# APPLIC SPORTS AND RECREATIONS FOR BOXS REV. J. 6 WOOD, M.A.









# ATHLETIC SPORTS

AND

# RECREATIONS FOR BOYS.

#### COMPRISING

CRICKET. CROQUET. LAWN BILLIARDS. KNOCK-'EM-DOWN. AUNT SALLY. GYMNASTICS. SWIMMING. SKATING.

ARCHERY. FENCING. BROADSWORD. RIDING. DRIVING. ROWING. SAILING. ETC. ETC.

BY

THE REV. J. G. WOOD, M.A. ETC. ETC.

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# ATHLETIC SPORTS.



# CRICKET.

UNTIL within the last eighty years this game was very rarely played, but there is plenty of evidence as to its existence as a game in the sixteenth century, and probably earlier even than that. But it chiefly in the present century that cricket has become popular with all classes, and that it has taken the position which it now enjoys, as the leading national game played out of doors. There are several peculiarities in which cricket stands unrivalled at present, and which I trust may long be preserved to it. These are—first, its uniting all classes; for the peer and the peasant are constantly seen in the same eleven; and in a county match the best men will be selected, let their position in society he what it may; secondly, the general absence of gambling; for though betting cannot be entirely prevented, it is less associated with cricket than with any other sport of the same degree of popularity; thirdly, its healthful tendency; and

fourthly, the absence of intemperance as an adjunct. It is now the favourite game of the country village and the county town, as well as of the larger commercial cities and of the great metropolis itself, where the M.C.C. at Lord's, and the Surrey Club at the Kennington Oval, as well as some others of less note, keep cricket going throughout the season. This lasts from spring to late autumn, depending a good deal upon the weather, for it is a game which requires a dry sod, as well as freedom from any present fall of rain.

The game of cricket is played either as what is called "The

Single-Wicket Game," or as "Double-Wicket."

SINGLE-WICKET requires one wicket, one popping crease, one bowling crease, one ball, one bat, and any number of players arranged in two sides, not exceeding seven or eight of a side. With these the game is played subject to the special laws of single-wicket, which differ in some essential points from those of double-wicket.

DOUBLE-WICKET is played with one ball, two bats, two wickets, two popping creases, two bowling creases, and two sides of players—one of which shall consist of eleven, but the other, though usually confined to the same number, may be extended to any other. Two UMPIRES are also appointed to decide upon the proper carrying out of the rules.

#### THE LAWS OF CRICKET.

The following laws are those which are now universally employed throughout England and Scotland, having been carefully revised by the Marylebone Club, that being the highest authority in this game:—

1. The BALL must weigh not less than five ounces and a half, nor more than five ounces and three-quarters. It must measure not less than 9 inches, nor more than  $9\frac{1}{4}$  inches in circumference. At the beginning of each innings either party may call for a new ball.

2. The BAT must not exceed 41 inches in the widest part; it must

not be more than 38 inches in length.

3. The STUMPS must be three in number; 27 inches out of the ground; the bails 8 inches in length; the stumps of equal and of sufficient thickness to prevent the ball from passing through.

4. The BOWLING CREASE must be in a line with the stumps; 6 feet 8 inches in length; the stumps in the centre; with a return

crease at each end towards the bowler at right angles.

5. The POPPING CREASE must be 4 feet from the wicket, and parallel to it, unlimited in length, but not shorter than the bowling crease.

6. The Wickers must be pitched opposite to each other by the

umpires, at the distance of 22 yards.

7. It shall not be lawful for either party during a match, without the consent of the other, to alter the ground by rolling, watering, covering, mowing, or beating, except at the commencement of each innings, when the ground may be swept and rolled at the request of either party, such request to be made to one of the umpires within one minute after the conclusion of the former innings. This rule is

not meant to prevent the striker from beating the ground with his bat near to the spot where he stands during the innings, nor to prevent the bowler from filling up holes with sawdust, &c., when the ground is wet.

8. After rain the wickets may be changed with the consent of

both parties.

9. The Bowler shall deliver the ball with one foot on the ground behind the bowling crease, and within the return crease, and shall bowl four balls before he change wickets, which he shall be permitted

to do only once in the same innings.

10. The ball must be bowled, not thrown or jerked, and the hand must not be above the shoulder in delivery; and whenever the bowler shall so closely infringe on this rule in either of the above particulars as to make it difficult for the umpire at the bowler's wicket to judge whether the ball has been delivered within the true intent and meaning of this rule or not, the umpire shall call "no ball."

11. He may require the striker at the wicket from which he is

bowling to stand on that side of it which he may direct.

12. If the bowler shall toss the ball over the striker's head, or bowl it so wide that in the opinion of the umpire it shall not be fairly within the reach of the batsman, he shall adjudge one run to the party receiving the innings, either with or without an appeal, which shall be put down to the score of wide balls; such ball shall not be reckoned as one of the four balls; but if the batsman shall by any means bring himself within reach of the ball, the run shall

not be adjudged.

13. If the bowler deliver a "no ball" or a "wide ball," the striker shall be allowed as many runs as he can get, and he shall not be put out except by running out. In the event of no run being obtained by any other means, then one run shall be added to the score of "no balls" or "wide balls," as the case may be. All runs obtained for "wide balls" to be scored to "wide balls." The names of the bowlers who bowl "wide balls" or "no balls" in future to be placed on the score, to show the parties by whom either score is made. If the ball shall first touch any part of the striker's dress or person (except his hands), the umpire shall call "leg bye."

14. At the beginning of each innings the umpire shall call "play;" from that time to the end of each innings no trial ball

shall be allowed to any bowler.

15. The STRIKER IS OUT if either of the bails be bowled off, or if

a stump be bowled out of the ground:

16. Or, if the ball, from the stroke of the bat, or hand, but not the wrist, be held before it touch the ground, although it be hugged to the body of the catcher:

17. Or, if in striking, or at any other time while the ball shall be in play, both his feet shall be over the popping crease, and his wicket

put down, except his bat be grounded within it;

18. Or, if in striking at the ball, he hit down his wicket;

19. Or, if under pretence of running, or otherwise, either of the

strikers prevent a ball from being caught, the striker of the ball is out:

20. Or, if the ball be struck, and he wilfully strike it again;

21. Or, if in running, the wicket be struck down by a throw, or by the hand or arm (with ball in hand), before his bat (in hand) or some part of his person be grounded over the popping crease. But if both the bails be off, a stump must be struck out of the ground;

22. Or, if any part of the striker's dress knock down the wicket; 23. Or, if the striker touch or take up the ball while in play, un-

less at the request of the opposite party;

24. Or, if with any part of his person he stop the ball, which in the opinion of the umpire at the bowler's wicket shall have been pitched in a straight line from it to the striker's wicket, and would have hit it.

25. If the players have crossed each other, he that runs for the

wicket which is put down is out.

26. A ball being caught no runs shall be reckoned.

27. A striker being run out, that run which he and his partner

were attempting shall not be reckoned.

28. If a lost ball be called, the striker shall be allowed six runs; but if more than six shall have been run before "lost ball" shall have been called, then the striker shall have all which have been run.

29. After the ball shall have been finally settled in the wicket keeper's or bowler's hand, it shall be considered dead; but when the bowler is about to deliver the ball, if the striker at his wicket go outside the popping crease before such actual delivery, the said bowler may put him out, unless (with reference to the 21st law) his bat in hand, or some part of his person be within the popping crease.

30. The striker shall not retire from his wicket and return to it to complete his innings after another has been in, without the consent

of the opposite party.

31. No substitute shall in any case be allowed to stand out, or run between wickets for another person without the consent of the opposite party; and in case any person shall be allowed to run for another, the striker shall be out if either he or his substitute be off the ground in manner mentioned in laws 17 and 21, while the ball is in play.

32. In all cases where a substitute shall be allowed, the consent of the opposite party shall also be obtained as to the person to act

as substitute, and the place in the field which he shall take.

33. If any fieldsman stop the ball with his hat, the ball shall be considered dead, and the opposite party shall add five runs to their score; if any be run they shall have five in all.

34. The ball having been hit, the striker may guard his wicket with his bat or with any part of his body except his hands; that the

23rd law may not be disobeyed.

35. The Wicket Keeper shall not take the ball for the purpose of stumping until it has passed the wicket; he shall not move until the ball be out of the bowler's hand; he shall not by any noise

incommode the striker; and if any part of his person be over or before the wicket, although the ball hit it, the striker shall not be out.

36. The Umpires are the sole judges of fair or unfair play; and all disputes shall be determined by them, each at his own wicket; but in case of a catch which the umpire at the wicket bowled from cannot see sufficiently to decide upon, he may apply to the other umpire, whose opinion shall be conclusive.

37. The umpires in all matches shall pitch fair wickets; and the parties shall toss-up for choice of innings. The umpires shall change

wickets after each party has had one innings.

38. They shall allow two minutes for each striker to come in, and ten minutes between each innings. When the umpire shall call "play," the party refusing to play shall lose the match.

39. They are not to order a striker out unless appealed to by the

adversaries;

- 40. But if one of the bowler's feet be not on the ground behind the bowling crease and within the return crease when he shall deliver the ball, the umpire at his wicket, unasked, must call "no ball."
- 41. If either of the strikers run a short run, the umpire must call "one short."

42. No umpire shall be allowed to bet.

43. No umpire is to be changed during a match, unless with the consent of both parties, except in case of violation of the 42nd

law; then either party may dismiss the transgressor.

44. After the delivery of four balls the umpire must call "over," but not until the ball shall be finally settled in the wicket keeper's or bowler's hand; the ball shall then be considered dead; nevertheless, if an idea be entertained that either of the strikers is out, a question may be put previously to, but not after, the delivery of the next ball.

45. The umpire must take especial care to call "no ball" instantly upon delivery; "wide ball" as soon as it shall pass the striker.

46. THE PLAYERS who go in second shall follow their innings, if they have obtained 80 runs less than their antagonists, except in all matches limited to only one day's play, when the number shall be limited to 60 instead of 80.

47. When one of the strikers shall have been put out, the use of the bat shall not be allowed to any person until the next striker

shall come in.

NOTE.—The Committee of the Marylebone Club think it desirable that, previously to the commencement of a match, one of each side should be declared the manager of it; and that the new laws with respect to substitutes may be carried out in a spirit of fairness and mutual concession, it is their wish that such substitutes be allowed in all reasonable cases, and that the umpire should inquire if it is done with the consent of the manager on the opposite side.

Complaints having been made that it is the practice of some players

when at the wicket to make holes in the ground for a footing, the Committee are of opinion that the umpires should be empowered to prevent it.

#### THE LAWS OF SINGLE WICKET.

1. When there shall be less than five players on a side, bounds shall be placed twenty-two yards each in a line from the off and leg stump.

2. The ball must be hit before the bounds to entitle the striker to a run, which run cannot be obtained unless he touch the bowling stump or crease in a line with his bat, or some part of his person, or go beyond them, returning to the popping crease as at double wicket, according to the 21st law.

3. When the striker shall hit the ball, one of his feet must be on the ground, and behind the popping crease, otherwise the umpire

shall call "no hit."

4. When there shall be less than five players on a side, neither byes nor overthrows shall be allowed, nor shall the striker be caught

out behind the wicket, nor stumped out.

5. The fieldsman must return the ball so that it shall cross the play between the wicket and the bowling stump, or between the bowling stump and the bounds; the striker may run till the ball be so returned.

6. After the striker shall have made one run, if he start again he must touch the bowling stump, and turn before the ball cross the

play to entitle him to another.

- 7. The striker shall be entitled to three runs for lost ball, and the same number for ball stopped with bat, with reference to the 28th and 33rd laws of double wicket.
- 8. When there shall be more than four players on a side, there shall be no bounds. All hits, byes, and overthrows shall then be allowed.

  9. The bowler is subject to the same laws as at double wicket.
  - 10. Not more than one minute shall be allowed between each ball.

#### SINGLE WICKET.

Two persons can play at single wicket, one being bowler, the other batsman; they should toss-up for first innings, and the bowler should pitch the wickets, whilst the batsman measures off the distance for the bowling stump, which both must agree to beforehand. Next measure on the ground a bat's length from the middle stump to the bowling stump, and there make a mark to serve as a popping crease. Place the bat upright on the mark where the measure came to, and ask the bowler if the bat is properly before the centre of the wicket, and then make another mark on the ground; this is called block. The bowler must now begin to play, and the proper directions for his movements will be found in a subsequent page under the head of "Bowler." The batsman should endeavour to hit any ball which comes within range, taking care to keep his left shoulder forward, and to stand firmly on his right foot; he should notice how the ball pitches, so that he may guess how far it is likely

to rise, and judge whether it is worth while hitting it hard, and so get a run, or whether by blocking it off he may disappoint his opponent, and so make the game his own. When blocking, never allow the tip of the bat to come before the handle, as in that case, the ball will rise into the air, and perhaps enable the bowler to catch it. In striking, keep the bat as nearly perpendicular as possible; by so doing, more of the wicket is covered than when the bat leans either to the right or left. Further directions for the batsman will be found under that head in another part. It will be as well for the batsman to return the ball up to the bowler, after it has passed the wicket, as it is very inconvenient, not having any one behind for that purpose; the bowler, in that case, must not put down the wicket when the batsman is off his ground, unless he runs himself out. The batsman in running must touch the bowling stump either with his bat or person, or else it is no run.

When three play, they must toss-up for innings, the last player must pitch the wicket and bowl, and the second after placing the bowling stump, take the part of a fieldsman, and place himself on the left hand of the bowler, about three times his distance from the wicket; the first player is batsman, and marks the popping crease; if the batsman hits the ball nearer the fieldsman than the bowler, or so wide away that the latter would have some distance to run, the former should pick it up or catch it, and return it to the bowler. When the batsman runs, the bowler should instantly run to the wicket, and the fieldsman should throw the ball to him, so that he may catch it. This plan is much better than running to the wicket with it, as the ball can be thrown with greater celerity than a player can run. The batsman must not begin to run after the ball has been thrown in before the bowling stump, but he may until it has. When the first batsman is out, the fieldsman should take his place, the bowler become fieldsman, and so on, until each one has had his innings, bowled, and been out in the field.

If four players engage in this game, the first is batsman, the second takes the field, the third stands behind the wicket, and the fourth bowls. When the batsman runs off his ground, if the wicket-keeper has the ball in his hands, he should put down the wicket; he must not, however, touch the ball until it has passed the wicket. The necessary instructions for this player will be found under the head of "Wicket keeper." The bowler should not run to the wicket when the batsman attempts to run, but most throw the ball up to the wicket keeper, and the fieldsman should do the same. When five or even more play, the additional players must take the field.

If any person wishes to join the game whilst it is going on, he must take his post in the field, and continue there till the last batsman is out, when he takes his innings. If no wicket keeper was appointed at the beginning of the game, there must be no stumping out, although a fieldsman may be directed to take that place. If there are less than six players, the batsman cannot run when the ball is struck behind the wicket.

Single wicket may be played in two different ways: in the first,

when less than five players on a side are engaged, the batsman cannot be stumped out, and if he moves off his ground whilst hitting the ball, it is no hit, and he must not run. All the hits should be before the wicket, and to ascertain whether they are so, two stumps must be placed, one on each side of the wicket, parallel with and twenty-two yards from it; should the ball, when hit, pass behind either of these stumps before reaching them, the umpire should call out "behind wicket," or else "no run," and no run is allowed; but if the ball goes as far as the stump, and then runs behind the line of the wicket, the fieldsman must pick it up, and keeping outside the stump, run until he is in front of the line, and then throw it in; if he acts contrary to this rule, the umpire must order the ball to be carried back behind the wickets, until beyond the stump, and there to be thrown in, the batsman running all the while.

The other method of playing single wicket is called "All hits," and is played only when there are five or more on each side; the batsman in this may be stumped out, he may also leave his ground to hit, and the wicket need not be touched except in front to put him out; all hits before or behind wicket, bye balls, &c., tell when run for. The runs in this game are only fifteen yards long; the bowling stump should be twenty-two yards from the wicket, and at about the distance of a yard out of the line of bowling, and fifteen yards from the wicket a mark is placed, on or over which the striker must

put his bat or person, before it can be considered a run.

#### DOUBLE WICKET

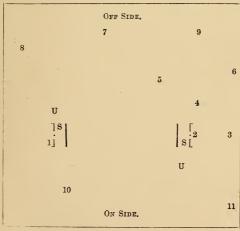
May be considered, for all practical purposes, to consist of two sides of eleven players each. One of these, according to the result of the "toss for sides," has the first innings, and two of their party defend the wickets with a bat each, the others being at liberty till their turns come respectively. By the other side, who are now "fielding," the attack is maintained; their object being to "take the wickets" of the strikers, by bowling at either of them four balls consecutively from the bowling crease of the opposite wicket. If the bail of the wicket is knocked off by the ball, or the stump is bowled out of the ground, or if any of the events occur which are defined by law 15 and following ones up to 34, the batsman is "out," and is replaced by another of his party, until the whole side are put out seriatim. If, on the other hand, the ball is struck by the batsman, or if certain other contingencies happen (for which see rules), the batsman may run to the opposite popping crease and score oue, and back again, or even a second time, or more, if possible; for each of which "runs" a score of one is to be made. The side which makes the greatest score is the winner.

#### THE MANAGEMENT OF THE SIDES.

In club-games two managers or captains are fixed upon, one for each side, who are generally the two best bowlers, they being the most scarce and valuable players; these choose their ten assistants, one after the other, from the members present, and allot to each their respective positions when fielding. In matches, the match is first made between two clubs, and then the eleven players are selected from each club by a committee, or by general consent, or by first appointing a manager, who then picks out his men, and afterwards takes their entire control in the field.

#### THE FIELDING

Requires the following men for the several places, which are filled up by those who are best qualified, according to the opinion of the manager. Thus, some men are fit for one place, and yet are very bad in another; and consequently, the eye of an experienced cricketer is required to select them and fix them accordingly. One bowler at a time is indispensable, who bowls four balls, called an "over," and then the whole of the fielders walk over to the opposite side of the field, and another "over" of four balls is delivered from the opposite wicket by another bowler. In this way there is a constant walking from one side to the other, which has its advantages, because it prevents the danger of catching cold in bad weather, that might result if the same position were maintained for a longer period. The following diagram will explain the position of the eleven men in an "over" by a fast bowler, as well as those of the strikers and umpires:—



#### DIAGRAM OF FIELD FOR FAST BOWLING.

<ol> <li>Fast bowler.</li> <li>Wicket keeper.</li> <li>Long stop.</li> <li>Short slip.</li> </ol>	6. Long slip. 7. Mid-wicket. 8. Long-field off. 9. Cover point.	UU. Umpires.
5. Point.	10. Mid-wicket on.	DD. DUILEIS.

#### THE BOWLER

Whose "over" is now going on according to the annexed diagram. being what is called a fast bowler, the field are arranged to suit his peculiar style, which is now almost always the round-hand delivery. The under-hand style may occasionally answer; but as the ball is delivered straight from the bowler to the wicket, and has very little side bias or twist, it is much more easy to guard and hit than the round-hand delivery, or the slow twisting style, as practised by Clarke and his followers. For the sake of simplicity, we will first consider a single "over" of this round-hand style. The bowler should have made himself as perfect as possible in this kind of delivery, and should stick to it pertinaciously if he has fully made up his mind that it suits him, and that he can master its requisites. For this style he requires a full muscular development, knack, a good eye, and a power of enduring fatigue; for it is no slight task to deliver two or three hundred balls in a morning with all the force of which the arm is capable. Accuracy of aim is the great difficulty in this style, and few men, unless they are more than commonly gifted, and also constantly in practice, can arrive at anything like certainty in their balls. Even Caffyn would miss nearly as many as he would take, and very few can come up to his proficiency in this particular. Constant daily practice, not too long continued at one time, is the only way to arrive at perfection; and without playing cricket this may be managed, even in wet weather, by bowling in an outhouse, against stumps fixed in front of any soft object like straw or hay. In this way every variety of ball may be attempted, and the hand and eye may acquire a very great degree of co-operative power. But many good men in this kind of practice are upset directly when engaged in the real game, either from overexcitement, or from a failure at first to do what they hoped, or from other causes acting upon an irritable organization. Hence, a quiet and composed frame of mind is as necessary as a vigorous bodily organization; and it is only when both are combined that a bowler is to be depended on. Numberless instructions and rules are given as to length of run, holding the ball, &c., but there is nothing like practice, and every man has a way of his own; though of course there are some broad rules—as, that the ball must be held in the fingers, and not grasped by the whole hand. The grand point to gain is a twisting course after the ball touches the ground, which is highly deceptive to the eye of the striker. Indeed, to reverse the law of mechanics, which tells us that "in objects propelled against a plane surface, the angle of reflexion is equal to the angle of incidence," is the highest ambition of the bowler. Without this twist, the striker can calculate to a nicety where the ball is coming, and if his eye and hand are good, can play it accordingly; but with a deceptively rotating ball, it appears to be running clear of the wicket, and yet turns round the bat and takes the outside stump. The bowler, in practising, requires lessons from a professional even more than for batting; for the one is now a much more acquired art

than the other. Practice, with the aid of a little instruction, will show a quick striker how to play the balls of any bowler with whom he plays much; and though this will not perhaps enable him to play to Clarke or Wisden, yet he only wants their bowling to him to enable him to do so-that is to say, if he has "the gift," and a little perseverance. But it is not merely putting a good batsman at the wicket which will make a good bowler, though it may improve him; he requires actual demonstrations from a master of the art before he can acquire the command of the ball; and without this he would have to go through the same course which the earlier inventors of the various styles achieved for themselves, but which collectively now form the stock in trade of the regular professional. In this way the bowler, then, should learn his art; and should, while he keeps to one kind of delivery, endeavour to acquire as great a variety of distance, pace, twist, &c., as he possibly can, so as to puzzle his antagonist by giving him a different pitch and twist on each occasion. It is here that human bowling beats the catapult, which will deliver a ball with much greater accuracy and power than any arm can give it; but as in it the laws of mechanics are strictly fulfilled, the batsman soon learns to play its balls, and by practice before it, he will be able to set it at defiance. On the other hand, the scientific bowler, whether fast or slow, accommodates himself to his antagonist, looks for his weak points, and, where his armour is open, he finds room to insinuate his ball. Such are the leading principles of this art, for the filling up of which I must refer my readers to a regular bowler, either amateur or professional; or, if these are not to be had, to "The Cricket Field," where the subject is treated at length. In playing matches, it is always desirable to increase the difficulty of the batsmen by choosing two bowlers as unlike one another as possible, and thus not only to vary the balls in each "over," but also those given by the respective bowlers; and if they do not effect the object, to put on another, if there is a third good bowler in the eleven. The second bowler is usually made short slip, and if a third is likely to be wanted, he is kept to mid-wicket or cover point; but this will in great measure depend upon his own choice, and upon his peculiar capabilities and powers of fielding.

#### THE WICKET KEEPER'S OFFICE

Is no sinecure in fast bowling; and with such pace as our bowlers now give the ball it is really a service of great danger to an inexperienced hand. Tubular gloves and guards for the hands and legs are absolutely required, and without them few men would go through a single match uninjured; indeed, without gloves the first ball would generally suffice. There is very little to be said as to the duties of wicket keeper, which are, in fact, only to stop the ball if he can, and be ready to stump the striker if he is off his ground; or, in running, to be ready to catch and stump before the striker grounds his bat. But though theoretically there is little difficulty, yet in practice there is the greatest possible; because the twist of the ball is as puzzling to him as to the striker, and when he expects it to

come into his hands it often takes his chest or his face, or flies clean off him altogether. Practice and a quick eye are the requisites for this place, together with strong hard hands.

#### LONG STOP

Is only an assistant to wicket keeper, and he should be that player's double, with the power in addition of returning the ball to him with precision, yet without too much pace. He should be an exceedingly good and long thrower, but his especial quality is the power of stopping balls with certainty, and returning them quickly.

THE REST OF THE FIELD have nearly the same duties—namely, first stopping or catching, and then rapidly returning the ball; to do which properly they must often cover a great deal of ground by running to balls falling at a distance from their several stations. Beyond these points the chief art lies in the position assigned to each by the captain of the eleven, who varies it according to the bowler and the striker. In the diagram given at page 9, the field is arranged for ordinary round-hand fast bowling, and "point" is placed about 12 or 15 yards from the striker, well supported by his "cover." "Short slip" is also well off the wicket, according to the force of the bowler, with "long slip" to cover him; his principal use is to catch the ball, if, as often happens, it is raised off the bat into the air by the spin given to it by the bowler. Quick throwing is the next in importance as a qualification for all fieldsmen after stopping and catching, which they ought all to be thorough adepts in, with both hands, or with either, and at all distances. In catching with both hands, the art consists in putting them firmly together at the wrists, one above the other; not widely apart, which is sure to cause the player to miss, and earn for himself the unpleasant nickname of "butter-fingers." The attention must never flag for a moment, and the man who "stands at ease" in the cricket field is never to be relied onthat is to say, if he stands so after "play" is called. In all cases the fieldsman who stops a ball returns it either to the nearest wicket, or to the one which is least defended—that is to say, which is the furthest from the batsman who is running to it; but, unless there is any good reason, the ball from a long distance is better returned to wicket keeper than to bowler, on account of the latter's duties requiring the more delicate use of his hands. Whenever wicket keeper advances to meet a ball, slip must take his place at the wicket, in order to be ready to stump by a quick return from wicket keeper. In balls which are hit far away, every man who stands to receive a throw ought to be backed up by the nearest player whose station is out of the line, in case the first should miss it; and this is of the utmost importance to good fielding, and is a part of cricket in which country clubs are lamentably deficient.

#### THE BATSMEN, OR STRIKERS,

Should stand in the attitude well depicted in the illustration; and in playing fast balls should rarely attempt to strike them, unless they are more or less wide of the wicket. A straight pitch must be stopped, not hit; and it is in this point that the scientific batsman differs from the bolder, but more rude player; the latter may sometimes succeed in making a few extraordinary hits, which may tell up a score of 15 or 20, but the former is the man who makes a good season average, and is seldom put out for 0. Let us now suppose the four balls of one "over" played; and first let us, be-



fore we go into the description of the playing of these balls, ascertain what are the varieties of balls. I have already said that the essence of a well-delivered ball is its uncertainty, as measured by the batsman's eye. Hence, a good ball, and an apparently uncertain though really straight ball, are synonymous terms, while those balls which go wide of the wicket, and at the same time are evidently so, are the very bad balls. Again, balls are either "length balls" or the reverse, according as they are pitched, or not, at the distance which is most puzzling to the batsman's eye. There are many subdivisions of these balls, but it answers no good purpose to at-

tempt a description of them, especially as a few minutes with a practical man will do more than a dozen pages of description; and as a master is absolutely necessary in cricket, so it is throwing time away to attempt to teach it by theory. But, now then, supposing a fast ball of a bad length is bowled a foot or two on the off-side, the object will be to hit it hard and low between point and mid-wicket, just out of reach of the former, as in this sketch. Supposing this done by an advance of left leg, and a forward cut as here shown, it will be fielded by cover, who will throw up either to



mid wicket or point. These men will each retire or advance, according to the distance he has to throw, so as to be just at the full limit of his pitch. They, again, will at once pass the ball on to the bowler, or wicket keeper, and the striker will either be stumped or escape according to circumstances, it being presumed that one or two runs have been made. Next, suppose a good ball has been given to mid-stump, pitching at such an awkward distance from the popping crease as to be difficult to block, the striker must "play forward," at his full stretch, or nearly so, still, of course, keeping his



foot within the crease, but blocking the ball at a proper distance from its taking the ground, and before it has had time to twist much. On the other hand, the third ball may also be a good ball, but pitched further back; and here the difficulty is to avoid being put out by the ball passing under the bat, to guard against which the batsman steps back, and so avoids his fate, unless he manages in escaping Scylla to fall into Charybdis, by knocking his own bail off. Lastly, in the "over," comes a ball slightly wide of leg-stump, and here the batsman meets it with a hit to leg, hitting

directly across its line with great force, which he can venture upon, because it is not in his opinion straight for his wicket. This hit is

well shown in this sketch.

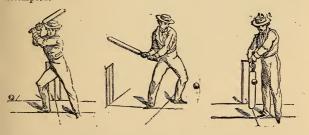
This ends the "over," and now a slow bowler, who has been shortslip, is put on, the fielders all change sides, and the captain arranges them as under:—

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• 11		10
τ 7		
2 ;	s Lu	9
1 5		
6 Off Side.		8
	T 7 T 7 T 5	11  U  7  2 ]S

DIAGRAM 2 .- SLOW BOWLING. (Second over.)

1. Short slip—(Bowler in Diag. 1).	5. Point. 6. Long slip.	10. Long-field on.
2. Wicket keeper.	7. Mid-wicket on.	
	8. Long-field off.	UU. Umpires.
4. Bowler (slip in Diag. 1).	9, Additional long on.	SS. Strikers.

The captain of the eleven has now changed his tactics, because he will have a great deal of hard hitting; and he hopes to get near catches, from the tendency which good slow balls have to rise from the bat when only tipped. "Cover" being comparatively unnecessary, he is brought up as an additional long on, about ten yards behind the bowler. With a sure hand at wicket keeper's place, long stop also may be put somewhere in front of the wicket, depending upon circumstances; but as a missed ball is a dangerous matter, and is often good for two runs, it is a ticklish experiment, only justifiable under peculiar circumstances. "Mid-wicket" is either kept in his old place or he is crossed over to the "on side," where he will, with some bowlers and batters, be more useful than on the "off." When the men are properly stationed, the first ball is delivered: but the chances are that no hit is made either to this ball or to any other in the over. Slow bowling is much straighter for the wicket than fast bowling, or it is no bowling at all; but for straighter here, straighter round a corner (Hibernice) must be read. All cuts must be avoided, and the balls must be either carefully blocked, or they must be played with a perpendicular bat, so as to cover the wicket in the whole stroke, and to have no room for the ball to reach it except beneath it or round it. In spite of every rule (except the right one), these slow balls will find their way to the wicket at times, because they have so much spin and twist as to take a devious course to their goal. They must therefore be met as near the ground as possible before they have had their twist developed; but at the same time nothing but practice will give the proper mode of dealing with them. Sometimes here, as in fast bowling, there is a ball wide enough to justify a "cut" or a "drive;" and in such cases these or the "draw," as shown in the following sketches, may be successfully attempted.



Such are the most obvious directions for playing cricket; for the more intricate and abstruse questions, the reader is referred to "The Cricket Field," already alluded to, which has become the text-book for this scientific game.

The following axioms and definitions explain, as far as description will permit without demonstration, the various terms used in cricket:—

1. The varieties of balls are—"lengths" and "not lengths;" the latter consisting of the following—viz., the toss, tice, long hop, half-volley, and ground ball.

2. Balls are to be met with a full bat—that is, the face of the bat is at right angles to the ball, and generally parallel with the wicket.

3. Straight balls are to be blocked, with the handle of the bat well advanced, to prevent the rise of the ball, and with the whole bat placed at such a point as will take the ball about a foot from the ground. This is effected by advancing or retreating the left foot.

4. At all doubtful balls, hit straight from the middle of the wicket with a perpendicular bat, driving the ball, if possible, to one side, between bowler and long field. In doing this, the left elbow must be kept well up, and the bat swung gently back to middle stunp,

previously to hitting or driving.

5. At balls a foot or more wide of the wicket, cuts may be made by which the wicket is exposed; but as from their badness it is safe from them, this is of no consequence. There are various modes of cutting; but the main difference is between the perpendicular cut to leg and the horizontal one to off side; and, besides, there are several intermediate ones, but the above comprise the chief varieties. In all the cuts but one, the right leg is stationary, but sometimes it is advanced, as shown in sketch 4.

6. Attention is the watchword for the fielders, and they should be on the qui vive perpetually, not only looking out for catches, but being ready to back up one another. Laziness is the bane of the country club, whose members will not practise together; and when they do get together, are more inclined to smoke with their hands in their pockets than to do their duties. Any man will do his best when he has the bat in hand or is bowling, but few will attend to their duties as point, short slip, or mid-wicket; and numbers of balls are missed from pure idleness and inattention.

7. The batsmen, as well as the bowlers, wicket keeper, and captain, should arrange signs by which they can readily be understood; so that the former may be of one mind as to running, and that the latter may be able to communicate with the fielders without the

striker understanding their signs.

#### DUTIES OF THE UMPIRES

Are very onerous, and their eyes must be constantly occupied in detecting unfair play. Every ball requires watching in its delivery, and the umpire must call "no ball" at once, if it is improperly given. To save trouble in counting "overs," four small wooden balls may be strung on a piece of cord, and held in the hand, and each ball counted by slipping one clear of the fingers. This is less trouble than using bullets or marbles in the pocket. The wicket keeper's unpire should be behind and between the wicket and popping crease, so as to command both, and to see that the wicket keeper does not put down the bail while the foot of the striker is within the crease. This can only be seen well in the above position at ten or twelve yards' distance.

#### DRESS.

The dress of the cricketer is almost universally a light flannel jacket, with trousers of the same, or of white duck. A straw hat or light cap is generally adopted, though many good players adhere to the ordinary hat, as protecting the head from balls better than a lighter covering. Leg-guards are used in batting and wicket keeping; and also gloves, which some also use in all places in the field. Oxford shoes, or regular cricket shoes, with spiked soles, complete the arrangements.

