THE
UNITED STATES ARMY
MARKSMANSHIP UNIT

INTERNATIONAL RIFLE MARKSMANSHIP GUIDE

1980 EDITION

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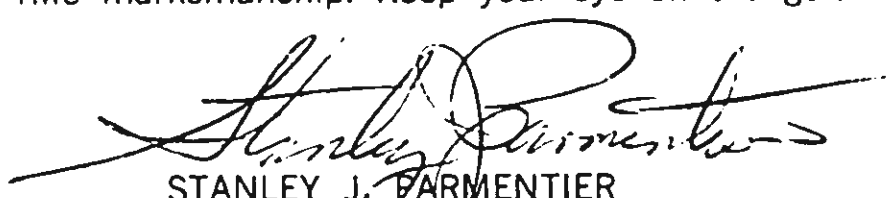
FOREWORD

The purpose of this manual is to record the principles and techniques of International Rifle shooting with the primary objective of improving shooter performance in competition. The techniques and ideas put forth in this manual represent the collective thinking of United States medal winners from the last World Championships, Pan American and Olympic Games. These techniques and ideas are not to be taken as the final word of solution to success in international shooting but rather the best information presently available to guide the development of the international rifle shooter. Every shooter is an individual, differing from other marksmen physically, mentally and in shooting background; thus, success in international rifle shooting is the direct result of the individual's ability to modify a standard training program to meet personal requirements.

A shooter's progress in international rifle shooting is directly proportional to a desire to achieve and ability to clearly analyze performance. This manual is designed to help the shooter with this analysis. For simplicity, the text is written in a manner that pertains to right handed shooters.

The validity of the materiel presented herein is attested to by results attained in recent years and at present. The United States Army International Rifle Team and individual shooters, using techniques as described in these pages, have continued to win in World Class competition. The effectiveness of training methods can only be measured by success in competition.

This manual is dedicated to the shooter who is seriously interested in attaining maximum control of skills developed for application to the art of competitive international rifle marksmanship. Keep your eye on the gold and good shooting.



STANLEY J. PARMENTIER
Colonel, Infantry
Commanding

OLYMPIC GOLD MEDAL Figure 1

Figure 1. Olympic Gold Medal

INTERNATIONAL DISTINGUISHED BADGE Figure 2

Figure 2. International Distinguished Badge

CHAPTER I

THE INTERNATIONAL MATCH

A. GENERAL. The two medals in figures one and two have one thing in common; both are awarded only to the finest shooters in the world. The International Distinguished Badge is the highest award this nation can bestow upon a marksman. This medal is awarded to a shooter when he wins his first medal in world class international competition. The Olympic Gold Medal is awarded to the world champion at the Olympic Games. (Fig. 3)

World medals are given in only five competitions:

1. **Olympic Games.** The Olympic Games are the most difficult competitions in which to win a medal. Only individual medals are given, i.e., only one gold, silver, and bronze per event. Also the U.S. team is composed of two individuals per event selected at a tryout which runs concurrently with the national international championships. Only two shooters from each nation may compete in the English Match and two in the smallbore three position event.

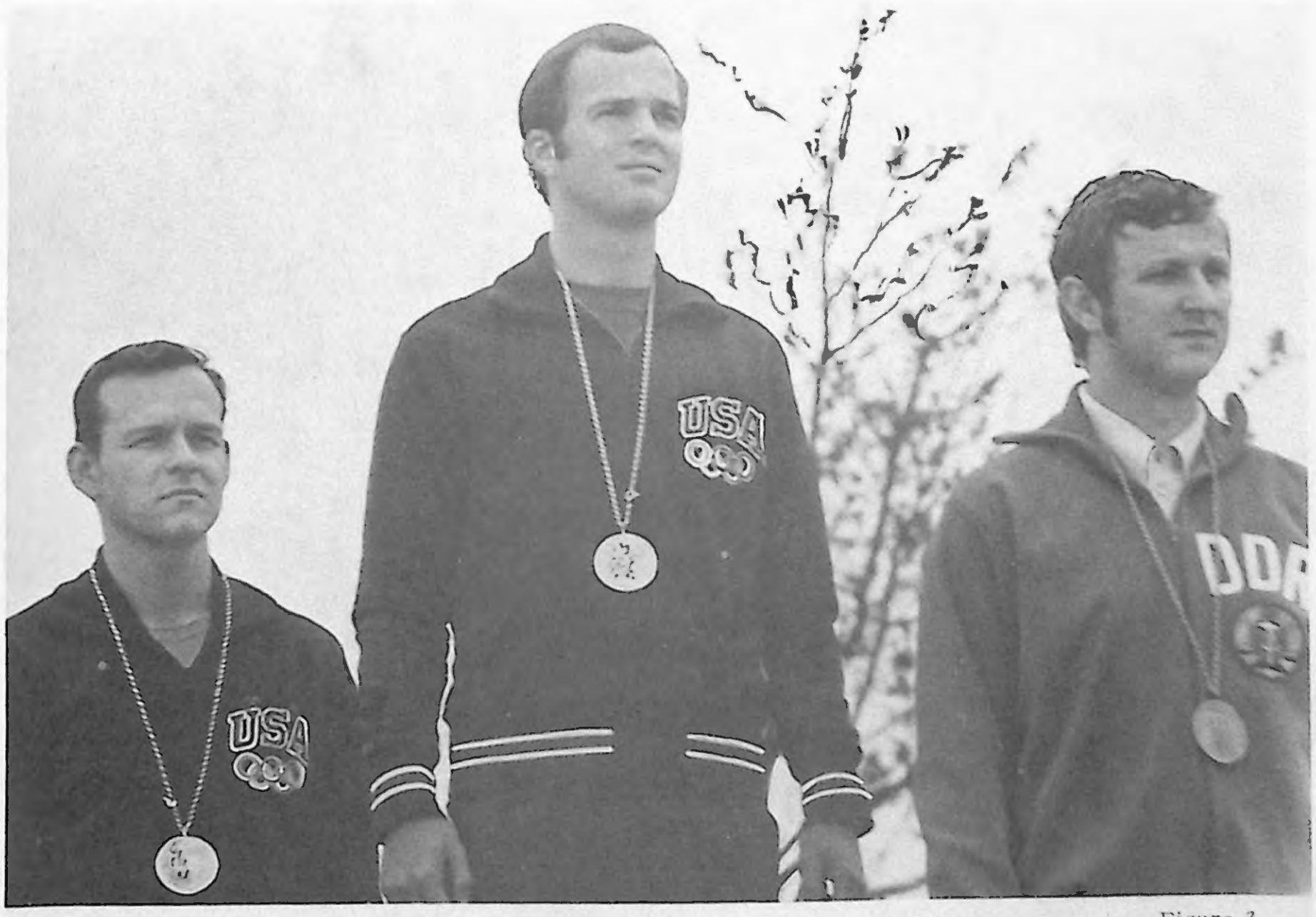
2. **World Championships.** The World Championships are also open to all nations and include all six international rifle events. All shooters are eligible to win both an individual and a team medal.

3. **Pan American Games.** The Pan American Games, unlike the Olympics or World Championships, are open only to nations in North, South, Central America and the Carribean.

4. **Championships of the Americas.** The Championships of the Americas, like the Pan Am Games, are open only to nations from the Western Hemisphere. At this tournament, women and junior competitions are also held in the standard and air rifle competitions.

5. **European Championships.** The European Championships are open to all nations of Europe. Normally fired bi-annually, this competition is conducted like the World Championships.

6. **Annual World Competition.** With the exception of the European Championships, each of the other four championships are held once every four years and are so spaced that two do not occur during the same year. In each of the championships the U.S. team is composed of no more than ten shooting individuals. These shooters may compete in more than one of the six international events. In all cases the team and individual matchs are fired concurrently so the shooter fires once over the course with his score counting for both individual and team awards.



INDIVIDUAL AWARDS CEREMONY

Figure 3

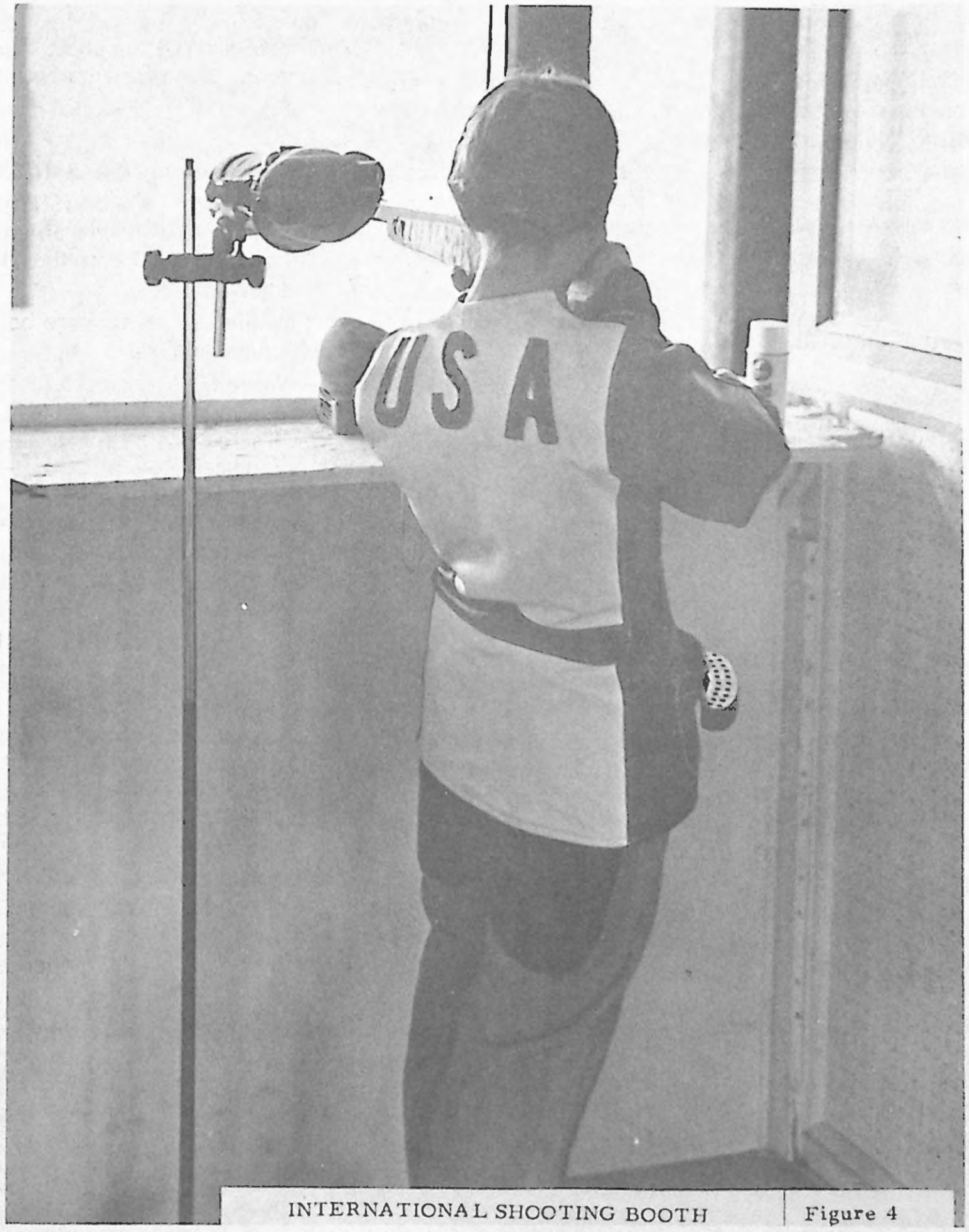
Figure 3. Olympic Awards Ceremony

B. MAJOR DIFFERENCES BETWEEN ISU AND NRA TYPE MATCHES.

1. **Time.** National Rifle Association (NRA) matches require the competitor to shoot his positions in a limited amount of time. International Shooting Union (ISU) matches allow a longer period of time for the shooter to work and concentrate on his performance. Therefore, there is no need to hurry the shot.

2. **Targets.** The target black of the ISU and NRA targets are almost identical. However, the scoring rings on the ISU target are considerably smaller. Thus, the ISU target is more demanding and is a more discriminating measure of performance than the NRA target.

3. **Firing Points.** In ISU matches, firing points are usually covered and enclosed on three sides. The purpose of this is to protect the shooters from the elements (Fig. 4). Also, all shooters are equally protected, this is not always true in NRA matches where trees or buildings behind an open firing line may protect some shooters from wind, while other shooters go unprotected.



INTERNATIONAL SHOOTING BOOTH | Figure 4

Figure 4. International Shooting Booth

C. HOW AN INTERNATIONAL MATCH IS CONDUCTED.

1. **Sighting Shots.** Sighting shots are made at specified targets. They must be made before or between ten shot strings. In other words, once a shooter begins shooting for match score, he must complete a ten shot string in that position before he can return to a sighter target.

2. **Target Identification.** Before the match begins, each competitor's targets are clearly marked by position and numbered. It is the shooter's responsibility to see that he fires on the correct target.

D. COURSE OF FIRE. There are six ISU of fire.

1. **English Match (50Meters).** The competitor fires a maximum of fifteen sighting shots and sixty shots for match score from the prone position. The time limit for this match is two hours. More shooters from more countries compete in this event than any other single international event.

2. **Smallbore Three-Position (50Meters).** The competitor fires a maximum of six sighting shots and twenty shots for match score in each position (prone, standing, kneeling). The competitor fires a maximum of ten sighting shots and forty shots for match score in each position (prone, standing, and kneeling). The time limits are: One hours thirty minutes prone; two hours standing; one hour forty-five minutes kneeling. The position must be fired in the order stated.

3. **Free Rifle (300Meters).** The competitor fires a maximum of ten sighting shots and forty shots for match score in each position (prone, standing, kneeling). The time limits are identical to the Smallbore three position event.

4. **Smallbore Standard Rifle (50Meters).** The total time is two hours thirty minutes. This event is held for women and juniors only.

5. **Big Bore Standard Rifle (300Meters).** The competitor fires a maximum of six sighting shots and twenty shots for match score in each position (prone, standing, and kneeling). The total time is two hours thirty minutes.

6. **Air Rifle (I0Meters).** The competitor fires a maximum of ten sighting shots and forty shots for match score from the standing position. The time limit is one hour thirty minutes.

E. CONDUCTING AN INTERNATIONAL RIFLE MATCH IN THE UNITED STATES UNDER NRA SANCTION.

1. **ISU Style Competitions.** It is obvious that all aspects of the organization and conduct of an ISU match are designed to provide an accurate and discriminating means of measuring performance. It gives every shooter an equal opportunity to deliver the best performance he is capable of producing. This spirit can prevail in an ISU match even though some aspects of its organization and conduct are modified to adapt to existing or less expensive facilities.

Sponsors should not hesitate to conduct ISU type smallbore matches as they are becoming more popular, particularily among the younger shooters that hope to compete at the collegiate or international level.

2. **Range Requirements.** As previously stated, the firing points should be covered and enclosed on three sides. This is essential to the proper conduct of an ISU type match. Preparing the firing points can be accomplished quite easily, especially if a roof exists over the firing line. Many clubs have found that six foot target frames can be erected to form enclosures. Others have used target cloth stretched on portable frames The purpose of the enclosures is to protect the shooters from wind, rain, and sun. Any material and design of construction which will serve this purpose, is adequate. The enclosure may be temporary so that the range may be converted back to NRA match specifications. It is preferable if a single rear wall extends the length of the firing line. An aisle or doorway exists between the firing booths so that spectators and officials may walk up and down the firing line without hindering the shooters.

3 **Targets.** The target contains either three or five bull's-eyes. One of these bull's-eyes is designated as a sighting target. The target sheets are the same size as NRA fifty yard target sheets, and fit standard target frames. Fifty meter targets reduced for use at fifty yards are also available.

4. **Match Conduct.** Practical requirements dictate that five shots be fired in each record bull's-eye. This enables the shooters to fire twenty match shots before changing targets. If a half course is fired, the shooter is allowed a total of six sighting shots in each position. If a full course is fired, the shooter is allowed a total of twelve sighting shots in each position. (The usual ten, plus two more for the delay in changing targets.) Any unusual delays entitle the shooters to two more additional sighting shots immediately after the cease fire is lifted. Under NRA modified rules unlimited sighters may be fired. Officials and shooters will find that matches conducted in such a manner will run just as smoothly as a regulation NRA type match, and perhaps moreso because shooters are not rushed in changing targets or equipment.

5. **Equipment.** Match officials are sometimes overly concerned with the shooter's equipment. Rarely is illegal equipment used intentionally. Many times the official rules do not cover certain situations or items of equipment. In such cases judgment must be rendered from the spirit of the competition to call upon the advice of experienced ISU shooters in determining the admissibility of a specific piece of equipment.

6. **ISU Indoor Matches.** Many shooters will be interested in ISU matches in fifty foot indoor ranges. Matches may be conducted with no modifications to existing range facilities. Half course and full course matches may be registered with the NRA. Fifty meter international targets reduced for use at fifty feet are available. These targets (A-36) have twelve bull's-eyes, two of these designated as sighting bull's-eyes. Only one shot should be fired at a match score bull's-eye.

7. **Rules.** Sponsors, match officials, and competitors should become familiar with ISU Rules. Copies of the rules may be obtained from the National Rifle Association.

CHAPTER II

SHOOTING EQUIPMENT

A. RIFLES FOR INTERNATIONAL COMPETITION. Each International course of fire lends itself to a specific type or style of rifle for competition. These rifles vary according to ISU rules governing competition and to the shooter's preference.

1. **Prone Rifle.** The prone rifle is designed specifically for the prone position. The stock is generally longer with a built-up or adjustable cheek piece to enable the competitor to maintain a position over long periods of time. The prone rifle may be used in the English Match, the prone phase of the 300 meter three position event, and the prone phase of the three position event. Due to its particular design, the prone rifle is generally not used in any other position. The smallbore prone rifle (Fig. 5) is always .22 caliber while the big bore prone rifle (Fig. 5) is a high-power rifle using a center fire cartridge not exceeding eight millimeters.

2. **Free Rifle.** The free rifle is fully defined in the ISU rulebook as a rifle with a thumb hole stock, a removable palm rest, and an adjustable butt assembly with an interchangeable hook and plate. The free rifle can be used in all positions because it is fully adjustable to fit any shooters body configuration and position requirements. The free rifle may be used in the English Match and in all positions of the three position smallbore and 300 meter free rifle events. The smallbore free rifle (Fig. 5) is always .22 caliber while the big bore free rifle (Fig. 5) may be any caliber not exceeding eight millimeters, the most popular 300 meter caliber is the .30 caliber cartridge.

3. **Standard Rifle.** The standard rifle can not have a thumbhole stock, adjustable butt plate, butt hook, hand stop and may not exceed 11.1 pounds. It must also be within specified length and width requirements (see ISU rules). It is designed to enable the shooter to shoot effectively in the prone, kneeling, and standing positions. The standard rifle was designed primarily for the standard rifle match; however, if the competitor desires, he may compete in the English Match and/or the three position smallbore and 300 meter matches with the standard rifle. The smallbore standard rifle (Fig. 5) is always .22 caliber while the big bore standard rifle (Fig. 5) may be any caliber not exceeding eight millimeters. The big bore standard rifle, when fired in a military match, is called an Army Rifle.

4. **Air Rifle.** The air rifle (Fig. 5) is designed to meet the same requirements as the standard rifle. It is a .177 caliber rifle and is fired at a distance of ten meters (thirty-three feet) from the standing position only.

B. ACCESSORIES FOR INTERNATIONAL RIFLES. Each shooter should equip his rifle with the necessary items he requires to compete on an equal level with his opponents. The international shooter should make sure his equipment conforms to ISU specifications.

1. **Palm Rest.** A palm rest (Fig. 6) may be used in the standing position. It is a popular accessory used by many shooters and it acts as an extension of the left arm thus allowing the rifle to be raised to the target level. This provides the shooter with a more relaxed and natural position in supporting the rifle. The size and shape of the palm rest is left to the individual shooter's preference. Many fine palm rests are produced commerically; however, some shooters do make their own. Palm rest use and selection is left to the individual with area of hold and comfort being the governing criteria.

2. **Butt Plate.** The adjustable butt plate assembly is one of the rifle's most useful accessories. Besides being able to adjust the lenght of the stock and the height of the hook or the prone plate, the newer butt plates also have adjustments for cant and offset. These adjustments allow the shooter to modify his rifle to fit his particular body conformation and position. Used properly, the butt plate can also be beneficial in achieving consistent placement of the rifle in to the shoulder (Fig. 7).

3. **Hook.** The hook is used to support the rifle by placing it under the right arm. The hook allows the shooter to relax his arm which in turn enhances better trigger control. Also, the hook is used to help the shooter place the rifle in his shoulder in the same place for every shot. This is primarily advantageous in the standing and the kneeling positions, although a number of good shooters also find the hook beneficial in prone as well. Newer style hooks are two piece units allowing angular adjustment of the horizontal extension for even more precise positioning in the shoulder (Fig. 7).

4. **Prone Plate.** Most shooters find that the hook is unnecessary or uncomfortable in the prone position; therefore, they use a flat prone plate. The prone butt plate may be made of either rubber or metal and has the capability of being adjusted vertically on the rifle stock.

5. **Sights.** Refer to the section titled The Eye and Sight System in chapter III - The Integrated Act of Firing.

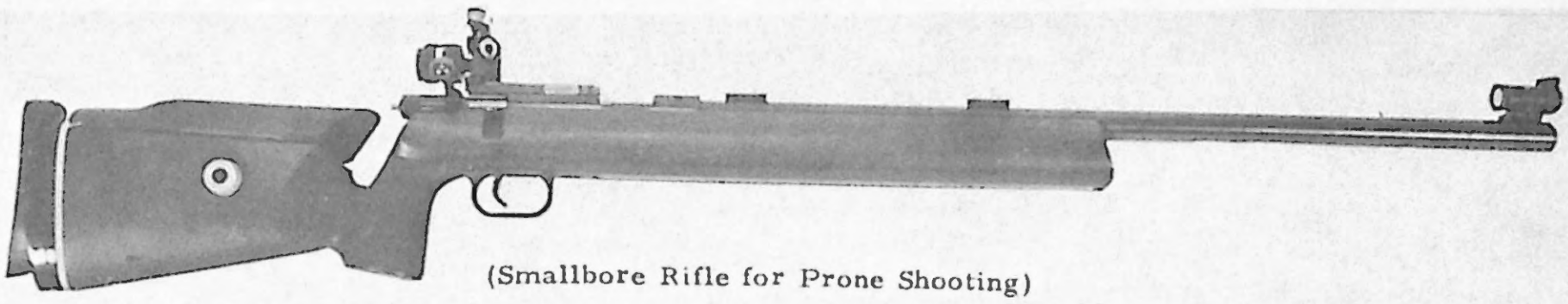
C. SHOOTING CLOTHING.

1. **Shirts.** ISU rules permit the wearing of clothing up to 2.5 mm in thickness under the shooting jacket. Sweatshirts greatly reduce the effects of pulse beat and single muscle tremors that would otherwise be transmitted to the rifle. In most cases the shooter can wear two sweatshirts and still meet the ISU specifications (Fig. 8).

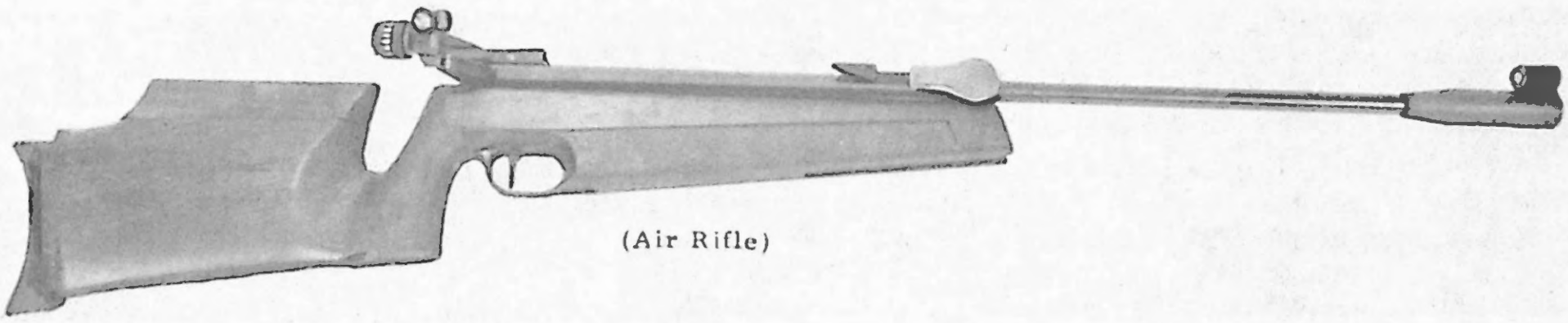
2. **Shooting Coat.** A leather shooting coat gives the shooter some body support in all positions. It is especially helpful in the standing position. The coat can have only one row of buttons located in the middle third of the jacket. It can not have adjustable straps (Fig. 8). Legal leather coats are available from American and European manufacturers. Although somewhat expensive, it is considered a worthwhile item of equipment for the serious shooter.

3. **Pants.** Trouser thickness cannot exceed 2.5 mm. Reinforcement or skid pads may be used on both knees and on the seat (Fig. 8).

4. **Footwear.** The shooter may wear nonrestricting footwear in which the height does not exceed two thirds the length of the sole. Thickness limits are ten millimeters for the sole and thirty millimeters for the heel. A combination of comfort and support should be strived for when shopping for footwear. Many shooters find that running shoes allow for more comfort while shooting. This is quite acceptable as long as the shoe is of firm construction (Fig. 8).



(Smallbore Rifle for Prone Shooting)



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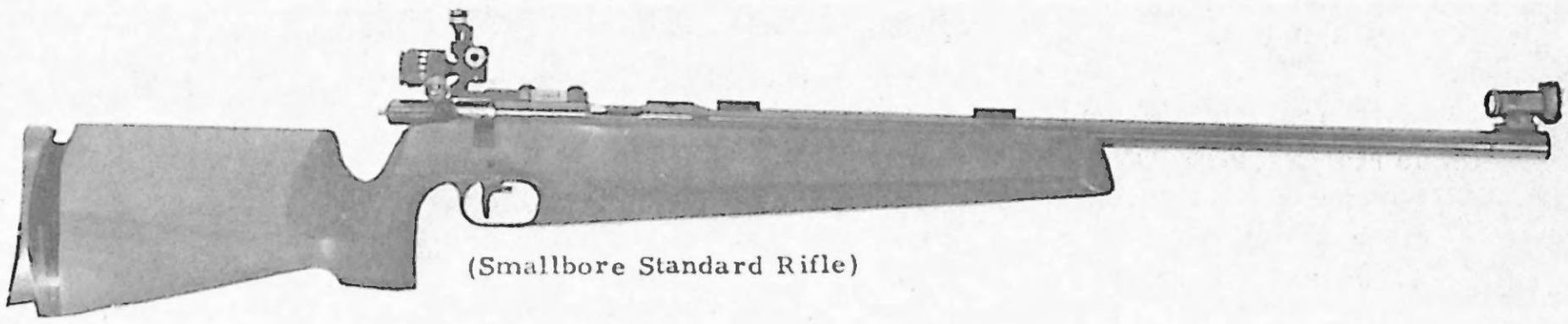
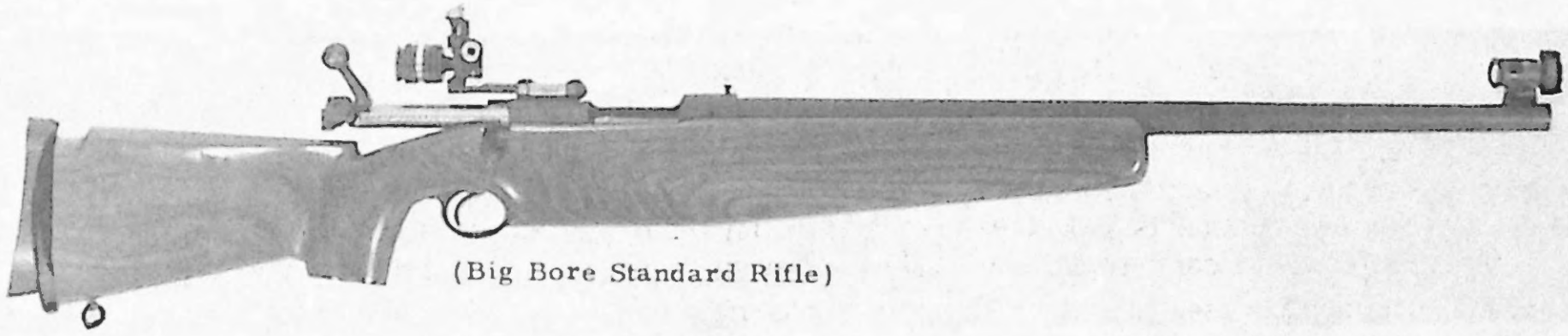
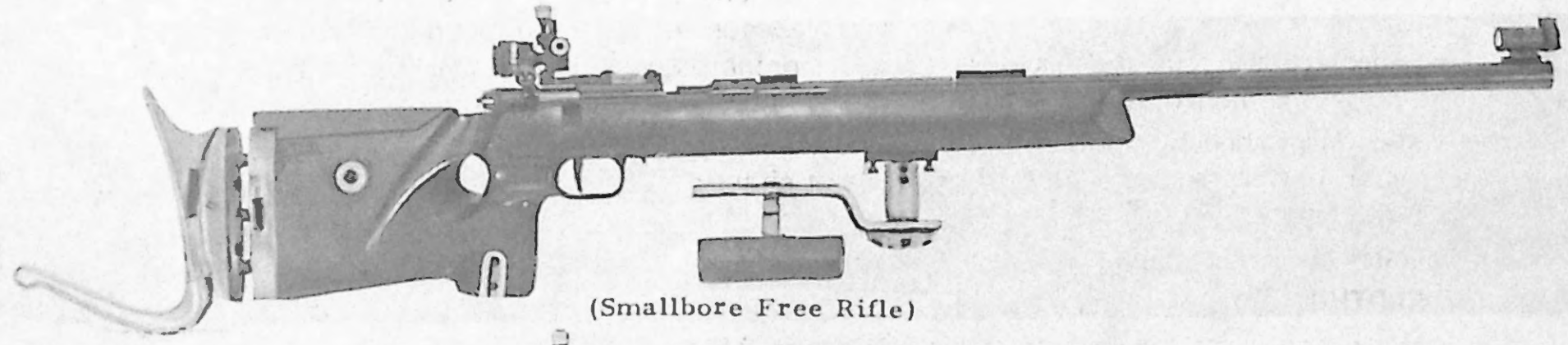


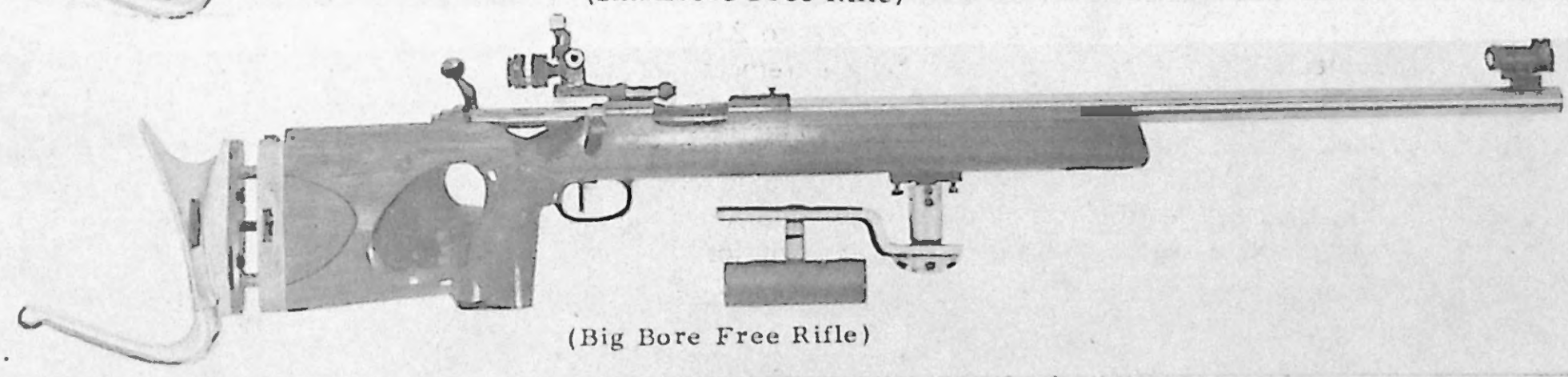
(Smallbore Standard Rifle)



(Big Bore Standard Rifle)



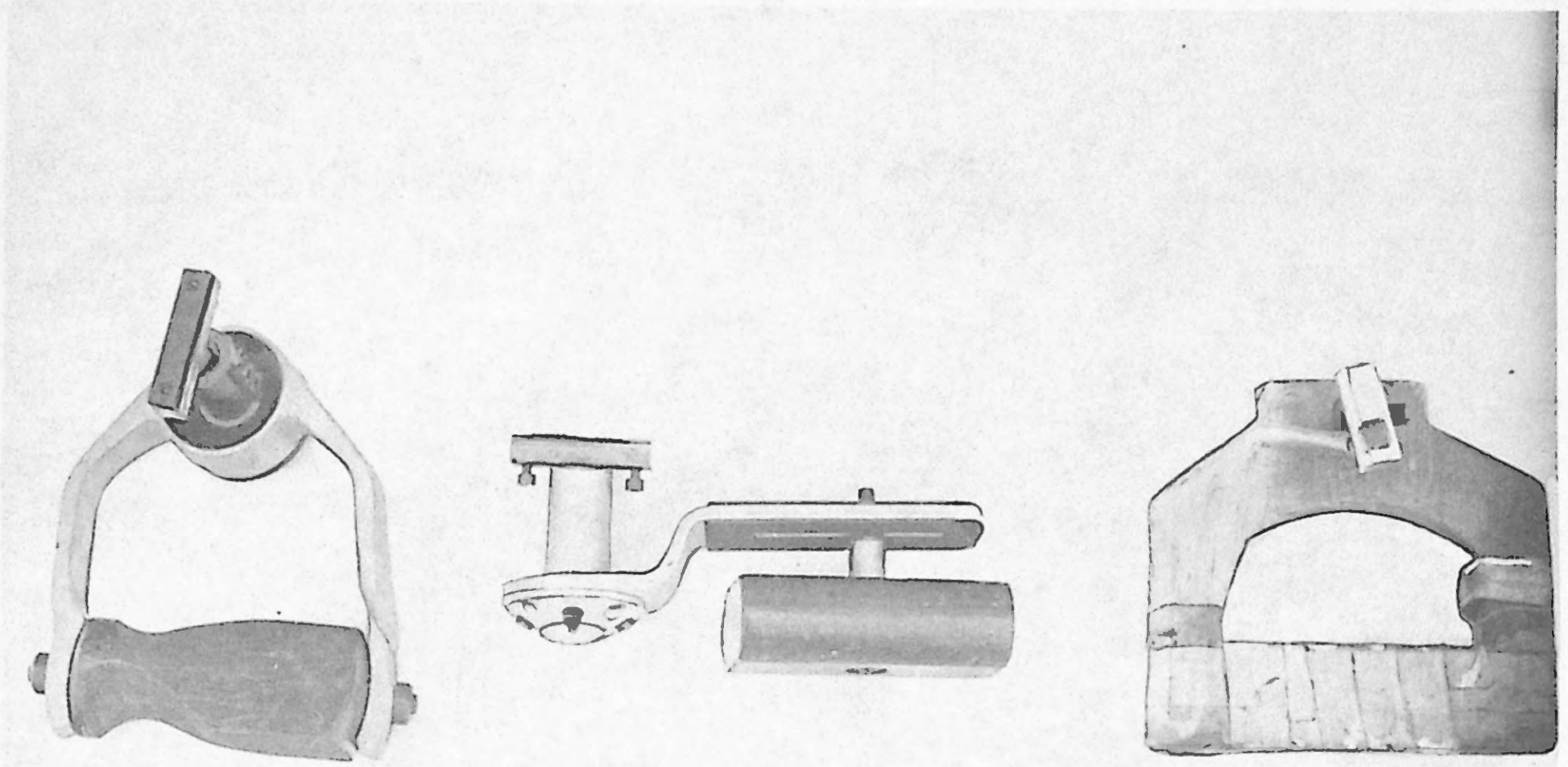
(Smallbore Free Rifle)



(Big Bore Free Rifle)

RIFLES USED IN INTERNATIONAL COMPETITION Figure 5

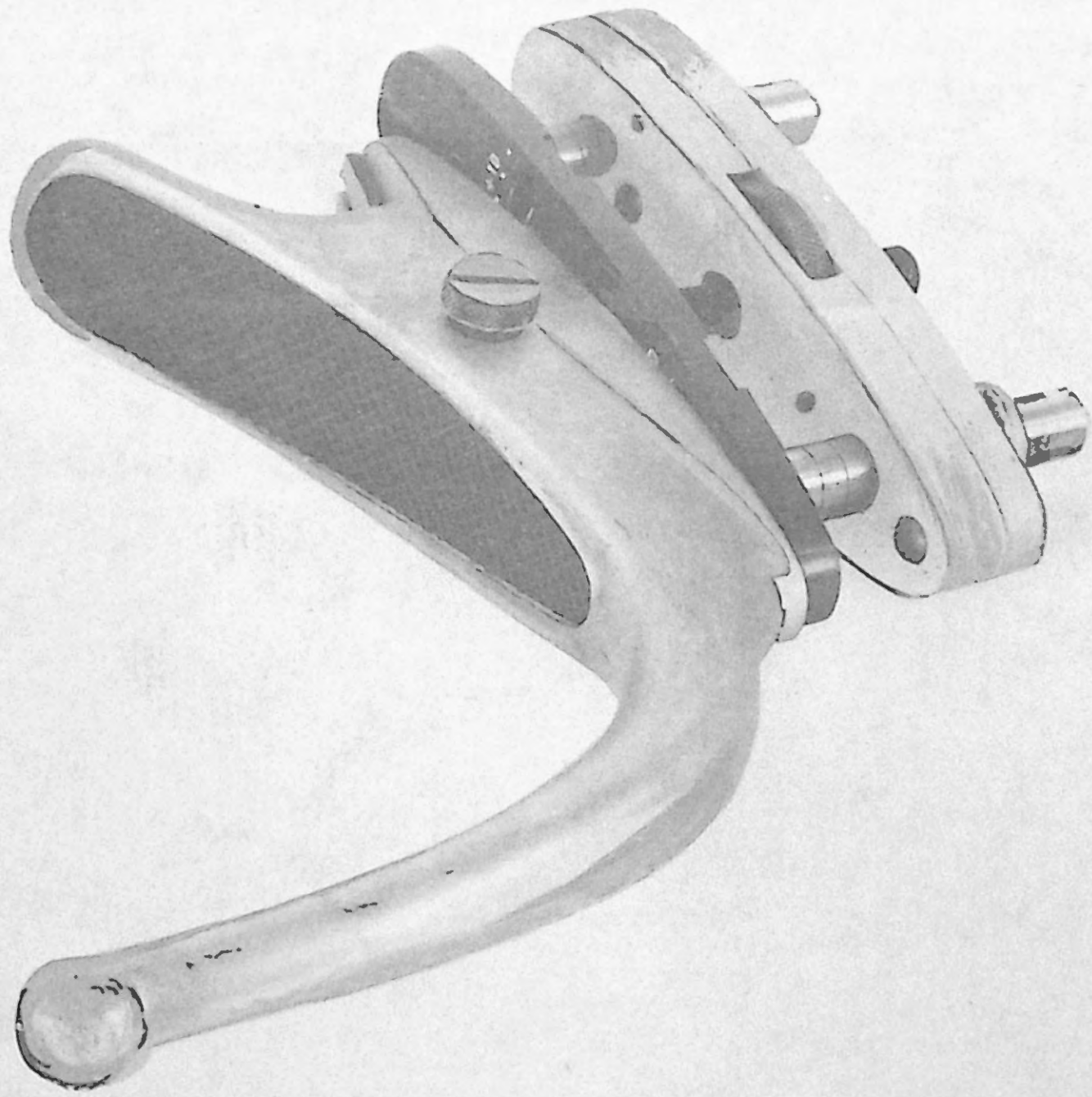
Figure 5. Rifles Used In International Competition



PALM REST

Figure 6

Figure 6. Palm Rests

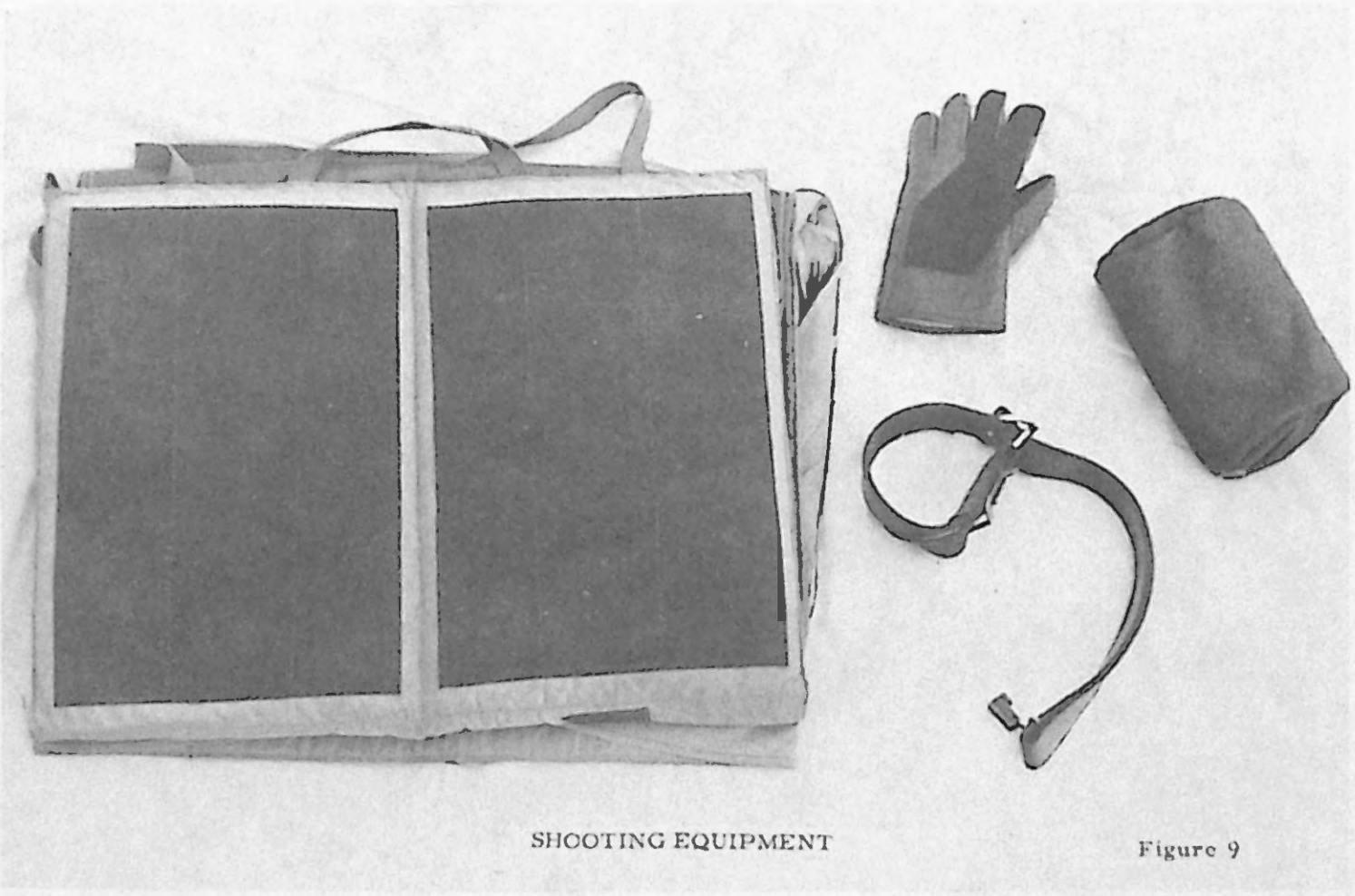


ADJUSTABLE BUTT AND HOOK ASSEMBLY Figure 7

Figure 7. Adjustable Butt and Hook Assembly

SHOOTING CLOTHING Figure 8

Figure 8. Shooting Clothing



SHOOTING EQUIPMENT Figure 9

Figure 9. Shooting Equipment

5. **Gloves.** The ISU shooting glove must not be more than twelve millimeters in total thickness. Although this is adequate padding, the shooter may need to condition the left hand through practice to withstand the pressures from the hand-stop and the sling (Fig. 9).

