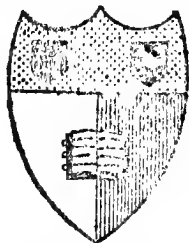


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LAWN TENNIS

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Champion of the United States for 1901 and 1902.

LAWN TENNIS

ITS

PAST, PRESENT, AND FUTURE

BY

J. PARMLY PARET

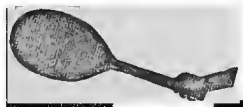
TO WHICH IS ADDED A CHAPTER ON

LACROSSE

BY

WILLIAM HARVEY MADDREN

WITH MANY ILLUSTRATIONS



New York

THE MACMILLAN COMPANY

LONDON: MACMILLAN & CO., LTD.

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Norwood Press

J. S. Cushing & Co. — Berwick & Smith Co.

Norwood, Mass., U.S.A.

R.P.U

PREFACE

THERE is none too much literature on the game of lawn tennis, as may be gathered by a glance at the meagre (though complete) bibliography of the game that appears at the end of this work, and there is certainly need for more, since the game can be taught and learned by written instruction nearly as well as by personal direction. There are few capable instructors in America, too, which doubles the need for printed advice.

That it requires much learning before one can expect to master it needs no proof. Eustace H. Miles, perhaps the cleverest of all amateur players of court tennis and rackets, expressed the opinion in a recent book that, "Personally, I find lawn tennis far the hardest and most scientific of all ball games that I have tried." Miles's argument is a good one, too, and bears repeating. He believes lawn tennis to be more scientific as well as more severe than similar games played indoors, because the player must always *go to the ball*, whereas he may wait for it to come to him in any game with side-walls and a back-wall.

Lawn tennis is no child's play as the experts play it, and the physical stress of the game makes it somewhat of a tax on one's strength. Exhaustion sometimes plays a part in the relative skill of tournament players, who

train for the matches rigidly in order to endure the strain the better.

The game presents all the same elements of attack and defence, of *finesse* and *coupe*, as does the mimic warfare of the chess-board. It requires severe physical exertion, coupled with activity of mind in constantly thinking out the rapid problems that present themselves during the course of the play; it needs coolness of nerve and eye; and withal it combines the endless variety of a sport in which no two plays are ever exactly the same. Expert skill at the game has steadily advanced for many years, and it seems difficult to predict just how much more improvement in the play the future has in store for us.

The game was originally English, but has spread widely wherever the migratory British colonists have settled, and is now played in almost every quarter of the world. It has become a very popular pastime, but it has been known even better within recent years as a game of competitive skill. Tournaments are of frequent occurrence, and the supreme idea of the players in these meetings being to win, the play becomes the more exciting, scientific, and skilful. Despite this, there is an almost total absence of professionalism attached to the game. What few lawn tennis professionals there are earn a living as groundsmen in England or teach the game to enthusiasts on the Continent, where it is yet young.

As to the difficulty of learning to play lawn tennis well, all depends upon the disposition, perseverance, and proper coaching. Muscular strength plays a small part in the matter, and I have known many expert

players whose arms and legs were unusually undeveloped, and others who suffered from physical deformities, such as lameness, bad eyesight, and even the lack of an arm. No particular height or build has been found to augur favorably for a lawn tennis player's skill, and small men have had almost as much success as large men.

In considering the relative play of American and foreign players, I confess to great difficulty in overcoming my enthusiasm for my own countrymen. It is no easy task to dissociate tennis players from their nationality and consider them purely as individuals, but I have tried to do this in the chapter dealing with the relative skill of the world's best players, and to consider all from the broadest view-point rather than from an American standard. In the chapter on international matches, I have necessarily had to view them from the American end, knowing the players of my own country better, and having seen more of the international matches on this side of the ocean than abroad.

For the benefit of the reader who is not familiar with lawn tennis, it may be as well to describe the game. Briefly speaking, it is played as follows: The server (who is chosen by lot) begins the game by knocking the ball with his racket from where he stands, behind the base line and at one side of the centre, diagonally over the net into his opponent's service-court. If he fails to do this, the play is called a "fault," and if a second fault is made, a point is scored for his opponent, and he repeats the play in the other court, from the other side of his base line.

The server must throw up the ball and hit it while

it is in the air, and the "striker-out," as his opponent is technically termed, is required to let it bound once from the ground before returning it. With these two exceptions, the ball may be hit either before it has touched the ground or after it has bounded once throughout the play. If the former, the stroke is called a volley; and if the latter, a ground-stroke.

After a good ball has been served, it is knocked back and forth over the net by the players with their rackets, until one side or the other scores a point. This can only be done when the ball is driven into the net or out of the court, or strikes the court and falls to the ground a second time without being struck. A point is then scored for the player who made the last good return, and the play is started again by the server, who delivers the ball into the opposite service-court from the last served into. The players serve in alternate games and change courts after each set.

When three or four players take part, the double game is played and a slightly larger court is used. The method of play is not changed, except that the players opposed to the server must act as striker-out (must return the service) on alternate points, and each of the four players takes his turn in successive games at serving. Either player may hit the ball after the service is returned.

The method of scoring is very simple when explained. Four points constitute a game, unless the score is tied at three points each, when a majority of two points must be secured to win the game. The points are scored as follows: Love, or no points; 15, or one point; 30, or two points; 40, or three points; game,

or four points. Love-all, 15-all, 30-all is called when the score is even, each side having nothing, one or two points, as indicated. At 40-all the score is called "deuce," each side having three points, and as either side secures the following point, it becomes "vantage in" or "vantage out" according to whether the server or striker-out has the advantage. The score hovers between vantage and deuce until one side secures the majority of two points required to win the game.

Six games constitute a set, unless the score is tied at five-all, when deuce-and-vantage games are generally played as in the points of a game, the score going on up to six-all, seven-all, eight-all, etc., until one side secures the majority of two games necessary to win a set. A match is generally composed of the majority of three or of five sets, according to its importance, the former being the more common, except in championship matches and the final rounds of a tournament.