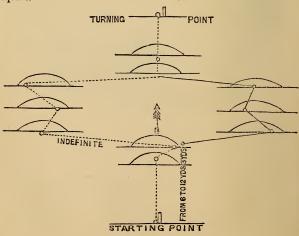


## CROQUET.

THE GAME OF CROQUET is of French origin, and has been played for many years in that country, as well as in India, and also in Ireland, where the Oatlands Club has been established for the purpose.

The IMPLEMENTS are balls, hoops, mallets, and sticks.

The Balls should be made of willow, its lightness and toughness being greater than that of any other wood. The size of the ball is in a great measure optional; but those most used are from twelve to sixteen inches in circumference. Each ball should be painted a different colour, and have a mallet corresponding. The head of the mallets are best made of some heavy wood, such as yew, beech, or box, but for ladies or children willow is much used. The head should be from six to eight inches long, and at the end three or four inches in diameter. The handles of the mallets should be of good ash, from three to four feet long, tapering from the hand to the head of the mallet in order to admit of some spring. The hoops should be of strong iron wire, not more than eighteen inches wide at the bottom. The two sticks are best to be small, not more than an inch in diameter, as they afford more amusement than when larger or square.



Any handy carpenter, with a few directions, can turn the malletheads and balls, and the rings are easily made from iron wire. The position of the rings and distance must depend on the size of the ground; but from the starting-point to the first ring should never be less than six yards, and between each two rings the distance should be three yards.

The STICKS and HOOPS are placed in the position indicated in the annexed-plan, which also shows the best directions which can be given to the balls, the dotted lines showing their course from the

starting-point, and the solid line that towards it.

Sometimes twelve hoops are used instead of ten, in which case they are ranged in four rows of three each.

RULES FOR THE GAME OF CROQUET (MALLETS, BALLS, AND SIDES BEING CHOSEN).

1. One of each side plays alternately.

2. The ball must be struck or pushed by the end of the mallet only. In starting, the balls to be placed not more than twelve inches from the post.

3. The hoop must on no account ever be moved to afford the player

any convenience in playing.

4. Going through a hoop gives a fresh move.

5. To count the ball must be quite through the hoop, but going through one backwards counts for nothing.

6. To count the hoops must be passed in proper succession.

7. Playing out of turn loses the move.

3. To get a roquet, the player must hit the ball he wishes to roquet with his own; in so doing, he may play his ball with sufficient force to move the hit ball into another position. He then places his ball close on any side of the hit ball, taking care in so doing not to move the latter.

9. The left foot is placed on the player's own ball, which he then

hits with his mallet.

10. When making the roquet, the player's ball must not move from its position; if moved, the balls must be replaced for another trial, three trials being allowed.

11. After the player has passed through a hoop, he is entitled to

another stroke; or after having roqued another ball.

12. The player can only roquet the same ball once, until he again passes through the hoop.

13. A ball half through a hoop is considered altogether through.

14. If a player misses a hoop, he must return to the side of it that he played from either through or around the hoop, as most convenient.

15. A ball must not be lifted from the ground if in the way of another player. If the ball of one player strike that of another which is not available for a roquet, both balls remain to wherever sent; but if the ball be hit, and available for a roquet, it must be roqued.

16. If the roqued ball be moved ever so little, the players remaining stationary, it is a roquet.

17. No player can requet or be requed until he has been through

the first hoop.

18. A roquet entitles the player to roquet another ball, or make a move.

19. The player cannot requet the same ball twice in the same move. He can push it on by hitting it with his own, or, going through a hoop, can again requet that ball.

20. You can requet friend or foe-helping your friend, or sending

your foe to a distant part of the ground.

21. At any stage of the game the player may go where he pleases to roquet balls.

22. When a ball is hit, it must be roqued.

23. After hitting the lower stick, the ball may be placed in a favourable position, alongside the stick, to go through the proper hoop; but if moved, a roquet cannot be played until the ball has been through a hoop.

24. When the player, having gone through all the hoops, hits the winning stick, he is out; but it is not obligatory to hit it when first reached, the player may return as a "rover," to requet friend or foe.

25. Going through a hoop does not give a "rover" an additional move, as they have all been previously passed through; he gets other moves by roqueting balls.

26. He cannot roquet the same ball again until his turn comes

round; but he can roquet other balls.

27. A ball that has not been through the first hoop cannot roquet;

but it can be roqued.

28. If a ball that has not passed through the first hoop be sent behind the stick at the starting-point, it can be brought up to the starting-point and start afresh.

29. On striking the second stick the player has the option of either leaving his ball to wherever it may have glided, or of

bringing it back to the stick.

30. When intending to roquet another ball, the player must strike his own ball with as much force as he pleases, in order to drive the ball about to be roqued into an unfavourable or favourable position. The player's ball must always be the one moved in roquing.

31. If in roquing, the player's ball slips from under his foot when he strikes it, it must be brought back to the place he struck it from.

32. If you hit a ball, and from it glance off through a hoop, you must return to croquet the ball, and are not considered through the hoop. In like manner, if you croquet a ball, and glancing off from it hit the post, you have hit the ball, but are not considered to have hit the post.

33. When you croquet a ball, and from it hit another, you must croquet the one hit first, and then the second; but if an intermediate ball be nearer the player than either of them already hit, he must not attempt to croquet it until the others have been disposed of.

34. At the upper post you may not take your ball up after hitting

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the post, but must proceed from the place to where the ball re-

35. Those balls which roll out of the ground remain where they roll to, until their turn for play comes, and then they are placed on the ground twice the length of the head of the mallet froin the edge.

36. Players must identify their balls when called upon to do so,

and state also (if asked) which is their next hoop.

37. If in croqueting you move your adversary's or partner's ball, though you do not hit your own, a fresh stroke may be taken.

38. It is not lawful to follow your ball when striking. If this happens, the striker shall take his ball up, and play again from the point he hit from.

39. A person on each side may be selected to direct the play, but

no assistance to be given by holding bats or otherwise.

40. To win, the winning stick must be hit by all on one side.

There are several modifications of this now fashionable game; but the above rules will be found to be the most conducive to the amusement of the players.



# LAWN BILLIARDS.

This very pretty game is easily played, and will accommodate any number of players from ten to twenty.

The apparatus consists, firstly, of a number of differently coloured wooden balls; secondly, cues, in wooden handles about five feet long, with a ring at their extremity; thirdly, of an iron ring just large enough to permit the balls to pass through, and which

revolves on a pivot.

In playing the game, the sharp point of the ring is stuck into the ground, so as only to allow the ring to be visible. Care must be taken to ascertain that, when thus fixed, the ring can spin freely on the pivot. The players now withdraw to a spot about sixteen paces from the ring, and the first player pushes his ball with the cue, so as to make it pass through the ring. succeeds, he counts one towards his game, and gets another stroke. If he misses, he loses one, and the next player proceeds. When all have played at the ring, they are at liberty either to play at each other, or at the ring, and if they can "cannon," i.e., stike another player's ball and then pass through the ring, they count two. As the game proceeds it becomes very exciting, as the good player will often manage to drive his opponent into such a position that the edge only of the ring is presented to him; and whenever he himself is in such a case, he will contrive to give his ball a pecu-

liar twist that strikes the ring aside as it touches, and enables the ball to pass through.

# KNOCK-'EM-DOWN.

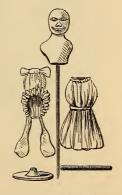
A SIMILAR game to Aunt Sally, but a simpler one, is made by scooping a hole in the ground, and placing in it an upright stick; on the top of it is placed a stone, or similar substance. The player then retires to a distance, and flings at the stone with cudgels or balls, the latter being preferable. If the stone falls into the hole, the player only counts one towards game, but if he can strike it so as to make it fall outside the hole, he counts two. This is a capital game for the sea-side, and can be played upon the sands.



# AUNT SALLY.

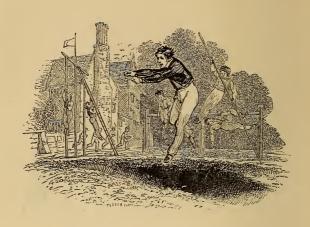
This amusing game is of a very simple character, consisting essentially in throwing at a small object. Aunt Sally herself is composed of a head and bust cut out of a solid block of wood, and generally carved with negro features, and painted black. In the middle of her nose or between her lips a hole is bored, into which is stuck a short pipe. To break it is the object of the game. An iron rod serves to support the wooden figure at a proper elevation from the ground; and when in gala costume, Aunt Sally is usually arrayed in a mob cap and a petticoat. The mode of playing the game is as follows.

The iron rod is stuck into the ground, a pipe put into the old lady's mouth, and a line drawn upon the ground at twelve, sixteen, or more paces. At this line the



players stand, and each is furnished with three short cudgels about eighteen inches in length, which they hurl at Aunt Sally's head in hopes of hitting the pipe. The best plan is to throw the cudgels underhanded, giving them a rapid rotatory movement at the same time. Some persons insert an additional pipe into each ear, but this is an innovation, and leads to careless throwing. It is better to hang a sheet, net, or large cloth behind Aunt Sally, in order to catch the sticks, and save the trouble of continually fetching them from a distance. Within doors, the iron rod is furnished with a loaded pedestal.





# GYMNASTICS.

UNDER the general name of Gymnastics, is included every vigorous exertion of the limbs, such as balancing, climbing, leaping, running, skating, swimming, vaulting, and walking. The use of gymnastic exercises is to unfold and strengthen the muscular system, by teaching the proper means of employing it to the utmost possible advantage, and the great utility of such recreations will be doubted only by those who are not aware that the health of the body depends on the full and just exercise of the different members of it; it is therefore proper to vary the movements as much as possible, and it will be found that a few hours' practice every day, sometimes at one, sometimes at another kind of exercise, is sufficient, both for the health of the youthful gymnast and the proper display of his muscular system.

#### GENERAL DIRECTIONS.

It is most advisable to practise the gymnastic exercises either early in the morning, or else in the cool of the evening, and never immediately after meals.

The pupils should not be permitted to carry knives, peg-tops, or any other toys in their pockets; neither ought they to be allowed, while warm after practising, to lie down on the ground, be without their jackets or coats, sit in a draught, drink cold water, or wash themselves with it; carelessness on these points frequently causing severe illness.

A master or usher should superintend the sports, to keep the pupils from attempting feats beyond what their strength or practice will enable them to perform with ease and safety. It is a good plan to divide the pupils into classes, according to their size and strength, and they should be made quite proficient in one exercise before they are allowed to practise another.

The left hand and arm being generally somewhat weaker than the right, they should be gradually exercised until they become equally

as strong.

In all gymnastic performances the pupil should rather endeavour to strengthen the body, by exercises taken with moderation, than to exhaust and weaken it by violent and unnecessary displays of force and agility.

The exercises should always be begun and finished gently, abrupt

transitions being very dangerous.

### EXERCISES WITHOUT APPARATUS.

#### COMMENCEMENT.

At the beginning of gymnastics, there is no need for any apparatus whatever, and the beginner will find that several of the feats mentioned will tax his powers to no small degree, before he takes to ropes, horses, and poles. If he should feel himself fatigued while learning any feat, he should rest awhile, and when refreshed, either try again, or pass to another movement.

#### DRESS.

The best costume for a gymnast (if he uses any costume at all) is a light and loose flannel suit, with a belt round the waist, that can be buckled to suit the convenience of the wearer. Some gymnasts like their belts to be very wide, and tolerably stiff. The shoes should be quite light, made of soft leather, and without heels. Always keep a coat or wrapper at hand, and put it on while resting, for there is nothing that is more likely to give cold than to sit in the open air, or in a draught, while heated and fatigued. The gymnast will find himself much benefited by a sponging with tepid water immediately after he has finished his exercises. If practicable, a showerbath is even better.

#### ECONOMY OF POWER.

The study of gymnastics does not only increase the bodily strength, but teaches the learner how to economize that power which he possesses. When an unskilful person is trying to perform any feat—such, for example, as raising himself by his hands—he makes a series of violent struggles, and flounders about with his legs. Now, every movement except that which is requisite for the performance is just a waste of so much strength, and only serves to exhaust, instead of assisting. A good gymnast performs all his feats quietly and easily, and, indeed, it is almost a general rule, that when some feat appears

to be especially easy, it is in reality exceedingly difficult. We now proceed to the first exercise.

#### EXTENSION.

No. 1.—Place the feet close together, and stand perfectly upright. Now stretch the hands out straight in front, at the level of the shoulders, and place the palms together. Separate the hands, and still keeping them at the same level, and the arms straight, try to make the backs of the hands meet behind you. Continue to practise this movement until the hands meet easily behind. It is very difficult at first, but soon becomes easy, and is a splendid mode of opening the chest. Take care to keep the feet together, and the body upright.

No. 2.—Stand as before, with hands in front, palms upwards. Close the hands, and bring the elbows sharply backwards, until the hands are level with the sides. Send them forward again, as if you wanted to annihilate an enemy in front, and repeat until tired.

No. 3.—Stand as before, but bring both fists to the shoulders. Send them upwards, as if the enemy were in the clouds, bring them down as if there were another on the ground, who must be crushed with the elbows.

No. 4.—Stand firmly and uprightly, throwing the weight of the body rather on the front of the feet. Stretch out both hands, with fists tightly shut. Now bring them slowly over the head, and make them revolve in circles, first forward, and then backward. These exercises should be done very slowly, and especial care be taken that the body is kept upright. These extension movements are intended to give ease and pliancy to the arms and their joints. The beginner must expect to find himself rather stiff after he has been performing them, especially after No. 1; but the feeling will very soon wear off, and does not again make its appearance.

#### TOE PRACTICE.

Place the hands on the hips, and stand quite upright. Rise slowly on the toes as high as possible, and remain so as long as possible. Do this many times, for it strengthens the calves of the legs mightily. Remember to keep the knees quite straight. After practising this movement for some time, vary it by jumping on the toes, keeping the knees stiff, body upright, and the heels well off the ground.

#### KNEE PRACTICE.

No. 1.—Stand as before, and kick your thighs with your heels,

using each leg alternately, and as rapidly as possible.

No. 2.—Keep the body very upright, and strike the chest with each knee alternately. Be very careful not to stoop forward so as to meet the knee with the chest. This exercise is intended to loosen the knee-joints in another manner.

No. 3.—Stand as in No. 1, and kick both thighs with both heels simultaneously. A slight spring from the toes is required to achieve this feat properly. If rightly performed, the feet should come to the ground on precisely the same spot. It looks very clumsy if the performer loses his balance, and keeps altering his place. It shows

that his body is not perfectly upright.

No. 4.—Place both feet together, the toes on a line, and the hands on the hips. Now kneel slowly until both knees rest on the ground. Rise again, without removing the hands from the hips or the toes from the line. Do it twenty times at least, without

stopping.

No. 5.—Now for the first hard one. Stand as before, with the toe of one foot on the line (say the right foot) and the other foot off the ground. Keep the left foot from touching the ground, and kneel upon the right knee. Rise again without moving the toe from the line. This is rather difficult, and requires a nice balance of the body. Be careful to kneel very slowly, or otherwise the knee will come down with such a thump, that it may suffer no small inconvenience.

Practise this with each foot alternately.

Here is another stiff one. No. 6.—Plenty of knee-practice. Stand on the right foot, bend the left knee, and hold the left foot in the left hand. Now touch the ground with the left knee, and rise up again, without losing hold of the foot or suffering it to touch the ground. As in the former cases, the right toe should remain on a line, and never move from it. At first it will appear as if some resistless power were dragging the foot out of the hand, but after a while it becomes easy. Practise with both feet.

No. 7.—As the preceding, only do not hold the foot, or suffer it to

touch the ground. Take care not to lose the toe-line.

No. 8.—Hardest of all, and very comical. Hands on hips, toes together on the line, body quite upright. Rise on the toes, and then sink gradually down, the knees projecting in front, until you sit on your heels, the whole weight of the body being supported on the toes only. Down you go on your nose, so pick yourself up, and persevere until you succeed. It is not so much the strength as the knack that is needed here.

## SITTING PRACTICE.

No. 1.—Stand upright, cross the feet, and sink gradually until you rest on the ground after the tailor fashion. Rise again, without moving the hands from the hips or the feet from their places.

No. 2.—This exercise is a capital test of the ability of the tailor who makes the gymnastic suit of clothes; for if there should be a defect in the nether garments, they will fly asunder with a report like a popgun. When the gymnast can manage this feat, he may congratulate himself on having made a considerable advance. Stand upright, extend both hands in front as a counterpoise, which is much needed, and hold out the left leg in front, at right angles with the body, and knee quite straight. Now, still keeping the left leg in its position, bend the right knee very slowly, and sit on the ground. Being seated, rise again, preserving the same attitude. Don't be in too great a hurry to take your seat, or you will come down with a run. This is an invaluable exercise, as it gives a power of raising the body when in a position from which none but expert gymnasts could even stir. It is very difficult at first, for we feel a great repugnance to let the body sink sufficiently low, and most who try it declare it to be impossible. However, after a few trials, they get over its difficulties, and manage it easily.

CUTTING CAPERS.—Stand with the toes together, and hands on hips. Spring upwards, and, as you rise in the air, cross your feet and return them to the same position. The toes must be kept pointed, or they will strike against each other as they attempt to cross. Do not heed the curious sensation as if the feet were held by bonds, but persevere.

FOOT TO HAND.—Keep the body upright, hold out the right hand in a line with the shoulders, and kick it with the right foot. Practise both feet alternately, knees quite straight.

THE COMPASSES.—Easy enough, but useful. Spring into the air, and spread the feet as widely apart as possible, bringing them together again before touching the ground.

THE HANDSPRING.—Stand on the toes, lower yourself as in knee practice No. 8. Throw yourself forward at full length, body stiff, and support yourself on the hands and tips of the toes. Take care of the nose. Then spring from the ground with the hands, and clap them together before they touch the ground again. To rise neatly from this position bring your feet between the hands with a sudden spring. It looks neat if you clap the hands as you bring up the feet.

TOUCHING TOES.—Hold the hands above the head, the palms in front and the thumbs just touching each other. Now, keeping the knees stiff and straight, bend over until the fingers rest on the toes. Continue to practise this until you can pick up a sixpence at each heel while the knees are kept straight.

OVER THE STICK.—Take a stick of any kind, a poker or a walking stick will do, and hold it with the hands three feet apart. Stoop down, and place your knuckles on the ground in front of your toes, still retaining hold of the stick. Then step over the stick without loosing your grasp or moving the knuckles from the ground. It is capital practice.

JUMPING THROUGH THE HANDS.—Hold both hands in front of the body, place the tips of the middle fingers together, and jump through them without separating the fingers. Take care not to knock the chin with the knees, for both those portions of anatomy have to approach each other very closely before the feet can pass through the arms. Don't attempt to perform this feat if your shoes have heels to them, or your thumbs will suffer.

# EXERCISES ON THE PARALLEL BARS.

## THE BARS AND THEIR CONSTRUCTION.

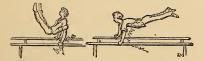
The Parallel Bars are very simple in their structure. They are two wooden bars, about six or eight feet in length, four inches deep, and three wide, with their upper edges rounded off to prevent damage to the hands. They are placed about eighteen or twenty inches apart, and four feet high, and fixed according to pleasure. If they are intended to be permanent, they can be supported on four posts firmly driven into the ground. But if they are to be used under cover, they ought to be supported on a wooden framework. And it would be much more convenient for the frame to be nicely morticed together and held by screws, so that, in case of removal, it can be taken to pieces, and packed in a small compass. This mode of manufacture is just as easy as any other, and infinitely more convenient.

We will now give the more important feats that are generally executed on the PARALLEL BARS, and leave the reader to invent as many more as he chooses.

To GET ON THE BARS.—Stand between the bars, with hands closely pressed against the sides. Spring up, and placing a hand on each bar, remain suspended between them. This is called the first position. When fairly established, accustom yourself as much as possible to the bars, and practise the wrists in their work.

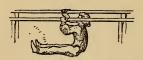


SWINGING.—The next feat is called the swing. While suspended between the bars, with the knees straight and the feet touching each other, begin to swing the body backwards and forwards. By de-



grees increase the swing, until the body, when swinging backwards, is nearly upright in the air; and when going forwards, the feet come nearly over the head.

THE WALK.—First position. Now walk along the bars, using the hands as feet, and when you have reached the end, walk back again. It is not so easy as it seems, and the back walk tires the arms entirely. Keep the arms straight, and don't shrug your shoulders over your ears, or make irregular and hasty steps.



THE LETTER L. — First position. Raise the legs to a level with the bars, making them form a right angle with the body, and keeping the knees quite straight. In this attitude the gymnast turns his person into a representation of the letter L. After

doing this figure in the first position, stand between the bars, pass the hands under them, and so grasp them from the outside. Then make the L again. This is a very useful figure to learn, and strengthens the loins greatly.



SITTING ON THE BAR.—When in the first position, swing the legs forwards, and you will be able to seat yourself on either bar. A more powerful impetus will enable the gymnast to throw himself entirely over the bar and to come on the ground. The swing in either direction will be found sufficient to throw the gymnast over the bars without any apparent exertion, only he must be careful to keep his kuees straight, and to clear the toes.

THE JANUS.—Sit on the bars, as on a saddle, one leg over each bar, and the hands resting on the bars behind the legs. Now, disengage the feet, swing boldly through the bars, and seat yourself astride, with your face in just the opposite direction. Be sure to swing high enough, or the shins will be sadly knocked against the bars.



RISING AND SINKING.—First position. Sink gradually between the bars. Remain in that attitude for a short time, and then rise again. There are few exercises that open the chest more decidedly than this.

There is rather a neat modification of this maneuvre, called KISSING THE BARS.—Sink between the bars, as in the preceding paragraph. Then kiss each bar successively behind the hands, and rise. It tries the wrists somewhat, as well as the chest.

Bar-jumping.—First position: now proceed along the bars by a series of jumps with the hands. Practise this at first with bent knees to make the work easier, but do not rest content until you can jump along backwards and forwards with straight knees.



THE ARM SWING.—First position: suddenly bend the elbows, and rest with the fore-arms on the bars. Swing while in this position, and look out for elbows. When you have swung sufficiently, hang sus-

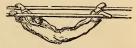
pended between the bars, and then raise yourself on the hands again. Practise the drop upon the fore-arms and the rise as often as possible.

STANDING ON THE BARS.- Now one of our former exercises (Sitting Practice No. 2) comes into play. Sit astride either bar, and secure a good balance of the body. Then place the sole of one foot



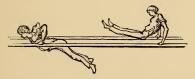
on the bar, and hitch the other toe under it. Now, by means of the toe, draw yourself to an upright position, and bring both feet together. This is a very neat little exercise, and often entirely baffles those whose previous training has not fitted them for it.

THE SAUSAGE.—Begin by kneeling on the bars, and placing both hands on them. Slide the hands forward and the legs backward, hitching the toes over the bars, until the body



hangs between them. Count ten and draw yourself up again. Don't be afraid. You will not snap across the middle, although you may feel as if you were about to do so every moment.

THE SPRING.—Swing at one end of the bars, and, when in full course, launch yourself forward, alighting on your hands in the



grasshopper fashion. Very great care must be taken of the accuracy of the balance, or down you go between the bars and come flat on your back on the ground.

TOUCHING THE BARS.—First position: now, suddenly take the right hand from its bar, and touch the left bar in front of the body, instantly returning the hand to its own bar. Look out, or you will drop through the bars. Do the same with the left hand. When you can do this easily, practise it with this modification—that you pass the hands behind the body in touching the bars.

# THE GIANT STRIDE, OR FLYING STEP.

Many schools possess this admirable piece of apparatus, but in very few is it used properly, or its powers rightly shown. Generally the pupils are contented with taking hold of the ropes and running round the pole; then they complain that the thing is useless. Whereas, the Giant Stride is a capital affair for a school, as it can accommodate from four to six players at a time, and lends itself to all their peculiarities. If they come out on a cold day, and want to be warmed, five minutes of Giant Stride will send a glow through their systems that will defy any British frost. If they want to jump over heights the Giant Stride will launch them over a ten-foot pole. If they wish to perform a series of graceful movements, the Giant Stride affords facilities little short of those given by the ice.

### STRUCTURE OF THE GIANT STRIDE.

It is composed of an upright pole, tipped with a revolving cap, to which are fastened sundry ropes. The central pole is best made of a tree trunk,—if a rooted tree, and it can be left undisturbed, so much the better. Otherwise, it must be of thoroughly well-seasoned wood, strong and genuine. The lower end should be charred, in order to keep it from rotting, and the hole in which it is set should be quite six feet deep, and paved with stones. From the ground to the top of the pole should be about fourteen to fifteen feet. An iron cap is then placed on the top, traversing freely on a pivot, and carrying four rings, on which are fastened four ropes. To the end of each rope should be fastened cross bars of elm or ash about two feet in length. The apparatus being thus completed, the gymnasts are to hold the cross bars at arms' length, and run round the pole, bearing their weight on the ropes, so that their hands, heads, and feet are in the same line with the rope. Their feet will then gradually leave the ground, and only touch at intervals. After practising this from right to left, do the same from left to right, until it is as easy to run one way as the other. Take care not to lose your balance, or you will turn round, and grind yourselves on the ground very unpleasantly. This is but the beginning. The young gymnast should then run round, keeping himself constantly rotating, which may be done by the touch of the toe against the ground. Another accomplishment is to describe four circles in going round the pole, making the hands the centre of each circle, and the feet the circumference. A pole should also be erected, about a yard outside the range of the feet, and to this should be fixed a number of pegs, which will support a string passing from the central pole. Over this the gymnasts should leap, performing the movement merely by the centrifugal force, and not by the spring of the feet. About ten feet is considered a good height for a boy to attain, but a man can go higher.

# CLIMBING THE BOARD.

Let a board be fixed at an angle against some object, such as a wall, and capable of alteration. Let it first be fixed at an angle of

forty-five degrees or so, or even at a less angle than this if necessary. Then grasp the outside edges of the board with both hands, set the feet flat upon its centre, and try to mount by moving hands and feet alternately. Make very little steps both in ascending and descending, and in the latter instance, be specially careful to avoid a sudden slide down the board. As you improve, set the board more upright, until you can ascend it when it is quite perpendicular. It is also possible to ascend a pole in the same manner. Remember that the soles of the shoes must not be new and slippery, or neither pole nor board will be surmounted.

# CLIMBING THE POLE.

The ordinary mode of ascending a pole or a bare tree-trunk (in some places called "swarming"), is by grasping it with the arms and legs, and alternately raising them to higher positions. Some gymnasts ascend the pole as stated in the preceding paragraph, and it certainly has the advantage in point of appearance. In descending the pole, be careful not to slide down too fast, or there will be excoriations of skin and damage to clothing.

## CLIMBING THE ROPE.

This most useful exercise should be constantly practised. In every gymnasium there is at least one rope suspended, which ought to hang freely, and to be without knots. The easiest mode of ascending the rope is by grasping it as high as possible with the hands, and holding it also with the feet, one of which is under and the other pressing upon the rope. Thus the weight of the body rests considerably on that portion of the rope that is held by the feet. Then, as the hands are raised to take a higher hold, the feet sustain the body. and vice versa. But one who means to be a true gymnast despises the feet in rope-climbing, and pulls himself up solely by the alternate action of the hands. Be very careful never to descend by letting the rope slide through your hands, as it will assuredly inflict a painful wound, and may cut them to the bone. Always descend hand under Many exercises may be performed on the rope, which will suggest themselves to the gymnast. For example, it affords a decided contrast to the ordinary mode, if you grasp the rope with the hands, and then, inverting your position, throw the feet over the head, and hold the rope between them, keeping the knees straight. In this attitude ascend the rope, and descend again, taking care not to let the hands slip, or the strength of your skull will be unpleasantly tested. Again: Grasp the rope at a point about two feet from the ground, and retreat as far as you can, holding the rope in the hands. Now leap into the air, and swing as far as you can, launching yourself forward, and marking the spot where the toes touch the ground. Be careful to curl the body well upwards as you swing forwards, or you will assuredly scrape the ground just under the point where the rope is suspended, and the consequences will be disastrous to clothes and cuticle.

## THE HORIZONTAL BAR.

This is a very simple piece of apparatus, being merely a pole fixed horizontally at any height that may best suit the gymnast. There are several modes of fixing it, the most usual being to fasten each end to an upright post, which is furnished with mortices, so as to permit the height of the bar to be altered at pleasure. But there is one mode, which I especially affect, called the triangle, which can be used wherever there is a beam of sufficient height for its suspension. It is made as follows: - Get a bar of any strong wood-deal will do, if it is uniform in grain and quite free from knots. diameter is about two inches and a half, and its length a little over three feet. Also, get a piece of well-made, but not very thick rope, about eighteen feet long, and securely fasten the ends of the rope to the ends of the pole. Fasten an iron "eye" into the centre of the rope, and you have the most important part of the triangle made. In fact, the rope and pole do form a triangle when suspended from the "eye." Have a strong iron pulley firmly fixed into the beam, pass a stout rope through it, fasten one end of the rope to the "eye" of the triangle, and haul away at the other until you have suspended the pole at the proper height. Make fast the loose end, and then you have an apparatus that can be adapted to little boys of eight years old, or tall lads of eighteen years of age and six feet of stature. The proper height for the horizontal bar is when the raised hands cannot quite reach it, and a small jump is requisite before the gymnast can suspend himself by his hands. The triangle is useful, because it swings and twists about, and requires the gymnast to exert his power exactly in the proper direction, for if he does not so, away goes the bar out of his reach. Besides, it is good to be accustomed to maintain a safe hold on so changeful a support, and not to heed any amount of swing or spin.

Having adjusted the triangle to the proper height, we begin by

### HANGING ON THE POLE.



Jump up, and seize the pole with both hands, taking care to have the knuckles upwards, and the thumbs on the same side of the pole as the fingers. This is indispensable. Never grasp the horizontal bar as you would a broomstick, but merely hitch the fingers over the bar in a fish-hook style. Watch a monkey gambolling about his bars, and see how he holds them. The sloth, too, merely hooks his curved claws over the branches, and defies the gales to shake him off. So, imitate the sloth as well as you can, and curve your hand into a hook-like form. Let the body hang quite straight, but not stiffly so, the knees straight, and the toes rather pointed.

After a while, practise hanging by each hand alternately, letting the other arm hang easily by the side. Don't twist round, or you will

lose your hold. A few blisters may be expected at first, but they are caused almost entirely by unskilful management of the bar, and will soon get well again.

THE WALK.—Hang on the bar, and make alternate steps with the hands, so as to carry you from one end of the bar to the other. Do this first to one end of the bar, and then return by the same method. Be careful to make the movement equably, and don't kick the legs about. When you can execute this movement properly, place one hand at each side of the bar, and do the same thing.



BREASTING THE BAR, — Hang on the bar knuckles uppermost, and slowly draw yourself up until the chest rests against the bar. Lower yourself as slowly, hang for a moment, and again draw yourself up. This should be practised continually, as it is the foundation of most of the exercises, and strengthens the body and chest very considerably. Let the legs hang quite still while doing it, and do not be content until you can draw yourself up twelve successive times without feeling fatigue.



# SWINGING.

This exercise cannot be practised on the triangle. Hang on the bar, and communicate a pendulum movement to the body, gradually increasing it until you feel yourself in danger of flying off. This soon happens at first, but after practice the body can be swung through the greatest part of a circle. When you are well accus-



tomed to the swing, you will find that when the body has swung nearly as high as the pole, the hands bear but lightly on the bar. So, take them off altogether, and launch yourself boldly into the air. An inch or two will be sufficient at first, but many gymnasts can spring a foot or so from the pole. It has a bold and dashing effect.

### THE GREAT CIRCLE.

If the gymnast will only dare he will achieve. But it is a trying affair for the nerves, both of performer and spectators, and never fails of producing quite a sensation. Swing as in the preceding exercise, and when at the full swing backwards, with the body at its highest elevation, put on all the steam, and go completely round the bar. There must be no half measures about this exercise, for every particle of strength will be wanted to drive the body round so large a circle as that which is formed by the feet as a circumference, and the hands on the bar as a centre. Of course this is also impracticable on the triangle.

# KICKING THE BAR.



Hang by the hands, and then slowly gather up the body, drawing up the feet until they touch the bar. Both feet should be kept together, and the movement performed with steadiness. One point to be observed in this exercise is, to throw the weight of the body and head as much behind the arms as possible, so as to make them counterbalance the weight of the legs and feet.

Do not attempt to jerk yourself up, or plunge about in the exertion, for you might strain yourself by so doing. Lower yourself slowly, and if you fail at the first few trials, do not be discouraged. The strength and knack will soon come.

### PASSING THROUGH THE ARMS.



Hang on the bar, and curl yourself over as in Kicking the Bar. But instead of letting the feet touch the bar, pass them neatly under it, and continue to pass the feet on until they hang as in the engraving. Then, after hanging as long as possible, drop to the ground. After you have practised this well, instead of dropping to the ground, re-ascend, re-pass the feet, and then drop. This is a magnificent exercise for the shoulder-blades and the muscles of the back. By practice you will be able to let the feet hang nearly as low when the arms are thus twisted as when they are straight.

