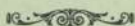


---

# the sport of archery

... Some helpful hints on the use and care of equipment prepared by Bob Copeman, maker of finest archery tackle.



The age old appeal of the twang of the bow string, the swift silent flight of the well shot arrow, the thrill of the hunt, will never leave the hearts of men.

With the nation-wide revival of this ageless pastime, we now have the opportunity to allow these dormant instincts to blossom into life and enjoy in full measure, be it on the competitive target range or deep in the pine-clad hills, the thrill of archery.

No barrier of age exists in archery. Six year old Junior and grandad can both enjoy and benefit from the well recognized therapeutic value of archery. Mother and daughter may compete with the men at the shorter ranges; an ideal family sport.

Many, who through some physical infirmity are barred from other sports, find ideal recreation in archery.

Shooting a bow rapidly builds strength, bodily carriage, and posture which is why so many camps, schools, and universities are eagerly accepting archery as a worthwhile addition to their recreational programs. Bows may be had that will not overtax the strength of growing boys and girls or that will offer plenty of resistance to the muscles of the most powerful man.

Modern equipment and technique, a far cry from the days of our youth when a green willow and unfledged saplings provided our weapons, allow a degree of precision which each year lofts scores to new heights, sets new records for distance, and sees an ever increasing number of sportsmen taking to the bow as a weapon of the hunt.

Many game conservation organizations are applauding this return to the bow, which had, till the recent advent of firearms, been man's best weapon for 50,000 years. Many times more game has been taken with bow and arrow than with the gun. The modern bow hunter has proven beyond doubt the efficiency, humane killing power, and the true sporting qualities of the weapon of his choice. All species of big game on this continent including Kodiak bear, the largest carnivorous animal on earth, have been taken with bow and arrow by modern bow hunters.

---

Target rounds, field rounds, clout, roving, hunting and fishing, archery golf, and flight shooting, offer a diversity found in no other sport.

### EQUIPMENT

Bows and arrows of many types for different uses are available. The weight of a bow is the force required to draw it back to the length of the arrow. Weight and maximum draw length is usually marked on the bow. Thus: 34-28" would indicate that the weight of a bow so marked would be 34 lbs. at 28 inch draw. This bow could be used with any shorter arrows but the weight would be less, probably about 30 lbs. at 26 inches. The beginner should avoid too heavy a bow. For target shooting, the following draw weights are suggested.

For Women	22 to 32 lbs.
For Men	30 to 40 lbs.
For Girls and Boys, 12-17 years of age	15 to 24 lbs.
For Girls and Boys, up to 12 yrs. of age	10 to 15 lbs.

Bows for hunting should be in heavy draw weights as shots do not occur in such close succession and the broadhead type of arrows used in hunting are much heavier than target arrows.

Proper arrow length is dependent on a number of factors. For the beginner, the following table will serve as a guide. With arms outstretched sideways, fingers extended, take spread measurement.

Spread	Approx. arrow length
45-50 inches	19-20 inches
51-53 inches	20-22 inches
54-56 inches	22-23 inches
57-59 inches	23-24 inches
60-62 inches	24-25 inches
63-65 inches	25-26 inches
66-68 inches	26-27 inches
69-71 inches	27-28 inches

The majority of good archery bows are made of Lemonwood although hickory is quite suitable for beginners. Yew and Osage Orange and various combinations of these woods with additional backings and facing are usually custom built items of the archery trade.

In archery, when the bow is held in the left hand and the string is drawn with the right hand, it is called right hand shooting. It has been found that a beginner, regardless of normal handedness, can start shooting a bow equally well either right or left, and that a normally right handed person might have some advantage to shoot a bow left handed. Vision may often be a deciding factor. In shooting right handed, (bow in left hand) the right eye is used in sighting. Most people have what is known as a master eye. To determine this, point at some object with both eyes open. Without moving, close first one eye then the other. The master eye will line up with the direction of point. It may be well to let this determine your handedness in shooting.

