MUSKETRY SMALL BOOK
FOR THE
AUSTRALIAN IMPERIAL FORCE

For keeping a record of the result of the Musketry Test Practices together with the prevailing conditions of light and atmosphere and sighting elevation found necessary

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THE MUSKETRY COURSE
FOR THE
AUSTRALIAN IMPERIAL FORCE

PERSONAL PARTICULARS.

Unit.................................. Regimental No..............
Rank and Name..........................................................
Company................. Platoon................................
Address...........................

No. of Rifle..... Mark of Rifle..... Barrel No.....

<table>
<thead>
<tr>
<th>Range</th>
<th>Elevation Required</th>
<th>Throw</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td></td>
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<td>400</td>
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<td>700</td>
<td></td>
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</tr>
<tr>
<td>800</td>
<td></td>
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</tr>
</tbody>
</table>

In correcting the lateral throw of the rifle by means of the wind-gauge, adjust it in the opposite direction to which the rifle throws.

Example.—If a rifle shoots about 6 inches left at 200 yards correct it by half a division right on the wind-gauge.
NORMAL ELEVATION AND THROW OF RIFLE.

Variations in weather conditions, ammunition, and eyesight from those used in the experimental firings on which the graduations of the sight leaf was based, prevent some rifles from firing very accurately at a given range when the sight is set at the exact elevation indicated for that range on the sight leaf. The “normal elevation” for a particular range is the elevation which must generally be used in order to hit the centre of the bull’s-eye. If possible you should determine, by careful trial on days of ordinary weather conditions, the “normal elevation” for each range and the “throw” of your rifle, and record them in the places set out below.

HINTS ON SHOOTING.

In order to become a good shot it is essential that the elementary principles of aiming and firing are understood, and that the qualities of determination and will power are developed, so that the soldier can hold the rifle steadily, have perfect control of the trigger finger, and can aim correctly.

You must not flinch. Flinching is a startled closing of the eyes and a shrinking of the body just before firing. It is a form of nervousness which can only be overcome by constant practice, with a determination to overcome it.

Declaring the point of aim is one of the best ways of preventing flinching. This means telling yourself, or someone else, immediately after firing the exact place on the target where you were aiming at the instant that the rifle was fired.

You cannot do accurate shooting unless you adjust your sights correctly. Pay close attention to
instruction in setting the sights, and practice until sure you are making no mistake. The distance between the elevation marks and between the wind-gauge marks are small, and a slight error will make a great difference where your shot strikes.

**ESSENTIAL POINTS FOR ALL FIRING POSITIONS.**

1. **Sights perfectly upright.** If this is not done the shot will go low and to the side to which the back sight is inclined.

2. **Firm grip with both hands.** Loose holding shows lack of determination, and results in unsteadiness, and also leads to snatching the trigger.

3. **The butt firmly placed in the hollow of the shoulder, and not on the muscles of the arm;** this increases the consistency of aim, and lessens the recoil of the rifle.

4. **The eye and cheek well back from the cocking-piece;** with the eye well back, the sights are more clearly defined.

5. **Comfort and ease with an entire absence of constraint in the position assumed.**

**ESSENTIAL POINTS IN AIMING.**

1. The sights must be kept upright.

2. The left or right eye must be closed.

3. **Sights to be quickly aligned on the object or mark.**

4. See that the tip of the foresight is in line with the shoulders of the U of the backsight.

5. Always aim at the centre of the lowest part of the mark, leaving a fine line of white between the sight and the bull's-eye so as to prevent the one running into the other.
HOW TO USE A FOLD IN THE GROUND.

The right method of using a fold in the ground.
Very little exposure.

The wrong method.
Too much exposure.
LYING (Side view). Position when Firing.

*Points to note:*
1. Body oblique to line of fire.
2. Legs separated.
3. Heels on ground.
4. Good bed for the butt.
5. Firm grip with both hands.
6. Eye well back from the cocking-piece.
7. Sights perfectly upright.
8. First pressure on trigger.

LYING (Front view). Position when Firing.

*Points to note:*
1. Body oblique to line of fire.
2. Legs separated.
3. Heels on ground.
4. Good bed for the butt.
5. Firm grip with both hands.
6. Eye well back from the cocking-piece.
7. Sights perfectly upright.
8. Elbows closed slightly inwards.
9. First pressure on trigger.
STANDING.
Position when Loading.