# RISING ON THE BAR.

Draw yourself up to your breast, and then with a sudden impulse straighten the arms, so that you raise the body until the bar crosses it at the hips. It is better to throw yourself an inch from the bar while you make the spring, as then the friction of the bar against the body is no hindrance. This is a much more difficult feat than

making the "Great Circle," although it appears to be nothing at all. Practise it by rising with the right arm first, followed by the left. then vice versa, and lastly with both arms together.

## THE ROLL OVER.

After raising yourself as in the preceding exercise, change the position of the hands, so as to bring the finger-points on the same side as the body, then lean forward, and roll fairly over the bar, dropping lightly to your feet. Take notice that in all cases the toes should be kept pointed; and that when the gymnast comes to the ground, he should do so on the tips of his toes, and not on the heel or the sole of the foot.

#### SITTING ON THE BAR.

No. 1.—Pass the feet under the bar. Then, instead of rolling over, stretch the feet quite straight into the air, so that you are in a perpendicular position, the heels in the air and the head pointing towards the ground. Rest a moment in this position, and then draw yourself upwards by the arms until the weight of the legs and feet brings you upon the bar seated. Take care not to overbalance yourself and come round the wrong way, a mistake

which a beginner generally commits.

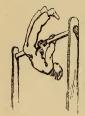
No. 2.—Hang on the bar, and pass one foot, say the right, between the hands, and hitch it over the bar at the knee. Let the left foot hang as low as it can. Give a good swing backwards, using the left leg as a weight to increase the power of the swing, and come upright upon the bar. Now, bring the left leg over the bar, taking care not to overbalance yourself by so doing, and then you are seated.

## LEAVING THE BAR.

There are two neat modes of getting off the bar when you are seated upon it. In the first method, you put your hands on the bar, with the finger-points forward, slide easily backward, keeping your knees bent, roll over backwards, and come on the feet neatly. other plan resembles that adopted on the parallel bars. Place both hands on the bar, either on the right or left side, the finger-points turned away from the person. Then, with a slight spring, bring the feet over the bar, and vault to the ground. Take care not to hitch the toes against the bar.

## BAR-JUMPING.

Hang on the bar, and, by means of the arms, jump along the pole from one end to the other. This is a capital exercise, and should be performed with the knees quite straight. It tries the arms considerably at first, and the hands too. Practise it with the hands under the bar, and then with one hand at each side.



#### CIRCLING THE BAR.

Now for a stiff one. Hang on the bar, and draw up the body and legs as if about to kick the bar. But, instead of kicking, or passing under it, raise the feet above the bar, continuing to draw yourself upwards until you have come quite round the bar. Do it slowly.

# LETTER L.

Hang on the bar, and then raise the legs until they form a right angle with the body. Count fifty before you drop the feet.

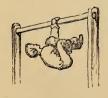
#### ROASTING-JACK.

Put one knee over the bar, letting the other hang down, and hold on with the hands. Now swing backwards, and give yourself such an impetus that you come right round the bar, and come up again as before. You should be able to spin round the bar a dozen times without stopping. When you have practised this exercise backward, do the same thing forward, of course shifting the hands to the opposite side of the bar. In the forward roll it is better to sit nearly astride the bar.

# THE TRUSSED FOWL.

This exercise is calculated to test the power of the grasp and the force of the joints, as it seems at first to have the effect of pulling every joint out of its place. Hang on the bar, draw up the feet, and put the *insteps* against the bar. Now push your body right through the arms, as if you were trying to turn yourself inside out, and after remaining in this attitude as long as you conveniently can, return in the same manner.

#### THE TRUE LOVER'S KNOT.



This is an exercise difficult to describe, and not very easy to do. Proceed as follows: grasp the bar; pass the left knee through the right arm, so as to let the knee rest in the elbow; pass the right knee over the instep of the left foot; let go with the left hand, and with it grasp the right foot. You will now be suspended by the right hand, and will be packed up in a remarkably small space. Take care of the right wrist, or you

space. Take care of the right wrist, or you will spin round and twist off. By means of this exercise the wrist is very much strengthened, and the power of the grasp increased.

# THE L ROLL.

Hang on the bar, forming the letter L. Now, bring the feet through the arms, as has been already mentioned, but keep the knees straight all the time.

# THE GRASSHOPPER.

Sit on the bar, and hold firmly with one hand on each side, points of fingers to the front. Let yourself gradually slide forwards, until the bar crosses the small of the back, and the elbows project upwards something like the legs of a grasshopper. Then draw yourself up again, and assume your sitting position on the pole. This is about the most difficult exercise that has been mentioned, and tries the shoulders marvellously. But it should be learned, for it is very useful.



## STANDING ON THE BAR.

Sit astride the bar, and place both hands on the bar, just in front. With a sudden spring, bring both feet upon the bar, the feet crossing each other at the heels; at the same time raising the body to an upright position. It is not strength that is required in this exercise so much as a good balance and presence of mind.

Another mode of standing on the bar is that which has already been mentioned in the Parallel Bars—viz., by placing one foot on the bar, hitching the other under it, and drawing up the body by the latter foot.

## HANGING BY THE LEGS.

Sit on the bar; then suddenly slide backwards and drop, catching yourself by your bent knees. Be careful to drop quite perpendicularly, and not to communicate any swing to the body, or the legs may be unhitched and the gymnast come down on his nose. When the young gymnast can hang by both legs easily, let him take one of them from the pole, and remain suspended by the other. He should not (as some teachers recommend) catch the instep of the suspending foot with the knee of the other. There is quite sufficient force in the one knee to hold him up, and if he knee it shalls heat when the sum of the sum of the sum of the standard way.



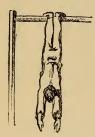
and if he keep it tightly bent, there will not be the least danger of its unhooking.

# HANGING FROM THE TRIANGLE.

If you have nerve, here is something wherewith to astonish the natives. Sit on the bar, folding your arms. Then throw yourself a regular somersault backwards, as if you meant to throw yourself out of the triangle. But, as soon you come over, spread the legs,

so that the feet catch against the ropes. Let them slide down the ropes, and you will be held by your insteps at the angle formed by the junction of the ropes and the bar. I once saw a man perform this exercise in a triangle raised fifty feet in the air. It had a most startling effect, for, as he turned over, it seemed as if he must be inevitably dashed to pieces.

# HANGING BY THE FEET.



We now proceed to a more ambitious performance—namely, that of suspending the body by the feet instead of the knees. Hitch both insteps over the pole, forcing the toes upwards as much as possible. Then loosen the hands from the pole, and let the body hang perpendicularly, without a jerk or a swing. To raise the body again is not so easy, but it can be done with a little practice. But the neatest way to leave the pole when in this attitude is by dropping to the ground on the hands, and so letting the feet come to the ground.

#### KISSING THE BAR.

Another difficult exercise. Raise yourself on the bar, as before mentioned, until the bar crosses the waist. Sink gradually down, until you can touch the bar with your lips, and then raise yourself again.

## THE WOODEN HORSE.

The series of horse exercises is extremely interesting. The performers always like the horse exercises, and bystanders seem to appreciate them even more than those on the horizontal bar. There is more scope for change of attitude than on the bar, and the legs are exercised as much as the arms; in some of the feats much more so.

# CONSTRUCTION OF THE HORSE.

The wooden horse is made of a great cylinder of wood, generally part of the trunk of a tree. It is mounted on four posts for legs, which are either driven firmly into the ground or fastened to a strong framework, so that no amount of force will push it over. A saddle should be placed on the back, rather nearer one end than the other, which saddle should be made of stout rough leather, and nailed firmly in its place. Two pommels, made of wood, and covered, if desirable, with leather, should also be placed on the horse, and the hind pommel should be rather higher than the other. A shallow pit, of a few inches in depth, and some four feet square, should be dug in the off-side of the horse, and filled with sawdust, on which the gymnast may alight after some of his lofty leaps, or into which he may chance to tumble, should he miss his mark. The paving on the near side should be of sand if practicable, or very fine gravel.

Many gymnasts like to have a spring board from which to leap, and I rather recommend it. The board should be made of several narrow boards, placed side by side, and firmly nailed to stronger pieces that lie across them. On the centre of the board should be fixed a piece of leather or carpet, in order to afford the feet a firm hold in jumping. Each end of the board must be supported on wooden blocks, so as to give it space for springing. If the ground is hollowed under it, the same result will be attained. The height of the horse is regulated by that of the gymnast, the top of his nose forming an accurate criterion; for the top of the saddle ought just to come up to that feature.

MOUNTING THE HORSE.—Stand on the near side of the horse, placing one hand on each pommel. Then spring up, and bring the arms straight, so that the body is supported by the hands, while the legs rest lightly against the horse. After remaining for a few moments in this attitude, jump to the ground and up again immediately. Continue to practise this jumping, until it can be done easily, and remember always to come down on the toes. When you can jump up and down six or seven times successively, make a rather higher leap than usual, throw the right leg over the saddle, removing the right hand to let it pass, and



then you are fairly mounted. Practise mounting both ways; it's only a wooden horse, and does not feel insulted even if you do mount with your face to his tail.

DISMOUNTING.—To dismount properly and neatly, place the left hand on the fore-pommel, and the right hand on the saddle. Raise yourself a little on the hands, and throw yourself off, coming on the ground nicely on your toes.



THE KNEE LEAP.—The following exercise will teach you how to escape the danger of a fall. Leap up with the knees on the saddle. Lean well forward, and, with a bold spring, clear both legs of the saddle, and come to the ground. There is not the least difficulty about this exercise, although, when it is first attempted, the legs feel as if they were severed when the house. Only design in



the legs feel as if they were secured to the horse. Only daring is required, and after doing it once, you will do it ever afterwards with perfect ease.

Sustaining the Body.—Spring up as in the preliminary exercise, arms stiff and legs straight. Now throw yourself a little away from the horse, and bring yourself back again by the arms, without suffering the feet to touch the ground. This is a useful exercise to prepare oneself for a real horse that starts away as it is being mounted.



KNEE PRACTICE.—Place both hands on the pommels, then leap up, and kneel with the right knee on the saddle. Leap down, up again, and come with the left knee on the saddle. Afterwards kneel with both knees, taking care not to go too high, as you may chance to topple over ignominiously.

Leg through Arms.—Hands on saddle as before. Now leap up well, and pass the right leg clean over the saddle between the arms. Make a slight spring from the arms, withdraw the leg and arms to the ground, immediately springing up again, and passing the left leg through the arms. Let the unused leg hang down easily, and keep the body upright. A stooping attitude has a most awkward effect.



SWINGING PRACTICE.—Mount, but, instead of seating yourself on the saddle, do so behind it. Now place the left hand on the fore-pommel, and the right on the hinder, and swing the body completely round, so as to seat yourself before the saddle, your face looking towards the hind pommel, and the feet not touching the ground at all. Then change hands, and swing round again,

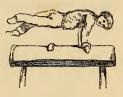
so as to bring yourself into the position from which you started. This is very useful exercise for developing the power of the arms.



KICKING THE SADDLE. — Hands on pommels. Jump up, and bring the toes to the top of the saddle. Afterwards go a little higher, place the soles of the feet on the saddle, let go the pommels, and come up standing erect on the horse.

ARM PRACTICE.—Mount. Place the hands on the front pommel, and raise the body as high as you can. There is not the least danger of going too high. When you can thus suspend yourself for a short time, try to do so while you swing your body gently. Lastly, raise yourself up as before, and slap the soles of your feet together over the top of the saddle.

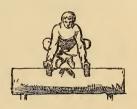
Cross Purposes,—Which cannot happen accidentally. Mount, and placing both hands on the front pommel, swing yourself as high in the air as possible, crossing your legs at the same time, and twisting the body, so as to seat yourself again on the saddle, but looking in the opposite direction. Having done so,



swing up again, and resume your former position. A very decided swing is required here, or you will kick your shins with your own heals which is one of the most imitating of compresses.

heels, which is one of the most irritating of occurrences.

THROUGH THE ARMS.— Hands on pommels. Take a good spring, and bring yourself completely over the saddle, passing through your arms as you do so. When your feet are well clear of the horse, give an impulsion with the arms, and alight on the ground neatly. This is a very effective exercise, and does not require so much strength as boldness. If you hesitate, down you go.



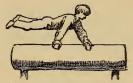
# SIDE-SADDLE.

No. 1.—Stand with the right side to the saddle, hands on pommels. Spring up well, and throw the right leg into the saddle, lifting the left hand to let the leg pass, but retaining the hold of the other hand. Dismount, and instantly leap up again; but mount with the left leg, removing the right hand. Persevere in this, and then proceed to the next, which is more difficult, and requires a neater balance.

No. 2.—Hands on pommels. Leap up, and throw both feet completely over the body of the horse, and seat yourself behind the saddle. Down, and with a spring seat yourself in the same way on the front of the saddle. Take care not to put on too much steam, or you will slide over the horse and come down in the saw



dust, while, if you do not put on enough, you will come slipping backwards, doubled up in an absurd fashion.



THE VAULT.—Hands on pommels, and throw both legs completely over the back of the horse. Do it at first with the aid of a short run, but afterwards with a simple jump. Practice the vault first with the feet to the right, and then to the left. Indeed, all these exercises should be so prac-

tised, or they will not develope both sides of the body equally.

SIDE-SADDLE LEAP. — Spring up as in Side-Saddle No. 2, but let the legs pass completely over the horse, while the knees are kept straight, the body erect, and one hand on the back pommel.



THE BACK VAULT.—Sit behind the saddle, placing both hands on the hinder pommel. Raise the body on the hands, and with a powerful effort of the arms throw yourself clear off the horse.

THE SINGLE-HAND LEAP.—Try to leap into the saddle while one hand only holds the pommels, and the other hangs quietly by the side. First right hand, and then left.

THE SOMERSAULT.—Take a short run, put both hands on the pommels, and fling yourself fairly over, not loosing your hold of the pommels until the feet have well passed the centre of the horse. Don't be afraid. If you only hold on well by the pommels, you must come down properly. There is no need for a very powerful swing, for the best gymnasts come over quite slowly.



The Double Somersault.—This exercise I believe to be my own special invention, and I never saw any one who could do it except the inventor. But there is no reason why every one should not learn to do it, for it merely depends on the exact preservation of balance. Go over the horse, as in the preceding paragraph, but do not loosen the hold of the hands when you come to the ground. Your attitude will be now rather curious, the back bent like a bow, the head falling backwards, and the hands over the head. Now make as powerful a spring as the legs can achieve, and with the arms draw yourself over

the horse again, thus performing exactly the reverse of the forward somersault. In rolling over the saddle, the head is bent forward, or the nose would get a sad scrape against the back of the horse.



BOATING AND FISHING.



# SWIMMING.

"The sprightly youth
Speeds to the well-known pool, whose crystal depths
A sandy bottom shows. Awhile he stands
Gazing the inverted landscape, half afraid
To meditate the blue profound below;
Then plunges headlong down the circling flood."
THOMSON.

SWIMMING must ever hold a prominent place amongst those exercises which strengthen the muscular system, from its extremely invigorating and beneficial effects on the body. When, through the excessive heat of the atmosphere, listlessness and inactivity are produced, bathing is of the greatest importance, as it is the only means by which the body can be refreshed, and the energy of its actions maintained in their full vigour. It was deemed an essential part of education by the ancients, particularly by the Athenians, who held it so much in repute, that if a person could not swim, or read and swim, he was considered fit for nothing, and

"The same Roman arm
That rose victorious o'er the conquered earth,
First learned, while tender, to subdue the wave,"
THOMSON,

Of course I presume that all boys are already convinced of the advantages to be derived from a knowledge of the art, and have made up their minds to attain it. Therefore I pass over all preliminary observations, and place the learner at the brink of the new element now to be first tried.

## BY THE WATER.

We will suppose that the learner has arrived at the bank of the river, pond, or lake which he has selected for the scene of his first essay. Of enclosed baths I say nothing, because teachers are almost invariably attached to them; and, in such a case, a teacher is far superior to any book whatever, and should be employed in preference. The bather ought to be provided with two tolerably large towels; one, if possible, of a rough and rasping character, and the other soft and absorbent in its nature. These articles are necessary for all. And it is as well to remark that vast discomfort may arise from the omission of a very small object, or the substitution of one article for another—such as a button-hook for a boot-hook, for example. A comb with large teeth is useful, for the water gives to hair much of a fretful-porcupine aspect, and an uncomfortable feeling under a hat; for both of which evils the large comb is an excellent temporary remedy. Small combs are often worse than the evils that they were meant to remedy, for they put the user to sad torture, by weaving the wetted hair into elf-locks, and then dragging at them painfully.

# PREPARATIONS.

The first precaution that ought to be taken by a bather, on arriving at a spot with which he is not well acquainted, is, to sound the depth of the water, and the nature of the bottom. The former of these precautions is really of more importance than may be imagined: owing to the refractive powers of water, the depth appears to the eve to be much less than really is the case; and it often happens that a supposed depth of four feet turns out to be upwards of six. This may be shown by the well-known experiment of placing a shilling in a basin, and gradually filling it with water; when viewed obliquely, the shilling seems to rise in proportion to the amount of water in the basin, and so gives a wrong impression of the depth to which it is immersed. The nature of the bottom is of much importance to one who cannot swim. For the river-bed is often composed of sharp stones that cut the feet, or strewed with sunken branches that thrust their jagged points upwards, as if on purpose to wound an unwary bather, and give him a chance of severe injury. Few accidents are more dangerous than those caused by sharp splinters entering the foot, and remaining there. Other waters, and especially those of ponds and all still waters, deposit a depth of mud that is always most unpleasant to the bather, and sometimes deep enough to be dangerous. And soft as is the mud, and in itself innocuous as hasty pudding, it often contains substances that treacherously pierce or cut the sinking foot. Thorn-branches are frequently found in muddy waters, and the thorns are so brittle that,

after piercing the foot, they snap from the branch, and remain imbedded in the flesh. Animal as well as vegetable substances lurk in the mud, to the damage of bathers. Among these the mussel is most common; and as it has a habit of remaining with its sharp edges uppermost, it cuts a bare foot as readily as if it had been a knife-blade. Even mud, however, has its useful properties; it is frequently used instead of soap, and with success. Certainly a mud-covered person does not present a very elegant appearance; but as people generally bathe away from mixed society, the temporary disfigurement matters but little. The most singular effect is produced when a party of good swimmers cover themselves with mud, and then simultaneously leap into the river; they enter brown, and come out white. It looks really as if a party of Hindoos were suddenly transformed into Europeans.

Weeds are horrible nuisances to bathers, and must be avoided. The water-lily must rank among "weeds," for it is so considered by bathers, and is a very dangerous vegetable; its long, flexible flowerstalks tie themselves round the limbs like lassoes, and the leaf-stalks are apt to hitch themselves on an arm or a leg with unpleasant firmness. Should the bather unfortunately get among weeds, the best way of extricating himself is by "creeping," which mode of swimming will be hereafter spoken of. He must also be careful not to struggle; but if he finds himself arrested by a weed, to lie quietly in the water, keeping himself afloat with one hand, while with the

other he unwinds the weed.

There is yet one other important duty to be performed. The bather must ascertain that the river-bed contains no holes, or sudden depressions. A hole only a foot deep and two feet wide is quite enough to drown a person who cannot swim, and does not possess presence of mind. Indeed, I once saw a young man nearly drowned in three feet of water. He lost his footing, and falling backwards, was carried along by the stream, beating the water violently with his hands, and screaming for help. And if he had not been assisted, he probably might have perished in water hardly deep enough to drown a child of six years old.

## ENTERING THE WATER.

The bather, being now ready for his bath, sometimes begins to feel rather nervous about the water. So he cautiously puts the tip of his toe into the water, feels it cold, begins to shiver,—and, perhaps, resumes his clothes. Now the fact being that he has to immerse himself totally, it is evident that the sooner he does so the better. So he should let himself quickly into the water, keeping his face towards the bank, and suddenly submerge himself entirely. By so doing he saves himself from a succession of mental struggles, and occasionally from a headache; which latter evil seizes upon those who do not dip their heads at the same time with the rest of their person. Some writers (whether practical bathers is doubtful) recommend that the bather should wade until the water deepens to his breast, and then submerge himself, or duck, as this operation is familiarly termed.

But we recommend most strongly, that if the water be only a foot or eighteen inches deep, the bather should instantly cover himself with water, even if lying at full length be necessary. If he likes to splash the water over his head before entering, he can do so, and the wet sensation may give courage. When a person unaccustomed to the water wades from shallow to deep water, he sustains a separate pang for every half inch of depth. By the time that the water reaches the hips he begins to gasp, and when the chilly liquid rises as high as the pit of the stomach, scientifically called the "epigastrium," his gasps become so spasmodic that he can hardly breathe. Now one good "duck," that occupies about one second of time, prevents all this gasping and gaping. The face should be turned towards the bank, because the novice is apt to feel giddy when he takes his head out of the water, and to stagger forwards.

#### TEMPERATURE OF THE WATER.

The temperature of the water is exceedingly variable, being affected by so many causes. Shallow water, for example, is always much warmer than deep; and in deep water the temperature of the surface is several degrees higher than that of the water at the depth of a few feet. Indeed, if a swimmer, after diving, rises through the water with his hands held above his head, it often happens that when he comes near the surface, the water round his hands will be quite warm, while that about his feet is very cold. Shady spots are always colder than those exposed to the sun, especially if the water be still. But the most sudden alteration of temperature is found where springs pour themselves into the water from sources below the surface; these are often of an icy coldness, and in some cases cause cramp.

# TEMPERATURE OF THE BATHER.

A warning is generally given to bathers, never to enter the water while they are hot, but to wait by the river-side until they are cool, and then to enter. And sundry examples are mentioned of imprudent personages who bathed while heated, and died from the effects of their imprudence. But the fact is, that these "shocking examples" suffered fatally, not because they were hot, but because they were tired, and their wearied frames could not resist the shock of cold water. There is no greater mistake than to wait on the river-bank until the warm glow of exercise has subsided. So that the bather is not fatigued, he may go into the water as hot as he likes, and will find that the healthy action of the skin repels the chilling effects of the colder medium with which it is surrounded. Similarly in winter time; if a person with cold hands washes them in cold water, he suffers from it; but if his hands are thoroughly warm, an immersion in water at 33° does not hurt them; and even though the ice may be floating on the surface, his hands leave the water all in a glow with heat.

A PIECE OF ADVICE.

## TIME FOR BATHING.

It is not good for any one to bathe immediately after a meal. Perhaps the best time for a healthy person is in the early morning. A morning plunge has a wonderful effect on the spirits, and sends home the bather with a mighty appetite for breakfast. Many people find themselves much benefited by an evening bath, and I certainly recommend it. A swim by moonlight is one of the pleasantest recreations that can be imagined; and besides, disposes the bather to sound and refreshing sleep. Still it is injurious to bathe over frequently, or to remain in the water over long, and such excesses must be carefully avoided.

### MAKING A START.

When the reader has sufficiently accustomed himself to the water, he should set himself to learn the A, B, C of the swimming artnamely, the stroke by which the body is propelled, without sinking the head below the surface. For this purpose he should walk slowly backwards into the deeper part of the water, until he is immersed at least up to his shoulders, taking care to keep his face always towards the bank. If he feels nervous about going out so far, he will find himself aided by holding a rope, one end of which is fastened to a tree trunk, or a stake firmly driven into the ground. Now, if he rises on his toes, and makes a few gentle springs upwards, he will find that the water supports nearly his entire weight, and that an occasional touch of the toes on the bed of the river will be sufficient to keep him suspended between earth and water. This little exercise will give great confidence in the sustaining power of the water, and will give confidence for the next step, which will be narrated in the succeeding paragraph.

## LEARNING THE STROKE.

The stroke used in ordinary swimming is twofold, the work being divided between the arms and legs. For the leg-stroke there is no better model than a frog, whose action in swimming should be copied as accurately as possible. But as the frog does not make use of his arms in swimming, but tucks them away under his throat, the armstroke must be gained from another source. And this is the way to make it. You stretch out your arms at full length before you, the hands being placed flat upon the surface of the water, palms downwards and the thumbs just touching each other. Now draw a full breath, place your head as far back as possible, and lean forwards towards the bank. The impulse thus given will take your feet from the ground; and were you not to move your arms, you would sink just below the surface. But as you feel your feet lift, you should deliberately spread your arms, so as to describe as much of a circle as possible, pressing them slightly downwards, and again let your feet sink to the bottom. You will then find that you have gained several inches of space towards the bank. This action should be repeated over and over again, until you can go through the movement with deliberation. It is a good plan to try to reach the bank

by a succession of these little efforts. The whole action should be slow, and without any appearance of flurry. It is almost impossible to make the stroke too slow—quite impossible for a learner.

#### THE LEG-STROKE.



Now for our frog. Catch a good large frog, and put him into some water, where he may have plenty of space to swim, and where he can be watched. A pail or basin will not afford sufficient room, and in a

river Mr. Frog speedily gets out of sight. An ordinary bath is a good swimming school, with the frog for teacher. It will be seen that the legs are struck or kicked out simultaneously, and the feet kept widely separated from each other; the legs having reached their full stretch, the feet are drawn together firmly and slowly, the legs still extended as much as possible, and the toes kept pointed. The power and efficacy of the stroke does not depend so much upon the "kick," as on the force with which the legs are drawn together. The mechanical action is simply that of the wedge, for the legs enclose a wedge of water, and when they are drawn together, the body is impelled forwards. The attitude of the body and limbs is shown in the accompanying cut.

# GENERAL DIRECTIONS FOR ATTITUDE, ETC.

When a person becomes a good swimmer, he does not need to trouble himself about rules, and gradually dispenses with them. But a learner finds himself much helped by a few simple rules which are easily carried in the head, and easily applied. The following are given for this purpose:—1. Slow and steady. 2. Back of head on shoulders. 3. Spine well hollowed. 4. Take breath between the strokes.

# MANAGEMENT OF THE BREATH.

The last rule in the preceding paragraph tells the learner to take breath between the strokes. The reason of this injunction is, that a beginner is apt to draw his breath just when he strikes out. Now, whenever he does so, he is tolerably certain to get his mouth full of the water which ripples against the chest and chin, and then to choke himself, and then to collapse and sink. Therefore it should always be a rule, that as the legs strike, the lungs should expire the air that is in them, and so drive away the water that might find entrance. Few things disconcert a learner more than getting his mouth full of water, more especially if the water be salt. But if in addition he happens to be drawing a breath at the same time, he is sure to be sally affected with a choking cough for some time afterwards. However, a slow and deliberate manner of swimming soon gets the better of these little difficulties.

#### PLUNGING.

Being now able to support yourself for some little time, you must not be content with entering the water after the very mild manner that is only appropriate to those who cannot swim. You must now learn to throw a little spirit into the proceedings, and enter the water with a dash. Some people always jump into the water feet foremost; but this is a very clumsy proceeding, and, moreover, is apt to entail a sharp blow against the



chin when it strikes the surface of the water. The only mode of entering which a dashing swimmer will allow himself to use, is the head-foremost plunge, commonly called a "header." This is achieved by taking a smart run to the bank, and boldly launching the whole body forward, the hands joined over the head, so as to enter the water at an angle of forty-five degrees or so, the head downwards and the heels in the air. This proceeding is rather a nervous one at first, because the leaper cannot get rid of the notion that he is throwing himself headlong on some hard substance which will dash him to pieces. So it is better to begin by assuming the attitude shown in the accompanying cut, and to tumble forwards in the fashion represented. By so doing, the bather gains two advantages. In the first place, he finds that, though his head be downwards, his skull remains still unfractured; and, in the second place, he learns to conquer the nervous sensation that is felt by beginners when they find themselves for the first time deep below the surface, and the natural position of the body reversed.

# THE "HEADER."

The genuine "header" may be taken either from the bank with a run, or from a height. It is better to learn both ways, and indeed every way by which the human body can be transferred from the land to the water. To take a proper "header," the hands should be joined over the head, so as to present a wedge by which the water is separated for the passage of the head through its substance. If this precaution be not taken, the top of the head gets a terrible blow from the water. The back should be well hollowed, the entire body as stiff as a poker, the legs stretched out firmly, both feet pressed tightly together, and the toes pointed so as to offer as little resistance as possible to the water. The test of a perfect "header" is, that it raises no splash, and the body seems to slide into the water like an otter, merely leaving a series of concentric rings, and little bubbling spots in their centre, to mark the place where the diver vanished.

## LEAPING FROM A HEIGHT.

This is a most useful accomplishment, and should be sedulously practised. Of course the water must be of sufficient depth to prevent any risk of the diver hurting himself against the bottom. The progress should be quite gradual, until the diver is able to leap with perfect confidence from a height of twenty feet or more. Very great care must be taken that the body and limbs are properly held, for the least deviation inflicts a blow on the offending member, that leaves a scarlet mark behind as a memorial of its clumsiness. is need for making this observation, because when a novice leaps head-foremost from a height, a strange sensation comes over, or rather inside him, precisely as if he left the whole of his internal anatomy adherent to the spot from whence he jumped; and so he is apt to discompose the proper attitude of body. However, when he rises to the surface of the water, he finds that nothing has been left behind, except, perhaps, a little presence of mind, and he soon learns to leap from almost any height without feeling at all disconcerted. So accurately can this be done, that it is a well-known practice in some places to mount a tree or other elevated spot, throw a wooden hoop into the water, and dive through it without touching the sides. Experto crede.

# LEAPING INTO SHALLOW WATER.

There are cases where a swimmer is obliged to enter the water where it is not of sufficient depth to permit the ordinary plunge. Under such circumstances, the best way is to make a run forward, and to throw the body nearly, but not quite, horizontally into the water, and to curve the back as far as possible when the head has fairly touched the surface. In this manner an expert leaper will boldly throw himself into water only three feet or so in depth. Indeed, there are some who can manage this feat so adroitly, that their head actually emerges as their feet are submerged. care must be taken to hold the body firmly braced, as the sudden change of curve in the spine is apt to cause a strain that might lead to dangerous results. I have seen a strong man who attempted this feat unadvisedly, so strain himself that he had to be lifted out of the water, and was unable to stand for some time. The chief use of this mode of plunging is, when there is a necessity for reaching any object in a short time, as, for example, in a race, or when a fellowcreature needs rescue.

#### DIVING.

We now come to a very pleasant department of this art—namely, that of diving. There are few divers who do not feel a kind of exultation in their power over the element, and in their ability to move under the surface of a stream with ease and pleasure. Here, again, the chief qualification is that of courage and presence of mind, and one who possesses the latter will become an expert diver. Two points are to be considered when learning to dive—the eyes and the lungs. The eyes should never be closed under water, and the

bather should accustom himself to use his eyes as freely in water as in air. Some wiseacres advise the diver always to enter the water with his eyes open, as if he tries to open them under water he will not be able to do so, on account of the pressure upon the eyelids. This statement, made at first by a person entirely ignorant of the art, has been copied from one writer to another, and we find it even in works high in the estimation of the public. It is as easy to open and shut the eyes while beneath the surface as above it, as any one may try who chooses. The breath is of as great importance as the sight; for in cases of danger the issues of life and death often hang on a few seconds. At first a diver can only remain under water for a very short time, but by practice he learns to retain his breath for a length of time that astonishes those who are not accustomed to see diving much practised.

There is a plan, which is of infinite service, when the diver wishes to remain under water for a long time, and which will enable him to vanquish any one who is not acquainted with it. Take a full breath, and then expel every particle of air from the lungs. Repeat this several times, each time filling the lungs as full as possible, and each time emptying them as much as possible. This plan of proceeding drives the impure air from the little lung-cells, where it generally remains undisturbed, and regenerates the blood so fully, that a fresh breath is not needed. I have timed myself with an accurate seconds watch, and held my breath for a minute and a half without any difficulty. For practising diving after objects at the bottom, a piece of thick white china is a capital mark, as it can be seen for some distance, and does not crush in the hand like the erg that is so often recommended.

#### REACHING THE SURFACE.

When the diver has achieved his object, he should rise to the surface of the water without delay. If he only remains still, he will rise like a cork; but it is better to spare the lungs, and reach the air as soon as possible. The best way of so doing is by striking violently downwards with the feet, as if making a series of leaps; at the same time raising the hands above the head, and as it were pulling the body upwards. When this action is properly performed, the diver shoots out of the water as high or higher than his waist. We used to term this action "Jack in the box."

# THE "STEAMER."

While lying on the back, rapidly beat the water by alternate blows of the feet, taking care to keep them well pointed. If this is properly done, the swimmer drives up a shower of spray like that from the paddle-wheels of a steamboat, and at the same time propels himself through the water at some speed. We have known several swimmers who could race for a short distance in this manner, and beat one who swam in the ordinary fashion.

#### SWIMMING ON THE BACK.



Many learners can manage to swim on their back before they can achieve the usual method. In truth, it is the easiest mode of supporting the body; as, if the head is only thrown well back, and the spine hollowed, the greatest novice

may keep himself from sinking. This, by the way, is a maxim that ought to be inculcated on every one who ventures on the water and does not know how to swim. Many lives would have been saved, had the victims only remained quiet in the water, with their heads thrown back, instead of struggling, and so sinking themselves. It is possible to swim at a smart pace by this method. The hands may be used or not, at the discretion of the swimmer. By permitting the body to sink gradually, a position nearly upright will be attained. There will be no danger of sinking, though the water will generally rise as high as the lips at each respiration.