6. **Hat.** A cap or hat of some sort is recommended to protect the shooter from the sun and rain, as well as distracting movements that might be occurring nearby (Fig. 8).

D. OTHER SHOOTING EQUIPMENT. In addition to the rifle accessories, each shooter should be outfitted with other necessary items of clothing and equipment. The following items of equipment are recommended as being useful while at the same time meeting the requirements of ISU rules (Fig. 9).

1. **Kneeling Roll.** The kneeling roll can be a cloth or leather bag filled with sand, sawdust, rags, or any other suitable material. The roll must be no more than eight inches long and seven inches in diameter. It should conform to the individual shooter's position requirements and instep (Fig. 9).

2. **Shooting Mat.** In international competition shooters are normally required to use mats provided by the host range. Nevertheless there will be many instances where each individual will need to have his own mat. It should have a non-skid surface for the shooter's elbows (Fig. 9).

3. **Sling.** The ISU sling must not be more than forty millimeters in width. More time is required to condition the arm to the pressure of the narrow sling, but it nevertheless provides adequate support and is actually preferred over the wider cuff-type sling as it can be easily located high or low on the arm. A shooter who intends to participate in ISU events should use a narrow sling exclusively to keep his arm conditioned. A leather sling is preferred to a web sling which may stretch and ultimately affect the position (Fig. 9).

4. **Hand Stop.** The hand stop is used to prevent the hand from sliding along the forearm of the stock. The hand stop can be as large or as small as the shooter desires. Some shooters merely use the sling swivel as a hand stop; however, this requires additional conditioning of the hand to prevent undue discomfort. Standard rifle rules do not permit the use of a hand stop. In this event the sling swivel must be used as the hand stop.

5. **Equipment Box.** A sturdy box is useful in carrying miscellaneous equipment that the shooter needs. It should be large enough to adequately contain this equipment, and the equipment should be arranged to allow for maximum protection to the delicate accessories (i.e., sights, stop watch, glasses, etc.). A separate container will offer further protection to these fragile accessories. (Fig. 10).

Figure 10. Equipment Box and Accessories

6. **Spotting Telescope with Stand.** A telescope is used to spot each shot fired as well as to watch the mirage and other wind indicators. It should be equipped with a tripod/bipod stand capable of adjustment for each shooting position. Most shooters use a telescope with a magnifying power between 20-30x. (Fig. 10).

7. **Loading Block.** The ammunition loading block not only serves to keep the ammunition clean, but is helpful to the shooter in counting the number of shots fired. The block is usually constructed of wood or plastic with a capacity of holding fifty to one hundred rounds (Fig. 10).

8. **Stop Watch.** In all international courses of fire a specified time limit is enforced. The shooter should carry his own timeplace and monitor the remaining time for the course. (Fig. 10).

9. **Counter-Balance Weight.** Many shooters use added weight attached to the stock of a rifle which extends out under the barrel. This weight, may tend to dampen or slow the movement of the rifle, allowing more precise trigger control. The weight also allows the shooter to lean farther rearward in the standing position and maintain his non-muscular, bone-to-bone support. (Fig. 10).

10. **Target Fasteners.** The shooter is often required to hang his own targets. On most ranges, a staple gun and/or a set of target clips are sufficient tools to securely fasten targets. (Fig. 10).

11. **Shooting Glasses.** There are basically two types of shooting glasses. One style uses standard sport frames and large lenses. The other variation uses normal size lenses with jointed, adjustable frames. Both types are popular. The chief advantage of shooting glasses is that they allow the shooter to look through a central portion of the lens without interference from the frame. To use shooting glasses correctly, the eye should look through the central lens area where the prescription is focused. Individuals with corrected vision will find these glasses extremely useful. Colored or tinted shooting glasses are available to aid in adjusting to various light conditions. Dark green or smoke lenses are used in very bright sunlight and yellow lenses are generally used in dull or overcast conditions. Some shooters prefer to use one color under all conditions. It must be noted, however, that all colored lenses filter out some amount of light. An additional advantage of shooting glasses is that they protect the eye from gas blow back in case of a ruptured primer or cartridge case. (Fig. 10).

12. **Hearing Protectors.** Regardless of how minor the muzzle report seems, hearing protectors should be worn at all times while on the range. A combination of ear plugs and ear muffs should be used when firing high powered rifles. In addition to physically protecting the ears from permanent damage, concentration can be significantly improved throught the elimination of surrounding extraneous noises. (Fig. 10).

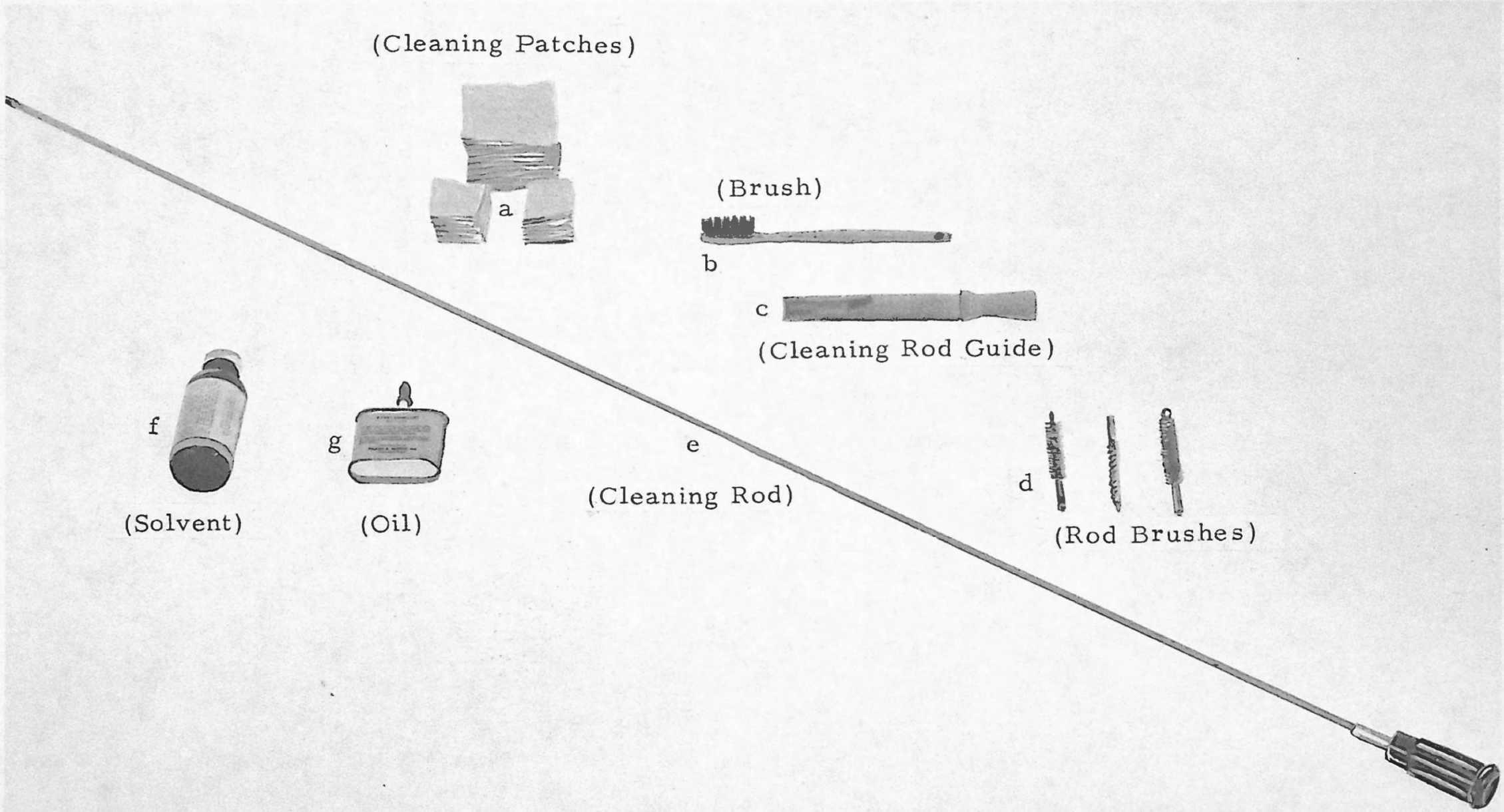
13. **Rule Book.** The current rule book is a helpful item to have in the shooter's equipment. It is the shooter's responsibility to be familiar with all the rules and regulations governing the match in which he is firing. (Fig. 10).

14. **Diary.** A diary is one of the shooter's most important learning tools. Used properly, the diary will chart his performance and enable him to maintain a steady positive progression in his performance. For Additional information see Chapter IV. (Fig. 10).

15. **Tools.** A few small tools should be carried to make rifle and equipment adjustments. Screwdrivers and allen wrenches are most common tools required. (Fig. 10).

16. **Cleaning Materials.** Arms manufacturers recommend regular rifle cleaning to maintain optimum accuracy. Accepted procedures include cleaning the bolt and chamber area as well as the bore. Frequent cleaning will not only maintain accuracy, but will also ensure proper functioning. A one piece plastic coated cleaning road is recommended and it should be used in conjunction with a cleaningrod guide. Additional cleaning materials which are necessary include bore brushes, cloth patches, solvent, lubricant, and a bolt brush. (Fig. 11).

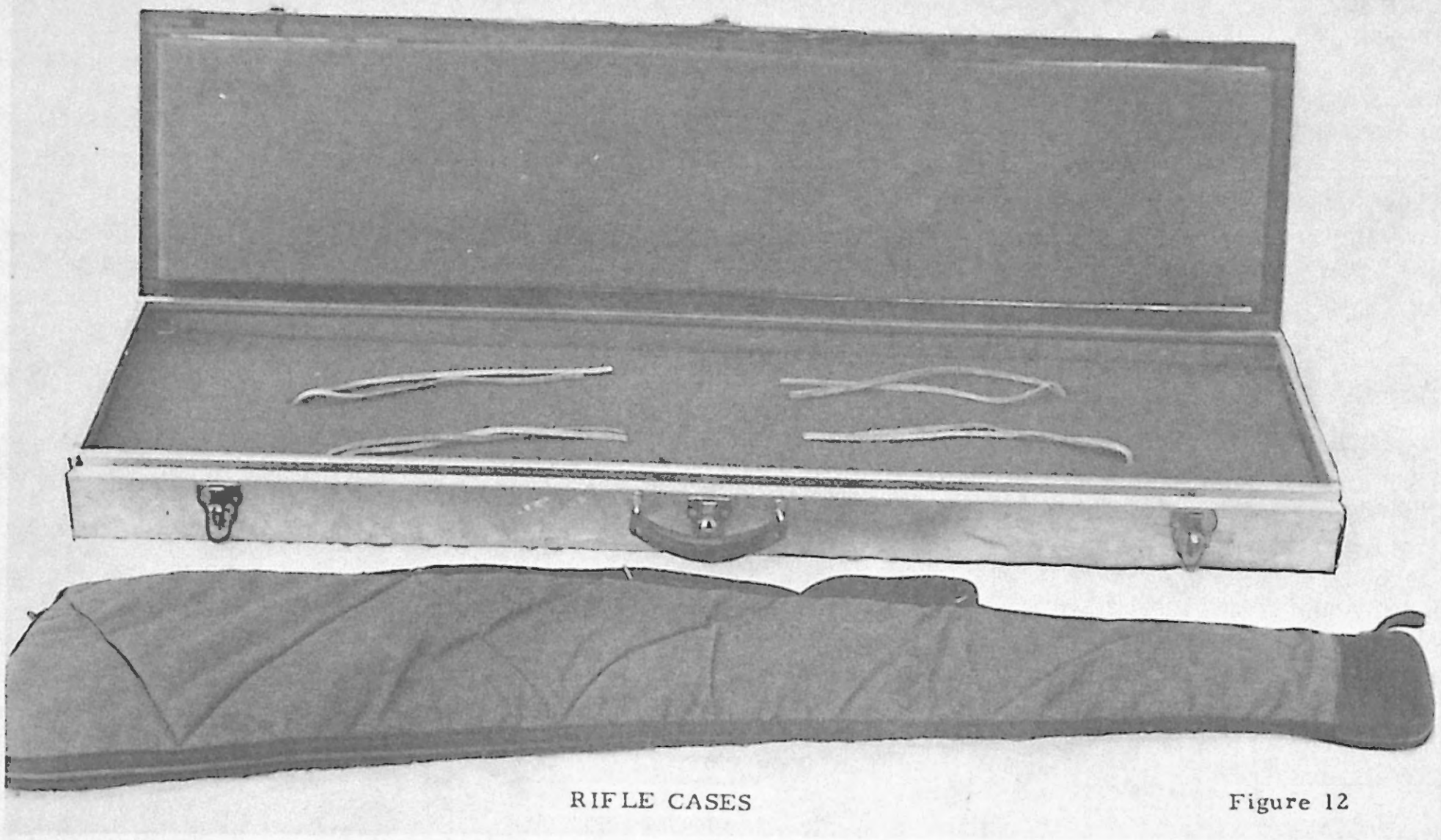
17. **Rifle Cases.** Rifles should be transported in a protective case to prevent scratches and unnecessary damage. A canvas or similar type soft case is sufficient for daily use and short trips by auto. When abusive handling may occur as when travelling commercially, a metal or wooden case is necessary to provide adequate protection. (Fig. 12).



CLEANING EQUIPMENT

Figure 11

Figure 11. Cleaning Equipment



RIFLE CASES Figure 12

Figure 12. Rifle Cases

CHAPTER III

THE INTEGRATED ACT OF FIRING

A. GENERAL. The integrated act of firing is the combination of several techniques which occur almost simultaneously to produce the shot. The reader should bear in mind that although each factor will be considered separately for ease of discussion, in actuality they are coordinated at a single moment to produce the shot. To the spectator, the performance of a shooter appears deceptively simple. The shooter places the rifle in position, takes aim, and pulls the trigger. However, the individual behind the rifle knows differently. Shooting is not simple; but rather is a complex coordination of several body and mind functions.

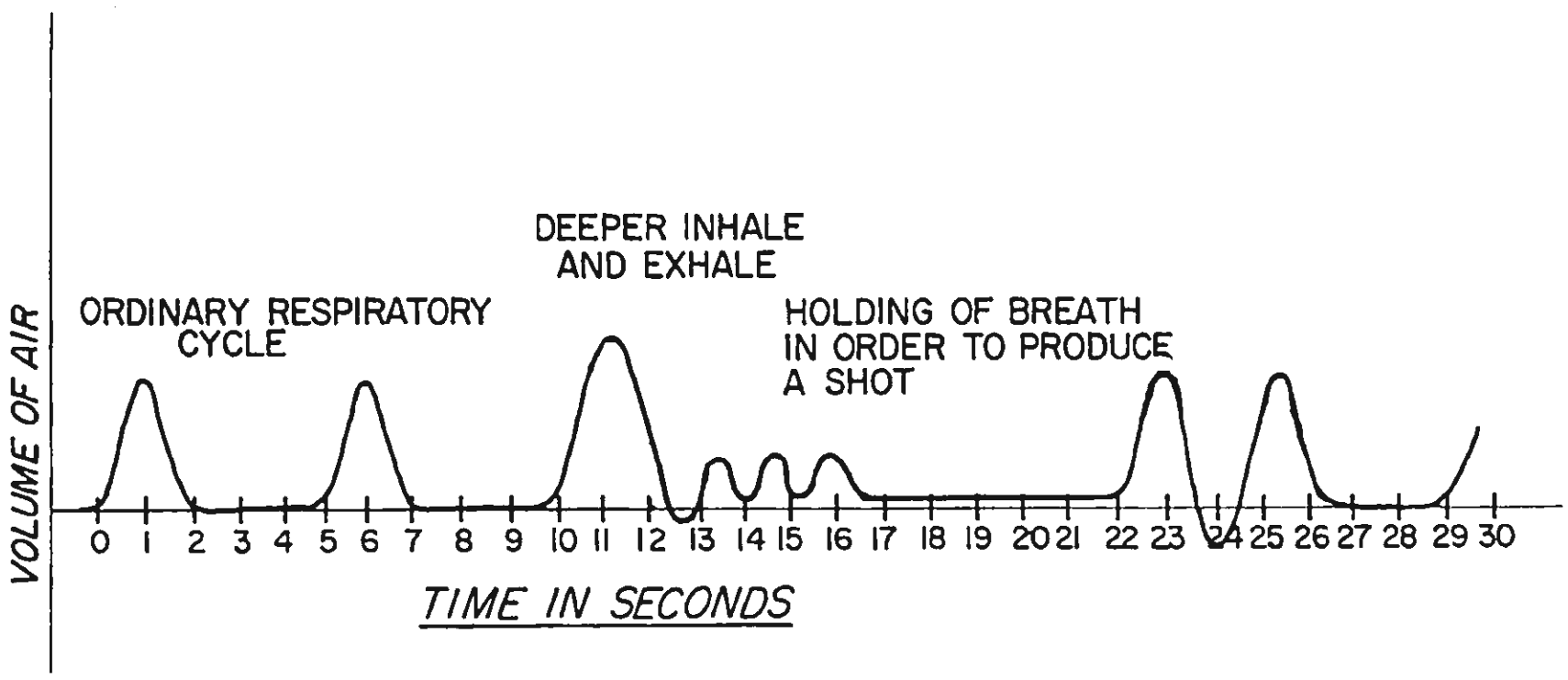
B. SHOOTING METHOD. It is relatively easy to talk or write about correct shooting methods. To put these methods into practice is vastly more difficult. It is because of this challenge that shooting fascinates so many thousands of people.

1. The shooting method USAMU shooters advocate is that of maintaining the rifle in the area of hold and activating the trigger without disturbing the rifle. This method requires the shooter to develop his position to minimize his area of wobble (hold). Hold is one of the most important factors of shooting and will be discussed further in subsequent chapters.

2. The other shooting method is to allow the rifle to move about on the target, and fire the shot as the rifle crosses the ten ring. This method of "shooting on the move" has a definite disadvantage in that the shooter cannot always predict the precise path of the rifle's movement. He will therefore never completely eliminate wild shots.

C. BREATH CONTROL. Breath control is the first consideration in firing a shot. The breathing process provides the body with oxygen and eliminates waste elements from the blood. Correct and efficient breathing is essential for proper body functioning and optimum delivery of a shot.

1. **Respiratory Cycle.** A complete respiratory cycle lasts four to five seconds. Inhalation and exhalation require about two seconds. Thus, between each respiratory cycle there is a natural pause of approximately two seconds. This pause can be extended eight to ten seconds without experiencing any unpleasant sensations. It is during this extended pause that the shooter should attempt to deliver the shot. During the respiratory pause there is little air in the lungs and the breathing muscles are comfortably relaxed so the shooter avoids strain upon the diaphram. Some air should remain in the lungs as complete exhalation is both unnatural and uncomfortable. The shooter's respiratory pause should provide the longest most comfortable hold. (Fig. 13).



THE RESPIRATORY CYCLE Figure 13

Figure 13. The respiratory cycle

2. **Shooter's Breathing Exercise.** A proper breathing exercise begins after assuming the firing position, the shooter breathes naturally until the hold begins to settle. At this point it has been discovered that most shooters take a deep breath followed by one to three small breaths. The shooter closes his throat to stop the exhalation process during one of the small breaths. The shooter may also inhale to the point he wishes to close his throat. The main factor being to close the throat at the point the shooter feels most comfortable. It is more comfortable and natural to hold the breath at the throat than in the diaphram and stomach area. If the hold does not settle sufficiently or the shot cannot be fired during this brief period, normal breathing should be resumed and the sequence repeated. The technique is graphically portrayed in Figure 13. The respiratory pause should never feel unnatural. If the pause is extended too long the body suffers from oxygen deficiency and unconsciously sends out signals to resume breathing. These signals often produce slight involuntary movements in the diaphram and interfere with the shooter's ability to concentrate. Generally eight to ten seconds is the maximum safe period the respiratory pause can be extended to produce the shot without adversely affecting performance and concentration.

D. THE EYE AND THE SIGHT SYSTEM. The shooter need not concern himself with a scientific knowledge of the eye. He should be concerned only that his eyes are healthy, that he can see clearly, and that he uses his eyes properly while shooting. A shooter with eye problems should consult an ophthalmologist.

1. **Visual Acuity.** A person with no eye defects normally has 20/20 vision. Twenty/twenty does not denote perfect vision; it is simply an arbitrary standard of measurement applied to visual acuity. It denotes the ability to read alphabetical letters 8.7 millimeters high at twenty feet. This constitutues reading letters contained within five minutes of angle. One minute of angle is equivalent to one inch at 100 yards. There are many cases of individuals being able to read within three minutes of angle or less. Weak or defective eyes can in most cases be corrected to 20/20 strength by prescription lenses. Some of the world's best marksmen shoot with corrected vision.

2. **Sight System Selection.** Each shooter must select the components of his sight system to meet the characteristics of his own eyes. Eyes vary significantly from one individual to another even though two people may have the same visual acuity, i.e. 20/20 vision. Their eye characteristics will probably require slightly different sight systems to see the most distinct sight picture. Numerous characteristics can influence visual acuity. Eye sight is affected differently by various light conditions. Some eyes function better under bright light while others obtain the best sight picture in dim or soft light. Eyes also vary in their ability to determine depth perception and perspective. To one individual a specific aperture size may appear tight, that is leaving only a fine line of white between the aperture and bull, while another person may feel that the same aperture provides a loose sight picture. Through the proper selection of front and rear apertures and the use of filters most shooters can select a sight system where they can obtain a clear and distinct sight picture.

3. **Proper Use of the Eyes.** While shooting, an individual should follow several cardinal principles regarding proper use of his eyes.

a. The shooter should look as straight forward as possible out of the eye socket. If the head position causes the shooter to look across the bridge of his nose or out from under his eyebrow, the eye muscles will be strained. This strain will produce involuntary eye movements which reduce the reliability of vision. This will not only affect performance, but the inability to see well will also have a damaging psychological effect upon the shooter The eyes will function best in their natural, forward-looking position.

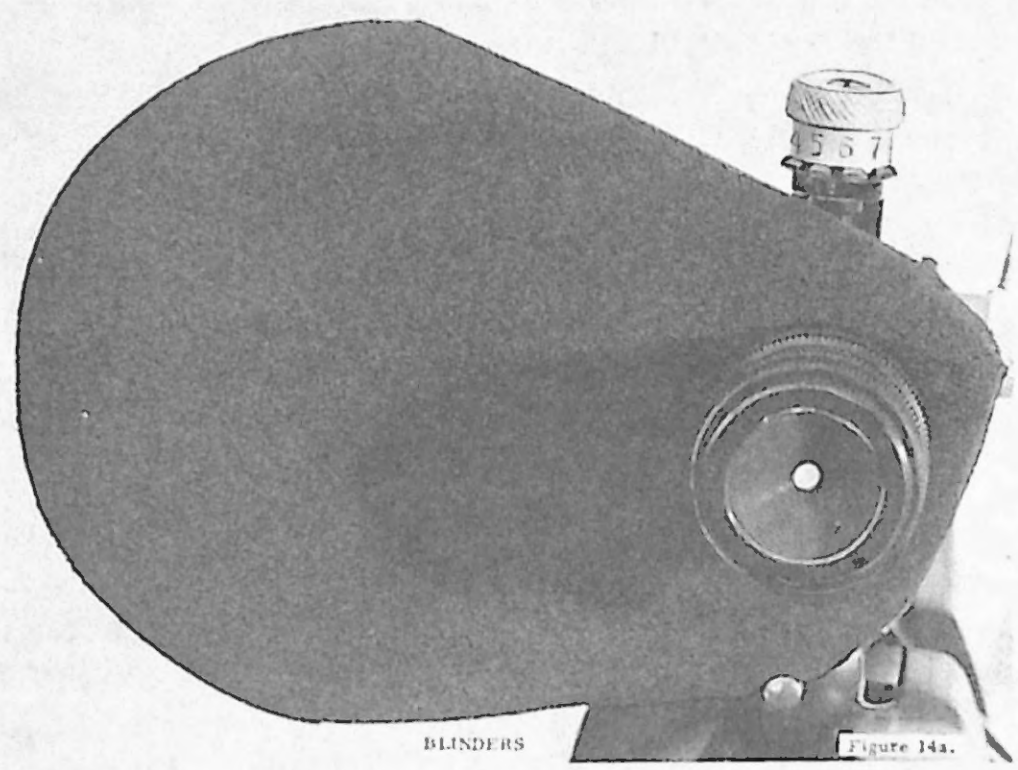
b. Do not fix vision on the sight picture for more than several seconds. When the eyes are focused on a single image for a time, the image is 'burned' into the area of perception. This effect upon the shooter's eyes is quite important. It has the same effect as watching a flash bulb ignite. A burned in sight picture will dull acuity in the critical area of perception. Also, this image may possibly be mistaken for a true sight picture.

c. Normally, best use of the eyes is derived when the shooter keeps both eyes open while firing. It is natural for the eyes to work as a refined team. If one eye is squinted or closed the other eye will have a tendency to do the same. With both eyes open the shooter also finds it easier to check the wind flags on the range while the rifle is in the aiming position.

d. On occasion, there will be a shooter whose aiming eye is not his dominant eye. In this case it might prove helpful to use a blinder. In fact, most shooters do use a blinder regardless of eye dominancy. This tends to decrease visual distractions and increase concentration. Occasionally side lighting may also be distracting to the shooter. If harsh light becomes annoying, a blinder should be used. Such a blinder may be attached to the shooting glasses or hat brim but the preferred blinder is one that is attached to the rifle in the vicinity of the rear sight (Fig. 14). In this manner, the left eye will remain open but the blinder will block out vision of the non-shooting eye. An eye patch that places the eye in total darkness should not be used. If an eye receives inadequate light the pupil enlarges to accept more light. Since the eyes work as a team, the pupil of the shooting eye will also adjust slightly thus placing it out of focus and hindering acuity.

4. **Focus of the Eye.** Most shooters have the capability of seeing both the front sight and target bull with almost equal clarity. This capability is referred to as accommodation. When aiming, the shooter's eye is continually changing focus between the front sight and the target. The eye focuses back and forth so rapidly that it appears to the firer that both images are seen with equal clarity. However, after the age of approximately forty, the eye muscles lose their ability to focus back and forth at the rapid rate required to accommodate both the front sight and the target bull with equal clarity. In such a case, focus should be concentrated on the front aperture to obtain optimum results in sighting. This will result in the target being slightly out of focus but this is not critical. Accommodation and visual clarity can be improved by the use of a small rear aperture. A small rear aperture will increase depth of field, enhance accommodation, and actually increase visual acuity. For this mechanical advantage to be realized the rear aperture must be smaller than the pupil of the eye. The smaller the rear aperture the greater the depth of field and the better visual acuity becomes up to a point. When rear aperture size becomes less than approximately one millimeter an inadequate amount of light reaches the eye and vision becomes noticeably poorer.

5. **Sight Alignment and Sight Picture.** Proper sight alignment can be defined as the process of centering the front sight in the rear aperture.



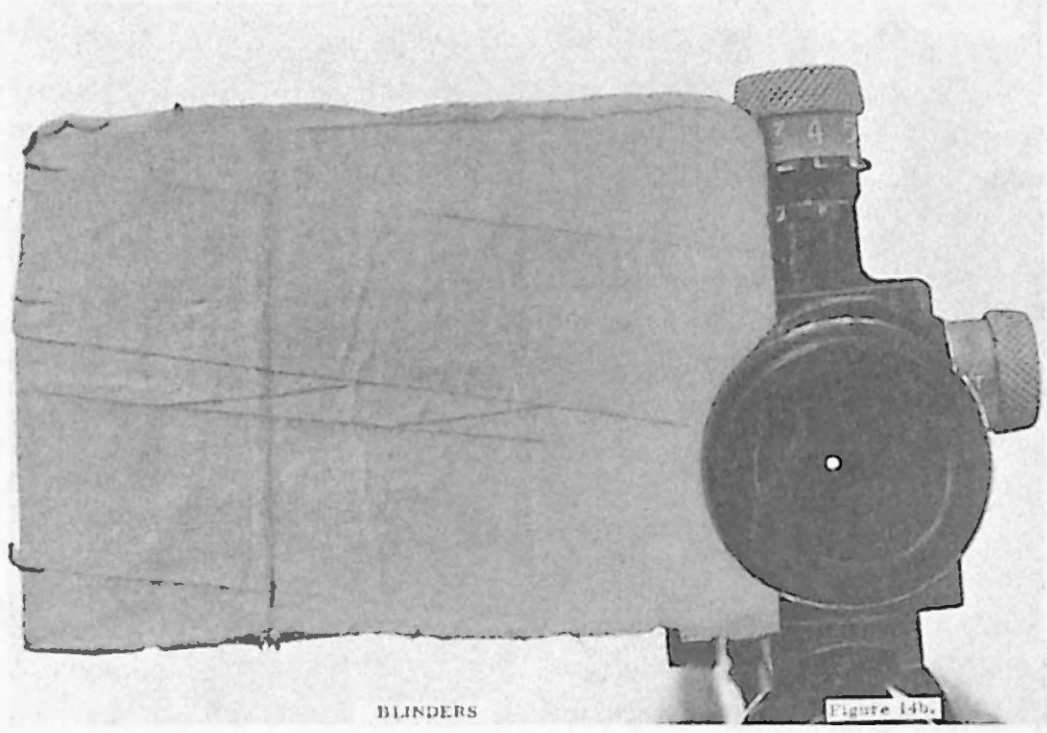


Figure 14. Blinders

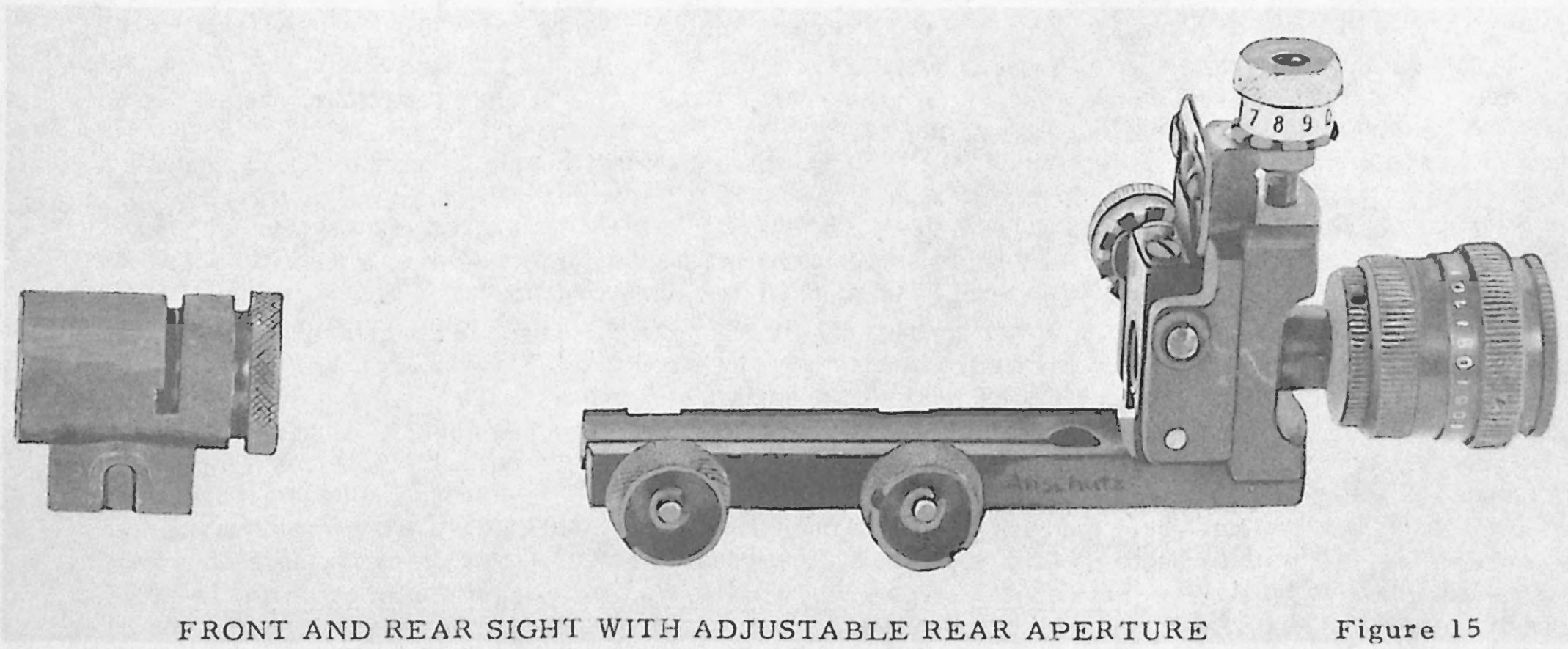


Figure 15. Front and rear sight with adjustable rear apeture

Sight picture contains the same two elements of sight alignment (front and rear sights) with the addition of the bull or target image. A perfect sight picture exists when the sights are properly aligned and the bull's-eye is centered in the front aperture or properly positioned on the post.

6. **The Front Sight.** the universally accepted front sight consists of a tubular mount containing a removable insert. (Fig. 15). The most frequently used inserts are the post and the aperture.

a. The aperture is the more popular insert. It should be large enough so that the bull's-eye does not move outside the aperture during the best part of the shooter's hold. The optimum size aperture is the one that reveals a relatively wide line of white around the bull's-eye and allows the target to stand out in clear definition against this white background. The optimum size will change under different light conditions. An aperture selected under one light condition might under different light, form a blur around the target or make the target appear indistinct or oblong. A different aperture size will help to correct these aberrations. Each shooter must select the aperture size that provides the clearest sight picture under the prevailing light conditions.

b. The post should appear to be the same width as the black portion of the target bull's-eye. The post should approach the target from six o'clock. If the rifle is canted, the insert should be altered to compensate for the angle of cant so that the post still approaches the bull's-eye from six o'clock. There are two acceptable methods of using the post in international style shooting. The first is the six o'clock tangent hold where the bull's-eye appears to rest on the top of the post. The second method is the six o'clock line of white hold, in which a narrow line of white is visible between the top of the post and the bottom of the bull's-eye. Both methods are in general use, and the choice of sight picture is left to individual preference. The tangent and line of white methods both require keen eyesight. Most good shooters who use a post have better than twenty/twenty corrected vision.

c. The plastic aperture has become increasingly popular with shooters because it is felt they provide a more distinct sight picture. The insert is constructed of a clear or tinted plastic disc with a beveled hole forming the aperture ring. The opening in the disc should be round and clearly defined. It should reveal a maximum contrast of the bull's-eye against the background. The plastic aperture should conform to the same general standards that are applied to the metallic apertures.

d. There is no indication that combinations of the above sight inserts contribute to a better mechanical sight system. The shooter may prefer an aperture combination but indications are that he is only adding to the amount of equipment he must carry and is gaining nothing in terms of mechanical advantage.

7. **Cant Indicators.** There are two types of commercial cant indicators that can be attached to the front sight. One is the spirit level which resembles a small carpenter's level. This is placed on the front sight so that the bubble aligns with a notch when the shooter has attained the desired cant. The second indicator is the winged anti-glare tube. It is placed on the front sight so that the wings are level and parallel to the firing line when the desired cant is attained. The recommended method for properly adjusting a cant indicator is to have the shooter assume his position and have a friend or coach attach the indicator to the front sight. (Fig. 16).

8. **The Rear Sight.** Mechanically, the rear sight should be rugged and firmly attached to the rifle. It should be capable of finely graduated adjustments (1/4 minute of angle). The adjustment mechanism should be free of slack and should have precisely the same distance with each click of adjustment. The sights should be protected at all times, particularly when being transported.

a. The rear aperture size should be selected to provide a clear sight picture and allow easy sight alignment. The use of an adjustable rear aperture is strongly recommended. (Fig. 15). The most important consideration in choosing a rear aperture is visual clarity. By adjusting the size of the rear aperture, the shooter can control the amount of light entering the eye thus affecting and altering contrast. Strong contrast and sharp, clearly defined edges are desirable. While this is in part controlled by front sight aperture size (but not by post size), the size of the rear aperture is more critical in controlling definition. Most shooters feel that a tight rear aperture (one that allows only a narrow line of white to be visible around the front sight hood) provides for the easiest sight alignment and enhances accommodation. Slight deviations in alignment are more easily noticeable, and sight alignment becomes practically automatic. This line of white around the front sight hood can also be varied by increasing or decreasing the eye relief.

b. Many shooters use filters in extremely bright or glaring conditions. Filters work in the same manner as polarized lenses in sun glasses and are used basically to provide clarity and contrast. Because shooter's eyes vary, the use of filters among shooters will vary. Several types of filters are in use including filters built into rear apertures, filters attachable to the front of the rear sight, and shooting glasses with colored or polarized lenses.

9. **Eye Relief.** Eye relief is the distance between the eye and the rear sight. (Fig. 17). There is no specific distance that is correct eye relief for all shooters. In many cases eye relief is dictated by equipment design. Eye relief can best be evaluated by these two standards. In obtaining good eye relief, the position of the sight should result in the shooter assuming a naturally upright head position. The sight should be adjusted to the head position and not the head position to the sight. The importance of head position is discussed in Chapter IV, INTERRELATED ASPECTS OF POSITION SHOOTING. Each shooter must adjust eye relief to fit his own eye characteristics and head position. In some instances the marksman may need to adjust the length of his stock or to adjust the placement of the rear sight to accommodate an adequate eye relief. The important point is that eye relief must accommodate a good head position as well as a clear sight picture.

E. TRIGGER CONTROL. Trigger control is perhaps the most difficult aspect of the integrated act to master. The progressing shooter will at first devote significant attention to trigger control. Experienced shooters also have difficulty from time to time. By making a repeated effort to develop a correct trigger pull, the activation will require less and less conscious effort.

1. **Finger Placement.** The first requirement of good trigger control is proper and consistent finger placement on the trigger. No matter what trigger weight a shooter uses, he should be careful to pull it straight to the rear. Pushing the trigger to the side during activation will cause inconsistency and excessive wear on the internal trigger parts. The marksman should also be sure his trigger finger does not contact or rub the stock while activating the trigger. Contact with the stock will result in inconsistency as well as disturb the hold.

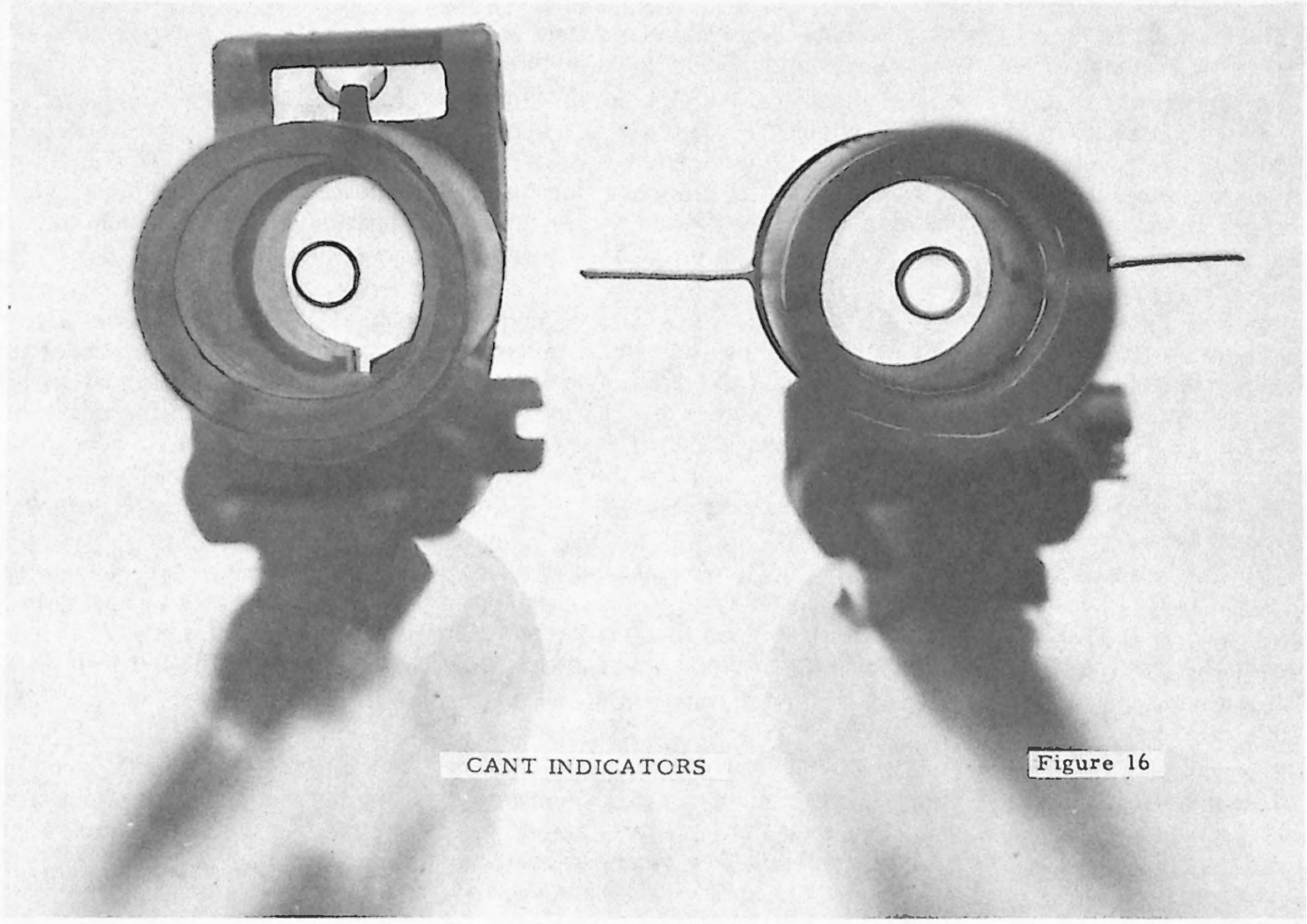


Figure 16. Cant Indicators

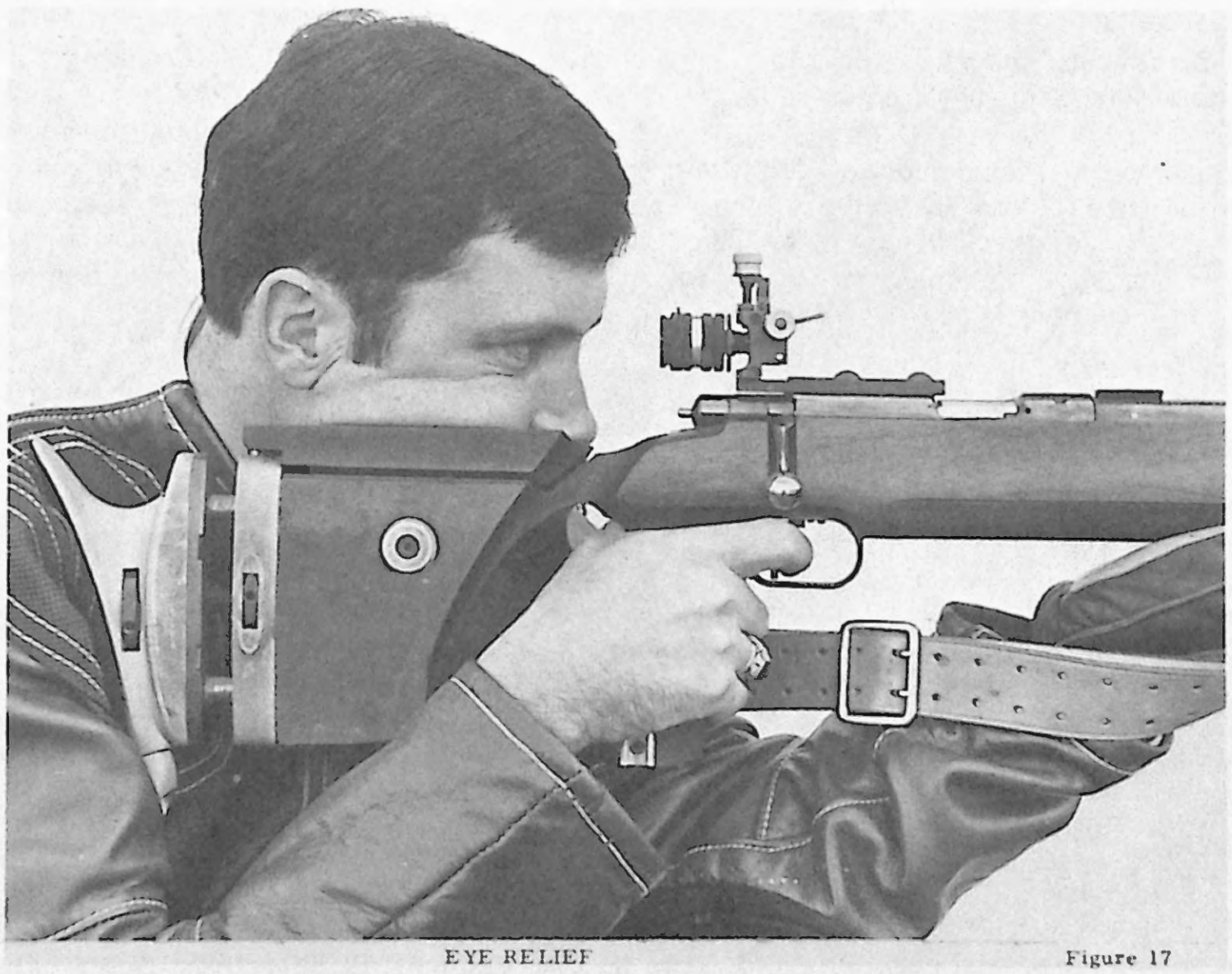


Figure 17. Eye relief

a. When firing with a light trigger, less than 12 ounces, the finger is placed on the trigger between the pad and first joint. (Fig. 18a). The finger pad or tip is more sensitive to touch and this additional sensitivity is necessary to satisfactorily control lighter triggers.

b. When using a heavier trigger, that pulls greater than two pounds, the finger should be placed on the trigger further back from the tip, usually at the first joint. (Fig. 18b). This method allows for more aggressive and better control needed with relatively heavy triggers.