Points to note:—
1. Body erect and well-balanced.
2. Left elbow close to body.
3. Firm grip with left hand, close in front of magazine.
4. Muzzle pointing upwards.
5. Butt well forward.
6. Forefinger of the right hand under the cut-off.
7. Eyes on the mark.

STANDING (Side view).
Position when Firing.

Points to note:—
1. Body well-balanced.
2. Left elbow well under rifle.
3. Good bed for the butt.
4. Firm grip with both hands.
5. Eye well back from the cocking piece.
7. First pressure on trigger,
The following diagrams show how the sights look when correctly aligned and when incorrectly aligned.

- **Correct.**

- **Too little foresight.** The shot will go low.

- **Too much foresight.** The shot will go high.

- **Foresight not properly centered**
  
  Shot will go to the left.
Foresight not properly centered.

Shot will go to the right.

Sights inclined to the left.

Shot will go to the left and low.

Sights inclined to the right.

Shot will go to the right and low.

TRIGGER PRESSING.

The soldier should, by constant daily practice in snapping, accustom himself to the exact pressure required to release the trigger of his own rifle, and to apply the final pressure the instant he sees that his aim is correct.

This perfect control of the trigger can only be acquired by concentration in aiming carefully, holding steadily, and pressing the trigger gradually, so that the factors of recoil and report are blotted from the mind.
Particular attention must be given to the following points:

1. The first joint of the forefinger should be placed round the lower part of the trigger.
2. The small of the butt should be gripped firmly by the thumb and three fingers.
3. In pressing the trigger, the thumb and forefinger should be forced gradually towards each other.
4. The first pressure should be taken as soon as the rifle has been brought into the position for aiming, the second when the sights are aligned on the mark.
5. In order not to disturb the aim, the breathing must be restrained when applying the second pressure.
6. Point of aim to be declared before removing the rifle from the shoulder.

Fig. 1.

This diagram shows the proper position of the hand whilst pressing the trigger.
CARE OF THE RIFLE.

The rifle should be thoroughly cleaned before firing, to ensure that the barrel and chamber are free from oil, as an oily barrel will throw the shots high. It must also be cleaned after firing, but should not be cleaned between practices, as it would make the elevation uncertain.

The sights should be black and clean and all oil removed; do not use flannelette in cleaning them, as it makes them "fluffy" and indistinct.

It is advisable to lift out the platform of the magazine when cleaning the rifle, and wipe out with a dry rag.

When blank firing precedes practice with ball, the rifles will be thoroughly cleaned before ball practice commences, particular care being taken to see that no cordite remains in the bore.

The backsight should be kept thoroughly clean, and the slide left at the lowest point on the leaf, as a slight knock will damage it.

When cleaning your rifle be careful to draw the pull-through straight up the bore in one motion, otherwise the spot where the flannelette is allowed to rest will not be properly cleaned, and do not let the cord rest against either side, as by doing so you will in time wear a small groove in the bore, which will cause inaccurate shooting.

Daily Cleaning.—The outside of the rifle should be cleaned daily, and all parts of the action wiped with an oily rag. The bore of the rifle will always be left oily. Once a week this oil will be removed and the bore re-lubricated.

THE SIGHTS.

The sights will be used as issued, without alteration of any kind. They may not be blackened; the browning is renewed by an armourer when required. No additions, marking, or colouring are permitted, nor are orthoptics allowed.
How the line of fire is deflected when using the wind-gauge.

Line of sight.

By taking out the bolt and looking through the bore it will be found at, although the line of sight is directed at the point aimed at, the line of fire points to the right or left, as the case may be.

Keeping elevation when aiming off the mark.

The difficulty in keeping elevation when aiming off the mark can be overcome by keeping the butt of the rifle, or mark, can be seen over the shoulder of the gun sight, and swinging the rifle off the required stance.
POSITION AND RESTS.

In range practices the regulation positions are obligatory except in firing from cover, when the rifle should be rested and the position adapted to the cover. This includes resting the arm as well, if suitable, but the cover is not to be specially constructed as a rest for the rifle, but except when firing from cover, or when rests are authorized, the rifle is to be supported by the arms only.

ELEVATION.

