

Aug. 9, 1938.

R. J. LENNON

2,125,932

TELESCOPIC SIGHT MOUNTING

Filed July 30, 1937

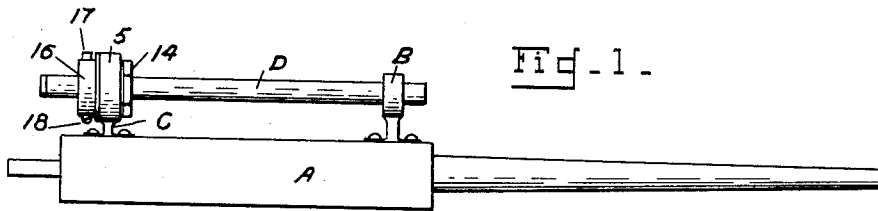


Fig - 1 -

Fig - 2 -

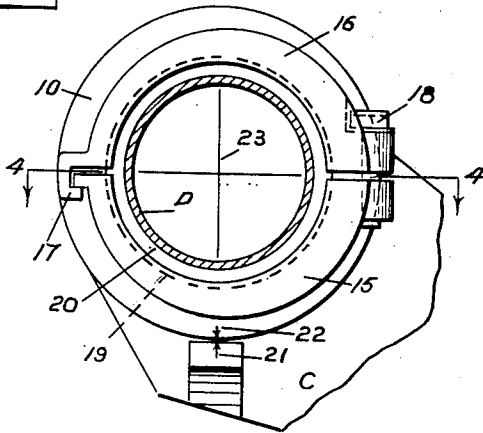


Fig - 3 -

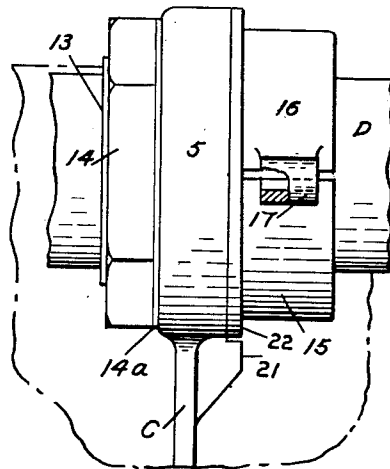


Fig - 5 -

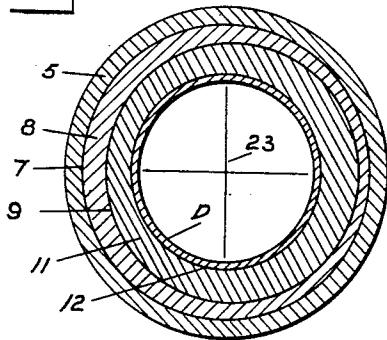


Fig - 4 -

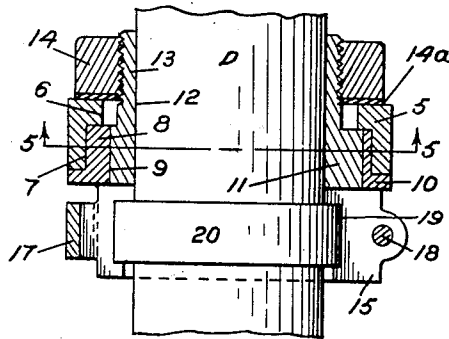
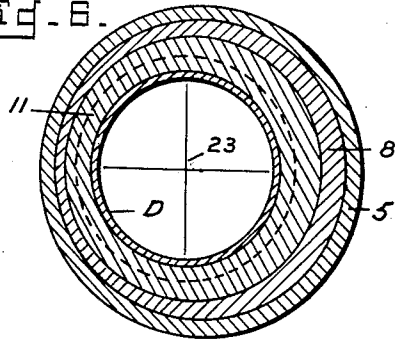


Fig - 6 -



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Patented Aug. 9, 1938

2,125,932

UNITED STATES PATENT OFFICE

2,125,932

TELESCOPIC SIGHT MOUNTING

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Application July 30, 1937, Serial No. 156,547

4 Claims. (Cl. 33—50)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

The invention described herein may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

5 The subject of this invention is a telescopic sight mounting.

The present invention proposes a new system of fire direction for gunners in tanks and armored cars. According to this system it is not intended to adjust a sight to range in the usual manner but rather to adjust it so as to have the line of sight converge with the line of fire at a definite range which may be the normal battle range of 600 yards or some other range as determined by local tactical employment and methods of fighting.

10 The purpose of the invention is to provide a mounting for a telescopic sight which includes simple, reliable and readily adjusted means for displacing the sight to shift the line of sight from parallelism with the line of fire of a gun to convergence therewith.

This is accomplished by means of a pair of eccentric adjusting rings, one of which includes means for engaging a support to lock the rings in position of adjustment.

To these and other ends, the invention consists in the construction, arrangement and combination of elements described hereinafter and pointed out in the claims forming a part of this specification.

A practical embodiment of the invention is illustrated in the accompanying drawing, wherein:

35 Fig. 1 is a plan view of a gun on which is mounted a telescopic sight.

Fig. 2 is a view in rear elevation of the rear support for the sight.

