It is scarcely needful to say anything in praise of Archery. It holds its place as the first of English sports, and is rapidly becoming popular in America. It trains the eye, imparts a good and graceful carriage, expands the chest, and gives plenty of walking exercise without fatigue; moreover, it is equally adapted for both sexes.

The Equipment of the Archer.

The first thing we have to consider is what constitutes the necessary outfit for an archer—how it should be chosen, and how taken care of. Before choosing his outfit, the archer should find a good maker, and obtain from him a list of prices; having done so, he will be able to determine what expense he is willing to go to, and then to apply the following hints in choosing his apparatus. Let us, however, entreat him not to sacrifice all his hopes of future success to a desire to get cheap things; let him rely upon it that things obtained at a fair cost from a good maker are twice as cheap as those whose only recommendation is their low price.

The following list will show about what is a fair price, and may be a guide to our readers in future selections.
EQUIPMENTS FOR LADIES.

Fine Backed Bows, 4½ to 5½ ft., $4.50 to 6.00 each.
Lemon Wood Bows, 4½ to 5½ ft., $4.00 to $5.00 each.
Lance Wood Bows, 4½ to 5½ ft. (to weight), $2.75 to $4.00 each.
Lance Wood Bows 4½ to 5½ ft. (ordinary), 75c. to $2.25 each.
Practising Arrows, 25 inch, $1.50 to $3.50 per doz.
Finest French Arrows, 25 inch. (we can highly recommend this kind) $3.50 to $5.00 per doz.
Old Deal Arrows, 25 inch, $5.50 to $7.00 per doz.
Best Footed Arrows, 25 inch., $8.50 to $11.00 per doz.
Best Flemish Bow-Strings, 25c. to 50c. each.
Quivers......$1.50 to $2.75 each.
Arm Guards, $1.25 to $2.00 each.
Shooting Glove, 63c. to $1.50 each.
Tips for Bows......50c. per pair.
Tassel.......50c. to 75c. each.
Targets......$1.00 to $7.00 each.
Target Stands, $2.50 to $5.00 each.
Bow Covers (green baize), 75c. each.
Scoring Cards and Tablets, Ivory and Ebony Prickers, &c., 25c. to $2.00 each.

EQUIPMENTS FOR GENTLEMEN.

Fine Backed Bows, 6 ft. $9.00 to 12.00 each.
Lemon Wood Bows, 6 ft. $5.00 to $6.00 each.
Lance Wood Bows, 6 ft. (to weight) $4.00 to $5.00 each.
Lance Wood Bows, 6 ft. (ordinary), $1.50 to $2.50 each.
Practising Arrows, 28 inch, $2.00 to $4.00 per doz.
Finest French Arrows, 28 inch. (we can highly recommend this kind) $5.00 to $6.00 per doz.
Old Deal Arrows, 28 inch, $6.00 to $7.50 per doz.
Best Footed Arrows, 28 inch, $9.00 to $12.00 per doz.
Best Flemish Bow-Strings, 25c. to 50c. each.
Quivers......$2.50 to $3.50 each.
Arm Guards, $1.00 to $2.00 each.
Shooting Glove, 75c. to $2.00 each.
Tips for Bows......75c. per pair.
Tassel.......50c. to 75c. each.
Targets......$1.00 to $7.00 each.
Target Stands. $2.50 to $5.00 each.
Bow Covers (green baize), 75c. each.
Scoring Cards and Tablets, Ivory and Ebony Prickers, &c., from 25c. to $2.00 each.

Note.—Backed Bows are far superior to the Self ones as regards elasticity and durability.
The Bow.

Bows are of two kinds. The self bow consists either of one piece of wood or of two dovetailed together at the handle, in which latter case it is called a grafted bow; by far the best material for a self bow is yew, although a variety of other woods, such as lemonwood, lancewood, &c., are used. As it is but very rarely that we are able to obtain a piece of yew long enough for a bow of equal quality throughout, the grafted bow was invented, in order that the two limbs, being formed by splitting one piece of wood into two strips, may be of exactly the same nature.

Fig. 1.