In order to allow for the fall of the bullet it is necessary to direct the line of departure as much above the object to be hit, as the bullet will fall below it if the axis of the barrel of the rifle is pointed at the mark. This raising of the barrel to allow for the curve of the trajectory is termed "giving elevation," for which purpose the sights are placed on the rifle.

The sights should be adjusted for every alteration in the range, and aim taken at the lowest part of the mark.

Always study the atmospheric conditions at the time of shooting, in order to decide what elevation should be used.

It should be remembered that in a dull light the foresight is less distinctly seen than in a good light, and more of it is unconsciously taken when aiming, therefore slightly less elevation is required on a dull than on a bright day.

It should also be borne in mind that the bullet meets with more resistance on a cold day and with less on a hot day.

It will generally be found that more elevation is required on a bright, dry or cold day, or when there is a head wind blowing; on the other hand, less elevation is required, when it is a dull, wet or hot day, or when there is a rear wind blowing, that is a wind blowing towards the target.
EFFECT OF RAISING THE SIGHT.

An approximate effect of raising the sight at various distances is as follows:—

<table>
<thead>
<tr>
<th>Firing Point.</th>
<th>Sight Adjustment.</th>
<th>Rise on Target.</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 yards—</td>
<td>200 to 300</td>
<td>1 ft.</td>
</tr>
<tr>
<td>300 yards—</td>
<td>300 to 400</td>
<td>2 ft.</td>
</tr>
<tr>
<td>400 yards—</td>
<td>400 to 500</td>
<td>3 ft.</td>
</tr>
<tr>
<td>500 yards—</td>
<td>500 to 600</td>
<td>4 ft.</td>
</tr>
<tr>
<td>600 yards—</td>
<td>600 to 700</td>
<td>5 ft.</td>
</tr>
</tbody>
</table>

For alterations of 50 yards half the above.

WIND.

The soldier should be able to discriminate between mild, fresh, and strong winds by the effect which they exercise on natural objects, and to note the direction of the wind as front, rear, right angle, or oblique by turning his face full towards the wind.

A **mild wind** is what is generally regarded as a gentle summer's breeze—say, about 10 miles per hour.

A **fresh wind** is one that would easily blow one's hat off—say, about 20 miles per hour.
A strong wind is one that is nearly half a gale—say, about 30 miles per hour.

The approximate allowance to be made for these various winds, when they are right angle winds, i.e., blowing from 3 or 9 o'clock, should be as follows:

<table>
<thead>
<tr>
<th>RANGE</th>
<th>MILD, 10 MILES per hour</th>
<th>FRESH, 20 MILES per hour</th>
<th>STRONG, 30 MILES per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 yards</td>
<td>2 feet</td>
<td>4 feet</td>
<td>6 feet</td>
</tr>
<tr>
<td>1000 , ,</td>
<td>3 yards</td>
<td>6 yards</td>
<td>9 yards</td>
</tr>
<tr>
<td>1500 , ,</td>
<td>6 ,</td>
<td>12 ,</td>
<td>18 ,</td>
</tr>
<tr>
<td>2000 , ,</td>
<td>12 ,</td>
<td>24 ,</td>
<td>36 ,</td>
</tr>
</tbody>
</table>

For 200 yards allow about 1-5th of 500 yards.

,, 300 ,, ,, ,, ½ of 500 yards.
,, 600 ,, ,, ,, 1½ times 500 yards.
,, 800 ,, ,, ,, 3 ,, 500 ,,

For winds that are oblique the above allowances should be halved.

A variation of one division on the wind-gauge scale is equivalent to 6 inches on the target per 100 yards of range. A ready method of ascertaining the required adjustment is to multiply the number of feet, or fractions of feet, of allowance for wind by two and divide the product by the number of hundreds of yards in the range. The result will be the number of divisions which the wind-gauge must be moved.

A wind from the right makes the bullet strike further towards the left than it would on a calm day, and to allow for this the sight must be moved to the right. If it blows from the left the sight must be moved to the left. Always move the sight against the wind.

The amount that the bullet is blown sideways depends upon the force or velocity of the wind.
and upon the direction from which it blows. The wind-gauge adjustment to allow for this depends upon the same things.

How to aim off to allow for wind.

When no wind is blowing.

Aim is taken at the centre of the lowest part of the mark.

Right wind blowing.  Left wind blowing.

Note.—In aiming off, care must be taken that the aim is carried in a direct line with the bottom of the bull's-eye, and to the right or
It should be remembered however that at long range the allowance for wind is out of all proportion to that necessary at short range.