2. **Methods of Activating the Trigger.** Although variations exist, there are two basic methods of activating the trigger.

a. The first technique is application of increasing trigger pressure in a single crisp rearward movement as the desired sight picture is obtained. This method is frequently used in the more stable positions of prone and kneeling.

b. The second method of trigger control is that of applying increasing pressure as the sight picture improves. If the sight picture (hold) deteriorates, pressure is maintained at the constant level or reduced. Pressure application is resumed when the picture starts to improve. A beginning shooter should experiment with both techniques, in order to find the method which best suits his coordination. He should then continue with that method until it has developed into a semi-conditioned response. Some advanced shooters develop a slightly different technique for each position.

3. **Trigger Control as a Semi-Conditioned Response.** The beginning shooter will have to make a conscious effort to activate the trigger. However, through practice the shooter can develop his trigger control to the extent that it requires less mental effort or attention. As trigger control becomes more automatic, most of the shooter's mental concentration can be focused on other facets of his performance. The marksman is aware of the trigger movement, but he is not consciously directing it.

As an analogy to shooting, consider the semi-conditioned response of a typist. When first learning to type, the individual observes the word or symbol he wishes to type, mentally selects the orresponding key and consciously directs his finger to strike the key. After being trained, he can merely read the subject matter he wishes to type and his fingers will automatically strike the corresponding keys. He no longer has to consciously direct his fingers. This nearly reflexive action (activity) resulting from this built in circuit is known as a conditioned response. It is conditioned because it is built in or ingrained; it is a response because it is not consciously directed.

The same type of conditioned response can be developed by a shooter. When he initially begins shooting, he must consciously direct his finger to squeeze the trigger when the rifle settles in the area of the ten ring. As a result of practice, however, this same type conditioned response can be developed. The eye observes a centered sight picture, which will then cause the finger to squeeze the trigger without a conscious mental effort on the part of the shooter. Similar to the typist, he is aware of the activity of the finger, but is no longer consciously directing it.

This type of response is by no means destined to be completed after it is initiated. A familiar example is the baseball player swinging at a pitch. He sees the ball coming, accepts the pitch as being within his batting zone (this acceptance does not necessarily involve thinking with words), and starts his swing. Hitting the ball is automatic in the same sense that the typist's finger movements are automatic. He sees the path of the ball and automatically adjusts his swing to meet the ball. But if the batter suddenly realizes that the pitch is bad, he can stop the swing before it crosses the plate. He can "break the circuit", so to speak, that has been established between the eye and his body muscles. A shooter can do the same thing. He accepts a sight picture and the trigger squeeze starts automatically, just as the batter's swing started when he accepted the pitch. If the shooter suddenly realizes that his rifle is beginning to move out of the area of hold, he can "break the circuit" and stop the trigger activation. He must then begin the entire shooting sequence over again.

4. **Types of Triggers.** There are several types of triggers used in competition. Each of these triggers has been used extensively and successfully in competition. The shooter should choose the type of trigger which best suits his coordination and personal preference.

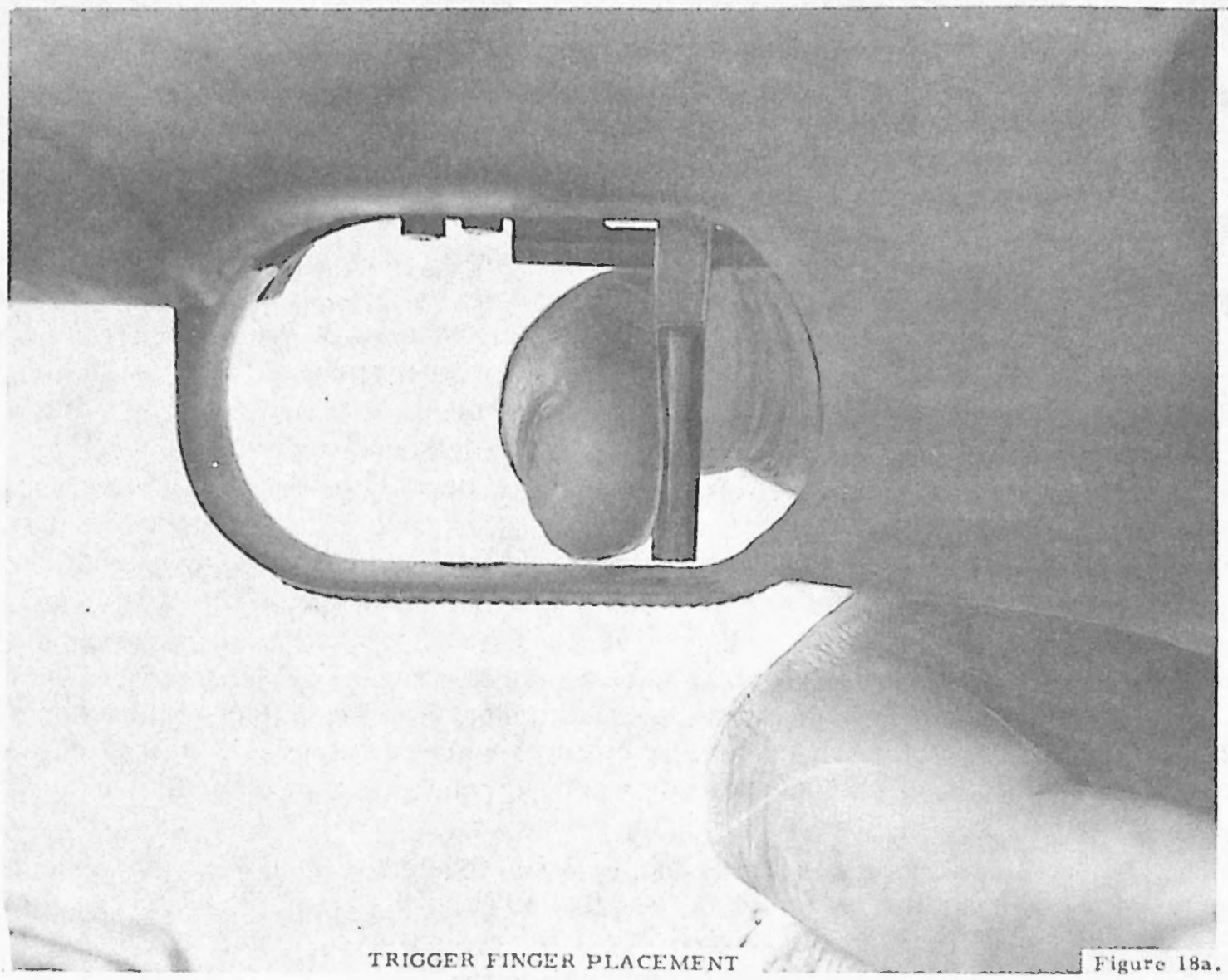
a. Single stage trigger - A single stage trigger is one in which no noticeable movement of slack exists until the trigger sear disengages. Trigger weight or activation weight may range from pounds to ounces.

b. Two stage trigger - A two stage trigger has a noticeable amount of movement or travel before reaching a distinct resistance, and at this point, it functions as a single stage trigger. When the pressure used to activate the first stage is released, the trigger returns to its original position; therefore, the first stage may be activated repeatedly without affecting the second stage function.

c. Set trigger - The set trigger may function as either a single or two stage trigger. If it is cocked only by closing the bolt, it acts as a two stage trigger. If it is cocked by closing the bolt and by the manual setting device, it functions as a very light single stage trigger. Weight variations may range from approximately six ounces to less than one ounce.

d. Electric trigger - The electric trigger is a relatively new product that is now available. The electric trigger is a single stage unit that is available for most types of rifles. The trigger weight or activation weight can range from approximately two ounces to thirty-two ounces.

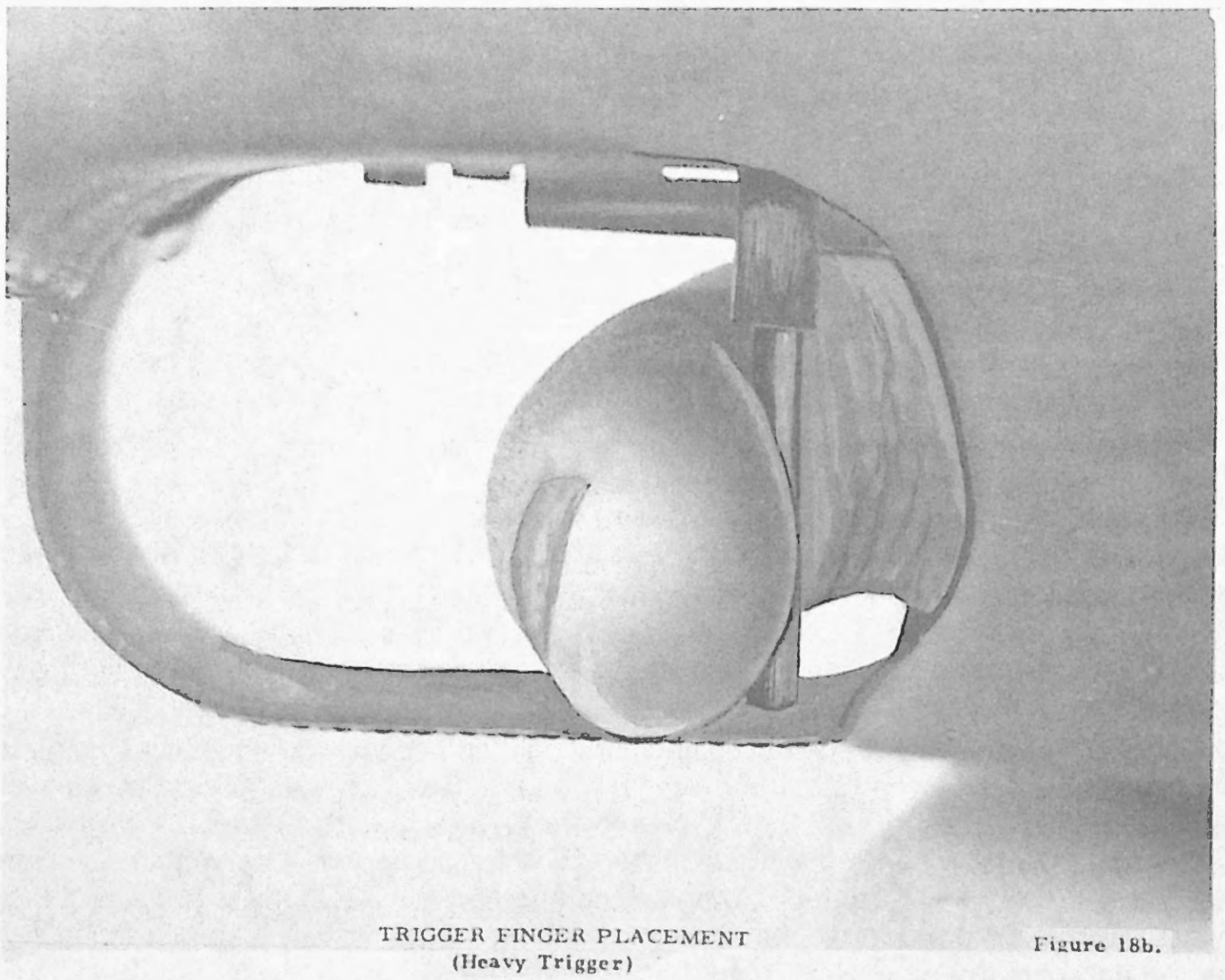
F. FOLLOW THROUGH. Follow through is the act of maintaining hold and concentration until a shooter can no longer affect the flight of the bullet. It is a two-fold act in that it involves both a mental and physical effort for positive results. Physically, the shooter must maintain his hold after completion of the shot for several seconds. Mentally, he must attempt to attain a centered sight picture throughout the hold as well as the follow through period. This requires a concentrated effort as opposed to merely observing the sight picture through the sights. Also, it has been found to be helpful if the shooter mentally follows the shot through the muzzle down range and through the ten ring. To insure adequate follow through the firer may exaggerate the follow through period. The shooter should be reminded that he may have excellent sight alignment, correct cheek pressure, smooth trigger squeeze, etc., however, all of this will not insure success if follow through is not executed smoothly and consistently. If done properly, follow through will permit the shooter to call his shot placement with extreme accuracy.



TRIGGER FINGER PLACEMENT
(Light Trigger)

Figure 18a.

Figure 18a. Trigger finger placement



TRIGGER FINGER PLACEMENT
(Heavy Trigger)

Figure 18b.

Figure 18b. Trigger finger placement

CHAPTER IV

INTERRELATED ASPECTS OF POSITION SHOOTING

A. GENERAL. There are certain fundamental characteristics that apply to all three international positions. Proper application of these fundamentals will result in a more stable and comfortable position. These pertinent aspects will be discussed in this chapter.

B. REQUIREMENTS OF A POSITION. The shooting position must meet certain criteria or requirements to provide optimum results.

1. **Good Hold.** The most important requirement of a position is that it must provide a good hold. The shooter that most frequently holds in the ten ring will be the one that most frequently hits the ten ring. Hold is defined as the area of movement during the period when a shooter contemplates firing the shot. The shooter has two methods of appraising his hold. The first is the movement (or lack of movement) he sees in his sight picture. The other is the movement (or lack of movement) he feels in his muscle systems. This can be noted through the presence of muscle tension in the arms, shoulders, legs, and so forth. As closely related as they are, these two methods become clearly separated in the mind of the trained shooter. To obtain a good hold the center of gravity of the rifle-body structure must be located so that maximum use will be derived from all available support areas.

2. **Comfort.** The second consideration is the amount of shooter comfort that is established. The shooter must be reasonably comfortable to facilitate optimum concentration. A shooter that is experiencing pain from an assumed position will not be able to concentrate his full effort on delivering the shot and observing changes in wind conditions.

3. **Proper Body Function.** The third consideration is to insure that the body is functioning properly. The individual should make sure that blood is flowing to all parts of the body. He should also insure that breathing is not restricted because of constriction in the chest and/or stomach. In essence, the shooter needs to be concerned with finding a position that allows for efficient body function while he is firing. This will enhance shooter comfort and enable him to have the best possible hold for the complete course of fire.

4. **Legal.** Finally, the position must be legal as stipulated in ISU regulations.

C. BUILDING THE POSITION.

1. **Maximize Use of Support Area.** When building a position, the marksman must utilize the available support areas to the maximum. A prone position is more stable than a standing position because there is a much larger support area. In positions where only a minimum of support area is available, the shooter must learn to locate the center of gravity of the body-rifle structure so that proper balance is maintained and the best hold is induced.

2. **Bone Support.** The position that delivers the best hold is based upon bone support. Bone structure should support the weight of the rifle. Since the muscles are relieved of this weight, they are less likely to fatigue and develop tremors. This allows the shooter to maintain better muscle control and his area of wobble will remain at a minimum throughout the course of fire.

3. **Inherent Body Movement.** Even though bone structure supports the weight of the rifle, the body is never completely still. By watching a shooter, particularly in the standing position, a slight amount of swaying movement can be detected. This movement is normal. The body is unable to reach and maintain perfect balance because slight amounts of tension are continuously being applied throughout the body to maintain a certain position. There is a shifting of these tensions and ultimately of the center of gravity resulting in the slight swaying movements of the body. As the position is refined, this swaying movement is reduced to a minimum, which in turn decreases the movement of the rifle. Through training, the shooter is eventually able to occasionally confine his hold to the ten ring. Recognition and increased frequency of the presence of this hold will result in higher scores. Although this fine control is not reached by most shooters, with training and experience most shooters can develop a nine ring hold.

D. THE SPOTTING TELESCOPE. The scope should be placed so that only a slight movement of the head is necessary to bring the eye to the lens (Fig. 19). This is true of all shooting positions, but it is particularly critical when firing from the prone position. If the shooter must raise or move his body to see through the scope, he might change the natural point of aim or the head position. Unless the position is properly reestablished, an off call shot will likely be the result.

E. THE SLING. As mentioned in the chapter on equipment, the sling should be made of leather as opposed to a webb type cloth sling since it is sturdier and will not stretch. The purpose of the sling is to support the weight of the rifle so that the shooter is not holding the rifle by using voluntary muscle tension. Despite support afforded by a sling, improper use through misplacement and/or degree of tightness, can cause problems to the shooter and his position. There are some basic guidelines pertinent to sling placement that insure proper and effective use of the sling.

1. **Hand Position.** The sling is fastened to the rifle at the underside of the stock with a sling swivel. This may be used as the handstop or a separate handstop may be used to help reduce discomfort of the firer's hand. With the left hand resting against the handstop, the sling lies flatly across the back of the wrist. Any material around the left wrist such as the cuff of a shirt or part of the shooting glove should be smoothed across the wrist to prevent unnecessary discomfort. The wristwatch and any jewelry should also be removed.

2. **Sling Location.** The sling is placed on the upper left arm at a location that encounters the least amount of pulse beat and is the most comfortable for the shooter. This may be either high or low on the arm (Fig. 20). The sling is tight on the rear of the arm, yet it should not form a tourniquet around the front of the arm as this will restrict blood flow and cause a more pronounced pulse beat. Therefore, a space along the front of the arm needs to be present to allow for proper circulation of the blood (Fig. 21). Sling placement should provide for a straight line pull and support the total weight of the rifle to provide a most secure and solid position.

3. **Sling Tension.** If the sling is too loose, it will slide down the arm and lose its support value. The newer international jackets have a fastener or strap to hold the sling in position on the left arm. To prevent sling mislocation and slippage it is also important that the jacket fits well, particularly across the shoulders.

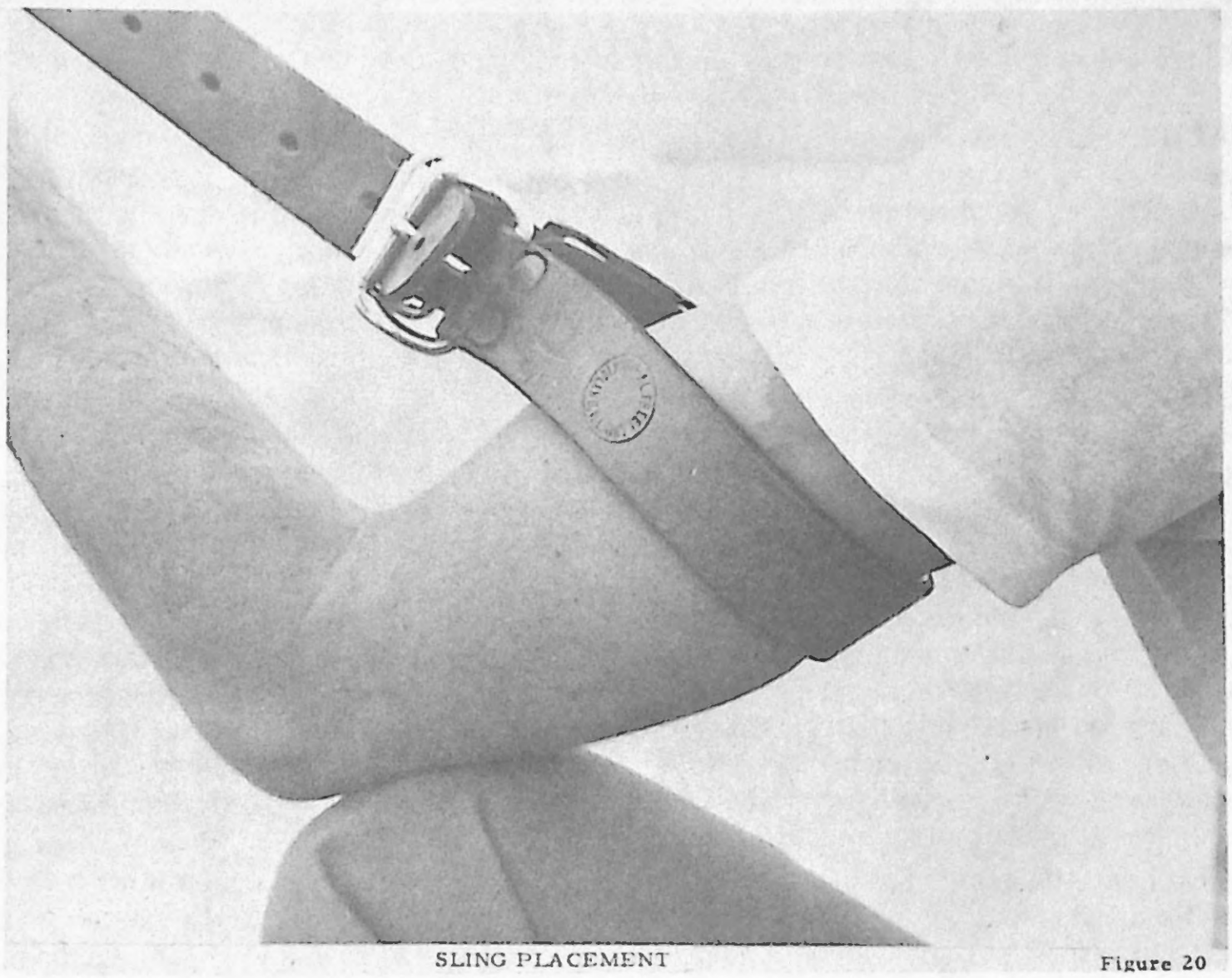
F. COMMON BODY CHARACTERISTICS. There are body functions that can be affected or altered when the rifleman gets into a position. The body functions normally when it is in its usual configuration, but when attempting to shoot a rifle the resulting position can adversely affect these normal functions. The shooter needs to be aware of these potentially adverse affects and what he can do to minimize them.

1. **Erect Head Position.** An alert person normally walks, stands, and sits with his head erect looking straight forward from his eye sockets. If the head is tilted laterally to one side, the organ of balance located in the inner ear senses that part of the body is out of balance and automatically sends out signals to correct this inbalance. Consequently, a slight body sway is involuntarily stimulated. There may be a tendency to tilt the head laterally when placing the cheek on the stock to assume a shooting position. Several methods can be used to position the rear sight directly in front of the sighting eye to minimize or prevent tilting of the head. Head placement also involves the attainment of consistent cheek pressure and obtaining a correct sight picture without tilting the head forward excessively. As mentioned previously, naturally a person looks straight out of his eye sockets. However, many shooters find that they get a better sight picture and position by tilting their head slightly forward. This is an acceptable technique if the tilt is not excessive or if the head is not tilted laterally. The shooter must not experience any eye or muscle fatigue. A method of minimizing this forward tilt is lowering the butt plate, causing the top of the stock to be raised above the shoulder and neck so that the eye and rear sight are at the same level.

a. Canting the rifle is one method the shooter can use to achieve sight alignment while retaining a proper head position. This is an acceptable method that can be used in any shooting position. Consistency in the degree of cant is critical. The amount of cant must be the same for each shot or the strike of the bullet will deviate and shot groups will enlarge. The shooter should keep in mind that when using cant, sight adjustment for windage will also require a sight change in elevation and vice versa. Consistency of cant may be measured by mounting a level bubble on the rifle. After hours of practice the shooter will develop a uniform cant and the level bubble may not be necessary. Cant is used more in the standing and kneeling positions because it is most important that lateral tilt of the head be minimal since these positions are more sensitive to balance. It should be pointed out that shooting with a cant is not being taught as the proper procedure. If the firing position will permit, the rifle should be held with sights vertical. Cant is merely an alternative for those shooters seeking a solution to a problem.

SPOTTING SCOPE PLACEMENT Figure 19

Figure 19. Spotting scope



SLING PLACEMENT Figure 20

Figure 20. Sling Placement

SLING PLACEMENT (Top View) Figure 21

Figure 21. Top view, proper sling placement

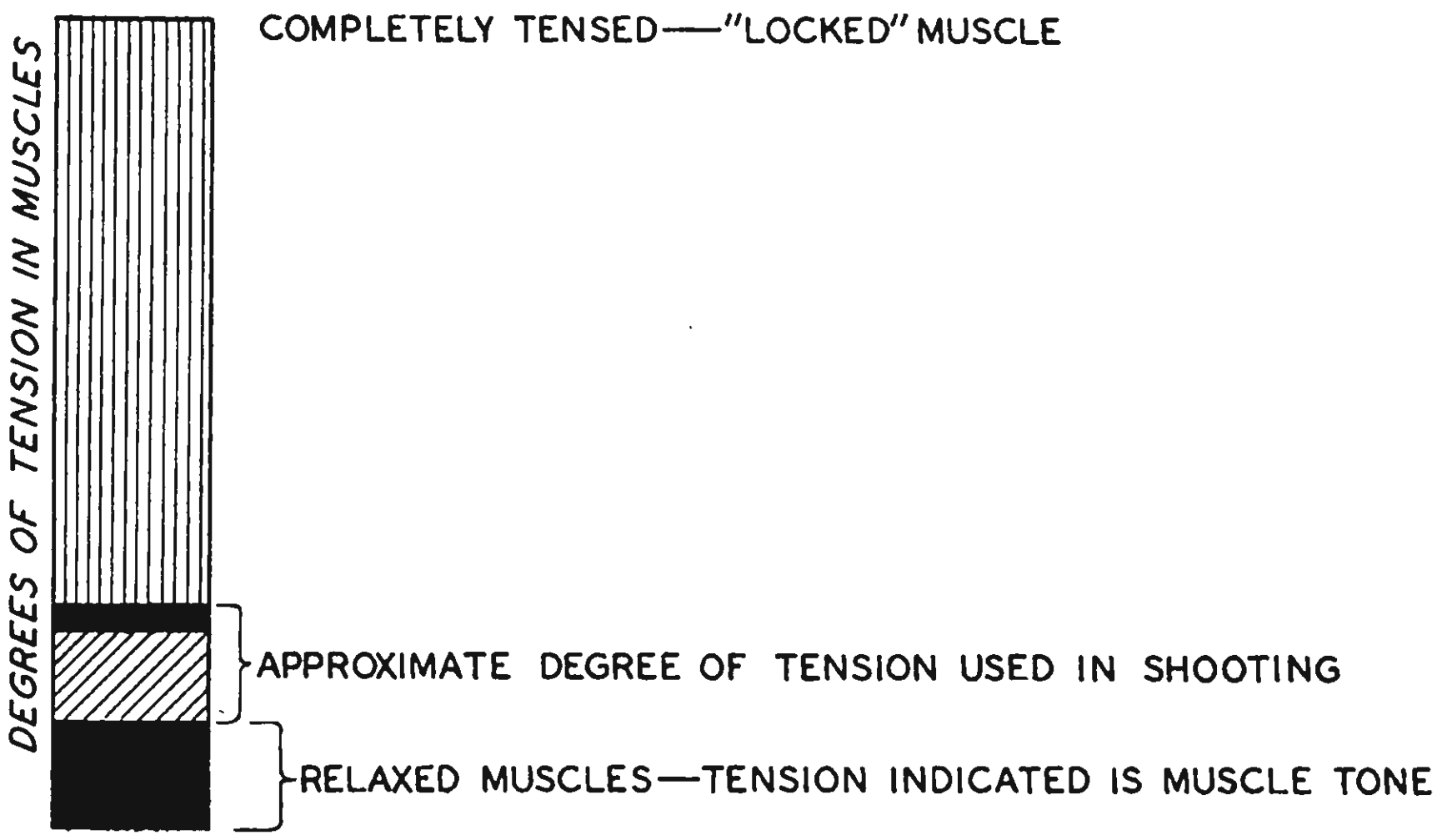
b. An alternative method of maintaining a good head position is to use stock castoff. This is relatively easy to do with an adjustable buttplate assembly. With this accessory, the amount of castoff can be changed to meet different requirements for each position.

c. Mounting offset sights on the rifle is the least acceptable method to maintain proper head position. Offset sights cannot be adjusted for each shooting position. Also, any variation in cant will cause significant change in shot placement.

G. MUSCLE RELAXATION. The amount of muscle tension used to support the rifle and maintain the position should be slight (Fig. 22); rather muscle relaxation should be emphasized. Most of the tension or tightness present is a result of stretching the muscles, tendons and ligaments. This slight stretching and resulting firmness allows the body to maintain stability and balance with optimum control while in a shooting position. The shooter should attempt to support the rifle and provide a good hold. This will also enhance muscle relaxation. Even when shooting a straight stock rifle, tension should be minimal; however, the amount of stock pressure in the shoulder or firmness on the pistol grip may be increased to maximize control. Often tension can be further reduced by warm-up or stretching exercises prior to shooting.

H. RECOIL AND THE ANGLE OF JUMP. Every shooter is familiar with the recoil of a rifle. Simply stated, recoil occurs because expanding powder gases propel the bullet and the cartridge case in opposite directions. Because the butt of the stock drops considerably below the axis of the barrel and bolt, the rearward motion of the barrel and action tends to exert a force above the axis of the stock, causing the muzzle to be pivoted upward. This upward movement of recoil is called jump. There are many technical considerations that should be accounted for in recoil. However, for purposes of this discussion, it is sufficient to say that recoil commences as the bullet starts to move. The gas pressure that causes recoil ceases the instant the bullet leaves the barrel. No account is taken here of gas pressures on the muzzle face, or of the effects of inertia. Since the bullet is moving in the barrel during recoil, a change in the angle of jump will place the muzzle at a different point as the bullet exits the barrel. This will change the bullet's point of impact on the target. This displacement occurs even though the sights may be perfectly aligned at the time the rifle fires. Therefore, a shooter must insure that the angle of jump remains consistent throughout a shooting string. Proper follow through will detect variations in recoil and angle of jump. If recoil is inconsistent the shooter will experience various changes in zero and shots will be off call. Recoil and angle of jump are influenced by external pressures on the rifle and by rifle accessory adjustments.

1. **Accessory Adjustment Influence.** For instance, a tight sling exerts a downward force on the muzzle of the rifle and lessens the angle of jump. In the standing position, slight changes in the angle of jump can be brought about by changes in the adjustment of the palm rest. These changes are usually minor. However, in prone and kneeling changes in sling tension or changes in the position of the left hand can have a noticeable effect upon the angle of jump. In all positions a change in the placement of the butt plate against the shoulder can cause a major change in zero.



MUSCLE TENSION GRAPH

Figure 22. Muscle Tension

2. **External Influences.** Cheek pressure is also critical in affecting the angle of jump. If cheek position and pressure is inconsistent, there will be a noticeable change in the point of impact. This can occur in any position even though each shot may break with the sights in perfect alignment. The shooter should take care to apply the same cheek pressure to the same point on the stock throughout a series of shots. Most good shooters rest the head naturally against the stock. They do not attempt to increase or decrease this natural pressure by use of the muscles. Experience will teach the shooter to sense unintentional changes in head position or cheek pressure.

I. GENERAL REMARKS FOR ALL POSITIONS. After a shooter has become knowledgeable in competitive marksmanship techniques and positions, he should continually analyze his performance and make changes accordingly. As the rifleman progresses and refines his position and techniques, he will make smaller and smaller changes. As a result, his hold will become better and better. However, no shooter every assumes that he has finalized his position. Progress grows through constant analysis and refinement.

1. **Position/Equipment Changes.** It is extremely important that the shooter make no more than one change at a time. This allows the shooter to determine the total effect of a specific change. If two or more changes are made simultanously, it will be impossible to isolate the effect and properly evaluate one specific change. Too many changes too often can be detrimental. Another important consideration is to never evaluate a change on the basis of a single shooting session. The results of a single test are not conclusive. There are too many factors, including the effects of change itself, that can affect performance. Any test should be run continuously until the results can be considered conclusive. When a change is made, the shooter needs to observe his progress if any, over several practice sessions to make an accurate evaluation

2. **Consistency.** Consistency in all techniques of shooting is imperative. Any variation in technique will result in a displacement of the shot. Consistency in cheek pressure and placement is critical as in butt placement in the shoulder. Also extremely important is consistency in eye relief and all of the external pressures on the rifle.

3. **Use of the Shooter's Diary.** A diary is used to record various types of information that will be helpful to the shooter in the future. Since it is not possible to remember everything one did in the last or a previous shooting session, the use of a diary is strongly recommended. The amount and type of information each individual enters in his diary is up to that individual. An important point to realize is that using a diary to solely record scores will not help to improve performancesince numbers alone do not explain problems, solutions, ideas or feelings. However, recording scores can be helpful in noting improvement to aid in evaluation of changes, etc A diary is a means of recording everything that is done in a practice session. Reviewing diary entries eliminates repetition of mistakes and reinforces positive accomplishments which can be used during another session. Used properly, the diary will chart a shooter's performance and enable him to maintain a steady progression in his performance. Diary entries may include but are not limited to the following topics:

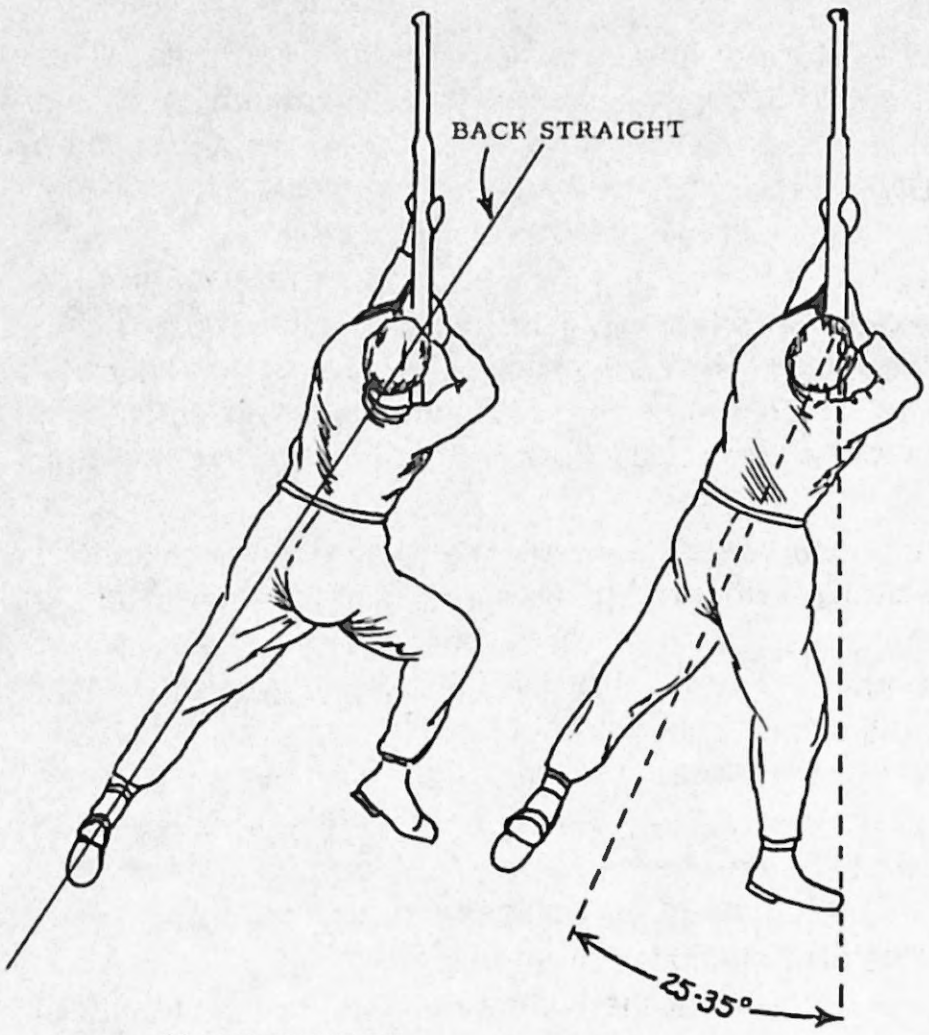
a. Goals the shooter desires to achieve both in practice and matches. Long range goals should be set as well as short range goals. The shooter should write down what he wants to accomplish in his training session. By jotting down what he wants to accomplish, he will tend to think about what he will be doing before he engages in that activity and he will be better prepared for it.

b. The shooter's performance should be analyzed. Once shooting is completed, not only should the individual make note of physical and mental errors, but he should also include solutions to correct for his mistakes. By recording performance in terms of what one did wrong there is no positive emphasis on correction of the errors. Therefore, contributions to poor performance should be recorded, evaluated, and solutions proposed. It is equally important that the shooter make note of good scores and performance. He should include facts and feelings that he felt caused him to perform well. All such information is useful in the future, especially in match preparation. Reading the diary will familiarize the competitor with what he needs to know and how he needs to feel to expect a good performance. This is an excellent means of guiding the shooter toward higher scores.

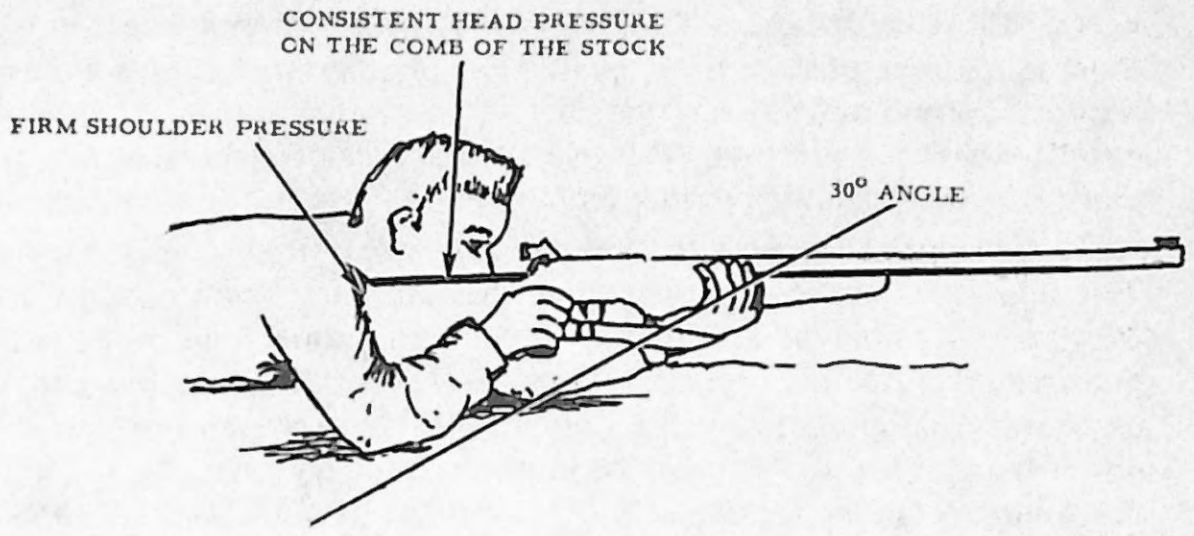
c. Information, techniques and ideas learned from other shooters may merit inclusion in the diary. Whenever a more experienced or advanced shooter explains different techniques that may be applicable to your performance, it is good to include such information in the diary. The less experienced shooter learns from this information and can use it for future reference and possible application.

d. One's own feelings, attitudes and sensations are also important diary subjects. The shooter can learn best about himself by analyzing his feelings when he is shooting. He becomes aware of how he influences himself in a match and what particular feelings and state of mind cause him to perform at his best.

e. Any pertinent information should be recorded that the individual feels will aid him in attaining his goals. Scores can be included, but as mentioned before this should not be the only source of reference. Whatever criteria is established, the shooter should remember that to get the maximum benefit of a diary, it is necessary to record any pertinent information and observations right away. If he waits too long, the idea or impact of the idea is lost and the shooter has not gained the maximum possible benefit. Equally important is reading the material written down. The diary should be reread regularly to refresh the memory and used as a reference for various situations. This can enhance development toward more effective training sessions, increased physical and mental control and higher performance levels; all of which will result in higher scores.



PRONE POSITION



PRONE POSITION
(Back View)

Figure 23

Figure 23. Prone Position

CHAPTER V

THE PRONE POSITION

A. GENERAL. As the accuracy of rifles and ammunition have improved shooting techniques have been refined, during favorable conditions, scores fired from the prone position have reached their maximum level. The ability to attain high prone scores is important in that although a multi-position match is seldom won as a result of the prone stage of fire, it can easily be lost. Therefore, every shooter can and should strive for a perfect or near perfect score in the prone position. High scores are attainable because the shooter benefits from a large support area. The position becomes so steady due to this amount of support, that conscious body control will become a negligible factor.

B. ASSUMING THE PRONE POSITION. To assume a good prone position, the shooter faces the target between five and fifteen degrees to the right of the line of fire. The body is extended in a straight line and relaxed, with the spine also being straight. (Fig. 23).

C. POSITION OF THE LEFT LEG. The left leg should be parallel to the spine with the toes pointing inward. The left heel should not be forced down to touch the ground. Pointing the toes outward is not recommended as this will place a strain on the muscles of the left leg. (Fig. 24).

D. POSITION OF THE RIGHT LEG. The right leg is angled away from the spine at approximately a forty-five degree angle. It is bent at the knee, and the lower leg is roughly parallel to the left leg with the toes pointing outward. (Fig. 23). By bringing the right knee forward the right shoulder will tend to be located in a position more directly behind the rifle and the level of the rifle is such that no force is needed to bring it to the level of the target. This also facilitates breathing by raising the chest off the support area thus preventing pressure from being placed against it. The pressure of the body weight will tend to be lifted from the chest and abdomen if the leg is drawn up to a ninety degree angle. However, when the leg is at this ninety degree angle there will be too much pressure on the left elbow. The largest variation in the prone position will occur in the positioning of the right leg. The individual must experiment to find how much the leg needs to be bent at the knee and at what angle it should be positioned to obtain the most stable and comfortable position.

E. POSITION OF THE LEFT ARM. The left elbow should be slightly to the left of the rifle. (Fig. 24 and 26). Placing the elbow under, or to the right of the stock, strains the muscles of the shoulder and the upper torso. The left hand and wrist should be straight and the fingers should not grasp the rifle. (Fig. 25 and 26). The stock is placed well over the heel of the hand and not positioned toward the base of the fingers. In international competition, the left forearm is required to have a minimum angle of thirty degrees to the support area. For most shooters this angle will result with approximately six inches between the shooter's wrist and the ground. The position of the forend stop is determined by the length of the shooter's arms and the length of the rifle with exact placement being determined by the individual. A general guide is to have the distance from the trigger to the butt equal to the distance from the trigger to the forend stop.

F. ADJUSTING THE SLING. The sling must be positioned on the arm so that it supports the weight of the rifle and offers optimum stability. Since the sling can transmit a pulse beat from the arm to the rifle, it is important that the shooter place the sling in a position that will offer minimal transfer of pulse. Whether this involves having the sling high or low on the arm is at the shooter's discretion. (Fig. 24 and 26). After having placed the sling properly on the arm the shooter must tighten the sling so that the left hand is snug against the forend stop and no muscular effort is used to hold the rifle in position with the left hand or forearm.

G. POSITIONING THE RIGHT ARM. The right elbow is placed at a comfortable distance from the body. If an attempt is made to bring the elbow in too close, the right shoulder will be raised to an uncomfortable height and an unstable position will result. The right hand should not grip the stock with extreme pressure or tension; however, some degree of pressure is necessary. The amount of pressure used to grasp the stock will depend on the individual, but it should be noted that the amount applied should be the same for each shot to maintain consistency. No attempt should be made to guide the rifle with the right or left hand. The positioning of the finger on the trigger is also a matter of shooter preference but the trigger finger should definitely not touch the stock. The trigger finger must be placed to insure an unrestricted, direct pull to the rear. (Fig. 25 and 27).

