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FOCUSING DEVICE FOR CAMERAS

Original Filed March 13, 1926

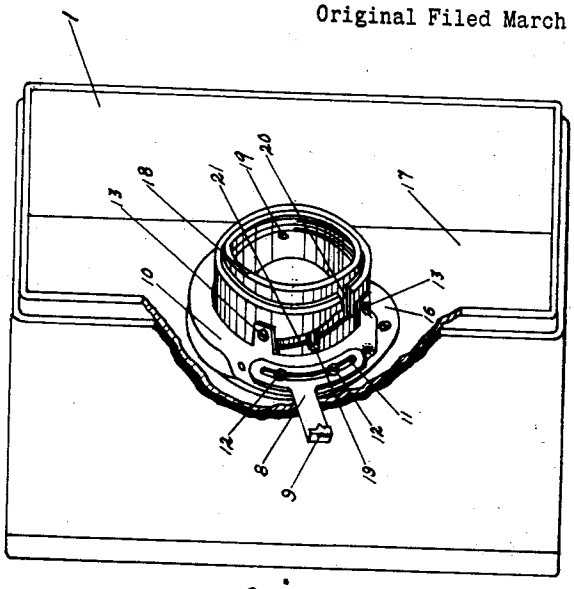


Fig. 2.

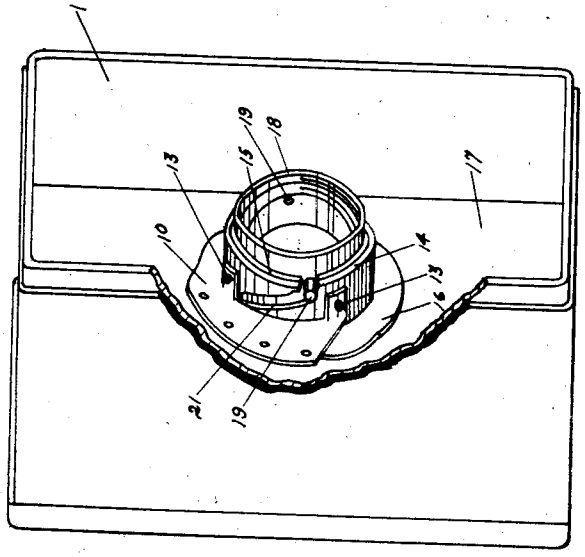


Fig. 1.

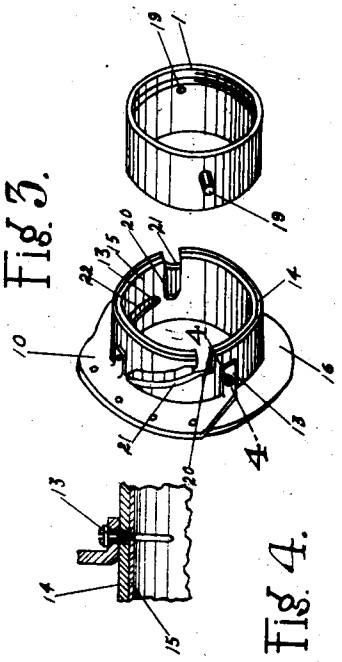


Fig. 3.

Fig. 4.

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UNITED STATES PATENT OFFICE.

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FOCUSING DEVICE FOR CAMERAS.

Original application filed March 13, 1926, Serial No. 94,496. Divided and this application filed October 16, 1926. Serial No. 142,004.

The primary object of our invention is to provide a focusing device for cameras.

Other objects and advantages in details of construction and operation will be apparent as the description proceeds, reference being had to the accompanying drawings wherein like reference numerals indicate like parts.

Figure 1 is a perspective view showing in part the construction of the focusing barrel.

Figure 2 is a view similar to Figure 1 with the focusing barrel in its completely assembled condition.

Figure 3 is an exploded view of the parts of the focusing barrel shown in Figures 1 and 2.

Figure 4 is a detail taken on the line 4—4 of Figure 3.