The backed bow consists of two or more strips of wood glued together longitudinally and compressed so as to ensure perfect union. The strips may be of the same or of different woods—for instance, of yew backed with yew, yew with hickory, lancewood, &c.; but of all backed bows snakewood backed with hickory is far the best. It has been a great subject of controversy whether the self or the backed bow be the best for shooting purposes; we most unhesitatingly decide in favor of the backed.

How to Choose it.

In purchasing a bow, it is always better to go to a good maker; the inferior makers, although they may sell their goods a trifle cheaper, are still not to be depended upon, and as a good deal concerning a bow has to be taken upon trust—e.g., whether the wood is properly seasoned, horns firmly fastened, &c.—a maker who has a reputa-
tion to lose always proves the cheapest in the end. Having selected a maker and determined on the price you are willing to give, you will proceed to see that the bow tapers gradually from the handle to horns; that the wood is of straight, even grain, running longitudinally and free from knots and pins, or that, if there are any pins, they are rendered innocuous by having the wood left raised around them. The bow should be quite straight, or even follow the string (bend in the direction it will take when strung) a little. Beware of a bow which bends away from the string; it will jar your arms out of their sockets, and should the string break, there will be an end of it. See that both limbs are of equal strength, in which case they will describe equal curves. The handle should not be quite in the middle of the bow, but the upper edge of it should be about an inch above the centre. See that there are no sharp edges to the nocks on the horns of the bow, for if they are not properly rounded off they will be continually cutting your string. Lastly, make sure that your bow is not beyond your strength—in other words, that you are not overbowed. It is a very common thing for persons to choose very strong bows under the idea that it gives them the appearance of being perfect Samsons; but their ungainly struggles to bend their weapon, and the utterly futile results of their endeavors, are, we think, anything but dignified. The weight of the bow should be such that it can be bent without straining, and held steadily during the time of taking aim. The strength of bows is calculated by their weight, which is stamped in pounds upon them, and which denotes the power which it takes to bend the bow until the centre of the string is a certain distance (twenty-eight inches for a gentleman's, twenty-five inches for a lady's bow) from the handle. It is ascertained by suspending the bow by the handle from a steelyard whilst the string is drawn the required distance. Gentlemen's bows generally range from 48 lbs. to 56 lbs., and ladies' from 20 lbs. to 32 lbs.
ARCHERY.

How to Preserve it.

Many things will spoil a bow which a little care and attention would prevent. Amongst the most fatal enemies to the bow are chrysals (see Glossary), which, unless noticed in time, will surely end in a fracture. A chrysal should at once be tightly lapped with fine string saturated with glue; this, if neatly done and then varnished, will interfere but little with the appearance of the bow. Care should be taken not to scratch or bruise the bow. When shooting in damp weather, the bow, especially if a backed one, should be kept well wiped, and perfectly dried with a waxed cloth before putting away. A backed bow is always the better for a little lapping round each end just by the horn, which prevents the bow from breaking if by any chance the glue is softened by damp. A bow should always be kept as dry as possible; when going to shoot at a distance, a waterproof cover is advisable. Do not unstring the bow too often while shooting; once in every six double ends is quite enough, unless there are many shooters.

![Fig. 2.]

The Arrow.

Arrows are distinguished by weight in the same manner as bows, only in the former it is calculated as weighed against silver.
money, and arrows are known as of so many shillings weight. &c. The lengths and weights recommended by the best authorities are as follows:

<table>
<thead>
<tr>
<th>Length</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 in.</td>
<td>2s. 3d. to 3s. 3d.</td>
</tr>
<tr>
<td>28 in.</td>
<td>4 6 &quot; 5 6</td>
</tr>
<tr>
<td>30 in.</td>
<td>3 6 &quot; 4 6</td>
</tr>
<tr>
<td>38 in.</td>
<td>4 6 &quot; 5 6</td>
</tr>
</tbody>
</table>

There are two kinds of arrows—self, made of one piece of wood, and footed, having a piece of hard wood at the pile end. The latter are the best for several reasons, one being that they are not so likely to break if they strike anything hard. The best material for arrows is red deal footed with lancewood.