H. POSITIONING THE RIFLE. The butt plate should fit snugly into the shoulder. Since many shooters place the butt low into the shoulder, the adjustable butt plate is raised to attain maximum surface contact at the shoulder. (Fig. 25 and 27). The most important aspect of butt placement is consistent positioning for every shot. Some shooters find that a hook butt plate will help them to accomplish this.

I. POSITIONING THE HEAD. The stock of the rifle should be constructed in such a manner that when the shooter is in position and places his head on the stock, he is looking comfortably through the sights. In placing the face against the stock, some shooters will apply more facial pressure than others. Again, the important point is that the amount of facial pressure be consistent for each shot. The head should be positioned so that proper eye relief is maintained. Furthermore, special care should be taken to see that the head is not tilted to the left or the right in an attempt to attain this proper eye relief. (Fig. 25 and 27).

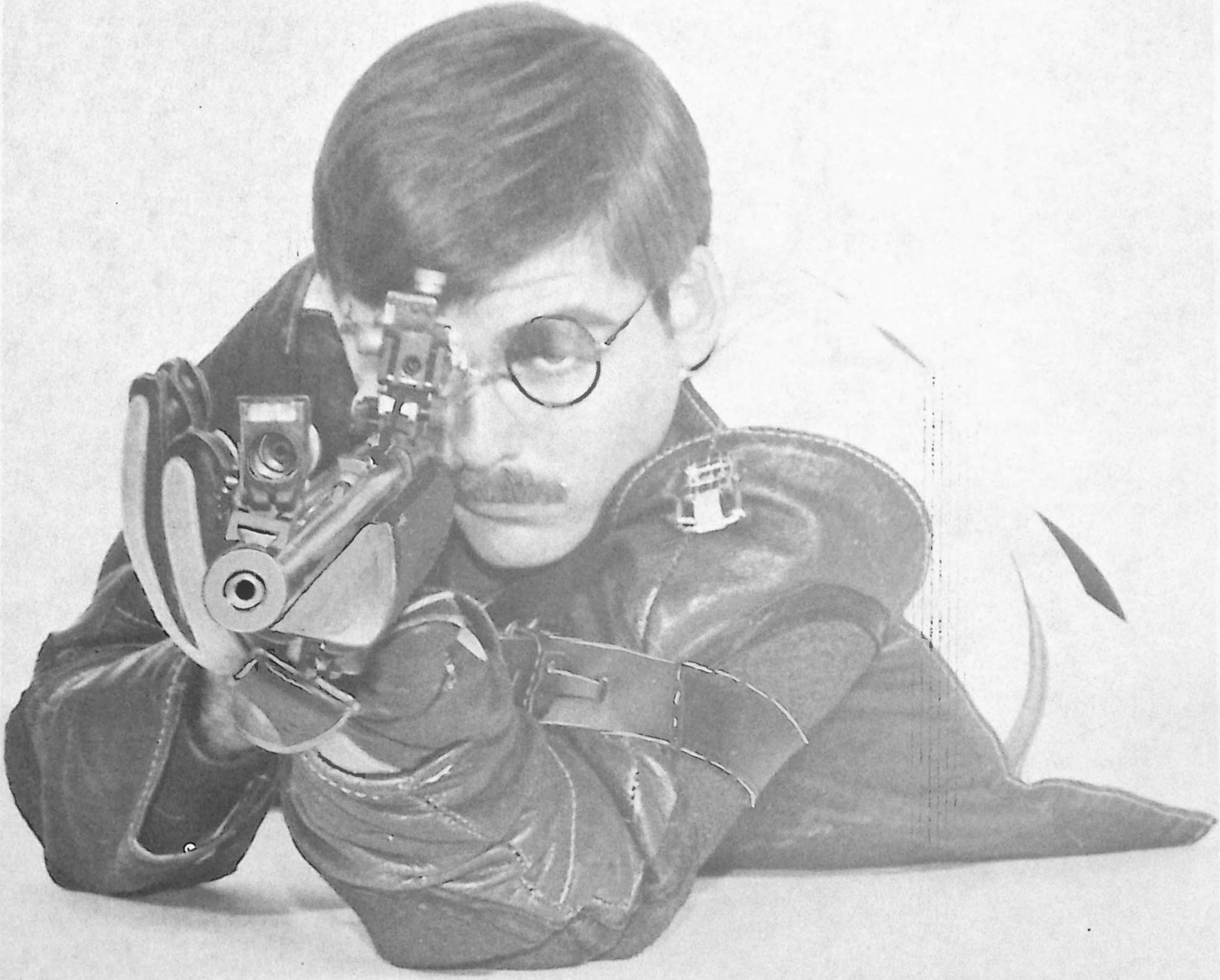
PLACEMENT OF LEFT ELBOW

Figure 24

PLACEMENT OF HANDS

Figure 25

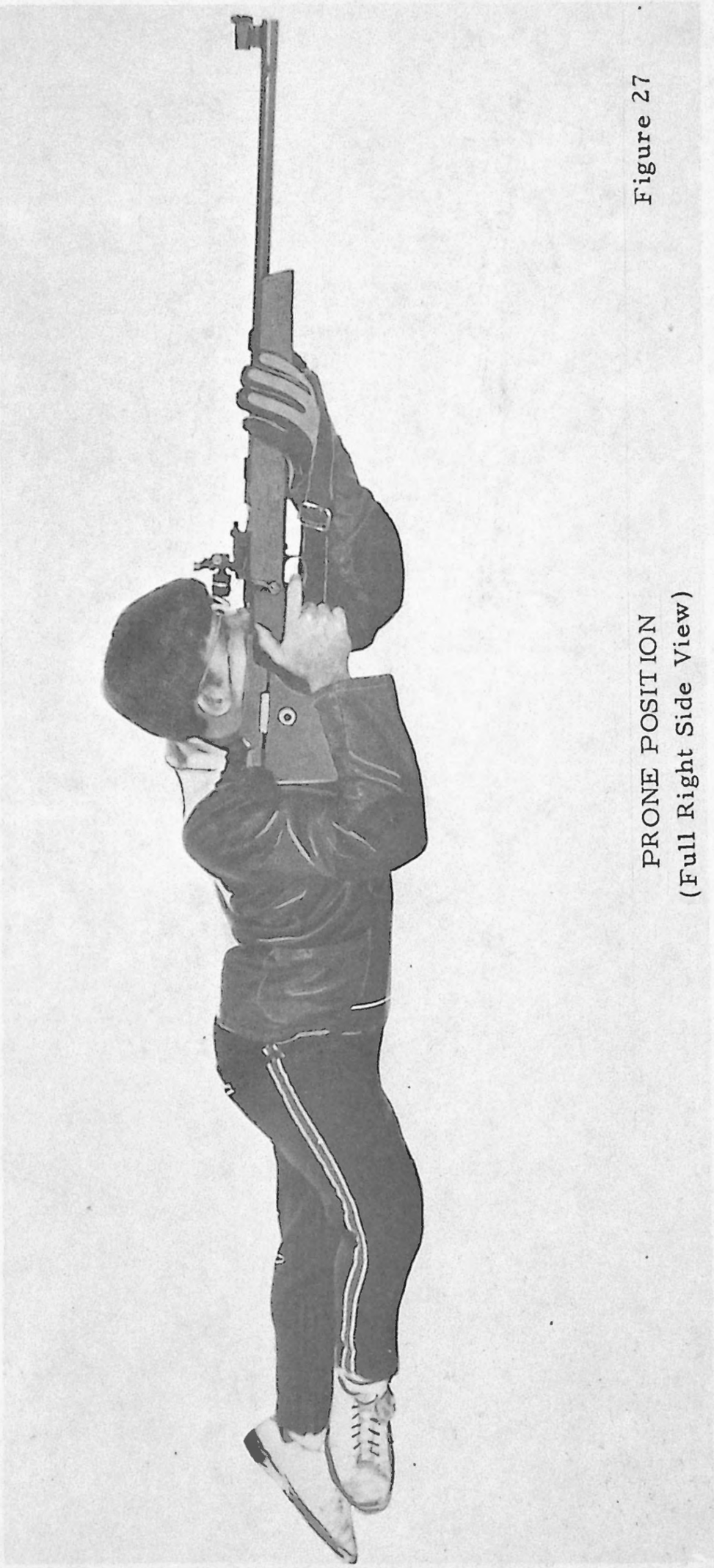
Figure 25



PRONE POSITION
(Front View)

Figure 26

Figure 26. Prone position (front view)



PRONE POSITION
(Full Right Side View)

Figure 27

Figure 27. Prone position (full side view)

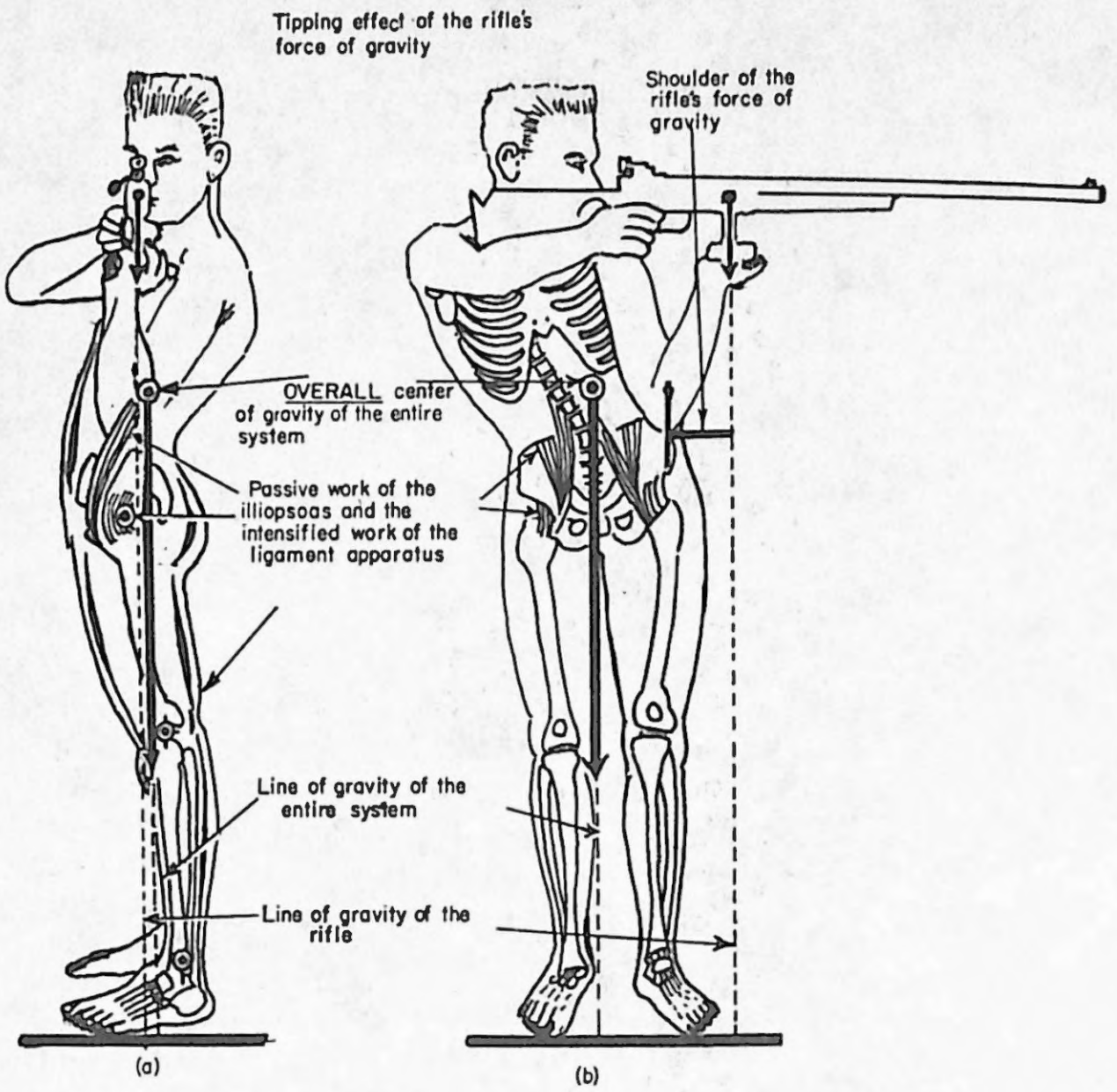


Figure 28. Standing Position

CHAPTER VI

THE STANDING POSITION

A. GENERAL. By comparing a list of the top position shooters to the top standing shooters, it can be noted that a majority of both lists will include the same shooters. To expand on this point further, it can be concluded that matches are won in the standing position. Good prone and kneeling scores are mainly a function of position refinement, while standing is dependent equally upon position and technique. Once a person has developed a good prone or kneeling position, his hold is near ten ring and his score is largely a function of his hold. In standing, however, position refinement is less of a total problem, leaving a major portion to concentration, trigger control, and mental discipline.

B. POSITION OF THE FEET. In building a stable standing position, the shooter faces at approximately a ninety degree angle to the right of the line of fire (Figure 28). His feet are about shoulder width apart (Figure 29). Equal distribution of weight on both feet is desirable. However, if this is not possible for the individual to attain, it is recommended that no more than sixty-five percent of the supported weight be placed on one foot. It is dependent upon the individual as to which foot will support slightly more weight. The legs should be straight, but the knees should not be tensed or locked.

C. FUNCTION OF THE BACK BEND AND BODY TWIST.

1. **General Provisions.** Once the proper foundation is constructed, the center of gravity of the rifle-body structure should be positioned so as to take full advantage of it. This is accomplished through the employment of the **back bend and body twist** (Figures 29 and 30). The shooter places the rifle to his shoulder with the muzzle elevated and pointed about target height at approximately a thirty degree angle to the right of the line of fire. He then bends backward at the waist, keeping the legs straight and his hips level. He twists the torso from the hips and/or waist up, and lowers the left elbow until it contacts the side of the body, the rifle pointing naturally at the center of the target (Figure 3I). If he properly maintains his bend and twist, the weight of the rifle will feel as though it is resting upon his rib cage or hip (Figure 32). As the individual becomes accustomed to this position he modifies the procedure used to achieve the same resulting configuration. Rather than involving several steps to achieve the bend and twist, the shooter points the rifle in a direction toward his target leaving it on the stand, then settles into his position twisting and bending at the torso. The rifle is then brought up to the level of the target by bending back into the established position. This is possible since the shooter's body through constant practice is capable of settling into the back bend and body twist readily. This combination of back bend and body twist is the most important feature of the standing position. Considerable discomfort is commonly experienced the first few times the position is assumed. It can take as long as a month of daily practice to strengthen the muscles of the body to compensate for the fatigue generated in the areas of strain.

2. **Achieving a State of Balance.** The shooter's back is bent to the right and rearward to gain bone support and stability. If the shooter stands straight, the weight of the rifle will pull his body to his left front. He will experience strain in the muscles of his back in an effort to keep his body from falling forward. By bending back and to the right, he shifts the weight of his body slightly to the right rear of his feet. At a certain point, the weight of his body to the right rear of his feet equals the weight of the rifle to the left front. The body rifle structure then reaches a state of balance, with the center of gravity approximately above a point between the feet (Figures 33 and 34). The capability to quickly attain a state of balance may take a considerable amount of time to develop as it is a function of the shooter's kinesthetic sensitivity which increases with practice and observation.

3. **Body-Rifle Weight Supported by Bone Structure.** As a result of this back bend and body twist, the weight of the rifle and upper torso falls upon the bones of the lower spinal column. Hip and leg bones transmit this weight ultimately to the feet. Thus the weight of the rifle is almost completely supported by bones. The only work required of the musculature is to keep the body in a standing posture and prevent it from swaying from its point of balance through constant low level tension which is not voluntarily controlled by the shooter.

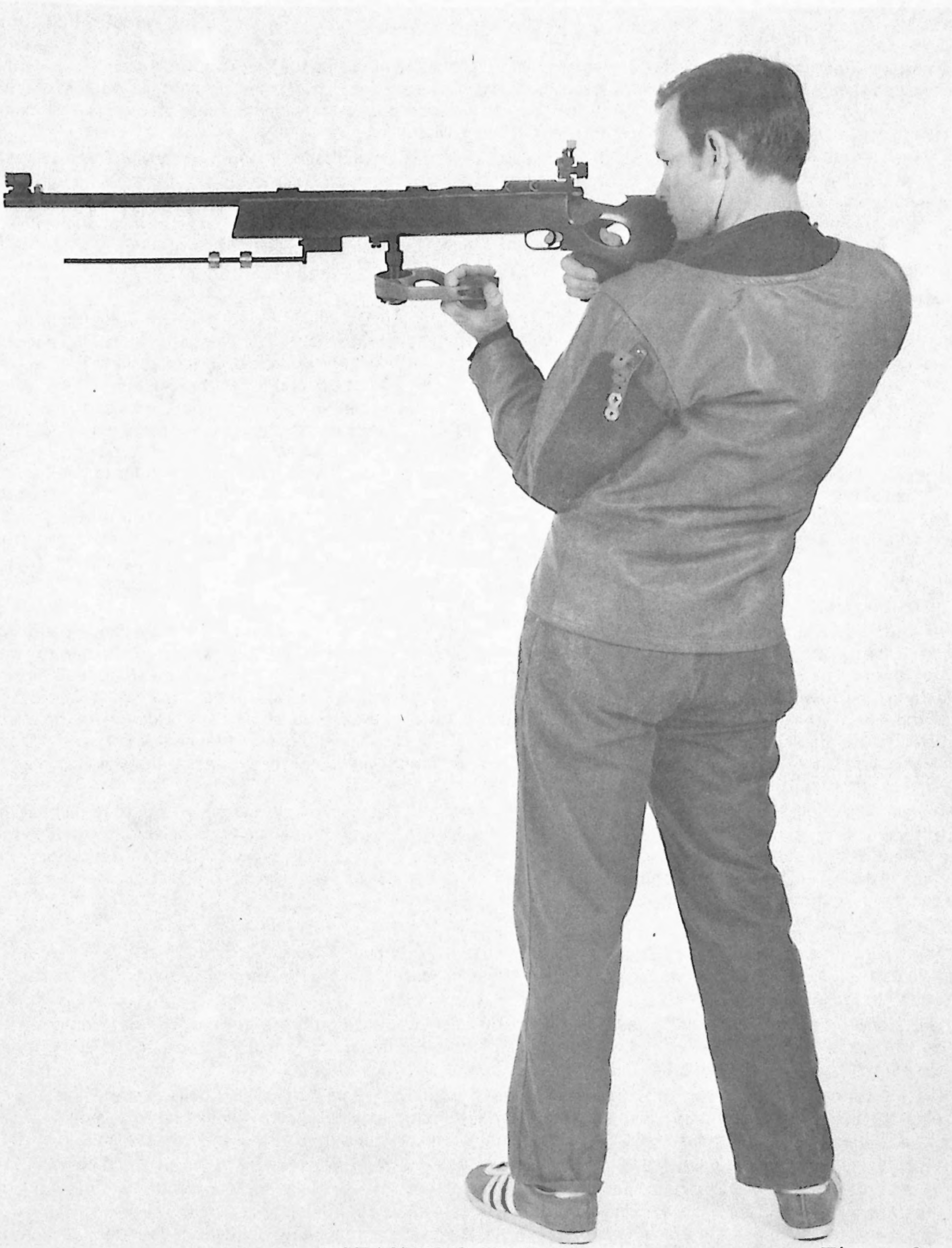
D. POSITION OF THE LEFT ARM.

1. **The Upper Arm.** The shooter's left arm rests against the left rib cage (Figure 28). Supported by the ribs, the bones of the left forearm form a bracket that supports the rifle. The butt hook under the right armpit prevents the rifle from falling forward from the weight of the barrel.

2. **The Elbow.** The upper arm is rested against the rib cage. Depending on the individual's body conformation, the elbow may rest against the hip bone or the rib cage. The shooter should be concerned with placing the elbow in an area where maximum stability is achieved.

3. **The Forearm.** The left forearm that supports the rifle is not completely rigid. It is bent at the elbow at a ninety-degree angle or less (Figures 33 and 35). Like the body, the left forearm should be consistently placed at a point of balance. Placement of the forearm should be such that no voluntary muscle tension is used to hold the rifle.

E. POSITION OF THE HEAD. The head should be relaxed down on to the stock keeping the head at as natural an upright position as possible, allowing the eyes to look as straight forward as possible out of the sockets and through the sights (Figure 36). The head may be tilted slightly forward as long as no excessive eye strain or fatigue results. High sight bases or riser blocks place the sights higher so the eyes can look throught the sight system allowing the head to remain at a more upright and natural position. Lateral tilt of the head increases body movement resulting in a poorer hold. When the head is tilted, the body senses the imbalance and automatically sends out signals to correct for it. Consequently, the body experiences a slight involuntary sway. In order to keep the head erect, it may be necessary to cant the rifle which is entirely acceptable. However, it is essential that the angle of cant be the same for each shot. This can be facilitated by using a spirit level or similar type cant indicator.



STANDING POSITION
(Back View)

Figure 29

Figure 29

STANDING POSITION
(Back View)

Figure 30

STANDING POSITION
(Front View)

Figure 31

Figure 31

STANDING POSITION
(Front View)

Figure 32

Figure 32

STANDING POSITION
(Front Right Side View)

Figure 33

Figure 33

STANDING POSITION
(Front View)

Figure 34

Figure 34

STANDING POSITION
(Small Person - Front View)
Figure 35

Figure 35

F. POSITION OF THE RIGHT ARM.

1. **The Butt Hook.** The butt hook should be firm but comfortable under the right armpit. This will prevent the rifle from pivoting forward from the barrel weight. The hook is dropped to a level that will bring the stock up to the shooter's face and the eye will be looking naturally through the rear sight (Figure 37). This adjustment is generally obtained by positioning the top of the hook in an area about one inch from the top of the butt place mechanism.

2. **Degree of Tension.** The right arm should be as relaxed as possible. Tension can result in poor trigger control as well as adversely affecting control of the rifle. Depending upon individual muscle tone and personal preference, the degree of relaxation can vary.

3. **The Hand.** The right hand should be placed on the pistol grip comfortably using firm pressure. Although the amount of tension used is not critical, it should not be excessive and it should be the same for each shot. The wrist should be as straight as possible providing for a good hand placement. The trigger finger should be placed so as not to touch or drag on the stock and to insure a straight back trigger squeeze. (Figures 36 and 37).

4. **The Shoulders.** In discussing placement of the arms and hands it should also be noted that the shoulders should be parallel to the support area. It is also important that the shoulders be relaxed and free of tension.

G. FUNCTION OF THE PALM REST. The palm rest is used to bring the sights up to the level of the eyes. Some shooters are able to accomplish this without the use of a palm rest. They simple support the rifle with the left hand and if necessary use more back bend. Others use a small block of wood. The important point is that the correct shooting position is assumed and the height of the palm rest is adjusted to accommodate the body. Under no circumstances is the position adjusted to the rifle. The palm rest is positioned on the heel of the left hand (Figure 38). The beginning shooter may find that adjusting the palm rest and butt hook correctly may prove to be a bewildering task. This difficulty is caused largely by the fact that the shooter does not have a consistent position developed. He has not shot enough standing to be able to sense minor changes in body posture. Consequently his position varies and his rifle seems out of adjustment.

H. AREA OF AIM. The standing position does not have one distinct point of aim that is natural to the position. This is a result of the small support area afforded by the standing position. There is, however, an area of aim that is characteristic of this position. The shooter must adjust his rifle position and the placement of his feet so that the target is within this natural area of aim when the position is assumed. A slight shift in body posture can be used to adjust the point of balance. Muscles should definitely not be used to force the rifle onto the target. Adjustments to obtain a proper natural area of aim should be made by pivoting the rear foot and/or moving it forward or backward slightly. It must be emphasized that these adjustments should be minute; otherwise the entire support structure may lose its efficiency and hold capability.

I. ADVANCED POSITION REFINEMENT.

1. ISU rules dictate that the shooting jacket be no more than 2.5 mm thick. Such a thin, flexible and loose fitting jacket provides limited support to the shooter's position. This requires that refinements be made to the position to obtain maximum stability and support thus providing the shooter with an optimum hold.

2. These refinements include small position adjustments (previously mentioned) to locate the center of balance of the rifle-body structure over the support area. These adjustments stretch the body's muscles, ligaments, and tendons to allow for a more stable, comfortable and controlled hold. It is best to stretch a muscle only enough to restrict its movement. Too much tension causes fatigue and loss of control while too little tension invites involuntary movement. It is important to note that no voluntary tension is used. Muscles, tendons, and ligaments are tightened by twisting and stretching. A good illustration is the use of back bend and body twist in the standing position. By turning the upper body to the left, the thigh and lower back muscles become stretched. The degree of twist and related tightness is left to the shooter's discretion.

3. The left elbow should be placed under the rifle allowing the arm to become locked between the rifle and the hip. Positioned properly, the left arm and hand can be relaxed and does not forcefully hold up the rifle.

4. Many of the best standing shooters tilt their heads forward a bit on the stock (Figure 39). This serves to lock the head and spine. However, care must be taken to insure the head is not tilted laterally, as position balance will be disturbed.

J. USING THE STANDARD RIFLE AND AIR RIFLE. The positions shown on previous pages are not altered when shooting with a standard or air rifle which are both straight stocked rifles without a hook butt plate or palm rest. With these rifles the shooter is frequently required to make minor position modifications to have optimum control over the rifle. In the standing position, the stock will be placed higher in the shoulder and the right arm raised somewhat. The grip of the right hand will be firm but not tense and there may also be a slight rearward pressure applied to the pistol grip. There are several methods of supporting these rifles with the left hand. Several of the more popular methods include:

a. Using a relaxed doubled fist as a platform. This is probably the most preferable hand hold technique. (Fig. 40)

b. Placing the rifle in the fork of the index and middle fingers (Figure 41).

c. Supporting the rifle on the outstretched finger tips (Figure 42). This is less desirable because there are too many joints involved and if any of the fingers flex, the hold could be disturbed. If this method is to be used, the fingers should be extended out as much as possible resulting in a flatter surface along the fingers and palm. A glove should be worn on the left hand regardless of the hand hold position used. This will help minimize discomfort that the shooter may otherwise experience.

STANDING POSITION
(Upper Body - Right Front)

Figure 36

Figure 36

STANDING POSITION
(Upper Body - Right Side View)

Figure 37

STANDING POSITION
(Front View)

Figure 38

Figure 38

STANDING POSITION
(Front View)
Figure 39

Figure 39

Figure 40

Figure 40

STANDING POSITION

(Split Finger Support)

Figure 41

Figure 41

STANDING POSITION
(Outstretched Finger Support)

Figure 42

Figure 42

KNEELING POSITION
(Right Side View)

Figure 43

Figure 43

CHAPTER VII

THE KNEELING POSITION

A. GENERAL. Probably the most prominent change in the recent evolution of international position shooting has taken place in the kneeling position. Most authorities feel that the scores shot in the kneeling position by some of the outstanding shooters are approaching the maximum potential. The mental barrier of shooting perfect or near perfect scores in the kneeling position has crumbled. Shooters are beginning to realize the capability of their kneeling scores to be near, if not equal, to their prone scores. Previous goals for kneeling scores were progressively set at 380, then 385, and later 390. Shooters are now striving for scores of 395 or better. Naturally, the weather conditions are a significant consideration in establishing and achieving a goal.

B. THE LOW KNEELING POSITION. At the present time, the top marksmen of the world are using a forward kneeling position as compared to prior kneeling positions. Previously, the kneeling position was erect with the majority of the support coming from the heavy shooting coat. With the introduction of the light coat, position construction must depend more on bone structure and correct body position. This has resulted in a lower forward slumping position which provides a lower center of gravity and a more stable, controlled hold.

C. THE KNEELING ROLL. The kneeling roll should be used in the kneeling position to obtain the best hold and position potential. If the kneeling position is properly structured around the roll, the shooter will be able to remain in position comfortably and retain a solid hold for the entire course of fire. The selection of a roll is left to personal preference. The size and density should be such that the roll fits the instep and supports the position comfortably. The roll may be made of a leather or canvas bag containing sand, sawdust, rags or any suitable material that readily conforms to the configuration of the ankle.

The right foot, when viewed from the rear, is perpendicular and the heel is centered at the base of the spine. (Figure 44). A new shooter will frequently encounter difficulty when first using this position. The right knee, the ankle, or the foot may feel uncomfortable. Regular training will condition the body so that eventually the shooter can remain in position for the entire forty shot string without undue stress. Loosening the laces on the right boot will release some of the pressure on the instep and facilitate proper circulation and comfort.

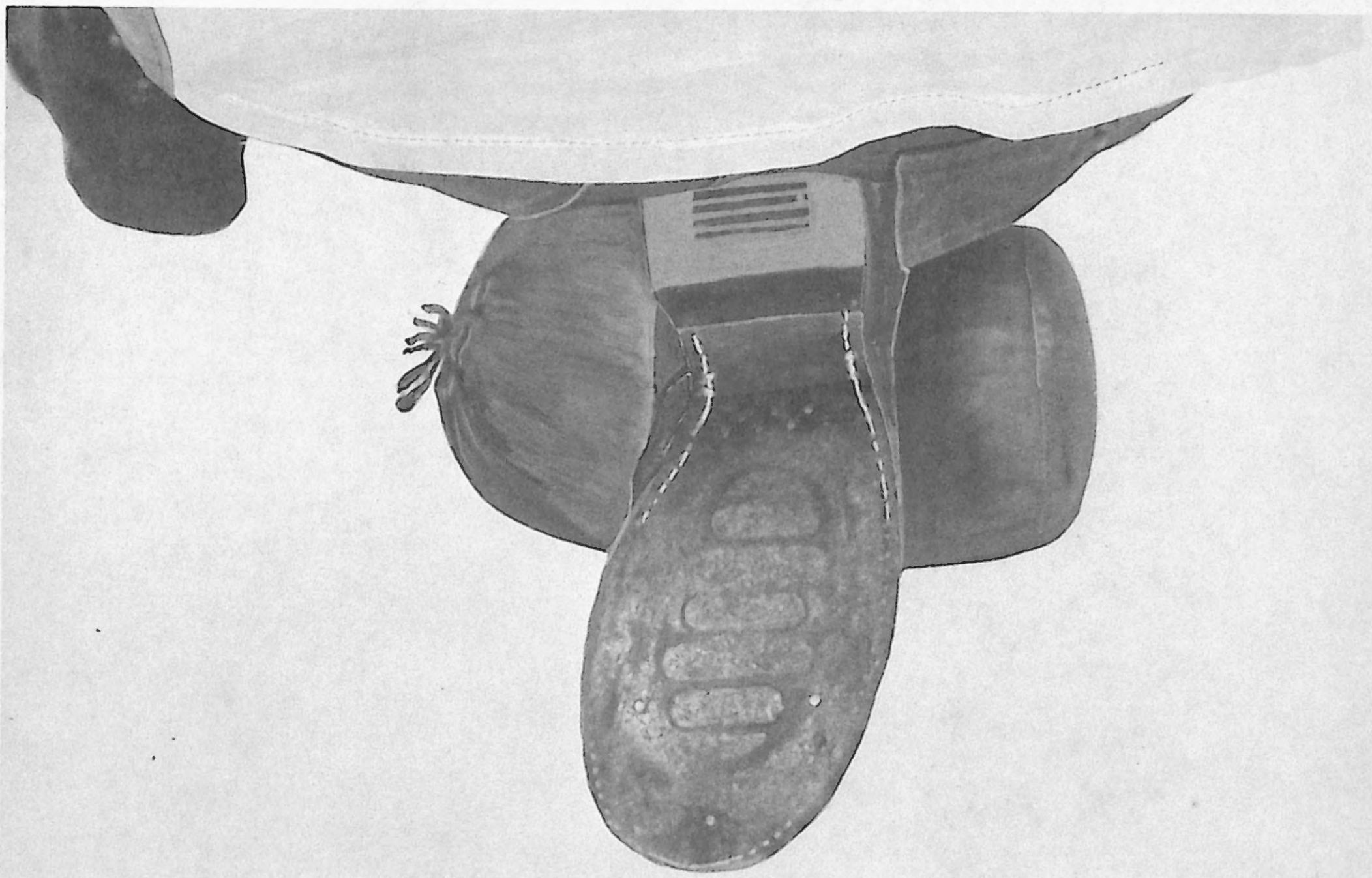
D. BODY POSITION. The position of the back seems to play an important part in attaining a good hold. The torso should be positioned so that maximum stability will be derived from the anatomy and the coat. In the erect position the back is situated so that the weight is supported by the roll. In the forward position, the left foot acts as the understructure for the torso which is slumped down and leaned slightly forward over the left knee. In neither case is the spine tilted to the left or right.

E. FUNCTION OF THE RIGHT KNEE. The right knee is used to support only a minimum of weight. The angle of the right leg should be between thirty and forty-five degrees from the line of fire. (Figure 45). In the low position the leg will form a smaller angle and the body will generally face more toward the target than in the erect position.

F. LEFT LEG. The left foot is approximately parallel to the inside of the right thigh. (Figure 46). If the rifle is aimed to the right or the left of the target, the shooter should not only move the left foot, but rather reorient the entire body in its assumed position. Minor lateral position adjustments can be made by turning the toe of the left foot toward the right knee to "lock" the left leg and reduce lateral movement of the rifle. Additionally, the position of the left ankle and lower leg should be perpendicular to the ground or, because of body conformation, it may be drawn back toward the position as much as fifteen degrees. (Figure 47). The shooter should insure that the lower leg is not tilted left or right of vertical.

G. POSITION OF THE HEAD. The head should be vertically erect. It may be tilted forward slightly but not the extent that the eye has to look through the eyebrow or that the neck muscles become strained. The head is definitely not tilted laterally. (Figure 48). The head should not tilt to the right when placed on the stock but rather the rifle should be canted to the cheek to insure adherence to the proper aiming techniques. Proper and consistent eye relief should also be maintained.

H. FUNCTION OF HOOK BUTT PLATE. The hook butt plate is used to assist in the proper and consistent positioning of the rifle into the shoulder. It also enables the stock to be raised to meet the cheek while continuing to give maximum rifle to shoulder contact. For most marksmen, the stock is somewhat shorter for kneeling than it is for prone. The top of the hook plate is most frequently adjusted so that it is approximately parallel to or slightly lower than the top of the butt mechanism.



PLACEMENT OF FOOT AND KNEELING ROLL

Figure 44

Figure 44

KNEELING POSITION
(Right Side View)

Figure 45

Figure 45

KNEELING POSITION
(Front View)

Figure 46

Figure 46

KNEELING POSITION
(Placement of Left Leg and Arm)

Figure 47

Figure 47

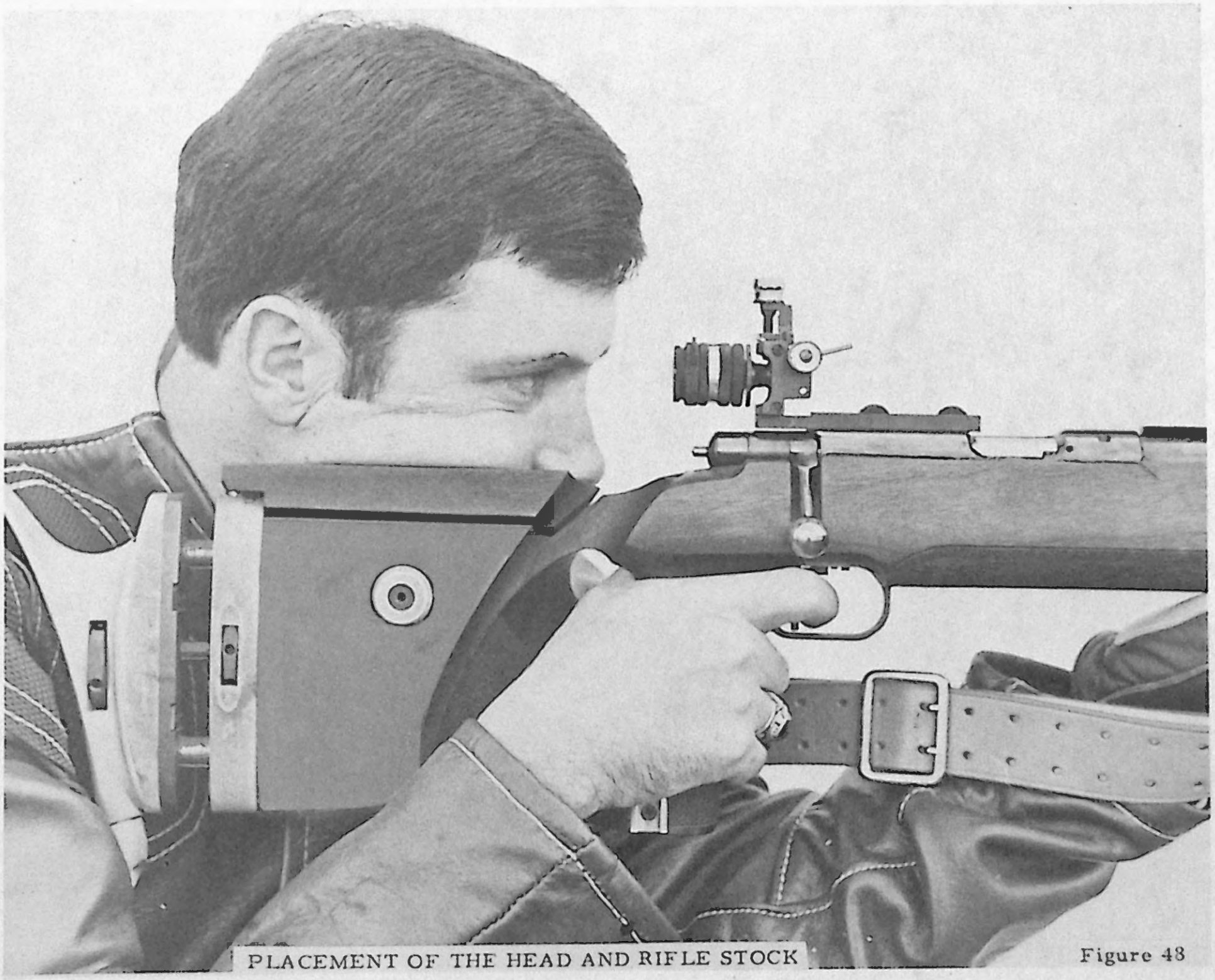


Figure 48

I. POSITION OF THE RIGHT ARM. In most cases, the right arm hangs naturally at the side. It is critical that the right arm and shoulder remain relaxed. Occasionally the right elbow may be held up slightly as when using a straight stocked rifle. This forms a pocket for the rifle butt and insures that the weight of the arm is not pulling down on the rifle. The sole job of the right arm is to get the trigger finger to the trigger. (Figure 49). The trigger finger should touch the rifle only at the trigger and not contact the stock. The trigger finger should be placed to insure a straight back squeeze. The degree of firmness applied on the grip with the right hand varies with individual preference. The important point to remember when thinking of the opposing forces pressing against the rifle with the right hand, the face, and the shoulder is not how much pressure is applied but rather that the amount of each pressure be consistent for each shot.

J. FUNCTION OF THE LEFT ARM.

1. The rifle is placed in the heel of the left hand with the stock being nearer the thumb than the more flexible area toward the fingers. A shooting glove is worn on the left hand to minimize discomfort. The fingers of the left hand do not grasp the rifle in an attempt to guide or hold it. (Figure 50).

2. The left wrist should be straight and the left arm should be extended naturally and relaxed. The left elbow is placed on top of the left knee or slightly to the left of this position. The elbow will be slightly left of the stock. If the elbow is placed completely under or to the right of the stock there is considerable strain in the arm and shoulder muscles (Fig. 50). As a guide for the average shooter, the left forearm and the left thigh should form a straight line when supporting the rifle (Fig. 51).

3. The left hand should be tight against the hand stop. The placement of the sling on the upper arm may be high or low. Specifically, it should be positioned where the best hold results. The sling, not the left arm, should do the work of supporting the rifle. The forend stop should be positioned in approximately the same place as prone. (Figure 51).

KNEELING POSITION
(Placement of Right Elbow)

Figure 49

Figure 49

KNEELING POSITION
(Front View)

Figure 50

KNEELING POSITION
(Placement of Left Arm, Leg and Right Foot)

Figure 51

Figure 51

CHAPTER VIII

POSITION REFINEMENT

A. PRONE POSITION.

1. A shooter should work constantly to refine the prone position and ultimately to improve his hold. Since very slight changes in the position can have a noticeable effect, the shooter can achieve refinement through experimentation with various adjustments. The results of a change can be noted by observing an increase or a reduction in movement in the position. This can be achieved through the use of a telescopic sight since it will magnify the sight picture and the resulting movement.

2. Once the position has been modified, it is essential to prevent any adverse effects upon it that can be easily caused by the shooter. One aspect of this involves firing and reloading the rifle in a manner that will not disturb the position. Good firing and reloading habits can be developed when using a telescopic sight. This allows the shooter to note any excessive movements that result from handling the rifle while in position. Along this line it should also be mentioned that when loading each round, the bullet should be pushed into the chamber as far as possible. Otherwise, by setting the round into the chamber with the bolt, lead may be stripped from the bullet and ultimately affect its accuracy.

3. The stock of the rifle should be so constructed that when the shooter is in position and places his head on the stock, he is looking through the sights in a relaxed manner. For that reason, a majority of prone shooters feel that a high or built up cheekpiece is necessary to allow for proper head position and eye relief. This can be accomplished with modern day target rifles since they can be adjusted to raise and lower the cheekpiece. However, a self constructed cheekpiece can be made by taping folded targets, cardboard, or any other similar material to the present cheekpiece so that it conforms to the individual shooter.

Other aspects of head placement involve facial pressure against the stock and eye relief. The amount of facial pressure applied may vary among shooters. However, the important point to remember is that facial pressure, along with head position and eye relief, be consistent. Eye relief is discussed in more detail in chapter three.

4. Since the prone position is so steady, it may be said to have a single point of aim. Therefore, the position should be oriented with the natural point of aim directed at the ten ring. Several methods can be used to make small changes in the point of aim. One method is moving the right foot to the right or left resulting in minor horizontal changes. Very fine vertical changes can be made by controlling the amount of air retained in the lungs and/or by moving the left foot. Any major changes should be made by reorienting the entire position or by readjusting the sling, the forend stop, or the butt plate.

5. When analyzing the position it is important to insure that the ammunition and the rifle can produce a group better than the shooter's. This allows the individual to accurately measure the resulting effect of his position.

6. Finally, the prone position is a muscularly relaxed position particularly since voluntary muscle action is used. However, the position is a tight and controlled position in relation to sling tension and to butt placement in the right shoulder. These aspects are discussed in detail in Chapter VI · The Prone Position.

B. KNEELING POSITION.

1. As opposed to the prone position, the shooter has some latitude in building a kneeling position. For example, the tightness of the rifle in the right shoulder can vary from being as tight as in the prone position to having only a moderate amount of tension. In either extreme, to achieve proper rifle-to-shoulder placement it is important for the shoulders to be completely relaxed. This lack of voluntary muscle tension causes the shoulders to droop and to pull the spine into a relaxed slumped position.

2. In the kneeling position, the stock length should be adjusted to allow for proper eye relief and a comfortable grip of the stock with the right hand. Also, the hook and the forend stop are adjusted to bring the muzzle to the height of the target and the sights in line with the eyes, thus allowing for proper head position and cheek pressure. The length of the sling should be adjusted so that the tightness of the rifle in the shoulder feels the most natural and produces the best possible hold.

3. A ten ring hold is not unusual in the kneeling position. When the shooter develops a ten ring hold, his greatest problem becomes trigger control. Dry firing is an excellent way to detect and to correct jerking of the trigger or any body movements that may accompany the trigger pull.

4. The kneeling position has similarities common to that of the prone position, one being triangulation of the elbows. The right elbow (even thought is is not in contact with the ground), the left elbow on the left knee, and the intersection of the left hand with the forend of the stock make up this triangle which forms a firm area of support.

5. As described in the refinement of the prone position, the cheekpiece is made to fit the cheek and allow for proper head position and eye relief in the kneeling position as well. The head may be relaxed down and forward on the cheek-piece allowing the shooter to attain the "slumped" kneeling position.

6. When firing with a straight stock rifle, such as a standard rifle, it is very important to adopt a controlled kneeling position. This is accomplished by firm contact of the butt plate in the pocket of the shoulder, moderate sling tension, and firm but consistent grip of the stock with the right hand.

