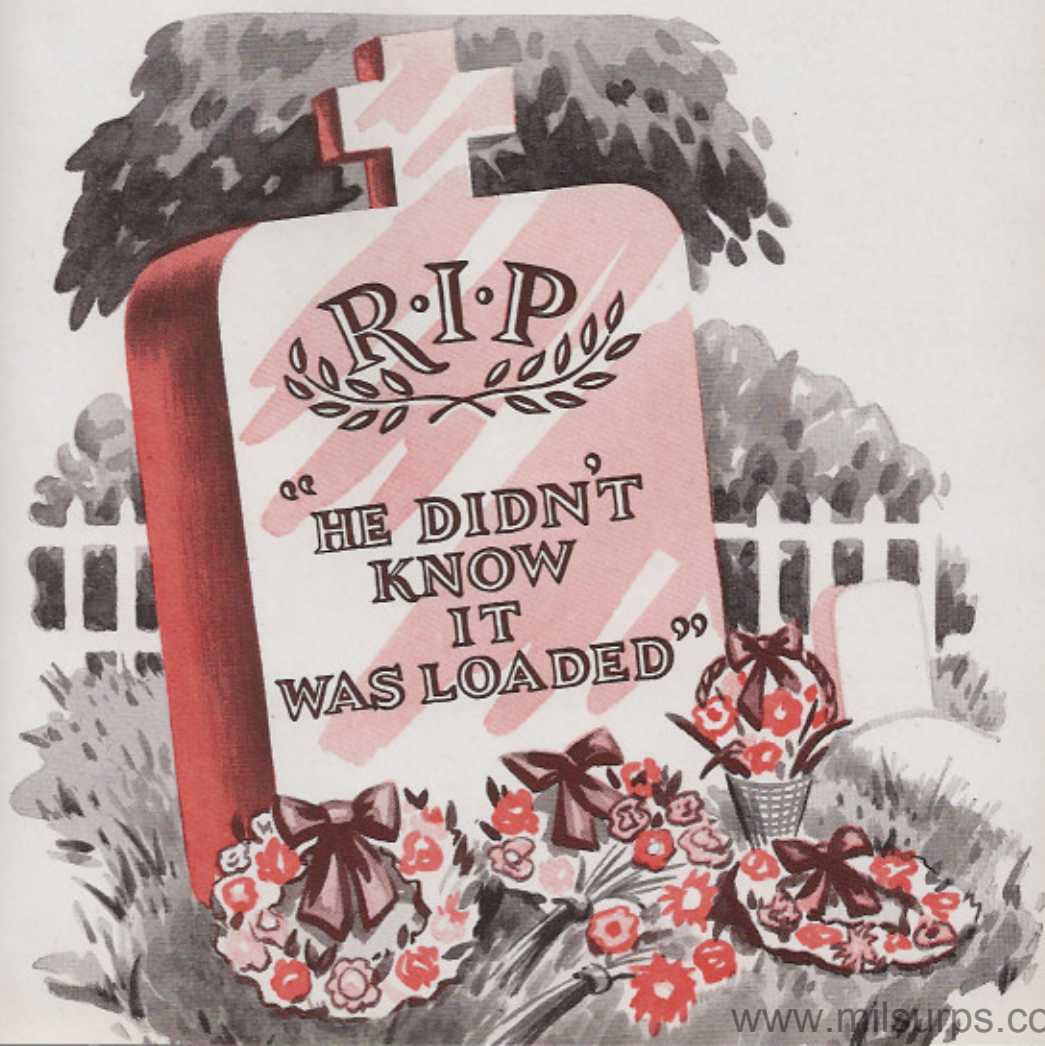


CHAPTER EIGHT

The Range

BY NOW you have skilled your recruit in the essential training of good shooting, as developed through the five basic principles. You have taught him just the same as an athletic coach skills his team in the fundamentals of a game. You, as the musketry coach, are now prepared to put your men to the test of a practice game. Their abilities in this test will indicate their relative abilities for that bigger contest, which is in coming face to face with a ruthless enemy.

Probably your class of recruits won't show it, but they will be extremely keen to get onto the range, whether it be miniature or .303. It is their big moment and deep down inside each one of them there is that sporting instinct which urges them to show you, and the rest of the class, what expert shooting looks like.



THE RANGE—Continued

There will be a few skeptics in the class, who may not be too sure of the results as shown on the targets. They will probably be the members of the class who have had to alter a variety of misapprehensions about their shooting. They have had to learn the hard way to get rid of bad shooting habits.

Just as the baseball or football coach tells his men to "Get out there and play ball", a word of encouragement to your men to "Get out there and shoot top scores", will give them added incentive to produce well drilled bull's eyes. Let them all feel that you are keenly interested in how they perform. Be sincerely their coach.

Your actual teaching of marksmanship has ended but your COACHING has just begun. If you are coaching a boy on the range, do it whole-heartedly. Make sure that you put all your knowledge of good shooting into the job. Later on, instruction will be given as to the correct methods of scoring targets, analyzing them and passing on to the recruits the advice and recommendations which will further improve their musketry skill.

SAFETY FIRST

PROBABLY the most pathetic words ever spoken are those much-too-often used "I didn't know it was loaded." This feeble excuse, after someone has been killed through ignorance or carelessness in the operation of firearms, is on a par with the smart Aleck who rocks the boat, speeds his car recklessly through crowded streets or fools with a light switch while taking a bath.

An Army rifle is no toy. It is a wartime comrade to be respected. No matter how much you care for it, that weapon still deserves the respect you would give to a gallon of nitro-glycerine or a sleeping rattlesnake.

Impress upon your recruit before he goes to the range that accidents are CAUSED. They don't just HAPPEN. Range training will overcome the ignorance that causes accidents and range discipline will deal with the carelessness. The coach must exercise extreme caution at all times by teaching his men the right way of using firearms and then insisting that his lessons are strictly followed. Courts of inquiry are sticky affairs when the rifle coach cannot explain away the fact that he was careless himself by permitting carelessness by his men.

When on the .22 range, no one should be down or near the rifles while targets are being placed or adjusted. Instead, rifles should be left lying upon sandbags and pointing down the range with the bolts OPEN. This is an extra safety measure and should be followed up by prohibiting anyone from touching a rifle while anyone else is in front of the muzzle. Neither should the coach, himself, get in front of the muzzle while adjusting a sandbag. When the CEASE FIRE order is given, all firers must open the bolts of their rifles and remove their hands from the weapons.

When using the .303 range, the coach should insist upon the use of the "pull through" in all rifles to clear out grease and obstructions. Sights should then be carefully cleaned and blackened. The rifle should then be left, with bolts open, upon the sandbags. They should point down the range.

Leave the bolt open until the order has been given to fire. However, if there is a sandstorm at the time of the shoot, common sense should dictate as to the advisability of keeping the bolt open, having in mind, of course, serious consideration of complete and unqualified safety measures.

CHAPTER NINE

Target Analysis

ONE of the most interesting phases of musketry coaching is the ability to accurately read, understand and speak the Language of Bullet Holes. Having taught your recruit the fundamentals of shooting you must be prepared to determine, accurately, the progress which your recruit makes from his targets. Of course, it is the measuring stick upon which you can establish your own ability as a coach.

The Language of Bullet Holes is to good shooting what half-time is to football. The gridiron coach who has sweated it out all week teaching the plays for the big game, uses the rest period midway in the game as the opportunity for a general review of his team's playing style.

While the players suck on oranges and have their damp, grimy faces wiped by the trainers the coach paces up and down the dressing room, praising the good points of the play and correcting the faults he has noted. He wants his team to win during the last half and his knowledge of the game assists him in telling his gridders how to effectively play the last half.