### FLOATING.

This is not very easy in fresh water, although it can be done without difficulty in the sea. Lie on the back, hollow the spine as much



as possible, throw the head well back, and stretch the arms above the head to their extremest limits. By so doing, the centre of gravity is thrown nearer the head, and the body may be kept for any time so near the surface, that the toes show themselves.

#### TREADING WATER.



This is useful whenever the swimmer desires to remain in the same spot and to keep his head well above the surface of the water. The process is perfectly simple, being nothing more or less than assuming a perpendicular attitude, and letting the hands remain at rest while the feet perform the ordinary stroke with considerable rapidity.

#### SWIMMING LIKE A DOG.

No special advice is required for this feat, as the name explains itself. It is useful as affording a means of changing the action of



the limbs during a long swim. Great relief is given by frequently changing the mode of swimming, and the danger of cramp much decreased.

## THE CRAMP.

But, in case of a sudden seizure, the best mode of proceeding is to get to shore as soon as possible. Even if both legs are disabled, the arms will suffice to paddle ashore; and if the arms are seized, the patient should lie on his back, and get to land by striking with his legs. There is not so much danger in the cramp as is supposed, unless its victim is apt to lose his presence of mind. I have several times been caught by it while in deep water, and never suffered any inconvenience, except from the pain at the time.

#### SWIMMING UNDER DIFFICULTIES.

It is always better to prepare for such emergencies by practising them beforehand. Every swimmer should learn to swim easily while one arm is held entirely out of the water, or even when they are both held aloft. We were accustomed to keep an old heavy suit of clothes, consisting of a great pea-jacket and thick woollen trousers. Accoutred in this paraphernalia, we accustomed ourselves to jump into the water, and to swim for some time in spite of the heavy, dragging weight. Also, we used to dive after heavy weights, and bring them ashore. Also, to swim across the river, with a boy sitting jockey fashion on our backs. Also, to practise the rescue of a struggling person. In this case, the object of the one party was to enact as accurately as possible the rble of a drowning man, and to drag under water the rescuer; while that of the other was to catch the drowning man and get him to shore. Many similar exercises will suggest themselves to the bather as he improves in swimming.

#### THE WASHING-TUB.

The swimmer who makes the "washing-tub" does so in the following manner:—While lying on his back, he gathers his knees as near his chin as possible, and being thus packed into a compact form, he rotates rapidly by the action of the hands. The secret of this feat is simply to work the hands with a downward pressure. If this

precaution is not taken, the "washing-tub" is sure to sink in the course of its first gyration.

## CREEPING.

This is a capital mode of avoiding entanglement by weeds, should the bather find himself suddenly among them. In "creeping," the swimmer lies as flat as he can, keeping his whole body and limbs as near the surface as possible. With the feet he gives a succession of very short strokes, not more than an inch or two in length, while with his hollowed hands he pulls the water towards him. The worst weeds, even the water-lilies, lose their terrors to a good "creeper."

## HAND OVER HAND.

In this mode of swimming each hand is successively raised out of the water, and thrown forward to its full extent with a kind of circular sweep. It then grasps the water, and passing downwards towards the hips, is succeeded by the other hand, which performs a similar movement. The legs also urge the body forward, as the arms leave the water. During these movements the swimmer seems to be hurled forward by the swing of the arms, and gets over a good deal of water. But it is too fatiguing a process to be adopted for any length of time. It is very useful, though, as a relief from the ordinary mode.

# SEA-BATHING.

THOSE who have been exclusively accustomed to fresh-water swimming, often find themselves rather discomposed when they come to the sea. For their benefit I append a few remarks.

# MANAGING THE WAVES.

During, or after a breeze, the force of waves is often sufficient to take a man fairly off his feet, and throw him at full length into the water. Then, before he can recover his footing, he is caught by another wave, and again rolled over. Several instances have been known where a person has thus been drowned in shallow water. Now there is but little difficulty in getting the better of a wave, if one only knows how to do it. Carefully watch the advancing wave, and if it does not reach above the level of the eyes, leap upward as it begins to lift. Thus the wave will pass under the feet, and go on its way harmless. If, on the contrary, it should come on with a great roar and rush, like a mountain of water, stoop down, leaning forwards to the wave, and let it pass over.

These directions are for one who cannot swim. For those who can

do so, a different mode of proceeding will be required.

A swimmer ought not, unless accompanied by a boat, to venture out to sea while the tide is running out, for a swim against tide is about as disheartening an occupation as can well be imagined. I have once been forced to swim for a long distance against the tide, having unwittingly been carried out to sea while listlessly floating on

my back; and I never wish to do it again. One seems to make no progress whatever; and the marks on shore by which one measures the distance seem to remain absolutely stationary, while there is the knowledge that a pause of only a minute for rest will lose the labour of very many minutes' hard swimming. But at slack water, or when the tide is coming in, he may safely go out to some distance, even though the waves be rough and lofty. To get out to sea, he should keep a look-out for a big wave, watch it break on the shore, and, as it returns to the sea, throw himself upon it, and be carried on its top. His next proceedings must be varied by the size of the waves, the smaller being surmounted, and the very large ones dived through. It must be remembered that the waves nearest the shore are the most awkward, as they break against the bottom, and roll very unevenly in consequence. For returning to shore, the proper plan is, to watch the waves, and as they roll shorewards to keep on their crests. When the feet touch the ground, the bather should immediately run well out of reach of the waves, so as to escape the force of the return wave.

#### THE TIDES.

Always make sure of the "set" of the tides, and when swimming seawards shape the course accordingly. Tide-tables are sold at all seaside book-shops, and half an hour's study of the tables will make one master of the tides and their "sets."

### BATHING FROM A BOAT.

This is the pleasantest mode for a swimmer, unless a sharp wind is blowing, in which case the operation of dressing in an open boat is not very agreeable. There should be a small ladder hung over the stern, by means of which the swimmer can get on board without trouble. It requires some practice to get into a boat neatly, if there is no ladder; and the inexperienced bather will be tolerably certain to find himself engaged in a long struggle before he succeeds in getting into the boat; and when he has done so, he will be scraped raw on sundry projecting points of his anatomy, and much variegated with tar besides.

## BATHING FROM THE SHORE.

The two chief drawbacks to this mode of bathing are—first, that the clothes are somewhat endangered by prowling vagabonds; and, second, the necessity for going into very shallow water at first. In all other respects, I very strongly recommend this plan. It is much more independent than the machine or boat-bathing. Care should be taken to reconnoitre the spot, as it is very unpleasant, while wading into deep water, to come upon sunken rocks covered with those sharp-shelled mussels or the ocean barnacles. The best plan is to visit the spot at low water, and to make a plan, noting all rocks, stones, and holes, and marking their relative position on the plan.



# SKATING.

Passing at once from summer to winter, we find ourselves seeking amusement upon the surface of the water, now too hard, and for most constitutions too cold, to permit bathers to enter. The two chief ice amusements are sliding and skating. As to the former, we speak not of it in these pages, for it is so simple a process that instruction is not required. But as to skating, although a practical teacher is the best, yet much help can be gleaned even from a book. Skating is truly a fascinating pursuit, and seems to have been invented to serve as a recompence for our inability to fly. Indeed, as long as we have skates on our feet and good ice under them, we do not envy the birds, which at other times we are apt to do. Nonskaters can have no conception of the fascination which the art exerts over those who are well accustomed to it; but if they wish to find a simile, they may do so in the dreams of flying that we all have experienced, in which we only have to flap our arms, glide easily along, and wonder why we never found it out before. Such a mode of progress is attained by the accomplished skater, who needs no powerful exertions to propel him, but sails about as if by simple volition.

## THE ICE.

Again we shall suppose the reader at the water's edge, desirous of making his first essay upon the ice that floats on the surface. He is also supposed to have ascertained that the ice is sufficiently strong to bear, not only his weight, but the shock of a fall or two, to which he must philosophically look forward. Ice ought not to be knobby or covered with ripples, as is often the case when a frost and a breeze set in simultaneously. Also, there should be none of that thin superficial coating called "cat's ice," for the skate breaks through and trips up the wearer. Care should also be taken that stones and sticks are not frozen into the ice. It is as well to keep a look-out, if possible, during the first few days of the frost, and to prevent boys from throwing stones on the ice to try its strength. But the very worst substance that can find its way on ice is sand. It is so insignificant in appearance, that the skater cannot see it, especially when he is skating backwards; and a few grains of sand, that together would not more than equal a mustard seed in size, are sufficient to upset a skater. It seems to have the effect of suddenly arresting the progress, and cannot be knocked out of its bed like a stone, or cut through like a stick. I once knew a beautiful piece of ice entirely spoilt by a few boys, who walked upon it after they had been standing on a sand heap.

# PREPARATIONS.

Besides his skates, the learner should have with him a small gimlet, that screws into a wooden guard, or, in default, thrust into a large cork. Nothing is more dangerous than to carry an unprotected gimlet about the person. I knew a man killed by doing so some few years ago. The gimlet should be at least one size smaller than the screw of the skate, as otherwise the screw will not hold fast, and after the same boot has been used once or twice, it becomes what is called "screw sick." In order to save time and trouble, it is better to bore the holes for the screws before leaving home, and to fill up the hole with some hard fatty substance, such as the common composition candles are made of. Otherwise, it is very awkward to sit on the bank trying with the left hand to bore a hole straight into the right heel. Of course the position of this hole should be marked by trying the skate upon the boot. An old duster, or any old piece of stuff, is useful, in order to wipe the skates after removing them, and so to guard against rust. A pocket-knife will of course be in its proper place.

# THE SKATE.

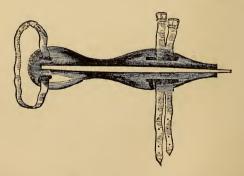
A beginner generally damages a good pair of skates, so it is as well to content himself with an ordinary pair. Those at 5s. will do very well to learn with, and when he has attained some amount of skill, he may get a right good pair. Fluted skates, i.e., those which have a groove running along the steel, are not to be recommended. It is true that they give a better hold of the ice at first, but they are very apt to become blunt at the edges, and, besides, they cut up the

60 SKATING.

ice into little shavings which collect in the groove, and by degrees project beyond the edge of the skate, when the wearer is sure to be thrown. As to the straps, let those cross-straps over the insteps be discarded; they are quite useless, and only confine the foot. Very little strapping is required, as the only use of a strap is to prevent the skate from falling off when the foot is lifted from the ice. The accompanying cut is a representation of a skate, on which is



hardly any strap. There is one at the toes, partially divided for convenience of fastening, and another at the heel. Those who strap tightly are sure to skate awkwardly. No one can dance gracefully in tight boots, and the same rule holds good for skating. If the balance be properly kept, the straps are hardly needed at all. Here is another view of the same skate, which shows the arrange-



ment of the straps, and also the peculiar formation of the steel, which is very wide in the centre, and very narrow at the heel and point. The object of this formation is that each edge of the steel may form part of two circles, one made by the curve of the steel as seen in the former drawing (the steel, it will be seen, does not lie flat on the ice, but has quite a sharp curve), and the other, by the vary-

ing thickness of the material. This structure enables an accomplished skater to cut circles of very small dimensions.

# PUTTING ON THE SKATES.

The holes being properly made, the screws are introduced, and the skates placed straight along the feet. The little spikes at the front should be well pressed into the sole of the boot, and the straps drawn just tight enough to fix the skate firmly without cramping the foot. The ends of the straps must be carefully tucked away, as, if they become loose, they are apt to get under the skate and throw the wearer. If too long, let the superfluous portion be cut off. In case of a broken strap, it is as well to have a spare strap in the pocket. One of the most useful pieces of apparatus for a skater is a little strap about an inch long, with a buckle at each end. So, if a strap should break, he has only to insert this double-buckle at the broken parts, and he is all right again without loss of time.

#### GETTING ON THE ICE.

If possible, the skates should be put on while the wearer is sitting on some spot where his feet can overhang the ice. If that cannot be, he should walk fairly on the ice, and kneel on one knee while he fixes the skate on the opposite foot. A small impulse will then put him on his feet, where he will not find it easy to remain. Here I take an opportunity of condemning all such helps as chairs or pointed sticks. They are as objectionable as corks to a swimmer, and moreover give the beginner an awkward attitude, from which he does not recover for a long time, and sometimes not at all. At this period of his progress the learner finds a great difficulty in keeping his feet together. Generally, one foot slides to the right and the other to the left, and down he goes. But don't be disheartened; get up again by kneeling on one knee, as in putting on the skates, and try again. After a little while you try to progress, and do so as you would on land—i.e., by walking. But to walk on skates is very difficult on land, and just impossible to a beginner on the ice, and down you go again. You do not hurt yourself, though-no one ever hurts himself while learning the beginning of the art-so persevere until you have some notion of the method to be pursued, which is as follows :---

# STARTING.

Let the learner stand as in the third position in dancing, with his right heel in the hollow of the left foot. The two feet will thus form right angles with each other, and it is from this position that the first step in skating is made. The learner now places his weight on the right foot, and at the same time presses the inside edge of the left foot into the ice. A push given by the left foot, which is immediately taken off the ice and brought parallel with its fellow, sends the skater forward for a few feet. The same thing is repeated with the left foot, and so alternately, until the skater is able to get along, although very clumsily, and with his hands flying about, but still

getting on. When he can skate easily, and keep his hands still, he should try to skate backwards.

## SKATING BACKWARDS.

There are several modes of learning how to skate backwards, of which the best is as follows:—Let the reader stand quite still upon the ice, place his right foot well in advance, the toe turned inwards. His weight must be nearly entirely on the left foot. Then with the right foot let him describe a semicircle on the ice, and he will thereby force himself a few inches backwards. This movement is repeated with the other foot, and by degrees the skater finds himself at some distance from the spot on which he started. At first he seems to make no progress whatever, and appears to be fixed to the spot. But after a little practice he overcomes the difficulty, and begins to glide backwards in a sinuous course rather pretty to look at. Being familiar with this, his next lesson is the Outside Edge.

## OUTSIDE EDGE.

Hitherto, the inside edge of the skate has been used, because it is the easiest. But a good skater entirely disdains the use of the inside edge, and so we must proceed to the outside. The best mode of learning this feat is by marking a circle on the ice, some eight feet or so in diameter, and putting some object to mark its centre. The learner then stands on the outside of the circle, his right skate upon the line with its outside edge firmly pressed into it, and his right shoulder turned towards the centre. In this position he pushes himself round the circle by means of the left foot, keeping the right skate on the line. After going round once or twice, so as to learn the direction-always being careful to hang his head well over his right shoulder—he puts himself to speed, and, still keeping the right skate on the ice, tries to cross his left foot over the right. He will certainly fail at first, but after a few trials will succeed in getting the foot over. After he has done so once or twice, he should turn his left side to the ice, and go round in the opposite direction, trying to cross the right foot over the left. When he can go round the circle either way, by continually crossing the feet, the learner is ready for the next movement.

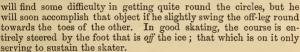
## THE CROSS-ROLL.

To skate the "Cross-Roll," the skater stands as in learning the outside edge, and starting on the right foot, crosses the left over it. But instead of repeating the movement, and so forming a circle, he immediately crosses the right foot again over the left, and so on. Then, instead of making one large circle, he forms a succession of arcs of circles, by which he is carried forward. The legs should be crossed over each other as far as possible, and the skater should not be content until he can even cross the knees. This is a very pretty movement when neatly done, and one of the most graceful on the ice. The hands must hang quite easily and quietly, and the body carried uprightly without being stiffened. Care

must be taken that, in doing this figure, the outside edges of the skates are pressed firmly into the ice when they touch it, or the skater will be liable to a slip.

#### FIGURE OF EIGHT.

We now come to the first step in real figure-skating. which is the very quintessence of the art. The first figure learned is generally the 3 or the 8. Some prefer the former, but we find that the latter is the better figure on which to begin. Its appearance when cut is shown in the figure, and it is achieved as follows: -The skater starts as in the last figure, but makes an entire circle before he crosses his feet. So that, if his right foot starts on the upper circle, his left makes the lower one. N.B.-Always start from the point where the circles cut each other. At first the skater



# ATTITUDE OF THE LEGS.

Let it be a rule, without exception, to keep the knees straight when skating. Nothing looks more clumsy or awkward than a skater who keeps his knees bent. And even if he can cut all the rarest figures, the bent knees destroy their effect, and the skater still remains ungraceful.

# FIGURE OF THREE.

No pains should be spared upon this figure, as it is a most elegant one, and is, besides, the key to all figures. When the 3 is once mastered, other figures become quite easy. The mode of doing it is this :- Start on the right foot as if going to make an 8, but do it as gently as possible. But, instead of swinging the left foot round so as to make a circle, let it remain at least a foot behind the right foot. The consequence of so doing is, that when three-fourths of the circle are completed, the off-foot gives a curious sway to the body, and the skater spins round on his right foot, changing at the same time from the outside to the inside edge, and cuts the second half of the 3 backwards. When the skater can do this easily with the right foot, he should practise it with the left; and when he can cut the 3 with

equal ease with either foot, he should cut two together, as seen in the drawing. Let the reader here refer to the drawing, while we trace the skater through it. He begins with the left-hand 3, starting with his left foot on the outside edge; when he gets to the twist of the 3 he spins round, and finishes the figure (still with the left foot) on the inside edge backwards. His right foot is now at liberty to pass to the top of the right-



hand 3, which he cuts in like manner. Especial care must be taken to keep the knees straight, and to preserve a graceful carriage of the body. If the skater should be so far off his balance as to find any difficulty in spinning round, he will gain his object by throwing his weight a very little towards the toe of the skate. The reason why the skater curves round in this twist is, that the steel of the skate has a curved form; and when for a moment the body is quite upright, the whole skate spins round on its centre, as on a pivot.

# OUTSIDE EDGE BACKWARDS.

When the skater is quite at home in his 3's and 8's, he should begin to skate backwards on the outside edge. The best mode of learning to do so is by cutting a 3, then immediately after the twist the skater places the outside edge of the off-foot on the ice, at the same time lifting the other foot. This is soon learned, and is a great help to the next figure.

# BACK CROSS-ROLL.

Any one who can do this figure properly, may count himself a good skater. It seems worse than the Asses' Bridge, for we know many who can cut all the preceding figures beautifully, and are yet quite unable to skate the Back Cross-Roll. We rather fancy that the great cause of failure in this figure is, that too great an impetus is given to the body at starting. Now, it may be accepted as a rule in all figure-skating, that the best skaters use the least force. Indeed, a really good skater will continue to execute figures for an hour at a time, and none but a very practised eye can tell by what force he is impelled. In fact, the position of the head is the great secret in all these delicate manœuvres; the difference of an inch in its attitude making just the difference between a large or a small circle. The 3 is the skater's great reservoir of power. Whenever he finds himself in want of a little more impetus, he cuts a 3, and by bearing a little forward at the twist, gains enough power for a very large figure. In learning the Back Cross-Roll, the skater need not start with any impetus at all. Let him merely stand still, place the left outside edge well into the ice, lean slightly upon that side, and gently swing the other foot round, until it has crossed the left foot and is planted with its outside edge on the ice. The left foot is then crossed behind the right, and it will be found that the mere swing of the foot and leg is sufficiently powerful to urge the skater backwards. The greatest care should be taken to avoid too great an impetus at starting, and in a short time the skater will find himself able to glide over the ice in this manner with perfect ease. There is a rather neat adaptation of the Back Cross-Roll. Two skaters stand opposite each other, and hold hands. They then begin to start on the Cross-Roll, one going backwards and the other forwards. Both, of course, must keep the most exact time, and a tolerably large piece of ice is required for them to display themselves to advantage. The perfection of the Back Cross-Roll is exhibited when a skater can cut

the figure 8 on the outside edge backwards, keeping his knees straight and his hands quiet.

# SPREAD EAGLE.

The heraldic bird from whose contour this figure derives its name is anything but graceful in aspect. Nor does the ice-figure redeem its character. But as the accomplishment of the figure is thought necessary by most good skaters, we just mention it here. In this figure the two heels are placed nearly close together, or at all events in the same line, and the skates turned in exactly opposite directions, so that one skate goes forwards and the other backwards. The attitude that is assumed by the skater while performing this manœuvre is mightily like that of the spread eagles on our armorial bearings. N.B.-In this figure the knees of the skater are to be bent at right angles. The usual mode of "spreading the eagle" is to skate forwards rapidly for some little distance, and then suddenly to spring into position. The line of direction must be very accurately taken and the weight thrown rather on the back-foot, or the skater will make a series of awkward plunges, something like those of an ill-balanced kite, instead of gliding forwards easily and quietly. If he likes, he may complete a large circle, by allowing the toes to come a little forward, and leaning upon the inside edges. But if he wishes to accomplish a great feat, and astonish the natives very much, he may do so by pressing the toes still further outwards, and throwing himself upon the two outside edges. In this position the circle will be just the reverse of the other.

#### ICE-WALTZING.

If neatly done, this is a very pretty figure, and of course requires two persons. If they can be lady and gentleman, so much the better; if not, one must enact the lady as well as he can. The waltz-step is performed by cutting a very small 3, and, instead of coming round on the inside edge, finishing the twist on the outside edge of the other skate. Exact step is required, or down go both parties.

#### THE QUADRILLE.

When four good skaters get together, they generally manage a quadrille, which, if well danced, is about the most attractive of all the figures. One is appointed leader, and he gives notice of the many changes of step, just as the leader of a peal of bells gives notice of their changes. The figure that is cut in the ice is composed of five circles, one in the centre, and the four others ranged cross-wise on its outside. Each skater stands at the furthest extermity of one of the outside circles; and when the leader gives the word, all start at once with the 8-step. They thus approach each other, and as the central circle forms the top of an 8 common to all, it follows that all four skaters are going round this circle at the same time. When they have gone round their circles several times,

the leader calls the next change. This time, instead of simply making their 8, the skaters cut a three when they come to the centre circle, and so go round it backwards. Next change brings them backwards on the outside edge, done by rapidly changing feet as the 3 is formed. There are innumerable steps in this very pretty figure, which is almost as variable as a cotillon, which name would be quite as applicable as that of quadrille. It is a beautiful sight to see the dancers simultaneously approaching one point, all rapidly following each other round a little circle, with only a foot or two between each person; then diverging upon their several tracks, and again meeting in the centre. Let the reader believe one who can speak from experience, and understand that any amount of labour and perseverance will be well spent, if he is only qualified to join in such a cotillon, or even to perfectly appreciate its beauties.





# ARCHERY.

"In my tyme, my poore father was as diligent to teach me to shoote as to learn any other thynge; and so I think other men did they rehildren. He taught me how to drawe, how to laye my body in my bowe, and not to draw wyth strength of armes, as other nacions do, but wyth strength of body."

LATIMER'S Sermons, black letter, 1549.

ARCHERY was very little understood by the Anglo-Saxons, the bow being used by them not as an instrument of war, but merely for the purpose of killing birds, and from the contemptuous manner in which these people were spoken of by the Normans, as a nation not even having arrows, it may reasonably be inferred that their bows were weak and inefficient, and their method of handling them extremely imperfect. Great reliance appears to have been placed on the destructive powers of the bow by the Normans, who probably paid much attention to the practice of it, as they had both horse and foot archers in their armies; and, in fact, their hard-earned victory over the Saxons at the battle of Hastings may be mainly attributed to the superior skill of their bowmen.

From these circumstances it appears that the use of the bow for the purposes of war was first introduced into England by the Normans, and it soon became the favourite weapon of the people, by whom the practice of it was carried to such perfection, that they

were considered the best archers in Europe.

To encourage archery as much as possible. Acts of Parliament were passed, at different times, enforcing the constant practice of it, and regulating the supply of bow-staves from foreign countries, and also to compel the arrow-head makers to temper and finish the arrow-heads with care. In order that a proper supply of bow-staves might always be in the kingdom, a law was made, in the reign of Edward IV., by which every merchant trading to those countries from whence the bow-staves were usually brought, was obliged to import four staves for every ton of merchandise, and that in the same ships in which the goods were loaded, and also to bring ten bow-staves for every tun of Malmsey or Tyre wine he might import. In the reign of Richard III., still more to encourage their importation, staves of six feet and a half long were exempted from duty, and persons were employed at the different ports to examine them, and see that they were of good stuff. As the yew was the rarest and most valuable wood of which bows were made, to prevent a too-great consumption of it, no person under seventeen years of age, unless possessed of property worth forty marks, or the son of a person having an estate of ten pounds per annum, might have a yew bow, under a penalty of six shillings and eightpence. In the reign of Henry VIII. every person under the age of sixty, not labouring under bodily infirmity, was compelled by law to exercise the art of shooting with the long bow; and fathers, masters, and governors were ordered to train up the children under their care in the use of it. It was also enacted that no one under twenty-four years of age might shoot at a standing mark, except in roving, and then he must change his mark every time; and no person above that age might shoot at any mark whose distance was less than eleven score yards, under a penalty of fourpence for each shot. The inhabitants of towns and cities were likewise ordered to make butts, and keep them in proper repair, under a penalty of twenty shillings a month, and exercise themselves in shooting at them on every holiday.

Even the price of the bow was regulated by Parliament, for in the 38th of Henry VIII. no bowyer might sell a yew bow for more than three shillings and fourpence; and in the 8th of Elizabeth, the price fixed for a foreign yew bow was six shillings and eightpence. In the time of Charles I. proclamations were issued, ordering the lord mayor and common-council to prevent the fields near London from being so enclosed as to hinder the profitable exercise of shooting. A special commission was likewise issued, in the fourth year of the reign of Charles I., enforcing the practice of the long bow; but this commission was afterwards revoked, on account of the abuses and extortions committed under sanction thereof. And in 1633, by another commission, an attempt was made to induce the people to combine the practice of the long bow with the use of the

pike.

During the civil wars archery fell gradually into disuse, and as by degrees various improvements were introduced into the manufacture of fire-arms, by which they were rendered more powerful and less clumsy and unwieldy than they had originally been, they ultimately

superseded the bow, for, although target-shooting is mentioned during the reign of Charles II., and even so lately as the year 1753, when targets were erected in Finsbury fields, it is merely as a recreation, not as a revival of its old importance; and at the present time this once highly-esteemed and national exercise is only practised as being one of the most innocent and healthy pastimes which can be indulged in.

BOWS.

In the olden time bows made of yew-tree were the most highly prized, on account of their superior strength and elasticity; of late years, however, several kinds of foreign wood have been used in the manufacture of bows, and have been found, in point of durability, almost to rival the yew. Amongst these woods, the scarcest is the dark ruby, which is brought from the east, and held in very high esteem by the bowyers; the laburnum, thorn acacia, tulip, cocca, purple, and rose woods form excellent bows, particularly when properly backed with hickory or hornbeam. The yew, in the opinion of many writers and archers, however, still asserts its superiority over all the other woods; and foreign yew is, perhaps, unrivalled, especially if backed with hickory; but the difficulty of procuring a branch perfectly sound and free from fault, of a sufficient length, renders a yew bow by far the most expensive. Lancewood bows rank next in estimation to the yew, and are, if anything, rather more elegant in their appearance.

Bows made of two pieces of wood joined together, and thence called backed, are much stronger than self, or those made of one piece only; the flat, or outward part, of a bow is termed the back, and the round, or inward part, the belly. The proper length of a bow for youth is five feet, and as it is an expensive article, and, when well adapted to his size and strength, highly prized by the archer, great care should be taken to preserve it from even the slightest injury. At the end of the day's shooting, therefore, it should be unstrung and placed in an oil-skin case lined with baize, and it should always be kept in a temperate atmosphere; when done with for the season, it must be well rubbed with linseed oil and bees'-wax; and, indeed, by many archers, this precaution is taken before putting it in the case, at the conclusion of the day's

sport.

## THE STRING.

The string is a very important part of the bowman's apparatus, and must be selected with great care. The best are those made of hemp, for catgut being extremely susceptible of heat and moisture, does not always retain a proper degree of tension. The strength of the bow must entirely regulate the thickness of the string; a thin string will cast the arrow furthest, but a stout one with by far the greatest certainty; yet the choice is of no great consequence, provided the string is not too thin for the power of the bow, especially if the bow be a backed one, for, should the string break, the concussion might shatter the bow to pieces. In general, an eye is

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made at one end of the string only, it being left for the archer himself, as bows are of various lengths, to make the noose at the other end; this he will find, at first, rather difficult to accomplish; but if he examines the noose on an old string, he will readily ascertain the proper method of doing it. At the nocking point, or that part where the nock of the arrow is usually put, and for the space of three fingers above and below the point, the string should be whipped, or bound round with silk, or fine twine, well waxed with bees'-wax. This whipping is of great importance, as it preserves the string from wearing, and also fills the nock of the arrow, which should always fit rather tightly. The noose should be very carefully whipped, as the string is extremely liable to chafe at that part: indeed, many archers whip the eye also, but that is not so essentially necessary, although perhaps on the whole it makes the string more complete. Whenever the whipping wears off, the string should be immediately re-whipped, and when several of the filaments or threads of a string are worn, throw it away, it being extremely hazardous to use an imperfect one, for "it is an yll-saved halfpenny that costs a man a crowne;" it is therefore good policy to have two or three spare strings in readiness, in case of such an accident. If the string is now and then rubbed with a little bees'-wax, it will be much improved, and rendered more impervious to moisture. Never let the string become twisted or ravelled through negligence; but if by any chance it should become so, re-twist and wax it before you use it again.

# STRINGING THE BOW.

Before giving the directions as to the proper method of stringing the bow, we must premise, that it is the inward part, or belly of the bow, which should be bent inwards, and the flat or back part which should be bent outwards, and that any attempt to bend it the reverse way would most probably shatter it to pieces. Grasp the bow by the handle, or part round which the binding is wound, with the right hand, holding the back of the bow towards your body, and keeping your wrist close to your side; then place the lower limb of the bow-which can always be readily distinguished from the upper by its having a shorter horn-against the inside of the right foot, and turn the foot rather inwards, to keep the bow from slipping. Next place the centre of the left wrist on the upper limb of the bow, and close to the eye of the string, keep the arm straight, and let the tip of the thumb be on one edge of the bow, and the knuckle of the fore-finger on the other. Pull the bow smartly back with the right hand, and press it down with the left, slide the wrist up towards the horn, and then with the fore-finger and thumb drive the eve of the string into the nock, and before the hand is withdrawn, see that the eye is correctly placed in the nock. Whilst performing this movement, some caution is requisite to keep the three unemployed fingers clear of the string, for if they get between it and the bow, they will most probably receive a very smart and unpleasant pinch. The left leg should be planted about three quarters of a yard in advance of

the right, and kept quite straight, in order to give a proper steadiness to the attitude; but the right knee may be slightly bent. Before stringing the bow, carefully examine the string to see that it is not twisted, and that the noose is exactly in the centre of the nock. If the young archer does not succeed in stringing the bow, in his first or second essay, he must not be discouraged, as it requires a certain knack or method to perform it correctly and readily, which knack can only be attained by practice. In unstringing the bow, the attitude is precisely the same as in stringing it; the lower horn must be placed against the right foot, the middle of the bow grasped in the right hand, and the left wrist placed on the upper horn, so that the fore-finger may with facility reach round the eye of the string; by pressing the bow down with the left hand, and pulling it sharply back with the right, the string will become slackened, and then in an instant the fore-finger should raise the eve out of the nock.

# THE ARROWS.

Arrows are generally made of ash, red deal, and a light white wood, very similar in appearance to that of the abele and lime trees; fletchers hold the red deal in the highest estimation, but as it wears out rapidly and is liable to splinter, arrows made of it should be varnished two or three times over. The length and weight of the arrows should be in proportion to the size of the bow, but for youths' bows, the length is usually fixed at twenty-four inches. Some archers give the preference to arrows tapering from the feathers to the pile; others, to those sloping from the pile to the feathers; and others, again, to those arrows which are thickest in the middle; the shape, however, is quite a matter of fancy, as it is yet undecided, even among practised archers, which is the best or swiftest in flight. Arrows have three feathers affixed to them, two of which being taken from a gander are white, whilst the third, that of a grey goose, is brown; this is usually denominated the cock feather, and should always be placed uppermost, when the arrow is placed on the string. Although the grey goose feathers are generally highly esteemed, yet turkey and eagles' feathers are much superior to them, on account of their greater elasticity and strength. young archer will find, when shooting with the wind, that sharppointed arrows are the best, and when the wind is strong and unfavourable, that blunt-headed ones are decidedly preferable.

# THE QUIVER

Is usually made of tin, or leather, and should be long enough to take in the arrows up to the feather. The quiver is seldom required except in roving, the pouch and loop being substituted in the targetground.

THE BRACER, GLOVE, BELT, POUCH, TASSEL, AND GREASE-BOX.

The bracer is made of leather, and is buckled round the arm, to preserve it from the violent stroke of the string when loosed, and

also to allow the string to glide easily along, without being hindered

by the folds of the sleeve.

The Shooting-glove consists of three finger-stalls attached by thongs to a leather bracelet, which buttons on the wrist. The glove should be made either of cow-hide, or horse butt leather; and as new leather spoils the shot, it should be greased before it is used, so that



A Belt and Pouch for Archery.

the string may glance easily over it.

The BELT, also made of cow-hide leather, has fastened to it, on the right side, a POUCH, shaped like a small bucket, to receive the piles or heads of the arrows, and a leather loop to keep them steady in their proper position.

The TASSEL is made of green worsted, and is hung on the left side of the archer; it is used to wipe the dirt off the arrows the instant they are drawn from the

ground.