J. P. P.

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BY J. PARMLY PARET

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PART I

THE HISTORY OF LAWN TENNIS

CHAPTER I

ORIGIN AND EARLY HISTORY OF THE GAME

LAWN tennis is essentially a modern game, for its origin dates back less than thirty years. Its genealogy is rather obscure, and the best of authorities disagree as to its direct parentage. That it had antecedents there can be no question, for it embodies familiar features borrowed from older sports, and few if any that are absolutely original in itself.

The ancient Romans were the first people who are known to have played with a ball, and they enjoyed a game called *lusio pilaris*, the exact nature of which is not perfectly understood. A number of players, however, tossed or struck a ball from one point to another for sport, and some antiquarians are convinced that the ancient game bore a strong resemblance to our modern-day game of fives.

The first record of any such game in Europe, however, occurs in the Middle Ages, when a crude game which afterward developed into court tennis

was the favorite sport of the Italian and French feudal kings and nobles. The French seem to have borrowed the game from the Italians, and both played it assiduously in the open air. Later it became the common property of the masses, instead of being restricted to the upper classes, and gradually evolved into a popular pastime.

In Italy the game took the name of *giuoco della palla*, while in France it became known as *jeu de paume*. Enclosed courts were next built, and it then included some of the features of our present-day court tennis. But many of the game's devotees continued playing outdoors, and this variety became known as *la longue paume*; in Italy the outdoor game, though somewhat corrupted, was continued under the name of *pallone*.

This French outdoor game, which is probably the most direct of all the antecedents of lawn tennis, was played with a cork ball, which was originally struck with the hand, with or without a glove upon it, over a bank of earth, two feet in height, which served the same purpose as our modern net. Soon a crude racket with wooden frame and handle, and gut strings, was substituted, and in this form the game was introduced into England and flourished there for many years.

The word "tenez" (trans. "play") was cried out by the server before the ball was started in the French game; and it is supposed, although not authentically proven, that this was the origin of our English word "tennis," the phonetic form being preserved. The earliest record we find in England of tennis is near the end of the eighteenth century, when "field tennis" is spoken of as a dangerous rival to cricket. This field tennis was undoubtedly an English variety of *la longue paume* with minor modifications, and forty years later we find references to "long tennis" as apparently the same or a very similar game.

Major Walter C. Wingfield, of the British army, is popularly credited with the invention of lawn tennis as we know it, and it was certainly he who patented the game in 1874. Members of the Leamington Club, in England, however, claim to have known the game for fifteen years before, and several English gentlemen who played court tennis were credited with having adapted an outdoor variation, which strongly resembled lawn tennis as first introduced ten years later. Major Wingfield's first recorded connection with the game was in December, 1873, when he introduced what purported to be a newly invented

game at a country house in England. He called it "sphairistike," which, literally translated from the Greek, means "ball play."

Major Wingfield's original game was played on a court shaped like an hour-glass, sixty feet in length and thirty feet in width at the base lines. In the centre was stretched a net twenty-one feet wide, the side lines of the court converging to its ends. This net was seven feet high at its sides and sagged to four feet eight inches in the centre. The old method of racket scoring was used, and the server was required to stand within a marked space in the middle of his court. The game, as first played, resembled badminton much more than our modern lawn tennis, so slow was the play, but the many changes made in the rules permitted a rapid increase in the speed.

Before sphairistike had been in use a full year, Major Wingfield increased the size of the court to eighty-four feet in length and thirty-six feet in width, and lowered the height of the net to four feet in the centre, placing the server on the base line instead of in the middle of his court. The following spring he again increased the width to thirty-nine feet, but still preserved his other

dimensions, and insisted on a narrow, high net over which the ball must be hit.

In March, 1875, the first organized laws for the game were formulated by the Marylebone Cricket Club, of Lord's. The club's committee selected the name of lawn tennis, and promulgated a new set of rules that were accepted by Major Wingfield and a large majority of those who had taken up the new game. They set the length of the court at seventy-eight feet, and there it has remained to this day; but they still preserved the hour-glass form, and the breadth required by their first rules was thirty feet at the base lines and twenty-four feet at the net. The net was set at four feet high in the centre and five feet at the posts, and the service line at twenty-six feet from the net. The racket system of scoring, with one or two minor alterations, was also preserved.

At the urgent suggestion of Henry Jones, who afterward became famous as the "Cavendish" of whist, the All-England Croquet Club, whose grounds at Wimbledon have since become famous the world over, opened its lawns to lawn tennis in 1875; and so popular did the game become, that an All-England championship meeting—the first of the series which has ever since been admitted

to represent the amateur championship of England, and, by many, the championship of the world — was held in July, 1877, the name of the club being then changed to the All-England Croquet and Lawn Tennis Club. A provisional set of laws to govern the championship was issued just before this tournament, and they embodied a number of changes from the first Marylebone Code. The court was altered to its present rectangular form, and the dimensions of seventy-eight by twenty-seven feet, as at present in use, were adopted. The net was again lowered to three feet three inches at the centre, and five feet at the posts, which were placed three feet outside of the edges of the court. The service line was also kept at twenty-six feet from the net.

This first tournament was eminently successful, and before a second took place, a meeting of the governors of the All-England Club was held, when another revision of the laws was made and a new code published. The net was lowered to three feet at the centre and four feet nine inches at the posts, and the service line was moved in to twenty-two feet from the net. Tennis scoring, as at present used, was adopted in place of the old racket scoring. In 1882, the height of the net

was changed to three feet at the centre and three feet six inches at the posts, where it has remained to this day.

The All-England Club assumed control of the new game, and by common consent its decisions were universally respected. In 1883 an attempt was made to form a National Association; but as the All-England Club declined to enter into the project, it was a failure, and in its place an annual meeting of club secretaries was held under the auspices of the All-England Club, for the purpose of legislation, until 1888, when the present English Lawn Tennis Association was formed as a national body to govern the sport. The authority of this organization has never since been questioned, and its decisions have been accepted throughout the Continent and British colonies. The only part of the world where separate laws are made is the United States, and even here the English rules and changes are carefully considered before any alteration is made.

Major Wingfield's "sphaeristike" first made its appearance in America in 1874, the same year it came out in England. A Bostonian who was travelling abroad, brought home a set of Wingfield's rules and implements for the game, and

a court was laid out at his country home at Nahant, a seaside resort near Boston. Another court made its appearance at Newport the following spring, and the Staten Island Cricket and Baseball Club, near New York, also took up the game in 1875. At Philadelphia, too, the game was introduced at the Young America Cricket Club's grounds, and soon grew popular.