7. The diameter of the kneeling roll is determined by the size of the instep and the length of the legs in relation to the shooters torso. If the legs are long in relation to the torso, a larger kneeling roll will normally be used to bring the shoulders high enough over the left knee. If the legs are short in relation to the torso a smaller kneeling roll will normally be used. Whatever size roll the individual uses, it is important that proper placement of the shoulders in an area above the left knee is attained so that muzzle elevation will be in line with the target and a balanced position is maintained. Other criteria in the selection of the proper size kneeling roll include the type of footwear used (i.e. shooting boots or tennis shoes), the individual's body flexibility, and the body conformation of the shooter.

C. STANDING POSITION.

1. The entire process of developing the standing position is one of refinement. It should be conducted with the same care of a scientific experiment, and by its very nature, it needs to be developed over an extended period of time.

2. After the initial period in which he is achieving a basic standing position, the shooter should proceed cautiously when making changes. This is partly due to the fact that in the early stages, his position may actually be correct, but he has not developed sufficient strength for body control to enable him to hold well. Needless to say, to change what would later prove to be a correct position would be harmful.

3. A great many adjustments are possible in the standing position. It is difficult to determine which possible adjustments would be best correct a particular problem. The shooter should not make a change until he has carefully analyzed the cause of his problem and realized the results from the various changes he has already instituted. Then he should note his present position, make the current needed chage, and note the results over a period of training sessions. If the change is not beneficial, he should return to the position he used originally. From further analysis, he should determine a new approach to the problem. In this way he avoids straying away from his basic standing position. If the change eventually proves to be beneficial, he should adopt it and incorporate it as part of his basic position.

4. The standing position is not built upon measured mechanical distances for the placement of the feet, the palm rest, or other related areas. The position is built upon the fundamentals as described in the standing chapter. The pictures of the shooters should be used as a guide tounderstand these fundamentals and not necessarily copied in hopes of increasing one's scores by reasoning that what works for one individual works for everyone.

5. A great amount of concentration is required in obtaining good standing scores. Shooting good scores is not as mechanical as in the other positions. Many times a shooter may improve his standing score by exceeding his previous performance several times and upgrading his self confidence. Once this mental barrier of a certain score has been broken, he then becomes more demanding of himself and increases his overall level of performance.

6. The beginning shooter, as well as those shooters whose standing practice has been temporarily interrupted, might find the back muscles will tend to be tense causing some discomfort. Warm-up exercises, such as back bending or stretching exercises, are excellent for getting back muscles into shape.

7. It has been found by the shooters of the USAMU that when a pair of sweat shirts or other undergarments are tucked into the pants and snugged up by a belt a feeling of added support can result particularly when using an international light jacket.

CHAPTER IX

MENTAL AND PHYSICAL CONDITIONING

Athletes in all sports activities practice to acquire and refine their skills. Rifle shooters must establish a comprehensive program of training for themselves as well in order to compete at a superior level. In addition to actual shooting, it is suggested that performance can be enhanced through the regular practice of certain forms of mental and physical training.

A. PHYSICAL TRAINING. Physically, the shooter must be able to assume a comfortable position, hold the rifle as motionless as possible, and shoot for a sustained period of time without becoming excessively fatigued. Over the years, it has become apparent that physical conditioning serves to facilitate comfort, improve hold, as well as to generally minimize the effect of fatigue and psychological stress.

1. **Hold.** The ability of the marksman to hold the rifle in a stable manner for increasing amounts of time can be improved through the practice of various forms of physical training. The best way to train the body to perform the static work required to shoot, is through frequent practice and/or dry firing. Practice sessions should be conducted on a regular basis. Shorter distributed sessions conducted regularly appear to be more productive than longer massed practice sessions conducted infrequently. Such an approach enables the shooter to acquire and later maintain kinesthetic awareness and an increasing feeling of physical control. Regular practice allows the shooter to achieve a level of muscle tone and thus hold the rifle in a nearly motionless manner. Conditioning programs that develop overall muscle tone improve the stability and durability of the shooter's hold.

2. **Comfort.** A comfortable position is based upon the natural structure of the human body. This implies that there should be as few unnatural stresses created between the body and rifle as possible. Comfort requires that the body be accustomed to the specific position being fired, a sense that is acquired with time. The beginning shooter is likely to find certain uncomfortable features (i.e., the amount of back bend in standing; the weight placed upon the ankle in kneeling; and the sling pressure in prone). Such discomfort arises because protions of the body are being used uniquely. Once the basic position structure is correct, the shooter's body becomes accustomed to the demands of the position. Conditioning programs that develop the cardio-pulmonary system evidently facilitate comfort, in that such training improves the efficientcy of the circulatory and respiratory systems as well as increasing general muscle tone.

3. **Fatigue.** As muscles tire, they often develop small tremors which reduce the shooter's ability to perform. The effects of fatigue can be reduced through the utilization of training programs which increase endurance. One method to increase endurance is for the shooter to practice firing courses that exceed the number of rounds that will eventually be fired in a match. Also aerobic training (e.g. running, swimming, bicycle riding) appears to increase overall endurance.

B. PHYSICAL CONDITIONING PROGRAMS. Physical conditioning programs have been the subject of much discussion in relation to what they can do to aid the shooter's performance. Experiments conducted at USAMU and scientific literature have yielded the following conclusions:

a. A physical conditioning program, if properly designed and implemented, in no way impars shooting performance. Physical conditioning will contribute to enhanced performance by improving an individual shooter's overall physical condition.

b. Individuals who lead sedentary lives would apparently benefit most from training that conditions the body.

c. The design and implementation of a personalized program should be based upon sound information contained within scientific literature to insure that one is training correctly in accordance with the shooter's actual needs.

d. Any physical conditioning program to be initiated on the part of the shooter should be one that will provide long-range benefits.

e. There apparently is not single training approach that is best suited for each and every individual. Approaches that have proven fruitful for certain individuals include: (1) aerobics (running, swimming, bicycle riding); (2) isometrics, (3) isotonics or dynamic tension training; (4) yoga or flexibility training, (5) calistenics, and (6) various combinations of team and individual sports. Activities such as lifting weights are not considered beneficial for rifle shooting, in that such training generally increases muscle tension.

f. Physical training should be initiated gradually and practiced on a regular basis. The specific activity as well as the level of physical condition should determine the frequency and duration of workouts.

g. After an individual has reached an acceptable level of fitness, additional conditioning may not contribute significantly to one's shooting ability. Nevertheless, training should be continued to maintain the acquired degree of conditioning.

h. A regular program of physical training appears to additionally benefit the shooter psychologically and physically to varying degrees by (1) improving self-disciplien, (2) increasing self-esteem and self-confidence, and (3) kinethestic sense (body awareness).

C. MENTAL TRAINING. Why do some shooters seem to thrive on the pressure created during a match while others fall apart, and is it possible to overcome this pressure to go on to be an outstanding shooter? Many shooters have found a variety of mental training programs to be helpful. In this portion of the chapter the mental aspects of position shooting will be covered. Recently, shooters have taken greater interest in the psychology involved in their shooting. Since psychology of shooting is still in a developmental stage, there is no set mental training program. For the purpose of helping shooters to develop their own mental program, several aspects and methods used by successful shooters are out-lined briefly. Because each shooter is unique, and psycholigical needs differ from one shooter to the next, it is suggested that each shooter read this section, determine what portions would best suit his needs, then refer to the reference material at the end of this chapter to develop a good mental training program. For the purpose of simplicity and understanding, this section will be divided into two

parts: one for the beginning shooter and the other for the more advanced shooter. Paragraphs one through five are basic aspects for all shooters while paragraphs six through eight will be oriented toward the advanced shooter.

1. **Concentration.** An important aspect of a good shooting performance is concentration. In shooting, concentration is defined as selectively focusing attention on the four primary aspects of shooting-sight picture, hold, trigger pull, and follow through. Usually shooters selectively focus their concentration on a particularly troublesome aspect of their performance, trigger squeeze or a tnese muscle group. However, best performances seem to occur when there is a generalized concentration. In other words, the mind is not concentrating on any particular part of the shooting process. The shooter develops a rhythm and shooting becomes natural. Since this type of concentration does not occur very often, most shooters find themselves concentrating on a problem area or on some aspect of their shooting if no problem area or on some aspect of their shooting if no problem exists. It is an interesting phonemenon that the problem on which the shooter concentrates, usually begins to lessen or correct itself.

a. Beginning shooters have no experience in concentrating as required in shooting and must learn how to concentrate on what to concentrate. Learning concentration comes in two phases. Phase one involves the shooter being able to verbalize the internal environment at the instance of firing the shot. In other words, identifying what muscle groups were too tight, or recognizing errors in sight allignment, or any errors in any aspect that may produce a bad shot. Phase two involves expanding the frame of concentration to include follow through. Phase two is accomplished when the shooter can accurately call shots.

b. One mistake made by most young shooters is to concentrate on concentrating. A good example of this is a shooter saying to himself, "I've got to concentrate." The shooter must recognize this as a mistake and take steps to shake free of it. A good method is to take a short break from shooting then resume concentrating on a fundamental aspect of shooting. In any case, concentration must be positive and it must be on performance.

2. **Mental Discipline.** Mental discipline is the ability to duplicate a successful performance. In other words, shoot ten after ten. Mental discipline involves many factors:

a. Positive thinking and positive commands are extremely important to a shooter. After shooting a seven a shooter tends to think negatively about the shot, "You dummy! You jerked that shot. Now don't jerk." Also the physical activity following that shot is usually negative, pulling the bolt past the bolt stop, abusing the standing stand or slamming the bolt closed. All this mental and physical activity is negative and detrimental to performance. After a bad shot the shooter should exercise positive thinking, "That shot is not like me, shooting tens is like me," and give himself positive commands, "Shoot center, squeeze the trigger." The whole point is to avoid telling yourself not to do something. For instance, the shooter that thinks to himself, "Now don't shoot an eight." is far more likely to produce an eight or worse than is the shooter that commands himself, "Relax, shoot center, squeeze the shot." Positive commands are also helpful in relaxing tense muscle groups.

b. Another factor of mental discipline is the Principe of Reinforcement. This principle states, 'the more you think about, talk about or write about a certain thing occuring; the higher the probability of that thing actually occuring. This principle was seldom, if ever, used among shooters. Evidence proving this is readily found in the usual sessions after a match, "I could have won today except for the three eights and two sevens I shot standing." This shooter is thinking and talking about his poor performances thus reinforcing them in his mind and increasing the probability of those performances recurring. Many shooters write their bad shots in their diaries increasing this probability even more. The shooter should attempt to find all the good performances he had during a training period or match then think about them, tell others about them and write some of them in his diary. In other words, reinforce a good performance.

3 **Goal Setting.** Goal setting is a very important factor in a good mental training program. It is important that the shooter's training program have a set direction and purpose. For instance, performing at a preselected level at one particular match. A good shooter picks out one match well in advance as his goal match, he then sets up smaller intermediate goals as stepping stones to the main goal. All these intermediate goals are incorporated into the main goal. The process used to select a main goal has six steps. Each step and it's corresponding answer should be written out for the shooter to refer to during his training. The six goal setting steps are:

1. Define the goal.
2. Whan do I want to achieve this goal.
3. What obstacles prevent me from achieving this goal now?
4. What is my plan to overcome these obstacles.
   What do I have to or what am I willing to give up to get it?
5. Make a commitment. Be decisive.
6. Do it now!

b. A written goal may look something like this: I want to build a new prone rifle to shoot. I want my prone rifle finished April 15, 19 to shoot in a prone championship. I cannot build my prone gun now because I don't have a barrelled action and a stock. I will also need to get a trigger and some new sights. I can get what I need by ordering it from the equipment catalogs I have. Should I build the gun or should I have someone build it for me. I think I'll build it myself. I will order the equipment I need and I will do it now.

c. It is very important when writing a goal that the shooter be very precise and write every obstacle and every method of overcoming the obstacles. Being very detailed when writing a goal will save a shooter wasted time and effort later in his training. A well written goal provides a shooter dedication with direction.

4. **Confidence and the Will to Win.** Confidence plays a large part in a shooter's performance. If a shooter lacks confidence in his ability or his equipment a disruptive anxiety is the result. There are two categories of confidence: overall confidence and confidence in the ability to shoot well. A shooter that approaches a match with a complete confidence in his

equipment and his understanding of the fundamentals of shooting is much more likely to perform better than the shooter who breaks his concentration to worry about his equipment or position. Confidence is generally obtained through training. The will to win is often referred to as a motivation for an outstanding performance. It has not been determined if a person is born with it or if it is learned, but it has been determined to be the factor which causes a shooter to reach perfection on a performance. All of the best shooters have a highly developed will to win.

5. **Match Pressure.** Match pressure is generally the fear or anxiety a shooter experiences during a match. For the more advanced shooter, this fear or anxiety has no specific cause, the shooter is simply afraid something will go wrong and affect his performance. For beginning shooters, this fear or anxiety is rooted in ignorance of (1) the technical aspects of the shooter's positions (discussed in Part A) and (2) personal understanding of the shooter's motivational needs and desires. Match pressure has two phases. Phase one is the physiological fear or anxiety frequently shown by sweating, pounding heart, tensed stomach and a heightening of the senses of sight, hearing, taste,. touch and smell. The second phase is recognized when environmental elements begin to disrupt the shooter's concentration. This disruption of concentration is very hard to control considering the heightened sensory awareness the shooter experiences from phase one of match pressure. The important thing to remember is that everyone experiences match pressure, but some shooters have learned to control it better. a. Many shooters control the match pressure they experience by forcing themselves to experience it more often through entering many training matches. The USAMU feels a serious shooter should enter at least twelve training matches a year. Repeated exposure to match pressure tends to cause the shooter to accept it and not increase his anxiety by dwelling on it.

b. Positive thinking stands paramount in controlling match pressure. Every thought and action during shooting must be positive. Many shooters allow themselves to think in a negative manner usually producing negative results. An example of negative thinking is a shooter just executes nine perfect tens, just before firing his tenth shot he thinks to himself, "I sure hope I don't shoot a bad shot." Unless the shooter recognized this thought as negative and takes steps to counteract its affects, he will probably produce a bad shot on the tenth bull's-eye. There are no shooters, including the best, that have not experienced this type of negative thinking sometime while shooting. The key, then, is to think strictly in a positive manner while shooting.

c. Another method for controlling match pressure used by many shooters is shooting "one shot matches." In other words, each shot in a course of fire is considered a match. The shooter directs full attention to that one shot, if a ten is produced, the shooter has won that match. The shooter can then relax, forget that match and continue to the next. If a ten is not produced, the shooter has lost that match and nothing can be done except evaluate the mistake and continue on to win the next match. The key here is to think of each shot as a new opportunity to win a match. Once the match is won or lost the shooter must forget it and continue to the next match.

6. **Relaxation Techniques.** Relaxation techniques can be a powerful tool for improving shooting performances. Basically these techniques use physical actions to provide control over emotional states before and during competition. The techniques will be explained after some introductory psychology has been described.

a. To understand the processes of relaxation it is necessary to briefly expand upon the common layman's understanding of mind and body. First, it must be understood that the frequent perception of mind and body as independently functioning or separate entities is either wrong or at least very misleading according to most current psycholigical theories. It is more useful to consider the mind and the body as one and the same, and also to understand that the physical and emotional functions of life are inseparably related. Rather than consider a human being as comprised of two different entities, it is much more effective to consider the "whole person".

b. While emotional and physical functions of life occur together, the physical components are much easier to control than the emotions. For the competitive shooter for whom emotional states such as concentration are of great importance, the very close relationship between emotional states and physical states provides opportunities to control emotional conditions which can be used to great advantage in shooting.

c. One of the most improtant relationships for the shooter in the context of the whole person is the relationship between muscle tension and anxiety. When anxiety is high, muscle tension is also high, and conversely when one of the two is low, the other is also low. Each can be used to control the other.

d. In shooting, where low levels of anxiety contribute to success, the important part of this particular relationship is that low levels of muscle tension can be used to bring about low levels of anxiety. And since anxiety (match pressure) is highly antagonistic to concetration, learning to control anxiety through more easily controllable relaxation exercises which can be used on the firing line provides favorable setting conditions for concentration.

e. It is important to understand exactly what kind and what degree of muscle tension is being referred to here. Specifically, the tension which is to be controlled is that which is not necessary for shooting. The tension in shoulders, stomach, buttocks brought on by anxiety and not used in performance is of first concern. Secondly, excessive tension in muscle groups used to support the rifle and position is also of concern. The process of maintaining the minimum tightness in parts of the body which are involved in performance and maintaining as much relaxation in the unused portions of the body is called differential relaxation, and is a well established technique of psychotherapy which has been used with many types of sports competitors.

f. The effectiveness of differential relaxation in shooting is greatly enhanced by the use of even more relaxation between shots. The competitor can devise his/her own personal exercises to be used for a few seconds between each shot where as much of the body as possible, to particularly include those muscles used in firing the shot, are completely relaxed. This type of exercise has a powerful control over the anxiety of competition and allows for full concentration on the next shot.

To devise his/her own personal relaxation techniques a shooter should begin by noticing where tension appears when match pressure is intense. This will probably be difficult because of the tendency to notice only the external features of performance such as the correctness of shooting positions or the effects of the weather rather than the internal cues of

muscular tension. Once the shooter can sense where the tension appears when the pressure is on, it is a relatively simple process to deliberately relax those muscles completely between shots and also to not fire a shot if the tension creeps in during hold and aiming. Relaxation of the key muscles for each individual between shots should be supplemented by as nearly completed relaxation as the position will allow with particular attention to the shoulders, stomach, and buttocks.

g. It must be clearly understood that the goal of these procedures is not direct control of the body. The goal is to use the body to create a favorable emotional setting condition for concentration of the next shot.

7. **Cognitive Rehearsal.** Cognitive rehearsal is a term used in many ways in both shooting and psychology. Generally it refers to fantasizing or imagining or mentally living through an upcoming event with the intent of becoming better prepared for it. There are many ways in which cognitive rehearsal can be used in shooting. Two methods will be described here:

a. First, cognitive rehearsal can be used to prepare for an entire match performance. This is particularly useful for the highest level of competition. In this application the entire match performance is fantasized in its most minute detail. This would include but not be limited to travel to the match, the particular range, weather conditions likely to exist on this range and how to analyze them, and interactions with match officials, team officials, and teammates. It would also include preparation of equipment at the match, consideration of strong points of performance which can be counted on and used as sources of confidence, and consideration of which persons could be counted on for emotional and competitive support. However, the most important part of cognitive rehearsal in preparation for an entire match is fantasizing every shot which will be fired in each shooting position again and again and yet again.

b. While the rehearsal of match plans and tactics and shooting techniques is valuable, the greatest benefit of cognitive rehearsal in this context is from living through the match shot by shotin fantasy. This increases the shooter's confidence in his/her upcoming performance by decreasing the situational anxiety which will be peculiar to this particular match. By the time for actual competition arrives, the match has in effect already been fired many times and in a very real sense, there is little that is new for the shooter to face in the competition.

c. The second way in which cognitive rehearsal can be used is to prepare for each individual shot in a training session or competition. The competitor fantasizes: what a perfect shot looks like through the sights; what the gun feels like when a perfect shot is fired; what the angle of jump looks like, and how his/her body feels. By recreating the intellectual, physical, and emotional experience of success, a private atmosphere of confidence and strength is established as a setting condition for firing the next shot Again remembering that the body and the mind are one and the same, the fantasy experience of firing a perfect shot brings about subtle physical as well as psycholigical changes. It is these subtle preparations for each individual shot that greatly increase the probability that the fantasy of a perfect shot will become a reality which can be repeated throughout the match.

8. **Training Schedule.** The training program is where the shooter ties all the above aspects of physical and mental training together to produce a peak performance at the desired match. The training program should be written out. It should be a workable, comprehensive plan to be followed religiously. A good training program should cover two concepts. First, training should focus on performance not score. Matches are won by superior performance not by a superior score. Secondly, training should be aimed at defeating the disruptive forces within the shooter and not at defeating other shooters.

a. To develop a training program, the shooter will set one match as the main goal. The shooter then selects several matches that will be used as a skeleton for the program. These matches will be used as stepping stones to the main goal and should be selected for convenience, timing and level of competition. Hopefully, the shooter will be able to attend at least twelve training matches before the goal match.

b. Once the program skeleton is formed by the training matches, the program is completed by planning training sessions. Training sessions should be distributive. In other words, the shooter should practice a little every day rather than five hours one day a week. Distributive practice has proven to be much more beneficial than mass practice. Training sessions must also have set goals. For instance, the shooter should determine at what level of performance he desires to perform during a particular training period. The shooter must be sure these goals are realistic.

c. After the program is written out and ready for execution, the shooter must then tie in the aspects of mental and physical conditioning. Concentration, mental discipline and reduction of match pressure can be worked on and improved through the training program. Physical conditioning is accomplished by the shooter on an individual need and desire basis. Relaxation and rehearsal are developed in separate training programs and are put to use during training sessions and matches.

d. A good training program has been successful for many shooters. Key points to remember when developing a training program are: set realistic goals, write out the program, build in a degree of flexibility and be sure to tie in all aspects of mental and physical training. Generally, a good training program insures the shooter will avoid wasted effort and move steadily ahead to the established goal.

9. **Sources for Developing a Training Program.**

a. **Position Rifle Shooting** - Bill Pullum/Hanenkrat

b. **Schiessportschule Dialogues I** - U.S.W.I.R.O.

c. **Inner Game of Tennis** - T. Gallaway

d. **Playing the Inner Game** - T. Gallaway

e. **Relaxation Response** - H. Benson, M.D.

f. **Psychocybernetics** - M. Maltz

g. **Sports Psyching** - T. Tutko

h. **Running and Being - The Total Experience** - Dr. G. Sheehan

i. **Powers of Mind** - A. Smith
j. **Zen and the Art of Archery**
k. **Illusions** - R. Bach
l. **"Cognitive Rehearsal"** - B. Rigby
m. **"Relaxation Techniques"** - B. Rigby

CHAPTER X

SHOOTING HABITS

A. GENERAL. In the process of devoting a great deal of time to marksmanship, a competitor, through his own experience, will find that there are a number of helpful hints that he can pass on to newer shooters. These pertain to areas involving safety, etiquette, general procedures performed by the shooter in preparation for and during a match and general care of equipment.

B. SAFETY.

1. Before any individual is exposed to the use of firearms he should receive a period of instruction on the safe handling of weapons. This instruction should include knowledge of range commands and range procedures.

2. The individual should not attempt to hand load ammunition unless he is qualified to perform the operations safely.

3. The shooter should learn how to properly care for all of his equipment. Since most of it is expensive, preventive maintenance is important. This especially includes the cleaning of the bore immediately after shooting.

4. Aside from safety reasons, it is common courtesy to never touch another competitor's rifle or equipment without his permission.

C. PLANNING FOR A MATCH.

1. It is every competitor's responsibility to read and know the rule book for the type of shooting he is to participate in and to keep abreast of recent changes.

2. He should prepare for oncoming matches by first getting a copy of the program and reading it carefully. Then he should send all entries in early. Also make arrangements for living accommodations at out-of-town matches.

3. A list of all items of equipment should be formulated and checked before departure. Furthermore, the shooting gear should be inspected by the individual to insure that is is serviceable and complete.

4. If the match is to be held at an unfamiliar range, the competitor should always go to the range the day before. Some ranges are extremely difficult to find, and many shooters have missed their relay because they became lost on the way to the range.

5. The shooter should arrive at the range early enough to check in with the statistics office, to greet all his friends, and to set up his equipment behind his designated firing point. Then he should take a little time, before he begins to shoot, to mentally prepare for the match.

6. The shooter should never attempt to work on any piece of shooting equipment unless he is highly qualified. This is especially true of tampering with the intricate mechanical components of such items as triggers or telescopes.

7. The ammunition needs to be kept in a cool and dry place and not, for example, in a hot car trunk. Also any rough handling of the ammunition should be avoided. Further care of ammunition involves learning to load the round into the chamber by pushing it as far forward as possible with the fingers. Pushing it in with the bolt can result in lead being stripped from the bullet.

D. MATCH PROCEDURE.

1. The competitor needs to always be sure that his target is the correct one for the match being fired, and that the appropriate information has been written on it. Also, he should doublecheck his target and backing target to be certain they are securely fastened to the frame and can not be blown loose.

2. Placement of the backing target in the correct location is necessary especially for determining crossfires. In addition, the backer as well as the target should be marked correctly.

3. In case of a crossfire or a shot outside the scoring rings, the competitor should realize that the range officer needs to be notified to settle the problem.

4. Before shooting for record, the shooter should fire several fouling shots through his barrel into the backstop. Also, dry firing a few shots will aid in settling the position and in checking the natural point of aim of the position. Sightings shots should then be taken to zero the rifle and further settle the position. Sighting shots will also aid the competitor in noting the effects of wind changes before he goes for record.

5. An accurate count of the number of rounds fired at each bull should be kept by means of a loading block.

6. The competitor should also keep an accurate account of the time in a match so he can use any remaining time to his advantage.

7. The competitor may want to keep a rough track of his score while firing so that he can ensure a correct posting of his resulting score.

8. Lastly, conversation while on the actual firing line should be avoided by the shooter as a courtesy to his fellow competitors.

CHAPTER XI

EFFECTS OF THE WEATHER

A. GENERAL.

1. Once a shooter has developed good positions and proper shooting techniques, effects of the weather are a major cause of error in the strike of the bullet. The wind, mirage, light, rain, and humidity all have some affect on the bullet, the shooter, or both.

2. In most international matches, each shooter is protected from the elements by an enclose booth. In this situation, the shooter must primarily be concerned with the effects of the weather on the bullet. However, since 1966, shooting booths are no longer required by the ISU. In some such instances, the only protection afforded a shooter is a roof to shield him from the direct rays of the sun and from the rain. This leaves the shooter vulnerable to the wind which has the greatest adverse affect on his score.

B. EFFECTS OF THE WIND.

1. A wind of constant velocity but varying in direction will affect the bullet differently. To accurately dope the wind, the shooter imagines himself in the center of a clock face with his target at twelve o'clock. Winds from eight to ten o'clock or two to four o'clock have the greatest affect on a bullet and are called "full value" winds. A full value wind will blow the bullet the maximum distance off course. A wind of the same velocity as a 'full value' wind, but blowing from one, five, seven, or eleven o'clock, will affect the bullet approximately half that of a full value wind. For this reason it is called a "half value" wind. A wind coming directly from twelve or six o'clock will require no windage correction and is referred to as a 'no value' wind. However, a wind of this type may have a slight effect on the vertical displacement of the bullet.

2. Due to the clockwise spin of the bullet resulting from the barrel's rifling, the wind does not displace the bullet on a flat horizontal plane but rather on a diagonal plane from ten to four o'clock. A wind coming from the right will cause the bullet to rise in addition to being shifted left. In a left wind the bullet drops as it is being blown to the right. Therefore, a full value wind will displace the bullet impact on a place from ten o'clock to four o'clock depending on velocity. This will require elevation adjustment as well as windage adjustment to compensate for wind changes.

C. READING THE WIND. A great part of a shooter's success will depend upon how well he can recognize a given condition and the effect it will have upon the bullet. A proficient wind doper has experienced many long hours of practice. A shooter should note the prevailing wind direction and attempt to fire his match under the predominant conditions. This will require fewer sight corrections and reduce the chance of related errors. When watching wind flags the shooter must consider velocity as well as direction. Most times the flags nearest the firing line (first half of the range distance) are the most valid indicators of the effect the wind will have on the bullet. A wind buffeting the bullet soon after it leaves the barrel will affect the bullets flight path much more than a similar wind which buffets the bullet for only the last en to twenty meters of the range distance. Therefore, it is almost always the closer flags that are the most critical indicators. Certainly all flags should be observed as general indicators. Occasionally various range flags will be indicating opposite directions. This often happens in semi-enclosed ranges where wind will swirl in the range area. In this case the flag closest to the firing line is the best indicator with the more distant flags either increasing or decreasing the value of the wind condition indicated by the closest flag.

As previously mentioned, wind flags may be used to determine velocity as well as direction. However, after approximately fifteen miles per hour the wind flags may be standing straight out. From this point increased velocity changes cannot be determined accurately by the flags.

During or shortly after a rain the wind flags will be wet and heavy making it much more difficult to detect small condition changes. Also, it will take a stronger wind to get the same angle as when the flag is dry. In such an instance the flag may read no stronger than before the rain but it will in fact blow the bullet farther off course.

1. Mirage is also a very good indicator to read wind conditions. Mirage will be discussed in detail in paragraph D.

2. In addition, bending/blowing grass and weeds can be used as a wind indicator.

3. In some conditions the dust kicked up by bullets hitting a dirt backstop can be indicative of wind direction.

4. The muzzle smoke of the rifles on adjacent firing points can also be noticed easily and used advantageously.

5. The layout of buildings, trees, walls, and other similar obstructions and position in relation to the range area will all have some affect on wind velocity and direction. Before firing it is helpful to spend a few minutes analyzing the range environment. This information may aid in selecting a predominant and secondary firing condition.

D. MIRAGE. The word "mirage" refers to the heat waves or the reflection of light through layers of air of different temperature and density on a warm, bright day as seen by the naked eye. With the telescope some mirage can be seen on all but the most overcast day.

1. Mirage is located by focusing the spotting scope several yards short of the target. The target will appear slightly fuzzy but not so far out of focus that the shot value cannot be determined.

2. An important effect of mirage is the light diffraction caused by uneven air densities characteristic of heat waves. Depending on atmospheric conditions, this diffraction will cause a displacement of the target image in the direction of the mirage movement. Thus, if a mirage is moving from left to right, the target will appear to be slightly to the right of its actual location. Since the shooter can only aim at the image received by his eye, he will actually aim at a point which is offset slightly from the center of the target. This error will be in addition to the displacement of the bullet caused by the wind.

3. As observed through a telescope, the mirage will appear to move with the same velocity as the wind. The slower the wind the deeper the mirage waves will be. As the wind picks up speed the mirage waves flatten out. When there is no wind

the mirage waves will rise vertically with no apparent lateral flow. This is termed a "boiling mirage." The mirage will give a boiling appearance when the wind is from six o'clock or twelve o'clock. In this situation, the mirage waves will be flattened out relative to wind velocity. It is best to read mirage across the target face. However, many people have trouble seeing the mirage adequately across the bull's-eye. In this case better results may be attained reading off the target frame or a dark background. Proper reading of the mirage will enable a shooter to estimate and make windage corrections with a high degree of accuracy.

4. An additional effect of mirage can be detected on an intermittent cloudy day. The shooter will note that when a cloud obscures the sun, the mirage will start to discipate. Although the wind velocity has remained constant as shown by the wind flags, shots will no longer be centered but will be displaced in the direction from which the mirage/wind was coming.

5. In the prone position, where the shooter is able to hold within the ten ring, the mirage is sometimes used as a double check with the wind flags for highly accurate wind doping. In the kneeling and standing position the shooter cannot hold within the ten ring for extended periods and it can be detrimental to performance to spend time while in the aiming position studying mirage extensively. Rather wind variations are quite easily detected by the small wind flags. Usually in these positions, mirage is checked only for its direction.

6. The best way to learn to read mirage is to practice in varying wind conditions on days when mirage is easily visible. In general, the shallower the waves of the mirage, the faster the velocity and resultant wind speed. Changes in wind velocity can be determined by observation of the mirage up to speeds of approximately twelve miles per hour. Beyond this speed the movement of the mirage is too fast for detection of minor variations.

E. EFFECTS OF LIGHT INTENSITY AND DIRECTION. Effects of the light are controversial. The intensity and direction of light affects different people in various ways. Therefore, only guide lines can be given as to what is correct for a shooter in a given light condition.

1. The well equipped shooter will have several sight filters or pairs of shooting glasses colorless and varying shades of grey, green, or yellow. Generally, using the appropriate shade of filter or glasses the shooter will be able to see equally clear on sunny or cloudy days. Most shooters prefer the yellow or colorless glasses on dull or overcast days, and varying shades of grey or green on sunny days. There is a widespread belief that on dark days yellow glasses gather in more light and hence brighten up the tartet. THIS IS NOT TRUE! Shaded lenses of any color, including yellow, filter out some degree of available light. However, colored or shaded lenses may provide greater contrast thus producing a clearer and more distinct sight picture to the shooter.

2. Under widely varying conditions of near darkness or bright glare, changing glasses may not completely clear up the shooter's sight picture. In most cases changing the rear sight aperture size will help. The iris should be used like a camera lens to help focus the front sight and make the target appear more distinct. A slightly smaller size cuts down the total amount of light entering the eye on bright days and a larger size will permit more light to reach the eye on dark days.

F. HUMIDITY AND RAIN. To understand the effects of humidity, the shooter must realize that the higher the humidity, the denser the air. This heavier air presents more resistance to the flight of the bullet. The resulting change in velocity on a humid day will require an elevation sight change to hit the same location on the target as compared to a day when the humidity is lower.

G. SHOOTING IN THE WIND. There are four methods of shooting in varying wind conditions:

1. The first method is to estimate the wind velocity change, correct the sights the prescribed amount, and fire. An EXPERIENCED shooter capable of exceptional control in this method, may fire a fine score. Familiarity with the range and its peculiar conditions can be very important when using this technique.

2. A second method is to select a single acceptable condition and shoot only when that condition exists. This is the slowest method requiring the shooter to stay in position for long periods while waiting for the return of the chosen condition.

3. Shading is a technique of allowing for wind change by deliberately holding over or alligning the front sight toward the direction of the wind in order to compensate for the change without making a sight adjustment. Sometimes this technique can be beneficial to the experienced shooter possessing a good hold. Shading can be particularly helpful in the following instances:

a. During constantly changing conditions.

b. When it is necessary to shoot a number of shots in a relatively short period of time.

c. When the shooter cannot return to the sighting target frequently.

Shading may also be beneficial when the shooter senses a slight wind change and then is careful not to break the shot on the windward side of the target. In a sense he is shading or is being careful to break the shot into the wind so that a pickup or drop off in wind velocity will cause the bullet to drift into the ten ring.

4. The fourth method is to shoot fast and chase the last shot. This is the least favorable technique. This method is successful only while shooting prone when there is negligible or no wind. The changes in conditions that take place must occur slowly so that the shooter can actually fire two or more shots before a further change moves the impact of the shots to the nine ring or worse. The shooter can see the shots impacting towards the nine ring, indicating a change is occuring, and correct the sights for the next shot. The shooter may fire bad shots in haste and may lose several points if the conditions worsen before he realizes another method must be used.

The majority of experienced shooters will use a combination of estimating wind changes and shooting in a given type of condition. While shooting sighters, these competitors will select two orthree conditions which occur frequently and note the differences. This allows them to change from one condition to another with minimum amount of estimating wind changes. This is much faster than shooting in only one condition.

H. POSITION ADJUSTMENTS.

1. A shooter firing without the protection of a booth will find that the effect of the wind blowing on him and his rifle must become his primary concern. The effect wind has on the bullet in flight is minor compared to its effect on the shooter's ability to hold on the aiming point.

2. When modifying positions for the wind, the shooter must remember not to violate the position fundamentals. The muscles may be slightly tnesed and must be consciously used to return the hold of the rifle back on the bull's-eye during lulls. The positions must be built to take advantage of bone and ligament support. A more aggressive trigger control may be used but the trigger is definitely not jerked.

3. The prone position is essentially unaffected except in an unusually strong wind. If the position is buffetted, the shooter may shorten the sling slightly to make the position tighter.

4. There are two schools of thought as to what is the best method of firing the more unstable kneeling and standing positions in the wind.

a. Some shooters believe that regardless of the wind velocity no changes should be made in their shooting positions. This technique is to remain in the aiming position and wait for a slight lull; then reestablish the rifle hold on the bull's-eye and fire the shot.

b. Other shooters feel that waiting for a lull is best in a moderate wind, but in a strong wind they deem it necessary to exercise greater control of the rifle muzzle. Control of the rifle muzzle can be gained in the kneeling position by moving the forend stop out slightly, lengthening the sling, and leaning the torso forward towards the left knee. This forces more body weight into the rifle and the left arm, hence dampening the rifle oscillations caused by the wind.

c. In the standing position the palm rest may be moved forward slightly or removed entirely. The shooter must refrain from increasing the use of the left arm muscles to support the rifle. In order to maintain elevation and weight distribution, the shooter may spread his feet slightly more than normal. Often the grip of the right hand will be increased, and the shooter will use a more aggressive trigger control.

CHAPTER XII

COACHING

A. PURPOSE. This chapter is written for the benefit of those individuals in international shooting who may find themselves coaching a high school or collegiate rifle team with little or no international marksmanship background to draw upon. This chapter should also be of value to those persons who are in a position to appoint coaches. You may also be called upon to coach a champion shooter.

1. The champion shooter is the cutting instrument that penetrates through and beyond the bounds of what is presently considered the best possible shooting performance. The coach is the tool that homes this superb instrument and keeps it razor sharp. The coach can keep the champion shooter continually striving to break the existing records. The score that equals or breaks a previous record is never good enough to stand unbroken for the years to come.

2. A coach exists for the benefit of his shooters, and not the shooters for the benefit of the coach. The coach's job is to direct the shooter in his own development. His most important function is to make the shooter analyze his performance.

B. PRINCIPLES OF COACHING. Coaching clinics have revealed that very few individuals are familiar with the principles involved in coaching a competitive rifle shooter. Many of the shooter's ideas must be influenced by personal and individual coaching. In general, positive influences can best be made by an individual coach in whom the shooter has a great deal of confidence.

1. First we must recognize that the basic principels and fundamentals of marksmanship do not change. However, the application of those principles and fundamentals will differ from shooter to shooter, and from one weapon to the next.

2. We must also recognize that the style and techniques of coaching will differ as we move from service rifle and pistol to the more individualistic free-rifle type of shooting. This is because the free rifle shooter is trained for individual performance; he never fires as a team member in the same sense as service rifle and pistol shooters. Consequently, one of the foremost responsibilities as a rifle coach is to instill self-reliance and confidence in his shooters.

3. A difficult coaching task is to create an atmosphere in which each individual shooter can experiment and refine his own techniques. The progress made by a shooter in advancing his score is in direct proportion to analyzing his own performance. He must also have the desire to be a champion.

4. The coach is aided in improving shooter confidence if he carefully uses the performance of his shooters for purposes of research and analysis. He should constantly watch the performance of those shooters who are "on top", and he should seek the advice and cousel of those individuals. Then, armed with a knowledge of the techniques employed by the best shooters, he can acquaint each new shooter with these techniques. Shooters can then adopt the techniques that work best for him and discard the methods that do not fit their shooting style. The coach should be careful to prevent his shooters from using "gimmicks"--easy solutions in the form of novel equipment or trick techniques. Inevitably some shooters will begin to rely on gimmicks and fail to concentrate on basic improvement of their performance. The use of gimmicks may become the basis for the development of alibis. Excuses for poor performance will then cause confidence to dwindle away. On the other hand, if the coach keeps his shooters concentrating on performance, and aids their progress by displaying a sound knowledge of shooting techniques, then he is building confidence. A coach bears the responsibility of creating the maximum of confidence in each shooter.

5. All successful coaches, in any form of shooting, have one thing in common; they have some attributes in their personality that induces excellence of performance from those under their guidance. Minor shortcomings of personality do not negate this art. Of course, there are no perfect coaches because there are no perfect people. Because of this fact, we are accustomed to over-looking mimor flaws in one who possesses true leadership qualities. A coach or a shooter is only parading his own inferiority if he scorns or refuses to cooperate with his coach or one of his teammates because of some small personality trait he dislikes.

6. If a coach is not compatible with the members of his team he may become a source of friction regardless of how much knowledge or talent he may possess. The ability to get along with people is not an inherited talent; it must be cultivated. Usually the person who fails to get along with others, fails to make an effort to get along. In each coach there must be strong traits of human understanding, tolerance and patience.

7. A coach must be temperate in all aspects of coaching. He must have the will power, the intestinal fortitude and the character to deny himself those things that will compromise his standing as a leader. The members of his team will respect him as a coach only if they can respect him as a person.

8. It is not necessary for a coach himself to be a champion shooter. In many instances a champion may possess too strong a drive toward personal achievement to be able to coax achievement out of others. A good coach need not necessarily be the equal of a champion in his ability to shoot high scores, but he must be the equal of a champion in the depth of his shooting knowledge.

9. A coach must be dedicated to his work. He must constantly keep in mind that his job is to get maximum performance out of his shooters, and he must be willing to make personal sacrifices to that end.

10. He must at all times and in all things exercise patience and self-control. Irreparable damage can be done if a coach allows his loss of temper to antagonize a shooter. He will erect an unbreachable wall between them, and further constructive coaching will be severly impaired or made impossible. For this reason, it is wise to have one individual in charge of the team to execute disciplinary measures, and another individual to act as coach. In this way the coach avoids friction between himself and the shooters.

11. Patience, tolerance, and self-control must extend not only to problems of discipline, but to problems of performance

as well. A coach may point out to a shooter some error in his performance, only to see the shooter continue to repeat that same error again and again. To become discouraged or dismayed at this point would solve nothing; it would only destroy the shooter's confidence and desire. The coach must work patiently and display confidence in the shooter's ability to overcome his problem.

12. When the problem is solved, then it is the coach's duty to give the shooter credit for his success. Unselfishness is necessary in match performance. Regardless of the help a coach may provide, it is the shooters who should receive the credit for winning. He himself must be content to blend into the background when the laurels are passed out. If he accepts the laurels for himself, he may thereafter get only a grudging performance from his team.

13. A coach must instill in a shooter the ability to confidently analyze his own performance. He does this by showing a respect for the individual's intelligence and by paying due attention to his ideas. To do this, a coach must maintain an open and progressive mind. He must accept new ideas, and remember that most new ideas will come from the shooters themselves. Complacency with old techniques is fatal to progress. However, all new ideas are not sound ones and after due consideration, a coach must firmly reject ideas that are worthless or harmful. He must also be alert to recognize the difference between a shooter's conduct of a useful experiment and shooter's adoption of a gimmick.

14. A coach must at all times be objective and observant. Many times he will be able to detect irregularities that affect performance even before the shooter is aware of them. One of the coach's responsibilities is to establish a routine for his shooters. He must then learn how this routine can be upset by matches on unfamiliar ranges and how a change in routine upsets the individual shooters. He must consider unfavorable match conditions as a deterrent to good scores. He must then train his shooters to accept and adjust to such irregularities.

15. During practice a coach must set exacting standards for himself and for his shooters. He must demand that each individual exert as much effort in practice as he exerts in an actual match. The concentration and determination required to produce a winning score cannot be turned on and off at will; but rather it is developed through practice.

It is in this area of practice that the coach will have his greatest difficulty. Some shooters invaribaly feel that practice performance is not as important as match performance, and therefore does not require as much effort. Shooters should recognize that practice is not only a physical exercise but also an exercise of the will.

Practice sessions are also the time to teach the shooter to rely upon himself to analyze and critique his own performance. He must learn to diagnose a symptom and prescribe a treatment. This training is necessary preparation for that time when the shooter is firing a match and must be his won coach.

16. A coach should at all times be alert for a bad rifle. He must recognize and accept that occasionally a rifle will be the cause of poor performance. Most good shooters are reluctant to blame a rifle for a poor score. The coach, however, must constantly consider this possibility and take action to see that the rifle is maintained to permit maximum performance on the part of the shooter.

Never, under any circumstance, should a man be allowed to continue to shoot a rifle that is not performing properly. A poor rifle may destroy a shooter's confidence in himself, or become an excuse for a poor performance. Detecting a bad rifle and insuring that the fault is corrected is the responsibility fo the coach; otherwise, some shooters will become amateur gunsmiths and unintentionally alter the accuracy of otherwise good rifles.

17. The coach should keep a constant check on the condition of all equipment in addition to rifles. This need not be a formal inspection but rather a continuing evaluation during training. Setting a standard of maintenance not only helps to perserve equipment, it also gives the shooter confidence in the realibility of his equipment. Never allow a shooter to arrive at a match site with faulty equipment. Even if an excellent replacement item is available, the shooter is handicapped to a degree by entering the match with an unfamiliar item.

18. A coach must never be satisfied with an average performance from a shooter, nor should he allow the shooter to be satisfied. He should inspire the shooter to strive for perfection at all times. However, standards of performance must be flexible enough to comply with the abilities of both the novice and the expert. When each shooter has reached the level of performance set for him, the coach must convince the shooter that he must set a new, higher standard for himself. It must be remembered that behind any poor performance there must be a valid reason. Identification and correction of errors is the only solution to improving performance, and this must be worked out by proper rapport between the coach and shooter.

19. A training program must be designed to meet the requirements of each individual rather than the requirements of the group as a whole. Training requirements will normally vary from one individual to the next because of differences in performance level, experience, physical condition, etc.

20. Training must be planned, scheduled and supervised. Simply publishing a training schedule is not enough. Supervision is necessary to insure that standards of performance are met by each individual shooter. The coach must be objective in the evaluation of his training program and be prepared to modify his program if it is not achieving the desired results.