The GREASE-BOX, which should hang by the side of the tassel, may be made of any kind of fancy wood: it is indispensable to the archer, as the grease, made of equal quantities of suet and bees'-wax, well melted together, is used for rubbing on the fingers of the shooting-glove, when they become hard and dry, which is a great hindrance to the rapid loosing of the string.

# THE TARGET.

The face of the target is made of canvas, fastened on to a flat circular surface of bass, composed of straw, in manufacture similar to that of common straw bee-hives. On the canvas facing, four circles are painted, surrounding a golden centre or eye; the first circle close to the eye, is red; the next, white, usually denominated the "inner white;" the third, black; and the fourth, another or "outer white;" the outside verge or petticoat of the target is usually painted green. A certain value is attached to each circle of the target, generally computed thus: outer white, 1,—black, 3,—inner white, 5,—red 7,—and the gold eye, 9; their real value, however, according to the space occupied by each circle on the target, differs materially from the above estimate, for by this method of reckoning the gold is valued at 9,—the red circle, 3—inner white, 2,—black, 11,—and outer white, 1; the game may be counted either according to the hits on the target, without reference to its circles, or else according to a certain value, assigned to the divisions, by the players, beforehand. The proper mode of keeping an account of the game is to have a card divided off in the following manner, in which the hits of the several archers should be pricked to their respective names, either with a pin or a needle, termed a pricker.

NAMES.	GOLD.	RED.	INNER WHITE.	BLACK.	OUTER WHITE.	TOTAL HITS.	VALUE OF
Α.							
В.							

The size of the targets must always be proportioned to the skill of the archer, and the distance he intends to stand from them. There should always be a pair of them in the field, as shooting from one to the other shortens the walk, and consequently lessens the fatigue considerably. Targets made of milled board, although not half so durable, are often substituted for the others, especially where it is not convenient to keep them fixed, as they are far more portable. The young tyro should not commence archery by practising at distant marks; ten or fifteen yards, as a beginning, will be found the best range; and it may be increased by degrees, when some proficiency is attained, to sixty yards, which is usually considered the key to all other distances; by thus gradually practising, the archer's eye and hand will be so well drilled, and become so steady, that he will scarcely ever miss the smallest mark. Much advantage may be derived from shooting at different distances, as by such practice great confidence in the use of the bow is attained, and also strength in the management of it. The prizes usually shot for at targets are, gold and silver medals, silver arrows, silver bugles, and silver cups; bows and arrows are also frequently given. Two is the usual number of prizes shot for at the target; one being for the shot nearest the centre, and the other for the greatest number of hits.

#### BUTTS.

Butts are composed of long plats of turf laid one upon the other, somewhat in the form of a pyramid, and then pressed very closely together; for grown-up persons, they are usually about nine feet wide and four feet thick at the base, seven feet high and one foot four inches wide at the top; a circular piece of thin white pasteboard, about four inches in diameter, should be placed exactly in the middle as a mark, and it should be fastened to the butt by having a peg driven through its centre. Some archers prefer butts made of straw laid first in trusses, then pressed down as tightly as possible, and the ends afterwards cut smooth; butts made in this way, from never injuring the arrows, are better than those made of earth, and if kept under cover, are extremely durable. The butts are generally placed in sets of four, and so arranged that they do not stand in the archers' way when shooting at any of the lengths. What is termed a single end is, shooting to one

mark only, while a double end is shooting to a mark, and then back again to the mark just shot from. Shots placed outside the pasteboard mark are not reckoned, and he is the winner who during the play places the greatest number of shots in the mark.

# POSITION.



The archer should place himself with his left side to the target, and turn his face toward it; he must stand perfectly upright, and plant his left foot in advance of his right, and hold the bow horizontally in his left hand, with the string upwards: his next movement must be to draw an arrow from the pouch. and carry it under the string, until the pile passes about an inch on the exterior of the left side of the bow; the forefinger of his left or bow hand should then be pressed down on the arrow to hold it secure, whilst the right hand slides the nock of the arrow into its proper place on the string, where it is held fast by the first and second fingers, being put close to and on each side of the nock. holding it and the string firmly by the middle

of the first joint. The arrow being thus placed, the archer should gradually press the bow down with the left hand, and draw the string back with his right, and as he draws, he must keep his right elbow well up, and raise his arms to the requisite elevation—that is, so as to bring the nock of the arrow just below his ear, and then draw the arrow to the pile; he must not be more than a minute in taking aim before he looses the string, and indeed, according to the strict rules of archery, he should make no pause whatever in these movements. In long shots, as the arrow has to take a larger curve than in target shooting, the right hand must be somewhat depressed, so that the arrow may be drawn towards the breast, instead of the ear. taking aim, the archer should keep his eyes steadily fixed on his mark, and not look along the arrow; many archers, however, look down the arrow, but it is perfectly erroneous to do so. Dr. Roger Ascham, in his "Toxophilous," says upon this point, "Some men wonder whye, in casting a man's eye at the marke, the hand should go straighte; but surely if he considered the nature of a man's eye he would not wonder at it. The eye is the very tongue wherewith witte and reason doth speake to every part of the body. This is most evident in fencing and feighting. The foot, the hande, and all wayteth upon the eye. The eye is nothing more than a certaine windowe for witte to shoot out her head at. The chiefe cause why men cannot shute straighte, is because theye looke at theyre shafte." The archer should stand in front of the mark he is shooting from; if his arrow falls from the string, and he cannot reach it with his bow, it is considered a shot, and is pricked down as such. When he has shot, the archer should turn round to the left, and stand behind the person he is shooting with.

#### ROVING.

In shooting roving, the archers ramble about over heath and field, and select, as they walk along, some object, such as a tree or a bush, to aim at, and when the distances of the marks are judiciously varied. shooting at rovers is an excellent method of practising for improvement. The interest and animation of this system are greatly enhanced by the continual change of scene, and indeed by many persons it is considered superior to all other species of archery. From the distance at which the marks are usually selected, the rovers are frequently obliged to shoot at great heights, and are thus compelled to draw the bow more towards the shoulder than in target shooting; they are also accustomed to draw a much stronger bow than is necessary in that method, and to measure distances with extreme accuracy. Every archer ought to have at least a dozen arrows with him in these excursions, and they should be heavier and longer than those used for other kinds of shooting; blunt-headed arrows, indeed, are the best for roving, as from the force with which they are sent, if the piles were sharp, they would most probably penetrate so far into the mark, that it would be almost impossible to extricate them. If this accident should happen, cut away the wood round the arrow, rather than spoil it by violently trying to pull it out.

# CLOUT SHOOTING.

In this method, the target is only a small piece of pasteboard about a foot in diameter, fastened on a stick; it is generally fixed in the ground about one hundred and fifty yards from the archer, and as the mark is so small, every arrow is reckoned that falls within two or three bows' length of it. This mode of shooting is useful when a regular target field cannot be obtained, as the marks can be fixed in any common or field. The practice is equally as good as target shooting, and the trouble of carrying the mark very inconsiderable. Seven is the game.

## FLIGHT SHOOTING.

Flight shooting takes its name from the flight or light arrows used in the sport, and is practised without regard either to aim or distance. It is very apt to fracture the bow, and from its requiring neither skill nor judgment, is not worth practising. The archer who can send his arrows to the greatest distance is the winner. The game is seven in this also.

## GENERAL OBSERVATIONS.

In learning archery, never begin with a bow too strong for your muscular powers; it is an extremely imprudent plan, for by attempting to draw it, you may so overstrain yourself, that you will be obliged to lay the exercise aside. It is not only hurtful to the body to use a powerful bow at first, but it is extremely pernicious, as it affects the progress of the beginner; for it is impossible to attain that skill and freedom in the use of it which could otherwise be attained by using a moderately-powerful one in the early attempts.

It is quite unnecessary to unstring the bow after every shoot, although many archers recommend the practice.

Never use another person's bow, for if you should happen to break

it, the loss to him would be irreparable.

There should be no talking at the time of shooting.

Never draw a bow when a person stands before you, in case it should snap; the person bending the bow scarcely ever suffers from such accidents, as the pieces mostly fly forwards.

If the arrow falls upon the edge of the circle, it must be counted as being in that which has the greater part; but if exactly in the centre of the division, it must be reckoned in the outer circle.

After two or three arrows are shot, the archer should cease for a

short time, otherwise his aim will become loose and unsteady.

Elevation is a point of archery which should be particularly attended to; if it be too low, the arrow will fly short of the mark, and if too high, it will fly over. If the mark is at a moderate distance, the lower the elevation can be made, the more certain will be the shot. According to the modern practice, if the mark is thirty yards off, it is proper to shoot point blank at it; but if beyond that distance, with some degree of elevation.

Some archers make an allowance for the wind—that is, they shoot wide on the side on which the wind lies, so that the wind may carry the arrow to the mark; however, the young archer should not trust to this plan, as it frequently deceives. Standing in the wind, and

shooting through it, is far better, and more certain.

Ere closing this sketch of the art of archery, we must impress upon our readers that nothing but a steady and earnest practice of the rules laid down for their guidance, can ever make them skilful archers, for without diligent practice, the most laboured instructions and elaborately-written treatises would be entirely thrown away.

"Sound, sound the music, sound it, Let hills and rocks rebound it, In praise of Archery. Used as a game, it pleases, The mind to joy it raises, And throws off all diseases

Allan Ramsay.





# FENCING.

"The foiled assassin instantly took off his mask, and begged Crichton to spare his life, exclaiming that he was his pupil, Vincenzo," (p. 79.)

An essay upon the origin of the sword, and the various alterations of shape and materials which it has at different periods undergone, would be far too diffuse and elaborate for these pages; we shall therefore content ourselves with giving a slight historical sketch of the elegant and slender rapier, the prototype of the modern small sword, the proper use of which constitutes the art of fencing. The precise date of its invention is shrouded in great obscurity, but it was introduced into England from France, and was certainly in use in the early part of the sixteenth century. In elegance of shape and variety of workmanship, rapiers far surpassed all weapons of the sword kind; but in general utility, especially in the stern battle-field, it yielded the palm to the stout broad-sword, which was more adapted for hewing through the steel panoply of the knights, and the quilted brigandines of the foot soldiers, when

" Shield, helmet, man, pressed helmet, man, and shield."

In 1585, Rowland Yorke seems to have brought in the system of using the rapier in deciding quarrels by duels in fields, a practice

which Darcie, in his annals of Queen Elizabeth, styles "a wicked and pernicious fashion." As the rapier became fashionable, foreign professors settled in London, to teach the "art of defence." as fencing was then termed, and some of them charged exceedingly high prices for a complete course of instruction. Much opposition was for some time maintained against this new system of fighting by many authors, who vented their contempt in sharp satires; and the people generally, who entertained a strong prejudice in favour of the sword and buckler play, which was one of their most esteemed pastimes, looked with no favourable eye upon the passes and repasses, stoccatos, &c., which were taught in the rapier practice. After the lapse of a few years, despite the anathemas of the satirists, and the prepossessions of the people, the rapier became so fashionable that the word sword was laid aside, and was almost forgotten; even the authors themselves, when treating upon military weapons. calling all of the sword genus by the general name of rapier. About the thirteenth year of Queen Elizabeth's reign the rapiers were made excessively long, in imitation of a continental fashion, and that person was esteemed the greatest gallant who had the deepest ruff and the longest rapier. This length of blade was carried to such a ridiculous extreme, that, in order to check the folly. an Act of Parliament was passed, limiting the length of the blade to three feet six inches, and steady grave citizens were stationed at the gates of London to measure the weapons of all the passers by, and break such as exceeded the legal standard. This and similar restrictive laws checked any further increase in point of length, but it was not till towards the latter end of the next century that these "bird spits"—as they were sarcastically, yet truly termed—were laid aside, and smaller swords with fewer and plainer guards to their hilts introduced. These weapons became in turn equally as fashionable as the rapier had been before, and in shape much resembled the ornamental dress or court swords of the present day, and few men, whether old or young, however moderate their circumstances, considered themselves properly attired on Sundays or holidays unless they had a trusty blade dangling by their side. The wearing swords in general was not abolished until the middle of the reign of George III.; and as the fashion is now entirely relinquished by all but military men, and being weapons seldom or never resorted to in duels in England, the art of fencing is now followed only as an elegant amusement and accomplishment, giving grace to the movements, and adding, from the salutary exercise which it affords, to the general health of the body.

The subject we have selected as the illustrative head-piece to this article, is the murder of one of the most learned and skilful men of the sixteenth century, the Admirable Crichton, whose talents, whether displayed in disputing with learned men in the colleges, or breaking lances in the gay tournament, were equally conspicuous. He was born in Scotland in the year 1551, and showed such early literary proficiency, that he was made a Master of Arts when only fourteen years of age. He travelled on the Continent, and there

surpassed all who opposed him, as well in learning as in feats of military prowess. In 1582 he held a solemn disputation before the University of Padua, and maintained the contest for six hours. arguing with the most talented professors. At Mantua, he killed in a duel one of the most experienced fencing masters in Europe, and was appointed by the Duke of Mantua to be preceptor to his son Vincenzo Gonzaga. One night, during the carnival, as he was proceeding leisurely along playing upon his guitar, he was suddenly attacked by six men wearing masks. Throwing down his instrument, he drew his rapier and stood on the defensive, and that with such ability, that he speedily killed or put to flight all but the leader. whom he disarmed. The foiled assassin instantly took off his mask, and begged Crichton to spare his life, exclaiming that he was his pupil, Vincenzo; Crichton recognised him immediately, fell down on his knees, and told him he was sorry for his mistake; but that he had done no more than stand in his own defence, and that if he had any wish to take his life, he might always be master of it; he then took hold of his blade by the point, and presented it to the young noble, who being either excited with wine, or chafed at the defeat he and his hired bravoes had sustained, took it, and immediately stabbed him to the heart.

# FENCING.

The art of fencing is the proper mode of using the small sword, and it is learnt with foils, which are quadrangular blades of steel, thirty-one inches in length, fastened into plain handles, and tipped at the point with a brass button; that part of the blade from the handle to the middle is termed the fort, and from the middle to the point the foible. The fencer should wear an iron wire mask to protect his face from any accidental thrust, and the wire work of it should be tolerably stout. It is a good plan to wear a glove on the right hand, padded on the back and fingers, and in academies it is usual to attach a piece of cloth, shaped like a heart, on the left breast of the waistcoat. The fencer's dress should be very easy, so as not to obstruct his movements.

## THE GUARD.

Place your right heel close to the middle of the left foot, and draw your foil, as if from its sheath, and instantly place the point directly opposite to your adversary's breast, keeping the arm rather bent, and the wrist, with the nails turned upwards, somewhat lower than the point of the foil, and at the same time raise the left arm gracefully and freely. Next bend both knees until





the left knee covers the foot, when you must advance the right foot, still keeping it in a line with the left heel, into the position of the guard, as shown in the annexed figure. In all your movements you should keep your eye fixed on the wrist of your opponent, and not on his eyes. Whilst making these introductory movements, it is productory movements, it is pro-

per to keep out of the reach of your opponent's blade, in order to prevent surprise.

# THE APPEL.

The appel is made by smartly stamping twice with the right foot, taking care that the body is perfectly steady, and that the button of the foil does not swerve out of the direction in which it was at first pointed; practise this movement very often, until you can execute it with freedom, and until your position on guard is perfectly firm and correct.

# ADVANCING AND RETREATING.

In advancing, the right foot should be moved about eight or ten inches forwards, in a straight line with the left foot, and the latter then brought after it, so as always to keep in the position of the guard. In retreating, these movements are of course reversed, the left foot must be drawn back, and the right follow it, yet still keeping in the position of the guard. In making both these motions, short steps should be taken, especially when advancing, as you then get within the reach of your opponent's weapon, and must therefore act cautiously, and keep in such a position that you can parry a sudden thrust, or make an attack, if an opportunity presents itself.

THE LONGE.



The longe being one of the principal movements, the pupil should steadily drill himself in it until he can perform it with celerity and exactness. Elevate your right hand, the nails upward, and keep the

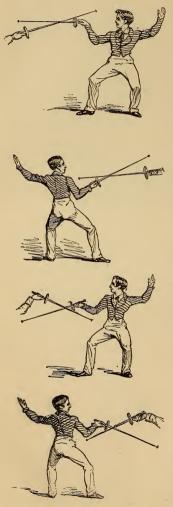
point of the foil directed to your opponent's breast; allow your left hand to drop about six inches from the left thigh, the hand open and turned outwards, and next straighten the left knee so as to throw the body forwards on the right foot. This movement, which is called the extension, being thus completed, the right foot should be advanced forwards, as far towards your antagonist as possible, keeping in the following position—the right foot planted firmly on the ground. in a direct line from your own left heel to your opponent's left foot; the body upright, bearing equally on both legs; the shoulders straight, the right thigh nearly horizontal with the ground, and the leg-from the knee-quite perpendicular, as shown in the representation. If your foot is too far advanced, or your knee overhangs the foot, you have either not longed sufficiently, or else too much, and will not be enabled to recover yourself with that adroitness which is requisite to defend yourself from any return. In order to recover from the longe, it is only necessary to bend the left knee. and at the same moment lift up the left arm into the same position as when on your guard; next raise the right foot from the ground and throw your body back on the left leg, and as you perform this movement, without altering the situation of the point of the foil, drop your wrist to its former position, and then put the right foot firmly down, without moving your body, and place yourself on guard. During these movements, carefully keep your foil's point in a straight line with your opponent's breast. Longeing and recovering should be very often practised, in order to acquire them thoroughly.

# PARADES.

In fencing, three divisions of the body are reckoned, distinguished thus: over the arm, or outside of the blade; inside of the arm, or within the blade; and under the arm. By the first of these terms is meant the whole of the body above the sword arm, between the shoulder and the sword; by the second, the space between the blade and the left arm; and by the last term, that part of the body left unguarded from the elbow to the wrist, under the sword arm. For the defence of each of these divisions, two simple parades, of which there are altogether six, are intended. The six simple parades are called quarte, tierce, circle, octave, prime, and quinte; there are also two round, or counter parades, in quarte and tierce. Tierce and prime are intended for the outside, quarte and circle for the inside divisions of the body, and octave and quinte for the thrusts under the arm.

The parade of TIERCE is to oppose a thrust over the arm, so as to throw your adversary's point off to the right side of your body. It is performed by turning your nails downward, and opposing with the fort of your foil the foilble of your antagonist's, and so throwing his blade out of the line of your body, off to the right side.





PRIME is employed to ward off higher thrusts, and is performed by lifting the hand to about the height of your shoulder, turning the nails downward, as in tierce. and allowing the point of the foil to drop very little below the level of the wrist (as shown in the illustration). out of the line of your antagonist's breast, but pointed towards his right side; by this movement your foil covers the whole of the upper part of your own body.

The parade of QUARTE is made by opposing the fort of your foil to the foible of your opponent's, and crossing your body with your blade, so as to throw his straight thrust completely out of the line of your body off to your left side. When performing this parade, the hand should be turned, so that the finger-nails are up-

ward.

The parade of CIRCLE differs from that of quarte, in that your wrist is higher, and the point of your blade lower, than your opponent's; it is therefore chiefly used against low thrusts. In this parade, also, the finger-nails should be turned upward.

In octave, the wrist and foil are kept in the same position as in the parade of circle, but the movement is made on the other side of the body, so as to throw off all thrusts under the arm; by comparing the annexed figures, the difference of the movements will be readily understood.

The parade of QUINTE is made from the position of prime, by dropping the point of the foil, so as to cover the body under the arm, by throwing the point of your antagonist's blade out towards the right side: you must keep your wrist in the same position as in prime, except that the thumb must be brought under the hand, with the nails turned out



ward. The COUNTER, or ROUND PARADE OF QUARTE, is made from the engagement of quarte, when your adversary disengages to the outside of your arm, and is nothing more than performing a small circular motion round his foil, and resuming your former position of quarte; it may, however, be used against any of the outside thrusts. The COUNTER IN TIERCE is performed in the same manner, and is used to all attacks within the arm. When you purpose making a quick return, after your adversary has made an attack, before he can recover his guard you must make your parades with a sharp, sudden jerk from the wrist, so as to throw his blade quite out of the line of your body. If, however, you intend to make any feint, after performing the parade, in making the parade, merely oppose your foil to your antagonist's, so gently that the blades do not quit each other, keeping your point in a line with his body, until he comes again on guard, and then begin your feint. It being imperatively necessary in parrying, that the fort of your foil is opposed to the foible of your opponent's, you must take especial care of the position of your arm with respect to the proximity of his blade to your body, when the weapons cross; for if his blade comes to within a few inches of your body, before you can perform the parade, you must draw back your arm so as to enable your blade to have its full effect, and prevent his from touching you; but if your opponent is so far from you that you can perform the parade properly, with the arm outstretched, it is correct and right that you should do it.

# STRAIGHT THRUSTS, DISENGAGEMENTS, ETC.

When your opponent, from his attitude on guard, leaves that side of the body on which you joined blades, much exposed, a STRAIGHT THRUST is often used as an attack. When such an opportunity offers itself, you should lift up your wrist with celerity, so as to bring the fort of your blade to the foible of your opponent's, and instantly longe at his breast, preserving at the same time a proper opposition. A straight thrust is also sometimes used as a return, and in making this movement, after parrying your antagonist's attack, with a quick jerk from the wrist you should deliver your return, smartly, with an extension, before he has time to recover his

guard or get his foil into line. When you can hit your opponent whilst he is on his longe, you should do it with the extension only.

DISENGAGEMENTS are performed by passing your foil under your opponent's wrist, as he stands on guard. In the parades of circle, octave, and quinte, the point of his foil being lower than his wrist, your disengagements then must, of course, be over the wrist.

The CUT OVER THE POINT is another method of disengaging, and is commonly performed as a return upon your adversary's pressing your blade as he recovers; it is thus executed: if you make it from quarte to tierce, raise the point of your foil very rapidly, by an upward motion of your wrist—above that of your opponent's, without altering the position of your arm; from the line of direction form your extension, and instantly deliver the thrust in quarte over the arm.

When the blades are joined in quarte, the FLANCONNADE is begun: it is performed thus: your wrist should be drawn in so far towards your body, that you can with facility oppose the fort of your foil to the foible of your opponent's; then from that position, quickly bind your blade over his, and next, without moving it, bring your point into a line with your body, and longe, keeping exactly in opposition; this longe is thus in octave. As an attack, flanconnade is used against an antagonist, who being in his reach much longer than you are yourself, opposes a straight thrust to any longe you may make. which mode, although incorrect fencing, would answer his intentions, from the superiority of his reach, if you allowed your foil to quit his in order to make an attack. After the parade of quarte, if your adversary does not recover immediately, but bears on your foil while on the longe, or when he recovers with his arm extended, and his point in line, then flanconnade should be used, as it would be hazardous to quit his foil, to perform a riposte. After the parade of circle is performed, when your opponent continues on his longe, or recovers, having his arm stretched out, and the point of his foil lower than his wrist, you may bind your blade over his, by placing your fort to his foible, and so force it, without quitting it, in such a manner that you can bring the point into a line with his body on the outside of his arm, and then thrust boldly home, making your opposition on the outside. Another method of binding the blade is performed after the parade of prime; after making the parade, on your adversary giving you full power over his foil, and leaving his body unguarded on the outside, turn your wrist from the position of prime to that of quarte, and by bringing your point into a line with his body over the arm, you make your opposition on the outside, and bind his blade.

By the term "opposition," in fencing is meant the act of shielding your own body on the side on which you deliver a thrust, by so carefully opposing your trusty foil to that of your adversary, that you throw his point quite out of the line of your breast.

#### FEINTS.

All kinds of thrusts, strictly speaking, come under the head of feints, as in these attacks it is the fencer's aim to deceive his opponent; but for convenience, we have followed the plan adopted by Mr. Roland,\* and arranged straight thrusts, disengagements, and

bindings of the blade, in a separate division.

The feint one, two, is performed thus: when your foil is joined to your opponent's, within the arm, if he has not covered his body properly on that side, by a gentle motion make him believe that you intend attacking inside the arm. In order to cover himself, he will then be compelled to assume the correct position, upon which you must disengage, instantly, to the opposite side of his foil, making the extension at the same time. Your adversary imagining that this feint is meant for a thrust on the outside, will very possibly try to make the parade a tierce; some parade he must make, otherwise you would finish the longe on the same side; when he turns his wrist to form that parade, disengage again under his wrist, and longe quickly and correctly within his arm, taking care that his blade does not meet yours on the parade of tierce. This feint is performed from the engagement of tierce, by making the first disengagement inside, and when this is opposed by the parade of quarte, you must instantly make another disengagement, and longe quickly on the outside, keeping clear of your antagonist's foil in the parade of quarte. When you make the feint one, two, from the position of circle, in which the point of the foil is held lower than the wrists, you delude octave; and from octave, you deceive circle.

The cut and disengage, resembles one, two, with the difference that the first disengagement of the feint is made as a cut over the point of your opponent's foil. In this attack, your adversary's point should be higher than his hand, when you begin the feint.

The feinte seconde, used as a return after the parades of prime, tierce, or quinte, also resembles one, two; in this, the first movement of the feint should be pointed under your opponent's arm, holding your hand as in tierce; and when he answers by a movement in quinte or octave, rapidly turn your wrist to quarte, as you disengage, and longe over his arm.

The feint one, two, three, is performed on either side of the foil, in much the same manner as one, two; the difference being that one more disengagement is made in the former than in the latter.

Doubling is used to deceive your antagonist's counter or round parades, and one, two; cut and disengage, one, two, three, the simple parades; it is begun from either side of the foil, when your adversary leaves an opening, thus: from an inside position, disengage and perform an extension over your antagonist's arm; as he, with the counter in quarte, endeavours to ward off this apparent thrust, you should a second time disengage round his wrist, to the outside, and longe. From an outside engagement of the blades, this feint is made on the same principles as from the inside.

<sup>\*</sup> Introductory Course of Fencing, p. 20.

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The parades being susceptible of an infinite number of combinations, the fencer should be enabled to combine the above feints, to meet the simple and counter parades which are frequently joined in defence.

#### TIME THRUSTS IN OPPOSITION.

These thrusts require great judgment and skill, as all your movements must be made at the exact instant of time at which your opponent makes his attack. When you take time thrusts in oppositionthat is, when the blades cross each other—it is essentially necessary that you fully understand what attack your adversary intends to make upon you, as you must make the various parades he wishes to deceive. and take the time thrust upon his last disengagement and longe. There are two time thrusts in opposition—i.e., the time over the arm, and the time in octave. The first of these is applied to all kinds of thrusts where the longe is performed on the outside; and the second is used when the longe is made to the inside of the body, or under the arm. Thus all thrusts yield an opportunity for the performance of these two motions. When your opponent's disengagement ended inside the arm, your time movement will be only crossing his foil in quarte, and then continuing the same motion, dropping your point to octave; when the thrust ends under the arm, you must oppose your fort to his foible, and keep in the position of octave. When the attack terminates by a thrust over the arm, the outside time thrust should be performed. On a simple disengagement from the inside, the time thrust is thus made; when your opponent quits your foil to make an attack, you must instantly alter your position from the in to the outside, and keep your hand in quarte; as he finishes his attack, you, without altering the position of your wrist, oppose the fort of your foil to the foible of his, preserving your point in a line with his body over the arm; if, therefore, he makes his thrust well home, to make him longe upon your point it is only necessary for you to extend your arm and keep In this manner, all time thrusts are taken, preyour position. supposing that the preparatory feints are correctly answered; as for example, we will imagine that your opponent tries to make the feint one, two, three, on the outside, you should return his feint one by the parade of quarte, and upon his second movement, take your time thrust over the arm; suppose he endeavours to double from the outside, which movement you parry with the counter in tierce on his first disengagement, and he avoids that by doubling, as he makes the last movement, you take time in octave.

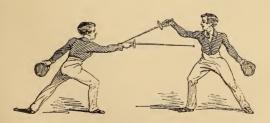
Time thrusts are decidedly the most scientific motions in fencing; they require much calculation and thought as to the proper time for taking them, and also great precision in their execution; generally speaking, time thrusts in opposition require only an extension of the arm and body; but if your opponent makes his attack at too great a distance, then you will find that a longe is necessary on your part, which you must make at the instant he executes his thrust. Both persons thus longe at the same moment, but your

opposition should be so correctly made, that his foil should be thrust out of the line of your breast, and your own point take its full intended effect on his body.

# TIME THRUSTS OUT OF OPPOSITION.

When your antagonist makes incorrect movements, disengages too frequently whilst executing his feints, attacks too widely, or carelessly exposes himself by giving unnecessary openings, then the TIME THRUSTS OUT OF OPPOSITION should be employed. In making them, a longe is always essential, as they must be executed during your adversary's feints, and not upon the last disengagement, as in the thrusts in opposition.

As these thrusts are only practised against irregular attacks, it is impossible for us to give more than a very few general rules for them; if your opponent advances in making a feint, in which he quits your blade, he at once exposes himself to this thrust, which you should use at the exact instant he comes forward, else it would be a hazardous attempt, and of course ought not to be tried. If your antagonist quits your blade, after parrying one of your attacks, in order to execute a feint before you can recover your guard, by way of retaliation for your attack, he leaves an opening for you to employ a time thrust. Indeed, this thrust may be used in all wide or incorrect attacks, where the point of your adversary's foil is so far out of the line of your body, that there is no fear of a touch by it in the way of exchange; for if otherwise, it would not be worth while to try the experiment. If the point of your opponent's foil touches you whilst you are executing a time thrust, whether it be in or out of opposition, rely upon it that your movements must have been extremely ill-timed, or else performed in a slovenly style; and although both thrusts may take effect, his only, according to the strict rules of fencing, can be accounted good.



QUARTE AND TIERCE, ETC.

Quarte and tierce, counters, and longeing at all feints, are exercises intended to place the tyro in fencing well on his feet, and to teach him to measure his distances with accuracy, and to make his move-

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ments in the proper order of succession. In quarte and tierce you measure your distance by making a full longe at your adversary's left side, and after which you should both perform a short salute, thus: You must place yourself on guard, and engage your opponent's blade on the outside, and request him, by way of compliment, to make a thrust at you; then lower the point of your foil, by turning your nails downwards with a circular movement, and draw your right foot up behind your left. Next raise your right arm, and with the left hand take your cap off with as much grace and elegance as you can; then perform a circular movement with your wrist, with the nails upward, while you plant your right foot forwards, making the proper extension. Your antagonist must perform the same movements, keeping exact time with you, making, however, a complete longe, instead of the extension, as if he intended thrusting quarte inside; his point, therefore, is presented at a little distance from your body. while you remain uncovered on the extension. After this salute, he makes about a dozen disengagements, which you parry alternately with quarte and tierce.

When your antagonist recovers his position after making the longe, you also recover by drawing your right foot close up to the left, keeping your right hand well stretched forwards, and the left raised in a semicircular sweep, as if on guard, with the hat held therein, head erect, and the hams stretched out. Your opponent being also on guard with his point out of the line of your body, and his breast unprotected by it, you take your distance; the salute is repeated, and you attack while he defends. When you in turn push, the salute differs in one respect from that described above, in that, instead of making the extension and uncovering the body, you make the complete longe from the first position of the right foot behind in quarte, then recover to the second position by bringing the right heel close to the left, and finish by performing the other movements. It is the person longeing who determines when the

practice is to conclude.

If after making these movements you make an assault, you should take your masks, and holding them in the left hand, perform the fencing salute, thus: On the engagement of tierce make two smart appels with the right foot, then bring it close up behind the left, and at the same time raise and stretch your right arm, with the nails upward, and drop the point of your foil, holding the mask in the left hand stretched down near the flank. Next make a circular motion of the wrist, as if forming the counter in tierce, and throw your left foot backwards to the distance of your common guard, raise your left hand, and make two other appels; then bring your left foot forward to its former place, before the right, stretch your arm, with the nails upward, as before, and gracefully perform the parades of quarte and tierce: make a circular motion with the wrist, advance the right foot to your original guard, and put on your mask. The movements in this salute must be performed with more sprightliness than in the one before quarte and tierce, and the most exact time should be kept with your adversary's actions.

COUNTERS is an exercise restricted to the fencing-room, being only for mutual instruction. It is commenced without a salute, by your adversary and yourself taking your positions on guard, with the foils joined in quarte: bear his point out of the line of your body, he will then disengage and longe over your arm, which thrust you must parry by the counter in quarte, and keep well in your position; after remaining on the longe for a short time, your opponent will recover his guard, and in doing so, throw your foil out of the line of his body; you then instantly perform a disengagement, and this movement he must parry by the counter in quarte; you continue thus parrying and disengaging alternately with your opponent, until you can execute the movements correctly. After making several alternate disengagements, you may deceive the counter in quarte, by doubling on your opponent, without giving him notice of your intention; he having missed the blade in the counter to quarte, will follow it to the parade of tierce; from this parade, when you press his foil out of the line of tierce, he disengages to the inside; this you must parry by the parade of quarte, which will bring your blades into the right position for continuing the practice. The counters can also be commenced from the engagement of tierce, according to the same rules.

ALL FEINTS is another preparatory exercise practised before making the assault. This consists in one party keeping on the position of guard, and defending himself from the attacks of his antagonist, who is not allowed to repeat any thrust on the longe, but must recover after every such longe. The person standing on guard must not make any return.



THE ASSAULT.