During the first few years of its American existence, lawn tennis was played under widely varying conditions, but the distance between the points of play were too great to let these differences become apparent until open tournaments were held. The nets hung at different heights, and the courts varied somewhat in size, and the balls differed materially both as to size and weight. Local tournaments were held at Newport, Boston, Philadelphia, and Staten Island; but it was not until 1890, when Dr. James Dwight and Richard D. Sears of Boston, who were afterward so famous in lawn tennis, played at Staten Island and Philadelphia, that the full importance of this confusion became apparent.

The following spring, in May, 1881, a meeting was held in New York, and the present United States National Lawn Tennis Association was

formed. The English rules, as then in vogue, were adopted almost in their entirety, and the "Ayres" championship ball, made abroad, was also accepted as the official ball for all tournaments. It was decided shortly afterward to hold an annual championship tournament at the Newport Casino, and a series was started that has since been continued regularly every year, becoming second in importance only to the Wimbledon event.

Dwight and Sears were distinctly superior to all other players in America during this early period, and their only dangerous rivals for several years were the Clark brothers, of Philadelphia. But the game spread very rapidly in American soil, and new courts and new players sprang up on every hand, although Sears managed to retain his title as champion for seven successive years. During this time, the play developed rapidly and the skill of the players increased with wonderful rapidity; but Sears kept place with all improvements and managed to keep well ahead of all his rivals until an injury to his shoulder made it difficult for him to play, and he retired on his laurels, unbeaten.

CHAPTER II

EVOLUTION AND DEVELOPMENT OF EXPERT SKILL

THE evolution of lawn tennis from Major Wingfield's primitive pastime to its present state of development has been consistent as well as rapid. Particular plays have received undue prominence at different periods in the brief history of the game; but with the exception of the service, each one has been conquered before new laws became necessary to curb its power. In fact, little legislation in lawn tennis has been necessary, and the laws of the game have been altered only in places of minor importance. It is still very doubtful if new plays will force any radical changes in the rules, and the healthy development seems likely to continue along normal lines.

Of the first few years of the crude "sphairstike," little need be said. The evolution of lawn tennis really began in 1877, when the first tournament was held with a rectangular court and a service line. Here, three years before the advent

of the Renshaws, the reputed inventors of the volley stroke, volleying was first seen, and Spencer W. Gore won the first championship tournament chiefly with this play. His success was due more to the high sagging net, so much lower at the centre than the sides, and to the fact that his antagonists knew nothing of the volley, than to the soundness of his net play. The following years others had learned to lob, and they promptly tossed the ball over Gore's head every time he came up in his court to volley. At the time this new play seemed to sound the death-knell of net play, and the stroke fell into temporary disuse.

The next three years have been aptly described by an English historian as "the era of pat-ball." Many players learned to return the ball with great certainty though little speed, and the defence was developed so far beyond the attack that the rests became long and monotonous, some of the matches depending almost as much on endurance as skill. Lawford was one of these unerring players, and he was the first to add enough speed to give his strokes a dangerous attacking power. He developed a terrific forehand drive off the ground which became famous in lawn

tennis history as the "Lawford stroke," but, contrary to popular impression, no other player ever learned to use it, either in his day or since.

For a time, Lawford's style threatened to annihilate all of his adversaries, but then came the advent of the famous Renshaw brothers, who made use of the discarded volley once more, and with them began a new era in the development of the sport. The Renshaws did not come so close to the net as had Gore before them. They volleyed from about the service line, and when lobbing was tried against them, they introduced a new stroke, which was for many years known as the "Renshaw smash." W. Renshaw's success was at first overwhelming, but another reduction in the height of the net made the volleying position less secure, and the increase of Lawford's terrific speed in ground strokes nearly evened matters up, so that every meeting between these two famous old rivals furnished another battle of styles, with the result trembling in the balance.

For nearly two years this duel continued, and each side maintained that, properly played, its own style must necessarily win in the end. W. Renshaw and Lawford were unquestionably the great-

est exponents of the two types of the "paper warfare," as it was called, and their published ideas on the question carried the greatest weight. Each took an extreme view of the matter, and the two seemed hopelessly at variance with each other.

Renshaw's radical opinion, expressed in 1883, was as follows: "In my opinion, before many years, taking the ball off the ground will be quite the exception; and in its place there will be far finer and more exciting rallies in the volley than have ever been up to the present."

Lawford was almost as extreme, as his published opinion shows: "On a good court, my fixed opinion, and one which I have always held, is that perfect back-play will beat perfect volleying. It is always possible to pass a volleyer with the court as it is at present, and I know that when I lose a stroke by being volleyed, it is my own fault."

W. Renshaw seems to have had the best of the argument, for he won the championship on his kind of play; and for six successive years (1881-1886), he maintained his position at the very top, only to retire in 1887 because of an injury, not because he was beaten.

The old rules governing the height of the net materially favored net play, and at first Renshaw used to rush in almost as close to the net as do our American experts of to-day. It was four feet high at the sides then, and side-line passing was very difficult. But when the laws were altered in 1883 and the net lowered to its present height, a decided advantage was given to the player of strokes off the ground and what seemed then like the winning game of the future — the volley from close up — was apparently stopped and the volleyer driven back. But Renshaw refused to give up his pet stroke altogether, and he retired only a dozen feet or so, taking up his position very near the centre of the whole court, or at the intersection of the service and half-court lines, just as do many of the English experts of to-day. From this point he could step in one direction or another and reach almost any ball that could strike in the court.

Following W. Renshaw there came a day when the steady returns of everything off the ground was the winning game, and then E. Renshaw and Hamilton had their innings. Hamilton carried this kind of "safe" play to its limit, and improvement over them had to come in

more aggressive work : faster ground-strokes and more volleying. Then came Baddeley, and then Pim, the most brilliant of all who preceded the Dohertys. With the advent of these famous brothers came a period of domination that has been even more remarkable than the records of Renshaw, Sears, or Whitman. These two Doherty brothers are clearly better than all of their contemporaries in both singles and doubles, and there is not a championship title or challenge cup in all Europe that is not at their mercy to-day.

