SPORTS, PASTIMES, AND PHYSICAL TRAINING.

SPORTS AND PASTIMES.

ARCHERY.

BY

Louis W. Maxson, N. A. A. Champion, 1889-1898.

As a healthful recreation for both sexes archery is unexcelled by any other sport. Frequent practice in the open air, and the application of needed strength and skill invigorate both body and mind. Simple as it seems to the inexperienced observer, no game requires a closer application of every mental and physical quality of the player, if he desires to excel.

As interest in a pastime depends largely on the skill one attains, the archer should be careful in all things. The American championship has on several occasions been won by a single arrow. Many little details conduce to good form in archery. These, through constant care in practice, become intuitive, while strengthened muscles, quickened intellect, and sharpened vision lend their aid to perfect marksmanship.

Let no ambitious archer injure himself by overstraining his muscles, for what he gains in power he more than loses in accuracy of aim and sharpness of lose. Let him begin with a bow well within his strength, seeking accuracy through much practice. Exercise will so invigorate his muscles that the strength of the drawing arm will soon accommodate itself to a stronger weapon.

Enjoyment of any pastime depends on pleasant companionship, environment, and good-natured rivalry. These one finds in archery as in few other forms of recreation. The grassy range, pure air, and sunshine invigorate, while the adaptability of the game to all ages permits the participation of family and friends on a common footing.

As a provider of food in peace and a deadly weapon in war, the bow antedates historical times. History and tradition are full of its romance, a story of surpassing interest, of love and hate, of peace and war, out of all of which has been evolved this most enjoyable recreation. Much of his success depends upon the archer's equipment. The bow should be made from some springy wood, straight of grain, clear in color, and free from frets or other defects. The upper limb should be the longer and the bow when strung should bend more abruptly near the ends of its limbs, being nearly rigid at the middle. A good lance or lemonwood weapon will give best satisfaction to a young archer, but there is a sweetness in the draw of a good self yew that endears it to an expert bowman. A self-bow, one made from a single piece of wood, is better and cheaper for a novice than a backed bow, which is made by gluing strips of wood upon each other.

Arrows for a lady or youth should be twenty-five inches long, those for a man being twenty-eight in length. Footed shafts, those tipped with a denser wood at the forward end, are preferable to unfooted

arrows, which easily break when they strike a solid body.

A leather bracer or guard should be used upon the arm, which holds the bow, to prevent injury by blows of the string. Tips or stalls should also be worn upon the fingers to save them from be-

coming bruised.

And now a few words as to how to use these weapons. In stringing a bow, place the lower end in the hollow of the right foot, holding the bow by its handle with the right hand close to the body. With the fingers of the left hand press hard upon the back of the upper limb of the weapon, just below the loop of the string, pressing the latter upwards as the bow yields till it drops into the notch in the upper horn.

Having strung the bow, hold it horizontally with the left hand at the handle, lay the arrow across it with the cock feather, the one at right angles to the nock in the arrow, uppermost, and nock the arrow on the string. Catching the string with the outer joint of the first three fingers, with the arrow resting between the first and second, draw the bow. In doing this push the left hand forward, drawing back the right to a point just to the right of the chin, thus bringing the arrow to a line beneath the eye. Catch a definite aim at some object which will serve as a sight-point and loose the string by straightening the fingers while drawing the hand sharply backward. Be sure to hold the bow hand up till the arrow has fully left the bow, and always draw to the same distance.

The rounds shot by the National Archery Association of the

United States are as follows:

York Round: 72 arrows at 100 yards; 48 arrows at 80 yards; 24 arrows at 60 yards.

American Round: 30 arrows each at 60, 50, and 40 yards.

Potomac or Team Round: 96 arrows at 60 yards.

The ladies shoot as follows:

National Round: 48 arrows at 60 yards; 24 arrows at 50 yards. Columbia Round: 24 arrows each at 50, 40, and 30 yards.

The ladies' team contests are shot with 96 arrows at 50 yards.

Hits as well as score are counted, and in deciding the winner in a match hits and score at each distance count 1 each, gross hits and score at all distances counting 2. Where two archers have the same number of points the one having the highest gross score wins.

Every arrow passing through or rebounding from the target shall be scored, one hit, one point, and no arrow should be withdrawn from

the target till its value has been entered on the score card.

If the archers tire of target shooting let them try rovers or shooting at chance marks at different distances, the one coming nearest the mark selecting that next to be shot at.