When you enter upon the assault, pay great attention to the best method of getting into position on guard, as you may have an antagonist to contend with who is ever ready to take advantage of all openings; it is therefore, perhaps, better that he should take his position first, so that you may engage his blade out of measure in quarte, and thus prepare your defence before you come on guard. In taking your position, always endeavour to command on either

engagement the foible of your antagonist's foil with the fort of your own, as by so doing you press his point out of the line of your body. and thereby uncover his body as much as you cover, or guard, your own; this advantage, added to the power your fort has over his foible, will most probably allow you to deliver a straight thrust, which, as you are not necessitated to quit his blade while performing it, is one of the best attacks in fencing. If you are beyond the range of your adversary's longe, the command you possess over his foil will compel him to make an alteration in your relative positions, before he tries to get within distance, and this motion will probably allow you to make an attack; but if he should advance without altering your position, you must then make your straight thrust on his advance. It is of great importance to make straight thrusts and simple disengagements frequently; for unless you sometimes use simple thrusts as attacks, your antagonist will not answer them when you employ them as feints, since he will quickly see that they are intended only as such; these instructions should be very carefully attended to when you fence with a stranger, whose mode of defence

or favourite attacks you are unacquainted with.

A few simple lessons will explain the method of attack and defence. we therefore add them: when the blades are joined on the inside, A presses the blade to cover his body, on which B disengages over the arm: A parries this disengagement by tierce, and immediately thrusts seconde with an extension.—these thrusts made only with the extension should be performed before the opponent can recover after his attack,—and B as quickly defends himself from this thrust in seconde, by performing the parades either of octave or quinte, as he is recovering. When the blades are joined on the outside, A presses the blade, and B disengages to the inside; A parries by quarte, making it with a rapid movement of the wrist, and instantly returns a straight thrust with an extension, which B recovering from instantly, parries by the parade of quarte. From the inside, A makes feint one, two, when B parries the thrust by simple quarte, and as the former recovers, pressing B's foil out of the line, the latter makes the cut over the point, on which A executes feint one, two, three; B parries the thrust with tierce, and as A recovers, makes feint seconde; A disengages over the arm, B parries with the counter in quarte; A doubles over the arm, B parries that with tierce, and when A recovers, makes feint seconde. A then doubles and returns inside, which B parries by quarte, and as A recovers, throwing B's foil out of the line, the latter cuts over the point, and instantly disengages. The three latter movements may be used from the outside engagements also, the defending party using the necessary parades and ripostes, which of course differ from those we have just described.

If A endeavours to change the engagement from the outside to the inside, on quarte, B must disengage to the outside, while A is bringing his foil to quarte. A then retreats, on which B advances, keeping his wrist low, and at that precise moment A seizes the foilbe of B's blade with the fort of his own, and longes straight over his arm. Whenever your opponent endeavours to change the engagement. from either the outside or the inside, it will give you an excellent opportunity for using any of the preceding feints. When A changes the engagement inside from quarte to tierce, and retreats a step, keeping his point well in line, B, in trying to take advantage, will afford him several opportunities of making an attack; thus, if B steps forward to regain his distance, and yet allows A to keep his advantage of position, A must catch with the fort of his weapon the foible of B's, and by elevating his wrist, longe straight over the arm; or if B, endeavouring to change from tierce to quarte, strives to regain his former position, A will have an admirable opening for commencing the feint one, two, on the inside, but he must take the exact time, or else he will lose all the advantage of it. When retreating and changing the engagement from tierce to quarte, similar opportunities of attack will occur. If B, however, can penetrate A's designs in thus shifting his position, he may oppose and turn the movements to his own advantage, thus; when the blades are joined on the outside, on A's retreating, B must advance, keeping his wrist low: A then advances, and longes straight over the arm: this move B parries by prime, or else high tierce, and quietly returns in seconde. If the blades are joined on the inside, on A's presenting his point to B's breast, as he advances B presses it out of line in quarte, so as to make an opening for A to make feint one, two, inside; and as he does so, B watches the last disengagement and executes a time thrust in octave.\*

#### DISARMING.

Disarming is a trick which no person who wishes to be considered a complete fencer should attempt to perform; indeed, it is a manœuvre only adapted for the foils; for if a person were engaged in a serious encounter, he would take the precaution to fasten the sword-knot firmly round his wrist, and of course all attempts to disarm him would then be rendered abortive.

# CONCLUDING OBSERVATIONS.

As our limits forbid us to give more than a very brief and general, yet we trust explicit sketch of this noble art, we now beg our readers' careful perusal of our concluding remarks. Hits are reckoned good on the right side only, from the waistband to the neck; on the right arm they are not allowed. It may, at first sight, appear singular that the thrusts should be confined to so small a portion of the body, as it is equally vulnerable on the other side, but the regulation was formed to make it imperatively necessary to use great skill in handling the weapons, and in fixing the points. When both parties accidentally make mutual thrusts, or as they are termed, "coups fourres," they are not reckoned good, unless one fails in fixing his point; and in that case, the one taking effect is counted. If your

<sup>\*</sup> For the above modes of attack and defence, and for several other particulars, we are indebted to Mr. Roland's "Introductory Course of Fencing," an exceedingly clever and well-written work,

opponent, when you make an attack, finds that he is unable to ward off your thrust, and so intentionally makes a mutual thrust, then his movement must not be reckoned, even if your point does not take effect. If you happen to make a thrust directly after your adversary has lost the grasp of his foil, it is reckoned a fair hit; but if you perceived his misfortune before you delivered your thrust, then it is a dishonourable and unfair hit, and of course cannot be counted. It is unfair to employ the left hand as a cover to the right side of the body, or for parrying a thrust, and is not permitted in assaults. Always endeavour to penetrate into all your opponent's plans, both of attack and defence, and form yours accordingly, as fencing does not so much require dexterity of movement as a complete knowledge of all the resources of the art, and the best method of employing them. In the assault, the feel of the blade is of more importance than quickness of sight, for by it the fencer can ascertain whether his adversary is about to attack, and also on what parade he purposes answering the first movements of the feints. Quickness of sight is certainly extremely advantageous to the fencer, and not to be thought lightly of, but both it and the feel of the blade are inferior to a correct and decided judgment in point of utility. Vary your parades as much as possible, so that your opponent may not ascertain your favourites, for even if you are a good fencer, if you frequently use one parade in preference to another, you may be defeated with more ease than you would probably like to acknowledge.

At all times perform your fencing exercises with precision and gracefulness, and never behave harshly to your opponent, neither exhibit angry feelings when you are vanquished, for your defeat may in all probability be ascribed to your own negligence, and not to any superiority in point of skill on the part of your antagonist; nor when victorious, show your joy by exulting over your crestfallen opponent, but remember that you should "always do unto others as you would they should do unto you," and that forbearance to the conquered is not the proof of a weak, but of a noble mind.



# BROADSWORD.

THE principal distinction between the broadsword and the rapier is, that the latter is formed only for thrusting, while the former is adapted for cutting also. Indeed, those who use the broadsword are, in my opinion, too apt to neglect the use of the point, and to give

their attention almost exclusively to the cuts.

The first lesson in the sword exercise is necessarily to know how to stand. The learner should be instructed to perform the different movements by word of command, remembering to consider the first parts of the word as a caution, and not to stir until the last syllable is uttered. At the last syllable, the movement should be performed smartly. In giving the word, the instructor always makes a slight pause, in order to give his pupils time to remember what they must do. For example, the words Draw Swords is given thus, Draw.... Swords—the word swords being spoken smartly, in order that the movement may correspond.

# POSITIONS.

First Position.—Make the target\* about four teen inches in diameter, and place it on the wall, having its centre about four feet from the ground. Draw a perpendicular line from the spot at the bottom of the target to the ground, and continue it on the floor, in order to ensure the proper position of the heels. The learner stands perfectly upright opposite the target, with his right side towards it, his heels close together, his right toe pointing to the target, and his left foot at right angles with the right. His arms must be clasped behind his back, his right palm supporting the left elbow, and his left hand grasping the right arm just above the elbow. In this position he must bend both knees and sink down as far as possible. This will not be very far at first, but he will soon sink down quite easily. See accompanying figure (1).

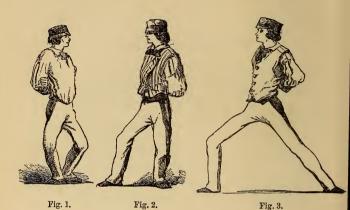
Second Position.—This is accomplished by placing the right foot smartly in front, about sixteen or fourteen inches before the left. See 2. He must accustom himself to balance himself so perfectly on his left foot, that he can place the right either before or behind it,

without losing his balance.

Third Position.—The third position must then be learned. This consists in stepping well forward with the right foot, until the left knee is quite straight, and the right knee exactly perpendicularly placed over the right foot. Great care must be taken to keep the

<sup>\*</sup> For target, see next page.

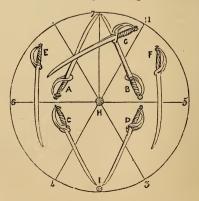
heels exactly in the same line, and the body perfectly upright. See figure (3).



These preliminaries having been settled, the learner stands upright before the target, as in 1. A sword is then put into his hand, and the target is explained as follows:—

# TARGET.

The interior lines represent the cuts. Cut one being directed from No. 1 diagonally through the target, coming out at 4. Cut two is the



same, only from left to right. Three is made upwards diagonally, and four is the same, only in the opposite direction. Cut five is horizontally through the target, from right to left, and six from left to right. Cut seven is perpendicularly downwards. Care must be taken that the cuts are fairly given with the edge.

The swords drawn on the target represent the guards. The seventh guard ought, however, not to be made directly across, but must have the point directed rather forwards and downwards, as a cut 7 glides off the blade, and can be instantly answered either by a

thrust or by cut 1.

The two dark circles represent the places where the thrusts take effect.

The learner begins by taking the sword in his right hand, having its edge toward the target and its back resting on his shoulder. His



right arm is bent at right angles, and the elbow against his side. The left hand must rest upon the hip, the thumb being to the rear. At the word—

# CUTS AND GUARDS.

#### CUTS.

Cut 1.—The young swordsman extends his right arm, and makes the cut clear through the target. When the point has cleared the target, continue the sweep of the sword, and by a turn of the wrist bring it with its back on the left shoulder, its edge towards the left. The arm is then ready for

Cut 2.—Bring the sword from 2 to 3, continue the movement of the sword, and turn the wrist so that the point is below the right hip

and the edge towards the ground.

Cut 3.—Cut through the target diagonally, bringing the sword

from No. 3 to No. 2, and bring the sword onwards, so that it rests with the edge downwards, and points below the left hip. At

Cut 4.—Cut from 4 to 1, and bring the sword round until its point

is over the right shoulder, and its edge well to the right.

Cut 5.—At the word Five, make a horizontal cut from 5 to 6, and sweep the sword round until it rests on the left shoulder, with its edge to the left, and its point well over the shoulder.

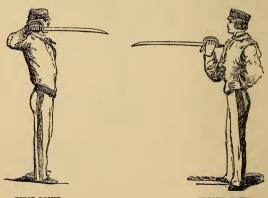
Cut 6.—Cut horizontally through the target, from 6 to 5, and bring the sword over the head, with its edge upwards, and its point hanging

over the back. From this position .-

Cut 7,—Make a downward stroke until the sword reaches the centre of the target. Arrest it there, and remain with the arm extended, waiting for the word

# POINTS.

First Point.—Draw back the sword until the right wrist is against the right temple, the edge of the sword being upwards. Make a slight pause, and then thrust smartly forward towards the centre of the target, raising the right wrist as high as No. 1, and pressing the left shoulder well back.



FIRST POINT.

SECOND POINT.

Second Point.—Turn the wrist round to the left, so that the edge comes upwards, draw the hand back until it rests on the breast, and give the point forwards, to the centre of the target, raising the hand as before.

Third Point.—Give the handle of the sword a slight twist in the hand to the right, so that the edge again comes uppermost, and the guard rests against the back of the hand. Draw back the hand until it rests against the right hip, and deliver it forwards towards

the spot at the bottom of the target, raising the wrist as high as the spot in the centre. The object in raising the wrist is to deceive the eye of the opponent, who will be more likely to notice the position of your wrist than of your point. In all the thrusts, the left shoulder should be rather brought forward before the point is given, and pressed well back while it is being delivered.

## GUARDS.

Wait after the third point has been delivered for the word

Defend.—At this word draw up the hand smartly, and form the first guard. Make the other guards in succession as they are named, while the instructor proves their accuracy by giving the corresponding cuts. The guards must be



THIRD POINT.

learned from the target, by placing the sword in exactly the same position as those delineated. The guards are these:—

A	First guard,	
В	Second	

F Sixth.

C Third. D Fourth. G Seventh.

The two spots H and I mark the places towards which the points are made, H for the first and second point, I for the third.

#### PARRY.

The parry or parade of a thrust is executed with the back of the sword. The firmest way of parrying is to hold the sword perpendicular, with its edge to the right and its hilt about the height of and close to the right shoulder; then, by sweeping the sword round from left to right, any thrust within its sweep is thrown wide of the body.

The parry is executed with the wrist and not with the arm, which

must not move.

## HANGING GUARD.

When the pupil is acquainted with both cuts and guards, he should learn the hanging guard, a most useful position, as it keeps the body well hidden under the sword, and at the same time leaves the sword

in a good position to strike or thrust.

It is accomplished in the following way. Step out to the second position, as in Figure 2, raise the arm until the hand is just over the right foot, and as high as the head. The edge of the sword is upwards, and the point is directed downwards and towards the left. The left shoulder is pressed rather forward, and the neck and chest drawn inward.

In this position the swordsman is enabled to receive or make an attack as he may think fit. It is rather fatiguing at first, owing to the unaccustomed position of the arm and head; but the fatigue is soon overcome, and then it will be found that there is no attitude which gives equal advantages.



HANGING GUARD.

There are two other modes of standing on guard, each possessing their peculiar advantages. These are, the inside and outside guard. The inside guard is made as follows:—

## INSIDE GUARD.

Stand in the second position, having the wrist of the right hand nearly as low as the waist, the hand being exactly over the right foot. The point of the sword is raised as high as the eyes, and the edge is turned inwards, as will be seen from the accompanying engraving.



INSIDE GUARD.

#### OUTSIDE GUARD.

The outside guard is formed in the same manner as the inside, with the exception that the edge of the sword is turned well outwards.



OUTSIDE GUARD.

To get to the hanging guard, the words are given as follows :inside guard-outside guard-guard.

## ATTACK AND DEFENCE.

The swordsman having learned thus far, is taught to combine the three movements of striking, thrusting, and guarding by the following exercise :-

- 1. Inside Guard. 2. Outside Guard. 3. Guard. 4. Cut One.
- 5. First Guard. 6. Cut Two. 7. Second Guard.
- 8. Cut Three. 9. Third Guard. 10. Cut Four.
- 11. Fourth Guard.
- 16. Cut Seven. 17. Seventh Guard. 18. First Point. pare for the point in Two. First Position.] Thrust in Third Posi-

tion.

12. Cut Five.

14. Cut Six.

13. Fifth Guard.

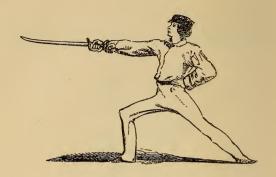
15. Sixth Guard.

19. Second Point. [Prepare for it in First Position.] Two. [Thrust in Third Position.

20. Third Point. [Prepare.] Two. [Thrust.]
21. Parry. [Prepare to

parry in First Position.] Two. [Parry.] 22. Guard.

The young swordsman must remember that in this, as in all the exercises, the cuts and points must be given in the third position, as in the accompanying illustration, which shows the swordsman just as he has delivered the seventh cut, and is waiting for the next word before he resumes the first position.



SEVENTH CUT.

The guards, on the contrary, are given in the first position, as is seen in the figure on p. 101, which illustrates the seventh guard.

These exercises are always learned with the single-stick, or baskethilted cudgel, in order to avoid the dangers which would be inevitable if the sword were used. But as the single-stick is only an imitation of the sword, I will give the method of getting the sword out of the sheath into any position required.

#### DRAW SWORDS.

The first word of command is draw swords. At the word draw, seize the sheath just below the hilt, with the left hand, and raise the hilt as high as the hip, at the same time grasping the hilt with the right hand, turning the edge of the sword to the rear, and drawing it partially from the sheath, to ensure its easy removal.

At the word swords, draw the blade smartly out of the scabbard, throwing the point upwards, at the full extent of the arm, the edge

being still to the rear.

#### RECOVER SWORDS.

The wrist is now smartly lowered until it is level with the chin, the blade upright, and the edge to the left. This is the position of recover swords. The elbow must be kept close to the body, as in the cut.

## CARRY SWORDS.

The wrist is now sharply lowered until the arm hangs at its full length, the wrist being in the line with the hip, the edge of the sword to the front, and its back resting in the hollow of the shoulder, the fingers lightly holding the hilt. The left hand hangs at the side until the word *inside guard*, when it is placed on the left hip.







RECOVER SWORDS.

## SLOPE SWORDS.

At the word *swords*, raise the right hand smartly, until it forms a right angle at the elbow.

#### RETURN SWORDS.

At the word, raise the blade until it is perpendicular, move the hilt to the hollow of the left shoulder, drop the point of the sword into the scabbard (which has been grasped by the left hand and slightly raised), at the same time turning the edge to the rear. Pause an instant, and send the sword smartly into the sheath, removing both hands as the hilt strikes against the mouth of the scabbard: drop them to the side, with the palms outwards, and stand in the first position.

## PRACTICES.

There are many exercises with the broadsword, called *Practices*. I have given one of them, which is to be practised alone; but when the pupil has attained some confidence in the use of his weapon, he must be placed opposite another pupil, and they must go through them, each taking the attack and defence in turn.

The young swordsman must be provided with a very stout wire mask, which defends the face and part of the neck, and which should be worked in a kind of helmet above, to guard against the disastrous consequences of receiving the seventh guard. No practices, loose or otherwise, should be permitted without the masks, as neither party would be able to cut or thrust with proper confidence.

## SECOND PRACTICE.

This is very useful in teaching the point and parry, as well as giving steadiness on the feet. Two boys are placed opposite each other, at just such a distance that when perfectly erect they can touch the hilt of their adversary's sword with the point of their own.

The one who gives the first point is called Front Rank (there may be a dozen in each rank, each having tried the distance to his right by extending his sword), and the one who gives first parry is called Rear Rank.

WORD OF COMM.	AND. FRONT RANK.	REAR RANK,
Guard. Third Point.	Hanging Guard. Prepare to give Third Point.	Hanging Guard. Prepare to Parry.
Point.	Give Third Point, and when parried, spring back to First Position, and prepare to parry.	Parry Third Point, and prepare to give Third Point.
Point. Point, &c. &c.	(Parry Third Point, and prepare for	Give Third Point and prepare to Parry.

This should be continued until both are weary. Both swordsmen should learn to do it more rapidly every time they practise. Next time of going through it, front rank and rear rank change places, as they must do in all the practices.

## THIRD PRACTICE.

WORD OF COMMAND.	FRONT BANK.	REAR RANK.
Guard.	Hanging Guard.	Hanging Guard.
Leg.	Cut Four.	Cut Seven,
Inside Guard.	Inside Guard.	Inside Guard.
Leg.	Cut Six [at Leg].	Cut Six [at Neck].
Outside Guard.	Outside Guard.	Outside Guard.
Leg.	Cut Five [at Leg].	Cut Five [at Neck].
Guard.	Hanging Guard.	Hanging Guard.
Slone Swords.	Slone Swords.	Slone Swords.

In this and the other practices, the cuts must be delivered in the third position, and the guards in the first. In the third and fourth practices, the cuts must be given lightly, as many of them are not intended to be guarded, but merely to show the powers of the sword in various positions.

## FOURTH PRACTICE.

VORD OF COMMAND.	FRONT RANK.	REAR RANK.
Guard.	Hanging Guard.	Hanging Guard.
Head.	Seventh Cut.	Seventh Guard.
Head.	Seventh Guard.	Cut Seven.
Leg.	Fourth Cut.	Seventh Guard.
Leg.	Seventh Guard.	Fourth Cut.
Head.	Seventh Cut.	Seventh Guard.
Head.	Seventh Guard.	Seventh Cut.
Guard.	Hanging Guard.	Hanging Guard.
Slope Swords.	Slope Swords.	Slope Swords.

In this and the preceding exercise, the power of shifting the leg is shown. If two swordsmen attack each other, and No. 1 strikes at the leg of No. 2, it will be better for No. 2 not to oppose the cut by the third or fourth guard, but to draw back the leg smartly, and cut six or seven at the adversary's head or neck.

In loose play, as it is called, *i.e.*, when two parties engage with swords without following any word of command, but strike and guard as they can, both players stand in the second position, because they can either advance or retreat as they choose, and can longe out to the third position for a thrust or a cut, or spring up to the first position for a guard with equal ease.

It is often a kind of trap to put the right leg more forward than usual, in order to induce the adversary to make a cut at it. When he does so, the leg is drawn back, the stroke passes harmless, and the deceived striker gets the stick of his opponent on his head or

shoulders.

We now come to a very complicated exercise, called the

## FIFTH PRACTICE.

ORD OF COMMAND.	FRONT RANK.	REAR RANK.
Draw Swords.	Draw Swords.	Draw Swords.
Inside Guard,	Inside Guard.	Inside Guard.
Outside Guard.	Outside Guard,	Outside Guard.
Guard.	Hanging Guard.	Hanging Guard.
Head.	Seventh Cut.	Seventh Guard.
Head.	Seventh Guard.	Seventh Cut.
Arm.	Second Cut [at Arm].	Second Guard.
Head.	Seventh Guard.	Seventh Cut.
Head.	Seventh Cut.	Seventh Guard.
Arm.	Second Guard.	Second Cut [at Arm].
Head.	Seventh Cut.	Seventh Guard.
Head.	Seventh Guard.	Seventh Cut.
Right Side.	Sixth Cut.	Sixth Guard.
Head.	Seventh Guard.	Seventh Cut.
Head.	Seventh Cut.	Seventh Guard.
Right Side.	Sixth Guard.	Sixth Cut.
Guard.	Hanging Guard.	Hanging Guard.

This practice is capital exercise, and looks very imposing. All these practices ought to be so familiar, that the words of command are not needed, the only word required being First, Second, or Third

Practices, as the case may be.

I remember once that two of my pupils had attained such a mastery of their weapons, that we used often to go through the practices with real swords. On one occasion we were acting a charade, and my eldest pupil and myself were enacting the part of two distinguished foreigners (country unknown), who were to get up a fight. So we began by a little quarrel, and finally drew our swords and set hard to work at the fifth practice, which we could do with extreme rapidity, and without the use of words of command. The spectators were horrified, and the ladies greatly alarmed; for there seems to be no particular order in that practice, and an inexperienced eye would certainly fancy that the combatants were in earnest.

#### FORT AND FEEBLE.

The half of the sword blade next the hilt is called the "fort," because it is the strongest place on which the cut of an adversary can be received. Always parry and guard with the fort of your sword, as, if you try to guard a cut with the "feeble," which is the remaining half of the blade, your guard will be forced, and the cut take effect.

#### DRAWING CUT.

The drawing cut is made best with a curved sword, and is executed by placing the edge of the sword on the object, and drawing it over it until it is severed. A good large mangel-wurzel is capital practice. Place the root loose on a table, stand at arm's length from it, lay the edge of the sword lightly on it, and slice the root by repeatedly drawing the sword over it. This is very difficult, although it looks easy enough, and is sure to jar the arm from the wrist to the shoulder the first time or two, while the sword glides off as if the root were cased in polished steel. However, a little practice will soon overcome the difficulty. This cut is much in use among the Sikhs.

## GENERAL ADVICE.

Never look at your own sword, but watch the eye and sword wrist of your opponent.

Remember that the great point in this exercise, as in fencing, is to gain time. Endeavour, therefore, to advance your point nearer your adversary than his is to you.

Begin the assault out of distance, so that neither party can com-

plain of being taken by surprise.

If the two parties exchange a cut or a thrust at the same moment, the one who gave his cut or thrust in the third position is victorious.

When a cut or thrust is made, the one who receives it passes his sword, i.e., stick, into his left hand, and his opponent comes to in-

side guard.

Always spring back to the second position after delivering a cut or thrust.

Keep the line of direction carefully, or you will leave an open space for the adversary to get his sword into.

Last and most important, Don't lose your temper.



ATTACK AND DEFENCE.



"A very riband in the cap of youth, Yet needful too."

SHAKSPEARE.

"The riders bend
O'er their arched necks, with steady hand by turns
Indulge their speed, or moderate their rage."
SOMERVILLE.

RIDING on horseback is generally allowed to be one of the most cheerful and enlivening of all exercises, whether for youth or manhood; and we trust that the following little treatise upon it will prove interesting to every boy who has it in his power, or, at least, can contrive, to mount a nag.

#### MOUNTING.



In mounting, the rider should place himself rather before the horse's shoulder, and turn his left side to it; he must hold his whip in his left hand, take hold of the centre of the snaffle reins with his right hand, and pass the middle finger of his left hand through them, from before, keeping the back of that hand toward the horse's head. He should next place his left hand on the animal's neck, about a

foot from the saddle, with his right hand draw the reins through his left, and shorten them until he has an equal feeling, with the latter hand, on the horse's neck, and then with his right hand he should throw the end of the reins to the off-side; with the same hand he must next take a lock of the mane, and twist it round his left thumb, and then close his left hand on the mane and reins. After these movements he takes hold of the left stirrup with his right hand, raises his left foot and puts it in the stirrup, turns his face so as to look across the saddle, places his right hand on the cantle, presses his left knee against the saddle on the girth, and keeps his heels back, so as to prevent his toes touching the horse's side; he next takes a spring from his right instep, and raises himself in the stirrup, pressing his knees firmly against the saddle, and keeping his heels together, yet slightly drawn back. In this position the body must be upright, and rather supported by his right hand; from this attitude, he moves his right hand from the cantle to the pommel, passes his right leg over the horse's quarters to the off-side, presses his right knee against the saddle, and his body then comes gently down into it; his right hand, of course, next quits the saddle, and his left, the mane.

The rider being thus mounted, he should hold his left or bridle hand, the wrist bent outwards, opposite to, and at three inches from his body, and drop his right hand by the side of his thigh, place his right foot in the stirrup, unaided by either eye or hand, adjust his clothes, then change the whip from his left hand to his right, and hold it inclining towards the left ear of the horse. The whip should always be carried in the right hand, except when in the act of mounting or dismounting. If a groom attends at mounting, he must not be allowed to touch the reins, but merely hold that part of the bridle which comes down the cheek. In dismounting, the movements are precisely the same as in mounting, only reversed.

# RIDING. THE SEAT AND BALANCE.

As the body must always be in a situation to preserve both seat and balance, we shall endeavour to make our instruction upon these heads as explicit as possible. For a firm, correct seat, the thighs, turned inwards, should rest flat upon the sides of the saddle without grasping, as the weight of the rider will give sufficient hold without such adventitious aid, which, in fact, only lifts the rider out



of his saddle; the thighs, however, must be kept so firm that they will not roll or move, so as to disturb the horse, or loosen the rider's seat; but if the horse should hesitate to advance, they may then be slightly relaxed. The knees must be kept back, and stretched down so as to throw the thighs somewhat out of the perpendicular, but no hold or gripe should be taken with them, unless the rider has lost all other means of holding on; if the thighs are in their proper position in the saddle, the legs and arms will be turned as they should be, that is, they will be in a line parallel with the rider's body, close to the horse's side, but without touching; they may, however, sometimes give an additional aid to the seat, by a grasp with the calves, and also assist the aids of the hands in like manner; the toes should be raised, and the heels depressed, and kept from galling the horse's side. The body should be held quite erect, and the shoulders kept square and thrown back, the chest advanced, and the small of the back bent rather forwards. The upper part of the arms must hang perpendicular from the shoulders, close to the hips, and be kept steady yet without rigidity, else they destroy the hand. hands should be held with the wrists rounded a little outward, about four or five inches apart, in front of the body, the thumbs and knuckles pointing towards each other, and the finger nails to the body.

The BALANCE in riding, preserves the body from those inclinations or swervings from side to side, which even the ordinary paces of a horse occasions; it acts and corresponds with every movement of the animal, and therefore enables the rider to sit so firmly, that nothing can shift him from his seat. To explain this very essential part of horsemanship, we will just mention, that it is for the rider when his horse is working straight and upright on his legs, to keep his body in an upright position; when the animal breaks into a trot, to incline his body a little back; and in the gallop, leap, or any violent action of the horse, generally to keep his body back. When the horse leans or bends, as he does when turning a corner sharply, or galloping round a circle, the rider must incline his body in the

same degree, or else he will lose his balance; indeed, the art of balancing consists in implicitly yielding the body to every movement of the horse, and to acquire it properly, the practice on circles is extremely useful, working carefully and equally to both hands. The rider should never take the least help from the reins in order to preserve his equilibrium, for the bridle hand should always be kept fixed, and the reins held at such a length that they may support the horse, but not the rider.

## HOLDING THE REINS.





In holding the snaffle reins separately, one rein is held in each hand, between the third and fourth fingers, and out of it over the forefinger, where the thumb presses it close down; this method of holding the reins is superior to all others, especially for beginners, as a greater command is obtained over the horse by it, and the aids can be made more than when the reins are held in one hand only; besides which, the rider is compelled to sit square and correctly in his saddle, and not wrung on one side, as is frequently the case with those who hold the reins in one hand only. If, however, after he has

made some progress, the learner wishes to try the method of holding them in the left hand, he must pass the left rein under his little finger, take the right rein under the third finger, keep them both smooth through the hand, and let the end of the reins hang over the forefinger, and close his thumb firmly upon it. When double bridles are used, it is the best plan to let the curb bridle lie loose, or be fastened by a slight knot upon the horse's neck. In adjusting the reins, that is, shortening or lengthening them as may be found occasionally necessary, the superfluous reins which hang over the left hand should be taken in the right, and the horse's head be supported by that hand; the left hand should then be passed up and down the reins, and thus the rider can adjust them as much as may be required. If the horse will not obey one hand, the reins must be separated by putting the three first fingers of the right hand over the snaffle rein, and taking it between the third and little fingers; the ends of the reins being allowed to hang over the forefingers of each hand, and drop down between them.

## THE CORRESPONDENCE.

When the reins are held in the manner we have described, at such a certain length, that if the hand were moved in the slightest degree it would rein the horse back, or if the least freedom were allowed to the hand, the horse, feeling himself at liberty, would instantly advance; it is called the Correspondence.

If the hand is held perfectly steady, the fingers will feel at every step the horse makes in the trot, a gentle tug at the reins, and this

tug, through the correspondence, is mutually felt in the horse's

mouth. This is denominated the Appuy.

So long as this connexion is kept up between the rider's hand and the mouth of the horse, the horse is completely under the control of the rider, and that so entirely, that he seems to be guided by his will rather than his hand; this is termed the Support.

Without these three operations, the correspondence, or communication between the hand and the mouth, the appuy, or power of the reins on the mouth, and the support, or aid which the hand gives in action, the horse would be under no immediate control; in all the manege or united paces they are always maintained.

## AIDS.

The motions of the hand, body, legs, and whip, which are made use of in directing the horse, are called aids; they are also defences to the rider by checking the horse when he displays any viciousness, or when he attempts to gain the superiority. In making use of the aids, it is essentially necessary that the movements of the hand, body and legs, should agree, as it frequently happens that the effect is lost from want of harmony in the actions. There are five positions, or aids of the hand-including the one general one from which the other four proceed-employed in directing the movements of the horse; the first we have described in treating of the mode of holding the reins; the second is a slight relaxation of that position, and allows the horse to advance; the third shortens the right rein slightly, and directs the horse to the right; the fourth shortens the left rein, and turns the horse to that side, and the fifth shortens both reins, and reins the horse back, or stops him. The aids of the body are extremely simple: to aid the second position of the hand, the body should be thrown forwards a little; to the third and fourth positions of the hand, a slight turn of the body to that side to which the horse should turn; and to the fifth position of the hand, the body should be slightly thrown backwards, so as to draw the hand gently with it.

The aids of the legs are the following: to aid the second position of the hand and compel the horse to advance, the legs should be closed; to the third and fourth position of the hand, the legs should be pressed to that side to which the horse must turn, and for the aid to the fifth position, the legs should be gently pressed to the sides. In making these movements, several degrees of power may be employed; pressing the side is the gentlest motion that can be used; placing the leg rather back, and turning out the toe, is the next; a touch with the calf of the leg is the third in degree; a smart stroke with the leg, keeping the toe up firmly so as to contract the muscles, is the fourth; and a scratch with the spur rowel the severest; this, however, is not resorted to until the legs have been laid on without effect.

The aids of the whip are employed to assist those of the heel; they are slight touches given with it either on the hind quarters or

the shoulders. When applied on the near side on the hind quarter, the whip is held in the fingers with the lash pointing downwards; and when given across the bridle-hand before, it is held with the lash upwards.

