

HOW TO SHOOT THE U.S. ARMY RIFLE

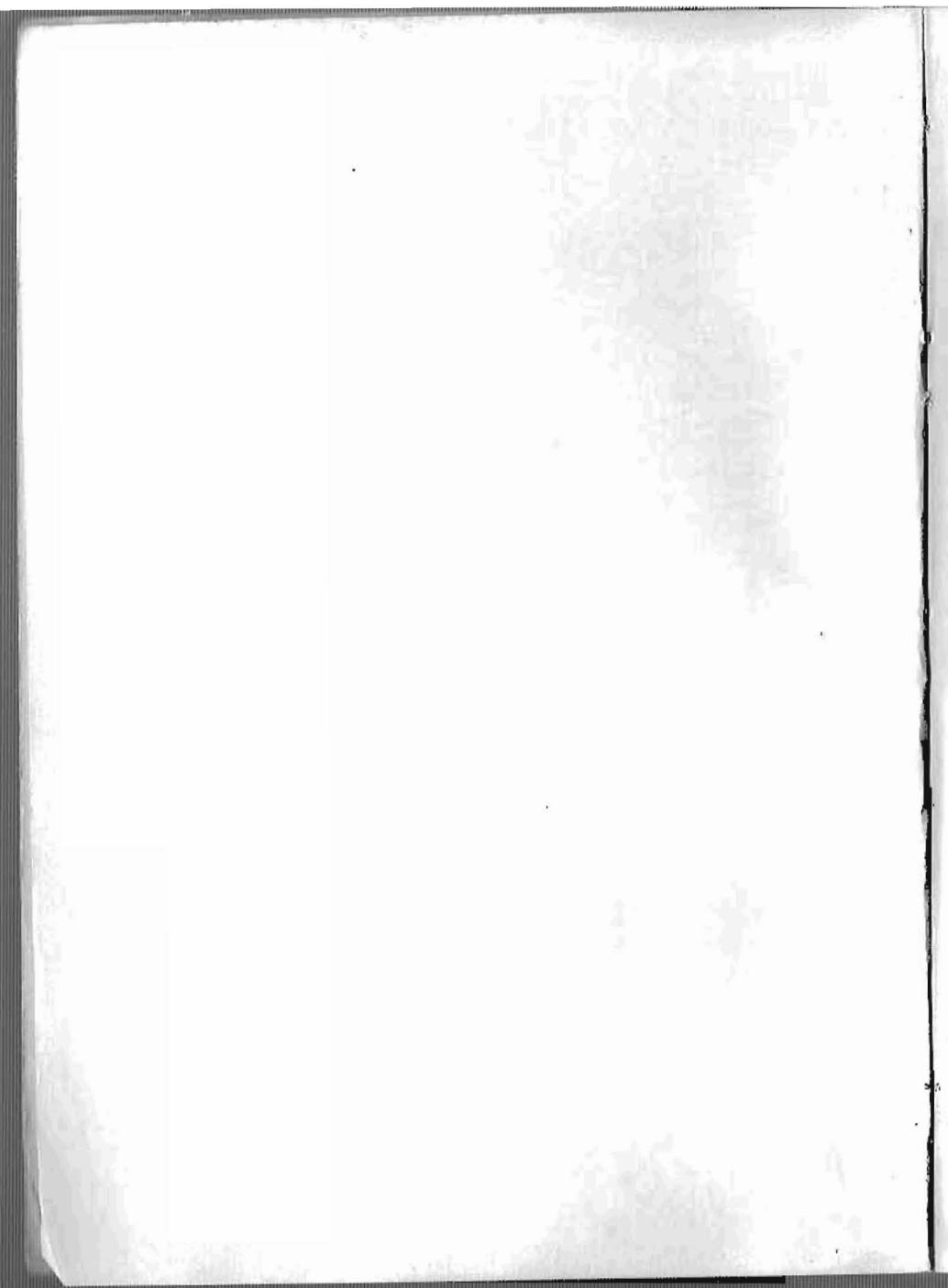


THE INFANTRY JOURNAL



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HOW TO SHOOT THE U. S. ARMY RIFLE



How To Shoot The U. S. Army Rifle

*A graphic handbook
on correct shooting*

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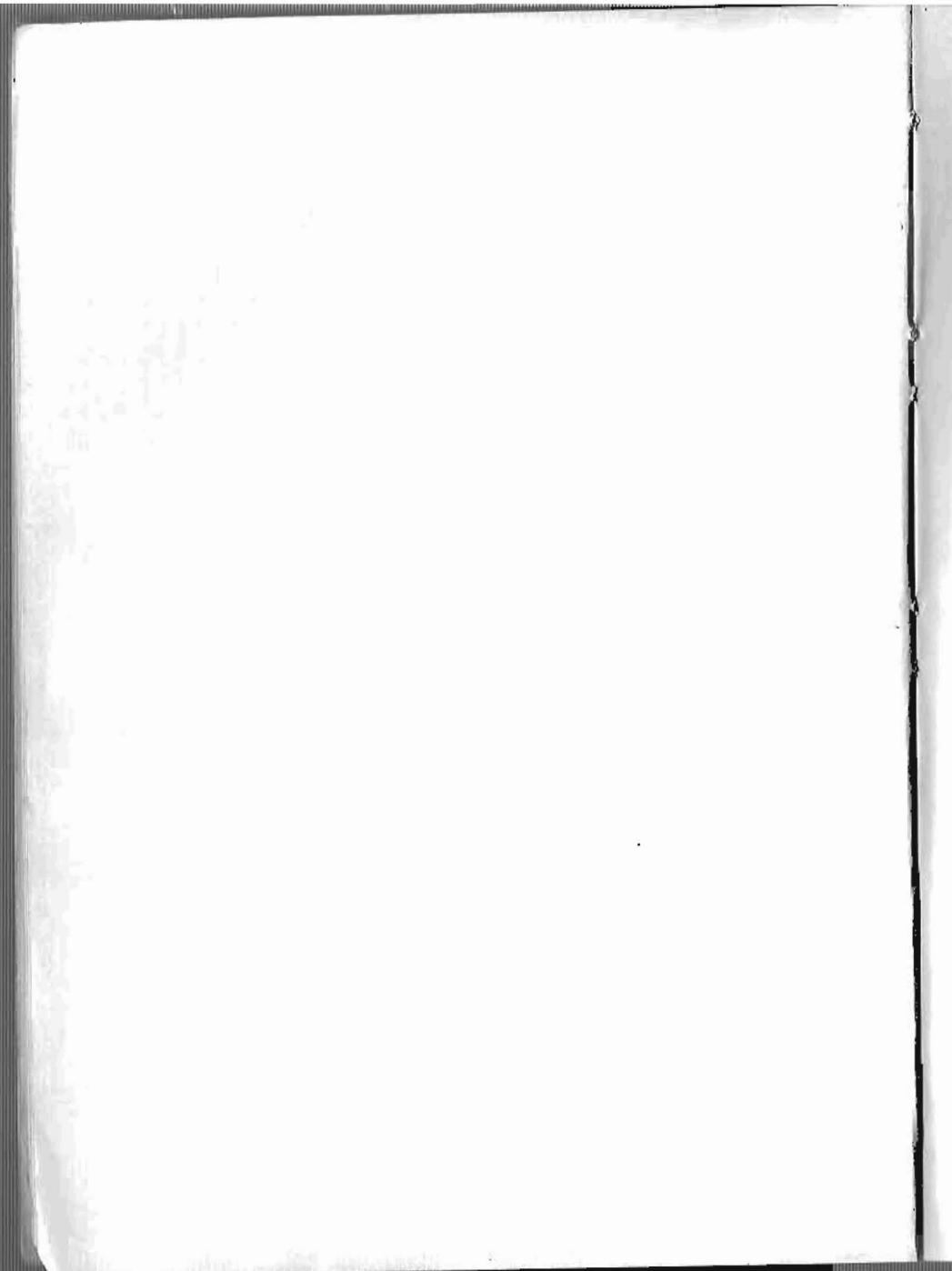
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Send me men who can shoot. . . .

PERSHING



ACKNOWLEDGMENTS

This book was prepared by First Lieutenant Arthur Goodfriend, Army of the United States, creator of the Army's graphic portfolio on rifle marksmanship.

Gratitude for invaluable assistance in preparation of the material is due:

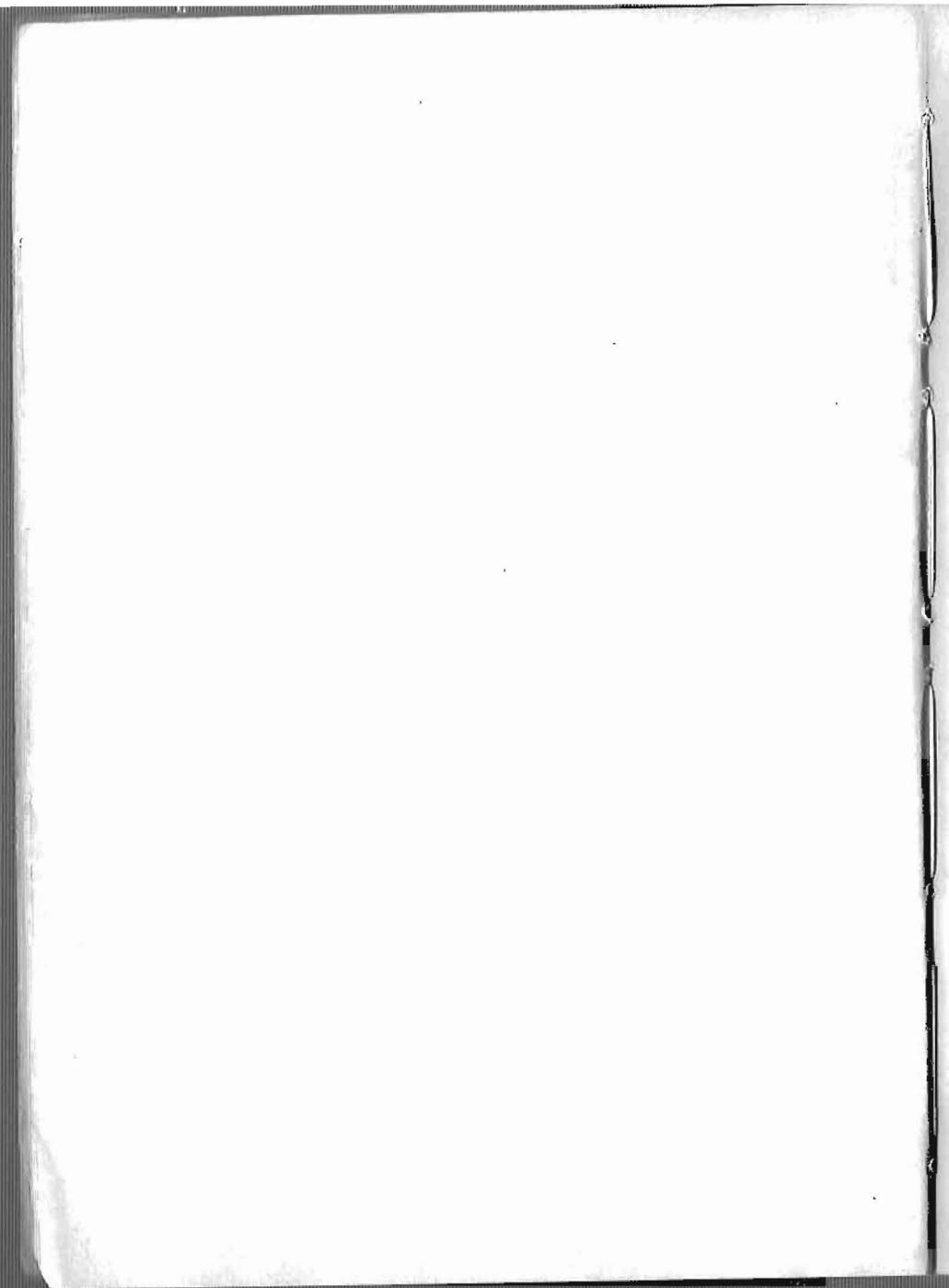
To the editors of *Life*, who loaned the cream of their staff to the Army for this project.

To Gjon Mili, photographer for *Life*, whose repetitive flash camera dissects the rapid-fire positions.

To The Engineer School, Fort Belvoir, Virginia, and The Infantry School, Fort Benning, Georgia, where the doctrine was shaped and pictures taken.

And to Brigadier General C. R. Huebner, General Staff Corps, Director of Training, Services of Supply, who initiated the preparation of the official training portfolio upon which this book is based, and who gave it the benefit of his long experience gained on battlefields abroad and in training camps at home.

THE EDITORS
The Infantry Journal



FOREWORD

The last war proved that if you hit a German in the right place with a caliber .30 rifle bullet, he falls over dead. This is also true in this war. It applies, moreover, to Japs as well as to Nazis.

The U. S. Army Rifle—be it the M1903 (Springfield), M1917 (Enfield), or M1 (Garand)—has the range, caliber, power, and accuracy to kill Nazis and Japs. All that is required is a soldier well enough trained in rifle marksmanship to hit the enemy in the right places.

The U. S. Army believes in this training. Its rifle marksmanship course is the most thorough in the world. In the last war, the deadliness of American marksmanship amazed both our Allies and our enemies. In this war, reports from far-flung battlefields reveal that the hours of marksmanship training in our camps have not been spent in vain.

Deadly marksmanship depends on correct shooting habits. In stress of battle, you must do the right things without thinking about them. You must know the correct sight picture. You must take a rock-steady position. You must squeeze the trigger. You must shoot rapidly. And all the while, your sights must be correctly set for range, wind, and weather.

How to do these things the right way is shown on the following pages. Pictures and text are taken from the U. S. Army's graphic portfolio on rifle marksmanship. They apply, with minor modifications, to the M1903, M1917 and M1 rifles. The method is that developed by The Infantry School for the semiautomatic M1 rifle, a method that enables you to get the most out of any rifle you may ever have to shoot.

Put aside your own ideas on rifle shooting for the duration of the war. Where life and death, victory or defeat, depend on the result, it is wise to follow this method. It is based on countless hours of test and trial, on the range and the battlefield.

Every detail in these pictures is important. Study them carefully. A few minutes with this book in your bunk before going out on the drill field will make your work easier. A little time spent on review before firing on the range will mean more bull's-eyes. Later these lessons, well learned, will cause many a Nazi and Jap to echo the words of that German in the last war who, dying, wrote:

"God save us from these Americans. They shoot like devils . . . They are the best marksmen in the world."

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TODAY—The Bull's-Eye TOMORROW—The Enemy

Today's bull's-eye will be a well-trained, well-armed Jap or Nazi tomorrow.

You hit him. Or you miss.