**HOW TO CHOOSE IT.**

The first thing to ascertain is whether it is quite straight, which is done by bringing the tips of the thumb and two first fingers of the left hand together and laying the arrow thereon, while it is turned round by the right hand. If it goes smoothly, it is straight; but if it jerks at all it is crooked. Then make sure that it is stiff enough to stand the force of the bow without bending, as, if too weak, it will never fly straight. The pile or point should be what is called the square-shouldered pile; some prefer the sharp pile, but the other answers best for all purposes. The nock should be full and the notch pretty deep; a piece of horn should be let in at the notch to prevent the string splitting the arrow. The feathers should be full-sized, evenly and well cut, and inserted at equal distances from each other, as shown in the plate. It has been much disputed whether the Bobtailed, the Chested, the Barreled, or the Straight arrow is the best to shoot with (see Glossary). Horace Ford, the champion shot, decides in favor of the straight arrow, and our readers cannot do bet-
ter than take his advice. The arrow should be carefully wiped each time it is picked up, and this not only to preserve it, but also because the least particle of dirt clinging to the pile will effectually spoil the flight of the arrow. Every care should be taken to keep the feathers smooth and stiff; if attention be not paid to this point everything else will be in vain. Should they by chance become ruffled, a little warming in front of a fire (not too close) will generally restore them.

**The Bow-String.**

The best bow-strings are of foreign manufacture, and are generally sold complete; but in case any of our readers wish to fit their own, we will say a few words about them. The string should be not too thin, or it will not last long; in the selection of it, it is best to be guided by the size of the notch of your arrows. At one end of it a strong loop should be worked to go over the upper horn, the other end should be left free in order to be fixed on to the lower horn. When the lower end is fastened, the distance between it and the loop at the other end should be such, that when the loop is in its place (i.e., the bow strung) the string is, in a gentleman's bow, six inches, in a lady's, five inches, from the centre of the bow. Never trust a worn string; take it off and put on a new one—should it break, it will most probably snap your bow.
The Belt and Pouch.

This is used for carrying the supply of arrows required in a match (three for use and one spare one), as also for hanging the tassel, &c., to. We would, however, recommend our gentlemen friends to do without it—it is always in the way, and the arrow can be carried far better in a pocket made diagonally in the right rear of the coat, so as to come conveniently to the hand, and yet be far enough back to escape the risk of the feathers being spoilt by the elbow rubbing against them. In our cut we have depicted a lady's belt.

Grease-Box.

This is a little box, generally made of ivory, of such a shape as to hang from the belt. It is used for the purpose of holding the grease, which some archers use to anoint the string and their shooting-glove with, so as to get a better loose. The advantage of it is a matter of opinion, and so it may remain; if used too freely, however, it causes the bow-string to unravel.
Tassel.

This is merely a large tassel of green worsted, and is used for wiping the arrows when they have stuck in the ground. If a belt is not used, it should be hung from a button-hole of the coat; it is an absolutely necessary part of the archer's outfit.

Arm Guard.

Fig. 5.

This is a guard for the left arm, to prevent its being abraded by the string when loosed; it also has another object, viz., to confine the sleeve and keep it out of the way. It consists of an oblong piece of smooth leather, and is fastened to the arm by straps. In fitting it on, care should be taken that the ends of the straps are not left loose, and that the buckles come well round to the back of the arm, so as not to be in the way of the string; for if there be the least projection on which it can catch, your best aim will be of no effect.
ARCHERY.

THE SHOOTING-GLOVE

Is used to protect the fingers of the right hand from abrasion by the string when loosing, and consists of three finger-guards, attached by strips of leather, passing down the back of the hand to a strap fastening round the wrist. This form of glove has, however, rather gone out of use of late years, most archers preferring independent guards, called tips, for each finger, generally fastening by means of an India-rubber ring round the finger, about the best of this kind being those invented by Mr. Buchanan, of Piccadilly. In the matter of the shooting-glove, however, it is best to leave the archer to choose for himself, merely cautioning him to make sure that, whether gloves or tips, they fit him well, or he will never be able to make a good loose. The cut represents a glove.

SCORING-CARDS.

These are made of various shapes and sizes, to accommodate a single archer or to serve for a match. About the best for private use consists of a circular piece of cardboard colored like a target, divided into three segments for three distances, and having the other side printed to receive the score when reckoned. These are carried in little ivory frames for the purpose, the whole being about the size of a watch. A small ivory pricker for marking is carried with it. Perhaps, however, for ordinary practice, nothing is better than a common metallic memorandum-book, ruled for the day of the month, and vertically for the rings.
The Quiver.