21. In order to remain objective about each shooter's performance, some type of record must be maintained. Most coaches prefer a graph scale. Generally, an examination of such a scale will reveal things that neither the coach not the shooter was aware. It will serve as an indicator of progress, enabling the coach to evaluate the state of training. It will also point out deficiencies in training. It is best to keep a graph of each position, and an aggregate graph. This is the best way to evaluate overall progress and to detect specific weaknesses. Neither the shooter nor the coach should rely on memory for recollection of performance statistics over an extended period of time. This would negate much of the training effort, and cause improper emphasis to be placed in certain areas.

22. Generally, a coach's duties during a match will differ from his duties during practice. In training, the coach will have stressed the development of self-reliance and will power. The shooters will have learned to analyze and make corrections on their performance as nesessary.

During the match, the shooter will be helped immeasurably by the knowledge that his coach is nearby to help, should help be needed. The coach's presence will exercise a profound influence on the morale, attitude, enthusiasm and confidence of a shooter. He may even help in the physical preparation for the match. This will help the shooter feel that everything possible is being done to create the best conditions for his performance.

The coach must be constantly alert for irregularities in procedure or match conditions that will affect the shooters. He must intercede in the interest of his shooter in any argument, and protest in his behalf when any rule infraction occurs. The shooter's only responsibility should be to perform as best he can.

23. An important phase of coaching should occur immediately after a match. Simple criticism or praise is not enough. The coach must make his shooters realize that there are reasons for both good and bad performances. He must help them analyze and determine the reasons why their performances were good or bad. If a shooter discovers the reasons for a poor performance, then that performance was not wasted effort. Listed below are a few of the more frequent reasons of poor performance.

a. **Lack of Knowledge.** The shooter with this difficulty is blindly groping for an answer to his shooting problems. He is constantly changing equipment and methods in his search for a satisfactory new technique.

b. **Lack of Incentive.** The individual is satisifed with his level of performance and has no desire to be a champion unless all of his competitors' performances will decline sufficiently to allow him to be a winner.

c. **Lack of Team Spirit.** The individual with this difficulty may not be fully in accord with the team effort because of personal differences with other team members or the coach.

d. **Inability to Make Ccrrections.** This individual cannot admit that he has committed a mistake but is always ready with an excuse for a poor performance.

e. **Lack of Proper Guidance.** The individual has the ability, but may be handicapped by overconfidence or pessimism. He needs more objective coaching where the emphasis is on performance rather than on probable results.

f. **Lack of Ability.** This reason is the most difficult for a shooter to accept.

24. We have refrained from giving specific solutions to hypothetical or actual problems. We feel that solutions arise with the development of an individual coaching style. While shooters A and B have identical problems, their solutions will be approached in a different manner by various coaches. Both coaches may obtain satisfactory results by hard work on the part of themselves and their shooter. The coach who learns as much as possible about the fundamentals and persuades his shooters to employ these fundamentals with enthusiasm has the qualifications to be a successful coach.

ANNEX 1

THE UNITED STATES IN WORLD COMPETITION

A. After World War II, the United States reentered international competition for the first time at the 1948 London Olympics. Considering the difficulties that the United States shooters were forced to overcome, they did a commendable job in representing their country.

B. The majority of American rifle matches have always been held according to American rules and using American targets. Such a great difference exists between our domestic competitions and true international matches, as conducted by other countries of the world, that the transition between the two is not performed without handicapping our shooters.

C. International rifle competition is not a sport that lends itself easily to world domination by a single country. For the most part the medals are shared among a small number of shooting minded nations. The United States along with the U.S.S.R., East and West Germany, Switzerland and the Scandanavian countries are among the top medal winners.

D. In 1956 the United States Army established a Marksmanship Training Unit at Fort Benning, Georgia. A special section was designated to develop a team to train for international rifle shooting. Through the years the personnel of this section have studied and worked on the techniques of ISU shooting.

E. Prior to 1964 the U.S. was primarily a prone oriented country with only a few position shooters capable of winning in world position competition. At Tokyo, Japan, in 1964, however, the U.S. came closer to medal domination of rifle shooting than in any prior year. Since that time we have won more medals in Olympic competition than any other nation.

F. The match results that follow will verify the success that the shooters have attained and the important role that the unit has played in establishing the United States as the dominating power in rifle marksmanship that it is today. Since its inception the unit has been responsible for winning 88 percent of all medals won in international rifle competition by the United States of America.

G. A nucleus of competitive talent has been formed and these people have been instrumental in successfully representing their country and in teaching their methods to newer shooters everywhere. It is hoped that the information contained in this manual will benefit even a greater number of shooters and that a never ending flow of top notch marksmen will be produced to represent their country.

						World Records	
		Gold	Silver	Bronze	Total	Individual	Team
Lones Wigger	Rifle	41	23	5	69	9	13
Gary Anderson	Rifle	25	6	6	37	6	6
Lanny Bassham	Rifle	18	13	4	35	0	6
John Writer	Rifle	19	13	2	34	4	6
John Foster	Rifle/RT	15	16	2	33	2	3
Margaret Murdock	Rifle	21	6	2	29	3	9
Verle Wright	Rifle	12	9	5	26	1	2
Huelet Benner	Pistol	13	6	6	25	1	2
Bill McMillan	Pistol	11	9	3	23	0	3
Daniel Puckel	Rifle	10	8	4	22	2	1
Arthur Jackson	Rifle	12	2	5	19	0	0
Tommy Pool	Rifle	6	5	6	17	0	3
Herschel Anderson	Pistol	10	4	0	14	0	0
William Blankenship	Pistol	7	5	2	14	0	1
David Kimes	Rifle	10	3	0	13	2	2
David Boyd	Rifle	9	4	0	13	1	3
Karen Monez	Rifle	10	2	1	13	1	0
Francis Higginson	Pistol	9	3	0	12	0	1
Carl Osburn	Rifle/RT	5	4	2	11	0	0
Emmet Swanson	Rifle	4	1	6	11	0	0
Jimmie Dorsey	Pistol	5	4	1	10	0	0
Harry Reeves	Pistol	4	4	2	10	1	2
Arthur Cook	Rifle	5	4	0	9	0	0
Aubrey Smith	Pistol	5	3	1	9	0	0
Ausust Westergaard	Rifle	4	1	4	9	0	0
Lois Theimer	RT	3	3	3	9	0	0
Melvin Makin	Pistol	6	2	0	8	0	0
John Carter	Rifle	5	2	1	8	0	0
Boyd Goldsby	Rifle	5	2	1	8	0	1
Wanda Jewell	Rifle	7	1	0	8	0	0
Webster Wright	Rifle	5	2	1	8	0	0
James McCauley	Pistol	4	2	2	8	0	1
Willis Lee	Rifle/RT	5	1	1	7	0	0
Franklin Green	Pistol	4	3	0	7	0	0
Gloria Parmentier	Rifle	4	2	1	7	0	0
William Krilling	Rifle	4	1	2	7	0	2
Lloyd Spooner	Rifle/RT	4	1	2	7	0	0
Jerry Wilder	Pistol	4	1	2	7	0	0
Sallie Carroll	Pistol	2	2	3	7	0	1
Charles Davis	RT	2	2	3	7	0	0
Edmund Moeller	RT	2	2	3	7	0	0
Arlie Jones	RT	2	0	5	7	0	0
Sue Ann Snadusky	Rifle	6	0	0	6	0	0
John Rost	Rifle	5	1	0	6	0	0
Alfred Lane	Pistol	5	0	1	6	0	0
Hugh Bowie	Shotgun	4	2	0	6	0	1
Ray Carter	Rifle	4	2	0	6	0	0
Robert Schuehle	Shotgun	3	2	1	6	0	0
Lloyd Crow	RT	1	3	2	6	0	0
John Kingeter	RT	0	4	2	6	0	0
Morris Fisher	Rifle	5	0	0	5	0	0
David Ross	Rifle	5	0	0	5	1	1
Edward Etzel	Rifle	4	1	0	5	0	0
Joseph Jackson	Rifle	4	0	1	5	0	0
Vic Auer	Rifle	3	2	0	5	0	0

		Gold	Silver	Bronze	Total	World Records Individual	Team
Donnis Fonton	Riflo/RT	3	0	2	5	0	0
John Forman	Pistol	3	0	2	5	0	0
Ruby Fox	Pistol	2	2	1	5	0	0
Bonnio Harmon	Pistol	2	2	1	5	0	0
Frank Littlo	Shotgun	2	2	1	5	0	1
Charlos Whoolor	Pistol	2	2	1	5	0	1
Lawronco Nuossloin	Riflo/RT	2	1	2	5	0	0
Barbara Hllo	Pistol	1	3	1	5	0	1
Willis Powoll	RT	0	4	1	5	0	0
Norman Sharpnoss	RT	0	4	1	5	0	0
Danlol Carllslo	Shotgun	4	0	0	4	0	0
Donald Haldoman	Riflo	3	1	0	4	0	0
Konnoth Pondograss	Shotgun	3	1	0	4	0	1
Matthow Stark	Riflo	3	1	0	4	0	0
Rod Fitz-Randolph	Riflo	3	1	0	4	0	0
Donald Adams	Riflo	3	0	1	4	0	1
David Carlos	Pistol	3	0	1	4	0	0
Kim Dyor	Pistol	3	0	1	4	0	0
Walter Zobell	Shotgun	3	0	1	4	0	1
Prosloy Kondall	Riflo	2	2	0	4	0	0
Cecil Wallis	Pistol	2	2	0	4	0	0
Robort Rodalo	Shotgun	2	1	1	4	0	1
Martin Gunnarsson	Riflo	2	0	2	4	0	1
Nolson Lincoln	Pistol	2	0	2	4	0	0
Roy Sutthorland	Pistol	2	0	2	4	0	0
Edwin Toaguo	Pistol	2	0	2	4	0	1
David Cramor	Riflo	1	2	1	4	0	0
William Loushnor	Riflo/RT	1	1	2	4	0	0
Robort Sandagor	Riflo	1	1	2	4	0	0
James Hill	Riflo	0	2	2	4	0	0
Karl Frodorlek	Pistol	3	0	0	3	0	0
Otllo Schrlvor	Riflo	3	0	0	3	0	0
Richard Sllnoman	Pistol	3	0	0	3	0	0
Hozoklah Clark	Pistol	2	1	0	3	0	1
John Jajoda	Pistol	2	1	0	3	0	0
Pasquale Molaragno	Pistol	2	1	0	3	0	0
Bruco Morodlth	Riflo	2	1	0	3	0	1
Thomas Mltchell	Pistol	2	1	0	3	0	0
Allan Morrison	Shotgun	2	1	0	3	0	0
Marvin Black	Pistol	2	0	1	3	0	0
Alton Bunbrock	Shotgun	2	0	1	3	0	0
Joo Dockort	RT	1	2	0	3	1	0
John Dodds	Pistol	1	2	0	3	0	0
John Rollor	Pistol	1	2	0	3	0	0
Francis Llvonlauor	Shotgun	1	1	1	3	0	0
Ernost Vando Zando	Riflo	1	2	0	3	0	0

						World Records	
		Gold	Silver	Bronze	Total	Individual	Team
Audrey Grosch	Shotgun	1	1	1	3	-	-
James Poindexter	Shotgun	1	1	1	3	-	-
Larry Stafford	Shotgun	1	1	1	3	-	1
Robert Tiner	Pistol	1	1	1	3	-	-
William Hancock	Pistol	1	-	2	3	-	-
Fred S. Hird	Rifle	1	-	2	3	-	-
Charles Logie	Pistol	1	-	2	3	-	-
Warren A. Sprout	Rifle	1	-	2	3	-	-
John Anderson	RT	-	3	-	3	-	-
Jim Beck	Shotgun	-	2	1	3	-	-
Herbert Legg	Pistol	-	2	1	3	-	-
Harry Lucker	RT	-	2	1	3	-	-
James McNally	Pistol	-	2	1	3	-	-
Ted McMillion	RT	-	1	2	3	-	-
Offult Pinion	Pistol	-	1	2	3	-	-
Gordon Taras	Rifle	-	1	2	3	-	-
Loral I. Delaney	Shotgun	-	-	3	3	-	-
Robert Yeager	RT	-	-	3	3	-	-
Terrence Anderson	Pistol	2	-	-	2	-	-
Mark Arie	Shotgun	2	-	-	2	-	-
Edwin Calhoun	Shotgun	2	-	-	2	-	1
Joseph Clemmons	Shotgun	2	-	-	2	-	-
C.J. Crites	Shotgun	2	-	-	2	-	-
John Dietz	Pistol	2	-	-	2	-	-
Kurt Fitz-Randolph	Rifle	2	-	-	2	-	-
James Graham	Shotgun	2	-	-	2	-	-
Emil Heugatter	Pistol	2	-	-	2	-	-
Gordon Hormer	Shotgun	2	-	-	2	-	-
Kenneth Jones	Shotgun	2	-	-	2	-	-
Michael Kelly	Pistol	2	-	-	2	-	-
Allan Luke	Rifle	2	-	-	2	-	-
Thomas Nygord	Pistol	2	-	-	2	-	-
Kenneth Sedlecky	Shotgun	2	-	-	2	-	-
Thomas Smith	Pistol	2	-	-	2	1	-
James Snook	Pistol	2	-	-	2	-	-
Diana Zimmerman	Rifle	2	-	-	2	-	-
Raymond Bracken	Pistol	1	1	-	2	-	-
Lloyd Burchett	Pistol	1	1	-	2	-	-
K.K.V. Casey	Rifle	1	1	-	2	-	-
Richard Crawford	Pistol	1	1	-	2	-	-
Peter Dolfen	Pistol	1	1	-	2	-	-
Patricia Foster	Rifle	1	1	-	2	-	-
Billy Hicks	Shotgun	1	1	-	2	-	-
Ila Hill	Shotgun	1	1	-	2	-	-
Robert Mitchell	Rifle	1	1	-	2	-	-
Lawrence Mosely	Pistol	1	1	-	2	-	-
Rhody Nornberg	Rifle	1	1	2	-	-	1
Sumner Paine	Pistol	1	1	-	2	-	-

						World Records	
		Gold	Silver	Bronze	Total	Individual	Team
Tony Rosetti	Shotgun	1	1	-	2	-	-
Arthur Rothrock	Rifle	1	1	-	2	-	-
Harry Skalsky	Shotgun	1	1	-	2	-	1
Frank Troch	Shotgun	1	1	-	2	-	-
Walter Walsh	Pistol	1	1	-	2	-	1
Walter Winans	RT	1	1	-	2	-	-
John Boles	RT	1	-	1	2	-	-
Michael Bonafede	Pistol	1	-	1	2	-	-
Edward Caygle	Rifle	1	-	1	2	-	-
Lucile Chambliss	Pistol	1	-	1	2	-	1
Raymond Coulter	Rifle/RT	1	-	1	2	-	-
J.E. Gorman	Pistol	1	-	1	2	-	-
Carl Guenther	Rifle	1	-	1	2	-	-
Arthur Harris	Skeet	1	-	1	2	-	-
Thomas Heffron	Shotgun	1	-	1	2	-	1
Frank Hughes	Shotgun	1	-	1	2	-	-
Alvin Merx	Pistol	1	-	1	2	-	-
Walter Stokes	Rifle/RT	1	-	1	2	-	-
Robert Whitacre	Pistol	1	-	1	2	-	1
Frank Wright	Shotgun	1	-	1	2	-	-
Charlotte Berkenkamp	Shotgun	-	2	-	2	-	-
James Davis	RT	-	2	-	2	-	-
Eva Funes	Shotgun	-	2	-	2	-	-
Tom Garigus	Shotgun	-	2	-	2	-	-
Kenneth Gilbert	Shotgun	-	2	-	2	-	-
Richard Loffelmacher	Shotgun	-	2	-	2	-	-
Terry Bankey	Shotgun	-	2	-	2	-	-
John Turbush	RT	-	2	-	2	-	-
Richard Wentworth	RT	-	2	-	2	-	-
Thomas Brown	Rifle/RT	-	1	1	2	-	-
John Herr	Rifle	-	1	1	2	-	-
W. Neill mcDonnell	Rifle/RT	-	1	1	2	-	-
David Miller	Pistol	-	1	1	2	-	-
Mark Willis	Pistol	-	1	1	2	-	-
Darius Young	Pistol	-	1	1	2	-	-
Frank Tossas	RT	-	-	2	2	-	-
Harry Adams	Rifle	1	-	-	1	-	-
C.S. Axtell	Pistol	1	-	-	1	-	-
H.M. Bailey	Pistol	1	-	-	1	-	-
Linda Baily	Rifle	1	-	-	1	-	-
Lee Bannerman	Shotgun	1	-	-	1	-	-
Charles Benedict	Rifle	1	-	-	1	-	-
John Bertva	Rifle	1	-	-	1	-	1
Charles Billings	Shotgun	1	-	-	1	-	-
Horace Bonser	Shotgun	1	-	-	1	-	-

						World Records	
		Gold	Silver	Bronze	Total	Individual	Team
Becky Braun	Rifle	1	-	-	1	-	-
Allan Briggs	Rifle	1	-	-	1	-	-
Cornelius Burdette	Rifle	1	-	-	1	-	-
Bill Bywater	Shotgun	1	-	-	1	-	-
I.R. Calkins	Pistol	1	-	-	1	-	-
Bruce Chreene	Pistol	1	-	-	1	-	-
Dean Clark	Shotgun	1	-	-	1	-	-
Jay Clark, Jr.	Shotgun	1	-	-	1	-	-
Mike Coleman	Shotgun	1	-	-	1	-	-
Jim Columbo	Shotgun	1	-	-	1	-	1
Joseph Crockett	Rifle	1	-	-	1	-	-
John Comley	Rifle	1	-	-	1	-	-
Clifford Davis	Rifle	1	-	-	1	-	-
Clifford Davis	Shotgun	1	-	-	1	-	-
James DePhilipi	Shotgun	1	-	-	1	-	1
Walter Devine	Pistol	1	-	-	1	-	1
John Ditmore	Pistol	1	-	-	1	-	-
Charvin Dixon	Shotgun	1	-	-	1	-	-
Ivan Eastman	Rifle	1	-	-	1	-	-
James Eberwine	Rifle	1	-	-	1	-	-
C.T. Edwinson	Skeet	1	-	-	1	-	-
Fred Etchen	Shotgun	1	-	-	1	-	-
Edward Gleason	Shotgun	1	-	-	1	-	-
Frank Goza	Pistol	1	-	-	1	-	-
Larry Hadley	Pistol	1	-	-	1	-	-
Frank Hall	Shotgun	1	-	-	1	-	-
Donald Hamilton	Pistol	1	-	-	1	-	-
Louis Harant	Pistol	1	-	-	1	-	-
Schuyler Helbing	Rifle	1	-	-	1	-	-
John Hendrickson	Shotgun	1	-	-	1	-	-
Sidney R. Hinds	Rifle	1	-	-	1	-	-
Gordon Horner	Shotgun	1	-	-	1	-	-
Charles Jenson	Shotgun	1	-	-	1	-	-
Dallas Krapf	Shotgun	1	-	-	1	-	1
Victor Maass	Pistol	1	-	-	1	-	-
William Martin	Rifle	1	-	-	1	-	-
Chuck Mayhew	Shotgun	1	-	-	1	-	-
Kenneth McNally	Pistol	1	-	-	1	-	-
Forest McNeir	Shotgun	1	-	-	1	-	-
Robert Meagher	Pistol	1	-	-	1	-	-
William Melton	Pistol	1	-	-	1	-	-
Alger Mullins	Shotgun	1	-	-	1	-	-
Guil Nergard	Pistol	1	-	-	1	-	-
John Paine	Pistol	1	-	-	1	-	-
Roy Rantliff	Pistol	1	-	-	1	-	-
Timothy Rennie	Rifle	1	-	-	1	-	-
Henry Sears	Pistol	1	-	-	1	-	-
Samuel Sharman	Shotgun	1	-	-	1	-	-
Paul Shank	Pistol	1	-	-	1	-	-
Hank Shaw	Shotgun	1	-	-	1	-	-
Strother Shumate	Shotgun	1	-	-	1	-	-
William Silkworth	Shotgun	1	-	-	1	-	-
Joe Smith	Pistol	1	-	-	1	-	-
Ralph Spotts	Shotgun	1	-	-	1	-	-

		Gold	Silver	Bronze	Total	World Records Individual	Team
Eugene Spradlin	Rifle	1	-	-	1	-	-
Frank Suber	Shotgun	1	-	-	1	-	-
Arnold Vitarbo	Pistol	1	-	-	1	-	-
Randy Voss	Shotgun	1	-	-	1	-	-
John Watkins	Rifle	1	-	-	1	-	-
Charles Winder	Rifle	1	-	-	1	-	-
Joseph Witherell	Pistol	1	-	-	1	-	-
John Akemon	Rifle	-	1	-	1	-	-
Marjorie Annan	Shotgun	-	1	-	1	-	-
Ralph Anthony	Pistol	-	1	-	1	-	-
Sharon Best	Pistol	-	1	-	1	-	-
Chris Bishop	Shotgun	-	1	-	1	-	-
Richard Brown	RT	-	1	-	1	-	-
Frederick Dean	RT	-	1	-	1	-	-
Marcus Dinwiddie	Rifle	-	1	-	1	-	-
Jack Funes	Shotgun	-	1	-	1	-	-
Donald Harmon	RT	-	1	-	1	-	-
Terry Howard	Shotgun	-	1	-	1	-	-
Marianne Jenson	Rifle	-	1	-	1	-	-
Cecil Jones	Shotgun	-	1	-	1	-	-
William Libbey	RT	-	1	-	1	-	-
Gail Liberty	Pistol	-	1	-	1	-	-
Mary Norckauer	Pistol	-	1	-	1	-	-
Igor Pezas	Shotgun	-	1	-	1	-	-
Gary Rainey	Shotgun	-	1	-	1	-	-
James Reiber	RT	-	1	-	1	-	-
Philip Roettinger	Pistol	-	1	-	1	-	-
Peter Roussos	Shotgun	-	1	-	1	-	-
Fred Schasser	Pistol	-	1	-	1	-	-
Edward Schumacher	Rifle	-	1	-	1	-	-
Harry Simon	Rifle	-	1	-	1	-	-
Francis Strodtman	Shotgun	-	1	-	1	-	-
Larry Tiner	Shotgun	-	1	-	1	-	-
Walter Tomsen	Rifle	-	1	-	1	-	-
Vilo Vlasin	Pistol	-	1	-	1	-	-
William Abbott	Shotgun	-	-	1	1	-	-
Kenneth Blasi	Shotgun	-	-	1	1	-	-
Kenneth Buster	Pistol	-	-	1	1	-	-
Homer Clark	Shotgun	-	-	1	1	-	-
Delong	Pistol	-	-	1	1	-	-
Wyeth Everhart	Shotgun	-	-	1	1	-	-
Herring	Shotgun	-	-	1	1	-	-
Valeria Johnson	Shotgun	-	-	1	1	-	-
Mickey Michaelis	Shotgun	-	-	1	1	-	-
Bill Morris	Shotgun	-	-	1	1	-	-
Evelyn Primm	Shotgun	-	-	1	1	-	-
Philip Provence	Shotgun	-	-	1	1	-	-
John Satterwhite	Shotgun	-	-	1	1	-	-
Gertrude Schlernitzauer	Pistol	-	-	1	1	-	-
E.O. Sessions	Shotgun	-	-	1	1	-	-
Jeff Sizemore	Shotgun	-	-	1	1	-	-
William Slahucka	Shotgun	-	-	1	1	-	-
W.T. Toney	Pistol	-	-	1	1	-	-

1979 1st WORLD AIR GUN SHOOTING CHAMPIONSHIPS - SEOUL KOREA

Individual Medals

	Gold	Silver	Bronze
Men's Air Rifle	Germany	Switzerland	Great Britain
Women's Air Rifle	USA (5)	USA (6)	Korea
Men's Air Pistol	Great Britain	Canada	Sweden
Women's Air Pistol	USA (14)	Australia	USA (12)

Team Medals

	Gold	Silver	Bronze
Men's Air Rifle	Switzerland	USA (1,2,3,4)	Great Britain
Women's Air Rifle	USA (5,6,7)	Korea	Great Britain
Men's Air Pistol	Sweden	USA (8,9,10,11)	Korea
Women's Air Pistol	USA (12,12.13)	Sweden	Great Britain

Team Members

1.	Ernest Vande Zande	(USAMU)	1 Silver
2.	Michael Gross	(Civ)	1 Silver
3.	David Cramer	(USAR)	1 Silver
4.	Ray P. Carter	(USAR)	1 Silver
5.	Karen Monez	(USAMU)	2 Gold
6.	Wanda Jewell	(USAMU)	1 Gold, 1 Silver
7.	Becky Braun	(USAR)	1 Gold
8.	Donald Nygard	(CIV)	1 Silver
9.	Jim Dorsey	(USMC)	1 Silver
10.	Samuel Hunter	(USAMU)	1 Silver
11.	Donald Hamilton		1 Silver
12.	Sallie Carroll	(EX-USAMU)	1 Gold, 1 Bronze
13.	Pat Olsowsky	(CIV)	2 Gold
14.	Rudy Fox	(USAR)	2 Gold

1979 WORLD MOVING TARGET CHAMPIONSHIPS - MONTECATINI, ITALY

Individual Medals

	Gold	Silver	Bronze
International Skeet	Denmark	Sweden	Russia
International Skeet,Lad	Italy	Russia	Russia
International Trap	France	Russia	Italy
International Trap/Ladies	Canada	Russia	Russia

Team Medals

	Gold	Silver	Bronze
International Skeet	USA (1,2,3,4)	Russia	Italy
International Skeet/Lad	Russia	USA (5,6,7)	France
International Trap	Italy	Russia	France
International Trap/Ladies	Russia	Italy	USA (12,13,14)

Team Members

1.	Matt Dryke	(USAMU)	1 Gold
2.	John Satterwhite	(Civ)	1 Gold
3.	Joseph Clemmons	(USAMU)	1 Gold
4.	Jeff Sizemore	(CIV)	1 Gold
5.	Ila Hill	(CIV)	1 Silver
6.	Terry Bankey	(CIV)	1 Silver
7.	Joan Elkins	(CIV)	1 Silver
8.	Walter Zobell	(USAR)	
9.	Charvin Dixon	(EX-USAMU)	
10.	James Poindexter	(CIV)	
11.	Robert Green	(CIV)	
12.	Valerie Johnson	(CIV)	1 Bronze
13.	Connie Hoyle	(CIV)	1 Bronze
14.	Francis Strodtman	(CIV)	1 Bronze

1979 VIII PAN AMERICAN GAMES - SAN JUAN, PUERTO RICO

Individual Medals

	Gold	Silver	Bronze
Air Rifle	Canada	USA (3)	Canada
English Match	USA (1)	Cuba	Canada
Smallbore 3-Position	USA (1)	USA (10)	Canada

Team Medals

	Gold	Silver	Bronze
Air Rifle	USA (3,5,7,9)	Cuba	Argentina
English Match	USA (1,3,6,8)	Cuba	Brazil
Smallbore 3-Position	USA (1,2,9,10)	Canada	Cuba

Individual World Record

English Match 599 (1)

Rifle Team Members

1.	Lones Wigger	(USAMU)	4 Gold
2.	Thomas Whitaker	(USAR)	1 Gold
3.	Ernest Vande Zande	(USAMU)	1 Gold, 1 Silver
4.	David Kimes	(USAR)	
5.	Mike Gross	(CIV)	1 Gold
6.	Dennis Gheselli	(USMC)	1 Gold
7.	Wanda Jewell	(USAMU)	1 Gold
8.	Boyd Goldsby	(USAR)	1 Gold
9.	Edward Etzel	(USAR)	2 Gold
10.	Rod Fitz-Randolph	(CIV)	1 Gold, 1 Silver

Other U.S. Shooters and Medals:

PISTOL

1.	William McMillan	(CIV)		
2.	John McNally	(USMC)	Silver	Rapid Fire
3.	Charles McGowan	(USAMU)		
4.	Donald Nygord	(CIV)	Gold	Air Pistol
5.	Darious Young	(USAR)		
6.	Jan Brundin	(CIV)		
7.	Eric Buljung	(USAMU)		
8.	Samuel Baiocco		Bronze	Center Fire
9.	Donald Hamilton		Silver	Air Pistol
10.	Jim Dorsey	(USMC)		
11.	Jerry Wilder	(USAR)	Silver	Center Fire
12.	Terrance Anderson	(USAR)		

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(CONTINUED)

TEAM RESULTS

Rapid Fire	Silver	(1,2,12,5)
Center Fire	Gold	(8,11,10,5)
Air Pistol	Gold	(4,9,3,7)

TRAP

1.	Ernest Neal	(USAMU)	
2.	Charvin Dixon	(EX-USAMU)	Silver
3.	Robert Green	(USAR)	Gold
4.	Walter Zobell	(USAR)	

U.S. Trap Team Gold

SKEET

1.	Mat Dryke	(USAMU)	Silver
2.	Joseph Clemmons	(USAMU)	
3.	Jeffrey Sizemore	(CIV)	
4.	John Satterwhite	(CIV)	

USA Skeet Team Gold

1978 WORLD CHAMPIONSHIPS - SEOUL, SOUTH KOREA

Individual Medals

	Gold	Silver	Bronze
English Match	Great Britain	USA (1)	USA (3)
Smallbore 3-Position	USA (3)	Great Britain	West Germany
Smallbore Kneeling	Great Britain	Switzerland	Great Britain
Smallbore Standing	Sweden	Korea	USA (3)
Free Rifle 3-Position	USA (1)	Finland	Switzerland
Free Rifle Prone	Switzerland	USA (1)	Norway
Free Rifle Kneeling	Switzerland	Norway	Finland
Fullbore Standard Fire	USA (2)	France	Great Britian
Air Rifle	Germany	Great Britain	Italy
Standard Rifle Prone (Women)	USA (8)	France	USA (4)
Smallbore Standard Rifle (Women)	USA (5)	USA (4)	Sweden
Air Rifle (Women)	USA (5)	USA (4)	Korea

Team Medals

	Gold	Silver	Bronze
English Match	USA (1,3,9,13)	West Germany	Switzerland
Smallbore 3-Position	USA (1,2,10,11)	West Germany	Sweden
Smallbore Kneeling	Great Britain	West Germany	Austria
Smallbore Standing	USA (1,3,10,11)	West Germany	Sweden
Free Rifle 3-Position	USA (1,2,6,7)	Switzerland	Finland
Free Rifle Prone	USA (1,2,6,7)	Finland	Switzerland
Free Rifle Kneeling	Switzerland	USA (1,2,6,7)	Finland
Free Rifle Standing	USA (1,2,6,7)	Switzerland	Finland
Fullbore Standard Rifle	USA (1,2,6,9)	Switzerland	Finland
Air Rifle	West Germany	USA (2,3,9,14)	Korea
Standard Rifle Prone (Women)	USA (4,5,8)	France	Australia
Smallbore Standard Rifle (Women)	USA (4,5,12)	Sweden	West Germany
Air Rifle (Women)	USA (4,5,8)	Korea	West Germany

Rifle Team Members

Eight of the fourteen shooters on the United States Rifle Team were members or former members of the USAMU.

1.	Lones Wigger	(USAMU)	8 Gold, 3 Silver, 1 Bronze
2.	David Kimes	(EX-USAMU)	5 Gold, 2 Silver
3.	Lanny Bassham	(EX-USAMU)	4 Gold, 1 Silver, 2 Bronze
4.	Karen Monez	(USAMU)	3 Gold, 2 Silver, 1 Bronze
5.	Wanda Jewell	(USAMU)	5 Gold
6.	Webster Wright	(USN)	4 Gold, 1 Silver
7.	Ray Carter	(EX-USAMU)	3 Gold, 1 Silver
8.	Sue Ann Sandusky	(USAR)	3 Gold
9.	Boyd Goldsby	(EX-USAMU)	2 Gold, 1 Silver
10.	Edward Etzel	(EX-USAMU)	2 Gold
11.	Kurt Fitz-Randolph	(CIVILIAN)	2 Gold
12.	Becky Braun	(USAR)	1 Gold
13.	John Comley	(USMCR)	1 Gold
14.	John Akemon	(CIVILIAN)	1 Silver

1978 WORLD CHAMPIONSHIPS - SEOUL, SOUTH KOREA

(CONTINUED)

Individual World Records

Free Rifle 3-Position	1160	(1)
Full Bore Standard Rifle	577	(2)

Team World Record

Full Bore Standard Rifle Team	2281	(1,2,6,9)

Other U.S. Shooters and Medals:

PISTOL

1.	Kim Dyer	(USAMU)	Gold	Center Fire Pistol	Individual	(Women)
			Bronze	Center Fire Pistol	Team	(Women)
2.	Sallie Carroll	(EX-USAMU)	Bronze	Center Fire Pistol	Team	(Women)
3.	Ruby Fox	(USAR)	Bronze	Center Fire Pistol	Team	(Women)

TRAP

4.	Lee Bannerman	(USAMU)	Gold	Trap	Team	
5.	Daniel Carlisle	(EX-USAMU)	Gold	Trap	Team	
6.	Randy Voss	(USAMU)	Gold	Trap	Team	
7.	Walter Zobell	(USAR)	Gold	Trap	Team	
8.	Loral Delaney	(CIVILIAN)	Bronze	Trap	Team	(Women)
9.	Audrey Grosch	(CIVILIAN)	Bronze	Trap	Team	(Women)
10.	Valeria Johnson	(CIVILIAN)	Bronze	Trap	Team	(Women)

SKEET

11.	Terry Bankey	(CIVILIAN)	Silver	Skeet	Individual	(Women)
			Silver	Skeet	Team	(Women)
12.	Ila Hill	(CIVILIAN)	Silver	Skeet	Team	(Women)
13.	Eva Funes	(CIVILIAN)	Silver	Skeet	Team	(Women)

RUNNING TARGET

14.	John Anderson	(CIVILIAN)	Silver	Running	Target	Normal	Run	Team
15.	Charles Davis	(USAMU)	Silver	Running	Target	Normal	Run	Team
16.	James Reiber	(USAMU)	Silver	Running	Target	Normal	Run	Team
17.	Louis Theimer	(EX-USAMU)	Silver	Running	Target	Normal	Run	Team

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Individual Medals

	Gold	Silver	Bronze
English Match	Cuba	USA (1)	Panama
Standard Rifle Prone (Women)	USA (9)	USA (3)	Cuba
Standard Rifle Prone (Junior)	USA (4)	USA (10)	Puerto Rico
Smallbore 3-Position	USA (8)	USA (1)	Canada
Standard Rifle Position (Women)	USA (2)	USA (3)	Cuba
Standard Rifle Position (Women)	USA (10)	USA (4)	Canada
Free Rifle 3-Position	USA (1)	Cuba	USA (6)
Air Rifle	Canada	Canada	USA (1)
Air Rifle (Women)	USA (2)	Cuba	USA (3)
Air Rifle (Junior)	USA (4)	USA (5)	Canada

Team Medals

	Gold	Silver	Bronze
English Match	USA (1,7,11,12)	Cuba	Brazil
Standard Rifle Prone (Women)	USA (2,3,9)	Mexico	--
Standard Rifle Prone (Junior)	USA (4,5,10)	Chile	--
Smallbore 3-Position	USA (1,8,13,14)	Canada	Cuba
Standard Rifle Position (Women)	USA (2,3,17)	--	--
Standard Rifle Positon (Junior)	USA (4,5,10)	Chile	--
Free Rifle 3-Position	USA (1,6,15,16)	Cuba	Cananda
Air Rifle	Canada	USA (1,6,7,8)	Cuba
Air Rifle (Women)	USA (2,3,9)	--	--
Air Rifle (Junior)	USA (4,5,18)	--	--

Rifle Team Members

Ten of the eighteen shooters on the United States Team were members or former members of the USAMU.

1.	Lones Wigger	(USAMU)	4 Gold, 3 Silver, 1 Bronze
2.	Karen Monez	(USAMU)	5 Gold
3.	Gloria Parmentier	(CIVILIAN)	3 Gold, 2 Silver, 1 Bronze
4.	John Rost	(CIVILIAN)	5 Gold, 1 Silver
5.	Matthew Stark	(CIVILIAN)	3 Gold, 1 Silver
6.	Webster Wright	(USN)	1 Gold, 1 Silver, 1 Bronze
7.	Ray Carter	(EX-USAMU)	1 Gold, 1 Silver
8.	Edward Etzel	(EX-USAMU)	2 Gold, 1 Silver
9.	Sue Sandusky	(USAR)	3 Gold
10.	Timothy O'Daly	(CIVILIAN)	3 Gold, 1 Silver
11.	Presley Kendall	(EX-USAMU)	1 Gold
12.	David Ross	(EX-USAMU)	1 Gold
13.	Roderick Fitz-Randolph	(CIVILIAN)	1 Gold
14.	Boyd Goldsby	(EX-USAMU)	1 Gold
15.	John Foster	(EX-USAMU)	1 Gold
16.	David Kimes	(EX-USAMU)	1 Gold
17.	Linda Bally	(USAMU)	1 Gold
18.	Timothy Rennie	(CIVILIAN)	1 Gold

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Individual World Records

Free Rifle 3-Position	1159	(1)
Free Rifle Kneeling	392	(1)

Other U.S. Shooters and Medals:

PISTOL

1.	Darius Young	(USAR)	Silver	Free Pistol	Team
			Bronze	Air Pistol	Team
2.	Jimmie Dorsey	(USMCR)	Silver	Standard Pistol	Individual
			Gold	Standard Pistol	Team
			Gold	Rapid Fire Pistol	Team
			Silver	Free Pistol	Team
			Bronze	Air Pistol	Team
3.	Melvin Makin	(USAR)	Gold	Standard Pistol	Individual
			Gold	Standard Pistol	Team
			Gold	Rapid Fire Pistol	Team
			Silver	Free Pistol	Team
4.	Steve Reiter	(USAR)	Silver	Free Pistol	Team
5.	Jerry Wilder	(USAR)	Gold	Center Fire Pistol	Individual
			Bronze	Standard Pistol	Individual
			Gold	Center Fire Pistol	Team
			Gold	Standard Pistol	Team
			Bronze	Air Pistol	Team
6.	Kim Dyer	(USAMU)	Gold	Center Fire Pistol	Individual (Women)
			Gold	Air Pistol	Individual (Women)
7.	Michael Bonafede	(USMC)	Bronze	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
8.	Rudy Fox	(USAR)	Silver	Center Fire Pistol	Individual (Women)
9.	Kenneth McNally	(CIV)	Gold	Center Fire Pistol	Individual (Junior)
10.	Mark Willis	(CIV)	Silver	Center Fire Pistol	Individual (Junior)
			Bronze	Air Pistol	Individual (Junior)
11.	Robert Tiner	(USAF)	Gold	Center Fire Pistol	Team
12.	Frank Goza	(USAR)	Gold	Center Fire Pistol	Team
13.	Terrance Anderson	(NG)	Gold	Rapid Fire Pistol	Individual
			Gold	Rapid Fire Pistol	Team
14.	William McMillan	(USMC)	Gold	Rapid Fire Pistol	Team
15.	Bonnie Harmon	(USAMU)	Gold	Standard Pistol	Team
16.	Sallie Carroll	(EX-USAMU)	Gold	Standard Pistol	Team
17.	Guil Nergard	(CIV)	Gold	Air Pistol	Individual (Junior)
18.	Kenneth Buster	(NG)	Bronze	Air Pistol	Team

SKEET

19.	Joseph Clemmons	(USAMU)	Gold	Skeet	Individual
			Gold	Skeet	Team
20.	Daniel Carlisle	(USAMU)	Gold	Skeet	Team
21.	Alger Mullins	(USAMU)	Gold	Skeet	Team
22.	Dean Clark	(CIV)	Gold	Skeet	Team
23.	Ila Hill	(CIV)	Gold	Skeet	Individual (Women)

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24.	Eva Funes	(CIV)	Silver	Skeet	Individual (Women)
25.	Loral I. Delaney	(CIV)	Bronze	Skeet	Individual (Women)
26.	Jack Funes	(CIV)	Silver	Skeet	Individual (Junior)
27.	Jeff Sizemore	(CIV)	Bronze	Skeet	Individual (Junior)
TRAP					
28.	Hugh Bowie	(EX-USAMU)	Gold	Trap	Individual
			Gold	Trap	Team
29.	James Poindexter	(CIV)	Silver	Trap	Individual
			Gold	Trap	Team
30.	Donald Haldeman	(USAR)	Gold	Trap	Team
31.	Frank Little	(CIV)	Gold	Trap	Team
32.	Audrey Grosch	(CIV)	Gold	Trap	Individual (Women)
33.	Francis Strodtman	(CIV)	Silver	Trap	Individual (Women)
34.	Loral I. Delaney	(CIV)	Bronze	Trap	Individual (Women)
35.	Mike Coleman	(CIV)	Gold	Trap	Individual (Junior)
36.	Gary Rainey	(CIV)	Silver	Trap	Individual (Junior)
RUNNING TARGET					
37.	John Anderson	(CIV)	Silver	Running Target	Individual
			Silver	Running Target	Team
38.	Charles Davis	(USAMU)	Silver	Running Target	Team
39.	Louis Theimer	(USAR)	Silver	Running Target	Team
40.	Donald Harmon	(USAR)	Silver	Running Target	Team

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Individual Medals

	Gold	Silver	Bronze
English Match Smallbore 3-Position	USA (3)	USA (4)	

Rifle Team Members

Three out of the four shooters on the United States Rifle Team were members or former members of the USAMU.

1.	Vic Auer	(CIVILIAN)	
2.	David Ross	(EX-USAMU)	
3.	Lanny Bassham	(USAMU)	1 Gold
4.	Margaret Murdock	(EX-USAMU)	1 Silver

Other U.S. Shooters and Medals:

TRAP

1.	Donald Haldeman	(USAMU)	Gold	Trap	Individual

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Individual Medals

	Gold	Silver	Bronze
English Match	USA (6)	Brazil	Cuba
Air Rifle	Mexico	USA (1)	USA (10)
Smallbore 3-Position	USA (2)	USA (3)	Cuba

Team Medals

	Gold	Silver	Bronze
English Match	USA (2,5,6,7)	Mexico	Brazil
Air Rifle	USA (1,8.9,10)	Cuba	Mexico
Smallbore 3-Position	USA (1,2,3,4)	Cuba	Canada
Women's Air Pistol	USA (12,12.13)	Sweden	Great Britain

Rifle Team Members

Eight of the ten shooters of the United States Rifle Team were members or former members of the USAMU.