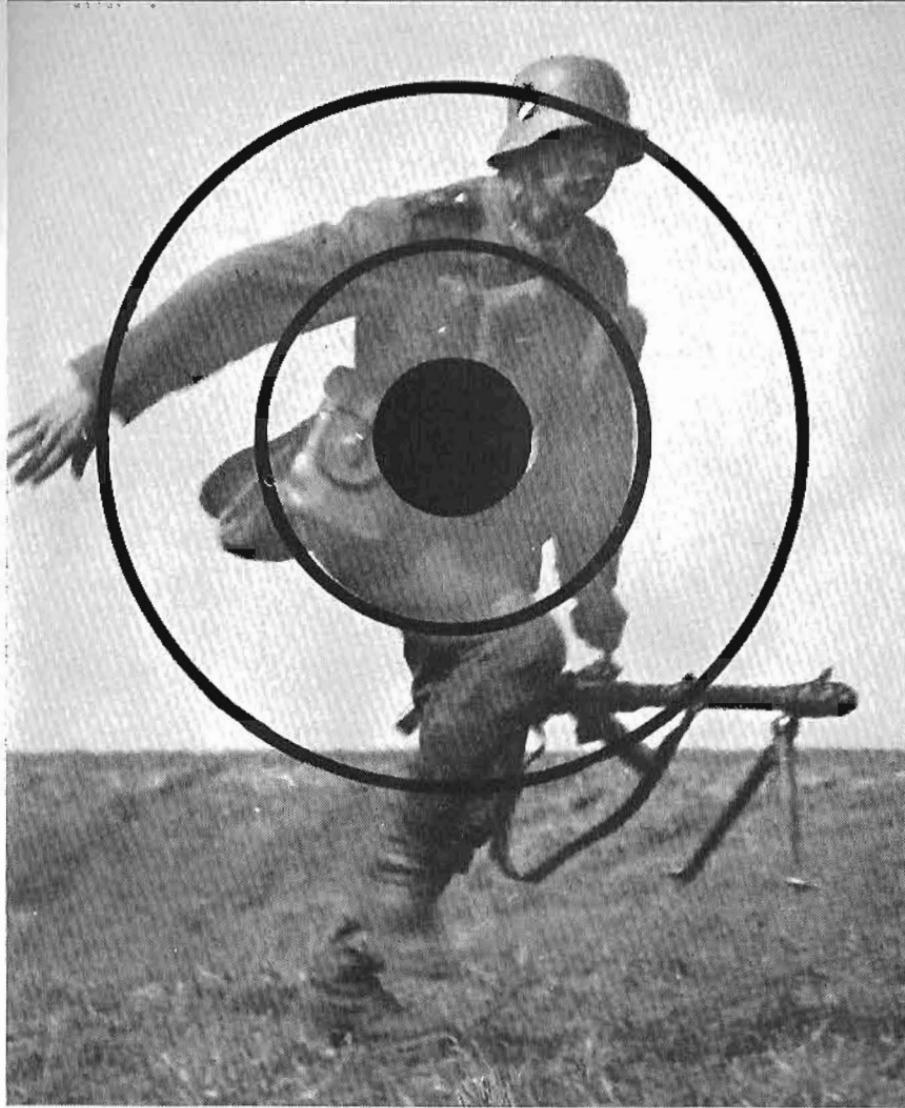
For that reason, there's no such thing as shooting that is *about* right. It is either perfect—or it is wrong. Your life depends upon it.

In camp, you shoot at a fixed target. On the battlefield, the target moves. You must learn to hit the first—before you can hope to hit the second.

By learning right shooting habits—by constant practice—every man can learn to shoot.

It seems hard at first. Later, when your body limbers up—when you learn the rules of good marksmanship—it becomes easier.

**TODAY – THE BULL'S-EYE
TOMORROW – THE ENEMY**



YOUR RIFLE IS BETTER THAN THE ENEMY'S

The M1 rifle costs about \$80 to build. It is semiautomatic. It has an 8-shot clip. It has adjustable sights. It can shoot straighter and faster than standard rifles issued to the Japs and Germans.

The M1903 (Springfield) proved itself against the Germans in the last war, and is still a masterpiece of rifle construction today. It is a high-precision weapon, with adjustable sights and an effective range of 600 yards.

The Jap has an Arisaka rifle. It has a shorter range than the M1 and M1903. It fires a lighter bullet. It has no windage scale. It is only fairly accurate beyond 500 yards.

The Germans are equipped with the Karbiner 98. Like our Springfield it is bolt-operated, with a 5-shot clip. But it has no windage or elevation. It hasn't the accuracy of our American rifle.

Your rifle should give you an advantage over the enemy. But actually, your rifle is no better than the man who shoots it. If you can't shoot your rifle accurately, you might just as well meet the Axis with your bare fists.

YOUR RIFLE IS BETTER THAN THE ENEMY'S



M1 RIFLE

SEMI-AUTOMATIC 8-SHOT CLIP .30 CAL. ADJUSTABLE SIGHTS



ARISAKA

BOLT ACTION 5-SHOT CLIP .256 CAL. NONADJUSTABLE SIGHTS



KARBINER 98

BOLT ACTION 5-SHOT CLIP .31 CAL. NONADJUSTABLE SIGHTS

SIX STEPS TO PERFECT MARKSMANSHIP

Before you can shoot well, you must take six important steps. When you hit the Jap or Nazi, it is because you remembered these steps. If you miss, it is because you forgot.

These steps are shown on the opposite page.

Practice until you do these things the right way from habit!

Then you can't forget, no matter what is going on around you. That will give you confidence in yourself. It will give the other men in your platoon confidence in you. That's what wins battles.

These steps are so important your platoon leader will keep a record of how well you do them. The "Progress Chart" on which this record will be kept by your platoon leader is also shown. In addition to the six points, you will also be marked on other important things you must learn to do.

REMEMBER: The more crosses on your progress chart, the more crosses over the Axis.

SIX STEPS TO PERFECT MARKSMANSHIP



1. Correct sighting and aiming
2. Correct positions
3. Correct trigger squeeze
4. Correct rapid fire
5. Correct sight adjustment
6. Final examination

PROGRESS CHART

Name	Care and cleaning of the rifle	Sighting bar with rifle	Blackening sights	Tightening gun slings	Holding up the slack	Assuming rapid positions	Trigger squeeze	Bolt operation	Rapid fire	Sight changes	Effect of light and wind	Ability to score book	Final examination	Pads
Jane Smith	x x	x x	x	x	x	x	x	x	x	x	x	x	x	x

METHOD OF MARKING

Fair:

Good:

Excellent:

Excellent and has
instructional ability:



The more crosses on your
progress chart the more
crosses over the enemy

YOU ARE BOTH A COACH AND A PUPIL

Throughout your course in rifle marksmanship, the "coach and pupil" method is used. These four pictures show you a few examples of the "coach and pupil" method in action.

First are coach and pupil with a sighting bar—the first of the sighting and aiming exercises.

Next are coach and pupil in one of the basic firing positions.

And then come coach and pupil practicing correct trigger squeeze.

And finally are coach and pupil in a rapid fire exercise.

Note that in each picture there are two men. One man is the pupil. The other man is the coach. They work in pairs. They usually change places throughout each lesson.

You, too, will work in pairs. Each man in the pair is both a pupil *and* a coach. The man who is *giving* instruction is the coach. The man who is *getting* instruction is the pupil. When you change places, your roles are reversed. To repeat, every man is here to teach as well as to learn.

Why does the Army use the coach and pupil method?

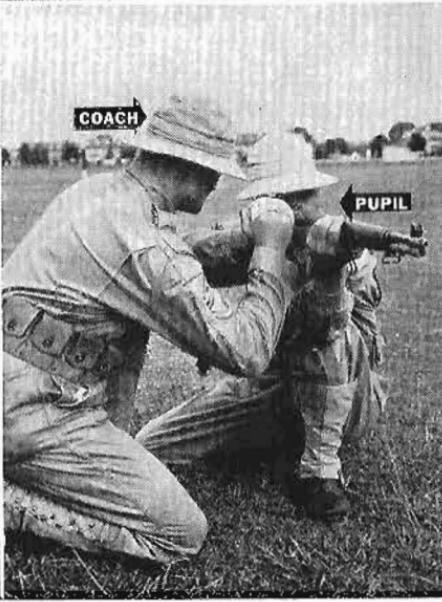
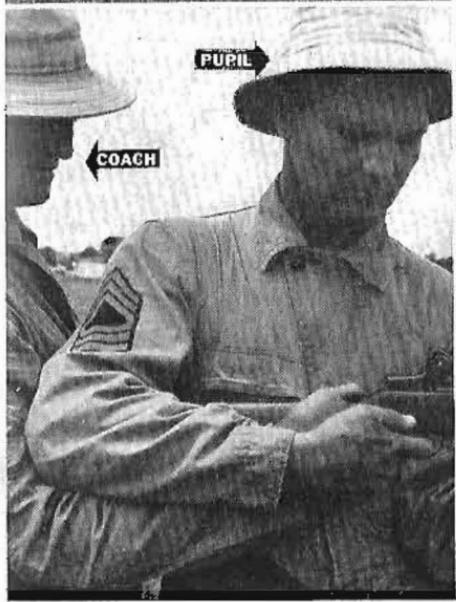
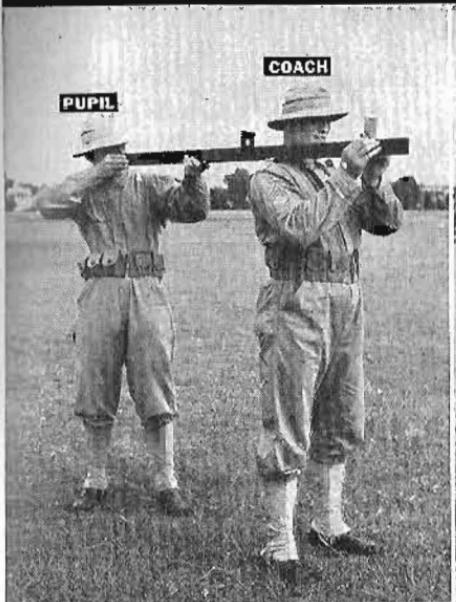
For three reasons:

(1) To teach you how to shoot.

(2) To help you correct errors of which you are not aware.

(3) To teach you how to teach others—for in an army as fast-growing as ours, we need men to train new troops coming into camp.

YOU ARE BOTH A COACH AND A PUPIL



IN SIGHTING AND AIMING, THERE'S NO SUCH THING AS "ALMOST RIGHT"

To hit the bull's-eye, you must know exactly what your eye should see when it looks through the rear sight of your rifle.

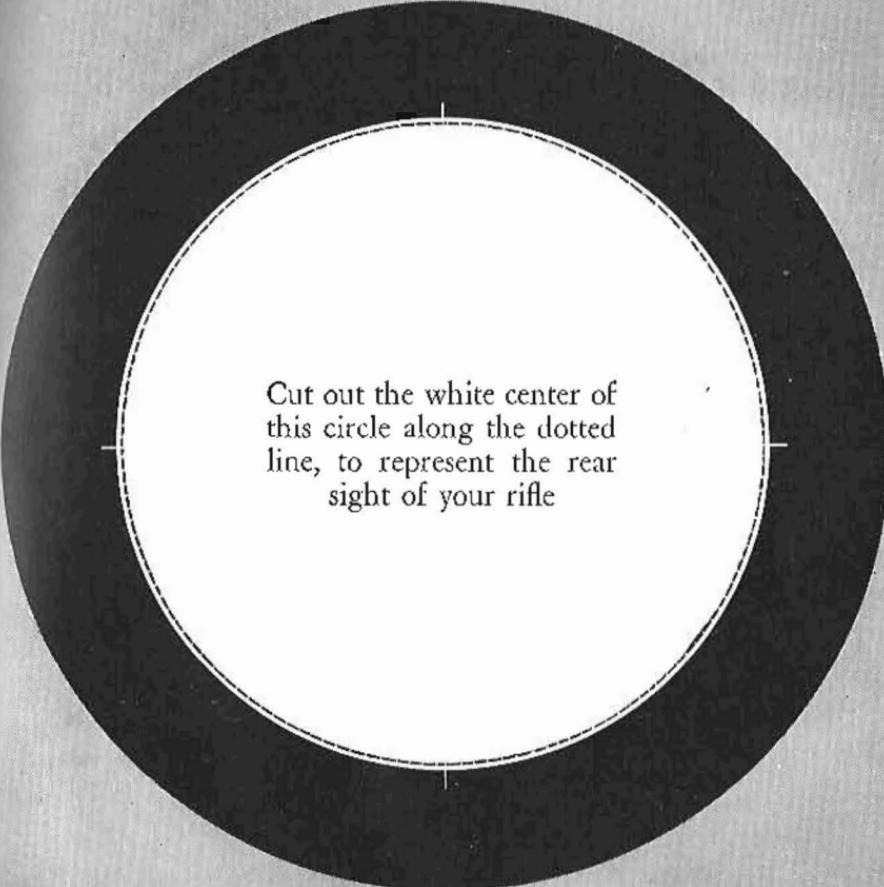
Cut out the white center of the circle on the opposite page and you are looking through the peep sight of a rifle, somewhat enlarged.

On page 23 are pictures of the front sight of an M1903 and M1 rifle. There is also a picture of a bull's-eye. Cut them out and mount them on cardboard. Place the front sight in correct position within the rear sight. Then place the bull's-eye in correct position above the front sight.

To hit the bull's-eye—the peep sight, front sight and bull's-eye must be lined up in a certain way: A vertical line drawn through the center of the front sight must coincide with the vertical diameter of the peep sight. The top of the front sight must lie exactly on the horizontal diameter of the peep sight. The bull's-eye must be tangent to the top of the front sight—at its midpoint.

There is only one correct sight picture; every other position is wrong. Only the correct position of peep sight, front sight and bull's-eye will give you a perfect hit.

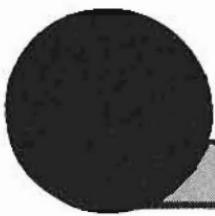
**IN SIGHTING AND AIMING, THERE'S
NO SUCH THING AS "ALMOST RIGHT"**



Cut out the white center of
this circle along the dotted
line, to represent the rear
sight of your rifle

**THE SIGHT PICTURE IS EITHER 100 PER-
CENT RIGHT— OR 100 PERCENT WRONG**

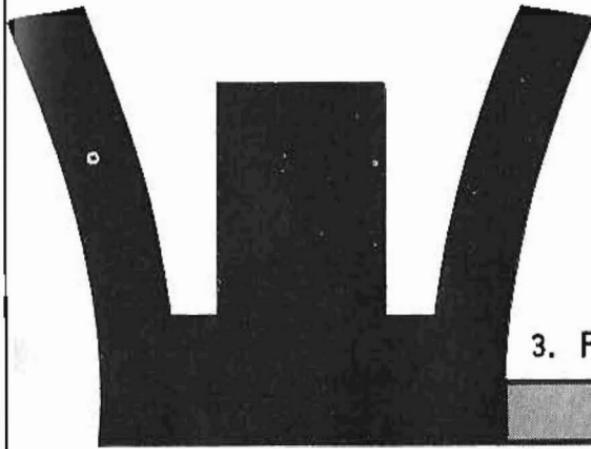
Cut out these pictures and mount them on cardboard. Place them in position behind the rear sight on the preceding page, and practice with bull's-eye and each front sight until you get the sight picture speedily and accurately.