No alteration of the wind gauge or of the fine adjustment will be permitted in any classification, or standard test practice after the first shot in the practice has been fired.

GROUPING PRACTICES.

Individual grouping is an exercise in firing a series of shots (usually five) at a definite aiming point without alteration of aim or sighting during the series.

The term "group" is used to define the diagram made on the target by the series of shot marks.

The value of such a group is determined by the relative closeness of the shot marks. It is measured by means of rings of various sizes, and points are allotted according to the size of the ring which will contain all the shots, or when specially prescribed, all the shots but one, which is called a "wide shot." When the ring is applied so as to contain all the shots, the point where the centre of the ring falls on the target is regarded as the point of mean impact.

The position of the point of mean impact, with reference to the mark aimed at, has no influence on the value of the group. Its position is, however, of great importance for instructional purposes, because it indicates approximately the error of the rifle and gives information as to any constant fault of the firer.
The groups will be measured with wire rings of 4, 8, and 12 inches diameter, counting 25, 20, and 15 points respectively; 10 points will be allowed for a 12-inch group with one wide shot.

The ring, which will contain all the shots, will be recorded as the measure of the group. A shot is included within a ring when it cuts the circumference of the largest circle which can be described within that ring by means of a pencil held at right angles to the target.

All shot marks found on a target will be included in the group to be measured. No points will be allotted to a group unless there are five shot marks at least on the target.

If more than five shot marks are found on the target there will be no score, and the practice will be repeated.

When the ring is placed to include all the shots, the centre of the ring will be taken as approximately the point of mean impact; its distances from, and direction with reference to the point aimed at will be recorded (e.g., 7 inches, 4 o'clock).

SOME GROUPS AND WHAT THEY INDICATE.

A widely scattered group indicates unsteadiness generally due to lack of determination or to some habitual excess such as cigarette smoking.

A high group usually indicates a tendency to flinch from the shock of discharge or too much foresight.

A group low right indicates that the trigger is jerked by the wrist instead of being pressed by an independent action of the finger, or that the sights are inclined.
A group low left may show that the firer moves his shoulder forward to meet the shock of discharge, or that the sights are inclined.

The instructor should carefully note the positions of good groups as well as bad ones, for some constant error in aiming or fault of the rifle may thus be discovered, which will escape notice in application practice when every shot is signalled and error is attributed to wind or other cause for which allowance is easily made in sighting.

As grouping practices are fired at 100 yards, with sights at 200 yards, the point of mean impact of a correctly placed group should be between 5 and 10 inches above the point aimed at.

ANALYSIS OF FAULTS.

A complete analysis of the faults of the firer and his rifle should be made before leaving the range, and he should be tested until it is found whether the faults are due to his aiming, firing position, trigger pressing, eyesight, or to lack of determination.

The analysis should be made in the following manner:

1. If the rifle is suspected, it should be at once fired under similar conditions by a reliable marksman. Should the marksman also make a bad group, the rifle should be tested and if found "inaccurate" the man to whom the rifle belongs should be allowed to recommence the course with a fresh rifle.

2. If the rifle is proved accurate the soldier's aim should be tested by the triangle of error method.

3. Next test his let-off (or trigger pressing) by means of the aim corrector, causing him to aim and press the trigger at some good aiming mark. The aiming disc may be used for this test.
4. His eyesight may be tested by causing him to read printed matter held at a reasonable distance, and by describing natural objects at medium distances.

5. The most serious fault usually found in this test is lack of determination (no control of nerves) resulting in flinching and gun shyness. This is caused by some habitual excess, such as excessive cigarette smoking, and is the most difficult fault to overcome. Muscle exercises are very useful to increase determination, and rope-climbing and gymnastics are recommended.

APPLICATION PRACTICES.

When a recruit is shown by the result of his grouping to have acquired sufficient skill in aiming, holding, and trigger pressing, he will be instructed in applying his shots to a definite mark. This form of practice, in which aim or sighting is altered as may be found necessary is called Application.

Instruction is given in making allowances for atmospheric influences, chiefly cross winds; but it is not desirable that trifling changes of wind should be met by minute adjustments of the windgauge. The instructor should call upon the soldier to estimate the wind before firing, and tell him the corrected allowance which he is placing on his sights. Subsequent alteration should be unnecessary. Similarly, small errors in elevation should be met by aiming up and down, and not by fine adjustment, though the target must always be kept in view.

