supporting edge 51 and the abutment edge 48 of the camera plate 49 are additionally prevented from dropping out and from any lateral displacement.

Regarding the operation of the monitoring or indicating system, the bulb 41 and photo-conductive cell 21 are components of an electronic circuit and the bulb 41 lights up, for example, when the exposure brightness picked up by the photo-conductive cell 21 drops below a predetermined value.

When the bulb 41 lights up, the photographic guide symbols 37, 38 on the film strip 39 are projected on to the first-surface mirror 3 and displayed in the viewfinder image by means of the semi-reflecting mirror 9. In such cases, for example, the symbols 37, 38 clearly show the photographer that the light available is insufficient for correct exposures and that (a) a flashlight must be used for high-speed exposures or else (b) time exposures must be carried out using a tripod or the like.

WHAT WE CLAIM IS:—

1. A bright-line frame camera viewfinder comprising a box-shaped viewfinder housing which is open at the front and in which is provided resilient and/or rigid securing means for retaining the optical elements of the viewfinder in position, such securing means being integrally moulded on opposite inside surfaces of the housing.

2. A bright-line frame camera viewfinder comprising a box-shaped viewfinder housing which is open at the front and in which is provided resilient and/or rigid securing means for retaining the optical elements of the viewfinder in position and means for reducing stray light and reflection, said securing and stray light-reducing means being integrally moulded on opposite inside surfaces of the housing so as to project into the interior of the housing and/or so as to be countersunk in the opposite inside surfaces.

3. A viewfinder according to claim 2, wherein the securing means comprises abutment, clamping retaining, engagement and receiving means.

4. A viewfinder according to claim 2 or 3, wherein the stray light-reducing means comprises ribs, lugs, screening means, projections and roughened portions.

5. A viewfinder according to any one of claims 2 to 4, wherein the viewfinder housing is moulded in a camera housing and is made integrally therewith, the camera back wall and adjacent outer walls being used to form the box shape.

6. A viewfinder according to any one of claims 2 to 4, wherein the viewfinder housing is made separately and then subsequently secured to a camera housing.

7. A viewfinder according to any one of claims 2 to 4, wherein a lid-like cover engaging in a recess on the camera or viewfinder housing side and resting on a supporting edge associated with the recess closed the front opening of the viewfinder housing, such cover presenting openings which are illuminated to produce the bright-line frame image boundary.

8. A viewfinder according to claim 7, wherein the viewfinder housing cover has an opening for the viewfinder rays and an integrally moulded cover wall which closes an assembly recess in a side wall of the viewfinder housing.

9. A viewfinder according to claim 8 wherein the viewfinder housing cover has an opening within the area enclosed by the bright-line frame openings, a strip of film or the like bearing photographic guide symbols, check symbols, signs or the like being fixed in front of the opening for projection of the said symbols on to a first mirror when the film is illuminated by an incandescent bulb, the symbols being super-

imposed on the viewfinder image either directly or by means of a semi-reflecting mirror.

10. A viewfinder according to claim 9, wherein a photo-conductive cell is accommodated in a recess in a dead space between the two viewfinder beams at the centre of the viewfinder housing cover, and is retained by an aperture bush which is pressed or glued into the recess and which carries an integrally moulded aperture disc secured by adhesive or pressing in.

11. A viewfinder according to claim 10 wherein a cover housing is provided to screen the bulb for illuminating the film and is retained on the viewfinder housing cover by being fitted thereover, engaging therein, being pressed in or glued, and to simplify assembly is connected by an integrally moulded rib to the aperture bush so that the cover housing and the aperture bush are made in one piece.

12. A viewfinder according to claim 11, wherein a viewing screen is provided in front of the viewfinder housing cover and has an integrally moulded viewfinder lens and an integrally moulded condenser lens for the photo-conductive cell, the remaining surfaces of such screen being transparent-matt in order to screen the components situated therebehind, but to transmit sufficient light for the bright-line frame to be reflected into the viewfinder image.

13. A viewfinder according to claim 12, wherein the said remaining surfaces of the viewing screen are adapted to increase the contrast of the bright-line frame in the viewfinder image by the application of paint, or by the fitting or glueing of coloured foil.

14. A viewfinder according to claim 13, wherein the viewing screen is provided with integrally moulded retaining means which co-operate with associated retaining means on the camera or viewfinder housing side and the viewfinder components in the viewfinder interior are secured against falling out by the firmly engaged viewfinder screen during the subsequent assembly operations.

15. A viewfinder according to claim 14, wherein the viewfinder housing cover and viewfinder screen project into a recess of a camera front plate or a front part of the camera housing and are secured against slipping and falling out by means of integrally moulded rims and supporting edges.

16. A viewfinder according to claim 15, wherein an eyepiece lens is retained by retaining or abutment ribs on the viewfinder housing side and by resilient engagement of fixed retaining means on the viewfinder housing side.

17. A method of making a camera viewfinder according to claim 1, wherein the



opposite inside surfaces of the viewfinder housing and the securing means thereon are moulded by displaceable mould parts which are mounted to be pivotable or to slide on inclined planes.

18. A method of making a camera viewfinder according to any one of claims 2 to 16, wherein the opposite inside surfaces of the viewfinder housing together with all the raised or countersunk securing and stray-light reducing means are moulded by displaceable mould parts which are mounted to be pivotable or to slide on inclined planes.

19. A bright-line frame camera viewfinder substantially as hereinbefore des-

cribed with reference to, and as illustrated in, the accompanying drawings.

20. A method of making a viewfinder according to claim 19 substantially as hereinbefore described with reference to the accompanying drawings.

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