1.	Lanny Bassham	(USAMU)	2 Gold, 1 Silver
2.	Margaret Murcock	(EX-USAMU)	3 Gold
3.	Lones Wigger	(USAMU)	1 Gold, 1 Silver
4.	Jack Writer	(EX-USAMU)	1 Gold
5.	Vic Auer	(CIVILIAN)	1 Gold
6.	David Ross	(EX-USAMU)	2 Gold
7.	Ernie Vande Zande	(USAMU)	1 Gold
8.	David Cramer	(EX-USAMU)	1 Gold
9.	Gloria Parmentier	(CIV)	1 Gold
10.	Carl Guenther	(EX-USAMU)	1 Gold, 1 Bronze

Individual World Record

Smallbore Standing	385	(2)

Other U.S. Shooters and Medals:

PISTOL

1.	Herschel Anderson	(USAMU)	Gold	Free Pistol	Individual

Individual World Record

Smallbore Standing	385	(2)

Other U.S. Shooters and Medals:

PISTOL

1.	Herschel Anderson	(USAMU)	Gold	Free Pistol	Individual
			Gold	Air Pistol	Individual
			Silver	Center Fire Pistol	Individual
			Gold	Free Pistol	Team

1975 PAN AMERICAN GAMES - MEXICO CITY, MEXICO

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			Gold	Center Fire Pistol	Team
			Silver	Air Pistol	Team
2.	Melvin Makin	(USAR)	Gold	Rapid Fire Pistol	Individual
			Silver	Free Pistol	Individual
			Gold	Rapid Fire Pistol	Team
			Gold	Free Pistol	Team
3.	Jimmie Dorsey	(USMC)	Gold	Free Pistol	Team
4.	Richard Crawford	(NG)	Gold	Free Pistol	Team
			Silver	Air Pistol	Team
5.	Charles Wheeler	(USAR)	Silver	Air Pistol	Team
6.	Pasquale Melaragno	(USAR)	Silver	Air Pistol	Team
7.	Marvin Black	(USAMU)	Gold	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
8.	Jimmy McCauley	(USAMU)	Bronze	Rapid Fire Pistol	Individual
			Gold	Rapid Fire Pistol	Team
			Gold	Center Fire Pistol	Team
9.	Bruce Chrenne	(USAMU)	Gold	Center Fire Pistol	Team
10.	Joe Smith	(USMC)	Gold	Rapid Fire Pistol	Team
11.	Joseph Witherell	(USN)	Gold	Rapid Fire Pistol	Team

TRAP

12.	Daniel Carisle	(USAMU)	Gold	Trap	Individual
			Gold	Trap	Team
13.	Donald Haldeman	(USAMU)	Silver	Trap	Individual
			Gold	Trap	Team
14.	Walter Zobell	(USAR)	Gold	Trap	Team
15.	Charvin Dixon	(USAMU)	Gold	Trap	Team

SKEET

16.	Robert Schuehle	(CIV)	Silver	Skeet	Individual

1974 WORLD CHAMPIONSHIPS - THUN AND BERNE, SWITZERLAND

Individual Medals

	Gold	Silver	Bronze
English Match	Czechoslovakia	Norway	Austria
Smallbore 3-Position	USA (3)	USA (1)	USA (4)
Smallbore Kneeling	USSR	Finland	USA (3)
Smallbore Standing	USA (1)	Austria	USA (4)
Free Rifle 3-Positon	USA (4)	USA (6)	Switzerland
Free Rifle Prone	USA (4)	East Germany	USA (1)
Free Rifle Kneeling	USA (6)	Switzerland	Poland
Free Rifle Standing	USA (4)	USA (6)	USSR
Smallbore Standard Rifle	South Africa	East Germany	Norway
Fullbore Standard Rifle	USA (5)	USA (1)	USA (6)
Air Rifle	Poland	USA (4)	USA (7)
Standard Rifle Prone (Women)	USA (10)	Sweden	Bulgaria
Smallbore Standard Rifle (Women)	Bulgaria	Bulgaria	USA (10)
Air Rifle (Women)	USSR	USSR	USSR

Team Medals

	Gold	Silver	Bronze
English Match	Finland	USA (1,8,9,10)	Czechoslovakia
Smallbore 3-Position	USA (1,3,4,10)	USSR	West Germany
Smallbore Kneeling	USSR	USA (1,3,4,10)	West Germany
Smallbore Standing	USA (1,3,4,10)	USSR	Hungary
Free Rifle 3-Position	USA (1,3,4,6)	USSR	Switzerland
Free Rifle Prone	USA (1,3,4,6)	USSR	Switzerland
Free Rifle Kneeling	Poland	USA (1,3,4,6)	Switzerland
Free Rifle Standing	USA (1,3,4,6)	USSR	Czechoslovakia
Smallbore Standard Rifle	USSR	USA (3,4,5,7)	Norway
Fullbore Standard Rifle	USA (1,2,5,6)	USSR	Czechoslovakia
Air Rifle	West Germany	USA (3,4,7,11)	Poland
Standard Rifle Prone (Women)	USA (10,12,14)	Yugoslavia	Sweeden
Smallbore Standard Rifle (Women)	USSR	Bulgaria	West Germany
Air Rifle (Women)	USSR	Poland	West Germany

Individual World Records

Smallbore Rifle Standing	383 (1)
Smallbore Rifle Prone	400 (3)
English Match (Women)	598 (10)
Standard Rifle 300 Meters	575 (1)
Standard Rifle 300 Meters	575 (5)

Team World Records

Smallbore Rifle Standing	1508 (1,3,4,10)
Standard Rifle Meters	2280 (1,2,5,6)

1974 WORLD CHAMPIONSHIPS - THUN AND BERNE, SWITZERLAND

(CONTINUED)

Rifle Team Members

Ten of the fourteen shooters on the United States Rifle Team were members or former members of USAMU.

1.	Lones Wigger	(USAMU)	7 Gold, 5 Silver, 1 Bronze, 4 World Records
2.	David Boyd	(USMC)	1 Gold, 1 World Record
3.	John Writer	(EX-USAMU)	6 Gold, 4 Silver, 1 Bronze, 2 World Records
4.	Lanny Bassham	(USAMU)	8 Gold, 5 Silver, 2 Bronze, 1 World Record
5.	David Kimes	(EX-USAMU)	2 Gold, 1 Silver, 2 World Records
6.	John Foster	(USAMU)	5 Gold, 3 Silver, 1 World Record
7.	David Cramer	(EX-USAMU)	2 Silver, 1 Bronze
8.	Victor Auer	(CIVILIAN)	1 Silver
9.	Presley Kendall	(EX-USAMU)	1 Silver
10.	Margaret Murdock	(EX-USAMU)	4 Gold, 2 Silver, 1 Bronze, 2 World Records
11.	Edward Schumacher	(USAMU)	1 Silver
12.	Diana Zimmerman	(USAMU)	1 Gold
13.	Wanda Jewell	(CIVILIAN)	
14.	Schuyler Helbing	(CIVILIAN)	1 Gold

Other U.S. Shooters and Medals:

PISTOL

1.	Frances Higginson	(USMC)	Silver Center Fire Pistol	Individual
			Silver Center Fire Pistol	Team
2.	Bonnie Harmon	(USAMU)	Silver Standard Pistol	Individual
			Bronze Standard Pistol	Team
			Silver Center Fire Pistol	Team
3.	Robert Tiner	(USAF)	Silver Center Fire Pistol	Team
			Bronze Standard Pistol	Team
4.	Milo Vlasin	(ARNG)	Silver Center Fire Pistol	Team
5.	Marvin Black	(USAMU)	Bronze Standard Pistol	Team
6.	Charles Weaver	(USAR)	Bronze Standard Pistol	Team
7.	Barbara Hile	(USAMU)	Silver Air Pistol	Team (Women)
8.	Sharon Best	(USAMU)	Silver Air Pistol	Team (Women)
9.	Ruby Fox	(CIVILIAN)	Silver Air Pistol	Team (Women)

TRAP

10.	Audrey Grosch	(CIVILIAN)	Silver Trap	Individual (Women)
11.	James Poindexter	(CIVILIAN)	Bronze Trap	Team
12.	Kenneth Blais	(EX-USAMU)	Bronze Trap	Team
13.	Walter Zobell	(CIVILIAN)	Bronze Trap	Team
14.	Frank Little	(EX-USAMU)	Bronze Trap	Team

SKEET

15.	John Satterwhite	(USAR)	Bronze Skeet	Team
16.	Allen Buntrock	(USN)	Bronze Skeet	Team
17.	William Slahucka	(USAMU)	Bronze Skeet	Team
18.	Arthur Harris	(EX-USAMU)	Bronze Skeet	Team

1974 WORLD CHAMPIONSHIPS - THUN AND BERNE, SWITZERLAND

(CONTINUED)

RUNNING TARGET

19.	Arlie Jones	(USAF)	Bronze	Running Target Normal Runs	Team
20.	Edmund Moeller	(USAMU)	Bronze	Running Target Normal Runs	Team
21.	Charles Davis	(USAMU)	Bronze	Running Target Normal Runs	Team
22.	Louis Thelmer	(USAMU)	Bronze	Running Target Normal Runs	Team

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Individual Medals

	Gold	Silver	Bronze
English Match	USA (2)	Mexico	Cuba
Smallbore 3-Position	USA (1)	USA (3)	Cuba
Smallbore Prone	USA (1)	(Only Medal Awarded)	
Smallbore Kneeling	USA (10)	(Only Medal Awarded)	
Smallbore Standing	USA (1)	(Only Medal Awarded)	
Smallbore Standard Rifle	USA (7)	Cuba	Cuba
Free Rifle 3-Position	USA (3)	USA (1)	Cuba
Free Rifle Prone	Cuba	(Only Medal Awarded)	
Free Rifle Kneeling	USA (3)	(Only Medal Awarded)	
Free Rifle Standing	USA (1)	(Only Medal Awarded)	
Air Rifle	Mexico	USA (4)	USA (7)

Team Medals

Gold

Other U.S. Shooters and Medals

PISTOL

1.	Francis Higginson	(USMC)	Gold	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
			Silver	Air Pistol	Individual
			Gold	Air Pistol	Team
			Gold	Free Pistol	Team
2.	Herschel Anderson	(USAMU)	Gold	Air Pistol	Individual
			Gold	Air Pistol	Team
			Silver	Free Pistol	Individual
			Gold	Free Pistol	Team
3.	Pasquale Melaragno	(USAR)	Gold	Free Pistol	Team
			Gold	Air Pistol	Team
4.	Steve Reiter	(USAR)	Gold	Free Pistol	Team
			Silver	Standard Pistol	Team
5.	Jimmie Dorsey	(USMCR)	Gold	Air Pistol	Team
			Silver	Rapid Fire Pistol	Team
			Silver	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
6.	Larry Hadley	(USAF)	Gold	Center Fire Pistol	Team
7.	Charles Wheeler	(USAR)	Gold	Center Fire Pistol	Team
			Silver	Standard Pistol	Team
8.	Jimmy McCauley	(USAMU)	Gold	Rapid Fire Pistol	Individual
			Silver	Rapid Fire Pistol	Team
			Silver	Standard Pistol	Team
9.	Hubert Legg	(USAF)	Silver	Rapid Fire Pistol	Team
			Bronze	Standard Pistol	Individual
			Silver	Standard Pistol	Team
10.	James McNally	(USAMU)	Silver	Rapid Fire Pistol	Team

TRAP

11.	Hugh Bowie	(EX-USAMU)	Gold	Trap	Individual
			Gold	Trap	Team
12.	Frank Little	(EX-USAMU)	Silver	Trap	Individual
			Gold	Trap	Team
13.	James DePhilipi	(CIVILIAN)	Gold	Trap	Team
14.	Harry Skalsky	(EX-USAMU)	Gold	Trap	Team

RUNNING TARGET

15.	Louis Thelmer	(USAMU)	Gold	Running Target Mixed Runs	Individual
			Silver	Running Target Standard Runs	Individual
			Gold	Running Target Mixed Runs	Team
			Gold	Running Target Standard Runs	Team
16.	Arlie Jones	(USAF)	Bronze	Running Target Mixed Runs	Individual
			Bronze	Running Target Standard Runs	Individual
			Gold	Running Target Mixed Runs	Team
			Gold	Running Target Standard Runs	Team
17.	Charles Davis	(USAMU)	Gold	Running Target Mixed Runs	Team
			Gold	Running Target Standard Runs	Team
18.	Edmund Moeller	(USAMU)	Gold	Running Target Mixed Runs	Team
			Gold	Running Target Standard Runs	Team

1973 TOURNAMENT OF THE AMERICAS - MEXICO CITY, MEXICO

(CONTINUED)

World Record Team

Trap	583	(11, 12, 13, 14)

1973 WORLD MOVING TARGET CHAMPIONSHIPS - MELBOURNE, AUSTRALIA

U.S. Shooters and Medals:

RUNNING TARGET

1.	Charles Davis	(USAMU)	Bronze	Running Target Standard Runs	Team
			Bronze	Running Target Mixed Runs	Team
2.	Arlie Jones	(USAF)	Bronze	Running Target Standard Runs	Team
			Bronze	Running Target Mixed Runs	Team
3.	Edmund Moeller	(USAMU)	Bronze	Running Target Standard Runs	Team
			Bronze	Running Target Mixed Runs	Team
4.	Louis Thelmer	(USAMU)	Bronze	Running Target Standard Runs	Team
			Bronze	Running Target Mixed Runs	Team

TRAP

5.	Hugh Bowie	(EX-USAMU)	Silver	Trap	Individual
			Silver	Trap	Team
6.	Harry Skalsky	(USAF)	Silver	Trap	Team
7.	Frank Little	(EX-USAMU)	Silver	Trap	Team
8.	Kenneth Gilbert	(USAMU)	Silver	Trap	Team

1972 OLYMPICS - MUNCIE, WEST GERMANY

Individual Medals

	Gold	Silver	Bronze
English Match	North Korea	USA (1)	Hungary
Smallbore 3-Position	USA (4)	USA (2)	East Germany
Free Rifle 3-Position	USA (3)	USSR	Hungary

Three of the four shooters on the United States Olympic Rifle Team were members or former members of the USAMU.

1.	Vic Auer	(CIVILIAN)	1 Silver
2.	Lanny Bassham	(USAMU)	1 Silver
3.	Lones Wigger	(USAMU)	1 Gold
4.	John Writer	(EX-USAMU)	1 Gold

Individual World Records

Smallbore 3-Position	1166	(4)
Smallbore Standing	381	(4)
Free Rifle Standing	379	(3)

1971 PAN AMERICAN GAMES - CALI, COLUMBIA

Individual Medals

	Gold	Silver	Bronze
English Match	USA (1)	Cuba	Puerto Rico
Smallbore 3-Position	USA (8)	USA (7)	Cuba

Team Medals

	Gold	Silver	Bronze
English Match	USA (1,4,5,6)	Cuba	Puerto Rico
Smallbore 3-Position	USA (2,3,7,8)	Cuba	Argentina

Six of the eight shooters on the United States Rifle Team were members or former members of the USAMU.

Individual World Records

1.	Vic Auer	(CIVILIAN)	2 Gold	
2.	Lanny Bassham	(USAMU)	1 Gold	
3.	David Boyd	(USMC)	1 Gold	
4.	Cliff Davis	(USAMU)	1 Gold	
5.	David Ross	(EX-USAMU)	1 Gold	Individual
6.	John Watkins	(EX-USAMU)	1 Gold	
7.	Lones Wigger	(USAMU)	1 Gold, 1 Silver	
8.	John Writer	(EX-USAMU)	2 Gold	

Team World Record

Smallbore Prone	1587 (2, 3, 7, 8)

Other U.S. Shooters and Medals:

PISTOL

1.	Herschel Anderson	(USAMU)	Silver	Free Pistol	Individual
			Gold	Free Pistol	Team
2.	Emil Heugatter	(USAMUO	Gold	Free Pistol	Team
3.	Francis Higginson	(USMC)	Gold	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
			Gold	Free Pistol	Team
4.	Hezekiah Clark	(USAMU)	Silver	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
			Gold	Free Pistol	Team
5.	Robert Whitacre	(USAMU)	Gold	Center Fire Pistol	Team
			Bronze	Rapid Fire Pistol	Team
6.	Jimmy McCauley	(USAMU)	Gold	Center Fire Pistol	Team
			Bronze	Rapid Fire Pistol	Team
7.	Edwin Teague	(USAF)	Bronze	Rapid Fire Pistol	Team
8.	Delong	(USN)	Bronze	Rapid Fire Pistol	Team

SKEET

9.	Tony Rosetti	(USAMU)	Silver	Skeet	Individual
			Gold	Skeet	Team
10.	Robert Schuehle	(USAMU)	Gold	Skeet	Individual
			Gold	Skeet	Team

1971 PAN AMERICAN GAMES - CALI, COLUMBIA

(CONTINUED)

11. Chuck Mayhew	(USAF)	Gold	Skeet	Team
12. Allen Buntrock	(USN)	Gold	Skeet	Team

Team World Record

Center Fire Pistol	2353	(3, 4, 5, 6)

1970 WORLD CHAMPIONSHIPS - PHOENIX, ARIZONA

Individual Medals

	Gold	Silver	Bronze
English Match	South Africa	Finland	West Germany
Smallbore 3-Position	USSR(4)	USA (12)	USA (11)
Smallbore Kneeling	Switzerland	Austria	Sweden
Smallbore Standing	USSR	Czechoslovakia	USA (12)
Free Rifle 3-Position	USSR	USA (3)	USSR
Free Rifle Prone	Switzerland	USA (11)	Finland
Free Rifle Kneeling	Hungary	USSR	Czechoslovakia
Free Rifle Standing	USA (8)	USA (3)	USA (12)
Fullbore Standard Rifle	USA (3)	USSR	USSR
Smallbore Standard Rifle	USA (12)	Poland	East Germany
Air Rifle	West Germany	West Germany	Sweden
English Match (Women)	Yugoslavia	South Africa	Sweden
Smallbore Standard Rifle (Women)	USA (8)	Yugoslavia	USSR
Air Rifle (Women)	USSR	Yugoslavia	USSR

Team Medals

	Gold	Silver	Bronze
English Match	Italy	Romania	Yugoslavia
Smallbore 3-Position	USSR	USA (2,3,11,12)	West Germany
Smallbore Kneeling	USSR	USA (2,3,11,12)	West Germany
Smallbore Standing	USA (2,3,11,12)	USSR	East Germany
Free Rifle 3-Position	USA (3,8,11,12)	USSR	Czechoslovakia
Free Rifle Prone	Switzerland	USSR	Finland
Free Rifle Kneeling	USSR	USA (3,8,11,12)	Switzerland
Free Rifle Standing	USA (3,8,11,12)	USSR	Czechoslovakia
Fullbore Standard Rifle	USSR	USA (1,3,7,11)	Poland
Smallbore Standard Rifle	USSR	USA (1,2,11,12)	Czechoslovakia
Air Rifle	West Germany	USA (1,2,3,11)	East Germany
English Match (Women)	Yugoslavia	West Germany	USSR
Smallbore Standard Rifle (Women)	USA (4,8,9)	USSR	East Germany
Air Rifle (Women)	Yugoslavia	USSR	West Germany

Eight of the twelve shooters on the United States Rifle Team were members or former members of the USAMU.

1.	Lanny Bassham	(USAMU)	3 Silver
2.	David Boyd	(USMC)	1 Gold, 4 Silver
3.	John Foster	(USAMU)	4 Gold, 7 Silver
4.	Tricia Foster	(CIV)	1 Gold
5.	Bonny Hampson	(CIV)	
6.	David Kimes	(EX-USAMU)	
7.	Bruce Meredith	(EX-USAMU)	1 Silver
8.	Margaret Murdock	(EX-USAMU)	5 Gold, 1 Silver
9.	Diana Timberlake	(CIV)	1 Gold
10.	John Watkins	(EX-USAMU)	
11.	Lones Wigger	(USAMU)	3 Gold, 7 Silver, 1 Bronze
12.	John Writer	(EX-USAMU)	4 Gold, 5 Silver, 2 Bronze

1970 WORLD CHAMPIONSHIPS - PHENIX, ARIZONA

(CONTINUED)

Individual World Records

Fullbore Standard Rifle	565	(3)
Smallbore Standard Rifle	579	(12)

Other U.S. Shooters and Medals:

PISTOL

1.	Sallie Carroll	(USAMU)	Gold	Air Pistol	Individual	(Women)
			Bronze	Air Pistol	Team	(Women)
			Silver	Standard Pistol	Team	(Women)
			Gold	Center Fire Pistol	Team	(Women)
2.	Barbara Hile	(USAMU)	Silver	Center Fire Pistol	Individual	
			Bronze	Air Pistol	Team	(Women)
			Silver	Stanard Pistol	Team	(Women)
			Gold	Center Fire Pistol	Team	(Women)
3.	Lucile Chambliss	(CIV)	Gold	Center Fire Pistol	Team	(Women)
			Bronze	Air Pistol	Team	(Women)
4.	Mary Norckauer	(CIV)	Silver	Standard Pistol	Team	(Women)
5.	William McMillan	(USMC)	Bronze	Standard Pistol	Individual	
			Gold	Standard Pistol	Team	
6.	William Blankenship	(USAMU)	Gold	Standard Pistol	Team	
			Silver	Center Fire Pistol	Team	
7.	Edwin Teague	(USAF)	Gold	Standard Pistol	Team	
8.	Charles Wheeler	(CIV)	Gold	Standard Pistol	Team	

RUNNING TARGET

9.	Lloyd Crow	(USAMU)	Bronze	Running Boar Standard Runs	Team
			Bronze	Running Boar Mixed Runs	Team
10.	Ted McMillion	(USAF)	Bronze	Running Boar Standard Runs	Team
			Bronze	Running Boar Mixed Runs	Team
11.	Frank Tossas	(USAF)	Bronze	Running Boar Standard Runs	Team
			Bronze	Running Boar Mixed Runs	Team
12.	Robert Yeager	(USAF)	Bronze	Running Boar Standard Runs	Team
			Bronze	Running Boar Mixed Runs	Team

TRAP

13.	Larry Stafford	(USAMU)	Bronze	Trap	Individual
			Gold	Trap	Team
14.	Jim Columbo	(USAMU)	Gold	Trap	Team
15.	Dallas Krapf	(USAMU)	Gold	Trap	Team
16.	Walter Zobell	(USAF)	Gold	Trap	Team

SKEET

17.	Kenneth Gilbert	(USAMU)	Silver	Skeet	Team
18.	Allan Morrison	(USMC)	Silver	Skeet	Team
19.	Robert Rodale	(CIV)	Silver	Skeet	Team
20.	Larry Tinder	(USAF)	Silver	Skeet	Team

1970 WORLD CHAMPIONSHIPS - PHOENIX, ARIZONA

(CONTINUED)

Team World Records

Center Fire Pistol	(Women)	1721	(1, 2, 3)
Trap		579	(13, 14, 15, 16)
Standard Pistol		2276	(5, 6, 7, 8)

1969 WORLD MOVING CHAMPIONSHIPS - SANDRIKEN, SWEDEN

(CONTINUED)

U.S. Shooters and Medals:

RUNNING BOAR

1.	John Kingster	(USAMU)	Bronze	Running Boar	Individual
			Silver	Running Boar	Team
2.	Lloyd Crow	(USAMU)	Silver	Running Boar	Team
3.	Edmund Moeller	(USAMU)	Silver	Running Boar	Team
4.	Ted McMillion	(USAF)	Silver	Running Boar	Team

1969 WORLD CHAMPIONSHIPS - SAN SEBASTIAN, SPAIN

U.S. Shooters and Medals:

TRAP

1.	Jim Beck	(USAMU)	Bronze	Trap	Individual
			Silver	Trap	Team
2.	Terry Howard	(USAF)	Silver	Trap	Team
3.	Larry Stafford	(USAMU)	Silver	Trap	Team
4.	Tom Garigus	(USAF)	Silver	Trap	Team

SKEET

5.	Phil Provence	(USAMU)	Bronze	Skeet	Team
6.	Robert Schueble	(CIV)	Bronze	Skeet	Team
7.	Robert Rodale	(CIV)	Bronze	Skeet	Team
8.	Herring	(CIV)	Bronze	Skeet	Team

1968 OLYMPICS - MEXICO CITY, MEXICO

Individual Medals

	Gold	Silver	Bronze
English Match	Czechoslovakia	Hungry	New Zealand
Smallbore 3-Position	West Germany	USA (4)	USSR
Free Rifle 3-Position	USA (1)	USSR	Switzerland

All four shooters on the United States Rifle Team are members or former members of the USAMKTU.

1.	Gray Anderson	(EX-USASMU)	1 Gold
2.	John Foster	(USAMU)	
3.	Lones Wigger	(USAMU)	
4.	John Writer	(EX-USAMU)	1 Silver

Individual World Records

Free Rifle 3-Position 1157 (1)

Other U.S. Shooters and Medals:

TRAP

1.	Tom Garigus	(USAF)	Silver	Trap	Individual

1967 PAN AMERICAN GAMES - WINNIPEG, CANADA

Individual Medals

	Gold	Silver	Bronze
English Match	CANADA	USA (4)	MEXICO
Smallbore 3-Position	USA (7)	CANADA	USA (1)

Team Medals

	Gold	Silver	Bronze
English Match	USA (1,3,4,6)	CANADA	MEXICO
Smallbore 3-Position	USA (1,3,7,8)	CANADA	MEXICO

Five of the eight shooters on the United States Rifle Team were members or former members of the U.S. Army MTU.

1.	Gary Anderson	(EX-USAMU)	2 Gold, 1 Bronze
2.	David Boyd	(USMC)	
3.	Bruce Meredith	(USAMU)	2 Gold
4.	Rhody Nornberg	(USAF)	1 Gold, 1 Silver
5.	Robert Randle	(USAF)	
6.	David Ross	(EX-USAMU)	1 Gold
7.	Margaret Thompson	(USAMU)	2 Gold
8.	John Writer	(USAMU)	

Individual World Records

English Match	598	(6)
Smallbore 3-Position	391	(7)

Team World Record

English Match	2379	(1, 3, 4, 6)

Other U.S. Shooters and Medals

PISTOL

1.	Herschel Anderson	(USAMU)	Gold	Free Pistol	Individual
			Gold	Free Pistol	Team
2.	Franklin Green	(USAF)	Gold	Free Pistol	Team
3.	Arnold Vitarbo	(USAF)	Gold	Free Pistol	Team
4.	William Blankenship	(USAMU)	Silver	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
			Gold	Free Pistol	Team
			Gold	Rapid Fire Pistol	Team
5.	William McMillan	(USMC)	Gold	Rapid Fire Pistol	Individual
			Gold	Rapid Fire Pistol	Team
6.	Edwin Teague	(USAF)	Bronze	Rapid Fire Pistol	Individual
			Gold	Rapid Fire Pistol	Team
7.	Aubrey Smith	(USAMU)	Gold	Rapid Fire Pistol	Team
8.	Francis Higginson	(USMC)	Gold	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team

(CONTINUED)

SKEET

9.	Donald Hamilton	(USN)	Gold	Center Fire Pistol	Team
10.	Bonnie Harmon	(USAMU)	Gold	Center Fire Pistol	Team
11.	Allan Morrison	(USMC)	Gold	Skeet	Individual
			Gold	Skeet	Team
12.	Robert Schuehle	(CIV)	Silver	Skeet	Individual
			Gold	Skeet	Team
13.	Allen Buntrock	(USN)	Gold	Skeet	Team
14.	Robert Rodale	(CIV)	Gold	Skeet	Team

1967 WORLD MOVING TARGET CHAMPIONSHIPS - BOLOGNA, ITALY

U.S. Shooters and Medals:

RUNNING BOAR

1.	John Kingeter	(USAMU)	Bronze	Running Boar	Individual
			Bronze	Running Boar	Team
2.	Norman Skarpness	(USAMU)	Bronze	Running Boar	Team
3.	Robert Dickenson	(USAF)	Bronze	Running Boar	Team
4.	Robert Yeager	(USAF)	Bronze	Running Boar	Team

TRAP

5.	Richard Loffelmacher	(USAF)	Silver	Trap	Individual
			Silver	Trap	Team
6.	Jim Beck	(USAMU)	Silver	Trap	Team
7.	Billy Hicks	(USMC)	Silver	Trap	Team
8.	Chris Bishop	(CIV)	Silver	Trap	Team

1966 WORLD CHAMPIONSHIPS - WIESBADEN, WEST GERMANY

Individual Medals

	Gold	Silver	Bronze
English Match	USA (3)	POLAND	USA (9)
Smallbore 3-Position	USA (2)	USSRDA	POLAND
Smallbore Kneeling	USSR	USSR	SO. AFRICA
Smallbore Standing	USA (2)	EAST GERMANY	EAST GERMANY
Free Rifle 3-Position	USA (2)	USSR	USA (4)
Free Rifle Prone	SWEDEN	NORWAY	USSR
Free Rifle Kneeling	USA (4)	USSR	SWEDEN
Free Rifle Standing	SWITZERLAND	USA (2)	USSR
Army Rifle	USSR	USSR	USA (2)
Standard Rifle	USA (1)	USA (2)	EAST GERMANY
Air Rifle	WEST GERMANY	SWITZERLAND	HUNGARY
English Match (Women)	POLAND	USA (1)	HUNGARY
Standard Rifle (Women)	USA (11)	WEST GERMANY	USSR

Team Medals

	Gold	Silver	Bronze
English Match	USA (1,3,9,12)	POLAND	USSR
Smallbore 3-Position	USA (2,10,11,12)	USSR	EAST GERMANY
Smallbore Kneeling	USA (2,10,11,12)	USSR	POLAND
Smallbore Standing	EAST GERMANY	USSR	USA (2,10,11,
Free Rifle 3-Position	USA (2,4,11,12)	RUSSIA	SWITZERLAND
Army Rifle	USSR	SWITZERLAND	USA (1,2,5,9)12)
Standard Rifle	USA (1,2,4,9)	USSR	EAST GERMANY
Air Rifle	SWITZERLAND	WEST GERMANY	USSR
English Match (Women)	POLAND	USA (6,8,11)	HUNGARY

Nine of the twel· ,nooters on the United States Rifle Team were members or former members of The U.S. Army MTU.

1.	Donald Adams	(USAMU)	3 Gold, 1 Bronze
2.	Gary Anderson	(EX-USAMU)	7 Gold, 2 Silver, 3 Bronze
3.	David Boyd	(USMC)	2 Gold
4.	John Fostererg	(USAMU)	3 Gold, 1 Bronze
5.	Martin Gunnarsson	(USAMU)	1 Bronze
6.	Marianne Jensen	(CIV)	1 Silver
7.	David Kimes	(USAMU)	
8.	Patricia Kinsella	(CIV)	1 Silver
9.	William Krilling	(USAMU)	2 Gold, 2 Bronze
10.	Tommy Pool	(USAMU)	2 Gold, 1 Bronze
11.	Margaret Thompson	(USAMU)	4 Gold, 2 Silver, 1 Bronze
12.	Lones Wigger	(USAMU)	4 Gold, 1 Bronze

Individual World Records

English Match	598	(3)
Free Rifle 3-Position	1156	(2)
Free Rifle Kneeling	391	(4)

(CONTINUED)

Team World Record

English Match	2376	(1, 3, 9, 12)
Smallbore 3-Position	4589	(2, 10, 11, 12)
Smallbore Prone	1587	(2, 10, 11, 12)
Free Rifle 3-Position	4602	(2, 4, 11, 12)
Free Rifle Standing	1478	(2, 4, 11, 12)

Other U.S. Shooters and Medals:

PISTOL

1.	William Blankenship	(USAMU)	Gold	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
2.	Franklin Green	(USAF)	Gold	Center Fire Pistol	Team
3.	Emil Heugatter	(USAMU)	Gold	Center Fire Pistol	Team
4.	John Ditmore	(USAF)	Gold	Center Fire Pistol	Team

TRAP

5.	Charles Jenson	(USAMU)	Gold	Trap	Team
6.	Kenneth Jones	(USAF)	Gold	Trap	Individual
			Gold	Trap	Team
7.	Billy Hicksh	(USMC)	Gold	Trap	Team
8.	Gordon Horner	(UAMU)	Gold	Trap	Team
9.	Charlotte Berkenkamp	(CIV)	Silver	Trap	Individual (Women)

SKEET

10.	Arthur Harrisn	(USA)	Gold	Skeet	Team
11.	Frank Suber	(CIV)	Gold	Skeet	Team
12.	Gordon Horner	(USAMU)	Gold	Skeet	Team
13.	Strother Shumate	(USAF)	Gold	Skeet	Team
14.	John Kingeter	(USAMU)	Bronze	Running Boar	Individual
			Silver	Running Boar	Team
15.	Edmond Moeller	(USAMU)	Silver	Running Boar	Team
16.	Richard Brown	(USAF)	Silver	Running Boar	Team
17.	Frederick Dean	(USAF)	Silver	Running Boar	Team

Individual World Record

Trap	197	(6)

1965 WORLD MOVING TARGET CHAMPIONSHIPS - SANTIAGO, CHILI

U.S. Shooters and Medals:

TRAP

1.	Peter Roussosrson	(CIV)	Silver	Trap	Individual
2.	William Abbott	(USMC)	Bronze	Trap	Individual

1964 OLYMPICS - TOKYO, JAPAN

Individual Medals

	Gold	Silver	Bronze
English Match	HUNGARY	USA (4)	USA (3)
Smallbore 3-Position	USA (4)	BULGARIA	HUNGARY
Free Rifle	USA (1)	USSR	USA (2)

All four shooters on the United States Rifle Team were members of The U.S. Army MTU.

1.	Gary Anderson	(USAMU)	1 Gold
2.	Martin Gunnarsson	(USAMU)	1 Bronze
3.	Tommy Pool	(USAMU)	1 Bronze
4.	Lones Wigger	(USAMU)	1 Gold, 1 Silver

Individual World Records

Free Rifle		(1)
Smallbore 3-Position	1164	(4)
English Match	597	(4)

Other U.S. Shooters and Medals:

PISTOL

1.	Franklin Green	(USAF)	Silver	Free Pistol	Individual

TRAP

2.	Bill Morris	(USAMU)	Bronze	Trap	Individual

1963 PAN AMERICAN GAMES - SAO PAULO, BRAZIL

Individual Medals

	Gold	Silver	Bronze
English Match	VENEZUELA	USA (7)	USA (4)
Smallbore 3-Position	USA (1)	USA (6)	MEXICO
Free Rifle	USA (1)	USA (8)	CANADA

Team Medals

	Gold	Silver	Bronze
English Match	USA (1,4,6,7)	MEXICO	VENEZUELA
Smallbore 3-Position	USA (1,3,6,8)	CANADA	PERU
Free Rifle	USA (1,2,5,8)	ARGENTINA	BRAZIL

Five of the eight shooters on the United States Rifle Team were members of The U.S. Army MTU.

1.	Gary Anderson	(USAMU)	5 Gold
2.	John Bertva	(USAF)	1 Gold
3.	David Boyd	(USMC)	1 Gold
4.	Edward Gaygle	(USAF)	1 Gold, 1 Bronze
5.	Martin Gunnarsson	(USAMU)	1 Gold
6.	William Krilling	(USAMU)	2 Gold, 1 Silver
7.	Lones Wiggers and Medals:	(USAMU)	1 Gold, 1 Silver
8.	Verle Wright	(USAMU)	2 Gold, 1 Silver

Team World Record

Free Rifle 3-Position	4557	(1, 2, 5, 8)

Other U.S. Shooters and Medals:

PISTOL

1.	Franklin Green	(USAF)	Gold	Free Pistol	Individual
			Gold	Free Pistol	Team
2.	Alvin Merx	(USAF)	Bronze	Free Pistol	Individual
			Gold	Free Pistol	Team
3.	Robert Meagher	(USAF)	Gold	Free Pistol	Team
4.	Paul Shank	( )	Gold	Free Pistol	Team
5.	Cecil Wallis	(USAMU)	Gold	Rapid Fire Pistol	Individual
			Gold	Rapid Fire Pistol	Team
6.	Lawrence Mosely	(USAMU)	Silver	Rapid Fire Pistol	Individual
			Gold	Rapid Fire Pistol	Team
7.	Aubrey Smith	(USAMU)	Gold	Rapid Fire Pistol	Team
8.	Richard Stineman	(USAMU)	Gold	Rapid Fire Pistol	Team
9.	Thomas Smith	(USAMU)	Gold	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
10.	William Blankenship	(USAMU)	Silver	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
11.	William Mellon	(USAF)	Gold	Center Fire Pistol	Team
12.	William McMillan	(USMC)	Gold	Center Fire Pistol	Team

1963 PAN AMERICAN GAMES - SAN PAULO, BRAZIL

(CONTINUED)

SKEET

13.	Kenneth Sedlecky	(USN)	Gold	Skeet	Individual
			Gold	Skeet	Team
14.	Hank Shaw	(USAMU)	Gold	Skeet	Team
15.	Gordon Horner	(USAMU)	Gold	Skeet	Team
16.	Bill Bywater	(USAF)	Gold	Skeet	Team

Individual World Record

Center Fire Pistol	597	(9)

Team World Record

Center Fire Pistol	2343	(9, 10, 11, 12)

1962 INTERNATIONAL COMPETITION - WIESBADEN, WEST GERMANY

1.	William Krilling	(USAMU)
2.	Tommy Pool	(USAMU)
3.	Daniel Pucketh	(USAMU)
4.	Verle Wright	(USAMU)

Individual World Records

Smallbore 3-Position	1149	(3)

Team World Record

Smallbore Standing	1466	(1, 2, 3, 4)

1962 WORLD CHAMPIONSHIPS - CAIRO, UNITED ARAB REPUBLIC

Individual Medals

	Gold	Silver	Bronze
English Match	WEST GERMANY	USSR	USA (6)
Smallbore 3-Position	USA (1)	USSR	SWITZERLAND
Smallbore Kneeling	WEST GERMANY	USSR	DENMARK
Smallbore Standing	USA (1)	SWITZERLAND	USA (7)
Free Rifle 3-Position	USA (1)	USSR	USA (7)
Free Rifle Prone	USA (1)	SWITZERLAND	SWEDEN
Free Rifle Kneeling	SWITZERLAND	SWITZERLAND	USSR
Free Rifle Standing	USA (7)	HUNGARY	USA (8)
Army Rifle (Slow)	FINLAND	USA (9)	USSR
Army Rifle (Rapid)	SWITZERLAND	SWITZERLAND	SWITZERLAND
English Match (Women)	USSR	SOUTH AFRICA	WEST GERMANY
Smallbore 3-Position (Women)	USSR	USSR	EAST GERMANY

Team Medals

	Gold	Silver	Bronze
English Match	SWEDEN	USA (1,4,6,9)	WEST GERMANY
Smallbore 3-Position	USSR	USA (1,7,8,9)	SWITZERLAND
Smallbore Kneeling	USSR	WEST GERMANY	USA (1,6,7,8)
Smallbore Standing	USA (1,7,8,9)	SWITZERLAND	EAST GERMANY
Free Rifle 3-Position	USSR	USA (1,7,8,9)	SWITZERLAND
Army Rifle	USSR	NORWAY	FINLAND

Five of the nine shooters on the United States Rifle Team were members of The U.S. Army MTU.

1.	Gary Anderson	(USAMU)	5 Gold, 3 Silver, 1 Bronze
2.	Janet Friddell	(CIV)	
3.	Marianne Jensen	(CIV)	
4.	Presley Kendall	(USAMU)	1 Silver
5.	John Bertva	(USAF)	
6.	James Hill	(USMC)	1 Silver, 2 Bronze
7.	Tommy Pool	(USAMU)	2 Gold, 2 Silver, 3 Bronze
8.	Daniel Puckel	(USAMU)	1 Gold, 1 Silver, 2 Bronze
9.	Verle Wright	(USAMU)	1 Gold, 4 Silver

Individual World Records

Smallbore 3-Position	1157	(1)
Smallbore Standing	376	(1)
Free Rifle Prone	395	(1)

Other U.S. Shooters and Medals:

RUNNING DEER

1.	John Foster	(USAMU)	Silver	Running Deer Singles	Individual
			Silver	Running Deer Singles	Team
			Silver	Running Deer Doubles	Team

2.	Willis Powell	(USAMU)	Bronze	Running Deer Doubles	Individual
			Silver	Running Deer Doubles	Team
			Silver	Running Deer Singles	Team
3.	Norman Skarpness	(USAMU)	Silver	Running Deer Doubles	Team
			Silver	Running Deer Singles	Team
4.	John Torbush	(USAMU)	Silver	Running Deer Doubles	Team
			Silver	Running Deer Singles	Team

PISTOL

5.	Fred Schasser	(USAMU)	Silver	Free Pistol	Team
6.	Lloyd Burchett	(USAMU)	Silver	Free Pistol	Team
7.	Franklin Green	(USAF)	Silver	Free Pistol	Team
			Silver	Center Fire Pistol	Team
8.	William Blankenship	(USAMU)	Bronze	Center Fire Pistol	Individual
			Silver	Free Pistol	Team
			Silver	Center Fire Pistol	Team
9.	James McNally	(USAMU)	Bronze	Rapid Fire Pistol	Individual
			Silver	Rapid Fire Pistol	Team
10.	Cecil Wallis	(USAMU)	Silver	Rapid Fire Pistol	Team
			Silver	Center Fire Pistol	Team
11.	William McMillan	(USMC)	Silver	Rapid Fire Pistol	Team
			Silver	Center Fire Pistol	Team
12.	Aubrey Smith	(USAMU)	Silver	Rapid Fire Pistol	Team
13.	Gertrude Schiernitzauer	(CIV)	Bronze	Rapid Fire Pistol	Individual (Women)
14.	Gail Liberty	(USAF)	Silver	Center Fire Pistol	Individual (Women)

SKEET

15.	Thomas Heffron	(USAF)	Bronze	Skeet	Individual
			Gold	Skeet	Team
16.	Kenneth Pendergrass	(USN)	Gold	Skeet	Team
17.	Robert Rodale	(CIV)	Gold	Skeet	Team
18.	Edwin Calhoun	(CIV)	Gold	Skeet	Team
19.	Marjorie Annan	(CIV)	Silver	Skeet	Individual (Women)

TRAP

20.	Charlotte Berkenkamp	(CIV)	Silver	Trap	Individual (Women)

Team World Record

Skeet	Team	394	(15, 16, 17, 18)

1961 WORLD MOVING TARGET CHAMPIONSHIPS - OSLO, NORWAY

RUNNING DEER

1.	John Foster	(USAMU)	Gold	Running Deer Doubles	Individual
			Silver	Running Deer Singles	Team
			Silver	Running Deer Doubles	Team
2.	Lloyd Crow	(USAMU)	Gold	Running Deer Singles	Individual
			Silver	Running Deer Singles	Team
			Silver	Running Deer Doubles	Team
3.	Willis Powell	(USAMU)	Silver	Running Deer Singles	Team
			Silver	Running Deer Singles	Team
4.	Norman Skarpness	(USAMU)	Silver	Running Deer Singles	Team
			Silver	Running Deer Doubles	Team

TRAP

5.	Francis Eisnlauer	(CIV)	Silver	Trap	Individual

1960 OLYMPICS - ROME, ITALY

Individual Medals

	Gold	Silver	Bronze
English Match	WEST GERMANY	USA (3)	VENEZUELA
Smallbore 3-Position	USSR	USSR	WEST GERMANY
Free Rifle	AUSTRIA	SWITZERLAND	USSR

Three of the four shooters on the United States Rifle Team were members The U.S. Army MTU.

1.	Gary Anderson	(USAMU)	
2.	John Foster	(USAMU)	
3.	James Hilldith	(USMC)	1 Silver
4.	Daniel Puckel	(USAMU)	

Other U.S. Shooters and Medals:

PISTOL

1.	William McMillan	(USMC)	Gold	Rapid Fire Pistol	Individual

1959 PAN AMERICAN GAMES - CHICAGO, USA

Individual Medals

	Gold	Silver	Bronze
English Match	USA (3)	MEXICO	PERU
Smallbore 3-Position	USA (8)	CANADA	USA (1)
Smallbore Prone	CANADA	USA (10)	CANADA
Smallbore Kneeling	USA (2)	USA (8)	CANADA
Smallbore Standing	USA (2)	USA (8)	CANADA
Free Rifle 3-Position	USA (8)	USA (7)	ARGENTINA
Free Rifle Prone	USA (8)	USA (7)	CANADA
Free Rifle Kneeling	USA (8)	USA (7)	ARGENTINA
Free Rifle Standing	USA (8)	ARGENTINA	USA (7)

Team Medals

	Gold	Silver	Bronze
English Match	USA (3,4,5,6)	PERU	CANADA
Smallbore 3-Position	USA (1,2,8,10)	ARGENTINA	CANADA
Smallbore Prone	CANADA	USA (1,2,8,10)	PERU
Smallbore Kneeling	USA (1,2,8,10)	ARGENTINA	CANADA
Smallbore Standing	USA (1,2,8,10)	ECUADOR	ARGENTINA
Free Rifle	USA (1,7,8,9)	ARGENTINA	PERU

Nine of the ten shooters on the United States Rifle Team were members of The U.S. Army MTU.