Grouping standards are in some cases attached to application practices in order to emphasize the importance of care and consistency in shooting.
SNAPSHOOTING PRACTICES.

In snapshooting practices, not only the exposure of the target but also that of the firer should be limited; strict attention must be paid to positions behind cover, and to firing with the least possible movement and exposure.

Timing in rapid practices should be reckoned from the word of command "Rapid Fire," and fire should be stopped by the command "Cease Fire."

The command "Rapid Fire" should be given as soon as the target appears. The target should be lowered at the end of the time allowed for firing under orders of the officer on butt duty, but the officer superintending at the firing point should also time the practice, and order "Cease Firing" at the end of the time allowed for firing, reckoned from the command "Rapid Fire."

Four points (three points in practices in which the highest value is three per hit) will be deducted for every shot fired after the order to cease fire has been given.

In rapid practices, unless otherwise stated in the instructions for the conduct of the practice, the rifle will be loaded before the target appears.

RAPID PRACTICES.

The timed exposure of targets for snap-shooting and rapid fire practices will be reckoned from the time when the target is in position and stationary, to the time when it is again moved for lowering.

COVER.

In firing from behind cover the position adopted must be such as would enable the firer to obtain the fullest protection from the cover, having due regard to the efficiency of his fire. In the prone position, the grip of the left hand must be main-
tained on the rifle and there must be no undue exposure of the shoulder or legs.

The butt of the rifle will be in contact with the ground, and the firer will remain in observation, but otherwise completely covered, until the command “Rapid Fire” is given in rapid firing practices, or the target appears in “Snapshooting” and “Crossing Target Practices.”

**SNAPSHOOTING IN THE OPEN.**

When snapshooting, or firing rapid in the open, the rifle will be held in the loading or aiming position as preferred.

**INSTRUCTION ON THE FIRING POINT.**

Instruction on the firing point is an indispensable form of Musketry training for young soldiers, but if it leads to continual alterations of sighting to meet errors in shooting the firer is confirmed in his errors, and his faults are only obscured. During the firing the instructor should watch the recruit, not the target, and should insist on being told the probable result of the shot before it is signalled. No departure from correct firing positions should on any account be permitted; the rifle must be gripped, the face kept back from the right hand, and there should be no constraint.

The management of the breathing, and the let-off must be noticed, and the recruit reminded of them continually, so that his mind may be centred on the more important details of shooting, and not on changes of wind or light, with which he will become familiar later.

During instruction practices the instructor will insist on the soldier declaring his point of aim at the moment the rifle is discharged.
# THE MUSKETRY COURSE

**FOR THE**

**AUSTRALIAN IMPERIAL FORCE.**

**PART I.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Target</th>
<th>Practice</th>
<th>Dist.</th>
<th>Rnds.</th>
<th>Instruction</th>
<th>Standard</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2nd Class elementary bulls eye</td>
<td>Grouping</td>
<td>100</td>
<td>5</td>
<td>Lying with rest</td>
<td>5 shots in 12 in. circle</td>
<td>Test of man's let off, accuracy, and consistency; man learns throwing of position of his rifle. If unable to group do not go further firing till fault eliminated.</td>
</tr>
<tr>
<td>2</td>
<td>2nd Class figure</td>
<td>Application</td>
<td>200</td>
<td>5</td>
<td>Lying, slow</td>
<td>5 shots on target or 12 points</td>
<td>Lying most comfortable position to teach men to apply what is learned in 1 and to give confidence.</td>
</tr>
<tr>
<td>3</td>
<td>Do.</td>
<td>Snap-shooting</td>
<td>200</td>
<td>5</td>
<td>Standing firing through loophole from trench or over parapet of logs, sandbags. Exposure 4 secs for each shot.</td>
<td>4 hits on target</td>
<td>Enemy would not take more than 4 secs. to snap shoot at this range.</td>
</tr>
<tr>
<td>4</td>
<td>Do.</td>
<td>Rapid</td>
<td>200</td>
<td>5</td>
<td>Standing in trench, bayonets fixed. Rifle to be unloaded and magazine uncharged until &quot;rapid fire&quot; is given. Time 30 secs.</td>
<td>Score not less than 10 points</td>
<td>Emphasises necessity for quick and clean loading. Cutting down an attack.</td>
</tr>
</tbody>
</table>
### PART II