1. Bull's-eye



2. Front Sight of M1903



3. Front Sight of M1

**THIS IS WHY THERE IS ONLY ONE CORRECT
SIGHT PICTURE**

**THIS IS WHY THERE IS ONLY ONE CORRECT
SIGHT PICTURE**



YOU MUST GET HITS IN THE JUNGLE



YOU MUST GET HITS IN THE SMOKE

FIRST SIGHTING AND AIMING EXERCISE

The first thing to learn about the correct sight picture is the correct alinement of the front and peep sights—*without the bull's-eye*.

What should you see through the eyepiece of the sighting bar?

You should see the top of the front sight through the middle of the circle. A vertical line drawn through the center of the front sight should coincide with the vertical diameter of the peep sight.

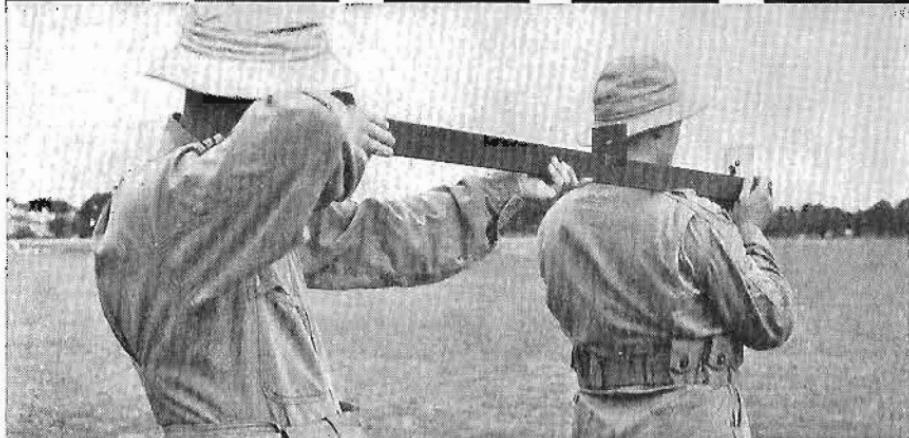
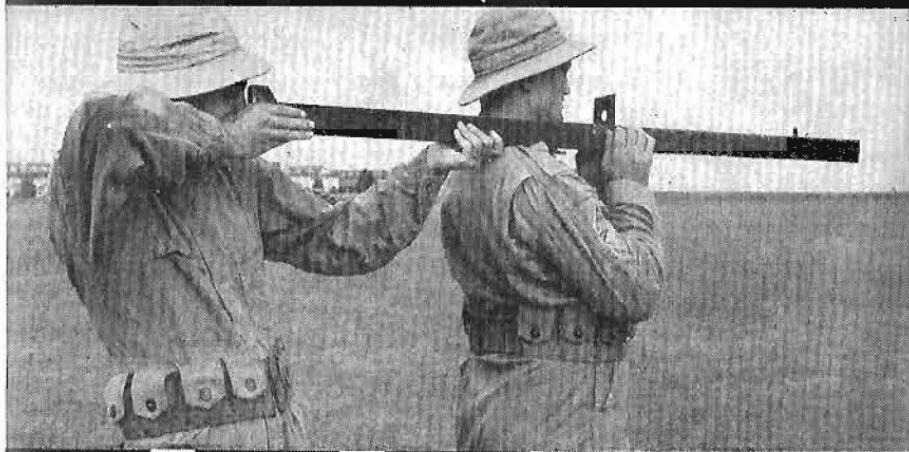
The first sight picture (upper left) is correct; the others, of course, are wrong.

The next thing to learn about the correct sight picture is the correct alinement of the front and peep sights—*with the bull's-eye*.

The first sight picture at the bottom of the page (left) is what you should see through the eyepiece of the sighting bar—the bull's-eye is in proper position. This is the correct alinement. The others show common errors you should never make.

In the correct picture, the top of the front sight is seen at the middle of the circle and just touches the bottom of the bull's-eye, so that all the bull's-eye can be clearly seen. The eye should be focused on the bull's-eye.

FIRST SIGHTING AND AIMING EXERCISE



CLEAN AND BLACKEN YOUR SIGHTS

You are now ready to line up the bull's-eye through the sights of your rifle. In order to see your rifle sights and the bull's-eye clearly, you must always do two things first:

- (1) Clean your sights
- (2) Blacken your sights.

Why? Look at these diagrams at the bottom of the opposite page. These dirty sights will make you aim too low. With clean sights, you line up the bull's-eye squarely on top of the front sight itself, and not on dirt.

Shiny sights glint in the sunshine. They cause a reflection in your eye. They are hard to see.

Clean and blackened sights stand out clear and bold—they are easy to see.

Always clean and blacken your sights before sighting and aiming your rifle.

These pictures show how. Be sure all traces of oil are removed. Then hold each sight for a few seconds in the point of a small flame, so that a uniform coating of lampblack is deposited on the metal.

A carbide lamp is ideal. But you can use a kerosene lamp, candle, small pine stick, smudge pot or even match sticks when a carbide lamp is not available.

CLEAN AND BLACKEN YOUR SIGHTS



SECOND SIGHTING AND AIMING EXERCISE

Now you are ready to practice lining up the bull's-eye through the cleaned and blackened sights of your rifle.

The method used is shown in these pictures:

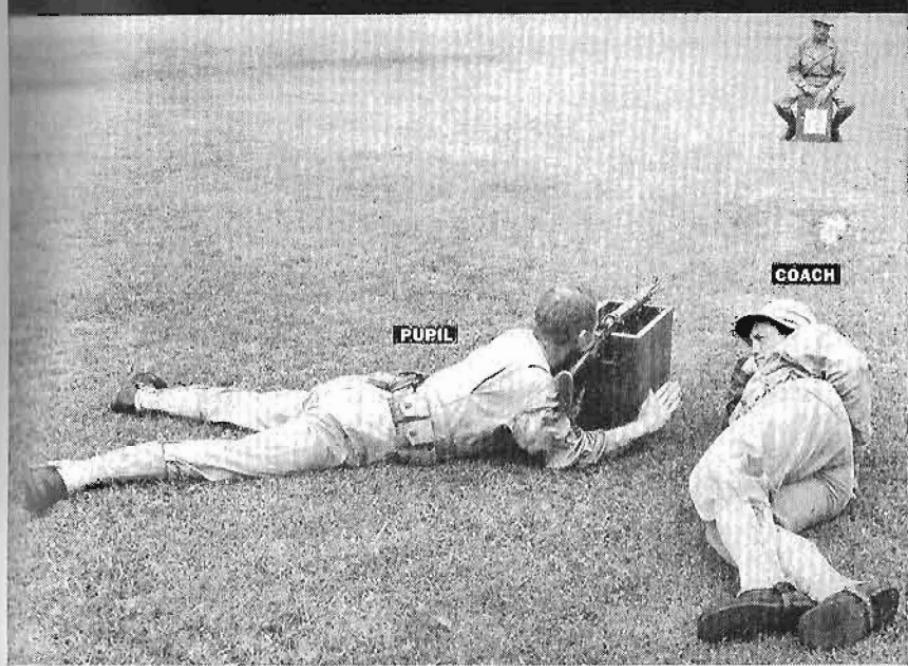
The rifle is placed in rifle rest. It points at the blank piece of paper mounted on box 20 feet away. Without touching rifle or rifle rest, the coach takes his position and looks through sights. He then directs marker by signal to move disk until bottom of bull's-eye is in correct alignment with sights. He then commands marker to "Hold." The coach then moves away and directs the pupil to look through sights, as shown in the upper picture, in order to observe correct aim.

The marker then moves the disk out of alignment. The pupil takes position with his eye as close to the rifle as it would be in actual firing—and directs the marker to move the disk until bottom of bull's-eye is in correct line with sights. The coach then looks through sights to see if the alignment is correct. Be careful not to move the rifle rest. Sandbags placed in both the rifle rest and the box on which marker sits will help to prevent movement.

The coach will align the sights on the bull's-eye with various slight errors to determine whether or not you can detect them.

But before you start, go back to the enlarged peep sight of your rifle (page 21) and practice setting the exact position of your peep sight, front sight, and bull's-eye.

SECOND SIGHTING AND AIMING EXERCISE



THIRD SIGHTING AND AIMING EXERCISE

The object of this exercise is to show the importance of uniform and correct aiming, and to instill in the mind a sense of exactness.

The rifle with sights blackened is placed in rifle rest and pointed at a blank sheet of paper mounted on a box 50 feet away. The pupil takes the position illustrated and looks through the sights without moving the rifle or rifle rest. The pupil directs the marker, by command or signal, to move the disk until the bottom of the bull's-eye is in correct alignment with the sights. He then commands the marker to "Hold."

The coach then looks through the sights to see if the alignment is correct. Then without comment to the pupil, he commands the marker to "Mark."

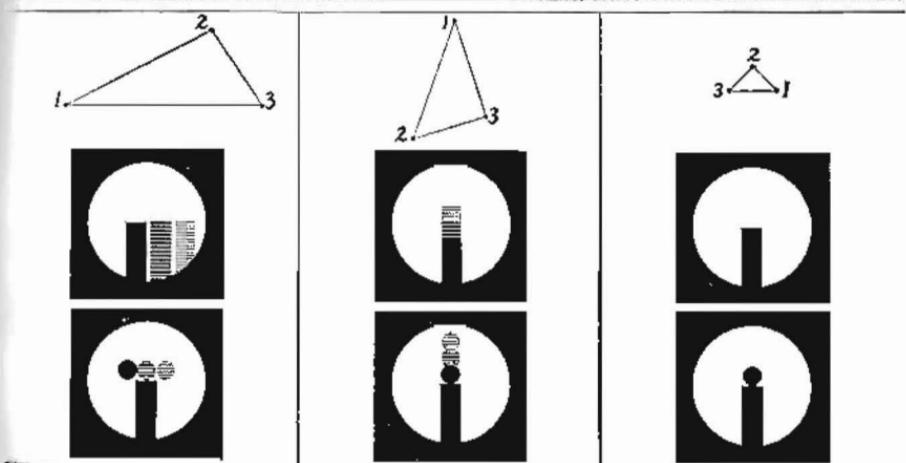
The marker, without moving the disk, makes a dot on the paper with a sharp-pointed pencil inserted through the hole in the center of the bull's-eye. The marker then moves the disk to change the alignment. Pupil and coach repeat this operation until three dots, numbered 1, 2, and 3, respectively, have been made. These dots then outline the shot group, and the pupil's name is written under it.

The size and shape of the shot group determine how well you are alining your sights with the bull's-eye. At the bottom of this chart are three shot groups. A "horizontal" triangle (left) is generally caused by a horizontal movement of the front sight—a failure to rest the bull's-eye squarely on the center of the top of the front sight.

A vertical triangle (center) generally comes from an up-and-down movement of the front sight—a failure to keep the bull's-eye directly tangent to the top of the front sight.

A tight, close triangle (right) shows steady, correct sighting. At 50 feet, you should make triangles which can be covered by the unsharpened end of an ordinary lead pencil. At 200 feet, your triangle should be covered by a silver dollar.

THIRD SIGHTING AND AIMING EXERCISE



THE ROCK OF THE MARNE

This is a scene from the Second Battle of the Marne in 1918, when the Germans made their last, most desperate drive for Paris. One American regiment—the 38th Infantry of the 3d Division—faced two German divisions. In the confusion of battle, the higher command lost touch with the regimental units. Each company—each squad—each man was on his own.

In twenty-four hours, this one American regiment disorganized two German divisions. How? By rifle fire alone. By good marksmanship.

A few days later, a letter was found on the body of a German officer. It read: "God save us from these Americans. They shoot like devils. They kill us like animals with their rifles. They are the best marksmen in the world."

We must prepare ourselves to carry on this tradition of American marksmanship.

"THE ROCK OF THE MARNE"



HOW TO ADJUST THE LOOP SLING

We are now ready for the second step—correct positions.

You won't hit the bull's-eye every time unless you are steady. Three things control your steadiness.

The Gun Sling
Your Breathing
Your Position

The gun sling supports your arm and rifle. It binds the rifle to your arm in a single, tight, steady unit.

There are two ways to adjust your gun sling—the Loop and the Hasty. The Loop takes longer to fix, but it is steadier. It is used in all positions except the standing position. This is how to adjust it:

Place butt of rifle on right thigh, barrel to right and muzzle pointing up.

Rest rifle against inside of right forearm so that both hands are free to fix sling, and loosen lower loop, as shown here. Fasten it again near the butt swivel leaving yourself plenty of sling. Adjust the upper hook until the loop has the proper length. Then insert left arm through the upper loop, from right to left. Another simple way is to twist the sling one quarter turn to the left, then insert the left arm into the loop between the D-ring and the lower keeper until the loop is around the upper arm.

HOW TO ADJUST THE LOOP SLING



HOW TO TIGHTEN THE LOOP

These pictures show how to tighten the loop into position on the arm.

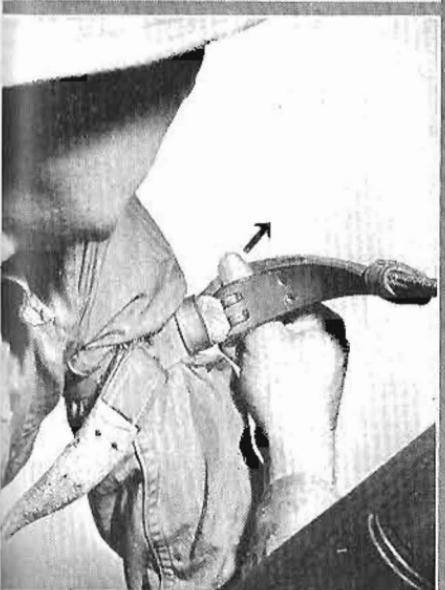
(1) Pull on both parts of sling—jockeying them until the loop and keeper are close against the arm.

(2) Pull the D-ring forward and push the lower keeper and hook close against the arm to keep the loop in place.

(3) If necessary, push the outer part of the sling away from you with the thumb—tightening the sling still more.

(4) Push the upper keeper down toward the hook.

HOW TO TIGHTEN THE LOOP



A TIGHT SLING MEANS A STEADY RIFLE

When the loop sling is properly adjusted on the upper arm, place the left hand, knuckles out, so that the sling passes around the side of the left wrist near the wrist bone. If properly adjusted, the sling is flat against the wrist.

