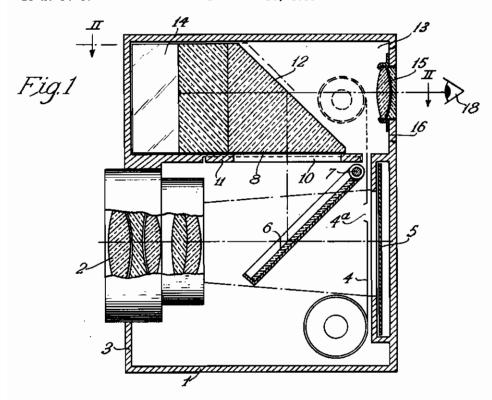
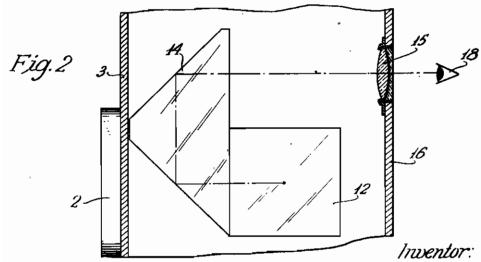
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H. KUPPENBENDER VIEW FINDERS Serial No. 304,702

BY A. P. C.

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## ALIEN PROPERTY CUSTODIAN

## VIEW FINDERS

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The invention relates to improvements in view finders for photographic cameras and particularly is directed to ground glass focusing view finders which are built into a mirror reflex camera or which are mounted onto a camera 5 casing.

The principal object of the invention is to provide a ground glass focusing finder which is viewed from the rear wall of the camera and produces an upright image of the object to be 10 photographed without reversing the sides thereof.

Another object of the invention is to employ for the production of an upright finder image a prism reversing system which is arranged in the path of the light rays between the finder ob- 15 jective and the ocular or viewing aperture of the finder.

Still another object of the invention is to employ as a prism reversing system two rectangular versing system permits a compact construction of the camera.

The drawing illustrates diagrammatically one embodiment of the invention:

Fig. 1 is a vertical sectional view of a mirror  $^{25}$ reflex camera, and

Fig. 2 is a horizontal sectional view of the mirror reflex camera, substantially along the broken line II—II of Fig. 1.

The camera casing I is provided with a pho- 30 tographic objective 2 on its front wall 3. A curtain shutter 4 whose exposure slot is indicated at 4a, is arranged in front of the focal plane in which the light-sensitive film 5 is positioned in customary manner. A conventional mirror 6 is mounted in the camera casing directly in the path of the light rays entering the objective 2 and in a position for normally deflecting an image of object to be photographed upwardly through an aperture 10 in a horizontal partition 40 wall II onto a translucent screen 8 of the view finder mounted in the upper portion of the camera casing 1. When the image appears sharply on the translucent screen 8, which result is obtained by adjusting the objective 2, the camera  $^{45}$ is said to be focused correctly to produce on the

film 5 a latent image of the object. When the shutter 4 is released the mirror 6 is automatically moved upwardly about its pivot axis 7 so that the objective 2 projects the image toward the film 5 and exposes the latter during the exposure movement of the shutter 4. The parts and their arrangement and actuation so far described are conventional and no further description of the same is believed necessary.

In accordance with the present invention a rectangular prism 12 is mounted in the finder chamber 13 above the partition wall 11 of the camera casing 1. The prism 12 is placed with one of its sides containing the right angle directly upon the translucent screen 8 or over the aperture 10 in the partition 11. Preferably, the translucent screen 8 is formed on the side of the prism 10 covering the aperture 10 by grinding this side of the prism to make it dull or transprism. Such an arrangement of the prism re- 20 lucent. A second rectangular prism 14 is placed with its hypotenuse against the other vertically disposed side of the prism 12 in a manner as illustrated in Fig. 2. It will be noted that the prism 12 covers about one-half of the hypotenuse of the prism 14 whose two sides containing the right angle are arranged vertically so as to reflect the light rays emitted by the prism 12 rearwardly into the ocular objective 15 mounted in the rear wall 16 of the camera casing 1. The two prisms 12 and 14 reverse the image of the finder, which image ordinarily would appear inverted as is well known in the art. The eye 18 of the photographer, when looking through the ocular objective 15 will see an upright image of the object to be photographed. The image appears exactly as one can see the object with both eyes, or in other words, no inversion of the sides has taken place.

It is believed obvious that the arrangement of the reversing prisms may also be employed in the so called twin lens reflex cameras, in which case the prisms are mounted in the finder compartment above the camera compartment, between the finder objective and the finder viewing aperture or ocular objective.

HEINZ KÜPPENBENDER.