

AMENDED SPECIFICATION

Reprinted as amended in accordance with the decision of the Assistant Comptroller, acting for the Comptroller-General, dated the eighteenth day of November, 1936, under Section 21 of the Patents and Designs Acts, 1907 to 1932.

(The amendments are shown in erased and italic type).

PATENT SPECIFICATION

Convention Date (Germany): Oct 18, 1930.

371252*

Application Date (in United Kingdom): Aug. 8, 1931. No. 22452/31.

Accepted: April 21, 1932.



COMPLETE SPECIFICATION (AMENDED)

Improvements in or relating to Photographic Cameras

We, ERNST LEITZ G.m.b.H., a Company organised under the Laws of Germany, of Optical Works, Wetzlar, Germany, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to photographic cameras and more particularly to that type of camera in which the movable mirror or equivalent optical member of a telemeter attached to the camera is moved by the focussing movement of the camera lens. A camera of this known type is described in the specification of British Letters Patent No. 17490 of 1898.

The present invention has for its object the provision of simple mechanism capable of producing the exact correspondence between the motions of the lens and the movable mirror of the telemeter which is necessary in small cameras having short-focus lenses.

According to this invention the lens is in a screw-focussing mount which is admittedly the best form of focussing mechanism for short-focus lenses, and its motion is transmitted by a simple system of levers without oblique or cam surfaces to the movable mirror or equivalent optical member of the telemeter.

In the accompanying drawings, Figure 1 is a sectional plan,

Figure 2 a sectional side elevation, and Figure 3 a partial front elevation of one construction of camera according to this invention, and

Figures 4, 5 and 6 are similar views of a modified construction also according to this invention.

In both sets of Figures the camera casing A has rigidly attached to it a telemeter B and the camera lens C is in a

mount C¹ provided with a screwthread C² for focussing purposes. The film D passes from a spool D¹ over a table or support D² to another spool D³.

In each construction also the telemeter has a fixed half-silvered mirror B¹ receiving and reflecting through a window B² an image of the object reflected from the movable prism or mirror B³, such image passing to the movable mirror through a view-hole B⁴. The eye of the observer applied to the window B² sees this image and also has a direct view of the object through the transparent portion of the fixed mirror B¹ and the view-hole B⁵.

The movable mirror B³ is mounted on a lever F pivoted at F¹, and this lever is operatively connected to the lens mount C¹ by mechanism which differs slightly in the two constructions.

In the form illustrated in Figures 1, 2 and 3, there is pivoted at G¹ inside the camera casing, a lever G having at one end a pin G² kept pressed against the end of the screwthreaded portion C² of the lens mount by a spring H. The other end of the lever G bears against a pin F² on the adjacent end of the lever F, the pin being pressed against the lever G by a spring J acting on the lever F.

In the construction shown in Figures 4, 5 and 6 the mechanism actuated by the lens movement is outside the camera casing. A flange or collar C³ on the lens mount engages with a pin K¹ on a lever K pivoted at K². The end of this lever K bears against a lip or projection F⁴ on the lever F, springs L and M keeping the pin K¹ pressed against the end of the lens mount.

In each construction the turning of the lens mount by the milled surface C⁴ moves the lens in or out and by the simple system of levers moves the mirror B³.

[Price

When the reflected image and the direct view of the object are *substantially* continuous, the lens will be in accurate focus for the object at the distance desired.

5 That distance may be indicated by a scale marked on the lens mount.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to
10 be performed, we declare that what we claim is:—

1. A photographic camera of the kind in which the focussing movement of the lens causes a corresponding movement in
15 the mirror or equivalent optical member

of a telemeter attached to the camera, having a lens in a screw-focussing mount the motion of which is transmitted by a simple system of levers without oblique or cam surfaces to the movable mirror or
20 equivalent optical member.

2. The photographic camera having a telemeter and lens mount as described with reference to Figures 1, 2 and 3 or
Figures 4, 5 and 6 of the accompanying
25 drawings.

Dated this 8th day of August, 1931.

KILBURN & STRODE,
Agents for the Applicants.

[This Drawing is a reproduction of the Original on a reduced scale.]

FIG. 1.

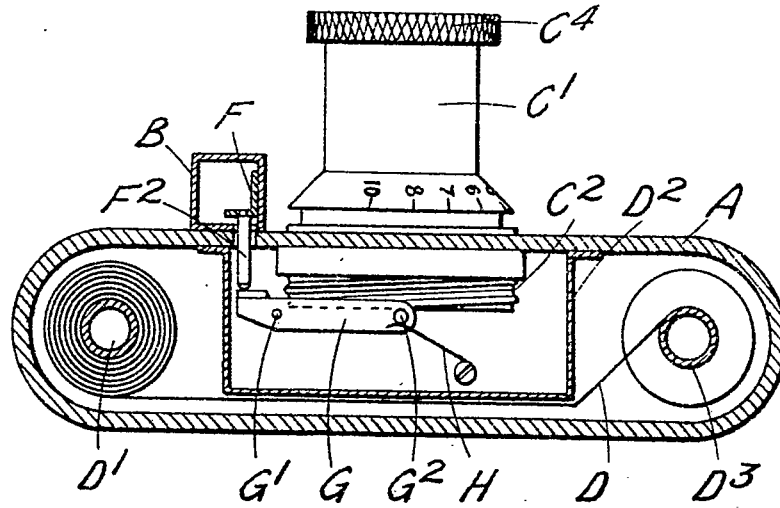


FIG. 2.