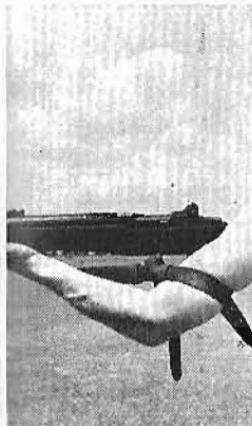
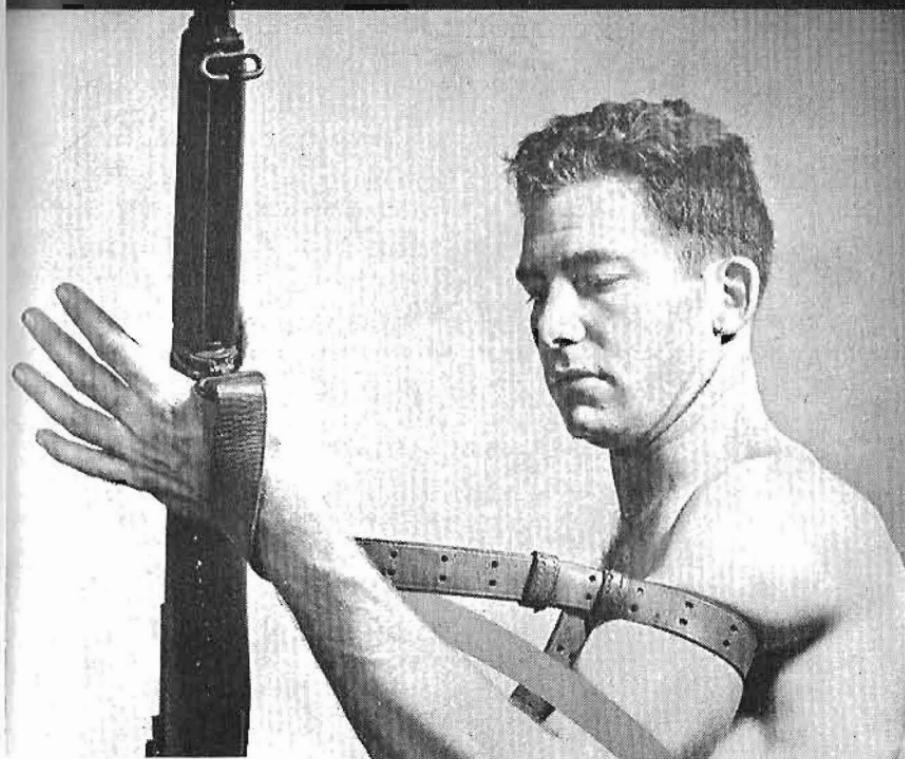
Then, before you take your position, place the left hand so that the rifle lies in the center of the V formed by the thumb and the fingers of the left hand, with the hand forward against the upper sling swivel.

Note that some leeway is permitted in the position of the loop on the arm. The Manual prescribes that the loop should come above the bicep. But experience at The Infantry School shows that many men get better results with a lower sling. It is important that "light" be visible between the sling and the forearm.

Be sure the sling is doing its share of the work in giving your rifle full support. A tight sling means a steady rifle.

We will discuss the hasty sling later—when we are ready for the standing position.

A TIGHT SLING MEANS A STEADY RIFLE



TAKE UP THE SLACK

Before we go into the positions, it is important to know how to take up the slack in the trigger. This is part of the position exercise because the slack must be taken up by the finger as soon as the correct position is assumed and before careful aiming is begun.

The "slack" in the trigger of a rifle is like the "play" in the clutch of a car. That "play" is built into the clutch by the manufacturer as an extra safety allowance—a preparatory motion that enables both the car and you to get set for a shift in gears. There's "play" in the brake too—if there weren't, you'd stop so suddenly that you'd break your teeth on the dashboard the moment you pushed down on the brake pedal.

Your rifle also has this "safety allowance"—a small amount of slack that brings the trigger lug just to a point where it begins to release the hammer. Squeeze the trigger beyond the slack and the trigger releases the hammer. This causes the rifle to fire.

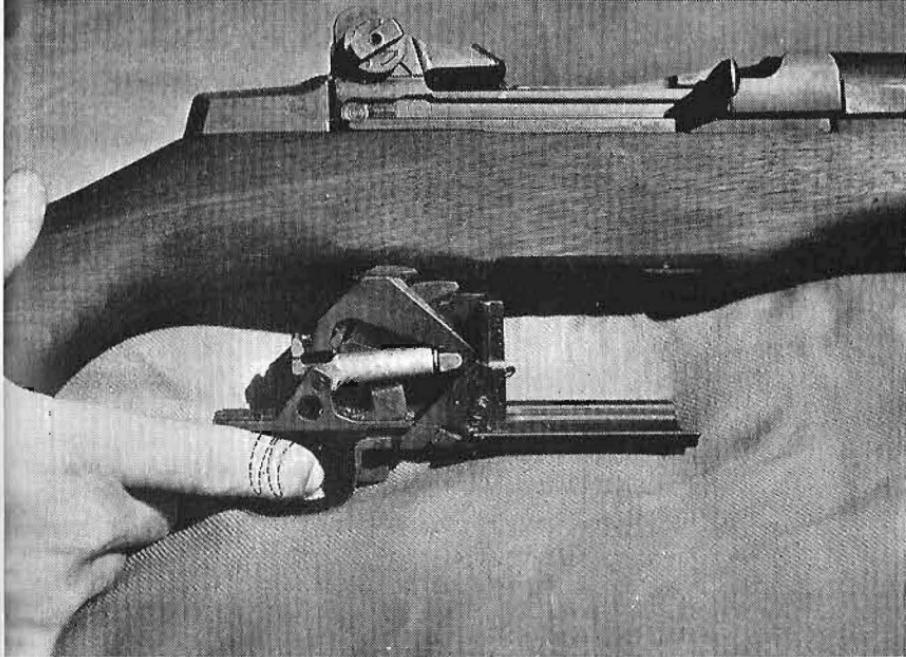
The entire amount of slack in the trigger is taken up by one positive movement of the finger.

Take up the slack as soon as the correct position is assumed, and before careful aiming is begun.

TAKE UP SLACK BEFORE "CLUTCHING"



TAKE UP SLACK BEFORE AIMING



HOLD YOUR BREATH WHILE AIMING

Obviously, if your chest and back are moving, your rifle will move up and down.

To prevent this, take a breath. Then let out a little air. Then stop breathing.

Hold your breath naturally. If you don't get your shot off, exhale—then inhale, let out a little air, and stop breathing again. Don't tighten up. Don't become breathless. Practice will teach you to control your breathing without discomfort.

Coaches must check pupils carefully on this point. Watch the pupil's back. If it rises and falls while aiming, he is breathing, and his rifle is bound to be unsteady.

Watch the muzzle of the rifle. If it "seesaws," the pupil is breathing.

HOLD YOUR BREATH WHILE AIMING

TAKE IN AN
ORDINARY BREATH

LET OUT A LITTLE

STOP BREATHING



Coach: Be sure your pupil's back doesn't move
Be sure his rifle doesn't see-saw



SUPPORT THE RIFLE WITH YOUR BONES DON'T HOLD IT WITH YOUR MUSCLES

Now you are ready for the positions. Taking positions is a matter of bones, not muscle. For some of you, taking correct positions won't be easy until your bodies limber up. In a few days, after some practice and stretching exercises, you will take correct positions easily.

The whole idea behind positions is to give your rifle steady support. Only your bones can do that. The strongest man will tremble after a few seconds if he tries to support his rifle by muscle alone. The weakest man can hold his rifle steady, if he uses his bones to form a firm base.

These pictures make the idea a little clearer. In the upper picture the stick stands straight up and down. The 10-pound weight on it has good, steady support.

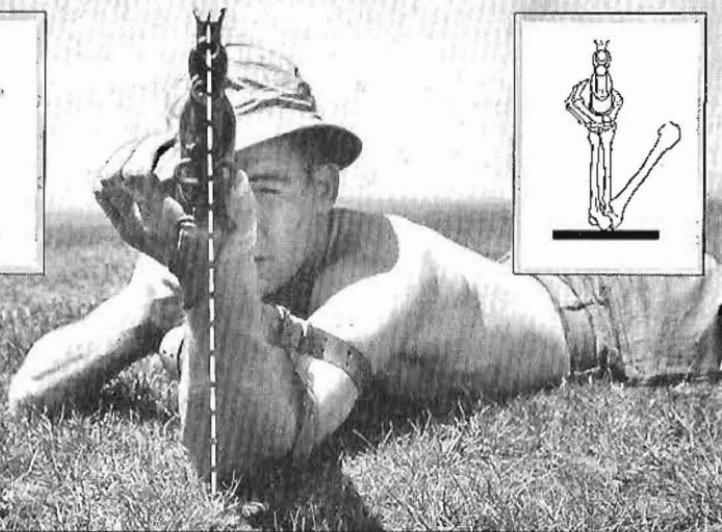
In the lower picture the stick is tilted. It gives the weight poor support.

Same way with your rifle. The upper picture shows the right way to hold your rifle. The arm bone is straight up and down.

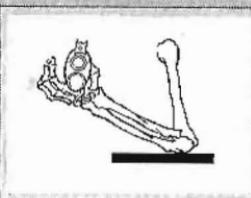
If your arm bone is tilted, as in the lower picture, your rifle will wobble. Your muscles can't hold it in place very long.

"Use your bones" and your position is sure to be steady.

SUPPORT YOUR RIFLE WITH YOUR BONES



DON'T HOLD IT WITH YOUR MUSCLES



THE PRONE POSITION

This position is best used on level ground.

The two large pictures show the correct position of pupil and coach. These smaller pictures stress vitally important details.

The coach, as you see, moves around the pupil, checking carefully on the following points:

The angle made by the pupil's spine and the rifle is 30 degrees or less. He must be well behind the rifle, so that his weight will act against the recoil of the piece, and cause the muzzle to drop back into position after each shot. This is especially important in shooting the M1.

The left elbow is under the rifle.

The left wrist is straight.

Fingers and thumb of left hand are loose and relaxed.

Rifle rests in the V formed by thumb and finger of left hand.

The left hand is forward against the upper sling swivel.

The left shoulder is relaxed forward and down.

The spine is straight. Legs are comfortably spread apart. The toes are out.

Right elbow is far enough out from the body so that the right shoulder is not hunched up.

The butt is seated well into the pocket formed in the shoulder as the right elbow is moved forward. Note how it is held there by the sling. It is important that this be done correctly.

With the weight rolled over on the left elbow, grasp the butt with the right hand—the heel of the hand near the butt. Then shove the butt well into place. If you can place your rifle butt *comfortably* on your shoulder with your right hand at the small of the stock, then your sling is *improperly* adjusted.

The right thumb is over or on top of the stock.

The trigger finger may rest against the trigger at any point between the tip and the bend between the first and second joints.

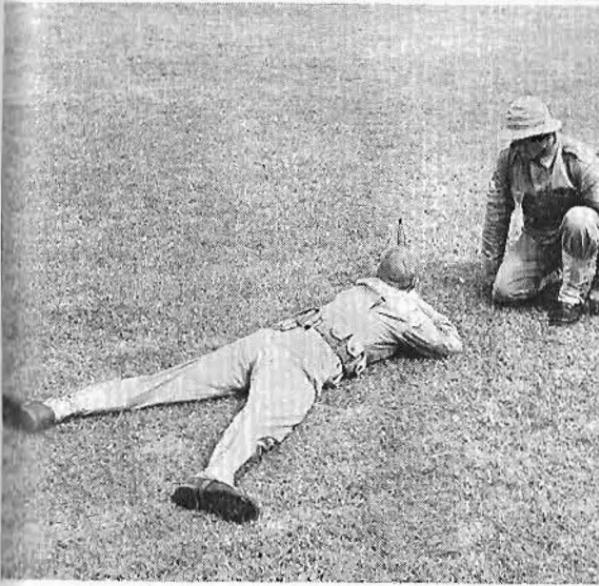
The neck is relaxed. The cheek rests firmly against the stock without muscular effort.

The weight is relaxed forward against the tension of the sling.

Muscular relaxation is important—particularly of the hands, arms and shoulders. Breathing should be controlled. If the back moves, the pupil is not holding his breath.

After the above points have been checked, the coach lies down next to the pupil. The coach watches the pupil, *not* the target.

THE PRONE POSITION



THE SANDBAG REST POSITION

This is exactly like the normal prone, except that the sandbag supports the left forearm, wrist and hand. These pictures show how the sandbag is used to steady the pupil's aim.

Note the position of the coach in this exercise. Note how he packs and adjusts the sandbag.

Note that the sandbag is slightly higher than the back of the left hand. Note that the rifle rests on the hand—and not on the sandbag.

Because it is so easy, relaxed and steady a position, the sandbag rest is ideal for practicing the trigger squeeze, which is the most important single factor in rifle marksmanship.

THE SANDBAG REST POSITION



THE SITTING POSITION

This position is best used when firing from ground that slopes downward in front. In this position (and the kneeling position) the sling is adjusted with the loop about two holes shorter than for the prone.

The coach should check the pupil on these important points.

Before taking position, face the target; then half-face to the right and sit down.

Weight is well forward. Ankles are relaxed. Toes point forward. Feet are far enough apart so that they give body lateral support—yet not so far apart that the elbows cannot rest on top of legs. The knees are no farther apart than the feet.

Notice the back: it is straight without a hump in the shoulders. The body is bent forward from the hips.

The left elbow is under the rifle. The rifle rests in the V formed by the thumb and finger of the left hand. The left hand is all the way forward against the stock ferrule swivel (except for men with very short arms). The left wrist is straight.

Note the surface-to-surface contact between arms and legs. The left elbow is forward of the left kneecap—at least 4 or 5 inches. That part of the upper arm just above the left elbow is parallel to and rests squarely on that part of the left lower leg just forward of the kneecap which is, in most cases, outside of the arm.

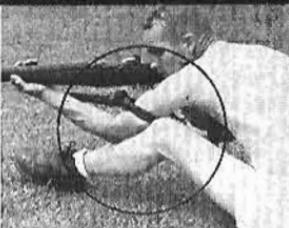
The right thumb is over or on top of the stock. The right cheek rests snugly against stock. The weight of the body is relaxed forward from the hips into the sling.

Notice that the knees are not held together by muscular effort. The weight of the upper part of the body is transmitted to the legs through the upper arms—so that the weight comes on top of the legs, causing the toes to relax forward.

Notice that the rifle is kept in the pocket of the shoulder by the taut sling.

The picture at lower right corner shows an alternative cross-legged position, which should be used only with the consent of an officer. The open-legged position is the standard and most effective sitting position.

THE SITTING POSITION



THE KNEELING POSITION

This position is best used on level ground, and ground that slopes upward.