Arm Guard—worn on the bow arm between wrist and elbow to prevent the bow string from bruising the arm or from being fouled by loose clothing.

Shooting Tab—A small pad of smooth, flexible leather worn between the string and the fingers of the drawing hand. Special three finger or any tight fitting glove may be worn.

Target—Consists of a boss or backstop of some suitable material, baled straw, four bales high and set at a slight angle against a solid support is ideal for permanent locations, or those made from tightly coiled straw grass where a portable target is needed. The regulation target face for all outdoor distances is 48 inches in diameter and marked out in concentric rings, the innermost (bullseye) in archery known as the



"gold" and colored accordingly and has a scoring value of 9. The red scores 7, the blue 5, black 3 and the outer white ring scores 1. An arrow cutting a line between two colors is counted the higher value. An arrow rebounding from or passing through the scoring face is counted 5.

These are the essential items and are all that is needed to make a start at target archery. It is highly desirable that each archer buy his own equipment. Target, of course, may be shared. Better scores can be made when the archer always uses equipment with which he is familiar. It is wise to start your shooting from close range, 15 or 20 yards, till you have fairly well mastered the technique of aiming and shooting.

Always be very careful when using archery tackle of any sort. Remember, even the weakest bows and target arrows are lethal weapons—use them accordingly. An arrow can glance off the side of a target at some surprising angles and no one can determine where a skidding arrow may come to rest. Wind drift can carry an arrow shot into the air many yards off the course you intended. **ALWAYS PLAY SAFE.**

### **HOW TO SHOOT**

**Bracing the bow**—When you buy a bow it will be unstrung or unbraced, that is, with the top loop of the string about four inches down from the top nock of the bow. To brace a bow means to push the loose string up until it rests in the top nock or notch of the bow. A properly strung bow has the string about 5 or 6 inches from the handle of the bow, or *fistmele* as it is termed. Bows must be braced in the proper manner. More bows are broken or permanently injured by improper bracing than by any other abuse. Place the lower end of the bow against the instep (if a recurved model, the recurve should be under the instep with toe of left foot raised to allow this) of the left foot keeping the tip clear of the ground. Take hold of the handle with the left hand, with flat side or back of the bow towards you. Place the heel of your right hand about four inches below the loop of the string, on the flat back. Now pull with the left hand as you push with the right which will bend the bow to allow the loose string loop to be pushed into place with the thumb and first finger of the right hand. Avoid getting the fingers between the string and the belly of the bow where they may get pinched. The bow is unbraced by the exact reverse of this procedure.

Bows should always be unbraced when not in use or they will lose strength and shape. Never try to straighten a bow by bending backwards as this is sure to result in breakage or damage to the bow. It is natural for a bow to take on a degree of permanent bend in the direction in which it is drawn. This tendency is known as "following the string."

**Aiming methods**—The majority of target archers favor the "point of aim" method although many use a sight, adjustable for varying distances.

Regardless of distance, the bow is always pulled to full draw and to the same "anchor" or point on face or jaw. It follows that any change of distance will mean an increase or decrease of elevation of the bow arm. Either point of aim or sight are merely a means of fixing this elevation for a given distance.

Instinctive shooting, practised mainly by field archers and bow hunters, is the art of gauging the elevation of the bow arm for shots of varying distances without the aid of point of aim or sight.

There are seven main partitions to the act of shooting. When these are mastered, you have become a proficient archer. In sequence of application they are as follows:



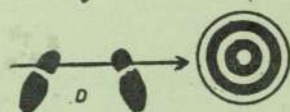


FISTMELE

B



C



CORRECT WAY TO STAND  
WITH RELATION TO TARGET.