## ANIMATIONS, SOOTHINGS, AND CORRECTIONS.

Animations are given by the hand, legs, whip, and tongue, and are used when the horse abates his speed, bears heavily and languidly on his bit, or performs his paces in a slovenly manner. The animations of the hand and legs are the movements described under the head of the aids: those of the whip are merely slight taps to urge the horse forwards, or if the lash is held upwards, switching it into the air, and the animations of the tongue consist in making a clacking noise with it, but it must be employed with caution, for if given too frequently it loses its effect. As it is much easier to keep up, than to restore, the animation of a horse, it is better to use the whip, the leg, the hand, or the tongue, rather before than at the time it is absolutely necessary to resort to such means; the rider should therefore endeavour to foresee when an animation will be required, and then the slightest movement is generally sufficient. As the animations of the legs and whip threaten punishment, the least movement of the hand, body, or legs, is usually enough to incite a well-trained animal and keep him on the alert; while to a dull, inactive horse, whip and spur will be frequently necessary. Even these, however, all potent as they are, lose their efficacy if too often applied; the more the animations are varied the better. A gentle movement of the fingers of the bridle hand is an excellent animation; it keeps the horse to his duty, awakens the sensibility of his mouth, and retains the correspondence between it and the hand.

SOOTHINGS.—In order to dispel the fears of the horse, and to encourage him, soft and calm tones of the voice, gentle pattings and strokings with the hand, are employed; these are called soothings. All unnecessary restraints either of the body or legs should be relinquished, and the rider should sit with as much ease and freedom as he possibly can; indeed, the perfection of soothing consists in the rider sitting so perfectly easy as not to add to the horse's animation, and yet so well on guard, that he can execute any of the defences in

an instant should they be required.

Corrections.—The rider should, in correcting a horse, endeavour to work rather upon the mind than the body of the animal; those corrections which make him most obedient, and yet at the same time dishearten him the least, are not the most severe; they rather check than compel him. The corrections are made either by whip and spur, or by keeping the animal under stronger restraint. If the horse is sluggish, or will not dash off with alacrity, the rider should compel him to go sideways, sometimes to one hand, sometimes to the other, and then push forwards. If he is inclined to go forwards too fast, lessen the power of your aids, and make him go backwards more or less, according to the spirit he manifests. If he is inclined to dispute your authority, walk him straight forwards

with his head in, and croupe out. In giving corrections with the whip, the rider should do them with vigour, applying it behind the girth under the belly, or else over the shoulders between the forelegs. If the horse kicks when he feels the touch of the whip on his flanks, the rider should immediately repeat it smartly, and if he rebels at that, give it still more vigorously. Some horses pay no attention to the whip, but fly at the spurs; others care not for the spurs, yet are frightened at the whip. These variations of sensitiveness the rider must attend to, and apply the severest corrector.

When the whip or spur is given two or three times to an unruly horse without effect, the rider must endeavour to find out some other means of correcting him. Astley, in his work on the management of horses, observes that "too great a degree of indulgence may induce the horse to consider that you are afraid of him, and if he should once think that you are really so, you will find he will exercise every means to convince you that he considers himself your master, instead of acknowledging, by implicit obedience, that you are his; the rider should, however, endeavour to avoid all quarrels with his horse, and use the corrections only when needful."

#### VICES.

When a horse is given to stumbling, rearing, kicking, bolting, plunging or shying, or restiveness, the rider must maintain his seat as directed in the leaps, and hold the reins separate, and rather short, so as by keeping the horse's head up to hinder his kicking or rearing; the rider must keep his body upright, yet pliant, and preserve his balance by his thighs, and keep his legs close to the horse's side, yet not so as to grasp until imperatively necessary. When the horse elevates his fore-legs, the breech should be thrust out behind, so that the rider is prepared if he rears, and as they come to the ground the breech should be slipped under, which enables the rider to bring his feet into a position to hold on, and second his hands in taking firm hold. It is rather singular, but certainly fortunate, that when a horse is addicted to rearing he seldom kicks, and when given to kicking he seldom rears. When the horse displays symptoms of viciousness, the rider should see that the saddle and girths do not irritate him, and that the bit, by being too high in his mouth. does not hurt his lips.

When the horse stumbles, the rider, by pressing his legs to the horse's flanks, and keeping his head up, may afford him instant assistance. The bridle should, therefore, be held of such a length that in case of stumbling the rider could raise the horse's head by main strength, and the weight of his body thrown backwards. In using this aid it is clear that if the rein is held too long the rider must fall backwards as the horse rises; and if too short, he as certainly will be pulled over the horse's head; a medium length must therefore be considered the most proper. By pressing the legs to the horse's side, he may be helped up the side of a bank, or compelled to keep

his haunches under him when going down hill.

Rearing is the most trying of all vices, as it risks both horse and

rider's falling backwards. If the horse rises straight up, the rider should yield him all the bridle, and at the same time throw his body forwards; the weight of the body thus bearing on the horse's shoulders obliges him to come down, and when his feet are nearly, yet not quite on the ground, the spurs should be applied as smartly as possible. Another method of curing a propensity to rear, is for the rider, when he is aware of the animal's inclination to try this manceuvre, to separate the reins, and as he rises, to slacken one hand and turn him round with the other; by this plan, the horse being compelled to move one of his hind legs, is thrown off his balance, and, of course, comes down on his fore-feet; he should then be twisted round several times, in order to prove that he is not to consider himself in the sight of a superior being, which turning, by baffling his endeavours, will effectually deter him from rearing to a dangerous height.

Horses inclined to kick, either when they go forward or stand still, should be held in closely; but if they do not attempt to get the full mastery over their riders, they may be allowed to go forwards. If the horse strives to get his head down, which would enable him to kick so violently as to throw himself, his head must be confined close up, which deprives him of his power, and he then bolts from all fours. The most efficacious punishment for kicking is to twist the horse round two or three times, and this should be done to his weak or unguarded side, and it will so astonish him, that it will be sure to check any further inclination to dispute on his part. When a horse kicks, the rider should incline his body

backwards.

If the horse bolts, the rider should not use one regular, continued pull, but rather make repeated tugs at the reins until the animal takes heed and obeys. Pulling each bridle alternately, generally termed "sawing the mouth," will also have the desired effect; but the rider must be on his guard, lest the horse by stopping suddenly

pitches him over his head.

When plunging, the horse gets his head down, cringes his tail between his quarters, raises his back, endeavours to burst his girths by inflating his body, and in this position kicks and plunges until he can hold his breath no longer. When endeavouring to cure him of this vice, the rider should sit firmly whilst he is plunging, and take care that the horse, in trying to get his head down, does not pull him forwards. As there is no fear of the animal's rearing, it is not necessary for the rider to do more than just keep his body back, and hold the horse steadily to prevent his throwing himself down.

When a horse dashes to one side, or turns short round, either through shyness or restiveness, the rider must keep his legs near the horse's sides, so as to be ready to lay hold on any sudden start, and place all his reliance upon the security of that hold, and not on any bearing in the stirrups; he should also gently yield his body to the motions of the horse. A horse may be checked when about to spring to one side, by his rider's leg being pressed on the side he

wishes to fly to, and retaining his head high and straight forward, so as to hinder his looking in the direction of the object he shyed at. If the horse curvets irregularly, and writhes himself to and fro, his head must be turned to one side, or both, alternately, without letting him get out of his course, whilst the rider's legs should be pressed against the opposite side. By these methods he will not be able to fly to one side, as the pressure of the leg will prevent that, nor to the other, as his head will be turned in that direction, and a horse never starts towards the side to which he looks.

When a horse begins to grow restive, he stops, and turns short round, usually to the right, as he thereby attacks his rider on the weakest side. If this vice is not very powerfully displayed, the best mode that can be adopted is to push the horse on, using the whip to urge him forwards; for the application of the spurs alarms a horse, and is likely to make him more restive; they should therefore be used only in extreme cases. If the horse is determined to resist all methods of urging him on, the rider must give it up as a hopeless task, adopt some other plan, and make the vice its own punishment; he should therefore turn the horse quite round, so as to bring his head again in the proper direction, and instantly apply the whip; and if he turns a second time, turn him round twice or thrice, and, before he is prepared to resist it, employ a touch of the spur to aid the whip.

It is an invariable rule, if the horse seems determined to go the wrong way, to insist upon his going the right way, and no other; and if he will not obey readily, to turn him about and rein him backwards, which movement he will answer with great celerity, if not inclined to advance. In these quarrels, the rider must be quite calm, and see that his horse does not sidle up to a wall, on the pavement, or against other horses, and instead of pulling the animal's head from the wall, or whatever he is sidling too close to, to turn his head to the object, and back him completely away. If the horse stands stock still, the rider should let him have his own way, and not make the slightest effort to urge him on; when he thus finds that it does not provoke his rider, he will speedily move of his own accord. The rider must never put himself in a passion with his horse, even if the animal is extremely obstinate, and unless the vice calls forth all his strength to overcome it, he should not show that he is at all disconcerted, by which coolness the horse, finding that his master is thoroughly prepared for all his movements, will be quailed, and desist from further contention.



THE WALK.



When the rider has shifted the whip and taken the reins properly, he should press the horse's sides with his legs, to induce him to proceed slowly forwards in the WALK; the reins should be held so as to support the horse's head sufficiently, otherwise his pace will be slovenly and his head low; but if his head is raised too much, it will prevent his walking freely, as it compels him to shorten his step. If he does not exert himself, he must be gently

animated: and if he should break into a trot, he must be checked by a pull of the reins, not so strong, however, or so long continued, as to cause him to stop. Turns in the walk should generally be performed slowly, and all the aids brought into requisition to produce them; as, for instance, in turning to the left, that hand should be held rather lower than the other, and by moving the little finger gently upwards and towards the body that rein will be tightened and held back, while with the right hand the outer rein is slightly slackened; a gentle pressure with both legs should accompany these movements of the hand, in order to bear up the horse, keep him to the bridle, compel him to bring his haunches under, and obey the leading rein; if the indications are given by the inward leg only, it will make the animal throw his haunches too much outwards. In making the horse wheel on his centre, the hand and the heel work together; the hand guides the shoulder round, and the leg leads the croupe, so that in the movement the fore feet describe one half circle, and the hind feet another. The instant the wheel is finished, the hand, body, and legs must resume their usual positions.



The stor is made by the rider's drawing in his arms, keeping his fingers towards his body, and holding both reins uniformly and powerfully; then pressing for a moment his legs to the horse's sides to urge him up to the bridle he throws his body back, and so gives full effect to the check; all these movements should be done instantaneously, and with only one motion. Should the rider not close

his legs, in all likelihood the horse will not bring his haunches under, and the stop by being on the shoulders will lose its effect. If the stop is made by a gradual cessation of action, it looks very slovenly; and if the check is given in the middle of a cadence, it is incorrect,

and looks very slovenly also; the stop should be so timed that the horse will stop at the finish of a cadence, without breaking the previous time, and be so well balanced on his haunches, and so brisk, that on the slightest indication from his rider, he would advance with the same speed as before. If the stop is made correctly, it shows the great control the rider's hand has over the horse; it compels him to be submissive, unites him, makes his haunches pliant, and bends his houghs or lower parts of the thighs; it should not, however, be practised too often, as much ill may result from an injudicious use of it. Should the horse, in stopping, toss up his head, the left hand must be kept firm and low, permitting no liberty of the bridle, while the right hand must press on his neck until he brings down his nose, when in an instant all the bridle should be allowed him. If the horse will not readily answer the indications to stop, he must be compelled to go backwards, by way of punishment for his obstinacy. In going backwards, the horse has always one of his hind legs under his belly, on which he balances himself, while he is stepping back with the other; his head must be steady and right, and his feet should be even. In this movement the rider should aid the horse by keeping an even feeling on both reins, bending his body a little forwards, and pressing the horse's sides gently with his legs, so as to keep him well up to the bit. If the horse turns his croupe out of the line, the heel must support and direct him; as, for instance, if he turns his croupe to the right, the right leg must guide it into the proper line, and this movement must be performed very carefully. for if the aid is given too strongly, the horse will most probably throw the croupe too much to the opposite side.

## TROTTING.

In trotting, the horse raises two feet at a time, that is, the near fore foot and the off hind foot, and vice versa; thus making only two beats instead of four, as in walking. In the trot there is a leading foot, either the right or left, by which that side is a little more advanced than the other. The leading with either foot is extremely useful, for if a horse unused to altering, is obliged through fatigue or chance to



change the leading leg for that which he is not habituated to, his action will be hard, cramped, and irregular. During the trot, the rider must sit close to the saddle, preserving his seat not by the pressure of his knees, but by a good balance of the body—which must be slightly inclined forwards—he should neither stand nor rise in his stirrup, but allow his whole figure to act in unison with the motions of the horse; and in order to preserve a proper degree of

correspondence and appuv, he must keep his hands steady and pliant. If the horse trots too fast, the action should be checked by tightening the hold on the reins; if too slow, he must be animated and encouraged to put his foot out boldly; while giving these animations, the rider must support his fore-hand up, and then a touch of the fingers, or an animation of the tongue, whip, or legs, will have its due effect. In road riding, the proper pace for which is the trot, if the horse trots in a disagreeably rough manner, the rider may ease the jolting by rising slightly in his stirrups, and the quicker the horse trots, the easier it is for the rider, as he is elevated not by his own movements, but by the action of the horse; though this is called rising in the stirrups, they are no great importance to the rider in holding on; indeed, no dependence should be placed in such supports, for many persons who have relied on their footing in the stirrups. have been thrown by the horse turning suddenly round, or shying. The arms and shoulders must not be jerked up and down through the motion of the body, for great steadiness of hand is required to preserve the due degree of correspondence with the horse's mouth: neither should the legs press his sides, as that would most likely cause him to break into a gallop; which pace he must not be permitted to shift into, as it spoils the beauty of the action to be constantly varying from one pace to the other. As the directions respecting turns, stops, &c., which are inserted under the head of "the walk," hold good with regard to the same movement in the trot, we need not repeat them.

## THE CANTER AND GALLOP.



In the CANTER, which is the most difficult kind of gallop, the horse's feet are raised from, and come to the ground, so as to mark a regular quick, sharp time of one, two, three, four. To urge the horse into a canter, the rider should press him with his legs, or animate him with his tongue, and at the same time slightly raise his hand, to incite him to lift his fore legs; however, should he be inclined merely to perform a quicker trot, the hands

must be kept firm, and the animations increased, until he moves at the desired pace. The GALLOP is an extended canter, and in both actions it is immaterial with which leg the horse leads off, provided the hind leg of the same side follows it. In galloping to the right, the horse should lead with the inward or off fore leg, followed by the off hind leg; and in turning to the left, he must lead with the near fore and hind legs; when performed in this manner the action is termed united, but if, on the contrary, he leads off with the off fore and near hind legs, and vice versé, he is considered disunited, and if

in galloping either to the right or left he leads with both near or off legs, his action is reckoned false. If the horse strikes off with the wrong leg, false or disunited, the rider should, by shortening the inward rein, and applying his off leg to the horse's side, strive to make him change, and lead with the proper leg. If the animations are not kept up, and the full action is not supported by the hand, the horse will break into a trot; therefore, the moment the action is felt to be declining, it should be immediately restored by the proper animations. The stop in the gallop should be so timed, that it may be begun when the horse's fore feet are coming to the ground, which is the beginning of the cadence, and end when the horse brings his hind feet to the exact distance, and so finishes the cadence; it is useless, however, to attempt making a perfect stop, unless the horse is correct in this pace or time of his paces. The double arret is the stop completed in two cadences of the gallop, instead of one, and therefore is not so distressing either to the horse or his rider; at the first cadence, the body should be thrown gently back, so as to check the horse's movement in some measure, but not entirely; and the finish should be in the second cadence, the rider still keeping his body back.

## THE STANDING LEAP,

The moveable bar for leaping should not be more than from one to two feet in height at the first, but it may be gradually elevated as the rider perfects himself; however, it should never be very high. The leaps are taken either standing or flying: the former, although practised first, is by far the most difficult to sit, but by being taken slowly and deliberately, it affords the rider time and recollection.



and the riding-master an opportunity to render assistance in case of mishaps, and to instruct. As its name implies, this leap is taken from a standing position, without any run before it; when the horse is at the bar, the animations of the hand and leg will incite him to rise, and as he does so, the rider should, to preserve his perpendicular position, allow his body to come rather forwards, keep his back in, and his head firm; as the horse springs forwards, he should slip his breech under him, so as to let his body go readily back, and keep his legs close and body back until the animal's hind legs have come fully to the ground. The rider must press his legs, from the knee, so closely to the horse's sides, that the action of the body will not relax them; the toes should be raised so as to keep the spurs from galling the horse's sides, and if requisite, they may be turned out a little, to strengthen the hold. The position of the hands also must be parti-

cularly attended to; at the first moment of taking the leap, the rider must give the rein to the horse, without reserve, and as the horse's hind feet come to the ground, collect the reins firmly, resume his position, and proceed at a moderate pace; the hands should be kept low, and at the centre of the body, for if otherwise, they confine the horse's head, prevent the rider's body from going easily back, and also throw him forwards. If the horse is too much collected, in order to incite him to rise, he will bound over the bar, and if not sufficiently so, he will perhaps not clear it; the animations necessary must be left to the judgment of the rider, as they entirely depend on the temperament of the animal.

## THE FLYING LEAP



Is much easier than the standing leap, although the movement is quicker; it may be taken from any pace without previously halting, but a moderate pace is the best, as then the horse rises at a proper time, neither too soon nor too late. From ten to fifteen yards is the proper distance for a horse to trot before he takes the leap; if he is well trained, he may be allowed to take his own

pace to it, but if he is sluggish, he should be animated with the spur just before his head is turned towards the leap, and pushed into a short, collected gallop. It is quite useless for the rider, when taking this leap, to bring his body forwards as the horse raises his fore legs, because the spring from the hind legs being taken instantly afterwards, if the horse checked himself, and refused to take the leap, or did not come fair, he might be thrown over the horse's head through the forward position of his body. The rider should therefore hold on firmly by his legs, and keep his hands down; as the horse springs forwards, his body will invariably take the proper movement of leaning back, especially if he, at the moment of the spring, slips his breech under him and brings his waist forwards.

The horse requires, in this leap, little support from the hands until he comes to the ground, when the aid of the hands assist in sup-

porting him, and in bringing the rider's body upright.

## CONCLUDING OBSERVATIONS.

Some authors are of opinion that boys should not be permitted to ride on horseback before they are twelve years of age, on account

of the many attractions which the exercise presents, and the strength, care, and presence of mind, which it requires, yet if lads are allowed only to dash about on their little Shetland or Norway ponies, they, in process of time, acquire a short, fidgeting style, which ill adapts them to answer the bold, free action of a horse, when they happen to be perched upon one, and which bad habit it is hard to escape from afterwards.

Ponies are generally more vicious and tricky than horses, but they are capable of enduring much greater fatigue, often performing

nearly double the work in proportion to their size.

Many ponies are never trained, but are taken and ridden in the rough; they are consequently not so tender in the mouth as those

regularly broken in, and require rather stronger handling.

The young tyro, when he essays his skill, should endeavour to ride well; a good style is not difficult to acquire, and besides being exceedingly graceful when gained, adds much to the enjoyment of the exercise, for a slovenly, careless, or unskilful equestrian never

can truly appreciate the pleasure of a ride.

"Xenophon has a most charming remark, that we should endeavour to make ourselves to our horse the organ of pleasure, and that we should associate with our presence the idea of absence of pain. I should like to quote one more golden rule from this most christianlike heathen, namely, that nothing should be done to the horse in anger. He should be fed from the hand with anything he may fancy, such as an apple or carrot, or sugar, and be made to come for it when whistled to, or called by name. When their heads are loose, by throwing pieces of apple or carrot on the ground, they will learn to watch your hand like a dog, and will soon pick up your glove, or handkerchief, or whip, and bring it in exchange for the reward; or, when mounted, put their heads back to place it in These may all be 'foolish things to the wise,' but your hand. nothing is useless which familiarizes the horse; which increases the confidence and intimacy between him and his rider; or which teaches him to look to man for the indications of his will, and to obey them, whether from fear, interest, or attachment.

"I cannot finish without one word to deprecate a piece of inhumanity,—the riding the horse fast on hard ground. This practice is as unhorsemanlike as it is inhuman. It is true that money will replace the poor slaves as you use them up, and if the occasion requires it, they must, alas! be used up; but, in my opinion, nothing but a case of life and death can justify the deed. If the ground be hard and even, a collected canter may be allowed; but if hard and uneven, a moderate trot at most. One hour's gallop on such ground would do the soundest horse irremediable mischief; those who boast of having gone such a distance in such a time, on the ground sup-

posed, show ignorance or inhumanity."\*

<sup>\*</sup> Hints on Horsemanship.



"The rash boy Phaeton his proud chariot drove Tile rash boy Fraeton his proud charlos divided in the was smitten by almighty Jove:

Take heed, young driver, while you like him boast, You are not 'spilled' against an ugly post."

SWIFT.

## INTRODUCTION.

OUR young friends ought to know not only how to ride, but also how to drive. From the very earliest times horse and chariot races were considered the noblest of sports, and Apollo is represented as driving the chariot of the sun. The four horses were typical of the four seasons of the year. Four horses driven abreast was common also to the Olympic games, and the Hippodrome was the scene of chariot races in which even a greater number was sometimes used.

It was, indeed, an imposing sight to see the Hippodromic course at the time of one of these chariot festivals. The place set apart for the contest was about a mile in length. Over a bar that ran across the entrance of the lists was placed a brazen dolphin, and upon an altar in the middle of the barrier stood an eagle of the same

metal. By means of a machine, put in motion by the president of the games, the eagle suddenly sprang up into the air with its wings extended, so as to be seen by all spectators; and at the same moment the dolphin sank to the ground, which was a signal for the cars to arrange themselves in order for the race. Besides the statue of Hippodamia, and the table on which were placed the crowns and palm-branches, there were several images and altars in the course, particularly that of the genius Taraxippus, who, as his name imports, was said to inspire the horses with a secret terror, which was increased by the shrill clangour of the trumpets placed near the boundary, and the deafening shouts and outcries of the multitude.

While the chariots were ranged in line ready to start, the horses, whose ardour it was difficult to restrain, attracted all eyes by their beauty, as well as for the victories which some of them had already gained. Pindar speaks of no less than forty chariots engaged at one and the same time. If we recollect that they had to run twelve times the length of the Hippodrome, in going and returning, and to steer round a pillar or goal erected near each extremity, we may imagine what confusion must have ensued when, upon the signal trumpet being sounded, they started amid a cloud of dust, crossing and jostling each other, and rushing forward with such rapidity that the eye could scarcely follow them. At one of the boundaries a narrow pass was left only for the chariots, which often baffled the skill of the expertest driver; and there were upwards of twenty turnings to make round the two pillars; so that at almost every moment some accident happened, calculated to excite the pity or insulting laughter of the assembly. In such a number of chariots at full speed, pushing for precedence in turning round the columns, on which victory often depended, some were sure to be dashed to pieces, covering the course with their fragments, and adding to the dangers of the race. As it was, moreover, exceedingly difficult for the charioteer, in his unsteady two-wheeled car, to retain his standing attitude, many were thrown out, when the masterless horses plunged wildly about the Hippodrome, overturning others who had, perhaps, previously escaped every danger, and thought themselves sure of To increase the confusion, and thereby afford better opportunities for the display of skill and courage, there was reason to believe that some artifice was employed for the express purpose of frightening the horses when they reached the statue of Taraxippus. So great sometimes was their consternation, that, no longer regarding the rein, the whip, or the voice of their master, they broke loose, or overturned the chariot, and wounded the driver.

Such is the ancient description given by a Greek writer of the chariot races of the Hippodrome. We have no coach racing now-adays, except omnibus racing in the streets: not a great deal of "coaching." Now and then, indeed, we see the "Brighton four-horse," and start with wonder at the sight. But still there are necessities for private driving, more important at the present than at any former period; and we hold driving to be not only a necessary, but an indispensable accomplishment to every young gentleman.

## THE HORSE IN HARNESS.

A horse fully equipped in harness, attached to a dennet or stanhope, is one of the most beautiful things to look at in the world; few boys are trusted to drive a pair; nor have they physical power for the task. We will therefore confine our attention chiefly to single harness, adding only a short description of the various kinds of carriages in common use. If, however, the youthful charioteer can drive a single horse well, he will find no difficulty in controlling a pair, provided their mouths are sufficiently tender for his strength



to manage. The horse is here represented harnessed to a light dennet-gig.

## THE HORSE

May be either a full-sized harness horse, or a galloway, or a pony; the two last being the best fitted for juvenile driving.

## THE HARNESS,

In every case, is composed of the same parts, which consist of three essential divisions: 1st, the driving, or guiding part; 2nd, the drawing part; and 3rd, that for holding up the shafts. The driving part comprises the bridle and reins. The bridle is made up of a front piece (1), a head piece (2), two cheek pieces and winkers (3), a nose band (4), and a throat lash (5). The cheek pieces are buckled to the bit (6) by means of leather loops, called billets, as also are the driving reins (7), and the bearing rein, which is attached to a separate bit called the bridoon (a plain snaffle), and then is hooked to the pad hook. This is now very generally dispensed with, as shown in the cut at the head of this article; but for young drivers it is often desirable when they have not strength to check the fall of a horse. The drawing parts consist of a padded oval ring fitted to the shoulders, and called the collar (10), sometimes replaced by a padded strap across the chest called the breast strap. On the collar are

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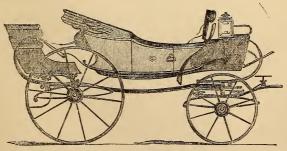
fastened two iron bars called hames (12), by means of a strap at the top and bottom (8-11), and these hames have a ring in the upper part for the reins to pass through, called the hame terret (9); and nearer the lower part, a strong arm of iron covered with a coating of brass, silver, or leather, which receives in its eye the tug of the trace (13). The trace (17) is a long and strong strap of double leather, stitched, which runs from the collar to the drawing bar, and may be lengthened or shortened by a buckle. The part for holding the gig up consists of a pad or saddle, which is buckled on to the horse by the belly band (16), and from which the shaft is suspended by the back band and shaft tug. It is prevented from slipping forward by the crupper, which is slipped over the tail. Besides these parts, some horses have in addition a breechen (18-19) which holds the shafts back in going down hill; and when they are addicted to kicking, a strap is buckled over their hips to the shaft, which is called a kicking strap.

## THE CARRIAGE.

The Dennet-gig, as represented in the last page, is the most common form for a two-wheeled carriage; but there are also the

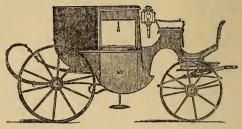


Stanhope, the Cabriolet, as here shown, the Tilbury, and the Dogcart. The various open four-wheeled carriages are the Britzschka,



THE BRITZSCHKA.

Barouche, and Phaeton; and of closed four-wheeled carriages there are the Brougham and Clarence on elliptic springs, and the chariot



NEW BROUGHAM.

and family coach with c springs. When these two last are made to open, they are called the Landaulet and Landau.



THE FAMILY COACH.

#### PUTTING TO.

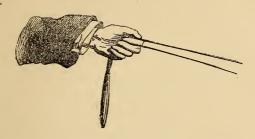
Before driving, it is necessary that the horse or pony should be "put to," which is effected as follows: 1st, slip the shafts through the tugs, or, if there are hooks, drop them down into them; 2nd, put the traces on to the drawing-bar, either hooking them on, or else slipping them on to the eyes, and being careful to place the leather stops in these, to prevent the trace coming off; 3rd, buckle the belly-band sufficiently tight; and 4th, buckle the kicking-strap, or breechen, if either is used. After this, the reins are taken from the terrets, where they were previously placed, and the horse is ready.

## DIRECTIONS FOR DRIVING.

In driving, the reins are held differently from the mode already described as used in riding, the fore-finger being first placed between

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them, and then both the reins are grasped by all the other fingers, and the near-side rein is also held firmly against the fore-finger by



means of the thumb. In this way, on an emergency, the near or left rein may be pulled by itself, by holding it firmly with the thumb. and suffering the other, or off rein, to slip through the fingers, or vice versa. The most usual way is to pull the left rein with the left hand, and the right with the right hand, by hooking one or two fingers over it while held firmly in the left. In this manner, with the whip also held in the right hand, the horse is guided or stopped. The young driver should take care and keep his feet well before him, with his knees as straight and firm as possible, so that in case of a fall of the horse he may not be thrown forwards out of the vehicle he is driving. He should also sit square to his work, with his elbow held easily to his side, and his left thumb pointing to his horse's head, by which, as in riding, his elbow is pretty sure to be properly placed. The bit should not be too firmly pulled against, but a light and "give and take" kind of handling is the best, by which the horse is allowed freedom of action, and yet is checked if he makes a mistake. In meeting other vehicles, the rule is to keep to your left, and in passing them, to leave them also on your left. This should be rigidly adhered to, for fear of the accidents which would otherwise constantly happen.



"They rowed hard, and sung thereto, With hevelow rohumbeloo."

Richard Cœur de Lion.

WE suppose that every English man or boy who takes to rowing or sailing for amusement wishes to go fast; now, every fast boat is more or less liable to be upset, even with the best and most skilful management; and when a boat is upset, he who can swim laughs at the adventure, he who cannot swim is not only himself in danger. but endangers others who feel obliged to risk their own lives in order Therefore, let every one learn to swim before he to save his. attempts either to row or sail in a fast boat: he will then be able to enjoy the amusement, and his friends on shore will feel at ease. and not wish to deter him. Having acquired this art, he may safely proceed in learning to row, and with it to learn the general management of a rowing-boat. Boys at school, and men at college can often row very well without being watermen - that is to say, without understanding how the boat, the oars, the rudder, &c., ought to be fitted, or how to steer or manage a boat in difficulties, or how to row except in a boat and with an oar fitted exactly as it ought to be; but let the beginner not follow this example—let him determine to learn how to detect and correct any fault in the fittings of a boat. and how to row under difficulties. Of course any one can row better in a properly-fitted boat than in one that is not so, but grumbling at the boat and fittings is the sign of a greenhorn: a good waterman should be able to row anywhere and anyhow-with a mopstick across a tenpenny nail, if necessary, and at the same time should know how to make the best of a good boat and oars when he has got them. These arts are only to be acquired by rowing in all sorts of boats, by listening to what watermen or experienced oarsmen have to say on the subject, by always looking out to pick up something new, and to learn something every day; and first let the beginner learn the names and use of every part of a boat, and of its fittings.

There are several methods of fitting the oars and boat, according to the purpose required; we will begin with freshwater boats, and the style of rowing adapted for them, inasmuch as seamen hat rowing, and without exception row badly. The boats now used in freshwater are either outriggers or gigs; wherries, funnies, skiffs, &c., being almost superseded. The outrigger is so called from having an iron frame or outrigger on each side of the boat to carry the rowlock and so enable a longer-handled oar to be used. They were first brought

into notice by the Claspers from Newcastle, in 1841, and have now superseded all other boats for racing purposes. The gig is a broader and higher boat, and has a straight gunwale, a stern nearly upright, and a transom or flat piece to the stern. A wherry is shown in our illustration. Twenty years ago, hardly anything else was used on the Thames but wherries. A funny is a long sculling boat sharp at each end: a skiff is a stronger, shorter, heavier, and wider boat. used to carry people or goods without risk of upsetting; a shallop is a still larger boat, used for pleasure-parties, &c.; a punt is a stronglybuilt boat, with a flat bottom and square ends, used for fishing, and is usually propelled by pushing on the ground with a punt-pole. Four-oars, six-oars (seldom used), and eight-oars are now always cutriggers when used for racing, gigs for ordinary pulling. An outrigger wager sculler's boat is 30 feet long, 16 inches wide, and weighs about 40 pounds; a pair-oar wager-boat is 36 feet long, 20 inches wide; an eight-oar from 56 feet to 66 feet long and 2 feet 3 inches wide.

We proceed to give the technical names of the parts of a boat.



Our illustration is an old-fashioned wherry, which will serve as well as any other. 1, The bows, or front part of the boat; 8, the stern, after-part, or hind-part of the boat; the rest of the boat is called the midships. Under the bottom of the boat, projecting about an inch, is a long piece of wood called the keel; where the keel turns up forward at 2, it is called the stem; the upright piece of wood fitting into the keel abaft is called the stern-post, and to this the rudder is hung. In square-sterned boats there is, besides, the transom. The sides of the boat are made of planks nailed together, and called strakes; the lowest strakes next the keel are called the garboards. The strakes are strengthened and the boat is kept in shape by pieces of wood crossing the boat in the inside, like ribs, called timbers or lands. The square holes, 3, 3, 3, are called rowlocks, and consist of the thole, against which the oar is pulled; the stopper, or afterthole, forming the other side of the rowlock; and the leather filling, forming the bottom of the rowlock. The seats across the boat, 4, 4, 4, 4, are called thwarts; the pieces of wood fastening them to the sides of the boat are knees; the piece of board, 5, against which the feet rest, the stretcher; the boards for standing on at the bottom of the boat amidships are bottom-boards or burdens; the boards in the bow, the bow-sheets; those in the stern, the stern-sheets; the space between the steerer's thwart and the thwart of the stroke-oar is the stateroom, and in large boats has seats on each side for sitters.

Fitted to the top of the rudder is a cross-piece of wood or brass called the yoke, attached to which are ropes called yoke-lines, for the steerer's hands. In eight-oars it is usual to have the yoke-lines attached to the side of the boat, and passing through pulleys in the yoke, in order to give more power to the steerer. The rope by which the boat is made fast is called the painter, or sometimes the head-fast. Wager-boats are built of white fir or mahogany, gigs usually of white fir, but sometimes of oak. Fir is perhaps lighter, but oak lasts much longer. Sea-going boats are usually built of elm; and the timbers of ash.