The coach should check the pupil on each of the following points:

Firer kneels half-faced to right on right knee. He sits on right heel. Left lower leg is vertical. Left elbow rests on it so that left arm and left leg form one straight up-and-down line. Notice that point of left elbow is a few inches forward of the knee; this helps to throw the weight forward.

Right elbow is held high—at height of shoulder.

Left hand is forward against the stock ferrule swivel—relaxed—with rifle passing through the V formed by thumb and fingers of the hand.

The cheek rests against the stock. The right thumb is over or on the top of the stock.

Breathing is controlled.

Position of the right leg is very important. Note that right knee is so placed that the right thigh is perpendicular to axis of rifle.

Note that toe is so placed that shooter sits on his heel, with his instep on the ground. Note that entire surface of the lower leg, from knee to toe, is in contact with the ground. The weight is forward. If this position is difficult at first, dig a hole for your toe. Later when your foot limbers up, discontinue the use of a hole.

THE KNEELING POSITION



THE SQUATTING POSITION

This position has important advantages in combat. It can be quickly assumed with either the loop or hasty sling. Or it may be used without the sling. As only the feet are in contact with the ground, it is desirable when firing in mud, shallow water, snow, or a gas contaminated area.

To take the squatting position, the firer half-faces to the right, places both feet flat on the ground and a foot or more apart, and squats as low as possible. The backs of the upper and lower legs should be in the fullest possible contact from the knees downward. The inner part of the left, mid-upper arm rests on the left knee; the left elbow is directly under the rifle. The right elbow is braced against the inner part of the right knee. The weight of the body should be relaxed and well forward over the left leg. The rifle rests in the crotch of the left hand as explained for the prone position. The grasp of the rifle by the right hand and the position of the face against the stock are as prescribed for the prone position.

THE SQUATTING POSITION



)

HOW TO ADJUST THE HASTY SLING

The final position is the standing position. In this position you use the Hasty Sling.

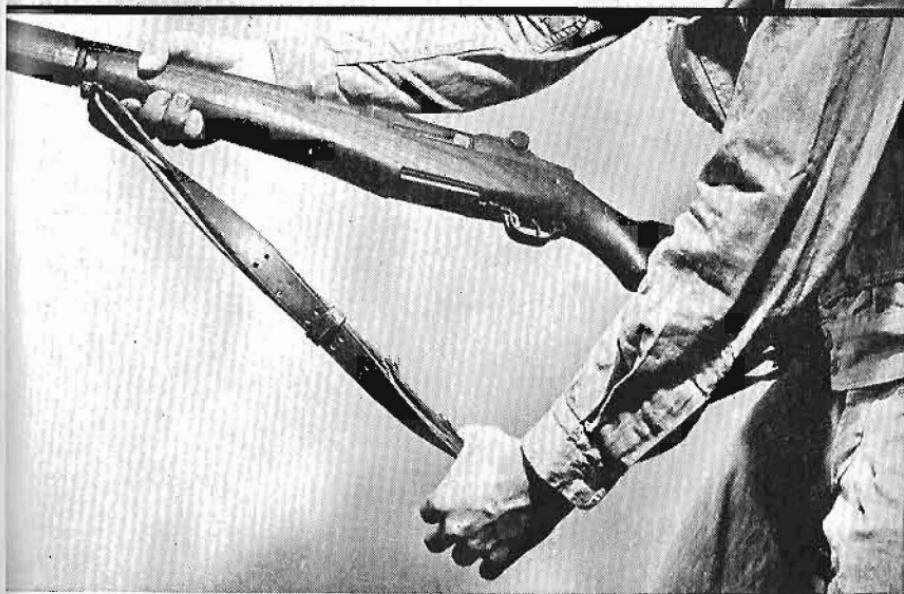
Speed of adjustment is its great advantage. But it gives less support than the Loop in positions other than the standing.

This is how to adjust the Hasty Sling:

First, place butt of rifle on right thigh. Grasp the rifle just in rear of the stock ferrule swivel with the right hand. Loosen the sling.

Then give the sling a half twist to the left with the thumb, as shown in the lower picture.

HOW TO ADJUST THE HASTY SLING



SLING GOES WELL UP ON ARM

Now, throw the sling to the left and catch it above the elbow, and high on the arm—as shown in the upper picture.

Then pass the left hand under the sling and then over the sling. Then regrasp the rifle with the left hand—as shown in the lower picture—so as to make the sling lie along the back of the hand and wrist.

The right hand grasps the butt of rifle as shown.

SLING GOES WELL UP ON ARM



FINAL PHASES OF THE HASTY SLING

Now bring the butt of rifle up into the shoulder—pushing it firmly into place in the hollow of the shoulder.

Finally, with the right arm held high, to support the rifle in place, bring the finger to the trigger. Holding the arm high gives you a better shoulder pocket into which the rifle can be placed.

Be sure arm, sling and rifle are bound into one firm, steady unit.

FINAL PHASES OF THE HASTY SLING



THE STANDING POSITION

This is used for all kinds of firing, regardless of slope or level. Coaches will check the following points:

Firer stands half-faced to the right.

Feet are from 1 to 2 feet apart. Body is erect and well-balanced.

Left elbow is well under the rifle.

Left hand is in front of balance. Wrist is straight. The rifle is placed in crotch formed by thumb and index finger, resting on the heel of the hand.

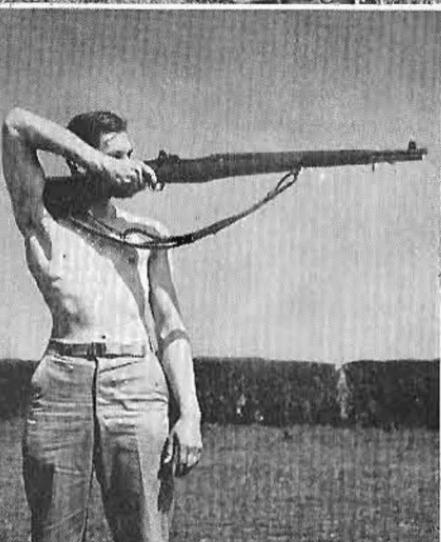
Butt of piece is high up on the shoulder, and firmly held. Right elbow is approximately at the height of the shoulder.

Cheek is pressed against stock, as far forward as possible without strain.

Breathing is controlled.

In the lower right picture is shown an exercise that makes for steadiness in the standing position. Note how the rifle is held by the bones of the shoulder and the right arm. By practicing this exercise, greater steadiness is developed in the standing position—a steadiness further increased, of course, when the left hand grasps the rifle below the swivel.

THE STANDING POSITION



WHAT'S THE MATTER WITH THIS PICTURE?

Take a good look at how Private Joe Jerk takes the four positions. Private Jerk is the man who sleeps through the demonstrations. He's the man who tells the coach about what he did to the shooting galleries at Coney Island. He's the man who wins the medals on the firing range—the "Order of Maggie's Drawers"—with palms.

Study the four pictures carefully. Pick out the things you see wrong with Private Jerk's technique.

WHAT'S THE MATTER WITH THIS PICTURE?



THE BEST "MARKS-MAN" WINS

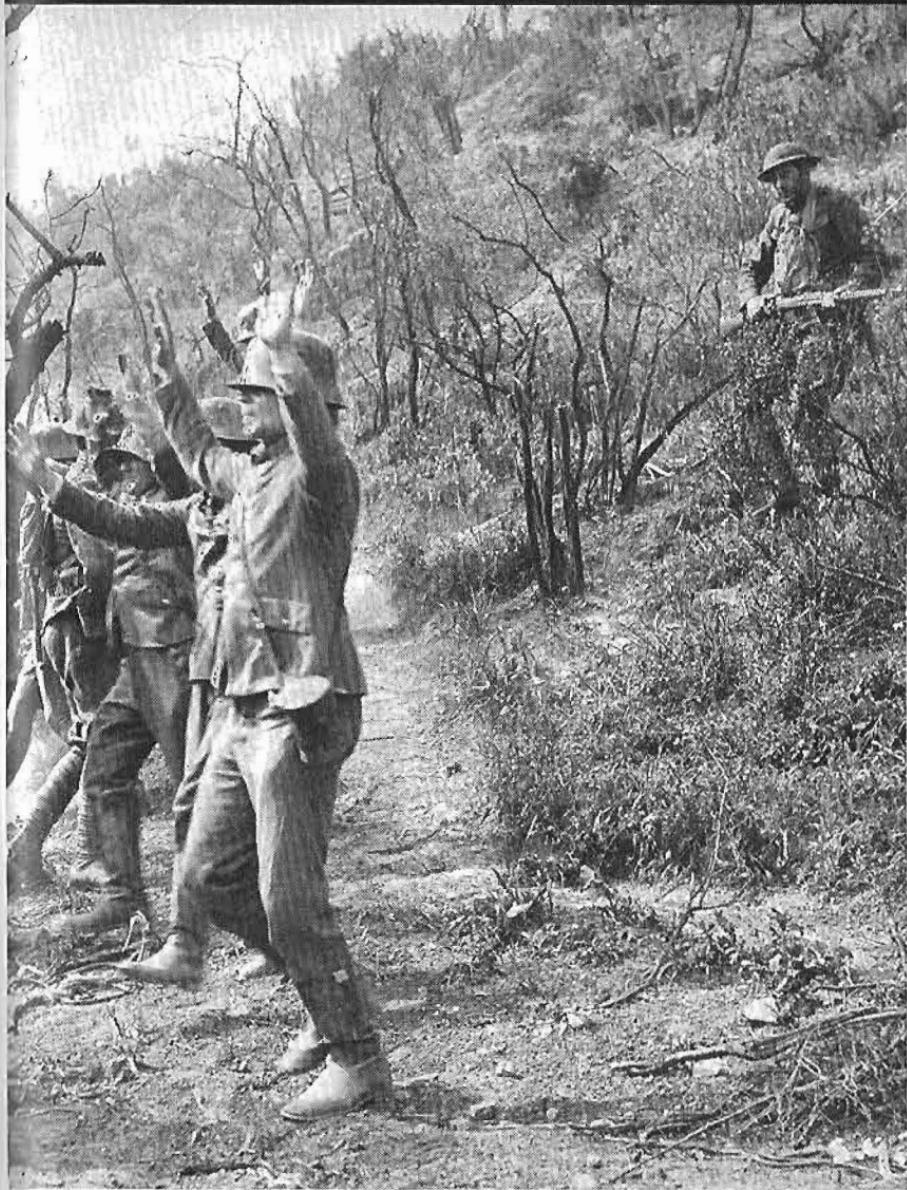
Every American has probably heard of Sergeant York. Perhaps you have seen the movie, from which this picture was taken. The story of Sergeant York is a story of expert marksmanship.

On October 6, 1918, York's division was engaged in breaking through the Hindenburg Line in the Argonne. The going was hard. There had been no artillery preparation. The advance was held up by German machine-gun nests. Men were falling all around York.

York's rifle settled the issue. He worked his way to the flank of one key machine-gun nest after the other. One by one he picked them off. When he was finished, twenty-five Germans lay dead at their guns. One hundred thirty-two others surrendered. The Americans swept over.

Marksman will help to win this war. Each one of you must qualify as a marksman. *You* are the men who must win this war.

THE BEST “MARKS-MAN” WINS



SQUEEZE—DON'T JERK

The most important single factor in marksmanship is the trigger squeeze.

It's as easy to squeeze a trigger as it is a tube of shaving cream. Squeeze the tube and you get exactly the amount of cream you require. The tube and cream are "under control." There's no waste—no mess.

But jerk the tube and control is lost—cream squirts out all over the place—wasted. You may even get some in your eye—so you duck, and the result is a terrible mess.

The same story applies to the trigger of a rifle. Squeeze it and your shot is controlled. It hits the bull's-eye—it isn't wasted. The rifle does what you want it to do. You *squeeze* for a bull's-eye. You *get* a bull's-eye.

But jerk the trigger, and control is lost. You expect the shock of the explosion. You flinch. You shut your eyes. You fire blind. You waste your shot.

To repeat, the trigger squeeze is the most important item in shooting.

To squeeze the trigger, you press it to the rear with a steady increase of pressure, in such a manner that you cannot know the exact instant when the gun will go off. The pressure is applied by the independent action of the trigger finger straight to the rear.

Avoid "pulling" the trigger to either side. When you practice the trigger squeeze, you must "follow through"—that is, press the trigger all the way to the rear and keep aiming before, during, and after the rifle fires. Keep the rifle to your shoulder after the rifle fires. Watch the sights carefully. If your sights do not remain on the target, your position or your trigger squeeze—or both—are wrong.

Coaches must check pupils carefully in the trigger squeeze. Shown here are two methods. In one, the pupil puts his finger on the trigger. The coach puts his finger over the pupil's finger, and demonstrates the correct squeeze. In the second, the coach puts his finger on the trigger; the pupil squeezes the trigger through the coach's finger. In this way, the coach can judge whether pupil correctly squeezes the trigger.

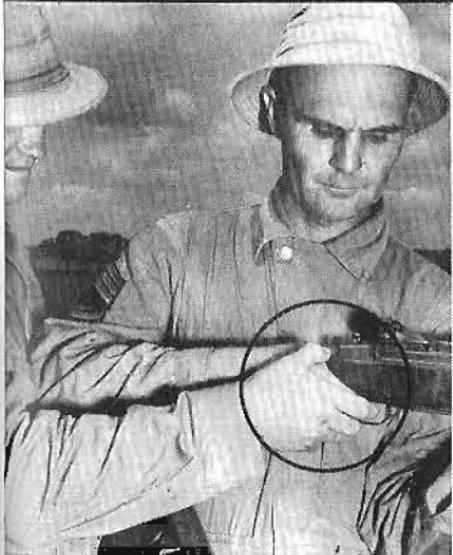
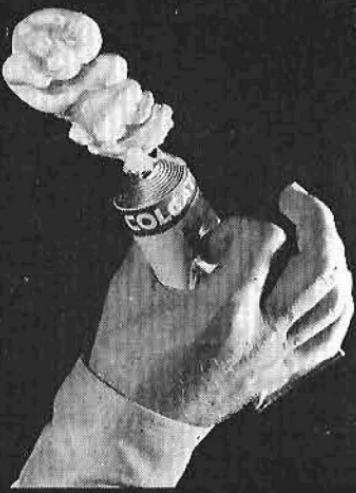
SQUEEZE

DON'T JERK



COACH SQUEEZES

PUPIL SQUEEZES



CALL YOUR SHOTS

One way to teach yourself to squeeze the trigger and not to jerk it—is to call your shots.

If you can tell where your shot will hit—bull's-eye or otherwise—you are shooting with open eyes. You are squeezing the trigger—you are following the rules.

If you *can't* call your shot correctly, it means you jerked the trigger. You did not know where the sights were pointing at the time the rifle was fired. You shut your eyes and fired afterward. You almost surely missed the bull's-eye.

These pictures show what happens when you squeeze your trigger.