BRACING THE BOW

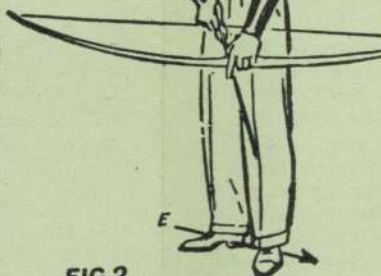
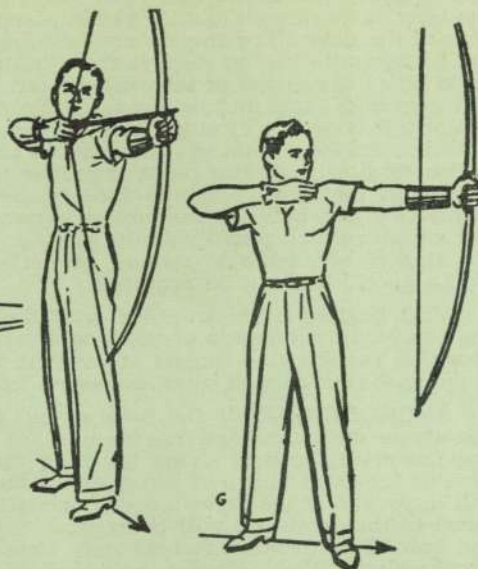


FIG. 2

NOCKING  
THE ARROW



LOOSING AND FOLLOWING

**STANDING-NOCKING-DRAWING-ANCHORAGE-  
AIMING-LOOSING-FOLLOW THROUGH**

As in most sports, the one essential requisite for expert performance is to remain relaxed in the proper muscles. Tenseness in the hand which holds the bow and in the drawing hand will destroy accuracy in the release which in turn will deflect the course of the arrow.

**STANDING**—Stand with feet well apart to afford a firm stance and with the left side facing the target (opposite for left hand shooters). When a comfortable stance has been achieved, mark the position of the feet by sticking markers in the ground at the tip of the toes. This enables the archer to stand in the same tracks so that the point of aim will always be sighted from the same position.

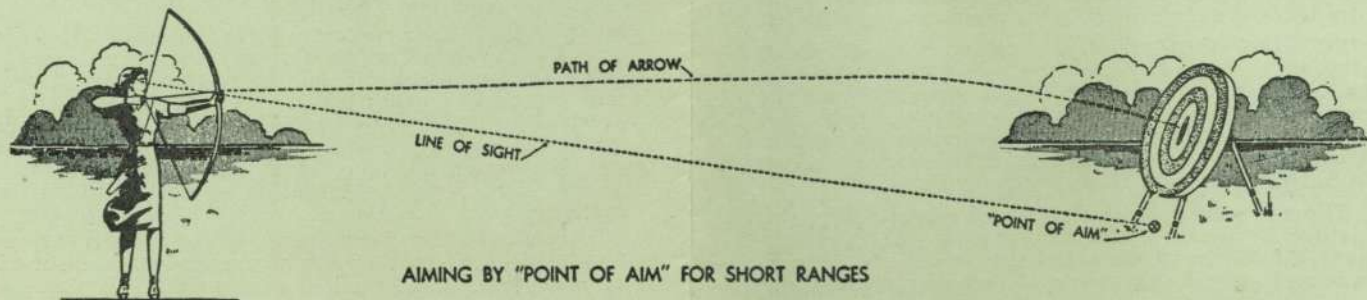
To allow clearance between string and arm, the bow should be held so that the pressure is against the phalanx of the thumb rather than in the centre of the hand. This also allows the back of the hand to be in better alignment with wrist and forearm to minimize strain.

The point of the left elbow should be outward rather than down. The left shoulder should never be allowed to hunch at any time in the act of shooting. Stand very erect, shoulders well back.

**NOCKING**—To fit the arrow to the bow string, hold the bow horizontally in the left hand; then grasp the arrow with the thumb and forefinger of the right hand and place shaft across the bow at the arrow rest or arrow-plate. Turn the arrow till the cock-feather, the one which is placed at right angles to the arrow nock and usually of a different color than the others, is away from the bow. Fit the nock to the string, always at the same place, so that the shaft is at right angles to the undrawn string. An ink spot on the string at the proper nocking point is helpful. Then, with the right palm up, hook the first three fingers of the right hand, with shooting tab in place, around the string with the arrow nock between the first and second fingers and the string laying snugly in the crease of the first joint of these three fingers. Put plenty of crook in the first and second joints but keep the back of the hand flat and in line with the wrist, thumb tucked in the palm, where it is out of the way. Avoid squeezing the arrow nock between the first and second fingers, use only enough pressure to keep the arrow on the string.