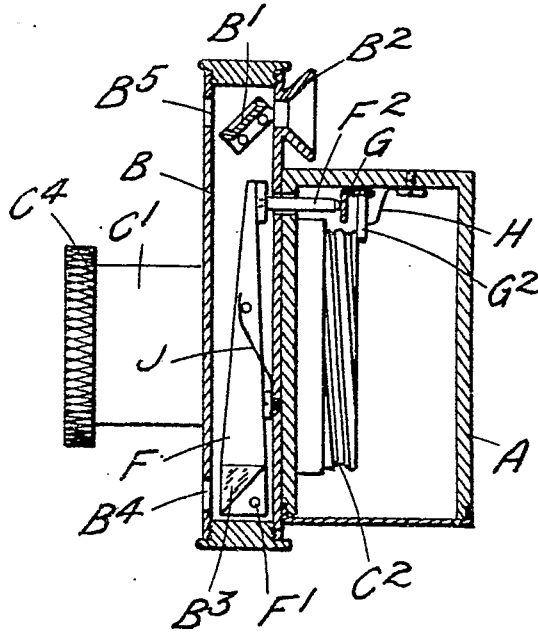
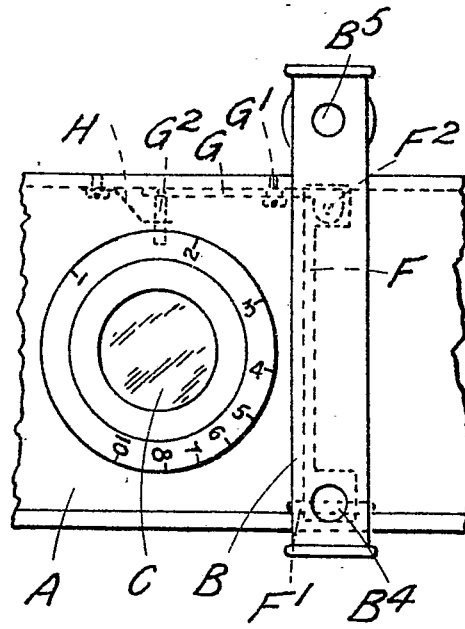


FIG. 3.



C4

FIG. 4.

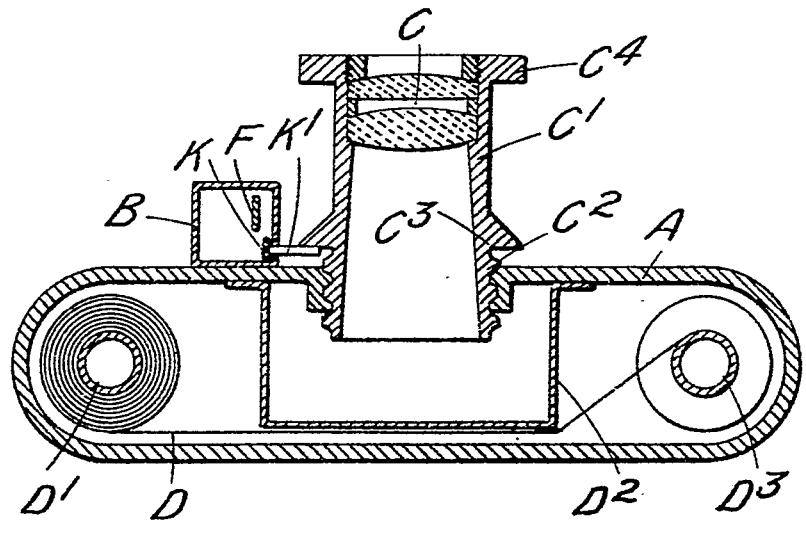


FIG. 5.