The reference numeral 1 indicates generally a camera, such as may be equipped with our invention.

A focusing lever 8 projects through one side of the camera and is provided with a finger piece 9. The inner end of this lever 9 is adjustably secured to a bracket 10 as by the pin and slot connection illustrated clearly in Figure 2 and comprising the slot 11 in the focusing lever, and the pins or screws 12 passing therethrough to the bracket 10. The bracket 10 is rigidly secured as at 13 to a rotatable barrel 14. This barrel 14 rotates upon a fixed barrel or cylinder section 15 rigid with the anchor plate 16 secured rigidly to the partition 17 within the camera. A third barrel 18 is slidably mounted within the barrel 15 and is guided in its sliding movement within such barrel 15 by means of pins 19 carried by the barrel 18 and engaging within straight slots or recesses 20 cut in from the outer edges of the fixed barrel 15. The slidable barrel 18 may carry the usual lens (not shown). The pins 19 of the barrel 18 project through the straight slots 20 in the fixed barrel 15 and engage within cam slots 21 cut in from the edges of the outer rotatable barrel 14. It will be understood therefore, that upon rotation of the outer barrel 14, the cam slots 21 will engage with the pins 19 as such slots intersect the straight slots 20 in the fixed barrel, thus causing the inner slidable barrel 18 to move outwardly and inwardly with respect to such fixed barrel.

It will be observed also that the securing pins 13 for attaching the bracket 10 to the rotatable barrel 14 pass through such barrel and engage within slots 22 formed in the fixed barrel 15 concentric therewith. The straight slots 20 in the fixed barrel and the outer ends of the cam slots 21 in the rotatable barrel both open to the edge of the respective barrels whereby when the rotatable barrel 14 is turned to the point shown in Figure 3, the slidable barrel 18 may be removed therefrom. If it is desired to remove the outer rotatable barrel, carrying the bracket 10, this may be done by removing the fastening pins 13 from engagement within the slots 22 of the fixed barrel whereupon these parts may be dismantled.

In the operation of our improved focusing device and with the parts in the assembled position shown in Figure 2, the operator upon moving the finger piece 9 rotates the outer barrel 14 connected to the operating lever by the pin and slot connections 11 and 12. This rotation of the outer barrel 14 causes the cam slots 21 to act upon the pins 19 carried by the slidable barrel 18 compelling such slidable barrel to slide outwardly or inwardly by virtue of the engagement of the pins 19 within the straight slots 20 in the fixed barrel 15.

It will thus be understood that a lens carried by the slidable barrel 18 may thus be quickly and easily focused.

We do not limit ourselves, of course, to the exact structure shown and described other than by the appended claims, as many changes may be made in details of construction and operation without departing from the spirit and scope of the invention. This is a division of our co-pending application No. 94,496, filed March 13, 1926.

We claim:—

1. A focusing mechanism for cameras comprising a support, a fixed barrel thereon having straight guide slots cut in from the free edge of said barrel on opposite sides thereof, a slidable member in said barrel having pins engaging in said slots and projecting beyond said barrel, a rotatable outer barrel on said fixed barrel provided with cam slots in

which the projecting ends of said pins engage, and means for rotating said outer barrel, and a separate pin and slot connection between said rotatable and fixed barrels whereby said rotatable barrel is maintained in concentric relation with said fixed barrel.

2. A focusing mechanism for cameras comprising a support, a fixed barrel thereon having straight guide slots cut in from the free edge of said barrel on opposite sides thereof, a slidable member in said barrel having pins engaging in said slots and projecting beyond said barrel, a rotatable outer barrel on said fixed barrel provided with cam slots in which the projecting ends of said pins engage, means for rotating said outer barrel, a separate pin and slot connection between said rotatable and fixed barrels whereby said rotatable barrel is maintained in concentric relation with said fixed barrel, a bracket fixed to said rotatable barrel and a finger piece adjustably secured to said bracket.

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