During the last three or four seasons they have won about as they pleased, and almost always outclassed their fields. They cannot be considered as typical of the national style of play of the day, however. Among their contemporaries, steadiness without brilliancy is the prevalent winning game ; and old critics declare that the standards of the average play in England now are no better than in Renshaw's day, although there may be more skilful players. While the Dohertys have been steadily improving their play, most of the other English players have been stagnated and have made little or no progress. Mahony and Pim have certainly gone

back noticeably. With a few brilliant exceptions the typical English game during the last five years has been sheer steadiness, although Smith has created a style for himself, much as Lawford had done before him, by "slogging" every ball forehanded off the ground, and winning many important matches — sometimes even pressing the Dohertys close — on pure speed alone.

So, as we find it to-day, English lawn tennis is not greatly altered from what it was fifteen years ago. Smith probably hits harder than Lawford, H. L. Doherty is steadier than E. Renshaw, and R. F. Doherty more brilliant than W. Renshaw. But the Dohertys are as much in a class by themselves as were the Renshaws.

But during all the time of the early development abroad, America was going through a somewhat similar experience. Sears and Dwight had learned Renshaw's methods of play from practice with the masters in England and in the South of France, and they had started on these lines to perfect their play. Sears, the better of the two, became the "American Renshaw," and maintained on this side of the ocean identically the same position in America as did Renshaw abroad. He

was champion of America for seven years (1881-1887), and then retired on account of an injury, too, as had Renshaw the year before, although he never again entered competition, while Renshaw did. The same methods made both successful.

But Sears at best was a long way behind Renshaw, and American players had to go through many of the same experimental stages. Campbell's innovation of extreme net-play was the first and most radical of these. The third American champion cultivated volleying far beyond his ground-play, and even went so far in his haste to reach the net as to return the service as the ball was still rising. His methods were startlingly successful, and for several years there were not good enough passing strokes among the rival American players to stop him, and lobbing had no terrors for him. When he went abroad in 1892, however, the success of English players in stopping his style convinced other Americans that better ground-strokes would stop such extreme one-sided net tactics.

The difference between Campbell's style and W. Renshaw's was very marked, although both were volleyers. Campbell had few ground-strokes,

and when driven back from the net, was helpless. He did not earn his position there by a fast ground-stroke, but rushed in at the first chance. He stood many feet nearer the net, too, than Renshaw, and backed away and volleyed or smashed overhead when his opponent tried to dislodge him by lobbing. His was a fierce attack from overhead, always driving the ball down in his attacks, while the English volleyers had to play it underhand and lift it up over the net, or at best to drive it horizontally. Campbell constantly took long chances to make a winning stroke, and made more aces and more errors than his opponent.

Other volleyers followed close after Campbell, though his English lesson taught them to cultivate their ground-strokes to a greater degree. Campbell's distorted style could not have long remained successful, but Wrenn improved on it so much by directing his attack to the centre of the court for safety that the volleyers were soon intrenched again safely at the net. Just as Renshaw laid the foundation for the English game of to-day, Wrenn did the same service for Americans of this generation.

To Wrenn, and in a smaller degree to Campbell and Neel, we are indebted for the theories on

which our modern skill is based. It was Campbell who first learned to serve to the centre of the court to reach the net in safety; it was Neel who taught the world to volley to the centre, until there came a sure opening for an ace by volleying or smashing across court; but it was Wrenn who perfected the whole modern theory, justified by practical success, that the first return and other ground-strokes of a volleyer should be played to the middle of the court so that he might reach the net in safety.

Renshaw and Campbell had been driving to the edges and far corners to get in safely, but Wrenn saw too many chances for clever ground-strokes to get past him in such a play, and he kept the ball in the centre of his opponent's court and directly in front of him when he wanted to come in. Undoubtedly, most winning strokes must be made to the sides of the court, but in the middle lies safety; and it was Wrenn who first demonstrated the value of this corner-stone of modern defensive play.

Just how the American methods of to-day differ from the English, therefore, and just what may be considered the latest development of the game, may be seen here: American experts have learned

to drive to the centre of the court for an opportunity to run up close to the net in safety, and then to volley to the side lines when the opening for a winning stroke comes. The closer American net position permits sharper angles in these killing strokes, too.

The English plan differs from this in that the players come only to the middle of the court, — Renshaw's favorite position at the intersection of the lines, — and volley from there, generally underhand because the ball has already begun to drop when it reaches them. They place to the sides, as a rule, before coming in, too, and depend on their position farther from the net to protect them from being passed through the greater openings they allow the antagonist. Baddeley was an exception to this general rule, as he volleyed from nearer the net; and the Dohertys also approach closer than most of their contemporaries, though not so near as the best American volleyers. The recent play of the Dohertys in America demonstrated their distinct superiority in methods as well as strokes over their English contemporaries. While their companions, Pim and Mahony, were both outclassed here, it was the American methods rather than strokes, which overcame

them, and the Dohertys were not to be beaten even in the department of American excellence.

The "reverse twist" service is another new development of American players, but its value has been exaggerated. Serving with a twist began in the earliest days of the game, when the court-tennis players introduced their favorite "screws"; but most of these services were delivered underhand, and much speed was impossible. When the fast overhead service came into vogue, twists soon fell into disuse, because less effective, and remained so until Whitman introduced a fast overhead twist that made the ball break to one side and still retain much of its spinning motion after it had bounded, which was a novelty. This was followed by other varieties used by Davis and Ward; and each was found puzzling at first to return accurately. Even when accustomed to the erratic bound, however, the additional twist on the ball makes it difficult to pass a server who follows up such a delivery, and thus makes his position at the net more secure.

CHAPTER III

TOURNAMENT PLAY IN AMERICA AND ABROAD

IN America tournament play forms the greater part of the life of the game. There are three kinds of tournaments: those confined to residents of a given limited district or open to club members only; those open to all comers; and invitation tournaments for which only selected players of superior skill are invited. Invitation tournaments are of American origin, and the matches are generally played on what is called the "round robin" system, each of the players meeting all of the others in turn, and the one with the largest number of victories at the end of the schedule taking first honors. This style of match play has been recently introduced in England, where it is known as the "American plan," a few "American tournaments" being held each season there.