When the rower rows with an oar in each hand, the oars are called sculls, and are shorter; when he uses only one oar, it is called an oar, and is about 13 feet 5 inches long. Sculls and oars are usually of white pine, and consist of the handle and the loom, within the rowlock, and the part outside of the rowlock, consisting of the shank or small, and the blade, and are fitted either with boxing or filling, and a button, or with leather and a stop. The sculls usually overlap about four inches; the handle of the oar should just clear the other side of the boat. The oars in a boat are numbered from the bow, No. 1 being the bow, No. 2 the next, and so on to No. 8, or stroke in an eight-oar. The stroke oar is always on the port, larboard, or left side of the boat, and the oars on that side are called the stroke or larboard oars; the oars on the right side of the boat

the bow or starboard oars.

It should be recollected that pair-oar rowing is the foundation of all rowing; in a four, and still more easily in an eight, defects, especially shirking, may pass undetected, but not easily in a pairoar. Let the beginner, therefore, get some experienced friend or a waterman to give the first lessons in a steady and not too light boat; if he can get some one to row stroke whilst the friend or waterman steers and instructs, so much the better; if not, let the friend or waterman pull the bow oar so as to see his pupil at his work. The mat must be firmly tied to the thwart, and this every man should learn to do for himself, as the men at the boathouse never do it properly. Flannel mats with strings are much the best. Let the pupil then seat himself on the thwart nearly on the after edge of it. bending his knees a little, and opening them about a foot, and placing his feet firmly against the stretcher, with heels close together and toes turned out straight before him: if the strap is used, the outside foot, or that nearest the middle of the boat, will be passed under it; but for the first few lessons, the strap should not be used, as a man ought to be able to row without it. The stretcher must of course be adjusted to the proper length. The pupil will then take hold of the oar with the button just inside the thole, and grasp the oar with the outside hand close to the end, but not capping it, and thumb above the oar, the inside hand about three inches from the other, just where the square loom begins, thumb under the oar. Let him then sit upright, straighten his back, flatten and drop his shoulders, keeping them perfectly square, and hold his head a very little forward, elbows close to his sides, sitting very nearly as he

would be directed to sit by a drill-sergeant or dancing-master, the only exception being that the knees are open and the head a little forward, and that he holds the oar. Let him then stretch forward as far as the stopper will allow the oar to go, which is about as far as he can reach, still keeping his back straight, his shoulders square, though of course a little raised, his arms extended, his outside wrist flat with the arm, his inside wrist bent convexly. And here let the pupil understand clearly that all the motions are to be made by swinging evenly backwards and forwards on his seat as on a hinge; the back is never to be bent, and though the shoulders must necessarily be raised a little in reaching forward, in going back they should be dropped as low as they can be brought. There is a common notion that rowing rounds the back and shoulders, and bad rowing does so, but a good oar has his shoulders and back as flat as any drill-sergeant would wish them to be; when his shoulders are humped or his back rounded, it is a sign that he is tired out and done. If the rower raises one shoulder higher than another, or does not swing evenly backwards and forwards, he makes the boat roll, and prevents the other men from rowing properly. Let the pupil then resume the upright position, stretch forward a little, and dip the oar into the water, taking care that the blade is upright, and the button against the thole; let him then pull a short stroke, keeping the blade upright and leaning back a little, the first stroke or two without any pressure, afterwards pressing on the oar, taking care to have the chest well bent forward towards the loom, so as to strike the water and feel resistance at once. Let the pupil continue to make short strokes like this until he can keep his oar upright and recover himself after each stroke, keeping the button against the thole, and when he can do this pretty well, let him begin to feather, or bring the oar out of the water in a horizontal or flat position; this is done by dropping the wrists sharply at the end of the stroke, and though difficult at first, is very soon acquired.

There are different styles of feathering; the Oxford and Thames men feather high; Cambridge men almost graze the surface of the water, which certainly looks well, but cannot be done if there is any sea or rough water. In about an hour any one who takes pains ought to have mastered these points, and that ought to suffice for one day; and at the end of each quarter of an hour, the pupil should change sides and work with the other oar. If this is not done at the very beginning, he is likely to contract a habit of rowing on one side only, and will never learn to row on the other side; a deficiency which will cause great inconvenience to himself and others in

On the following day, the pupil should be taught to stretch out and pull his stroke through, and to keep time, the instructor pulling a very long, slow, and steady stroke; the pupil should then be taught to back-water, which is exactly the reverse of pulling, as the oar is then pushed through the water so as to propel the boat

future time.

letting go with the outside hand, and lifting the oar sharply up out of the rowlock with the inside hand, letting the blade float astern. The beginner would do well to go out in a safe boat with a friend, and practise backing and shipping till he can do both quickly and neatly at the word of command; and in about three lessons of an hour each the pupil ought to become a passable oar. This system of pair-oared tuition is immeasurably superior to and quicker than the ordinary plan pursued at schools and colleges, of putting seven raw hands into an eight with a tolerable stroke and a good coxswain, and trying to teach them all at once. The unhappy wretches have no idea of what they ought to do, and cannot understand the directions of their coxswain, who sits raving and storming at them, and at the end of the lesson they return stiff, sore, tired, and disgusted, having learnt very little, and probably begun to contract faults which they may never get rid of. Let the first rowing of every man be carefully attended to, and all faults checked at once before they grow into habits. For all further tuition we refer to the following extract from "The Principles of Rowing and Steering," by studying which the beginner or even the advanced oar may learn what to do and what to avoid.

"The requisites for a perfect stroke are,—

1. Taking the whole reach forward, and falling back gradually a little past the perpendicular, preserving the shoulders throughout square, and the chest developed at the end.

2. Catching the water and beginning the stroke with a full

tension on the arms at the instant of contact.

3. A horizontal and dashing pull through the water immediately the blade is covered, without deepening in the space subsequently traversed.

4. Rapid recovery after feathering by an elastic motion of the body from the hips, the arms being thrown forward perfectly straight simultaneously with the body, and the forward motion of each ceasing at the same time.

5. Lastly, equability in all the actions, preserving full strength without harsh, jerking, isolated, and uncompensated movements

in any single part of the frame.

"Faults in Rowing. —The above laws are sinned against when the rower

1. Does not straighten both arms before him.

2. Keeps two convex wrists instead of the outside wrist flat.

3. Contrives to put his hands forward by a subsequent motion after the shoulders have attained their reach, which is getting the body forward without the arms.

4. Extends the arms without a corresponding bend on the part of the shoulders, which is getting the arms forward without the

body.

5. Catches the water with unstraightened arms or arm, and a slackened tension as its consequence; thus time may be kept, but not stroke; keeping stroke always implying uniformity of work.

6. Hangs before dipping downwards to begin the stroke.

7. Does not cover the blade up to the shoulder.

8. Rows round and deep in the middle, with hands high and blade still sunken after the first contact.

9. Curves his back forward or aft.

10. Keeps one shoulder higher than the other.

11. Jerks.

12. Doubles forward and bends over the oar at the feather, bringing the body up to the handle and not the handle up to the body.

13. Strikes the water at an obtuse angle, or rows the first part in

the air.

14. Cuts short the end, prematurely slacking the arms.

15. Shivers out the feather, commencing it too soon and bringing the blade into a plane with the water while work may yet be done; thus the oar may leave the water in perfect time, but stroke is not kept. This and No. 5 are the most subtle faults in rowing, and involve the science of shirking.

16. Rolls backward, with an inclination towards the inside or

outside of the boat.

17. Turns his elbows at the feather instead of bringing them sharp past the flanks.

18. Keeps the head depressed between the shoulders instead of erect.

19. Looks out of the boat instead of straight before him. (This

almost inevitably rolls the boat.)

20. Throws up water instead of turning it well aft off the lower angle of the blade. A wave thus created is extremely annoying to the oar further aft; there should be no wave travelling astern, but an eddy containing two small circling swirls."

Nos. 17 and 18 perhaps only affect the appearance, but all the

other requisites and faults go to the essentials of rowing.

As soon as the pupil has become tolerably skilful in the management of his oar he will be put into a four or eight-oar, and will have to practise what he has learnt, and we will venture to give him two hints: 1st. To pay particular attention to keeping time. 2nd. To take particular care not to put his oar in the water before he has finished going forward; of the two it is better to make the first part of the stroke in the air, though that, of course, is not right; but putting the oar in the water too soon will inevitably splash the men who are forward, and of all the faults which annoy the other men, splashing and not keeping time are the worst. One misfortune which will probably happen once or twice to every learner is catching a crab, by letting the oar turn in the water the wrong way before taking it out; the water then pens the oar down, and the handle bears the rower backwards off his seat. The moment he feels this likely to happen he must sharply ship his oar, and if he is quick he may escape the annoyance and danger of being knocked backwards. It will be at least a month before the beginner is able to handle his oar with ease and comfort to himself and satisfaction to others; and during this time, as at all times, he ought to pay attention to the instructions of the captain and coxswain, and take

their scolding and remarks willingly and good-humouredly. Above all things let him not take it into his head that he is right and the others wrong; in the first place it is very unlikely, and in the next place, however right he may be, until he is captain, and able to enforce his own ideas, he must row as the others row. Eight inferior oars rowing together, and in the same way, would inevitably beat the best eight oars in England if each of them persisted in rowing in his own way. Another most important thing to a beginner is, never row a single stroke carelessly or badly; if you are tired, row easily, but in good form and style. In fact, form and style must be taught and learnt in paddling—i.e., rowing easily—and that is the time for it; but there is never a time for rowing badly, and every stroke badly rowed is positively injurious.

Sculling is practised on exactly the same principles as rowing with oars, except that both sculls being managed by one man he has but one hand for each. The sculler must of course sit exactly in the middle of the boat, and he must keep his back flatter and his shoulders lower if possible than when rowing; the strength which can be put into the last part of the stroke depending entirely upon the drop of the shoulders. The great difficulty in sculling, especially since the light outriggers have been introduced, is in the steering, as the sculler must look behind him at least every third stroke, and to turn the head without turning the body or rocking

the boat requires long practice.

In pair-oar rowing the bow-oar steers and directs, whilst the stroke-oar merely pulls steadily and follows the directions of the bow-oar. The bow-oar being forward, has of course most power over the boat; but it often happens that the best steerer is the strongest oar, and will therefore pull stroke and steer at the same time—of course at a disadvantage. The great secret in ordinary pair-oar rowing is to let one man steer and direct, the other merely following the directions and not slacking or pulling harder without orders, or without saying what he is going to do. Nothing is more provoking to the steerer and more likely to lead to accidents, and at the same time there is nothing more common, than for his companion to pull harder or easier without orders, and exactly when the steerer wishes it not to be done. When there is a side-wind the bow of the boat tends to turn towards the direction from which the wind is blowing; this tendency must of course be counteracted by the rower whose oar is on that side, and he is then said to have the labour.

In fours and eights there is always a steersman, or coxswain, and his art is at least as difficult to learn as the art of rowing. He should sit upright on his thwart, but well forward on it, putting his knees forward and his shins tucked under his thighs, with his feet as far beneath him as they can be brought, so as to be able to throw all his strength and weight upon the lines when required. He should take a turn with each line round the palm of the hand, and let the end come out between his forefinger and thumb, where it must be tightly nipped. His hands are to be well in front and

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against the ribs, the little fingers resting on the thighs; the lines are always to be kept on the stretch, so that any necessary pull may be instantly given. The steerer will find himself obliged to bend forward at each stroke; but let him only yield to the motion and not bob violently, a process which cannot do any good, disturbs his own view, and tends to shake the boat. If any man believes in the efficacy of bobbing, let him get into a boat by himself and try to make her advance by bobbing. As soon as the steerer has had a little practice, and knows how much effect a pull on the yoke-lines produces, he ought to turn all his attention to steering straight, an art which is of immense importance, but which is usually neglected or left to chance. Let any one place himself where he can see an ordinary eight-oar coming towards him, and he will then see the zigzag devious course that in nine cases out of ten she will take. To prevent this, the steerer should early learn always to steer for some object right in the course; the further off it is the better, and let him then keep, or try to keep, the boat's stem steadily pointed at that object. He will find this not so easy, but will attain the art by dint of practice, but not if he learns to lounge about and steer carelessly. When that object is no longer in the course, let him take another, and so on, recollecting that every touch of either yoke-line stops the boat, and that a zigzag is longer than a straight line. One thing which puzzles young steerers much is steering in a strong side-wind; the boat is then constantly being driven bodily to leeward, and, in order to keep a straight line, the stem must not point at any object in the course, but must constantly point to windward of the course, and the boat must take a kind of crab-like motion, the proper angle for which must be found by trial.

The steerer has also to instruct the crew, and to learn how to do that, he should carefully observe good rowing whenever he sees it, and read a good work on the subject. In instructing, he should not bully individuals: many faults are incurable, and many men will not try to alter. If a man has been told three times of a fault, and shows no symptoms of amendment, it is useless to annoy him further, and he must either be turned out of the boat, or allowed to go on in his own way. When a man has improved or corrected a fault, let him be immediately praised and complimented. All general unmeaning exclamations in which steersmen are wont to indulge, probably from not knowing what really ought to be said, are totally useless. In training a crew, it is an excellent plan for the stroke or best oar in the boat himself to take the yoke-lines occasionally, and see what the men are doing. If the river is narrow, the men can

best be seen by running along the bank.

We do not attempt here to teach the art of racing or of training a crew, for all matters connected with which we refer the reader to a little work from which we have borrowed largely—"The Principles of Rowing and Steering" (Slatters and Rose, Oxford).

A fast sculler will make about thirty-six strokes a minute, with

oars forty strokes a minute may be taken.

We now come to the two painful subjects connected with rowing,

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the mere mention of which causes a shudder in every old oarsman: blisters on the hands, and raws on the stern. Every man suffers at first from blisters, and the harder he pulls, the worse they are; but after a time his hands get hard and horny, and no ordinary exertion will leave a mark. The blisters are often burst during the rowing: they are then usually painful, and all that can be done is to grin and bear it, avoiding the contact of water, which smarts at the time and retards the cure. If they get too bad, two or three days' rest will usually set matters right; if not, you are in bad health, and should go to the doctor. If the blister does not burst, let it remain as a protection for two days: at the end of that time the new skin will be formed underneath, and the blister should be pricked to let out the water which keeps the new skin soft and incomplete. Raws will come at all times, but wriggling on the seat is a very frequent cause: the steadier a man sits, the less likely are raws. Of course any folds in the cushion or trousers are to be carefully avoided, as very likely to raise a raw. If the skin is fairly rubbed off, the place should be covered with goldbeaters'-skin, and a day's rest will then almost invariably effect a cure.

We will add a few words as to sea-going boats. The sides of the rowlocks are in them formed by two moveable pegs called tholes; there is no button or stop on the oars; the oars are often of ash; there is no difference between oars and sculls, and the term sculling is applied to propelling a boat by working an oar through a notch in the stern of the boat. The method of doing this cannot easily be described in words, and must be learnt by actual inspection and instruction. Sculling is much practised in France, and is perhaps

the only branch of aquatics in which the French excel.

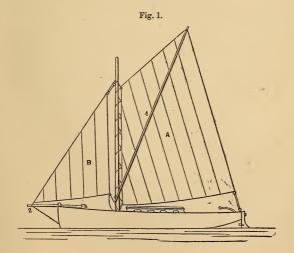
Small rowing-boats in the sea, from nine to thirteen feet long, are called punts: the oars, instead of rowlocks, often work on a single pin or thole, which passes through a block of hard wood called a cleat, nailed to the oar. Cleat-oars, of course, cannot be feathered, but are convenient for going alongside a vessel, and in other ways, as they may be let go without being lost. Those who use cleat-oars for the first time should recollect to put the oar on or abaft the thole. so as to pull upon the thole, not from it, which would soon tear off the cleat. The fittings of sea-going boats are usually very bad; the thwarts are too high and too near the rowlocks, the oars are badly balanced, and there is no stretcher. If there is much sea, it is not possible to pull a long stroke or to feather quickly. This and the general defects in the fittings render the rowing of sailors almost always very bad and utterly unfit for imitation; but the good oarsman should always row as well as the boat will admit: the back may always be kept flat, the shoulders down, and the stroke pulled through.

"O'er the glad waters of the dark blue sea,
Our thoughts as boundless, and our souls as free."

Corsair.

THERE is perhaps no art of which so little can be learnt from books as that of sailing; the very variety which forms the great pleasure in sailing, makes it at the same time impossible to give directions which will meet even the ordinary changes and chances of one day's sail. All that can usefully be learnt from books is the names of the different things and the general principles of sailing; the rest must be learnt by actual practice and by watching what is done by real sailors; and to sail a boat even tolerably requires long, long practice, far more than rowing, riding, cricket, or any other sport which boys or amateurs usually engage in. Whenever you hear either boy or man boasting of his achievements at sea, depend upon it that in nine cases out of ten, though the amateur may honestly fancy he has done all he describes, in fact he has merely been looking on whilst the sailors have been doing the work.

The best boat for a beginner is one rigged as in Fig. 1, from



twelve to fifteen feet long, four to five feet wide, with a mainsail, A, and a foresail, B, one mast, a spleet, 1, and a bumpkin, or short iron bowsprit, 2. The mast will have one shroud on each side, and a forestay to the stem, each set up by lanyards. The mainsail will be hoisted by a main halyard passing through a hole or over a sheave in the mast, and it is a very good plan to have this hole or sheave above the shrouds, as also the hole for the fore-halvards, one hole being above the other. The spleet fits into an eye at the peak of the mainsail, and into a becket or snotter round the mast; and large boats have a rope to hoist and keep up the snotter. In small boats, the snotter, when wetted, sticks tight enough to the mast. The mainsheet works on a horse at the stern. The fore-halyards pass through a hole in the mast-head, and the foresail is laced to the forestay. The fore-sheets lead through holes in the knees. To set the sails, hoist the mainsail by the main-halyards chock up, or as far as it will go, and then belay the main-halyards to one of the cleats: then catch hold of the peak of the mainsail, and double the mainsail round forward of the mast; then put the upper end of the spleet into the eye, and shove the spleet up. To do this properly requires practice; in large boats there is a lashing to keep the eve from blowing off the end of the spleet, and the beginner may put a lashing if he likes. Then put the lower end of the spleet into the snotter, and hoist the snotter up the mast till the mainsail begins to wrinkle from the tack to the peak; then haul the mainsheet taut, and belay it till you are ready to start. The foresail is usually wrapped round the forestay; untoggle the sheets and unwrap the foresail, then toggle on the sheets again, ship the tiller, and the boat will be ready.

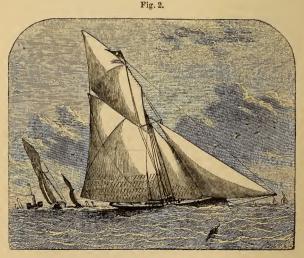
The beginner will of course have some one with him, and must at first confine himself to working the foresheets and to steering a little; he will thus learn the principles on which a boat tacks or is put about, how to jibe safely, how to reef the mainsail and the foresail and how to fit a reefed snotter, how to stow the sails and moor the boat, and how to pick up moorings and to come alongside. Sailingboats are usually made fast by a chain to a stone under water; when the boat gets under way, the chain is let go, and is picked up again by a rope, one end of which is made fast to the chain, the other to a piece of wood or small cask called a buoy. To pick up this buoy again, sometimes the sails are lowered and the boat runs at it, but usually the boat is taken to leeward, and at the proper distance is luffed up, so as to come head to wind, and stop as nearly as may be over the buoy; and to do this with certainty requires much practice. The beginner should go where he has plenty of room, taking out a buoy or piece of wood, and practice picking that up till he can measure his distance pretty accurately. To do this, however, and in fact to sail a boat at all, a clear understanding of the principles of sailing is of great assistance. Everybody can understand how a boat can sail before the winda box for a boat, with a coat or an umbrella for a sail, can do that, but to sail with the wind on the side, or to make way

against the wind, are far more difficult; in fact, persons not accustomed to it often doubt the possibility of doing so. In explaining this, we will consider the sails as quite flat, for the nearer they can be brought to flatness the better, and wherever they are not flat, there is a loss. Supposing the sails, then, to be flat, and the wind to strike them, part of the force is lost (as will be understood on mechanical principles), part of it presses against the flat surface of the sail, and perpendicularly to it. This then tends partly to drive the boat a-head, partly to drive the boat bodily to leeward, and if the boat was a box or tub, she would go in a direction between the two; but as boats are usually constructed, they are sharp at the fore-end, and the surface opposed in that direction is not more than one-seventh of the surface which the nearly flat side opposeshence the boat is driven easily ahead, but only a little or not at all to leeward, and boats are constructed so as to oppose as little resistance a-head and as much on the side as possible. Any boat will sail with the wind astern, and most boats will sail with the wind on the quarter-i.e., blowing in any direction between the stern and the broadside; but only good boats will sail with the wind on the bow or before the beam, and then not when the wind is more than four points before the beam, reckoning by the thirty-two points of the compass, and to do that, the sails must be well set, and the boat pretty good. To explain how this is effected, let us suppose a boat with her head pointing exactly towards the wind, then her sails will only flap about and tend to drive her astern. Now suppose her bow gradually turned away from the wind; if the sails are hauled pretty flat, after a time, usually when her bow is four points or the eighth of a circle off from the wind, the sails will fill with wind, and, on the principles already explained, she will move ahead. And it is obvious that, after having gone some distance in this direction, she may be put about and go at a similar angle to the wind in the other direction, and will thus have advanced against the wind, or towards the quarter from which the wind is blowing. This is called tacking or turning to windward, and to do this well is the greatest proof of a good boat or of good sailing. In sailing to windward, the sails are trimmed or hauled aft to an angle which varies for each boat. and must be found by experience; they should be kept just full of wind-if empty, they are doing no good, or even harm; if too full, the boat is off her course, and not doing her best to windward. rough rule is to keep the flag or vane just over the mainsail. Boats ought always to carry a weather helm-i.e., the bow should have a tendency to turn towards the wind. Putting weight in the bow makes the weather-helm stronger, putting it in the stern or increasing the head-sails has the reverse effect. When the wind is on the starboard or right-hand side of the vessel, she is said to be on the starboard tack; when the wind is on the port, larboard, or left side, she is said to be on the port tack, and when vessels meet, that which is on the starboard tack either keeps straight or luffs, that which is on the port tack gives way and passes to leeward.

Whilst the beginner is trying to learn the principles and practice

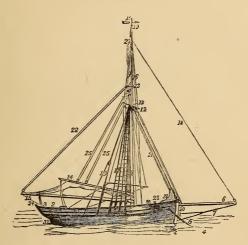
of sailing, he should give some sailor half-a-crown to teach him properly and quietly, on one or two rainy afternoons, how to knot He should learn a short splice, a long splice, an eye splice, and splice. how to turn in a block, how to pass a seizing, and how to whip the end of a rope; all which must be shown, and will take some time to learn. Also two half-hitches and a clove-hitch, to make his boat fast with, a reef-knot (avoiding a granny-knot), a fisherman's bend, to bend the cable to the anchor with, and a sheep-shank, to shorten a rope with. A bowline-knot is more difficult, and is made as follows. Take part of a rope in your left hand, the end in your right hand; lay the end over the part in your left hand, and with the left hand make a loop of that part over the end, crossing the loop. Take the end then under the lower part of the loop up over the cross and down through the loop, and draw tight. This will make a circle or loop of rope, and the knot will never slip. Besides this, the beginner should watch a boat whilst she is being fitted out, for unless he learns to refit every part of the rigging, in case of anything breaking, he is not fit to go out alone.

The next vessel which the beginner will go out in will probably be the cutter (Fig. 2); a vessel with one mast, four sails, and a running



bowsprit, the fastest and best of all vessels. Small yachts are usually of this rig, and we therefore give a full description of it.

Fig. 3.

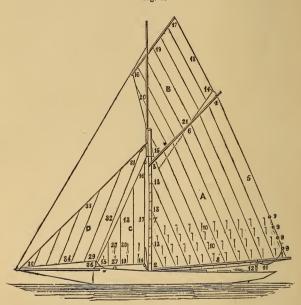


AT ANCHOR (a Fishing Smack).

- 1. Stem.
- 2. Stern.
- 3. Situation of tiller (not shown.)
- 4. Anchor (not shown).
- 5. Cable.
- 6. Bowsprit.
- 7. Bobstay.
- 8. Mast.
- 9. Topmast.
- 10. Truck.
  11. Vane and spindle.
- 12. Cross-trees.
- 13-23. Caps.
- 14. Gaff.

- 15. Boom.
- 16. Topmast-shroud.
- 17. Main-shrouds.
- 18. Topmast-stay.19. Runner and tackle.
- 20. Traveller for jib. 21. Forestay and fore-halyards.
- 22. Topping lift.
- 23, 24. Mainsheet. 25, 25. Peak halyards.
- 28. Bitts.
- 29. Signal halyards.
- 31. Foresail.32. Rudder.

Fig. 4.



#### A. MAINSAIL.

- 1. Clew
  2. Tack
  3. Throat
  4. Peak
- 5. After-leach
- 6. Head 7. Luff or fore-leach sides
- 8. Foot

- 9. Reef-cringles (brass eyes for the reef-earing).
- 10. Reef-knittles (small ropes in the sail to tie up reefs with).
- 11. Reef-earing (rope to reef with).
- 12. Main-sheet.
- 13, 13. Mast hoops (to bind the sail to the mast).

The mainsail has the gaff at the head, the boom at the foot. The gaff and sail are hoisted by the main-halyards and the peak-halyards. The tack is kept down by the tack tackle (pronounced taykle), the clew by the earing or lasking. The boom is confined by the sheet. (See fig. 3.) The sail is laced to the gaff.

#### B. GAFF-TOPSAIL.

14. Clew.	18. After-leach.
15. Tack.	19. Head.
16. Throat.	20. Fore-leach.
17. Peak.	18. After-leach. 19. Head. 20. Fore-leach. 21. Foot.

The gaff-topsail has the topsail-yard at the head; the gaff at the foot. It is hoisted by the topsail-halyards. The tack is kept down by the tack (a rope so called), and the clew by the topsail-sheet. (See fig. 3.) The sail is laced to the yard.

#### C. FORESAIL.

14. Clew 15. Tack	corners.	17.	After-leach Fore-leach	sides.
16. Head)		19.	Foot	,
		20.	Foot Reef-knittle	S.

The foresail is hoisted by the *fore-halyards*; it runs on *hanks*, or is *laced* to the forestay. The tack is kept down by the *fore-tack* (a rope so called), the clew by the *fore-sheet*, which often runs on an iron *horse*.

#### D. JIB.

29. Clew	)	32.	After-leach	)
30. Tack	corners.	33.	Fore-leach	sides.
31. Head			Foot	)

The jib is hoisted by the jib-halyards and jib-purchase. The tack is hooked to an iron ring which runs on the bowsprit, and is called the traveller, being pulled out by the out-haul. The clew is confined by the jib-sheet. A jib is never reefed; when the wind is too strong, it is shifted for a smaller jib.

The gaff-topsail in a cutter is only set in light winds. Some cutters have also a square-sail, which is hoisted on the spread-yard, as shown in Fig. 3, when the vessel is going before the wind; and sometimes a jib-topsail, or flying jib, is set, something like the jib, but running from the top-masthead instead of the masthead.

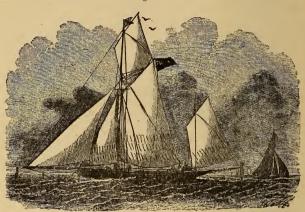
The stays and ropes which support the masts and bowsprit are called the standing rigging, and this is now often of wire rope; the

ropes which set the sails are called running rigging.

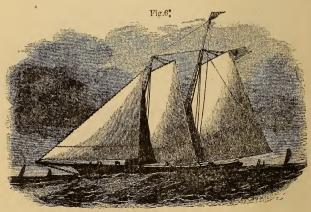
Fig. 5 is a dandy, sometimes called a yawl; she is not so fast as a cutter, but is used to avoid the inconvenience of the long, heavy boom. The rigging of her large mast, or mainmast, is exactly like

that of a cutter. The small mast is called the mizen-mast, an dthe sail the mizen.





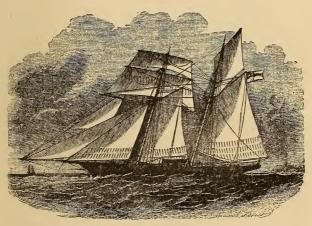
A schooner (Fig. 6) has two masts, the mainmast and the foremast, and the masts usually slope or rake. The four-sided sail on



THE AMERICA.

the mainmast is called the *mainsail*, the four-sided sail on the foremast the *foresail*, the triangular sail represented in Fig. 6 the forestaysail, and when there is another triangular sail it is the *jib*. Schooners are either *fore-and-aft schooners*, as in Fig. 6, or squaretopsail schooners, as in Fig. 7. Fig. 8 is an *American schooner*, a





rig first introduced here in 1851 by the America. She carries in light winds a jib and a main gaff-topsail, but no fore gaff-topsail. English fore-and-aft schooners usually carry gaff-topsails on both masts.

A square-topsail schooner (Fig. 7) carries a square-topsail and topgallant sail on her main-topmast, and a jib-topsail, or fore-topmast staysail.

À lugger has two or three masts with sails hoisted on yards, something like a cutter's gaff-topsail. Some luggers carry also a jib. The advantage of this rig is its lightness; no standing rigging is wanted. A sloop is a heavily-built and snugly-rigged trading vessel, rigged as a cutter, but carrying also a square topsail. An American sloop is a vessel fitted with two sails, as in fig. 1, but on a larger scale. She has usually a centre-board or sliding keel, which is hoisted up out of the water when the vessel is sailing before the wind and lowered down when she is going to windward. A sloop of war is a three-masted vessel with guns on her upper deck only. A latteener has two or three short masts, carrying each a large triangular sail on a yard. They are common in the Mediterranean and in Norfolk. The above are the principal fore-and-aft rigged vessels, the dis-

tinction being, that they are tacked by the rudder and without losing their way; we now come to square-rigged vessels, which are stopped in tacking, and rely on their back sails to bring them round. A brig has two masts, with yards and square-cut sails on each (see ship), and has a top, or sort of platform at each masthead. Colliers are usually of this rig. A brigantine has a brig's foremast and a schooner's mainmast. A polacre brig has no tops; they are mostly from the Mediterranean.

A ship, or as it is often called, a full-rigged ship, has three masts, each carrying yards and square-cut sails like a brig's. The masts are foremast, mainmast, and mizenmast; each mast has a course, or lower sail, a topsail, top-gallant-sail, royal, and sometimes a small sail above that, called sky-scraper. Between the masts are triangular sails called stay-sails, and what would be the mainsail in a cutter is called the spanker. Forward of the foremast she has a fore-staysail, foretopmast-staysail, jib, outer jib, &c. A bark has three masts, but no square yards on her mizenmast.

We will add a few words on the cost of yachts. An open boat rigged as in fig. 1, from twelve to fourteen feet long, new and all complete, will cost from 151. to 201. Small decked vessels under twenty tons will cost about 20l. a ton, larger vessels 25l. a ton or more, according to the cabin fittings. An old vessel will cost from 10l. to 15l. a ton, according to her state of repair, and it should always be remembered that the hull of the vessel is not above onethird of her cost, the other two-thirds being absorbed by the sails, rigging, &c., and cabin fittings; in buying a vessel, therefore, these things must be considered, at least as much as the hull. The usual crew is a captain and a man to every ten tons, wages from 1l. 1s. to 11. 5s. a week, the men finding themselves in everything, except perhaps a suit of clothes at the beginning of the season. The total expense, including wear and tear, &c., will be about 11. a ton a month, if the vessel is only fitted out a short time in the year; or if the owner is inexperienced, it will cost more.

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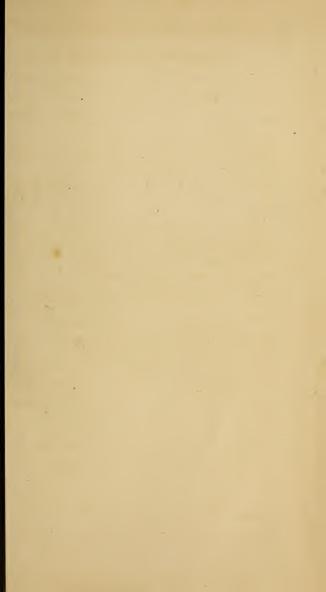
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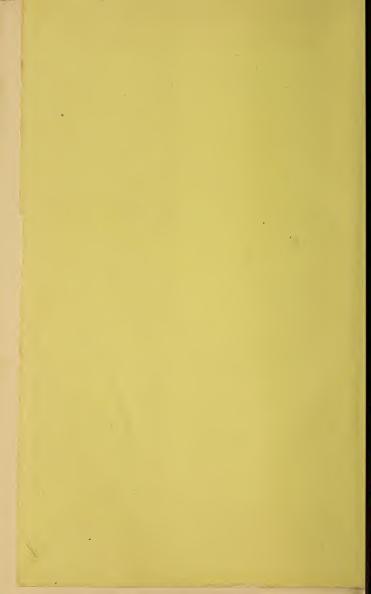
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