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2nd Class figure</td>
<td>Application</td>
<td>300</td>
<td>5</td>
<td>Standing taking cover in trench or behind wall.</td>
<td></td>
<td>To teach throw of rifle, &amp;c., at 300 yards.</td>
</tr>
<tr>
<td></td>
<td>Do.</td>
<td>Snap-shooting</td>
<td>300</td>
<td>5</td>
<td>Standing as in 5 but firing through loopholes. Exposure 5 secs. each shot.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Do.</td>
<td>Rapid</td>
<td>300</td>
<td>10</td>
<td>Lying. Rifle to be unloaded until command “rapid fire” is given. Time, 50 secs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First Class figure</td>
<td>Application</td>
<td>500</td>
<td>5</td>
<td>Lying, slow.</td>
<td></td>
<td>To teach effect of wind, &amp;c., at this range and sighting of rifles.</td>
</tr>
</tbody>
</table>
### METHODS OF SIGNALLING

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bull's-eye or figure. For Practice 23, Table &quot;B, Appendix I,” see Note 2, below</td>
<td>Polished metal or white disc placed on shot hole.</td>
<td>4 points</td>
</tr>
<tr>
<td>Inner (remainder of inner circle)</td>
<td>Black disc waved twice across the face of the target and placed on the shot hole.</td>
<td>3 &quot;</td>
</tr>
<tr>
<td>Magpie (remainder of large circle on figure target)</td>
<td>Disc revolved in front of the target and then placed on the shot hole, black side showing.</td>
<td>2 &quot;</td>
</tr>
<tr>
<td>Outer (remainder of target)</td>
<td>Black disc moved vertically up and down the left of the target and then placed on the shot hole.</td>
<td>Remainder of elementary target 2 points. Remainder of figure target 1 point, except in snapshooting practices when the outer is shown as H.</td>
</tr>
<tr>
<td>Ricochet or miss ...</td>
<td>Red and white flag shown on the same side as the direction of the miss. If the direction cannot be determined the flag will be waved across the face of the target.</td>
<td>Nil</td>
</tr>
</tbody>
</table>

Note 1.—The scoring bull's-eye on 2nd class elementary targets is a 12-inch invisible ring.

Note 2.—In Practice 23, Table “B,” Appendix I, a hit on the figure or remainder of inner circle will count 3 points. Hits elsewhere on the target will count as in table above.

Note 3.—When for any reason it is found to be impracticable to send the firers into the gallery after a grouping practice the following signals may be used:—

- Bull's-eye signal denotes a 4-inch group.
- Inner " " 8 " "
- Magpie " " 12 " "
- Outer " " 12 " " with one wide shot.
STANDARD at 100 yards, 5 shots in 12 inch ring; at 25 yards, 5 shots in 3 inch ring.

*Remarks*—This is a test of the man’s let-off, accuracy and consistency; the man learns the throw of his rifle. If unable to group, no further firing should be allowed until the fault is eliminated.

**TARGET, 2nd Class, Elementary Bull’s Eye.**

<table>
<thead>
<tr>
<th>Practice No.</th>
<th>Ammunition</th>
<th>Practice No.</th>
<th>Ammunition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance.....</td>
<td>Position...</td>
<td>Distance.....</td>
<td>Position...</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size of Ring containing Group.</th>
<th>Approximate Distance of point of mean impact from point aimed at.</th>
<th>Position of point of mean impact, with reference to point aimed at.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches. Points.</td>
<td>inches.</td>
<td>6 o’clock.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size of Ring containing Group.</th>
<th>Approximate Distance of point of mean impact from point aimed at.</th>
<th>Position of point of mean impact, with reference to point aimed at.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches. Points.</td>
<td>inches.</td>
<td>o’clock.</td>
</tr>
</tbody>
</table>

Date.......................... Place..........................
Notes..........................

**Notes**
GROUPING.

STANDARD at 100 yards, 5 shots in 12 inch ring; at 25 yards, 5 shots in 3 inch ring.

Remarks—This is a test of the man's let-off, accuracy and consistancy; the man learns the throw of his rifle. If unable to group, no further firing should be allowed until the fault is eliminated.

TARGET, 2nd Class, Elementary Bull's Eye.