There are handicap events in some of the large American tournaments, but this form of play has not appealed very favorably to the

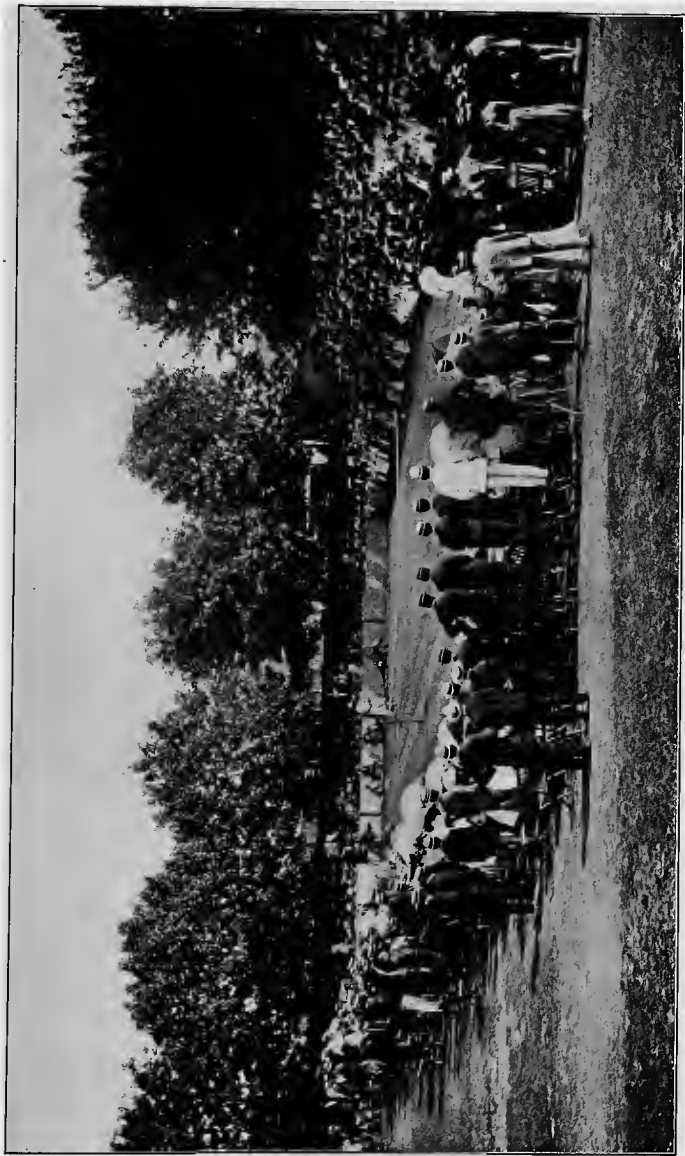
better American players. The poorer players patronize handicaps generally for the opportunity of meeting the cracks on terms of equality, so that handicap events are not so successful in America as abroad. They are of comparatively recent introduction, but I doubt if handicap events will ever be very popular in the big championship meetings here. Among the club tournaments, however, there is a good deal of handicap play, and it seems to find more favor among the poorer players.

The United States National Lawn Tennis Association is the controlling body, but its membership includes only a small proportion of the tennis clubs of the country. There are many smaller sectional associations through the West, and some also in the East, few of which hold membership in the U. S. N. L. T. A. The policy of the National Association has not been aggressive, and no attempt is made to outlaw players who compete in tournaments under other auspices, or to insist on the enforcement of its laws outside of its own membership.

The U. S. N. L. T. A. is made up of associations and clubs, each entitled to delegates at the annual convention in New York; but as a

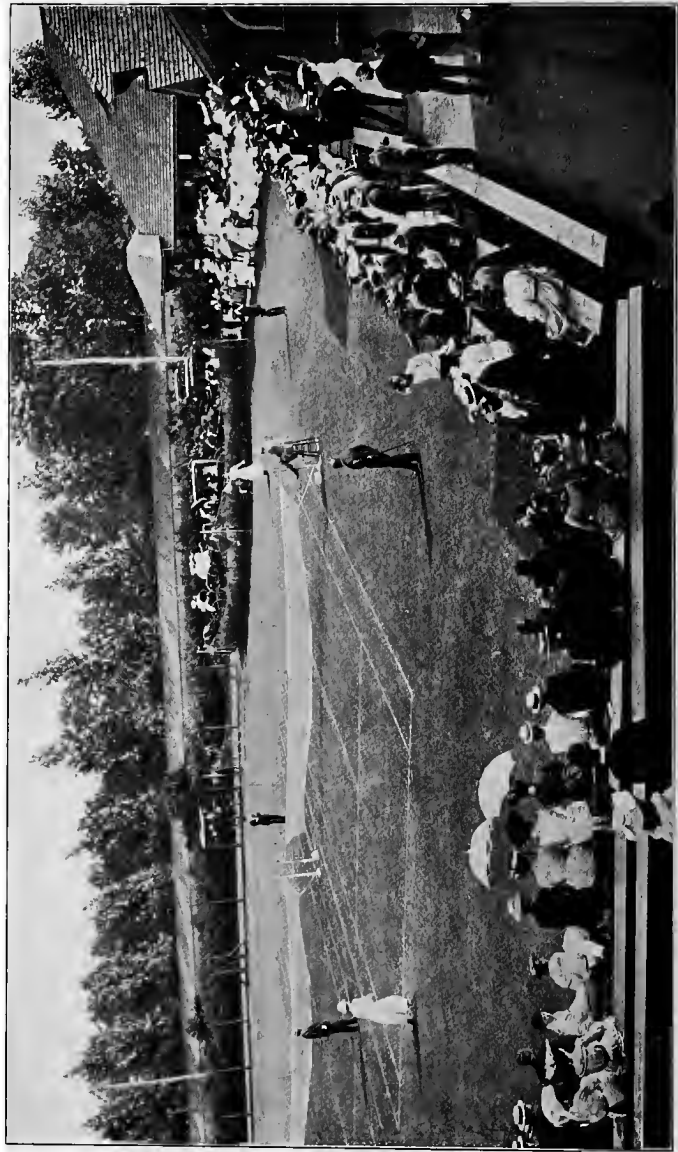
matter of fact and history, its actions are all governed by a certain clique of men mostly in Boston and New York who reëlect themselves or choose their successors each year. These annual elections include four officers and seven other members of an executive committee, into whose hands practically every question of minor or major importance is thrust; and they control the Association through a system of blank proxies sent in to one of the officers each year from distant clubs which find it inconvenient to send delegates.