The same applies in shooting. You, the coach, must be able to study the cause for each shot but you must also be able to study the effect. This calls for analysis of your recruit's shooting style as you watch him within the two-foot circle. It also calls upon you to analyze the bullet holes upon the target to determine what steps are necessary for improvement.

This is known as Target Analysis. It is the study of the effect of your recruit's shooting done under your coaching. It provides you with that half-time opportunity to encourage, correct and improve the shooting of your men. It is the time when progress can become startlingly apparent.

All bullets should be clustered in the same small area. Any other kind of shooting is not good enough for the Canadian Army.

The super sleuth of the Metropolitan police department is called to the scene of what appears to be an obvious suicide. The shapely, beautiful blonde body lies on the floor with a Colt automatic in one hand, a suicide note in the other and powder burns on her temple. An odor of alcohol and some cigar ashes on the inner side of a highball glass suggest that she had been given a Mickey Finn. But the whole picture doesn't point to suicide. Expert observation of the clues is needed.



TARGET ANALYSIS—Continued

The crime expert checks up on cigarette butts in an ash tray near the glass. Close to the body are more cigarette butts with a slightly different shade of lipstick apparent than was shown upon those in the ash tray. A flustered smoothy and a hard-faced brunette, whose tears do not seem too real, bemoan the suicide. The detective has quickly observed the peculiar red of the brunette's lipstick. It is different than what is to be seen on the dead girl's lips. And there are cigar ashes on the blue serge vest of the droopy male. So the sleuth blasts the alibis of the pair who had claimed they came into the room to find the blonde dead. He arrested them both because he was able to quickly sum up the evidence before him.

You as the coach of musketry must be the detective of bullet-hole clues. Expert study of a target will provide the opportunity to tell your recruit exactly and scientifically what is wrong with his shooting. You are the crime expert who arrests faulty firing habits. Like a good policeman you are interested in preventing crime and in the Canadian Army poor rifle shooting IS A CRIME.

Go to your family doctor with an illness and he will test your pulse and then ask you to open your mouth and say "Ah!" While he is peering into your mouth he is checking the clues to ascertain your illness whether it be measles, tonsillitis, vitamin deficiency, lead poisoning, scarlet fever or one of a hundred other ailments.

When the doctor has diagnosed your case he starts to prescribe a cure. Mr. Instructor, you are not only a detective but also a doctor of shooting ills. By curing your recruit's musketry ailments you are going a long way towards saving his life. You will show him how to shoot more accurately and confidently and his morale will be good because he will learn that he can out-shoot and whip any enemy he encounters.

Thus the stress upon detecting and curing shooting ills in the early stages of training becomes a matter of major importance. If your recruit can leave your course as a crack shot because you were able to correct his mistakes, you have done a good coaching job.

Note the targets reproduced, opposite. You will see that in the upper target five bullets are in a scattered area. Yet the coaching given the soldier on this course was responsible for a great decrease in the group area on his second target.

The coach showed progress, too, because he got what he was after from his pupil—tangible decrease of the area of bullet hole groups. But his efforts would have been wasted if he did not point out this startling progress to the pupil. If the pupil can see his own progress toward perfect marksmanship by means of coaching, then he is inspired.

The psychological value of showing your recruit this tangible progress can never be over-stressed. Don't overlook, either, that these decreasing groups show the degree of your coaching ability and progress, too.

Note:

For future reference, all the bullet groups reproduced on the following pages, were selected at random from fired official 9-c targets.

TANGIBLE PROGRESS

CANADA, JOE

15

ACTUALITY

CAPABILITY

BEFORE

TARGET No. 2

25

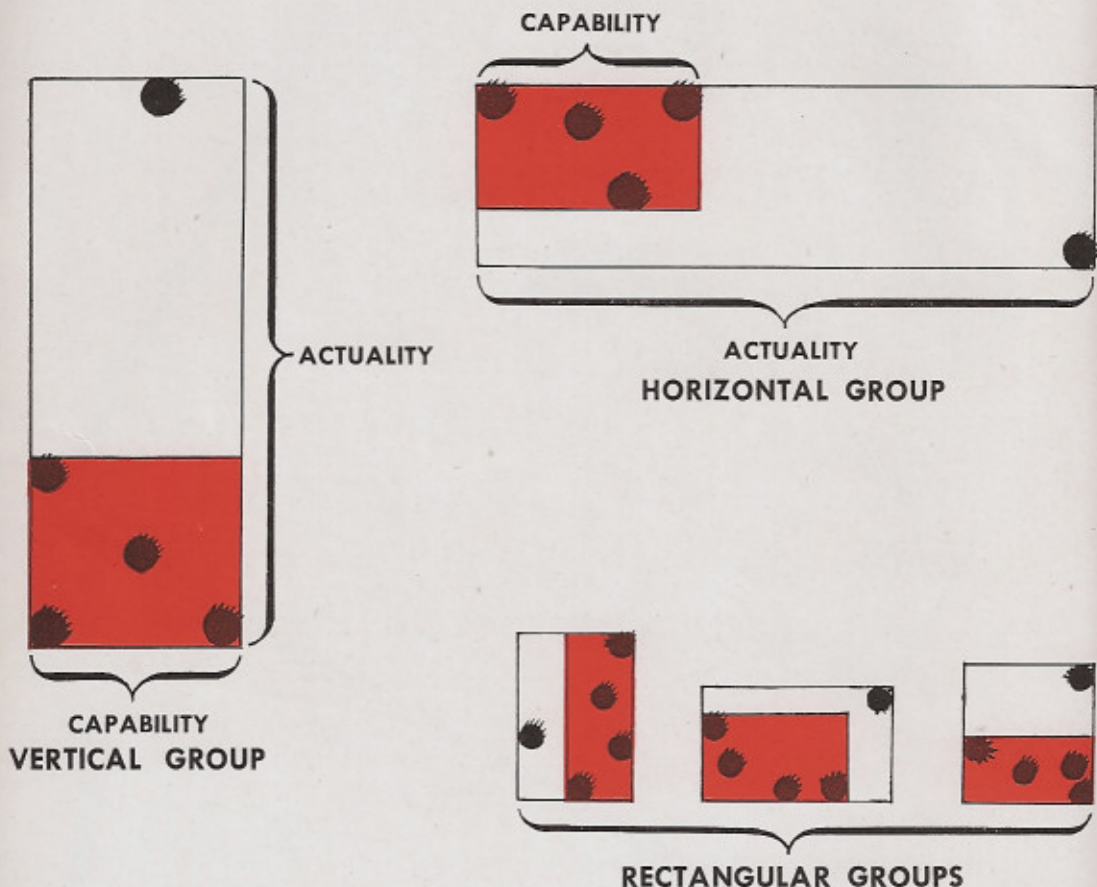
CAPABILITY

ACTUALITY

AFTER



SHAPES OF BULLET HOLE GROUPS



TO DIAGNOSE the shooting ills of your recruit the clues must be taken in logical order. Let us assume that you have your recruit's target before you. Place the cluster of five shots (it is to be hoped he got all five shots on the target) within a pencilled enclosure. Taking the outer edges of the outer bullet holes as guides, draw a square or rectangle so that its top and bottom are parallel with the top and bottom of the target card and the sides parallel with the sides of the card. Triangles or other irregular shapes will not suffice. You will have noted how this was accomplished on the two targets shown on page 173. The rectangle or square should enclose the five shots.