These pictures also show what happens when you jerk it.

Remember—squeezing the trigger and calling your shots are two vitally important rules of good shooting.

CALL YOUR SHOTS



Shot one: he jerked and flinched



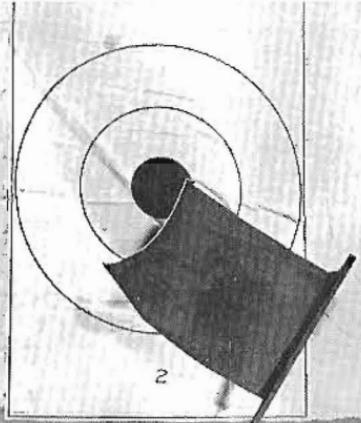
Shot two: he squeezed the trigger



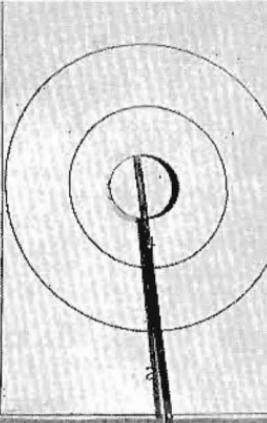
Shot one: he "guessed" a bull's-eye



Shot two: he called a bull's-eye



Shot one: he got the red flag



Shot two: he called his shot correctly

YOUR LIFE—OR HIS

Some day you may find yourself suddenly faced by this Jap—or a German.

Look at this man carefully. His uniform may not fit—but his face is determined. At this very moment, the training camps of Japan and Germany are filled with men like him—training hard, working day and night, practicing marksmanship with one end in view: To kill *YOU!*

When you meet this enemy, the man who will come out of that meeting alive will be the man who can shoot most accurately and rapidly.

Chances are all in your favor *if* you learn to make quick and proper use of your rifle. That means the ability to *fire it accurately and rapidly*.

Note the order in which the above words are written. Accuracy and correctness of execution of each shot in rapid fire are vitally important. Speed is secondary.

YOUR LIFE . . . OR HIS



PRONE POSITION—FIRST METHOD

The enemy will not wait while you get into firing position. You must do it quickly. Here is how to take the correct prone position quickly.

For purposes of practice, first mark on the ground the points where your right and left elbows normally rest in prone position, and the point on ground just below the butt of the rifle when in firing position.

These "rapid-action" pictures show how it is done:

- (1) Rifle is grasped with left hand just below the lower band and right hand at the heel of the stock.
- (2) Bend both knees to ground.
- (3) Place butt of rifle on ground at point marked.
- (4) Place left elbow on ground.
- (5) Place butt of rifle against right shoulder with right hand.
- (6) Grasp small of stock with right hand and place right elbow on ground.
- (7) Assume firing position.

PRONE POSITION — FIRST METHOD



SKIRMISHER'S METHOD

Here are a front view and a back view of a soldier taking the prone position by the skirmisher's method.

He places right foot well back and bends left knee as low as possible. He places butt of rifle on ground four or five inches to left and slightly in front of spot where right elbow is to rest. Grip of rifle is retained with both hands.

He places right elbow on the ground.

He places left leg back near the right one, feet apart, and slides well back while lying on belly.

He takes butt of rifle off the ground, and places it against right shoulder.

He lowers the left elbow to the ground.

The rifle comes up to the shoulder just as in the prone position.

SKIRMISHER'S METHOD



PRONE POSITION—RUSHING

Command is: PREPARE TO RUSH. UP.

At command PREPARE TO RUSH, draw the arms in until the hands are opposite chin, elbows down, and away from body.

At command UP, raise body by straightening arms.

Shift weight of body to right leg and arm and bring left leg forward with knee fully bent.

Spring up and run forward. Grasp rifle with both hands, left hand just below lower band and right hand at small of stock.

Upon arriving at firing point:

Advance left foot, turning it across front of body.

Drop forward on outside of left knee and at same time extend rifle, grasped in both hands and held vertically, so that butt strikes the ground at arm's length, directly in front of the left knee.

Pivoting on left knee and butt of rifle, roll forward onto left elbow and left side.

Simulate loading, and with right hand place butt of rifle on right shoulder and set safety in its forward position.

Grasp the small of stock with right hand and place right elbow on the ground.

PRONE POSITION – RUSHING



THE SITTING POSITION

In practicing for range firing sit down and aim at target in normal sitting position. Mark position of heels and spot on which you sit.

At command READY ON FIRING LINE, stand with heels on marked places.

As target appears sit down on marked spot, breaking fall with right hand. *Keep your eye on the target.*

Grasp small of stock with right hand and assume aiming position.

Remember, in all these positions: Even if it takes a little longer, get into correct position before starting to shoot. Correct technique first—speed later.

Only if your position is correct will your sights automatically return to the aiming point after you fire.

THE SITTING POSITION

1



2



3



2



3

THE KNEELING POSITION

Kneel and aim at target in normal kneeling position. Mark position of feet and right knee.

At command READY ON FIRING LINE, stand with feet in places marked for them.

As target appears, kneel with right knee on spot marked. *Keep your eyes on the target!*

Place the butt of rifle on shoulder with right hand. Note the change in the position of the right hand in pictures 1 and 2. Grasp small of stock with right hand and assume aiming position.

THE KNEELING POSITION



COVER TO COVER—UP

Soldier lies prone. Rifle is grasped by right hand about 3 inches below stock ferrule swivel.

On order—UP—he pushes up on both arms and right knee—and dashes forward.

COVER TO COVER—DOWN

To take cover—right hand grasps rifle at butt (as in taking prone position in rapid fire).

Pivoting on left foot—knee well bent—soldier flings himself forward and down, breaking his fall with butt of rifle.

He then flattens to ground, rifle grasped in right hand.

These pictures show the need for perfect physical conditioning. Good soldiers must be good athletes.

COVER TO COVER—UP



COVER TO COVER—DOWN



LOADING IN FOUR POSITIONS

Upper Left

Hold rifle with left hand, butt down.

With right hand, take clip from belt and place on top of follower.

Upper Right

With the thumb on the clip, and the fingers drawn up in a fist, press the clip down into receiver until it engages clip latch. This new method enables you to use full, firm pressure.

Thumb is swung to right, so as to clear bolt in its forward movement, and operating handle is released.

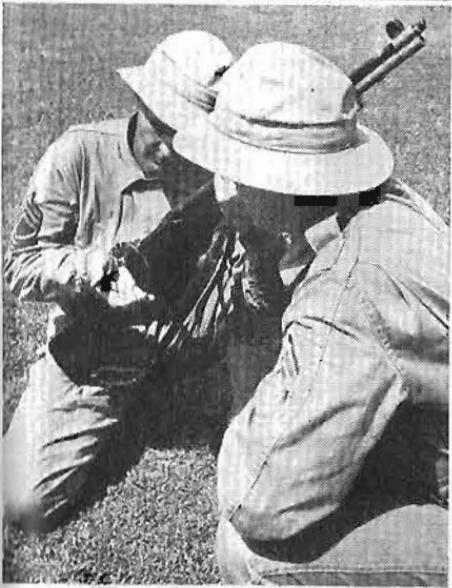
Lower Left

Closing of bolt may be assisted by a push forward on operating rod handle with the heel of right hand.

Lower Right

In standing position, where single rounds are inserted into the breech, note position of hand. While thumb pushes in round, heel of hand engages operating handle and prevents it from shutting until thumb is removed.

LOADING IN FOUR POSITIONS



FIRST RAPID FIRE EXERCISE

A most important element in rapid fire is the development of correct timing in firing. Correct timing in firing will vary from above five seconds per shot for the beginner to about two seconds for the experienced man.

The development of proper timing in firing rests mainly on the correct position of the firer. The firer's position is not correct unless the sights return automatically to the aiming point, the firer concentrates on the sight picture, and squeezes the trigger quickly. This is repeated for each shot.

The first rapid fire exercise is an exercise in cadence. These pictures show the correct prone position of pupil and coach. With the M1, the coach must be in a position to press back the operating handle with a sharp motion to cock the piece, and then release pressure to permit the operating handle to go forward.

The cadence of the exercise is set by the instructor who commands: COMMENCE FIRING. At regular intervals, he calls: BOLT. The coach then operates the bolt for his pupil. The pupil squeezes the trigger. In the beginning, the time interval is five seconds. Later it is shortened by a half second for each succeeding exercise until it becomes three seconds.

FIRST RAPID FIRE EXERCISE



SECOND RAPID FIRE EXERCISE

In this exercise, the necessary commands are given to simulate loading, and to indicate appearance of the targets. As the "targets" appear, the shooter assumes the prescribed position and "dry-shoots" a score of 16 shots in the prescribed time. Each time the trigger is squeezed, the coach operates the bolt. Shooters count their shots aloud; this causes them to breathe after each shot. After the eighth shot, simulate reloading from the belt. Instructor calls: FIRST ROUND, RELOAD, NINTH ROUND and LAST ROUND, at the proper time interval. Blocks are used in rifles.

Example. Open bolts. Simulate LOAD. Ready on the right. Ready on the left. Ready on the firing line. Targets Up. After 9 seconds: FIRST ROUND. After 30 seconds: EIGHTH ROUND, RELOAD. After 39 seconds: NINTH ROUND. After 60 seconds: SIXTEENTH ROUND. After 65 seconds: CEASE FIRING.

THIRD RAPID FIRE EXERCISE

The exercise is conducted with wooden block removed, and with one clip loaded with dummies. This clip is placed in the cartridge belt, in the third pocket from the right.

Command is given to open bolt. Command is given: ONE ROUND, SIMULATE LOAD. At the command, shooters lock and simulate loading one round. At signal "Targets Up," shooters take prescribed position, and squeeze off one dry shot. Then they load the clip of dummies from the belt and squeeze off a dry shot with each dummy. Every time the trigger is squeezed, coach operates bolt. The time allowed is 40 seconds.

SECOND RAPID FIRE EXERCISE



THIRD RAPID FIRE EXERCISE



WILL YOU KILL THESE NAZIS . . . OR WILL THEY KILL YOU?

This is how a squad of German soldiers may look to you when you spot them on the battlefield.

They make a small target. And to make matters tougher, there is a wind blowing across the field between you and these men. This wind will push a bullet in the direction it is blowing—just as it does the smoke in the background.

To score a hit under these conditions requires a high precision weapon—one that enables you to cut down the margin for error.

Your rifle is just such a weapon—providing it is properly used. It is equipped with a rear sight. This enables you to make due allowance for wind. A few simple rules enable you to control the wind.

**WILL YOU KILL THESE NAZIS . . .
OR WILL THEY KILL YOU?**



THIS IS THE REAR SIGHT

At the top of the page is a picture of the rear sight of an M1 rifle. In the center of the page are pictures of the A, B, and D targets. At the bottom is a page from your score book.

All three have a bearing on each other.

The elevating knob raises or lowers the peep sight. This raises or lowers the strike of the bullet on the target.

The windage knob moves the peep sight right or left—moving the strike of the bullet right or left on the target.

These knobs move a click or a quarter point at a time—each click or quarter point moving the bullet a certain distance. These distances have been ruled off on the target to show you how much one click of the knob (on the M1) moves the strike of the bullet on a 200-yard target.

The score book enables you to keep a record of each shot you fire, for no one can remember for long the results and conditions of each shot he fired. Yet these data are very valuable to you in improving your marksmanship.

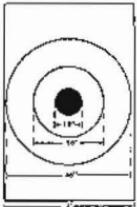
THIS IS THE REAR SIGHT

Elevating knob raises or lowers path of bullet

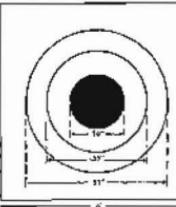
Windage knob moves path of bullet right or left

THIS IS THE TARGET (200 YDS.)

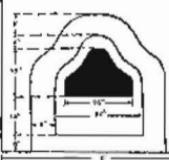
MODEL—DIMENSIONS TO SCALE OF A, B, AND D TARGETS



A



B



D

THIS IS YOUR SCORE BOOK

200 AND 300 YARDS, SLOW FIRE RECORDING SHEET

Place		Date		Mile			
Hour	Wind	Light	Weather	45	42	39	36
6 ⁰⁰				18			
7 ⁰⁰					18		
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WINDAGE KNOB

Let's see exactly what this windage knob does.

One click of this knob moves the strike of the bullet 1 inch—to the right or to the left—on the target for each 100 yards of range.

Let's look down on the little man from straight above.

In this first picture, his rear sight is fixed at 1 click of windage to the left. That means the bullet moves to the left 1 inch in 100 yards—2 inches in 200 yards.

Aiming at the same target, the little man now moves his windage 2 clicks to the right. At 100 yards, the bullet now strikes 2 inches to the right of the first bullet. At 200 yards, the bullet strikes 4 inches from the first bullet.

Now he moves his windage knob again—1 click left. That moves the bullet 1 inch to the left in 100 yards—2 inches in 200 yards.

The inset at the left shows how simply this works. One click of windage at 100 yards moves strike of bullet on target 1 inch. At 200 yards, 2 inches. At 400 yards, 4 inches. And so on.

WINDAGE KNOB

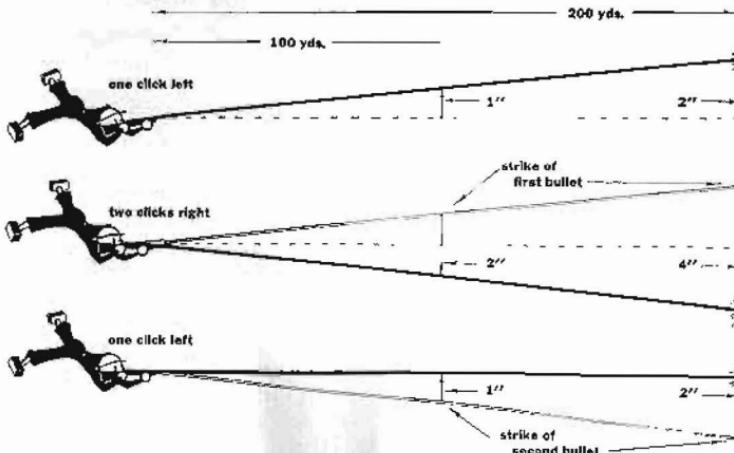
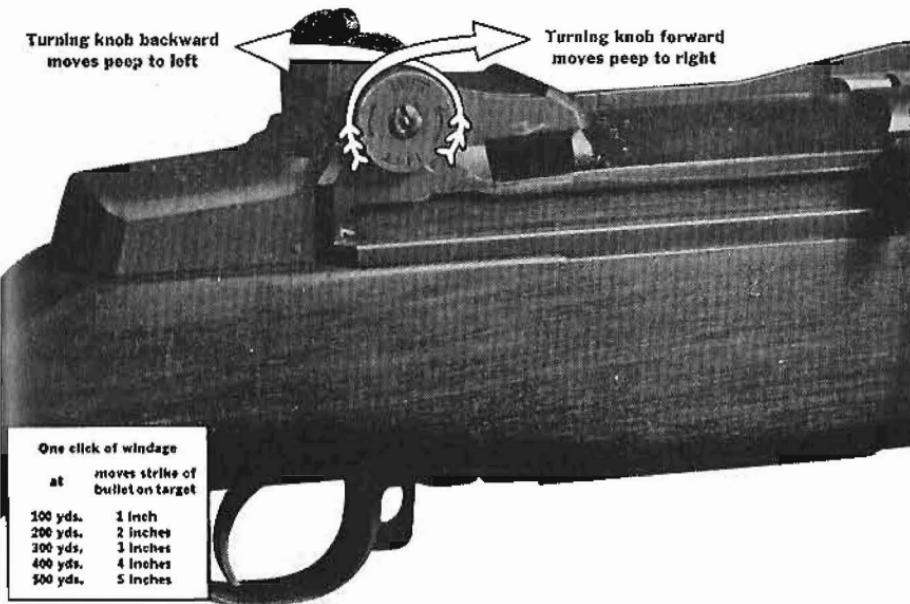
One click of this knob moves strike of bullet 1 inch,
right or left, on target for each 100 yards of range

Turning knob backward
moves peep to left

Turning knob forward
moves peep to right

One click of windage
at moves strike of
 bullet on target

100 yds.	1 inch
200 yds.	2 inches
300 yds.	3 inches
400 yds.	4 inches
500 yds.	5 inches



ELEVATING KNOB

The elevating knob works exactly the same as the windage knob. Only instead of left and right—1 click of this knob moves the strike of the bullet 1 inch—up or down—on the target for each 100 yards of range.