The quiver is a tin case somewhat in the shape of the quiver usually represented as forming part of the equipment of Robin Hood and his band; it is not now, however, used as part of the personal equipment of the archer, but is employed simply for the purpose of protecting the spare arrows. It is made of all sizes, to hold from six to three dozen arrows, and is provided with a cover and lock to make all secure. The best receptacle for arrows, however, is the box which is now almost universally used; in it each arrow has a place to itself, and by this means overcrowding is prevented and the feathers preserved unrumpled.
A target is made of straw, bound with string into an even rope, which is twisted upon itself until it forms a flat disc, and then covered on one side with canvas painted in five concentric rings, viz., gold or centre red, blue or inner white, black, and white. These rings should be all of exactly the same width, the target itself being one to four feet in diameter. In scoring, the following value is given to the rings:

<table>
<thead>
<tr>
<th>Color</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>9</td>
</tr>
<tr>
<td>Red</td>
<td>7</td>
</tr>
<tr>
<td>Blue</td>
<td>5</td>
</tr>
<tr>
<td>Black</td>
<td>3</td>
</tr>
<tr>
<td>White</td>
<td>1</td>
</tr>
</tbody>
</table>

When an arrow strikes on the edge of two rings, the higher is counted, unless it is otherwise agreed upon. It is necessary to have two targets, one at each extremity of the distance fixed upon—as it is not usual to shoot more than three arrows at each "end," as it is called—walking over between each three to reclaim your arrows, and
then shooting them at the back target you have just left. By this means a different set of muscles are called into play, those used in shooting are relaxed, and, in addition, a great deal is added to the exercise which renders archery so healthy a pastime; for example, in shooting the national round, the archer walks 3,920 yards, or nearly two miles and a quarter, between the ends. The stands for the targets are usually made of iron and wood, and somewhat resemble in shape an artist's easel. The legs should be padded or wrapped round with straw, otherwise arrows striking them will be apt to break. There has been, however, invented an iron stand for targets, so constructed that the legs present a very thin edge to the shooter, thus reducing the chance of their being struck by an arrow to the minimum. In some places butts are erected, instead of stands, for the targets: they are built of sods piled together, the target being hung to a peg in the front of them. The target used differs from the ordinary one, and consists of a circular piece of white pasteboard, the size differing according to the length of range: e.g., at thirty yards it is four inches; sixty yards, eight inches; ninety yards, twelve inches in diameter, and so on, according to distance. Butts certainly abolish the trouble of stooping, as they catch all the arrows (except the very wide or high ones) which miss the target. The chief disadvantage of them is that after shooting at a butt it takes some time to get used to the target on a stand, so that it spoils an archer for matches, etc. Another advantage of butts is this, that as the targets are merely made of cardboard, they can be easily manufactured at home. In all cases, whether butts or stands are employed, the centre of the gold should be four feet from the ground.

Instructions for the Field.

Having procured his outfit, the archer will doubtless be anxious to make a trial of it in the field, and we will now endeavor to give
him the clearest instructions for the management of his weapon, by
attention to which, and constant practice, we hope he will succeed
to his utmost satisfaction. It will be useless for him to overburden
himself with accessories more than are absolutely necessary—they
will only be in the way; an archer who wishes to shoot well will
find that the less he has about him the better. Besides his bow, he
will take four arrows (three for use and one spare one in case of ac-
cident), which he will put into his pouch or pocket, arm-guard,
glove or tips, tassel, and scoring-card. A spare string also it will
be prudent to have in the pocket. Anything more than these is un-
necessary in the field.