If the bullet holes are in a vertical line, the group will be vertical. If they are in a horizontal line, the group will be horizontal. If scattered around horizontally and vertically the group should be close to square. It may be perfectly square or it may be slightly higher than wide or wider than high.

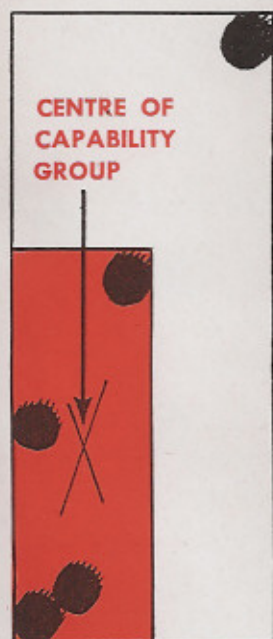
SHAPES OF BULLET HOLE GROUPS—Continued

VERTICAL
GROUP SHOWS

**GOOD TRIGGER SQUEEZE
POOR ELEVATION**

The rectangle formed by your lines now represents the actual shooting of the recruit. It is his first or ACTUALITY group. Let us assume that he had a vertical group of actuality shots. (Figure 1, below). What happened?

One or several of the following faults prevailed:—



1. *Varying position of butt upon the shoulder.*
2. *A low vertical triangle.*
3. *Failure to focus upon the front sight.*
4. *Incorrect eye distance to the back sight.*
5. *Lack of aiming precision.*
6. *Sight picture varied.*
7. *Faulty pre-firing breathing.*
8. *Position of left elbow wrong.*
9. *Varied backward pressure.*
10. *Varied head pressure.*
11. *Poor follow through.*

FIG. 1

WAS THIS THE BOY YOU TAUGHT?

Did he have all or any one of these faults?

Whatever he has done wrong enough to give him this score can be blamed upon YOU, Mr. Instructor. You did not discharge your responsibility to him. That rosy-cheeked kid is going out to fight an enemy and you haven't told him how to do it. You can't bawl him out nor get angry with him. The recruit cannot be blamed if he has trouble in learning.

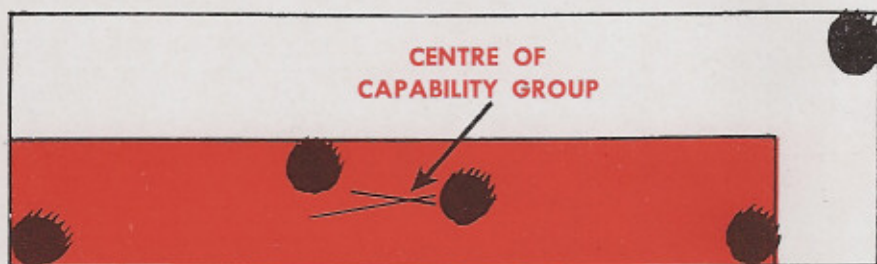
Take that boy out, alone, and try to find his mistakes and then correct them. Make sure that the next time he fires at a target he will bunch his shots in an area the size of a dime.

SHAPES OF BULLET HOLE GROUPS—Continued

Supposing, that instead of the vertical group shown on Page 175, your recruit shot a horizontal one as shown below. What happened there? You, as the coach, will immediately be able to judge that he had a good elevation (lacking in the vertical group) but that his Trigger Control was faulty. One, or several of the eleven most common errors in red, below, were to blame.

HORIZONTAL
GROUP SHOWS

GOOD ELEVATION
POOR TRIGGER SQUEEZE



1. *High vertical triangle.*
2. *High right shoulder.*
3. *Wandering front sight.*
4. *Holding the rifle with muscular effort instead of resting it upon the bones.*
5. *Jerking the trigger.*
6. *Hurried trigger squeeze.*
7. *Movement of the right elbow.*
8. *Varying chin pressure.*
9. *Lack of aiming precision.*
10. *Faulty automatic alignment.*
11. *No stability of position.*

It is possible that your recruit, however, shot a group that is rectangularly close to being enclosed within a square. This shows a co-ordination which combined the five basic principles of good shooting in approximately the same manner for five successive shots. See the groups shown on the opposite page.

IF GROUP CAN BE COVERED WITH . . .	THE CO-ORDINATION IS . . .
1. A DIME	EXCELLENT
2. A POSTAGE STAMP	GOOD
3. SMALLER THAN ONE HALF A PLAYING CARD	FAIR

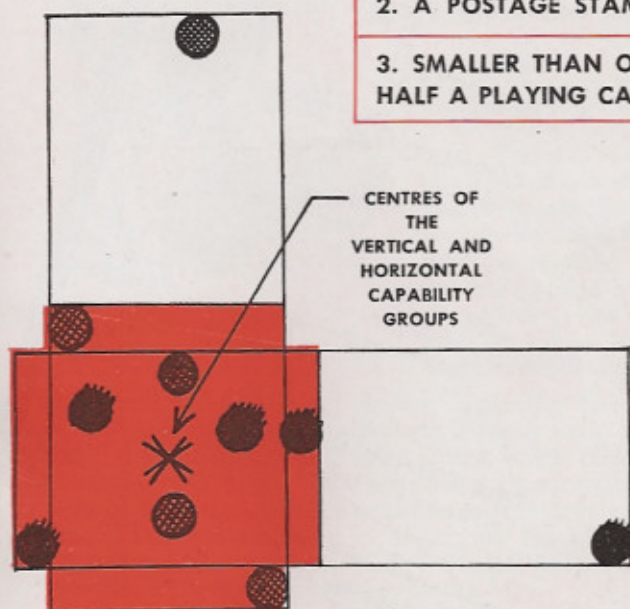


FIG. 1

SHAPES OF BULLET HOLE GROUPS—Continued

The size of that rectangle or square (see Figure 1, above) shows the extent to which the co-ordination has prevailed. For instance, if the cluster of five bullet holes can be covered by a dime your recruit has excellent co-ordination. If a postage stamp (not air mail) will cover all five holes, the co-ordination is then good but could be improved. If the cluster requires half a playing card or better in order to be covered then the recruit has shown NO CO-ORDINATION.

By now you have considered the actual shooting performance of your recruit and have selected and narrowed down the clues or shapes of three groups of actualities. Now draw another box within the first one with its sides parallel to the sides of the first enclosure. This new box will enclose the four most closely-clustered shots, within the smallest possible area. (See Figure 1, again).

This enclosure will show the kind of shooting of which your recruit is capable and is known as the second or CAPABILITY group. You cannot complain, too much, if he got four shots away and only one went astray.

The detail of this most important Group is contained in the subsequent sub-topics of this chapter. Samples of these groups have been shown in all the targets heretofore portrayed in Target Analysis.

SIGHT CORRECTIONS AND M.P.I.s

TARGET No. 1

CANADA, JOE

ACTUALITY

CAPABILITY

M.P.I.#1

M.P.I.#2

SIGHT CORRECTION
1¼" Down 1¼" Left

BEFORE
SIGHT CORRECTION

TARGET No. 2

CANADA, JOE

M.P.I.#2

M.P.I.#1

SIGHT CORRECTION
NIL

AFTER
SIGHT CORRECTION

SIGHT CORRECTION



YOU now see, on target No. 1, opposite, that the cluster of four capability shots is above and to the right of the centre of the target, where the recruit aimed. What caused this?

It is probable that the sights of your pupil's rifle have not been adjusted to fit him. You will recall that under "Eyes and Aiming" it was stressed that no two people see precisely the same. The armourer may be satisfied that the rifle will fire perfectly true yet neither you nor your recruit can get the precise results you both want from it because it has not been fitted to either of you. In other words, the recruit's shots are not striking the bull's eye.