1.	Gary Anderson	(USAMU)	4 Gold, 1 Silver, 1 Bronze
2.	James Carter	(USAMU)	5 Gold, 1 Silver
3.	Arthur Cook	(CIV)	2 Gold
4.	James Eberwine	(USAMU)	1 Gold
5.	Martin Gunnarsson	(USAMU)	1 Gold
6.	Presley Kendall	(USAMU)	1 Gold
7.	Tommy Pool	(USAMU)	1 Gold, 3 Silver, 1 Bronze
8.	Daniel Puckel	(USAMU)	9 Gold, 3 Silver
9.	Eugene Spradlin	(USAMU)	1 Gold
10.	Verle Wright	(USAMU)	3 Gold, 2 Silver

Individual World Record

Free rifle	3-Position	1147	(8)
English Match	2379	(1, 3, 4, 6)	

Other U.S. Shooters and Medals

PISTOL

1.	Nelson Lincoln	(USAMU)	Gold	Free Pistol	Individual
			Gold	Free Pistol	Team

1959 PAN AMERICAN GAMES - CHICAGO, USA

(CONTINUED)

2.	Roy Sutherland	(USAMU)	Bronze	Free Pistol	Individual
			Gold	Free Pistol	Team
			Gold	Center Fire Pistol	Team
3.	Lloyd Burchett	(USAMU)	Gold	Free Pistol	Team
4.	Victor Maass	(USA)	Gold	Free Pistol	Team
5.	David Cartes	(USAMU)	Gold	Rapid Fire Pistol	Individual
			Gold	Rapid Fire Pistol	Individual
			Gold	Rapid Fire Pistol	Team
			Gold	Center Fire Pistol	Team
6.	Aubrey Smith	(USAMU)	Gold	Center Fire Pistol	Individual
			Silver	Rapid Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
			Gold	Rapid Fire Pistol	Team
7.	Richard Stineman	(USAMU)	Gold	Rapid Fire Pistol	Team
			Gold	Center Fire Pistol	Team
8.	Roy Ratliff	(USAMU)	Gold	Rapid Fire Pistol	Team

SKEET

9.	Kenneth Pendergrass	(USN)	Gold	Skeet	Team
10.	Edwin Calhoun	(CIV)	Gold	Skeet	Team
11.	Davis	(CIV)	Gold	Skeet	Team
12.	C. J. Crites	(CIV)	Gold	Skeet	Team

1958 WORLD CHAMPIONSHIPS - MOSCOW, RUSSIA

Individual Medals

	Gold	Silver	Bronze
English Match	FINLAND	BULGARIA	GREAT BRITAIN
Smallbore 3-Position	USSR	USSR	USSR
Smallbore Prone	GREAT BRITAIN	USSR	USA (10)
Smallbore Kneeling	FINLAND	USSR	BELGIUM
Smallbore Standing	USSR(2)	USSR	USA (11)
Free Rifle 3-Position	FINLAND	USA (8)	FINLAND
Free Rifle Prone	USA (11)	FINLAND	USA (8)
Free Rifle Kneeling	USA (11)	USA (8)	FINLAND
Free Rifle Standing	ROMANIA	FINLAND	WEST GERMANY
Army Rifle (Slow)	USSR	USSR	USSR
Army Rifle (Rapid)	USSR	CZECHOSLOVAKIA	USSR

Team Medals

	Gold	Silver	Bronze
English Match	USSR	FINLAND	GREAT BRITAIN
Smallbore 3-Position	USSR	WEST GERMANY	USA (3,6,8,10,11)
Smallbore Prone	GREAT BRITAIN	ROMANIA	USSR
Smallbore Kneeling	USSR	USA (3,6,8,10,11)	CZECHOSLOVAKIA
Smallbore Standing	USSR	HUNGARY	FINLAND
Free Rifle 3-Position	USSR	FINLAND	HUNGARY
Army Rifle (Slow)	USSR	YUGOSLAVIA	FINLAND
Army Rifle (Rapid)	USSR	CZECHOSLOVAKIA	NORTH KOREA

Seven of the eleven shooters on the United States Rifle Team were members of The U.S. Army MTU.

1.	Justus Allen	(USAMU)	
2.	Frank Briggs	(USMC)	
3.	James Carter	(USAMU)	1 Silver, 1 Bronze
4.	Emmett Duncan	(USMC)	
5.	James Eberwine	(USAMU)	
6.	John Herr	(USAMU)	1 Silver, 1 Bronze
7.	James Hill	(USMC)	
8.	Daniel Puckel	(USAMU)	3 Silver, 2 Bronze
9.	William Rabenstein	(USAMU)	
10.	Gordon Taras	(CIV)	1 Silver, 2 Bronze
11.	Verle Wright	(USAMU)	2 Gold, 1 Silver, 2 Bronze

Individual World Record

Free rifle	Kneeling	385	(11)

Other U.S. Shooters and Medals

PISTOL

1.	Joe Deckert	(USAMU)	Gold	Running Deer Doubles	Individual
			Silver	Running Deer Singles	Team
			Silver	Running Deer Doubles	Team

2.	Harry Lucker	(USAMU)	Bronze	Running Deer Doubles	Individual
			Silver	Running Deer Singles	Team
			Silver	Running Deer Doubles	Team
3.	Richard Wentworth	(USAMU)	Silver	Running Deer Singles	Team
			Silver	Running Deer Doubles	Team
4.	James Davis	(CIV)	Silver	Running Deer Singles	Team
			Silver	Running Deer Doubles	Team

TRAP

5.	Francis Eisenlauers	(CIV)	Gold	Trap	Individual
			Bronze	Trap	Team
6.	Wyeth Everhart	(USAF)	Bronze	Trap	Team
7.	Homer Clark	(CIV)	Bronze	Trap	Team
8.	E. O. Sessions	(CIV)	Bronze	Trap	Team
9.	Evelyn Primm	(CIV)	Bronze	Trap	Team

PISTOL

10.	William McMillan	(USMC)	Gold	Center Fire Pistol	Individual
			Silver	Rapid Fire Pistol	Team
			Bronze	Center Fire Pistol	Team
11.	Huelet Benner	(USA)	Silver	Rapid Fire Pistol	Team
			Bronze	Center Fire Pistol	Team
12.	David Cartes	(USAMU)	Bronze	Center Fire Pistol	Team
13.	Aubrey Smith	(USAMU)	Silver	Rapid Fire Pistol	Team
			Bronze	Center Fire Pistol	Team
14.	Nelson Lincoln	(USAMU)	Bronze	Free Pistol	Individual
			Bronze	Free Pistol	Team
15.	Offutt Pinion	(USN)	Bronze	Free Pistol	Team
16.	Roy Sutherland	(USAMU)	Bronze	Free Pistol	Team
17.	William Blankenship	(USAMU)	Bronze	Free Pistol	Team
18.	David Miller	(USAMU)	Silver	Rapid Fire Pistol	Team
			Bronze	Free Pistol	Team

Individual World Record

Running Deer Doubles	223	(1)

1956 OLYMPICS - MELBORUNE, AUSTRALIA

Individual Medals

	Gold	Silver	Bronze
English Match	CANADA	USSR	CANADA
Smallbore 3-Position	USSR	CZECHOSLOVAKIA	SWEDEN
Free Rifle	USSR		FINLAND

Two of the four members of the United States Rifle Team were members of The U.S. Army MTU.

1. Arthur Jackson (CIV)
2. James Smith (CIV)
3. Herbert Voelcker (USAMU)
4. Verle Wright (USAMU)

Other U.S. Shooters and Medals:

PISTOL

1.	Offutt Pinion	(USN)	Bronze	Free Pistol	Individual

1955 PAN AMERICAN GAMES - MEXICO CITY, MEXICO

Individual Medals

	Gold	Silver	Bronze
English Match	USA (1)	CHILE	MEXICO
Smallbore 3-Position	USA (1)	ARGENTINA	USA (6)
Free Rifle	ARGENTINA	ARGENTINA	USA (4)
Army Rifle	ARGENTINA	CHILE	USA (4)

Team Medals

	Gold	Silver	Bronze
English Match	USA (1,2,4,5)	CHILE	MEXICO
Smallbore 3-Position	USA (1,2,4,5,6)	ARGENTINA	MEXICO
Free Rifle	USA (1,3,4,5,6)	ARGENTINA	VENEZUELA
Army Rifle	CHILE	ARGENTINA	USA (1,3,4,5,6)

Three were six shooters on the United States Rifle Team.

1.	Arthur Jackson	(CIV)	5 Gold, 1 Bronze
2.	Allan Luke	(USAF)	2 Gold
3.	Robert Sandager	(CIV)	1 Gold, 1 Bronze
4.	Emmet Swanson	(CIV)	3 Gold, 3 Bronze
5.	August Westergaard	(CIV)	3 Gold, 1 Bronze
6.	Verle Wright	(CIV)	2 Gold, 2 Bronze

Other U.S. Shooters and Medals:

PISTOL

1.	Huelet Benner	(USA)	Gold	Free Pistol	Individual
			Gold	Center Fire Pistol	Individual
			Gold	Free Pistol	Team
			Gold	Rapid Fire Pistol	Team
			Gold	Center Fire Pistol	Team
2.	John Dodds	(USAMU)	Silver	Free Pistol	Individual
			Gold	Free Pistol	Team
3.	John Forman	(CIV)	Bronze	Rapid Fire Pistol	Individual
			Bronze	Center Fire Pistol	Individual
			Gold	Free Pistol	Team
			Gold	Rapid Fire Pistol	Team
			Gold	Center Fire Pistol	Team
4.	Thomas Mitchell	(USMC)	Gold	Free Pistol	Team
			Gold	Rapid Fire Pistol	Team
5.	John Jagoda	(USMC)	Gold	Free Pistol	Team
			Gold	Center Fire Pistol	Team
6.	William McMillan	(USMC)	Silver	Rapid Fire Pistol	Individual
			Silver	Center Fire Pistol	Individual
			Gold	Rapid Fire Pistol	Team
			Gold	Center Fire Pistol	Team

SKEET

1.	Kenneth Pendergrass	(USN)	Gold	Skeet	Individual
2.	Igor Pezas	(CIV)	Silver	Skeet	Individual

1956 OLYMPICS - MELBOURNE, AUSTRALIA

Individual Medals

	Gold	Silver	Bronze
English Match	CANADA	USSR	CANADA
Smallbore 3-Position	USSR	CZECHOSLOVAKIA	SWEDEN
Free Rifle	USSR		FINLAND

Two of the four members of the United States Rifle Team were members of The U.S. Army MTU.

1. Arthur Jackson (CIV)
2. James Smith (CIV)
3. Herbert Voelcker (USAMU)
4. Verle Wright (USAMU)

Other U.S. Shooters and Medals:

PISTOL

1.	Offutt Pinion	(USN)	Bronze	Free Pistol	Individual

1954 WORLD CHAMPIONSHIPS - CARACAS, VENEZUELA

Individual Medals

	Gold	Silver	Bronze
English Match	CANADA	SWEDEN	USA (9)
Smallbore 3-Position	USSR	USSR	FINLAND
Smallbore Prone	USSR	SWEDEN	NORWAY
Smallbore Kneeling	USSR	USSR	USSR
Smallbore Standing	USSR	USSR	SWEDEN
Free Rifle 3-Position	USSR	USSR	FINLAND
Free Rifle Prone	USSR	USSR	SWITZERLAND
Free Rifle Kneeling	USSR	SWEDEN	FINLAND
Free Rifle Standing	USSR	SWITZERLAND	USSR
Army Rifle	SWEDEN	SWEDEN	COLOMBIA

Team Medals

	Gold	Silver	Bronze
English Match	USA (1,3,9,10)	SWEDEN	USSR
Smallbore 3-Position	USSR	SWEDEN	NORWAY
Smallbore Prone	SWEDEN	NORWAY	USSR
Smallbore Kneeling	USSR	SWEDEN	NORWAY
Smallbore Standing	USSR	NORWAY	SWITZERLAND
Free Rifle 3-Position	USSR	SWITZERLAND	SWEDEN
Army Rifle	SWEDEN	YUGOSLAVIA	FINLAND

There were ten shoo

	Ismes Smith	(USMC)	
8.	Emmet Swanson	(CIV)	
9.	August Westergaard	(CIV)	1 Gold, 1 Bronze
10.	Verle Wright	(CIV)	1 Gold

Other U.S. Shooters and Medals

PISTOL

1.	Huelet Benner	(USA)	Gold	Free Pistol	Individual
			Silver	Center Fire Pistol	Individual
			Silver	Free Pistol	Team
			Silver	Center Fire Pistol	Team
			Silver	Rapid Fire Pistol	Team
2.	Harry Reeves	(CIV)	Silver	Free Pistol	Team
			Silver	Center Fire Pistol	Team
3.	William McMillan	(USMC)	Silver	Rapid Fire Pistol	Individual
			Bronze	Center Fire Pistol	Individual
			Silver	Rapid Fire Pistol	Team
			Silver	Center Fire Pistol	Team

4.	Offutt Pinion	(USN)	Silver	Free Pistol	Team
5.	Ralph Anthony	(USA)	Silver	Free Pistol	Team
6.	John Dodds	(USAMU)	Silver	Free Pistol	Team
7.	John Jagoda	(USMC)	Silver	Center Fire Pistol	Team
8.	Thomas Mitchell	(USMC)	Silver	Rapid Fire Pistol	Team
9.	Philip Roettinger	(USMC)	Silver	Rapid Fire Pistol	Team

SKEET

10.	C. J. Crites	(CIV)	Gold	Skeet	Individual
11.	Kenneth Pendergrass	(USN)	Silver	Skeet	Individual

1952 OLYMPICS - HELSINKI, FINLAND

Individual Medals

	Gold	Silver	Bronze
Smallbore Prone	ROMANIA	USSR	USA (1)
Smallbore 3-Position	NORWAY	FINLAND	USSR
Free Rifle	USSR	SWITZERLAND	USSR

There were three shooters on the United States Rifle Team.

1.	Arthur Jackson	(CIV)	1 Bronze
2.	Robert Sandager	(CIV)	
3.	Emmet Swanson	(CIV)	

Other U.S. Shooters and Medals:

PISTOL

1.	Huelet Benner	(USA)	Gold	Free Pistol	Individual

1952 WORLD CHAMPIONSHIPS - OLSO, NORWAY

Individual Medals

	Gold	Silver	Bronze
English Match	USA (2)	USA (6)	SWEDEN
Smallbore 3-Position	NORWAY	SWITZERLAND	NORWAY
Smallbore Prone	USA (2)	DENMARK	USA (1)
Smallbore Kneeling	FINLAND	NORWAY	USA (4)
Smallbore Standing	NORWAY	SWITZERLAND	SWITZERLAND
Free Rifle 3-Position	SWITZERLAND	FINLAND	SWITZERLAND
Free Rifle Prone	FINLAND	FINLAND	SWITZERLAND
Free Rifle Kneeling	FINLAND	SWITZERLAND	SWITZERLAND
Free Rifle Standing	SWEDEN	SWITZERLAND	FINLAND
Army Rifle	SWITZERLAND	SWEDEN	USA (2)

Team Medals

	Gold	Silver	Bronze
English Match	USA (1,2,4,6)	NORWAY	WEST GERMANY
Smallbore 3-Position	SWITZERLAND	SWEDEN	NORWAY
Smallbore Prone	SWITZERLAND	NORWAY	USA (1,2,4,5,6)
Smallbore Kneeling	SWEDEN	SWITZERLAND	NORWAY
Smallbore Standing	SWITZERLAND	FINLAND	SWEDEN
Free Rifle 3-Position	SWITZERLAND	SWEDEN	FINLAND
Army Rifle	SWITZERLAND	SWEDEN	NORWAY

There were six shooters on the United States Rifle Team.

1.	Arthur Cook	(USAF)	1 Gold, 2 Bronze
2.	Arthur Jackson	(USAF)	3 Gold, 2 Bronze
3.	Robert Sandager	(CIV)	
4.	Emmet Swanson	(CIV)	1 Gold, 2 Bronze
5.	August Westergaard	(CIV)	1 Bronze
6.	Verle Wright	(CIV)	1 Gold, 1 Silver, 1 Bronze

Other U.S. Shooters and Medals

PISTOL

1.	Harry Reeves	(CIV)	Gold	Center Fire Pistol	Individual
			Gold	Rapid Fire Pistol	Team
			Gold	Center Fire Pistol	Team
2.	Huelet Benner	(USA)	Gold	Rapid Fire Pistol	Individual
			Bronze	Center Fire Pistol	Individual
			Bronze	Free Pistol	Individual
			Gold	Rapid Fire Pistol	Team
			Gold	Center Fire Pistol	Team
3.	William McMillan	(USMC)	Gold	Center Fire Pistol	Team
			Gold	Rapid Fire Pistol	Team
4.	Walter Walsh	(USMC)	Silver	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
5.	Walter Devine	(CIV)	Gold	Rapid Fire Pistol	Team

SKEET

6.	C. T. Edwinson	(USAF)	Gold	Skeet	Individual
7.	Cecil B. Jones	(CIV)	Silver	Skeet	Individual
8.	Mickey Michaelis	(CIV)	Bronze	Skeet	Individual

Team World Records

Center Fire Pistol	2304	(1, 2, 3, 4)
Rapid Fire Pistol	2304	(1, 2, 3, 4)

Individual World Records

Center Fire Pistol	579	(1)
Rapid Fire Pistol	582	(2)

1951 PAN AMERICAN GAMES - BUENOS AIRES, ARGENTINA

Individual Medals

	Gold	Silver	Bronze
English Match	USA (2)	ARGENTINA	ECUADOR
Smallbore 3-Position	USA (2)	USA (1)	ARGENTINA
Free Rifle	ARGENTINA	USA (2)	ARGENTINA
Army Rifle	ARGENTINA	ARGENTINA	ARGENTINA

Team Medals

	Gold	Silver	Bronze
English Match	ARGENTINA	PERU	BRAZIL
Smallbore 3-Position	ARGENTINA	CHILE	PERU
Free Rifle	ARGENTINA	MEXICO	CUBA
Army Rifle	ARGENTINA	PERU	CHILE

(The USA did not enter any of the team matches)

There were two shooters on the United States Rifle Team.

1. Arthur Cook (CIV) 1 Silver
2. Arthur Jackson (CIV) 2 Gold, 1 Silver

Other U.S. Shooters and Medals:

PISTOL

1. Huelet Benner	(USA)	Gold	Rapid Fire Pistol	Individual
		Silver	Free Pistol	Individual

1949 WORLD CHAMPIONSHIPS - BUENOS AIRES, ARGENTINA

Individual Medals

	Gold	Silver	Bronze
English Match	USA (2)	Norway	Norway
Smallbore 3-Position	Finland	USA (1)	Norway
Smallbore Prone	USA (1)	Finland	Sweden
Smallbore Kneeling	Switzerland	Switzerland	Finland
Smallbore Standing	Finland	Norway	Sweden
Free Rifle 3-Position	Finland	Finland	Sweden
Free Rifle Prone	Switzerland	Sweden	Switzerland

	Gold	Silver	Bronze
Free Rifle Kneeling	Finland	Switzerland	Switzerland
Free Rifle Standing	Finland	Finland	Norway
Army Rifle 3-Position	Sweden	Sweden	Brazil
Army Rifle Standing	Argentina	Finland	Switzerland

Team Medals

	Gold	Silver	Bronze
English Match	Norway	USA (1,2,3,4,5)	Switzerland
Smallbore 3-Position	Finland	Sweden	Norway
Smallbore Prone	Sweden	Finland	USA (1,2,3,4,5)
Smallbore Kneeling	Switzerland	Finland	Sweden
Smallbore Standing	Finland	Norway	Sweden
Free Rifle 3-Position	Finland	Switzerland	Sweden
Army Rifle 3-Position	Sweden	Yugoslavia	Switzerland
Army Rifle Standing	Sweden	Finland	Argentina

There were five shooters on the United States Rifle Team.

1.	Arthur Cook	(C IV)	1 Gold, 2 Silver, 1 Bronze
2.	Arthur Jackson	(C IV)	1 Gold, 1 Silver, 1 Bronze
3.	Robert Sandager	(C IV)	1 Silver, 1 Bronze
4.	Emmet Swanson	(C IV)	1 Silver, 1 Bronze
5.	August Westergaard	(C IV)	1 Silver, 1 Bronze

Other U.S. Shooters and Medals:

PISTOL

1.	Harry Reeves	(C IV)	Silver	Free Pistol	Individual
			Silver	Rapid Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
			Bronze	Free Pistol	Team
2.	Huelet Benner	(USA)	Gold	Rapid Fire Pistol	Individual
			Bronze	Center Fire Pistol	Individual
			Gold	Center Fire Pistol	Team
			Bronze	Free Pistol	Team
			Bronze	Rapid Fire Pistol	Team
3.	Charles Logie	(C IV)	Gold	Center Fire Pistol	Team
			Bronze	Free Pistol	Team
			Bronze	Rapid Fire Pistol	Team
4.	W.T. Toney, Jr.	(C IV)	Bronze	Free Pistol	Team

(CONTINUED)

5.	William Hancock	(USA)	Gold	Center Fire Pistol	Team
			Bronze	Free Pistol	Team
			Bronze	Rapid Fire Pistol	Team

1948 OLYMPICS -LONDON, ENGLAND

Individual Medals

	Gold	Silver	Bronze
English Match	USA (2)	USA (6)	Sweeden
Free Rifle 3-Position	Switzerland	Finland	Norway

There were six shooters on the United States Rifle Team.

1.	Vaughn Gail	(CIV)	1 Gold
2.	Arthur Cook	(CIV)	
3.	Arthur Jackson	(CIV)	
4.	Frank Parsons	(CIV)	
5.	Emmet Swanson	(CIV)	
6.	Walter Tomsen	(CIV)	1 Silver

1928 OLYMPICS -AMSTERDAM, HOLLAND

No Riflery Events

1932 OLYMPICS - LOS ANGELES, UNITED STATES

No U.S. Medal Winners

1936 OLYMPICS - BERLIN, GERMANY

No U.S. Medal Winners

1924 OLYMPICS - PARIS, FRANCE

U.S. Shooters and Medals:

RIFLE

1.	Raymond Coulter	(USA)	Gold	400-600-800 Meters	Team
2.	Marcus Dinwiddie	(USA)	Silver	Smallbore Rifle, 50 Meters, Standing	Individual
3.	Morris Fisher	(USA)	Gold	Military Rifle, 600 Meters, Prone	Individual
			Gold	Army Rifle, 400-600-800 Meters	Team
4.	Sidney Hinds	(USA)	Gold	Army Rifle, 400-600-800 Meters	Team
5.	Carl Osburn	(USA)	Silver	Free Rifle, 600 Meters, Prone	Individual
6.	Walter Stokes	(USA)	Gold	Army Rifle, 400-600-800 Meters	Team
7.	Joseph Crockett	(USA)	Gold	Army Rifle, 400-600-800 Meters	Team

RUNNING DEER

1.	Raymond Coulter	(USA)	Bronze	Running Deer, Single Shot	Team
6.	Walter Stokes	(USA)	Bronze	Running Deer, Single Shot	Team
8.	John Boles	(USA)	Gold	Running Deer, Single Shot	Team
			Bronze	Running Deer, Single Shot	Team
9.	Dennis Fenton	(USA)	Bronze	Running Deer, Single Shot	Team

PISTOL

10.	H.M. Bailey	(USA)	Gold	Dueling, 6 Targets, 25 Meters	Individual

SHOTGUN

11.	Fred Etchen	(USA)	Gold	Clay Target	Team
12	Frank Hughes	(USA)	Bronze	Clay Target	Team
			Gold	Clay Target	Team
13.	Samuel Sharman	(USA)	Gold	Clay Target	Team
14.	William Silkworth	(USA)	Gold	Clay Target	Team

RUNNING DEER

1.	Thomas Brown	(USA)	Bronze	Running Deer, Single Shot	Team
5.	Willis Lee	(USA)	Bronze	Running Deer, Single Shot	Team
6.	Lawrence Nuesslein	(USA)	Bronze	Running Deer, Single Shot	Team
7.	Carl Osburn	(USA)	Bronze	Running Deer, Single Shot	Team
10.	Lloyd Spooner	(USA)	Bronze	Running Deer, Single Shot	Team

PISTOL

11.	Raymond Bracken	(USA)	Silver	Army Pistol or Revolver, 30 Meters	Individual
			Gold	Free Pistol, 50 Meters	Team
12.	Karl Frederick	(USA)	Gold	Free Pistol, 50 Meters	Individual
			Gold	Army Pistol or Revolver, 30 Meters	Team
			Gild	Army Pistol, 50 Metershot	Team
13.	Louis Harant	(USA)	Gold	Army Pistol or Revolver, 30 Meters	Team
14.	Michael Kelly	(USA)	Gold	Army Pistol or Revolver, 30 Meters	Team
			Gold	Free Pistol, 50 Meters	Team
15.	Alfred Lane	(USA)	Bronze	Free Pistol, 50 Meters	Individual
			Gold	Army Pistol or Revolver, 30 Meters	Team
			Gold	Free Pistol, 50 Meters	Team
16.	James Snook	(USA)	Gold	Free Pistol, 50 Meters	Team
			Gold	Military Pistol or Revolver,	

SHOTGUN

17.	Mark Arie	(USA)	Gold	Clay Target	Individual
			Gold	Clay Target	Team
18.	Horace Bonser	(USA)	Gold	Clay Target	Team
19.	Jay Clark	(USA)	Gold	Clay Target	Team
20.	Forest McNeir	(USA)	Gold	Clay Target	Team
21.	Frank Troeh	(USA)	Silver	Clay Target	Individual
			Gold	Clay Target	Team
22.	Frank Wright	(USA)	Gold	Clay Target	Individual
			Gold	Clay Target	Team

U.S. Shooters and Medals:

RIFLE

1.	Harry Adams	(USA)	Gold	International Rifle	Team
2.	Allan Briggs	(USA)	Gold	International Rifle	Team
3.	Cornelius Burdette	(USA)	Gold	International Rifle	Team
4.	Fred Hind	(USA)	Gold	Miniature Rifle, 50 Meters, Prone	Individual
			Bronze	Miniature Rifle, 50 Meters, Prone	Team
			Bronze	Miniature Rifle, 25 Meters, Disappearing Target	Team
			Gold	Free Rifle, 300 Meters	Team
5.	Joseph Jackson	(USA)	Bronze	Army Rifle, 600 Meters, Prone	Individual
			Gold	International Rifle	Team
			Gold	300 and 600 Meters, Prone	Team
6.	William Leushner	(USA)	Bronze	Miniature Rifle, 50 Meters, Prone	Team
			Bronze	Miniature Rifle, 25 Meters Disappearing Target	Team
7.	W. Neill McDonnell	(USA)	Bronze	Miniature Rifle, 25 Meters, Disappearing Target	Team
8.	Carl Osburn	(USA)	Silver	Army Rifle, 600 Meters, Prone	Individual
			Silver	Army Rifle, 300 Meters, Various Positions Against Time	Individual
			Gold	International Rifle	Team
			Bronze	Miniature Rifle, 50 Meters, Prone	Team
9.	Warren Sprout	(USA)	Gold	International Rifle	Team
			Bronze	Miniature Rifle, 50 Meters, Prone	Team
			Bronze	Miniature Rifle, 25 Meters, Disappearing Target	Team

RUNNING DEER

6.	William Leushner	(USA)	Silver	Running Deer, Single Shot	Team
7.	W. Neill McDonnell	(USA)	Silver	Running Deer, Single Shot	Team
10.	William Libbey	(USA)	Silver	Running Deer, Single Shot	Team
11.	Walter Winans	(USA)	Silver	Running Deer, Single Shot	Team
8.	Arthur Rothrock	(USA)	Silver	Miniature Rifle, 50 Meters, Standing	Individual
			Gold	Miniature Rifle, 50 Meters, Standing	Team
9.	Ollie Schriver	(USA)	Gold	600 Meters, Prone	Team
			Gold	300 and 600 Meters, Prone	Team
			Gold	Miniature Rifle, 50 Meters, Standing	Team
10.	Lloyd Spooner	(USA)	Bronze	Military Rifle, 600 Meters, Prone	Individual
			Gold	Military Rifle, 300 Meters, Prone	Team
			Gold	Military Rifle, 600 Meters, Prone	Team
			Gold	Military Rifle, 300 and 600 Meters, Prone	Team
			Gold	Free Rifle, 300 Meters, 3-Position	Team
			Silver	Military Rifle, 300 Meters, Standing	Team

1912 OLYMPICS - STOCKHOLM, SWEDEN

U.S. Shooters and Medals:

RIFLE

1.	Harry Adams	(USA)	Gold	International Rifle	Team
2.	Allan Briggs	(USA)	Gold	International Rifle	Team
3.	Cornelius Burdette	(USA)	Gold	International Rifle	Team
4.	Fred Hird	(USA)	Gold	Miniature Rifle, 50 Meters, Prone	Individual
			Bronze	Miniature Rifle, 50 Meters, Prone	Team
			Bronze	Miniature Rifle, 25 Meters, Disappearing Target	Team
5.	Joseph Jackson	(USA)	Bronze	Army Rifle, 600 Meters, Prone	Individual
			Gold	International Rifle	Team
6.	William Leushner	(USA)	Bronze	Miniature Rifle, 50 Meters, Prone	Team
			Bronze	Miniature Rifle, 25 Meters, Disappearing Target	Team
7.	W. Neill McDonnell	(USA)	Bronze	Miniature Rifle, 25 Meters	Team
8.	Carl Osburn	(USA)	Silver	Army Rifle, 600 Meters, Prone	Individual
			Silver	Army Rifle, 300 Meters, Various Positions Against Time	Individual
			Gold	International Rifle	Team
			Bronze	Miniature Rifle, 50 Meters, Prone	Team
9.	Warren Sprout	(USA)	Gold	International Rifle	Team
			Bronze	Miniature Rifle, 50 Meters, Prone	Team
			Bronze	Miniature Rifle, 25 Meters, Disappearing Target	Team

RUNNING DEER

6.	William Lueshner	(USA)	Silver	Running Deer, Single Shot	Team
7.	W. Neill McDonnell	(USA)	Silver	Running Deer, Single Shot	Team
10.	William Libbey	(USA)	Silver	Running Deer, Single Shot	Team
11.	Walter Winans	(USA)	Silver	Running Deer, Single Shot	Team

PISTOL

					al
12.	John Dietz	(USA)	Gold	Free Pistol, 50 Meters	Team
13.	Peter Dolfen	(USA)	Silver	Free Pistol, 50 Meters	Individual
			Gold	Free Pistol, 50 Meters	Team al
14.	Alfred Lane	(USA)	Gold	Free Pistol, 50 Meters	Individu
			Gold	Dueling, 30 Meters, Disappearing Target	Individu
			Gold	Free Pistol, 50 Meters	Team
15.	Henry Sears	(USA)	Gold	Free Pistol, 50 Meters	Team

1912 OLYMPICS - STOCKHOLM, SWEDEN

(CONTINUED)

SHOTGUN

16.	Charles Billinsg	(USA)	Gold	Clay Target	Team
17.	Edward Gleason	(USA)	Gold	Clay Target	Team
18.	James Graham	(USA)	Gold	Clay Target	Individual
			Gold	Clay Target	Team
19.	Frank Hall	(USA)	Gold	Clay Target	Team
20.	John Hendrickson	(USA)	Gold	Clay Target	Team
21.	Ralph Spotts	(USA)	Gold	Clay Target	Team

1908 OLYMPICS - LONDON, ENGLAND

U.S. Shooters and Medals:

RIFLE

1.	Charles S. Benedict	(USA)	Gold	International Rifle	Team
2.	K.K.V. Casey	(USA)	Gold	International Rifle	Team
			Silver	Any Rifle, 1,000 Yards Prone	Individual
3.	Ivan Eastman	(USA)	Gold	International Rifle	Team
4.	William F. Leushner	(USA)	Gold	International Rifle	Team
5.	William B. Martin	(USA)	Gold	International Rifle	Team
6.	Charles B. Winder	(USA)	Gold	International Rifle	Team
7.	Harry E. Simon	(USA)	Silver	Free Rifle Match, 300 Meters	Individual

RUNNING DEER

1.	Walter Winans	(USA)	Gold	Running Deer, Double Shot	

PISTOL

1.	J.E. Gorman	(USA)	Silver	Pistol or Revolver Match	Individual
			Gold	Pistol or Revolver Match	Team
2.	I.R. Calkins	(USA)	Gold	Pistol or Revolver Match	Team
3.	John A. Dietz	(USA)	Gold	Pistol or Revolver Match	Team
4.	G.S. Axtell	(USA)	Gold	Pistol or Revolver Match	Team

1896 OLYMPICS - ATHENS, GREECE

U.S. Shooters and Medals:

PISTOL

1.	John B. Paine	(USA)	Gold	Military Rifle	25 Meters	Individual
2.	Sumner Paine	(USA)	Gold	Any Revolver	30 Meters	Individual
			Silver	Military Revolver	25 Meters	Individual

1900 OLYMPICS - PARIS, FRANCE

No U.S. Entries

1908 OLYMPICS - LONDON, ENGLAND

U.S. Shooters and Medals:

RIFLE

1.	Charles S. Benedict	(USA)	Gold	International Rifle	Team
2.	K.K.V. Casey	(USA)	Gold	International Rifle	Team
			Silver	Any Rifle, 1,000 Yards Prone	Individual
3.	Ivan Eastman	(USA)	Gold	International Rifle	Team
4.	William F. Leushner	(USA)	Gold	International Rifle	Team
5.	William B. Martin	(USA)	Gold	International Rifle	Team
6.	Charles B. Winder	(USA)	Gold	International Rifle	Team
7.	Harry E. Simon	(USA)	Silver	Free Rifle Match, 300 Meters	Individual

RUNNING DEER

1.	Walter Winans	(USA)	Gold	Running Deer, Double Shot	

PISTOL

1.	J.E. Gorman	(USA)	Silver	Pistol or Revolver Match	Individual
			Gold	Pistol or Revolver Match	Team
2.	I.R. Calkins	(USA)	Gold	Pistol or Revolver Match	Team
3.	John A. Dietz	(USA)	Gold	Pistol or Revolver Match	Team
4.	C.S. Axtell	(USA)	Gold	Pistol or Revolver Match	Team

ANNEX 2

THE SITTING POSITION

A. GENERAL. The sitting position is not used in ISU shooting, but is used extensively in NRA type events. Because the position is low and has a relatively large support area, it is stable and produces scores comparable to the prone position.

There are three major variations of the sitting position, and each of these has a number of minor variations.

B. THE CROSSED LEGS POSITION (Figure 3).

1. The shooter sits facing about 30 degrees to the right of the target with his legs crossed. The outside of each foot rests against the inside of the foot and ankle of the opposite leg. The shooter places the rifle to his shoulder and bends forward, placing his elbows on or near his knees. The weight of the rifle helps to pull the body forward. The elbows support the body. The sling prevents the forearm and rifle from falling forward. Generally, the sling must be placed **high** on the arm and must be fairly short. Slight changes in elevation can be made by crossing the right leg over the left, or the left over the right.

2. In this position, the rifle will almost always be below the head. The further the rifle is below the head, the more the head must be tilted down to the sights. Since the position is based on a large support area, tilting the head will not cause the body to sway. However, there are other considerations. Excessive head tilt causes the eye to look directly under the brow. This quickly fatigues the muscles that control the movement of the eyes. Therefore, the rifle should be kept as high as possible without disturbing the stability of the position. If the head must be tilted excessively, the shooter may minimize eye strain by shooting rapidly and finishing his string quickly.

C. THE CROSSED ANKLES POSITION (Figure 1). This position is similar to the crossed legs position, except that the ankles are crossed in front of the shooter. The shooter may face almost directly toward the target if he so desires. Slight changes in elevation can be made by crossing the left ankle over the right, or the right ankle over the left. Major changes in elevation can be made by moving the feet toward or away from the body. The toes of the boots may be crossed to help lock the legs in one position. The same considerations apply to head tilt in building the position.

D. THE OPEN LEGS POSITION (Figure 2). In this position, the shooter sits on the mat with his right foot to his right front, the left foot is to his left front. The knees are several inches or more from the ground. The left elbow rests on or below the left knee, the right elbow rests on or above the right knee. This position is the least stable of the three variations, but some shooters cannot get into the other positions because of body conformation.

SITTING POSITION
(Crossed Ankles)

Figure 1

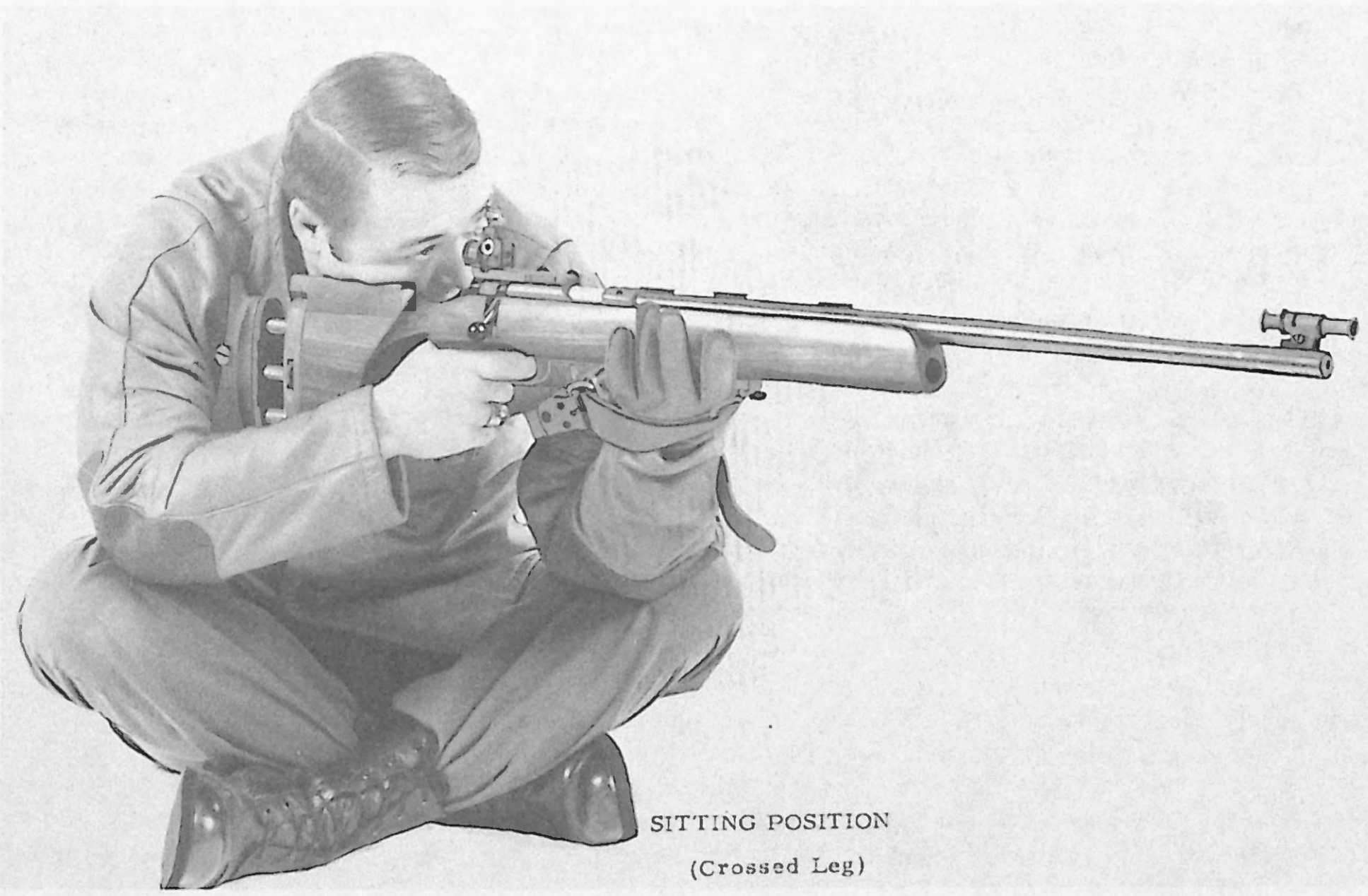
Figure 1

SITTING POSITION

(Open Leg)

Figure 2

Figure 2



SITTING POSITION

(Crossed Leg)

Figure 3

ANNEX 3

SHOOTING WITH TELESCOPIC SIGHTS

A. GENERAL.

1. Marksmanship competition in the United States quite frequently involves shooting with telescopic sights. Since many of our national matches require that a shooter be adept at this type of competition, a few helpful pointers will be mentioned in this manual.

2. Glass sights are permitted in what is generally referred to as an "any sight" match. Most top level shooters agree that to shoot iron sights in an any sight match is to place oneself at a definite disadvantage. Among competitors of nearly equal skill it is on a rare occasion that a person putting such a handicap upon himself will win, especially in a prone match.

B. SELECTION OF A TELESCOPE.

1. When first starting to shoot with a telescope a shooter should choose a magnification of ten, twelve, or fourteen power. With experience, he may choose to move up to a sixteen or twenty power; or as some shooters, as much as a thirty power.

In position shooting, one will seldom find a scope of more than twenty power being used. When the wind is buffeting the rifle and the shooter, a scope of not more than fourteen power should be selected.

2. Selection of a reticle is left to the shooter's preference. The two types of reticles that are popular with shooters are the cross wires and the cross wires with a dot. The important aspect in selecting a reticle is that the shooter should be able to maintain his concentration on the dot or the cross wires and not lose sight of the reticle on the black bull's-eye. In selecting a dot, one that is a quarter minute of angle is recommended for prone shooting. Positions shooters may select as large as a full minute dot. Indoor or gallery shooting will require a large dot as compared to fifty yard competition.

3. A lens shade should be made available for protection from rain and sun.

C. ADVANTAGES AND DISADVANTAGES.

1. A low power scope will not magnify the shooter's movements to the degree that one of a larger power will.

2. A higher power scope will permit easier spotting of the shots at longer ranges, and will enable the shooter to see mirage clearly. Also, it will enable the shooter to see the target clearer on a day with heavy mirage. However, as the power increases, the amount of relative illumination decreases with the compared object lenses being of equal diameter. Therefore, in a dark or overcast condition, a lower power scope will provide a brighter sight picture.

D. ADJUSTMENTS. Every scope user should read the manual that comes with a scope and learn how to make all adjustments correctly. Each shooter should focus his own telescope, as the eyes of each individual will vary considerably.

1. First, the "blackness" of the crosshairs should be adjusted by turning the eyepiece at the rear of the scope. The best method to do this is by pointing the scope to a clear area in the sky and turning the eyepiece out until the crosshairs are out of focus. Then the eyepiece is turned in until the crosshairs are black and well defined.

2. Parallax is an optical maladjustment which takes place when the crosshairs are not focused in the exact plane as the object lens. The object lens is adjusted by rotating the sleeve on the front of the scope. The graduations at the front are rough settings for respective distances. A scope should be finely adjusted to the desired range by the shooter. This should be at a time when there is little or no mirage. The scope should be focused to a point where the lettering on the target appears the clearest. This can be done by placing the scope on a sandbag so as not to cause any movement. Then the shooter looks into the eyepiece and moves his head left and right, then up and down, to see if the crosshairs or dot appear to move on the face of the target. The sleeve is adjusted until all of the parallax is gone.

3. The individual should not stare into the eyepiece for more than a few seconds at a time during any adjusting processes.

4. When the correct settings are established for each range, they should be recorded in the shooter's diary. A complex problem can evolve when the data of two or three separate scopes is combined with that of multiple range settings and several rifles, so recording such information will eliminate confusion.

E. SCOPE MOUNTS. Scope blocks on a rifle should be set so that the distance between centers is 7.2 inches if the true value is desired of the quarter minute sight adjustments. Distance between blocks does not affect adjustments in internally adjusted scopes. Most scopes are adjustable for eye relief; however, some shooters elect to move the dovetail blocks to the rear to accommodate a kneeling or standing position. In addition, the dovetail blocks and scope mounts should always be checked before firing to insure that they are not loose.

F. CHEEKPIECE ON STOCK.

1. Normally a shooter will have the cheekpiece on his stock constructed so that when he puts the rifle to his shoulder and places his face naturally on the stock, his aiming eye will look straight through the sights.

2. When a telescope is mounted on a rifle that is stocked to shoot iron sights, the firer will notice at once that the checkpiece is too low. Therefore, the cheekpiece will need to be built-up. The reverse of this, of course, is true when switching to iron sights on a rifle that is stocked for telescopic sight shooting. There are two remedies to this problem.

a. The stock can consist of an adjustable cheekpiece, or the individual can build the cheekpiece up using some type of firm material such as cardboard.

b. Alternatively, the shooter can have the sight mounts constructed so that the eyepiece of the iron and the eyepiece of the telescopic sight are at exactly the same plane.

G. SHOOTING.

1. The shooter should learn the correct direction to move his sight knobs for adjusting the strike of the bullet. He should know about how far one click will move the strike of the bullet at different ranges of fire.

2. In a match where sighting shots are unlimited (as in the case with most NRA matches) a shooter should not hesitate to fire a sighter when he is unsure about a change in conditions. He should also fire a sighter after taking a click on his sight knob. This is to insure that the sight did not stick or move too far.

3. Many shooters "snap shoot" when they use a scope. That is, when the dot or crosshairs are on (or moving into) the area of desired impact, the finger applies immediate pressure to the trigger and fires the shot. Others will continue to shoot as they do with iron sights in that they hold the movement to a minimum and squeeze the trigger until the shot is fired.

4. Most shooters will verify that one must be able to favor or shade with telescopic sights. When the wind is changing constantly, a shooter must be able to hold the crosshairs off to an area other than the center of the target. However, the shooter should not hold outside the ten ring. If time permits, it is best to adjust the telescope or wait for a desired wind condition to return.

H. TELESCOPE MOVEMENT WHILE SHOOTING.

1. There is a recoil spring on most target telescopes. This should be compressed and locked so that the scope will return to a constant location after recoil. If the spring is not used, another method should be devised to insure against movement of the tube.

2. In high power shooting, the spring is not tightened. However, the shooter must remember to pull the scope back to its proper setting before firing each shot.

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