Through the executive committee, there is made up each spring a schedule of open championship and invitation tournaments held by the members which apply for dates; and these are the meetings officially recognized, although they enjoy no special privilege that is denied to clubs which hold other open tournaments not officially scheduled, and which are quite as well patronized and as well conducted as those of the Association clubs. There has been no challenge of the Association's authority, for no other organization has made any attempt to hold national championship events; and other sectional titles that have been originated by outside clubs have not conflicted with



W. A. Larned vs. R. F. Doherty (1902).

THE CHAMPIONSHIP COURT AT THE NEWPORT CASINO.



Miss Moore vs. Miss Neely (1903).

A WOMAN'S CHAMPIONSHIP MATCH AT WISSAHICKON.

those already established. This official schedule allows a week for each tournament, and there are generally several tournaments scheduled for each week, although they do not often conflict, because held in different sections of the country.

There are a few of the big championship tournaments that are run with profit to the clubs. Admission is charged at the gate for these, but there is little competition among the Association clubs to secure these "plums." The clubs holding these events pay a small part of their receipts to the Association, which in turn buys the prizes for such events. Practically all the other tournaments are run at a loss, and the clubs which hold them pay the cost. In most cases, the entrance fees charged to the players pay for the prizes, while the cost of balls and incidental expenses are met by club appropriations.

Even with this dubious outlook there are more tournaments held than can be properly filled with good entries, and each year there are many dropped for lack of interest among the players. The experts are in great demand, and the management of many tournaments would gladly pay all their expenses if they would permit it, for the privilege of having them carry off their prizes.

However, on this side, it must be admitted, the "crack" players are very chary about their reputations for skill; and if their business does not interfere with their entering many tournaments, there are often other excuses that keep them out, although Whitman for two seasons, while champion, played consistently through the whole "circuit."

Rather than hunt "mugs," the leaders prefer to play fewer matches against only the best players, and this anxiety to avoid the weaker men who are so anxious to play against them, has led to the popularity of the invitation tournaments, where only the strongest players are invited to enter, generally from four to eight taking part. During the last few years the enthusiasm over doubles has brought into vogue a number of invitation tournaments for doubles alone; and they have proven very popular, not only with the players but the lovers of fine play as well. These are generally run by the large clubs, which willingly pay the cost for the privilege of having their members see the fine play. Although in some cases admission has been by invitation only, as a rule the matches are open to any one who wishes to see them.

State championship tournaments have been well established during the last ten or twelve years, and over half the states in the country now hold their meetings each year. An effort was made some years ago to restrict these to residents of their respective states; but most of the local managements were not in favor of this rule, and now a good proportion of these events are open to all comers. There are also sectional tournaments, some of them officially scheduled and others outside the Association auspices. Of these the most important are the Eastern Championships at Boston, the Western Championships at Chicago, the Middle States Championships at New York, the Southern Championships at Washington, and the Pacific Coast Championships in California.

The Canadian Championship is held each year under the auspices of the U. S. N. L. T. A., and although nominally national, it is, in reality, a sectional championship; and the chief honors at Niagara-on-the-Lake, where the meeting is always held, have been won by American players from time immemorial. The Canucks always welcome the American players on their side of the border, although the visitors seldom fail to take

away with them the lion's share of the prizes. Outside of these there are many smaller sectional events, such as the Metropolitan Championship, most of which are generally open to all comers.

A system differing somewhat from other sports has been in vogue since the early days of lawn tennis, by which the winner in many of the tournaments not only holds the championship title of some given section, but also a trophy or cup known as the challenge cup. In these events the holder of the title is debarred from entering the same tournament the following year, and is required to meet the winner in an extra challenge match at the end of the tournament for the possession of his title and trophy. Most of these cups become the personal property of any player winning them three times, not necessarily in succession.

A large share of the regular competitors in the tournaments take life seriously; and at the important championship events, or just before them, they train carefully for the best condition they are able to reach,—for lawn tennis, as played by the experts, requires as close training as the most exacting of other sports, if one

would show the stamina and strength required of him. Early hours, and no tobacco or liquors, are the restrictions of the ambitious, and every advantage is taken of opportunities to practise or prepare for the all-important championship at Newport. This is the climax of the season, and the players feel as if they could retrieve any previous bad showing at Newport, or climb one rung more on the ladder of tennis fame by beating some higher-ranked player there.

The championship tournament is held in the Casino grounds at Newport, and there are twelve excellent grass courts, which are generally worked into fine condition through the experienced care of "Tom" Pettit, the veteran professional in charge. The entry list is very large, — too large for the good of the real contestants for the championship title; but nearly every tournament player in the country wants to see the great battle of the year decided. If coming to Newport, they generally play; so, many who have no possible shadow of a chance for the championship are seen among the players entered. Although it is prohibited by the U. S. N. L. T. A., under whose auspices the tournament is held, to "seed" the draw, the poorer

players are rapidly weeded out, and the real candidates for the big honor finish their struggle for the title. But the poorer players do not go home when they are beaten; they all stay around to see the battle end, and they follow the play of the "cracks" as religiously as any enthusiastic non-player possibly could. They learn much from watching the experts on the championship court, and then put into practice later what they have picked up by observation. This Newport tournament attracts the leading players of all sections of the country; a strong delegation is always entered from Chicago and its vicinity, while there are often Californians, Southerners, and Canadians among the entries.

The crowd is a great feature at Newport, for it is different from anywhere else. Newport's fashionable society throng turns out daily to see the tennis, and millionaires are as thick as gooseberries on the grand stand opposite the championship court, but not one in a dozen knows a lob from a smash. The players never mix with this crowd, who come to see them more as they would to see a lot of professional baseball players than amateur sportsmen. However, it is about an even thing, for most of the players

consider these society spectators as much of a "show" as they do the players.