Fig. 3 is a view in side elevation.

40 Fig. 4 is a sectional view on the line 4—4 of Fig. 2.

Fig. 5 is a sectional view on the line 5—5 of Fig. 4.

45 Fig. 6 is a view similar to Fig. 5 but showing the rings in position of maximum adjustment.

Referring to the drawing by characters of reference, there is shown a machine gun A having a front support B and a rear support C for carrying a telescopic sight D, the front mounting being of the conventional pivotal type and the rear mounting, which forms the subject of this invention, providing for displacement of the telescope about the pivot.

55 The rear mounting includes a bearing 5 having an inturned flange 6 at its forward end and

having a circular bearing surface 7 on its inner side and in rear of the flange. An outer adjusting ring 8 having an eccentric opening 9 is rotatably mounted in the bearing surface 7 and has an outwardly turned flange 10 adapted to engage the rear end of the bearing 5.

An inner adjusting ring 11 rotatably mounted in the eccentric opening 9 of the outer adjusting ring 8 is formed with an eccentric opening 12 for receiving the telescope D. A sleeve 13 extends from the front side of the ring 11 and has its bore in continuation of the eccentric opening 12 so that the sleeve is eccentric to the ring 11. The sleeve is externally threaded to receive a nut 14 which may be advanced on the sleeve into engagement with a washer 14^a on the forward face of the bearing 5.

Extending rearwardly from the rear face of the inner ring 11 and integral therewith is a segment of a ring forming the lower jaw 15 of a clamp whose upper removable jaw 16 is adjustably attached to the lower jaw by means of a hook 17 and a bolt 18. The jaws of the clamp are of greater diameter than the inner ring 11 and are adapted to confine the outer ring 8 in the bearing 5. The jaws are formed internally with a groove 19 which receives a collar 20 on the telescope.

When the clamp 15—16 is applied, the telescope is incapable of rotational displacement, and when the nut 14 is tightened the telescope is incapable of longitudinal displacement and the adjusting rings are locked in place. When the nut 14 is loosened the adjusting rings 8 and 11 may be readily rotated.

35 With the adjusting rings in the relative positions shown in Fig. 5 the sighting axis of the telescope will be parallel to the axis of bore of the gun. The relation of the parts when in position of maximum adjustment is shown in Fig. 6. The ranges at which the line of sight of the telescope will converge with the line of fire of the gun will depend on the adjustment of the rings and an indication of parallelism and the range of convergence may be obtained by means of an index 21 and scale 22 selectively provided on a fixed member such as the support C and on either or both of the adjusting rings. The mounting of the telescope on the right or the left of the gun will of course determine the proper direction of movement of the telescope to obtain convergence and the amount of movement will be dependent on the lateral distance between the telescope and the axis of bore.

After the telescopic sight has been moved into

adjusted position, the nut 14 is tightened to hold it in place. If the cross hairs 23 of the telescopic sight have been angularly displaced during the adjustment they may be restored to their normal position by rotating the telescope after loosening the bolt 18.

I claim:

1. In a telescopic sight mounting, a front and rear support, the rear support including a bearing having an inturned flange at its front end, an outer adjusting ring rotatably mounted in the bearing and having an eccentric opening, said ring having an outwardly turned flange at its rear end and engaging the rear end of the bearing, an inner adjusting ring rotatably mounted in the eccentric opening of the outer ring, said inner ring having an eccentric opening, a forwardly extending sleeve on the inner ring, a nut threaded on said sleeve and adapted to engage the bearing, a rearwardly extending clamp on the inner ring and confining the outer ring, and a telescopic sight pivotally mounted in the front support and secured in the clamp.

2. In a telescopic sight mounting, a support including a bearing having an inturned flange at its front end, an outer adjusting ring rotatably mounted in the bearing and having an eccentric opening, said ring having an outwardly turned flange at its rear end and engaging the rear end

of the bearing, an inner adjusting ring rotatably mounted in the eccentric opening of the outer ring, said inner ring having an eccentric opening, a forwardly extending sleeve on the inner ring, a nut threaded on said sleeve and adapted to engage the bearing, a rearwardly extending clamp on the inner ring and confining the outer ring, and a telescopic sight secured in the inner ring.

3. In a telescopic sight mounting, a front and a rear support, the rear support including a bearing, cooperating and relatively rotatable inner and outer eccentric rings in the bearing, the bore of the inner ring being concentric with the outside of the outer ring in one position of adjustment, means on the inner ring for engaging the bearing to lock the rings in position of adjustment, and a telescopic sight pivotally mounted in the front support and secured in the inner ring.

4. In a telescopic sight mounting, a support including a bearing, cooperating and relatively rotatable inner and outer eccentric rings in the bearing, the bore of the inner ring being concentric with the outside of the outer ring in one position of adjustment, means on the inner ring for engaging the bearing to lock the rings in position of adjustment, and a telescopic sight secured in the inner ring.

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