When this procedure is completed, the bow is swung to a vertical position ready for the draw. Draw the bow gently about 2 inches to firm the string in proper position on all three fingers.

**DRAWING**—The bow handle should not be grip-



AIMING BY "POINT OF AIM" FOR SHORT RANGES



ped tightly. Instead, the bow rests in the hand against the base of the thumb and is held in place by the tension of the draw. The fingers are held lightly around the bow handle just to keep it from falling from the hand when the arrow is released. In order to get the left arm and hand in position for drawing, raise the left arm leaving a very slight bend in the elbow. Then with the drawing hand properly placed on the string, pull back slowly. At this point of drawing, it is highly important that the hand and forearm act only as a connecting link between the bow string and the shoulder muscles which actually do the pulling. This enables the fingers and hand to remain properly relaxed so that a good loose can be acquired.

Most beginners are troubled with the arrow falling away on the left side of the bow. Putting a deeper crook on the drawing fingers at the first joint, (avoid cupping the hand) will often overcome this trouble.

**ANCHORING**—Pull the bow string and nock of the arrow until the hand can be brought back under the jaw with the bow string touching the tip of the nose or the chin. This will bring you to the position of full draw and if the arrows are your right length the bevel of the arrow tip will be even, with the back of the bow. This position is held only long enough for proper aiming. Some find a more suitable anchor by fitting the v-shape between the thumb and forefinger against the right jawbone. It is very important to anchor in such a manner that you can come exactly to this same spot without the slightest variation for each shot. Always hold firmly to your anchor point.

**AIMING**—To sight the point of aim quickly, it is best to raise the bow arm slowly as the full draw position is being made. This allows the archer to keep his aiming eye on the point of aim while bringing the arrow into line for the shot. Immediately after coming to full draw position, look over the point of your arrow with your right eye and line it up with your point of aim. Once the proper point of aim has been located for any given distance it is not necessary to look directly at the target, entire concentration being on the point of aim. When alignment has been made perfectly, the archer is ready for the release or loose. A bow fatigues rapidly when at full draw so it is well to time the act of drawing, aiming and loosing so that the same time lapse is observed for each shot. This will vary with the individual. Take no more time than is needed for accurate sighting.

**LOOSING**—To properly release the arrow from the bow string, the archer need only relax his three drawing fingers and let the tension of the bow pull the string away from the three fingers. This, of course, releases the arrow. The loose must be performed in exactly the same manner each time. The hand will usually react by coming back along the side of the neck for an inch or two. Do not let this movement be excessive.

While drawing, the elbow of the right arm should be held high enough to be in line with the draw so as to transmit the force directly to the shoulder muscles.

**FOLLOW THROUGH**—To follow through so as not to deflect the flight of the arrow, keep the bow arm extended in the position of full draw and keep the drawing hand in position on the jawbone. Hold this position till the arrow is in the target. By doing this, all undue movement is eliminated so that the arrow can pursue a straight flight to the gold.

These are the essential points of target archery as practised by many of the leading archers of the Continent. Of course, there are many variations of technique and many refinements of these same essentials.

Your public library may prove a source of more detailed information as many good books have been written on the subject.

The Canadian Archer, Cobble Hill, B.C.

American Bowman-Review, McMinville, Oregon, official publication of the National Archery Association, and

Archery, 121 N. Broadway, Los Angeles, Calif., official publication of the National Field Archery Assn., are top rate monthly publications that will keep archers posted on all phases of the sport.

### SCORING

Six arrows are shot by each archer, this is called an "end." A number of ends shot from stated distances is called a "round."