To correct the sights so that the Capability Group (and we hope all five shots) on his second target will come directly upon the aiming mark, it is well to find the Mean Points of Impact of the bullet clusters in both the Actuality and Capability Groups. This is done by drawing diagonal lines from opposite corners of the rectangles or squares so that they just meet and cross in the centre. Thus you are able to determine the EXACT centre of each group and this is called the MEAN POINT OF IMPACT. This point will be referred to hereafter in text and drawings as the MPI.

If you will refer to Target 1, you will see that the MPI of the Actuality Group, shown as MPI No. 1, has been determined as well as the MPI of the Capability Group, shown as MPI No. 2. The latter one shows the more accurately determined shooting ability of the recruit, thus a dotted line is placed so that it will show the direction and extent of the required correction of the sights. On Target No. 1 you will see that it extends downward to a point opposite the object of aim and then at right angles to the left until it reaches the centre of the aiming mark. Target No. 2 shows how the sight adjustment has brought the group downward and over onto the aiming mark, with a corrected rifle.

This dotted line known as the Sight Correction Line is of much value to the armourer or instructor in adjusting the sights of a firer's rifle so that it will shoot accurately. In other words, the sights have been adjusted to fit the eyesight of the recruit.

It is discouraging for the recruit to find that no matter how closely clustered his shots are, they are far from the object which he wants to hit. He naturally feels that he has not made the progress he wanted because every recruit wants to put the bullets dead in the centre of the target. He never loses his desire to register right on the bull's eye.

If his shots are not in the bull's eye he will believe that his rifle is not shooting accurately and thus he will endeavour to compensate for this difference by guessing at an imaginary aiming point, in the hope that the bullets will land on the bull's eye. He will not develop this off-aiming bad habit if he can be assured that correct adjustment of his rifle's sights is the cure for a wayward bullet cluster.

CALL AND CHECK CARD

THE box score of your recruit's shooting is all shown on his target and on his Check and Call Card which is kept by the coach. Note the illustration of the card at the bottom of the opposite page.

This card is used by the coach as he lies in proper position alongside his pupil so he can view the recruit's shooting within the two-foot circle. It assists appreciably in reading the story each bullet hole tells. The card shown here deals with an actual target which will be analyzed as an illustration.

Under the column headed "No." list the number of shots as 1, 2, 3, 4 and 5. Under the heading "Call" the coach will show, for each shot, in the circle under "Diagram" the location of the bullet hole on the target as called by the firer. If the firer is observant of the performance of his front sight as taught in "Calling the Shots" he will be able to fairly accurately tell where each shot landed on the target. Under the sub-heading "Letters" the coach will correspondingly duplicate each "Call" by the firer. He will do this by using the abbreviations "Lo" for low, "C" for centre, "Le" for left, "H" for high, "R" for right and a question mark "?" for instances in which the firer has not known where his shot went. This is usually a fair indication that the firer flinched or blinked and hence guessed as to where his shot went.

The column headed "Check" is used by the coach to insert the usual "V-shaped check-marks of agreement when the call and the coach's diagnosis as well as the target result, all agree. An "X" under this column would indicate a disagreement between what the firer thought happened and what actually occurred.

In meeting this condition, it is usually best to deal with the positive clues first and then by continuing the elimination, deal with the questionable ones.

It is recommended that the check column be at the extreme right end of the card in order to facilitate checking but, of course, if the diagram shown in the accompanying sketch and also shown on distributed musketry training charts is preferred, it can be used.

The column "Observations" provides the space for the coach to write a cryptic but running commentary of notes on the recruit's performance as viewed in his proper position alongside him. It is what the coach can report as having seen within the two-foot circle. These observations are the play-by-play notes which accompany the box score and describe what happened and gives your own expert opinions and clues of why each shot went where it did. This card is a most valuable aid when analysing targets.

CANADA, JOE

TARGET No. 1

BEFORE

SIGHT CORRECTION
1½" RIGHT 1¼" DOWN

OBSERVATIONS

No	CALL		CHECK
	DIAGRAM	LETTERS	
1	○	C	X
2	○	H	✓
3	○	L	✓
4	○	C	✓
5	○	L	✓

FORGOT CHIN PRESSURE —
TRIGGER CONTROL FAST, JERKY
VERY LOW VERTICAL TRIANGLE-STRAINED —
HOLDING WITH MUSCLES
QUESTION CALL-BREATHING FAULTY
GOOD BREATHING AND TRIGGER SQUEEZE —
CO-ORDINATION FINE
COMPLAINED OF FORE SIGHT MOVEMENT —
TIRED-TRIGGER SQUEEZE HURRIED

* It is recommended that the check column be at the extreme right end of the card in order to facilitate checking, but if the diagram shown on distributed musketry charts is preferred, it may be used.

MEASURING BULLET HOLES

THERE are four classes into which a bullet hole may be graded. The coach who is analyzing a target must be able to appraise the value of each bullet hole quickly, because it is vital in showing the progress of the recruit.

In measuring or grading bullet holes, the Actuality and the Capability Groups must be outlined and their MPI's determined. Then an average-sized lead pencil can be horizontally laid upon the target so that it covers the MPI No. 2. It should be so placed that it rests parallel with the top and bottom of the group outline. This horizontal pencil provides for the measurement of the shots for Elevation. The bullet holes which are now beneath the pencil, either wholly or partially, or those which touch the pencil, can be graded as having EXCELLENT elevation. Note Figure 1, opposite.

Those holes which are the width of one bullet hole away from the pencil are rated as having GOOD elevation. Those two or three bullet holes from the pencil have FAIR elevation and all others have POOR elevation.

Checking for Trigger Control you merely place your pencil vertically upon the MPI No. 2 so that it is parallel with the sides of the Capability Group outline. The value of the shots from the standpoint of Trigger Control can now be measured in the same manner as was done for Elevation.

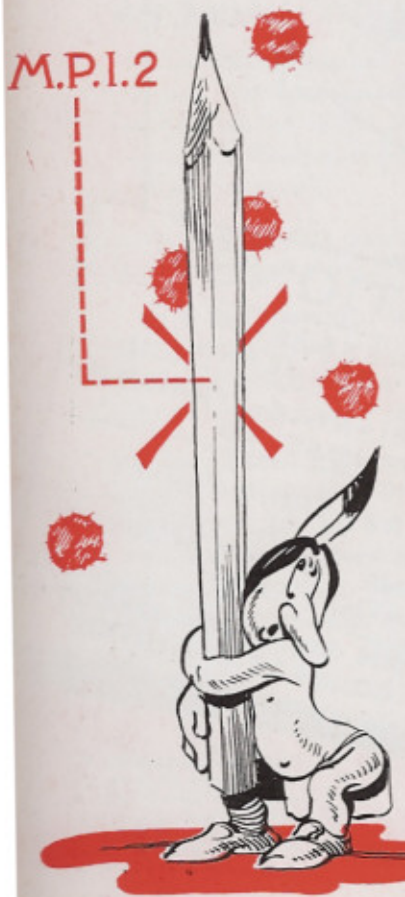
Figure 2 is the same target as in Figure 1, and an examination of the bullet holes shows Shot 1 as being partially beneath the vertical pencil establishing it as EXCELLENT for Trigger Control but as it is the width of one bullet hole away from the horizontal pencil (Figure 1) its elevation can only be graded as GOOD.

Shot 2 touches the horizontal pencil and thus has EXCELLENT elevation but as it is the width of one bullet hole to the right of the vertical pencil its Trigger Control is rated as GOOD.