<table>
<thead>
<tr>
<th>Practice No.</th>
<th>Ammunition</th>
<th>Practice No.</th>
<th>Ammunition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance</td>
<td>Position</td>
<td>Distance</td>
<td>Position</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size of Ring containing Group</th>
<th>Approximate Distance of point of mean impact from point aimed at</th>
<th>Position of point of mean impact, with reference to point aimed at</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches</td>
<td>Points</td>
<td>o'clock</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
<td>6 o'clock</td>
</tr>
</tbody>
</table>

Date: 11/6/17
Place: Annapolis
PRACTICE 2.

APPLICATION Practice, 200 yards; lying, slow; 5 rounds.

STANDARD.—5 shots on target or 12 points.

Remarks.—The lying position is the most comfortable position to each man to apply what is learned and to give confidence.

Scores. | Notes.
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Total</td>
</tr>
</tbody>
</table>

| 1 | 2 |
| 3 | 4 |
| 5 | Total |

Place........ Date 8/6/1
Wind Allowance......
Light .............
Elevation 200 yds.

Place........ Date........
Wind Allowance......
Light .............
Elevation .............
SNIPSHOOTING.—200 yards, 5 rounds; standing, firing through log hole from trench or over parapet of logs or sandbags. Expose 4 seconds for each shot.

STANDARD.—4 hits on target.

Remarks.—The enemy would not take more than 4 seconds to shoot at this range.

NOTE.—Hits outside the magpie ring are to be signalled as out and have no numerical value, and will be recorded on the register H, signifying hit.

TARGET.—2nd Class Figure.

---|---|---|---
| | | | 

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>16</td>
</tr>
</tbody>
</table>

Place........ Date........ Wind Allowance........ Light ................. Elevation .........
PRACTICE 4.

RAPID PRACTICE.—200 yards, 5 rounds; standing in trench, with bayonet fixed. Rifle to be unloaded and magazine uncharged, until "Fire" is given. Time 30 seconds.

STANDARD.—Score not to be less than 10 points.

Remarks.—This practice emphasises the necessity for quick and neat loading, and cutting down an attack.

TARGET.—2nd Class Figure.

---|---|---|---
[Table with scores and notes, including handwritten entries such as "Place: 1, Date: 3/15/15", "Wind Allowance: --", "Light: --", "Elevation: --"]
PART II.

PRACTICE 5.

APPLICATION PRACTICE.—300 yards, 5 rounds, standing; taking cover in trench or behind wall.

Remarks.—The object of this practice is to teach the man the throw of his rifle, etc., at 300 yards.

TARGET.—2nd Class Figure.

Scores. | Notes. | Scores. | Note
---|---|---|---
1 | 2 | 3 | 4 | 5 | Total | 1 | 2 | 3 | 4 | 5 | Total

Place...... Date........
Wind Allowance......
Light ....................
Elevation .................
PRACTICE 6.

SNAPSHOOTING PRACTICE.—300 yards, 5 rounds; standing, taking cover in trench or behind wall, and firing through loopholes. Exposure, 5 seconds each shot.

NOTE.—Hits outside the magpie ring are to be signalled as outliers, and have no numerical value, and will be recorded on the register as H, signifying hit.

TARGET.—2nd Class Figure.


<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
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</tbody>
</table>

Place........ Date........
Wind Allowance........
Light ..................
Elevation ..........
PRACTICE 7.

Rapid Practice.—300 yards, 5 rounds, lying; rifle to be unloaded until command "Rapid Fire" is given. Time, 30 seconds.

TARGET.—2nd Class Figure.

Scores.

<table>
<thead>
<tr>
<th>Bulls</th>
<th>Inners</th>
<th>Misples</th>
<th>Outers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Notes.

Place: [User-Supplied] Date: [User-Supplied]

Wind Allowance: [User-Supplied]

Light: [User-Supplied]

Elevation: [User-Supplied]
PRACTICE 8.

APPLICATION PRACTICE—500 yards, 5 rounds; lying, slow.

Remarks.—The object of this practice is to teach the effect of wind, etc., at this range, and sighting of rifle.

TARGET.—1st Class Figure.

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<tbody>
<tr>
<td>1</td>
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<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Place... Date...
Wind Allowance...
Light ............
Elevation ........
MISCELLANEOUS SCORES.

To be used for Part 3 if fired.