American lawn tennis players care far more for their records than they do for the prizes and glory they can win. At the end of each year it is the custom of the U. S. N. L. T. A. to appoint a committee, generally of leading players, to classify or "rank" the leading players for that season in the order of their supposed skill. At one time or another in his brief career every player who takes up tournament play looks forward anxiously to his ranking, and the ambition to be rated in the mystic circle of the "first ten" of the honor roll is second only to the championship aspirations of the few in whose bonnets the bee starts to buzz.

There are generally about forty of the leading players officially classified, and assigned to their classes in the ranking are handicaps which are supposed to indicate their relative skill, although these handicaps are persistently ignored by the local handicappers the following year when the players happen to come together in such events. In this connection, it may be remarked in passing that the absence of any official handicapper or other experienced official to handicap in the

big tournaments, as in England, is a great drawback; for the odds are seldom adjusted with much fairness, and glaring discrepancies are noticeable each year in the handicaps assigned to players of known skill in these tournaments, all of which has had something to do with the failure to popularize handicaps in this country among the players of skill.

But there is a brighter side to lawn tennis tournament play; let us glance at that. After the young player's ambition has been satisfied—or disappointed, as is more often the case—he may give up the game in disgust when he realizes that he has reached his limit; or, lucky man! he may have the good sense to be satisfied with the honors that are within his reach and go on playing matches for the sheer pleasure of the sport. A summer's tour of the big tournaments undoubtedly offers one of the most delightful of vacations; and as soon as a newcomer has made himself known among the little band that follow the circuit regularly, he is pretty sure to be welcomed. If he is a good player, he will be received with open arms; if he is only a fair player, he will be welcome if he is a good loser; and even if he is a poor player, he will be good-naturedly



THE LONGWOOD CRICKET CLUB COURTS, BOSTON.



THE COURTS OF THE AVONDALE ATHLETIC ASSOCIATION, CINCINNATI.

During the Interstate Championship Tournament.

tolerated if he proves personally popular with the other men.

As a rule, tennis players are men of comparative refinement, for it is an expensive luxury to play through a summer of tournament tennis. There are no professionals, for there is no money-making side to the sport, and most of the regular tournament players are collegians who spend their summer vacations in this way, or men of leisure. There are others who have clerical positions that keep them busy most of the time, and they play in local tournaments after office hours until their vacations come, and then spend their two weeks' holiday at some of the bigger tournaments. Because of the class of men that they are pretty sure to meet, the summer residents of the seaside resorts, where most of the tournaments are held, welcome the tennis players each year, where they mix on terms of social equality, except at Newport.

Lawn tennis players, it should be understood, are distinctly gregarious; they travel in groups from place to place, from tournament to tournament. The summer's campaign is mapped out early in the spring when the first official list of tournaments is published, and the itinerary invariably includes two or three tournaments where the

players are sure of a good time as well as good tennis. A long season's steady training would be too severe for the average athlete, and there must be some oases in the desert of plain food, early hours, and no smoking. The players choose for their recreation a few of the tournaments given by summer hotels, where they are sure to find good courts, and where other diversions abound. The Canadian tournaments are always popular for this reason.

After the tennis is over for the day, the players have plenty of time on their hands, and "tennis week" is composed entirely of red-letter days on the calendar of the hotel residents and cottagers where these tournaments are held. There are sailing and fishing parties, golf matches, and dances galore, to say nothing of midnight poker parties. The courts are the most popular spots during the playing hours, and in the ball-room, later, the tennis players are generally the most popular partners.

Despite the breadth of the ocean that separates American lawn tennis players from their British cousins, there is much less difference between the customs and conditions, which surround the game in England and Ireland, and those which

obtain in America. The skill of the players is very nearly alike, the etiquette of the game differs very little, and the tournaments, the crowds, the implements of the game, and, above all, the fraternal associations of the players, are much the same abroad as at home. The most indelible impression left on my mind when I made a pilgrimage to British courts in 1898, was the absence of the differences I had expected to find. The courts, the rackets, the balls, and the other appurtenances of the game all differed from ours very much less than I had expected. Each I found a little better, but the differences were so slight as to be almost unnoticeable.

It was in the conducting of the tournaments that the most radical improvements appeared. English and Irish meetings are conducted in a much more systematic manner than those in America. The handicapping is very much better than ours, the courts, nets, balls, programmes, and other accessories of the game are more systematically arranged, and in almost all of the other details a slight improvement is noticeable. All this is chiefly due to the employment of professional referees and handicappers. Two or three very capable men, formerly amateur players

themselves, have recently made a business of attending to all of the details of tournament management, and the result of their work has been most apparent.

It is in the handicapping that the greatest advantage of this system is shown. Several of these professional handicappers follow the tournament circuit closely throughout the season, and it is not surprising that they become so familiar with the relative form of all of the tournament players. As most of the British experts enter their handicaps regularly, it becomes a very much easier matter to adjust the odds between them than it is in the United States. Then, too, the English Lawn Tennis Association, the governing body abroad, is more universally respected and influential than the U. S. N. L. T. A., its work is more thorough and thoughtful, and its actions better represent the will of its members. The governing bodies in most of the Continental countries are affiliated with the English L. T. A., and all over the Continent its rules are in vogue.

English tournaments are more pretentious and better patronized, both in entries and in spectators, than those in America. It fairly takes an American's breath away to look at the pro-

gramme of one of them, with its eight or ten events and over forty entries in some of them. In one tournament I entered at Leamington, scheduled for only three days and actually run off in that time without having to "divide" any of the finals, there were ten events with over two hundred matches to be played, and only seven courts to play them on.

The handicap events abroad draw many entries, and the mixed doubles are invariably patronized by a large number of teams. Each player is usually entered in four or five events, and as soon as he walks off the court and turns in his score to the referee, he is "ordered into court again" for another match in some other event by Mr. Evelegh's good-natured call, "Now, Smith, I shall want you in ten minutes for your handicap mixed." There is no rest for the weary, and the only alternative is to "scratch" in the events where your chances to win seem poorest, if you are too tired to play three or four matches a day.