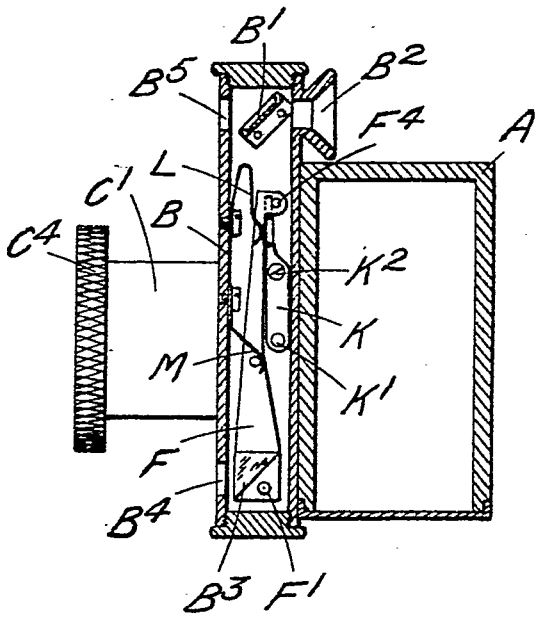
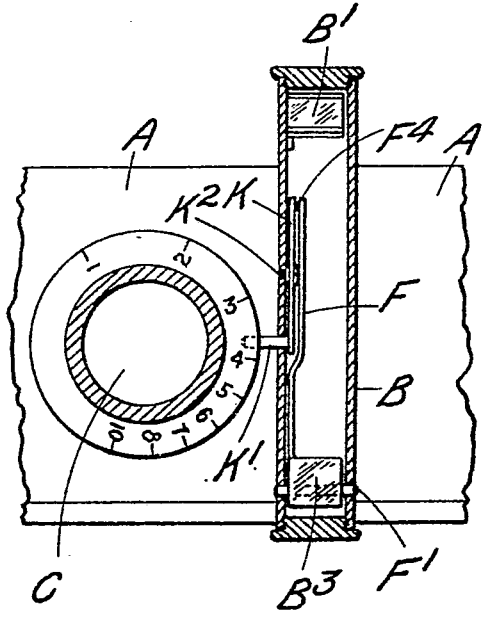


FIG. 6.



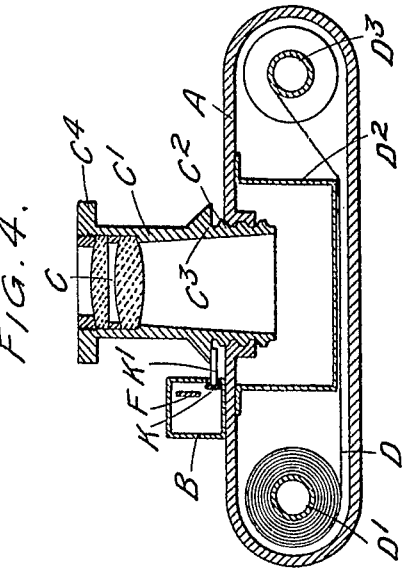


FIG. 1.

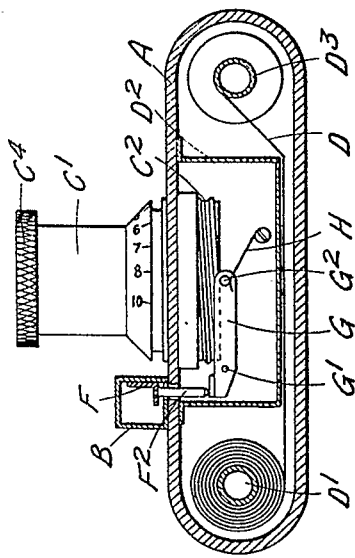


FIG. 5.

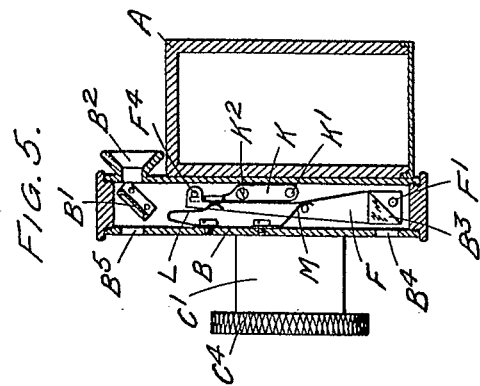


FIG. 3.

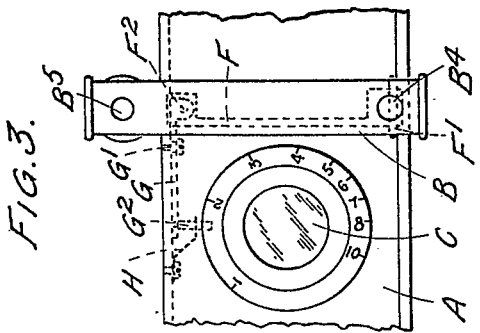
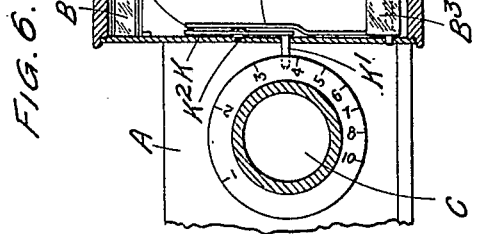
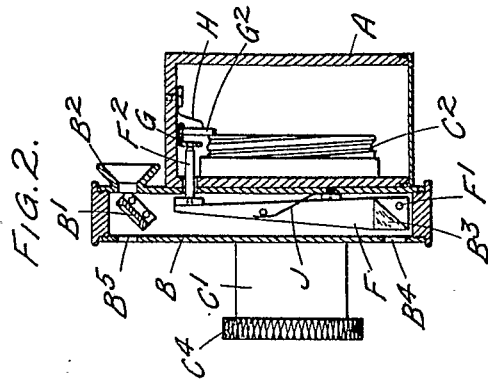


FIG. 2.



[This Drawing is a reproduction of the Original on a reduced scale.]