Stringing the Bow.—In stringing the bow it is held by the
handle in the right hand (flat part towards the body) with the lower
horn resting on the ground against the hollow of the right foot.
The left hand is then placed upon the upper part of the bow in such
a manner that the base of the thumb rests upon the flat side of it,
the thumb pointing upwards. The bow is then bent by the com-
bined action of the two hands, the right pulling, the left pressing it;
at the same time the loop of the string is slipped into its place by the
left thumb and forefinger. However, actual experiment under the
guidance of a proficient will teach them sooner and better than we
can possibly hope to do by mere precept. When the bow is braced,
the string should be exactly six inches from the centre of the bow in
a gentleman’s, and five inches and a half in a lady’s bow. Care must
be taken that the string lies evenly along the exact centre of the bow,
that it is not turned on one side at either horn. If this be the case, it will, by pulling the bow unevenly, in all probability
break it.
Position.—It is difficult to determine exactly what is the best position for the archer. Every one naturally subsides into that which is most easy to him; still there are certain fundamental rules, which are given in almost every book on archery, by attention to which in the first place the shooter ultimately falls into the best position for himself. The left foot should point rather to the right of the mark, the right foot being nearly at right angles to it, the heels six or eight inches apart, in a straight line from target to target, both feet flat on the ground, knees straight, body erect but not too stiff, face turned towards the mark. The body must be carried as easily as possible on the hips, not too stiffly upright nor yet bending forward. Nothing looks worse than a stiff, constrained attitude, except a loose, slouching one. Our cut on back of last cover represents an archer taking aim.

Nocking.—Having mastered the position, the next thing to be looked to is the nocking. "The bow being held by the handle in the left hand, let the arrow be placed with the right (over the string, not under) on that part of the bow upon which it is to lie; the thumb of the left hand being then gently placed over it, will serve to hold it perfectly under command, and the forefinger and thumb of the right hand can then take hold of the nock end of the arrow and manipulate it with the most perfect ease in any manner that may be required." When the arrow is nocked it should be at right angles with the string. Some archers are accustomed to try to alter the range of the arrow by heightening or lowering the nocking point, but this is a great mistake.
Drawing.—Having nocked the arrow according to the foregoing direction, the next thing to proceed with is the drawing, which is managed as follows: Extend the left arm downwards until it is perfectly straight, the hand grasping the handle of the bow, the arrow being held by the nocking end by the two first fingers of the right hand passed over the string and on each side of the arrow, as in the cut, care being taken not to pass the fingers too far over the string, or the sharpness of the loose will be interfered with. This done, the left arm should be smoothly raised, still extended, until at right angles, or nearly so, with the body, the string being drawn at the same time with the right hand until the arrow is drawn about three-fourths of its length, when the right wrist and elbow should be at about the level of the shoulder. Having got it thus far a slight pause may be made before drawing the arrow to its full length (although we think it better to make it all one motion), which done, the archer must take his aim before loosing. By the old fashion of drawing the bow to the ear, aiming was rendered impossible; in fact, there seemed to be a sort of idea that no aim whatever was required for archery. This, however, is far from being the case; it is most essential to take an aim, aye, and a good one too, if you wish to meet with success. By drawing the arrow below the level of the eye, the archer is enabled to look along it as he would along the barrel of a rifle. As regards the direction, the archer will find that it is but seldom he will be able to aim directly at the gold. He will almost always have to aim to one side or the other, to make allowance for wind, &c. This cannot be taught. The archer will soon learn by experience whereabouts on the target his proper point of sight lies, and will aim accordingly. He will also learn the degree of elevation required by his bow at the various distances, which elevation he will always give by raising or lowering his left hand, and in no other way, if he values success.
Remember! the arrow must always be drawn to exactly the same spot. If possible, let the spot where the pile and steel join just reach the bow.

Loosing.—Having drawn the arrow to its full extent, the next thing is to loose it properly, and this, although apparently a very simple thing, is by no means so easy as it looks. The great object to be attained in loosing is to remove the obstruction of the fingers from the string suddenly, and yet in such a manner that no jerk is given to the string (which would be fatal to the aim), and that the fingers do not at all follow the string, which would weaken the force of the shot. The string should lie across the fingers at an equal distance from the tip of each—not too near the joint nor too near the tip; about midway between the tip and joint of the first finger, and on the others in proportion, will be found about the most convenient position for a good loose. The fingers must all be withdrawn at once, for should one be an instant behind the others, it would be fatal to the aim.

It must be understood that, although we have described separately the actions of drawing, aiming, and loosing, no perceptible pause should be made between them: they should all appear to form part of the same movement; for, as Ascham says, "Holding must not be long, for it puts a bow in danger of breaking, and also spoils the shot; it must occupy so little time that it may be better perceived in the mind when it is done than seen with the eye when doing."

