

SNIPING RIFLES AND TELESCOPES

9. RIFLE No. 3 Mk. I* (T).

(a) Particulars.

(i) Particulars of rifle.

Owing to the fact that the locking lugs are at the forward end of the bolt and therefore the latter is not in a state of compression when a shot is fired, and that the body is considerably stronger and the barrel heavier, accuracy at short ranges is much superior to the S.M.L.E. For this reason this rifle has in a certain number of cases been fitted with a telescopic sight for sniping purposes. When so fitted the designation is as above.

Fittings to take the telescope are fixed to the front of the top of the body and the left side of the backsight bracket. The telescope fits on by means of two legs which hook into the front fitting on the rifle. The rear fitting on the telescope has a single leg, the squared end of which drops into the rear fitting on the left side of the rifle body and is secured by a swing-over locking bolt. The telescope is sited centrally over the axis of the bore.

(ii) Particulars of the Telescope. Pattern '18.

Magnification. $\times 3$.

Field of view. $7\frac{1}{2}$ degrees.

There is a focusing adjustment to allow for varying eyesight; lateral adjustment is catered for optically. The telescope contains a cross-wire and a pointer which can be zeroed for range by an adjustable range-drum.

To aim, move the head until the field of view is clear; in general it will be found that somewhere between one and

P'18 TELESCOPIC SIGHT

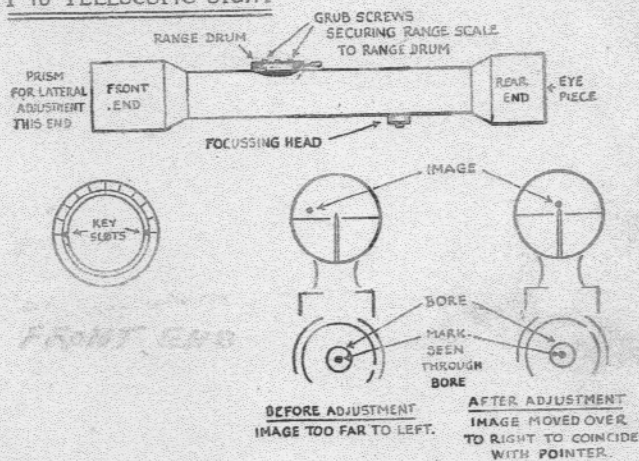


FIG. 4.

a half to two inches away is about correct. If any blurring of the outside edges of the field of view is seen, the head is not correctly positioned. Aim is taken by putting the tip of the pointer at six o'clock on the mark.

(b) How to adjust a telescope to a rifle and to an individual.

There are three adjustments to be made, viz:—

1. Focusing.
2. Lateral.
3. Vertical.

These adjustments must be made in the above order, for the following reasons:

- (a) Neither lateral nor vertical adjustments can be made unless the telescope is correctly focused to the individual and the image clearly seen.
- (b) Any lateral adjustment, which is made through a prism, throws out the vertical adjustment. It is, therefore, useless to carry out the latter with the former incorrect. (Explanation later.)

(i) To focus.

Remove the sight from the rifle, and turn it upside down. The milled head of the focusing adjusting slide lies in the centre of the underside of the telescope (Fig. 4). Unscrew the clamping screw and adjust the focusing slide to suit the eye, by pushing it backwards or forwards. After focusing tighten the clamping screw and replace the sight on the rifle.

(ii) To adjust for line.

(a) PRELIMINARY. Lateral adjustment is effected by means of a prism at the front end of the telescope. Remove the front shade, slacken the three screws which fix the prism cell and, by means of the adjusting key, rotate the prism to the right or left as necessary.

There is a reference line on the outer ring which encloses the prism cell, and a number of divisions on the member enclosing the latter. The scale made by these divisions is practically a full semi-circle. The reference line must be somewhere on this scale. If it is not, turn the prism cell until it is.

The centre line of this scale should be regarded as being at twelve o'clock. Divisions to the immediate right or left will then give a lateral adjustment of five minutes of angle. Divisions at the extreme ends of the scale will only produce a lateral alteration of approximately one minute of angle.

(b) METHOD OF ADJUSTMENT. Having uncovered the scale and slackened the three prism cell retaining screws:

- (i) Remove bolt.
- (ii) Place rifle on an aiming rest or prop it up firmly with sandbags.
- (iii) Looking through the bore, lay the rifle on any suitable mark.
- (iv) Look through telescope and see whether the image of the mark is correct for line, or right or left.
- (v) Leave alone, or adjust as necessary according to the following rules:
 - (a) If image requires to be moved to the RIGHT, move the scale clockwise when considered from the REAR, or anti-clockwise when looking at the scale from the FRONT.
 - (b) If the image requires moving to the LEFT, move the scale anti-clockwise when considered from the REAR, or clockwise when looking at the scale from the FRONT.

N.B. An alteration of the range setting may be necessary at iv or v above, in order to get the image in line with the top of, or on top of, the pointer. Do not worry about this at this stage. You are going to adjust for range later.

An alternative method of adjustment is by actual shooting, in which case you must remember the following rules:

- (a) If the shots strike to the RIGHT of the mark, the image must be moved to the RIGHT.
- (b) If the shots strike to the LEFT of the mark, move the image to the LEFT.

FOLLOW THE ERROR

(iii) To adjust for range.

This is best explained by an example. Having tested or corrected for line, and shot the rifle at a known range say

500 yards, and having perhaps 700 yards on the range-drum indicator, proceed as follows:

- (a) Unscrew the two grub screws which secure the range scale to the range-drum head.
- (b) Rotate the range scale until the figure 5 (representing 500 yards) is opposite the indicating line at the side. This does not alter the position of the pointer inside the telescope since the range scale has been freed from the range-drum head.
- (c) Tighten up the two grub screws again. The range scale will then be correctly adjusted to the shooting of the rifle.

10. RIFLE No. 3 Mk. I* (T) A.

This is a P. '14 rifle fitted with an Aldis type telescopic sight. A small number of these, attached by permanent fixings to the rifle, were issued at an early stage of the present war.

The telescope is similar in appearance to the P. '18, but it has no optical lateral adjustment. This is catered for mechanically in the fitting which attaches the telescope to the rifle. Focussing and range adjustments are carried out in the same manner as for the P. '18 telescope.

The telescope is attached to the rifle on the left side and slightly above the body; not vertically above the centre line of the bolt as is the case with the combination of P. '14 rifle and P. '18 telescope. This offset position obviously is not the most suitable place for a telescopic sight. Accordingly a detachable cheek rest was evolved for use with this rifle and telescope. This allows the firer to maintain a firm pressure on the butt with his cheek in a normal manner instead of having to contort his face. The cheek rest is shaped to the butt and is attached by means of a single wood screw.

Since the telescopic sight is permanently attached to the rifle, the normal rifle breech cover cannot be used. A complete cover for breech and telescope has therefore been issued for use with this equipment. The cover has a hole in it, which is suitably circled with a leather fringe, and through which the knob of the bolt fits.

Subsequent to the need for a cheek rest with this rifle becoming evident, it was realized that the same cheek rest would be a great assistance both with the normal equipment of P. '14 and P. '18 telescope, and also with the forthcoming Rifle No. 4 Mk. I and the new sniper's telescope. The