Several archers may use the same target. The distinctive cresting on arrows will keep them from becoming mixed. The scores for each end are tabulated on score cards with the value of each hit recorded starting with the higher values. The total of a given number of ends may then be added to give the total for the round.

Two hits in the gold, one in the red, one in the blue, one in the black, would be scored as follows:

	9 9 7 5 3 0	Hits 5	Score 33
For Men: Canadian Round		York Round	
24 arrows at 80 yds.		72 arrows at 100 yds.	
24 " " 70 "		48 " " 80 "	
24 " " 60 "		24 " " 60 "	
24 " " 50 "			
24 " " 40 "			
American Round			
30 arrows at 60 yds.			
30 " " 50 "			
30 " " 40 "			
For Women:		Columbia Round	
Canadian Round		24 arrows at 50 yds.	
24 arrows at 70 yds.		24 " " 40 "	
24 " " 60 "		24 " " 30 "	
24 " " 50 "			
24 " " 40 "			
24 " " 30 "			
National Round			
48 arrows at 60 yds.			
24 " " 50 "			
For Junior Boys:		For Junior Girls:	
Junior American Round		Junior Columbia Round	
30 arrows at 50 yds.		24 arrows at 40 yds.	
30 " " 40 "		24 " " 30 "	
30 " " 30 "		24 " " 20 "	

In all the above rounds a standard 48 inch target is used.

### CARE OF ARCHERY EQUIPMENT

How To Withdraw Arrows From Target—In order to keep from bending the arrows on pulling them out of the target, place the left hand against the target near the arrow, grasp the arrow with the right hand as closely to the target as possible and pull out in a straight line with the angle of penetration. If the arrow struck through the target and into the feathers, pull arrow on through the target so as not to injure the feathers.

Bows—If other persons are permitted to use your bow, make sure that arrows of proper length are used, otherwise the bow may be overdrawn and broken.



Always unbrace your bow when you have finished shooting. This does not mean to unbrace it between ends, but after the round has been completed or at any time when it is not in use.

Do not try to straighten a bow by bending it backwards. This is sure to damage the wood.

Do not keep your bow in a heated room. A dry basement or an unheated closet provides better storage. Lay bow on flat of back or suspend from a peg rather than stand on end.

In cool weather do not pull your bow to full draw position till it has been flexed gradually. Sudden strain on cold wood is apt to cause it to splinter.

Lemonwood bows are particularly sensitive to cold and should not be used outdoors in near freezing weather. Yew, Osage, and Hickory will stand sub-zero use.

Be careful not to overdraw your bow with an arrow too long for it. Never pull your bow to full draw position without an arrow of proper length fitted to the string.

Never draw and snap the string of your bow more than three or four inches without an arrow in shooting position.

Replace worn strings before there is danger of breakage. Bows are often broken or seriously weakened by a breaking string. Replace serving (the wound portion where the arrow is nocked) as soon as it becomes frayed or worn. Linen strings become dry and brittle after lengthy storage. They may be revived by wrapping in a damp cloth for a few hours. Always keep the string, with the exception of the serving, well waxed.

Arrows—After shooting, clean arrows with fine steel wool, being careful not to rub into the finish. Give them a rub with floor wax. This maintains a good finish.

Keep arrow shafts straight. To straighten, heat shaft over a hot-plate, never over open flame, till the wood becomes quite hot but not hot enough to blister the finish, and bend carefully over the heel of the hand.

Do not leave arrows in a quiver; feathers tend to become pressed out of shape. Mussed feathers may often be brought back to shape by steaming slightly and smoothing out.

Guard the feathers against damage by moths when arrows are in storage.

Keep your equipment dry and clean at all times.

\* \* \*

It is our sincere wish that the information contained herein will help you on the way to becoming a proficient and enthusiastic archer. Why not start a club in your community? If we can be of assistance in any way, drop us a line.

# Bob Copeman

10990 - 71st Avenue

Edmonton, Alberta