We have now concluded this portion of our subject, and hope that we have succeeded in making ourselves sufficiently intelligible to be of service to our readers. Let them always recollect that "practice makes perfect," and that we cannot make them good archers without great exertion on their part, although we hope we
have succeeded in making plain to them those first principles, without which all efforts would be but labor in vain.

**Clout Shooting.**

This kind of sport is so called from the mark being a clout, or small white pasteboard target, about twelve inches in diameter. This is placed into a cleft stick, and then fixed in the ground in such a manner that the lower edge of the target touches the ground. The distances in this kind of shooting are generally 180 and 200 yards, and those shots alone count which hit the clout; or in default of any in the clout, the nearest arrow to it will count; so that, supposing you got thirty-six arrows within a foot of the clout and your adversary managed to get one in, even though his others may not have been anywhere near, he will nevertheless be the victor.

**Roving,**

In this kind of shooting there is no fixed mark, anything being aimed at, such as trees, gate-posts, etc. The winner at one mark chooses the next, and so on. The distances are usually from 100 to 200 yards, and no shots count which are not within five bows’ lengths of the mark.

This kind of shooting is only useful as a lesson in judging distance, and was very necessary when the bow was used in warfare, but has never been much in repute since archery has been merely practiced as a pastime. It is rather an expensive amusement, as the arrows are so liable to be broken or lost.

**Flight Shooting.**

This is merely practised as a trial of distance, the winner being he who shoots farthest. Mr. Ford states that the farthest he has shot is 308 yards with a 68 lb. bow. Mr. Froward is reported in 1801 to have easily reached 340 yards with a self yew bow of 63 lb.
Dress.

The dress of the archer varies in different clubs, but the quieter it is the better. For gentlemen nothing is better than a green cloth coat, with gilt buttons having the club device upon them, and a cap of the same colored cloth, with a covered peak. For ladies, a green jacket over a white skirt, with hat (with narrow brim) and green and white feather; or the following is a very pretty style for a lady's archery costume: a white clear muslin skirt with a deep hem, worn over either a white silk or cambric muslin slip; Russian bodice of white alpaca, trimmed with black lace insertion or braided with black; sleeves tight to the wrist, as that prevents any awkward catching by the string; a pointed black velvet band and sash, trimmed with black lace. Over the left shoulder, and fastened with a knot under the right arm at the level of the waist, a broad green sash, made of silk hemmed at the ends. This sash is gathered into folds and fastened on the left shoulder by a brooch of gold or silver, according to the taste of the wearer, bearing the badge of the club. Hat of white straw, bound with black velvet and trimmed with green and white feathers. This is a very pretty costume, and is worn, with modifications, by a great many societies.

We hope that the foregoing hints may prove of service to our readers. If, in any part, we have not succeeded in making ourselves as intelligible as we wish, we must plead in extenuation the difficulty of explaining by mere precept that which is not easily learned even by example.
Glossary of Terms Employed in Archery.

Ascham. A cupboard especially constructed to hold bow and arrow.

Back. The flat side of the bow.

Backed Bow. One made of two or more strips of wood glued together longitudinally.

Barrelled Arrow. One made largest in the centre.

Belly. The round side of the bow.

Bobtailed Arrow. One made larger at the point than at the feather.

Bracing. The act of stringing the bow.

Chested Arrow. One made larger at the feather than at the point.

Chrysal. A small crack, which, gradually enlarging, ultimately breaks the bow.

End. Each discharge of three arrows is termed an "end," as three is the number to be shot from each end of the range in turn.

Grafted Bow. One made of two pieces of wood joined at the handle.

Handle. The wrapping of plush by which the bow is held.

Horn. The tip of each end of the bow.

Limbs. The parts of the bow above and below the handle.

Nock. The groove in the horn of the bow into which the string fits; also, the notch in the arrow for the reception of the string.

Nocking Point. The point in the bow-string which, when the bow is strung, is opposite the top of the handle.

Pile. The point of the arrow.

Self Bow. One made of a single piece of wood, or grafted.

Stele. The shaft of the arrow.

Straight Arrow. One of even thickness throughout.
I keep constantly on hand and for sale Implements for all Indoor and Outdoor Games.


PRICES ON APPLICATION.