Shot 3 is two bullet holes below the horizontal pencil and two bullet holes to the right of the vertical pencil thus it is classed as FAIR for both Trigger Control and Elevation.

Shot 4 is similar because it is in the opposite corner of the Capability Group having three bullet holes between it and the horizontal pencil thus placing it in the FAIR category for both Trigger Control and Elevation.

Shot 5 is definitely the "Orphan Annie" of the group. It is a stray which is more than three bullet holes from either pencil position and thus grades POOR for both Trigger Control and Elevation.



MEASURING BULLET HOLES

FIG. 1

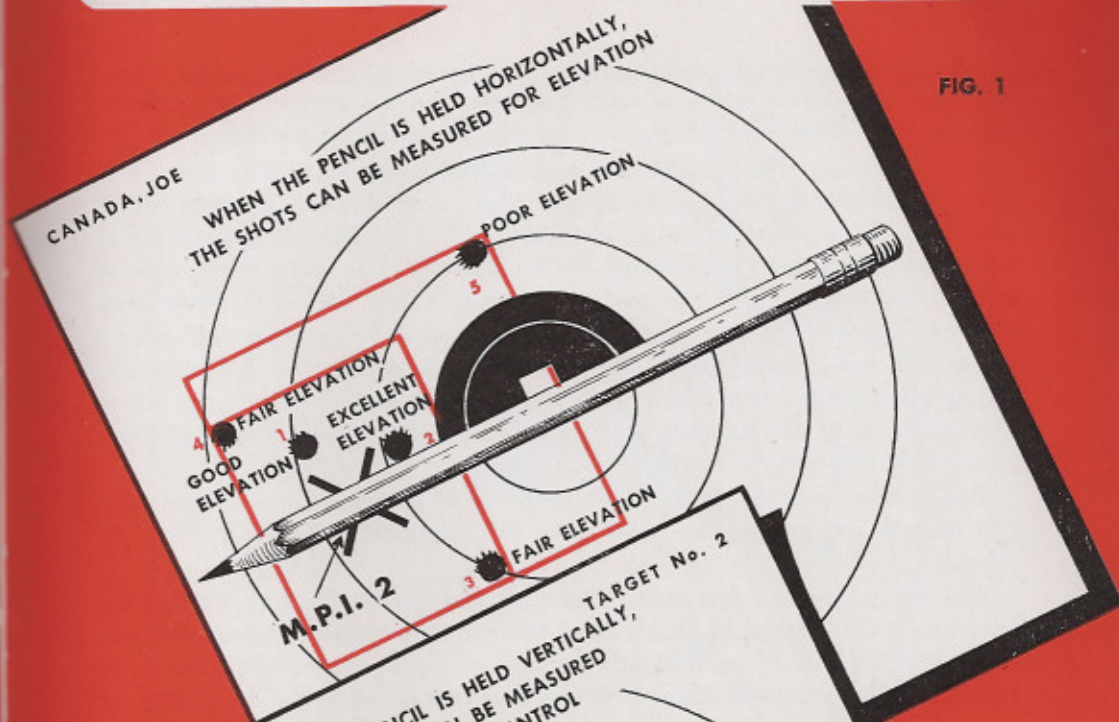
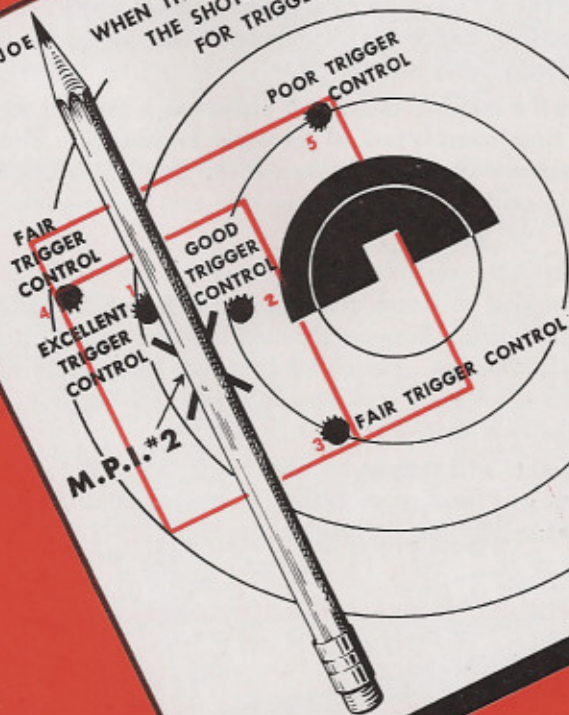


FIG. 2



NUMBERING THE SHOTS

EACH bullet hole tells its own story. It is the chapter which, when joined with the stories of the other bullet holes individually and collectively, provides the entire book of clues to the recruit's shooting performance.

You have shown the tangible progress of decreasing areas of groups. You have determined the general faults from the group shapes. In other words you have shown whether faulty elevation or trigger control were the predominant difficulties encountered by the recruit. You have taken care of the sight correction of the rifle and you have kept your Call and Check Card.

If you will refer to the illustration on the opposite page, you will note a target with five bullet holes. The first step to take after the Actuality and Capability Groups with MPI's have been shown and the sight correction line drawn, is to determine which bullet hole represents the first shot fired, which hole represents the second shot and so on.

This is done with the invaluable assistance of your Call and Check Card and of your grading of the bullet hole as "Excellent", "Good", "Fair" or "Poor".

Now let us find the first shot. The Call and Check Card shows that the firer only called one shot "High" and that was his second where there was faulty holding and a low, unsteady vertical triangle. Accordingly the high, right bullet hole outside of the Capability Group is the likely No. 2, and for want of positive clues the No. 1 shot has been temporarily passed by.

The firer called his third shot "Low" and the coach noticed faulty breathing which might cause it to be low, hence the shot shown in the lower left corner of the Capability Group is obviously Shot No. 3.

One shot was called to the left and the coach observed a hurried squeeze of the trigger while the firer complained of foresight movement. The only remaining shot which answers all of these clues is the one at the upper left corner of the Capability Group and the matching call and observations list it as Shot No. 5.

The two remaining bullet holes must be the first and the fourth. Both were called as "Centre" but the first shot was questionable because of faulty chin pressure and trigger control while the coach noted that the firer performed well nigh perfectly on his fourth shot. Hence his clues are reasonable enough to mark Shot No. 4 as the one which was closest to both the horizontal and vertical pencils. It was the best shot.

Only one shot now remains and it must be Shot No. 1, and to prove it, the observations listed when it was fired recorded faulty trigger control and chin pressure which could reasonably place it well to the right.

CANADA, JOE

TARGET No. 1

BEFORE

SIGHT CORRECTION
1½" RIGHT 1¼" DOWN

M.P.I. 2

M.P.I. 1

OBSERVATIONS

FORGOT CHIN PRESSURE —
TRIGGER CONTROL FAST, JERKY
VERY LOW VERTICAL TRIANGLE-STRAINED-
HOLDING WITH MUSCLES

QUESTION CALL-BREATHING FAULTY

GOOD BREATHING AND TRIGGER SQUEEZE-
CO-ORDINATION FINE

COMPLAINED OF FORE SIGHT MOVEMENT-
TIRED-TRIGGER SQUEEZE HURRIED

* It is recommended that the check column be at the extreme right end of the card in order to facilitate checking, but if the diagram shown on distributed musketry charts is preferred, it may be used.



THE LANGUAGE OF BULLET HOLES

WITH the bullet holes numbered and matched with the Call and Check Card clues, it is now your duty to diagnose your recruit's shooting difficulties and show him the steps that are necessary to bring his shots closer as possible to the MPI No. 2.