In turtle-back shooting the arrow is shot high in the air, preferably over a tree or some other intervening object, at a target prone upon the ground. The arrow falling nearest the centre of the target

In flight shooting the archer seeks to cast his arrow the greatest possible distance.

As archery is a deliberate game of precision it cultivates an even disposition; hence, be ever courteous and fair, doing nothing to distract your fellow-archer's attention while in the act of shooting.

RULES FOR ARCHERY MEETINGS.

Where a large number compete, several targets are used, and the contestants are divided into parties, each of which uses the same target throughout the match.

1. The Field Captain shall have entire control of the ranges, targets and order of shooting, and shall appoint a Target Captain for each target, who shall direct the order of shooting at his target.

2. Each Target Captain shall appoint a Scorer and a Herald to act at his target. The Scorer shall keep a record of each arrow shot, upon blanks provided for the purpose by the association. The Herald shall announce the result of each shot.

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shot.

3. An arrow must remain in the target until the value of the "hit" is recorded, etherwise the "hit" shall not be counted.

4. The targets shall be four feet in diameter, and placed on easels, the centre of the "gold" being four feet from the ground.

5. The "gold" shall be 9% in. in diameter, and each ring shall be 4% inches in gold.

6. The value of colors shall be: Gold, 9; red, 7; blue, 5; black, 3; white, 1.
7. In case an arrow cuts two colors, it shall count as having hit the inner one.
8. All disputes shall be referred for decision to the Captain of the target where

they arise.

9. Every archer shall shoot with arrows bearing his mark, and every arrow leaving the bow shall be deemed as having been shot, unless the archer can reach it with his bow while standing inside the line from which he is shooting.

10. No person, unless competing for prizes, shall be allowed within the bounds of the Archers' grounds during the progress of the shooting.

SCORING.

Each one shooting his three arrows gives place to the next till all have shot six. The entire line of archers then advances to the far end of the range, where the target captain draws the shafts of each contestant, seeing that the scorer had correctly credited the same before so doing.

The scorer should be careful to cancel all spaces in the tally sheet, thus preventing any question as to the validity of the score arising, and should always foot his scores and prove them for both distances and rounds before handing his score sheet to the secretary of the meeting.

Both hits and score are counted in determining the winner in most matches, one point each being given for most hits and highest score at each distance and two points each for the greatest number of hits and the highest total score at all distances. The archer getting the greatest number of these points wins.

In case of a tie in points the match is given to the one having greatest total score,

BCOTP.

In case of a tie in points and score the match is given to the one having greatest total hits.

In team contests the match is decided on gross score.

Note.—Archery is growing in favor in schools and colleges as a form of physical training. At Wellesley College it has just become an organized sport of the athletic association. [C. W.]

BALLOONING.

BY

ROY KNABENSHUE, DESIGNER AND CONSTRUCTOR OF BALLOONS, AIRSHIPS, AND FLYING-MACHINES.

NE naturally associates this term with the ordinary parachute exhibition that can be seen at the small county fairs. How little the public in general know of the joys of calmly gliding along several thousand feet, part the time below and part the time above those beautiful fleecy clouds with which the sky is lined during the month of August.

To speak of a balloon ascension is to suggest a common exhibition, but the balloon is one of the most scientific toys with which man can amuse himself. During the Paris exhibition over 400 balloons were liberated, carrying as many as 800 passengers and not one person received a scratch or a bump of sufficient importance to cause him to remember any unpleasant feature connected with his ride; and each year since the Paris Exposition, there have been liberated from different portions of France as many as 400 balloons during the summer months, and as yet the records show no accident of any kind; neither have we heard of any unpleasant feature in connection with these ascents.

For the past twenty years there has been exhibited in the various parts of the United States at county fairs and parks, what is known as the Montgolfier or Hot Air Balloon in which the aëronaut would make an ascent of an altitude of perhaps 2000 feet, and make his descent in a parachute. When these exhibitions were first given, they proved great drawing cards and were constantly in demand. This demand proved so great, and the financial part so alluring, that in a very short time they became quite common.

Each aëronaut strove to keep himself busy and in order to do so was quite willing to cut his price. This could result in but one thing, that into the business drifted a class of men that the better sort of people did not care to associate with, so at the present time very little is thought of a man who makes ballooning his profession.

The day for making balloon ascensions as an attraction has passed and there is only one thing left for the balloon and that is its use as a sport. The spherical balloon inflated with gas, equipped with all the modern appliances and in which the aëronaut and passengers ride in a