<table>
<thead>
<tr>
<th>Date</th>
<th>Practice</th>
<th>Distance</th>
<th>Rounds</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
INDIVIDUAL FIELD PRACTICE SCORES.

<table>
<thead>
<tr>
<th>Date</th>
<th>Description of Practice</th>
<th>Rounds Fired</th>
<th>Hits</th>
<th>Remarks</th>
</tr>
</thead>
</table>

Remarks.

...................................................................................................................................
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HINTS ON JUDGING DISTANCE.

Correct judging of distances by eye is of the utmost importance to all ranks in order to know the range when firing. It is impossible to rely on any one method of judging distance, as there is no single method which will suit the varying conditions of light and background.

Distances may be judged by the following methods:

1. The Unit of Measure System.—By measuring the intervening ground with the eye in terms of some familiar unit such as 100 yards, and reckoning how many times this unit is contained in the full distance.

2. Appearance of Objects.—Every soldier should make a careful study of the visibility of the human figure, standing, kneeling, and lying down at known distances, particularly noting—

1. Details of clothing, such as buttons, cap, badges, etc.
2. The distance when the face is no longer seen.
3. When the outline of the body begins to taper.
4. The appearance of the head and shoulders.
5. When the head and shoulders can no longer be distinguished.

Objects are over-estimated—

When kneeling or lying.

When both background and object are of a similar colour.

On broken ground.

In avenues, long streets, or ravines.
When looking over a valley or undulating ground.
When the object lies in the shade.
When heat is rising from the ground.
When the object is only partially seen.
When the object is viewed in mist or failing light.

**Objects are under-estimated—**
When the sun is behind the observer.
In bright light or clear atmosphere.
When both background and object are of a different colour.
When the intervening ground is level.
When looking over water or a deep chasm.
When looking upwards or downwards.
When the object is large.

3. **Using the Foresight.**—The blade pattern foresight covers a man standing at 400 yards, and a man kneeling at about 250 yards.

4. If the bolt is taken out and a glance is taken through the bore it will be found that a man standing just fills the bore at 300 yards, while two men fill the bore at about 550 yards.

5. **By making a maximum and minimum estimate of the distance, and taking the mean for correct. For example—**If the distance judged on is not less than 300 yards, and is not over 500 yards, decide on 400 yards, which is the mean as your estimate.

6. Estimate the distance to some object half way, then double your estimate.
JUDGING DISTANCE

For use at judging distance practice and tests.

<table>
<thead>
<tr>
<th>Date</th>
<th>Estimate</th>
<th>Correct Distance</th>
<th>Error in Yards</th>
<th>P.C. of Error</th>
<th>Estimate</th>
<th>Correct Distance</th>
<th>Error in Yards</th>
<th>P.C. of Error</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>460</td>
<td>250</td>
<td></td>
<td></td>
<td>460</td>
<td>503</td>
<td></td>
<td></td>
<td>75</td>
</tr>
</tbody>
</table>
RESULTS.

Estimates to be recorded in multiples of 50 yards.

<table>
<thead>
<tr>
<th>Correct Distance</th>
<th>Error in Yards</th>
<th>P.C. of Error</th>
<th>Estimate</th>
<th>Correct Distance</th>
<th>Error in Yards</th>
<th>P.C. of Error</th>
<th>Mean percentage of error for four distances</th>
</tr>
</thead>
<tbody>
<tr>
<td>750</td>
<td></td>
<td></td>
<td></td>
<td>650</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


TESTS IN JUDGING DISTANCE.

The tests will be conducted on unfamiliar ground, half of the objects consisting of fatigue men or dummy figures representing skirmishers, and half of natural objects, making fire position, such as would be occupied on service.

The observers will lie down or kneel behind cover and estimates are made by adjusting the sights in multiples of 50 yards and recorded in the register.

Half a minute will be allowed for each estimate, reckoned from the moment when the object is pointed out, or a shot is fired to draw attention to the position of the object.

Errors in judging distance are usually recorded as a percentage of the whole distance.

Men whose mean error exceeds 20 per cent., will be regarded as inefficient.

To find percentage of error of any distance, multiply error by 100 and divide by the correct distance.

Example—Estimated distance, 550; correct distance, 500; error, 50. Percentage of error, \( \frac{50}{100} \times \frac{1}{500} = 10 \) per cent.