You do not have to worry about the fact that these shots are not on the bull's eye, because sight adjustment will take care of that. It is more important now to get all the shots clustered together in the smallest possible area around the MPI No. 2.

You can do this effectively by marking the criticism and advice for each individual shot alongside each bullet hole. This advice is determined from your observations of the recruit as he fired his group and as you recorded them upon the Call and Check Card under the column marked "Observations". His call of the shots will further assist you.

Make this criticism and advice with fairness, so that you can encourage your recruit to eliminate the faults that are apparent. Be absolutely certain that you have diagnosed his faults correctly and that you have prescribed the correct medicine.

Don't guess at your analysis of each shot. You are not a crystal gazer. You must rely **SOLELY** upon **FACTS** and **FUNDAMENTALS**. You cannot shoot by guesswork and neither can you analyze targets and shooting with anything other than cold, sound, logical, scientific, reasoning.

ENCOURAGEMENT AND ADVICE

THERE would be little value to analysing targets unless the results of the analysis could be passed along in some form to the recruit whose target is under review. Thus, there are two phases in which the analysis can effectively be presented to the firer. One is Encouragement and the other is Advice. Both must be fair, sincere and merited.

The recruit who looks at a target similar to that shown in the target opposite is apt to be very disappointed. He is of the opinion that his No. 4 shot was the only one that was close enough to the aiming mark and that the others were all the result of very bad shooting.

Your analysis of his group should reverse this viewpoint and as his surprise gives way to an appreciation of the logic of your analysis, he sees that his shooting was not so bad after all; that with sight adjustment he can get his five bullet holes closer to the aiming point; that if he follows the five basic principles, which you so carefully taught him, he can put all five shots in the centre of that aiming mark. You have captured not only his determination to shoot better, but you have shown him that he is capable of better shooting than he at first believed.

ENCOURAGEMENT AND ADVICE—Continued

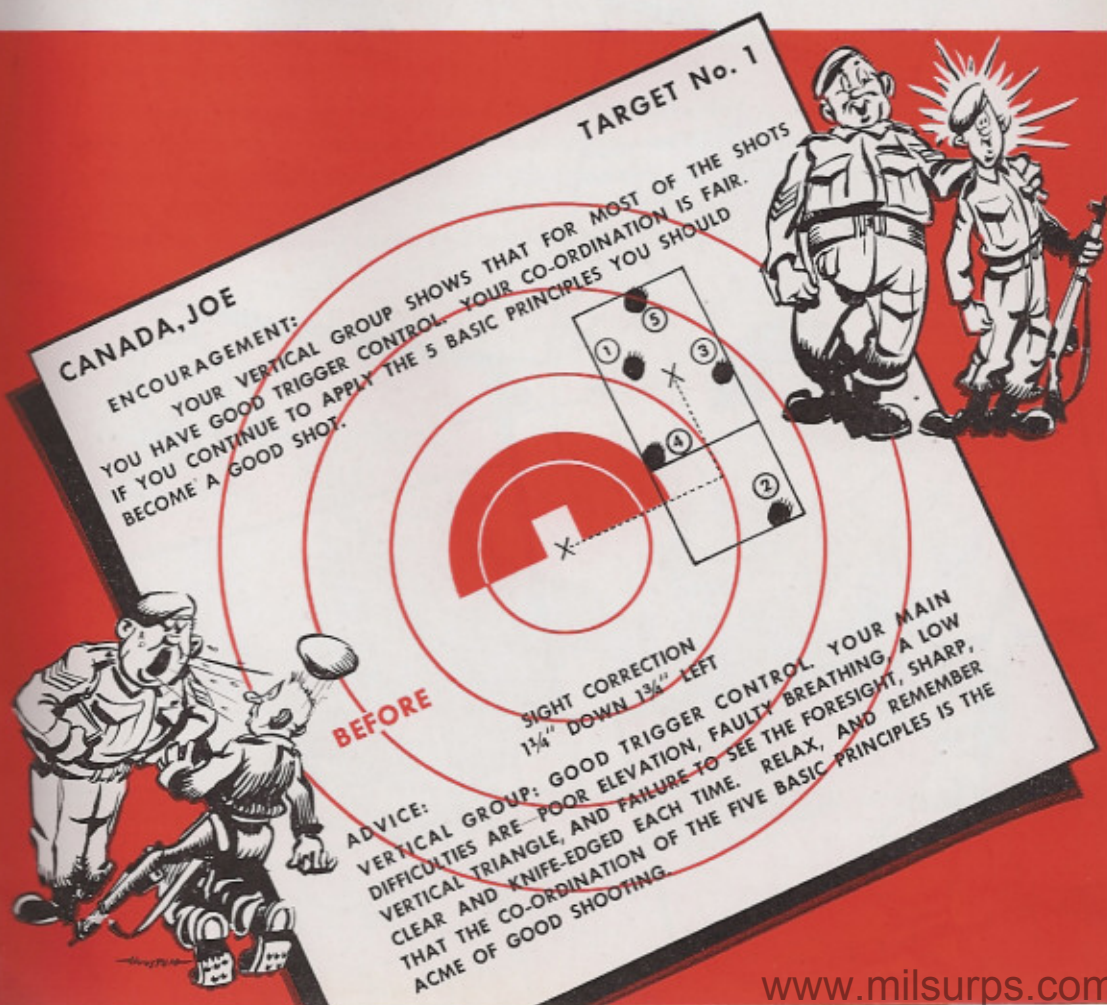
But you have to go further. The way you have marked up his target gives him a small ray of hope that you are trying to help him. Words of Encouragement at the TOP of his target will condition his viewpoint so that he will be more receptive to the advice which you will offer later.

Note the Encouragement which was placed upon this target (below) and remember that this was an actual target picked at random from those turned in by a musketry class, and copied for reproduction here with only the name changed.