Let's look at our little man again—this time from the side. With 4 clicks of elevation, the bullet strikes 4 inches above his line of sight at 100 yards. At 200 yards, it strikes 8 inches above the line of sight.

With 2 clicks of elevation, the bullet strikes 2 inches above the line of sight at 100 yards—and 4 inches above at 200 yards.

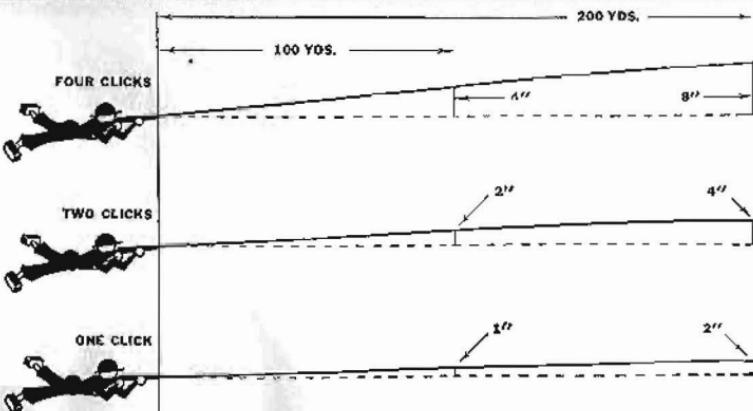
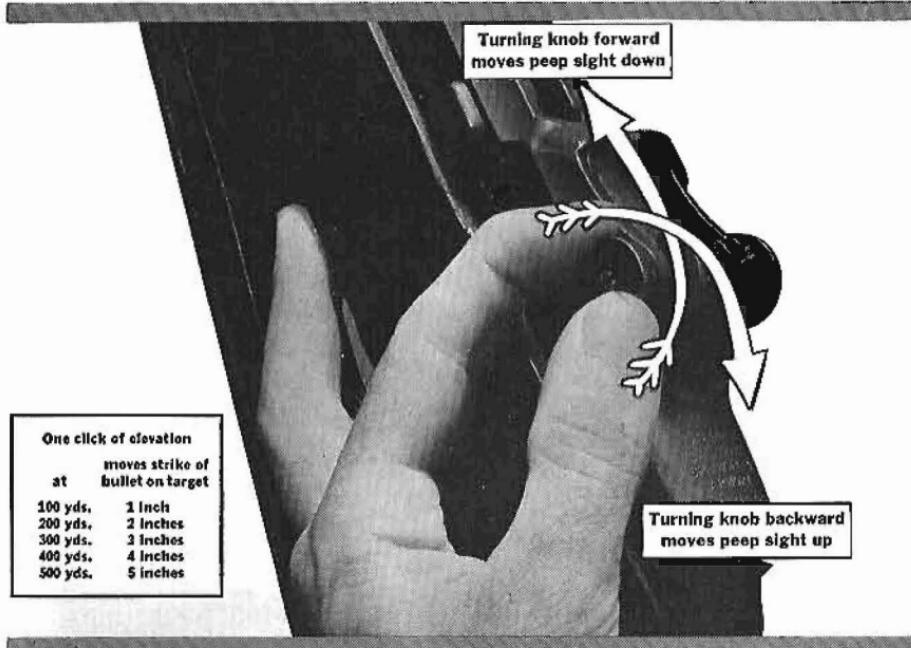
With 1 click of elevation, the bullet strikes 1 inch above the line of sight at 100 yards—2 inches above at 200 yards.

The inset tells the tale:

One click of elevation at 100 yards moves strike of bullet on the target 1 inch. At 200 yards, 2 inches. At 500 yards, 5 inches. And so on.

ELEVATING KNOB

One click of this knob moves strike of bullet 1 inch up or down on target for each 100 yards of range



WIND CHANGES PATH OF BULLET

These rules of windage and elevation are fairly simple. Repeat them a few times, and you've learned them forever.

Now we are ready for the next step—the effect of wind on the path of a bullet. Just as wind has enough force to blow flags one way or another, so has it enough force to blow a bullet.

We therefore must know a little about the wind.

First thing to know is that it blows from different directions. This alarm clock makes it easy to describe the directions of the wind. Make believe you are looking down on it from above. When a wind blows across the field from the right—from 3 o'clock—it is called a 3 o'clock wind. One that blows from 8 o'clock is an 8 o'clock wind. And so on for the rest.

The next thing to know is how hard the wind is blowing. For the harder it blows, the more it will move the bullet.

One way to figure the force of the wind is to look at the range flag. Note the angle the flag makes with the pole. Then divide this angle by 4. The result is the force of the wind in miles per hour. Another way is to pluck some dry grass, hold it out and let the wind carry it off. Follow the direction in which it falls with your arm. The angle your arm makes with your body, divided by 4, gives you the force of the wind.

Here are a few typical examples: A strong wind might blow the flag to an 80-degree angle with the pole. Then—

$$\frac{80}{4} = 20 \text{ miles per hour}$$

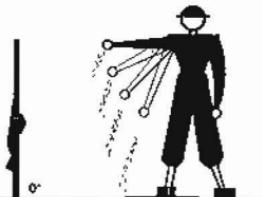
A 40-degree angle of the arm indicates a wind of 10 miles per hour—figured this way:

$$\frac{40}{4} = 10 \text{ miles per hour}$$

WIND CHANGES PATH OF BULLET



HOW TO FIGURE FORCE OF WIND



$$\frac{\text{angle of flag}}{4} = \frac{\text{force of wind}}{\text{in miles per hour}}$$

$$\text{Example: } \frac{80}{4} = 20 \text{ miles per hour}$$

HOW TO CORRECT SIGHTS FOR WIND

Once you know the direction and force of the wind, it isn't hard to make correct allowances for it.

This soldier aimed at the bull's-eye. But the wind blew his bullet clean off the target. So he adjusted his sights to allow for the wind, and he hit the bull's-eye squarely.

Let's see what he did to accomplish this:

He figured the direction and force of the wind. Then he applied this rule—the wind rule at the bottom of the page.

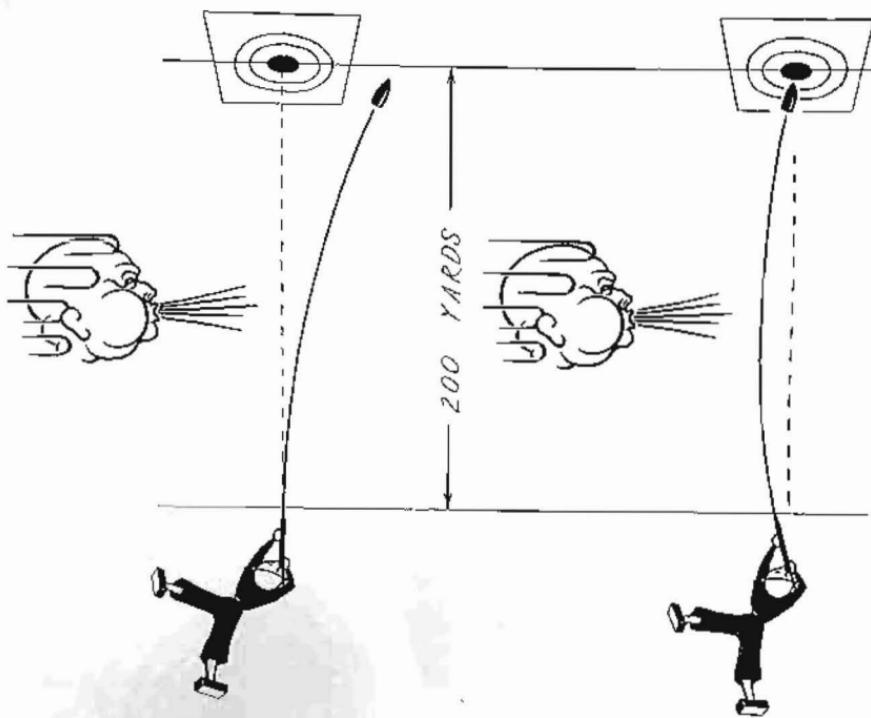
He multiplied the force of the wind by the range (in 100s of yards) and divided by 10. *Result:* The number of clicks of windage needed to put the bullet into the bull's-eye.

Then he moved the rear sight *into* the wind by turning the windage knob the correct number of clicks.

For example: If a 9 o'clock wind blew at 20 mph and the range was 200 yards, he multiplied 20 by 2 and divided by 10. The result—4—was the number of clicks of windage needed to hit the bull's-eye. Since the wind blew from 9 o'clock, he moved the windage knob *into* the wind—that is, to the left—4 clicks.

The windage rule applies to a 2, 3, 4, 8, 9, and 10 o'clock wind. For a 1, 5, 7, or 11 o'clock wind, use one-half of the windage given in the formula.

HOW TO CORRECT SIGHTS FOR WIND

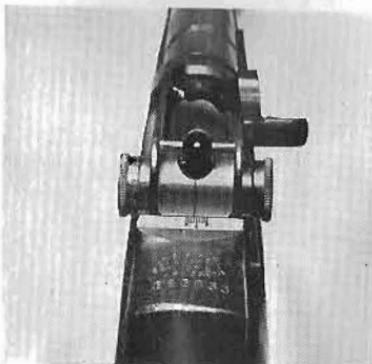


TO CORRECT FOR WIND . .

Move rear sight into wind by turning the windage knob. How much? The wind rule tells you:

$$\frac{\text{force of wind} \times \text{range (in 100's of yds.)}}{10} = \text{clicks}$$

Example: $\frac{20 \times 2}{10} = 4 \text{ clicks}$



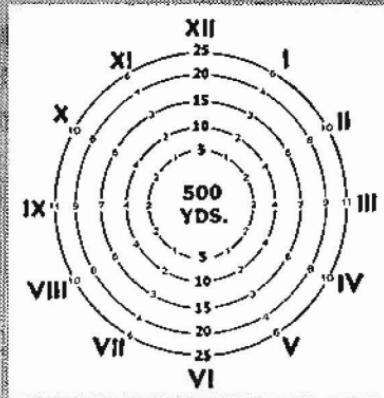
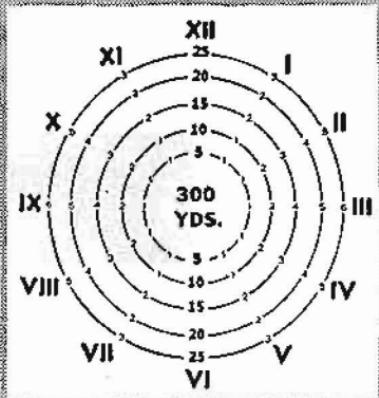
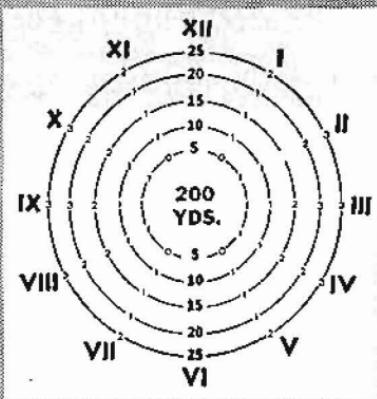
THE WINDAGE TO ALLOW FOR THE FIRST SHOT

This picture explains itself. Study it carefully.

It is taken from the U. S. Army Score Book. In firing on the range, and in practice in camp, it is helpful to check your windage with these windage diagrams.

In combat, however, you will not have a score book with you. Therefore, memorize the wind rules on page 102. As long as you know the range and wind velocity, you can always adjust your rifle properly.

THE AMOUNT OF WINDAGE TO ALLOW FOR FIRST SHOT IS ALSO SHOWN IN THESE WINDAGE DIAGRAMS



MODEL WINDAGE DIAGRAM M1 RIFLE

Large numerals indicate wind velocity

Small numerals indicate clicks of windage

Roman numerals indicate wind directions

YOUR RIFLE, LIKE YOUR GIRL, HAS HABITS FOR WHICH YOU MUST ALLOW

So much for wind allowances. Now let's discuss one other allowance you must learn to make. This allowance is for certain habits of your rifle itself.

In a way, your rifle is like your girl friend. She probably has certain habits you learned about before you really got along with her. She didn't wear a sign telling you about those habits. You had to learn from experience.

Same way with your rifle. Every rifle has a personality all its own. Like people, it has certain habits you have to catch on to before you get the most out of it. And you too have certain traits that the rifle must get used to. Obviously, a rifle will act differently when held by a 6-footer than when it's held by a much shorter man.

For example: One rifle might shoot a little to the left. Another might tend to shoot a little high and to the right. A tall man leans right into the rear sight. A short man can't get quite as close—so his sighting is a little different.

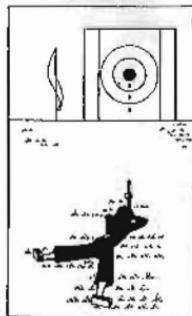
These are things each of you must discover yourself in shooting the rifle. Once you recognize these habits, it's easy to make the necessary allowances for them.

Allowing for a rifle's habits is called "zeroing the rifle."

The zero of the rifle is the point at which the rear sight must be placed for elevation and windage to hit the center of the bull's-eye on a normal, windless day.

To see how you do it, turn the page.