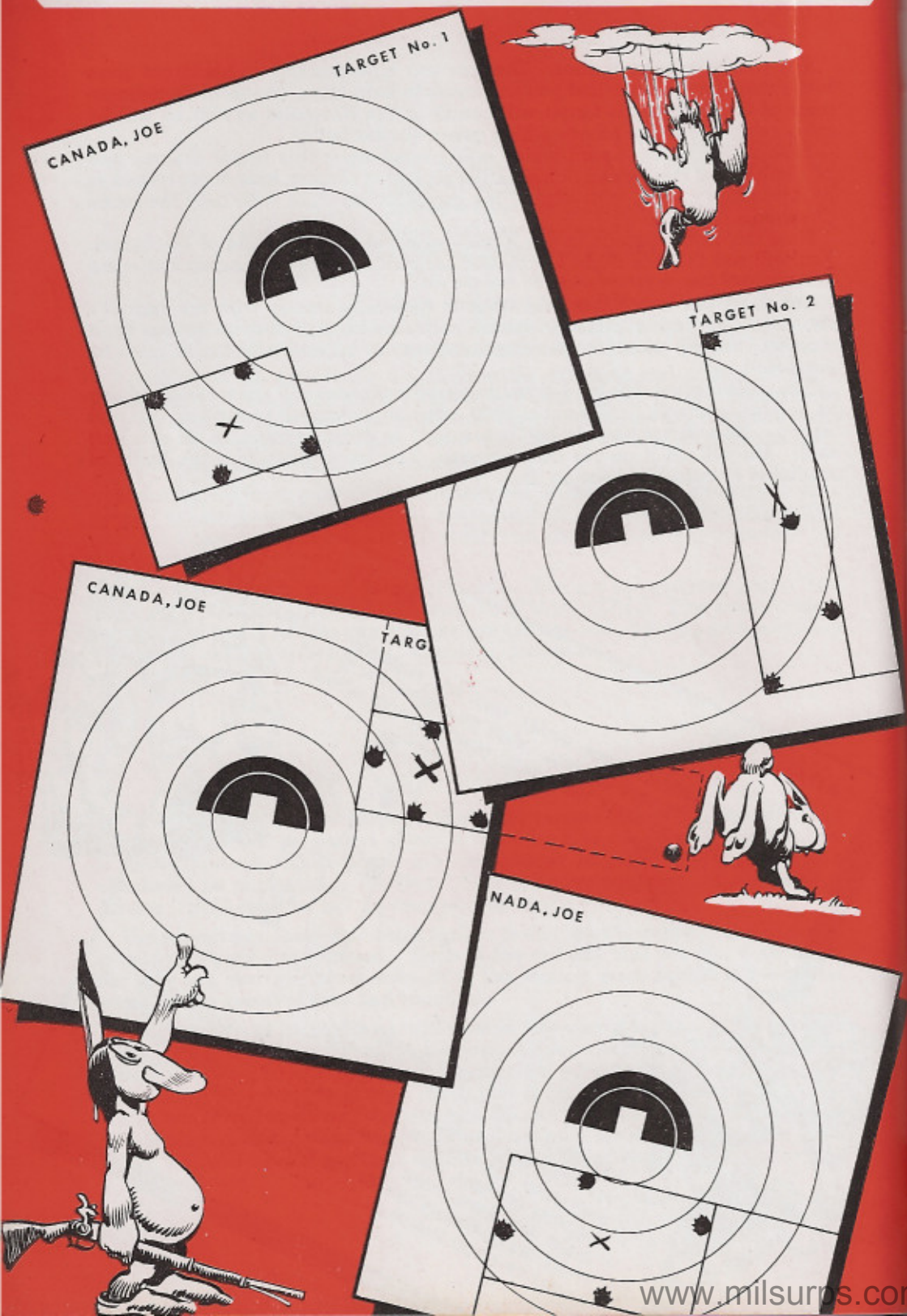
Note too, the approach in the Advice given at the BOTTOM of the target. You will see that the Sight Correction instruction to the armourer has come first.

Secondly the coach has told what is generally wrong with the recruit's shooting style and in pointing out errors has not belabored them but has dealt directly, adding sensible recommendations as to how the faults may be corrected.

The soldier given this kind of personalized treatment will accept such advice as helpful, and will, in 999 out of 1000 cases apply himself to correct what was wrong. He will not have to be "pressured" in order to improve his shooting skill. He will do it on his own accord. You have given him the bottle of medicine to cure his shooting ills.



HOW TO DEAL WITH FOUR SHOT TARGETS



HOW TO DEAL WITH FOUR-SHOT TARGETS

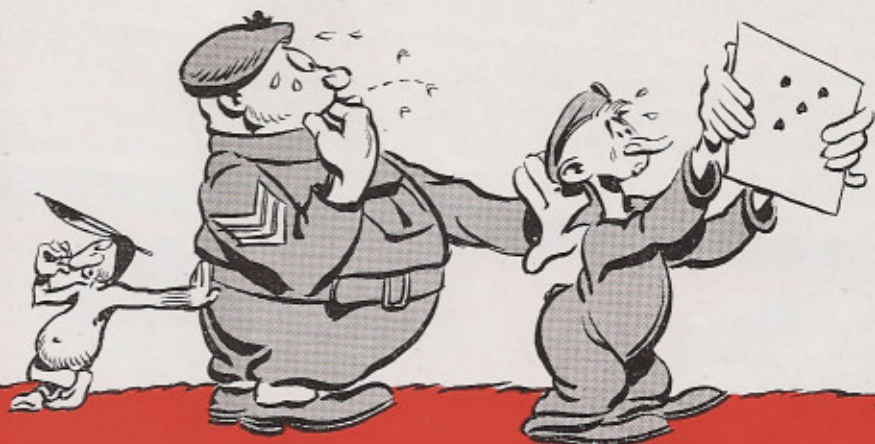
ONE of the saddest men on any range is the unfortunate soldier who fired five bullets but only four of them registered upon the target. He is apt to take a joshing from his friends, just at a time when he was hoping that he had fired a good group.

The smart coach will act quickly in cases of four-shot targets, to insure that a maximum of encouragement is given. This is usually done by taking the utmost advantage of all the known factors revealed upon the target.

It will be noted in the four-shot targets reproduced on the opposite page, that the direction taken by the stray bullets cannot be determined, hence the analyst has given the recruit, in each case, the full benefit of as small a Capability Group as possible.

He has done this by establishing the Capability Group and then extending two edges of that group until they meet the edge of the target to thus form the smallest determinable Actuality area. In this way, the recruit's actuality group is kept at a minimum size and the capability group is still workable, just as it was on five-shot targets.

However, it must be remembered that this method will *not* be sufficient for targets that have anything less than four shots, because three or less bullet holes will not permit the drawing of square-sided groups which are essential for the determining of MPI's for sight correction and to illustrate to your recruit the diminishing areas of his bullet-hole groups.



THE COMPLETED STORY

CANADA, JOE

TARGET No. 1

ENCOURAGEMENT :

YOUR CO-ORDINATION IS FAIR, AND THE RECTANGULAR GROUP SHOWS THAT YOU HAVE MASTERED BOTH ELEVATION AND TRIGGER CONTROL TO A CERTAIN DEGREE. YOUR CAPABILITY IS ONLY HALF THE SIZE OF YOUR ACTUALITY NOW, AND IF YOU CAREFULLY FOLLOW THE ADVICE GIVEN BELOW YOU SHOULD SHOOT A POSSIBLE NEXT TIME

BEFORE

ADVICE :

WATCH YOUR VERTICAL TRIANGLE, YOU HAVE A HABIT OF LETTING YOUR LEFT ELBOW SLIP OUT FROM UNDER THE RIFLE TAKE GREATER CARE WITH YOUR FOLLOW THROUGH, AND WATCH THE FORESIGHT RELAX, CO-ORDINATE ALL 5 BASIC PRINCIPLES.

SIGHT CORRECTION
2 1/4" UP 1 3/4" LEFT

M.P.I. 2

WORST SHOT
GOOD TRIGGER CONTROL
POOR ELEVATION
LOW VERTICAL TRIANGLE

GOOD ELEVATION
GOOD TRIGGER CONTROL
WANDERING FORESIGHT
HURRIED TRIGGER SQUEEZE

BEST SHOT
EXCELLENT TRIGGER CONTROL
EXCELLENT ELEVATION
CO-ORDINATION PERFECT

ACTUALITY

M.P.I. 1

CAPABILITY

GOOD ELEVATION
FAIR TRIGGER CONTROL
NO CHIN PRESSURE

GOOD ELEVATION
FAIR TRIGGER CONTROL
BREATHING, LACK OF AIMING PRECISION



THE COMPLETED STORY

PLEASE observe the illustration on the opposite page. It is the target as analyzed and the Encouragement and Advice have been given. It has been pretty badly marked up but it is the completed work. Probably nothing in the term of service of the recruit has surprised him more. It has awakened latent determination to go out and do a better shooting job next time.

If you have analysed the target properly you have placed a boy on the right track toward expert marksmanship. From here on it is pretty much up to him to succeed or fail. He won't do the latter if your course has given that steady, interesting, encouraging build-up for this moment.

Your treatment of his first target will convince him that you have an interest in him. The adjustment of his rifle's sights assured that.

When he comes to his second target he will find that he is putting the bullets right around the Point of Aim and if, as in the case of the soldier who shot this target, he squeezed the trigger the same, slow, steady way for each shot; kept his position and used bones instead of muscles to support his rifle; kept the same backward and chin pressures; breathed the same for each shot; kept the same eye distance from the back sight; focussed upon the front sight and did not blink nor flinch and at the same time exercised follow through, his second target will look like the target shown on page 192.

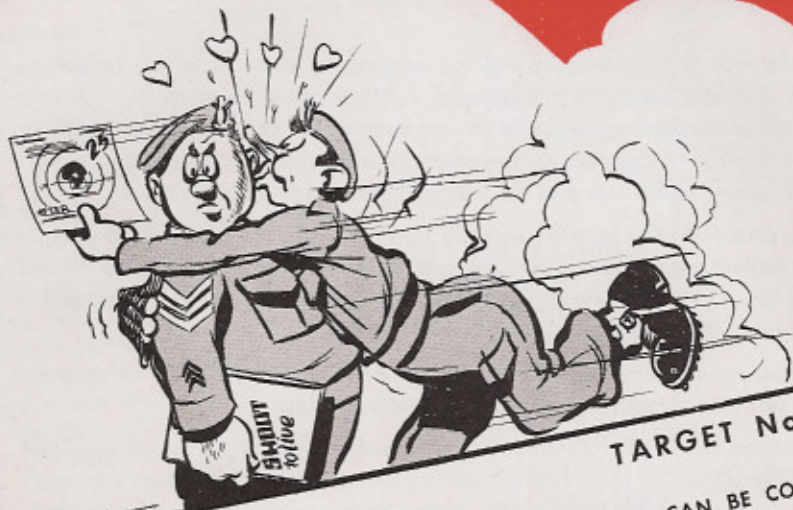
That is exactly the kind of shooting the Canadian Army must have. Accurate shooting infantrymen are still the boys who win the battles. The artillery, the tanks and the planes may do the softening up of an enemy but it is the keen-sniping riflemen who clean up the resistance pockets.

A noted war correspondent describing the siege of the City of Cherbourg, France, in the late summer of 1944, said the attacking forces paid little attention to the earth-shaking hell of the artillery, naval and aerial bombardment of the vital supply port but when the "ping" of the sniper's bullet was heard, everyone in the area "ducked". The reason for this is that the sniper's bullet is so personal. It is meant to kill YOU.

The only way in which to counteract enemy sniping is by more and better rifle performance on the part of Canadian soldiers, and that can only be developed by the careful training of our men in the five basic principles of musketry; then, through the medium of target analysis, prove to the soldier himself, that it can be further improved.

Mr. Instructor, your responsibility is clear-cut and seriously important. It is a challenge you must meet and execute well.

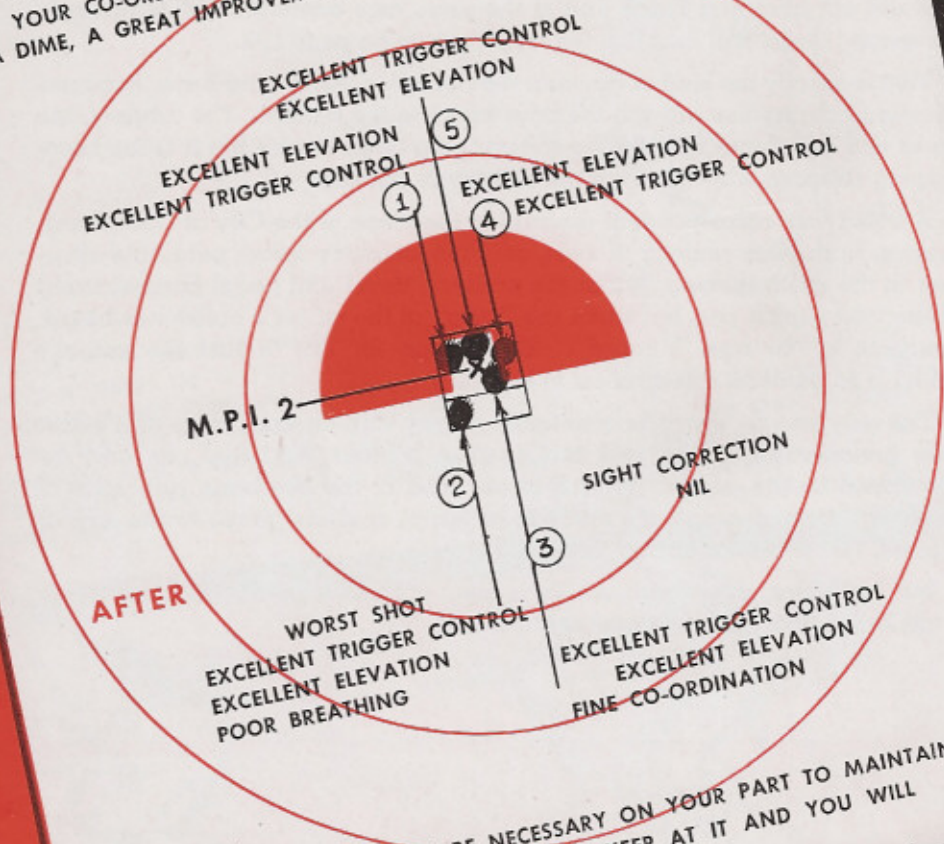
THE COMPLETED STORY (AFTER)



CANADA, JOE
ENCOURAGEMENT:

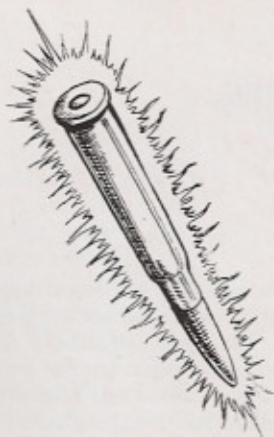
YOUR CO-ORDINATION IS EXCELLENT, AND ALL FIVE SHOTS CAN BE COVERED
WITH A DIME, A GREAT IMPROVEMENT OVER YOUR LAST TARGET!

TARGET No. 2



ADVICE:

CONSTANT PRACTICE WILL BE NECESSARY ON YOUR PART TO MAINTAIN THIS
HIGH STANDARD OF CO-ORDINATION. KEEP AT IT AND YOU WILL
SUCCEED.



ON THE .303 RANGE

WHEN it comes to analysing the targets on the .303 range, the situation is somewhat different. You are not able to take the targets down from their frames and mark them as you have done for the .22 range which have been the basis of the discussions on Target Analysis up to this point.

Your analysis of the shooting by your recruit must be done verbally. You must do it while he is watching you and you must be quick enough to determine his Capability Group and its MPI accurately and analyze his target from that MPI. That means you must get the best of cluster shots together in determining the Capability Group.

The shots on the .303 range target will be numbered for you by the men of the butt party. So with your Call and Check Card you can quickly show how your analysis of his actual shooting is reflected in the target result.

Give him his Encouragement first or as you score his shots. Make certain that you have given him the best possible aggregate of points by placing the centre of the scoring ring to coincide with the MPI No. 2. Be fair with the firer.

Having encouraged him you now give him the Advice. You indicate to the armourer the sight adjustment. Then you show by each shot as described by the Call and Check Card, how with more correct firing habits he could have brought all his shots into one small cluster dead upon MPI No. 2.

His second target will prove that he is out for better .303 shooting. He sees much tangible progress and he is well on the road to shooting perfection.