**YOUR RIFLE, LIKE YOUR GIRL, HAS HABITS
FOR WHICH YOU MUST ALLOW**



**ALLOWING FOR RIFLE'S HABITS IS CALLED
"ZEROING THE RIFLE"**

The zero of a rifle is the point at which rear sight must be placed for elevation and windage to hit center of bull's-eye on a normal windless day

HOW TO ZERO THE RIFLE

On a windless day, set the rear sight of your rifle this way:

Turn the elevating knob as far down as it will go—then move it up 10 clicks—which usually insures your hitting the target at 200 yards (providing you do everything else right).

Adjust the windage knob, so that the wind gauge stands at dead center.

Next, take a prone position, aim, squeeze your trigger, and call your shot. Note this in your score book. (For purposes of practice, mark the strike of the bullet on the target, under "shoot once" with a pencil.)

Now, shoot again and mark your score book. (Mark strike of bullet with pencil under "shoot again.")

Study your first two shots. If you have been shooting properly, they should be close together. If you aren't sure of one of these first two shots, fire a third. (Mark it with pencil under "If necessary, shoot again.")

Two or all three shots should form a group on the target—and in your score book. They reveal your rifle's habits. They tell you your rifle tends to fire high or low—left or right. They tell you what adjustments you must make in your rear sight to allow for your rifle's "personality."

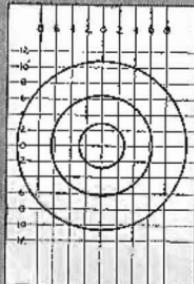
HOW TO ZERO THE RIFLE

ON A WINDLESS DAY, SET REAR SIGHT THIS WAY

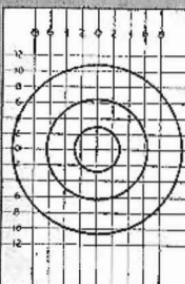
Move elevating knob
all the way down;
then move it up
10 clicks for 200 yds.

Set windage knob
at zero windage

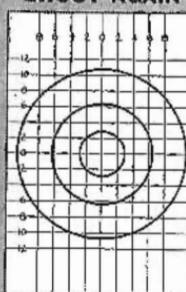
SHOOT ONCE



SHOOT AGAIN



IF NECESSARY,
SHOOT AGAIN



RECORD YOUR SHOTS IN YOUR SCORE BOOK

200 AND 300 YARDS, SLOW FIRE RECORDING SHEET

Place	Wind	Date	X	
Hour	n° clock	Light	Weather	miles
Range				
No.	Alt.	Wind	Call	Val.
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
Correct Elev.				
Zero Windage				
Score				
Zero Windage				
Correct Elev.				

ADJUST THE SIGHTS

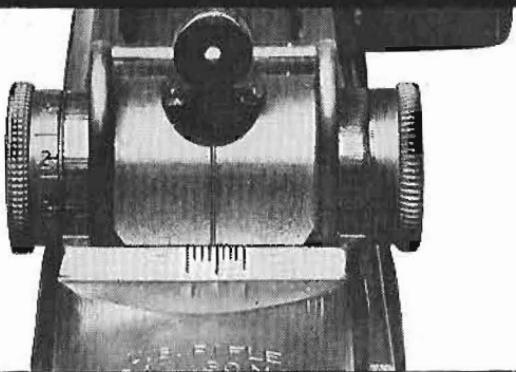
In this case—let's say your shot group has been 4 inches right and 4 inches above the center of the bull's-eye.

So, applying the windage and elevation rules—you move the elevating knob 2 clicks down. At 200 yards, that means 4 inches down. You move the windage knob 2 clicks left. At 200 yards, that is 4 inches left. Now you should hit the center of the bull's-eye.

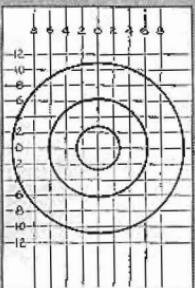
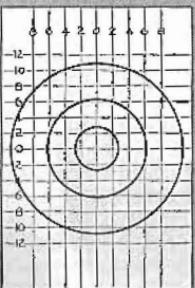
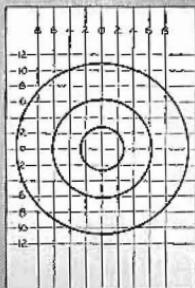
To be sure, you shoot again with the adjusted sights. Two shots should convince you that you are now wise to your rifle's "habits"—and that you've licked them.

If you're doubtful—if you've flinched or are not sure of your position or sights—shoot again until you are satisfied that your sights are properly adjusted.

ADJUST THE SIGHTS



SHOOT WITH ADJUSTED SIGHTS



MARK YOUR SCORE BOOK

200 AND 300 YARDS, SLOW FIRE RECORDING SHEET												
Place		Date		Kil.								
Hour	Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind	Wind	
o'clock	Left	Right	Wester	East	North	South	NE	SE	SW	NE	SE	
Range	Position											
No.	Elev.	Wind.	Call	Viz.	Junction							
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
Score												
Correct Elev. Zero Windings												
Zero Windings Correct elev.												

ADJUST THE ELEVATING KNOB

Your rifle is now ready for the final phase of zeroing.

Hold the elevating knob so it will not turn. Using the combination tool screwdriver, loosen the elevating knob-screw.

Pull out the elevating knob and rotate down until the figure 2 on the drum (representing the 200-yard sight setting) is opposite the index line in the rear sight base.

Then, holding the elevating knob so it cannot slip, tighten the elevating knob-screws. The rifle is now zeroed for elevation.

The wind gauge zero is at the point where we have set the windage in order to bring the strike of the bullet into the center of the bull's-eye.

The wind gauge itself need not be changed. You must remember the corrected or zeroed windage, however, and base all further wind calculations on it. You always start off with this zero windage—the windage you needed on a windless day to hit the center of the target.

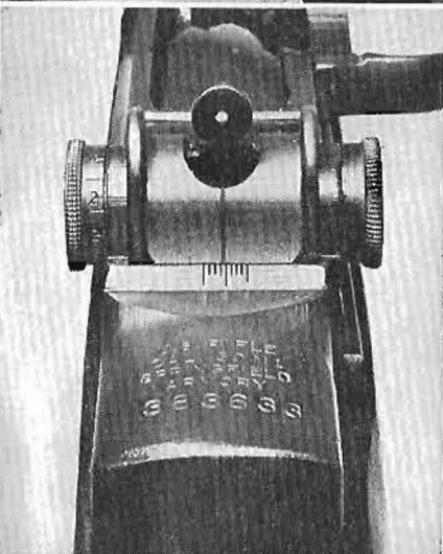
Your wind gauge and elevating knob do not have to be—nor are they likely to be—the same as the zero marked on the rifle by the manufacturer.

But remember—the rifle is *your* rifle, not the manufacturer's.

Now the rifle is adapted to your own personality.

And you are adapted to the rifle's.

ADJUST THE ELEVATING KNOB



THE RIFLE IS NOW "ZEROED"

SIGHT CHANGES

At the top of this picture is an A target. At the bottom is a model of a wind gauge and an "unrolled" elevating drum.

With your pencil point, indicate shot groups on the target. Then, using different wind conditions, make the necessary adjustments in windage and elevation.

Practice zeroing your rifle on windy days. Be sure you understand the theory and practice of sight changes by illustrating on this chart the following examples (the answers are on page 122):

(1) Range: 500 yards. Wind: 10 miles at 3 o'clock. Set your sights for first shot.

(2) Range: 600 yards. Wind: 10 miles at 9 o'clock. Set your sights for first shot. Suppose your shot was spotted as a 3 o'clock 4, and you were sure your hold and trigger squeeze were good. Change your sights to bring the next shot into center of bull's-eye.

(3) Set your sights at 600 yards plus 1 click with $1\frac{1}{2}$ points or 6 clicks of left windage. Suppose you fire 4 shots hitting in the bull's-eye and your fifth shot is an 11 o'clock 3. What would you do to your sights?

(4) Range: 600 yards. Wind: Varies from 8 to 12 miles per hour in velocity and from 1 to 3 o'clock in direction. When you fire first shot, wind seems to steady at 8 miles an hour at 3 o'clock. How would you set your sights?

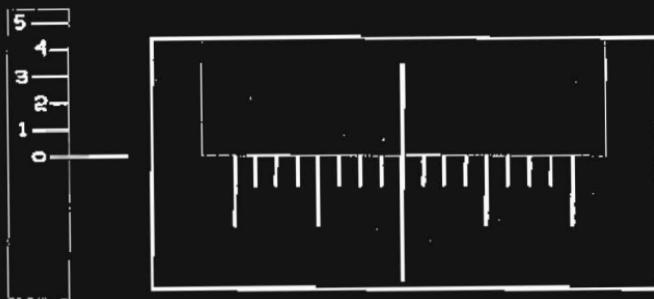
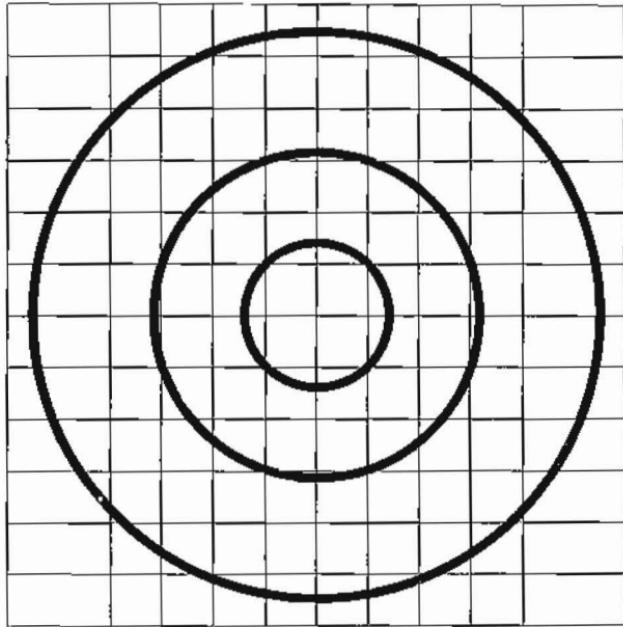
(5) You fire your first shot. Spotter marks it a 7 o'clock 4. How would you set your sights?

(6) Your second shot hits center of bull's-eye; your third hits bull's-eye at 12 o'clock; your fourth hits a 9 o'clock 5. Your fifth shot is a 9 o'clock 4. What would you do?

(7) Your sixth shot hits bull's-eye near edge at 3 o'clock. What change would you make?

(8) Before you fire your seventh shot, you notice that the wind has shifted to about 1 o'clock, at the same rate. How would you set sights?

(9) Your seventh shot is a 4 at 6 o'clock. What correction should you make?



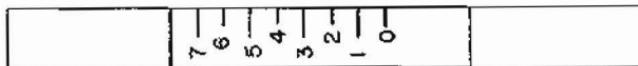
WIND GAUGE AND ELEVATING DRUM

These pictures show how to make the diagram of the wind gauge and elevating drum on page 117 movable, so that you can work out the suggested problems on them.

(1) With a razor blade, slit the wind gauge and elevating drum on page 117 as indicated by the dotted lines in diagram C.

(2) Cut out diagrams A and B, and slip them into position through the slits on page 117 so that they may be moved as shown in diagram C.

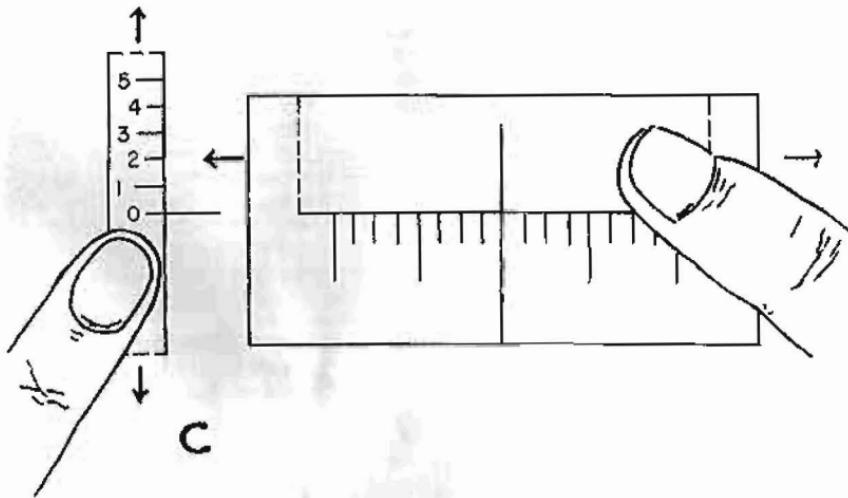
WIND GAUGE AND ELEVATING DRUM



A



B



C

AND NOW . . . YOU SHOOT FOR RECORD

You have finished the course. You have shot on the range "for record", but the real shooting for record is still before you. This pair of Axis partners on the opposite page will henceforth do the marking for you. And they pay off only on bull's-eyes.

You start with the advantage. You go into battle not only with the best shooting rifle and best shooting training but also with best shooting tradition. For our country was built—and maintained—by marks-men, Kentucky riflemen, Concord farmers with their muskets, Blue and Gray riflemen of The War Between the States, and the men of the First AEF whose accurate and murderous fire won at the Marne twenty-five years ago.

If you have worked hard, studied hard, and treated your rifle right, you'll keep the advantages you started with. You'll get bull's-eyes.

You'll win.

AND NOW . . . YOU SHOOT FOR RECORD



ANSWERS TO PROBLEMS ON PAGE 116

- (1) $1\frac{1}{4}$ points or 5 clicks right windage.
- (2) 2 points or 8 clicks left windage.
- (3) Nothing.
- (4) $1\frac{1}{4}$ or 5 points of right windage.
- (5) Move windage $\frac{1}{4}$ point or one click to right. Move elevation $\frac{1}{4}$ point or 1 click up.
- (6) Sights should be at $1\frac{3}{4}$ points or 7 clicks of right windage.
- (7) The 4 on the fifth shot must have been due to an error in aim or trigger squeeze, so put your sight back to where it was before. ($1\frac{1}{2}$ points or 6 clicks.)
- (8) For 1 o'clock wind you need almost half as much windage as for a 3 o'clock wind. You should now have $\frac{3}{4}$ point or 3 clicks of right windage.
- (9) No change. Your low shot was due to poor aim or trigger squeeze. Do not try to correct personal errors by moving sights around.

SHOOTING NOTES

SHOOTING NOTES



SHOOTING NOTES

SHOOTING NOTES

1. *Wetland*

SHOOTING NOTES



SHOOTING NOTES



STANDARD MILITARY BOOKS AND MANUALS

Tank-Fighter Team	\$.25
What to Do Aboard the Transport25
The Fight at Pearl Harbor25
(For sale to the Armed Forces only)	
Sergeant Terry Bull25
New Soldier's Handbook25
Company Duties: A Checklist25
Keep 'em Rolling50
Infantry in Battle	3.00
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