The spectators crowd around the courts in great numbers, and in most of the courts ropes or netting have to be put up to prevent interference with the players. Although the spectators do not

seem to mix with the players as much as in America, one will hear intelligent discussions on every hand of the most intricate handicap odds, that most Americans would give up as beyond their comprehension. The speakers know the players' records, and they know good play from bad. A clever stroke is applauded every time, by whomsoever made, and as a rule they have fewer favorites and prejudices and more of the spirit of fair play in their applause than one finds at American tournaments, where it is a common sight to see a player's errors applauded if they help a popular favorite along toward victory. Printed programmes are issued each day, with the previous day's winners and scores filled in.

It is at Eastbourne that the biggest crowds are seen. The two big autumn meetings each season are those at Brighton and Eastbourne, held on successive weeks in September. At both of these the number of entries as well as spectators is enormous, and Eastbourne in this respect is the greatest tournament of the English season, — greater even than Wimbledon, where the championship is held. Here the crowds are completely cut off from the players by high nettings, and around the outside of these is a constant

procession of promenaders, who wander from court to court, except when some match of exceptional importance is on, and then the whole throng gather around the favored court to watch the experts. There are nearly always first-class players at Eastbourne, and plenty of enthusiasm is shown by the spectators.

At Wimbledon, the championship court in the centre is completely surrounded with stands, three sides of the square being covered, and the fourth having uncovered seats. These stands seat several thousand spectators, and are permanently fixed in place, making it no easy task to keep the turf in front of them in good condition, for the court lines cannot be shifted more than a few feet to ease up on the wear over the base lines. This turf is covered with a huge tarpaulin for protection against rain in case of a shower during or just before a championship match. This is the meeting at which the "blue ribbon of the lawn," the All-England Championship, is played for, and it is splendidly managed. In all of their tournament arrangements, as in their legislation, the English players are more thorough and painstaking than the Americans.

Despite all this, however, there are some con-

ditions that favor the American variety of the game. In the first place, our weather is much more favorable for lawn tennis; and by this I do not mean climate. There are more days abroad when heavy winds and rain make good play—not only for visitors, but for the home players as well—difficult, if not impossible. Then our umpiring is better than that seen in even the most important of the English meetings; the social life at our tournaments and the “hospitality of the natives” are more of a feature on this side of the ocean, and the prizes given are more valuable as a rule. Uniformed ball boys, with numbers on their arms to correspond with the courts they tend, are a welcome improvement, both in England and on the Continent, while one of the latest innovations is an umpire’s prize at some of the tournaments, for the most efficient umpires.

The introduction of lawn tennis into the Continental countries was a much slower process than into America. For over a score of years the English and American residents of the Continental cities and watering-places have played the game, and here and there Anglo-American clubs for lawn tennis have gradually sprung up in France and Germany, as well as on the Riviera

and at the Swiss mountain resorts. The courts of the Beau Site Hotel, at Cannes, in the south of France, are among the most historic in the world. The famous Renshaw brothers and other early English masters, as well as Dwight, Sears, and one or two other American players of twenty years ago, made many pilgrimages to what was for many years the Mecca of the best of all the players, English, American, and Continental.

But until within the last ten years, lawn tennis was considered on the Continent as a game only for foreigners, and little or no interest was taken in it by the natives. It was only fifteen years ago in Baden-Baden, where one of the first of the English courts was laid out in Germany, that the phlegmatic Teutons used to gaze in undisguised contempt at "those foreigners romping about in the hot sun, merely trying to hit a ball over a net," as one of them put it. Eight or ten years ago, however, there was a general awakening among the athletically inclined Continentals, and since then there has been a steady increase in the popularity of the game on the other side of the English Channel.

Not only have the natives taken up lawn tennis enthusiastically, but they have improved rapidly

in their play, and some of them are already beginning to furnish worthy rivals for the doughty English. A serious drawback from which the game suffers on the Continent, particularly in Germany, France, and Austria, is the almost universal law requiring compulsory military service. This takes away from sport most of the healthy young men at the age when they would be most likely to enjoy and excel at it. Field manœuvres, camping, and drill duties, and most of the other routine work of the military, come at the time of year when outdoor sports are in season, so the opportunity for practice is very limited, and the quality of the home-bred Continental play suffers in consequence.

While few of them are so well organized or so well attended, lawn tennis tournaments are almost as frequent on the European continent as in America and Britain. On the Continent the distances from place to place are so short that most of the meetings have an international flavor, for at all of the more important meetings there are entries from the neighboring countries, while a few German, Belgian, and French enthusiasts follow the Continental circuit pretty regularly.

Until the last year or two, it was chiefly the

English and Americans who made these tournaments successful, but there has been gradually rounding into shape a force of home-bred tournament players who now furnish excellent sport among themselves, entirely independent of the visitors. There are usually a few events on the programmes of the principal meetings that are restricted to native players, and by shutting out the foreigners they offer much encouragement to the home talent. The Championship of Germany, for instance, the chief event of the annual international meeting at Homburg vor der Höhe, is open to all-comers, but there is also another event which is open only to Germans and Austrians, and this is called the "Championship of the Germans."

In France, too, they have their open French championships which are held in Paris during Easter week. But the French have another tournament later in the year, with a championship event open only to Frenchmen and foreigners permanently residing in France.

The Swiss make the same distinction as the Germans and French, for in their annual championship meeting there are both open and restricted events for championship honors, the

latter being known as the Swiss Championship and the open title being called the Championship of Switzerland. The annual tournament for the Championship of Italy is held at Milan in May, and is open to all comers; but as yet it has been confined chiefly to local players with a few of the Continental visitors, the ubiquitous Englishmen not yet having annexed the Italian championship. The Championship of Austria is held each year at Prague, where a special event restricted to Bohemians is also provided.

In Germany the Kaiser sets most of the fashions for the titled classes, and some of their enthusiasm for lawn tennis is undoubtedly due to the emperor's fondness for the game. His Majesty has played tennis for several years, and he has had a special indoor court built for the game in Berlin, where he and his sons and the members of his suite frequently play. The Kaiser has also established an annual tournament for the officers of his army which takes place in July each season at Homburg.

Lawn tennis in France is curiously divided. While it is played to some extent throughout the country, the chief interest in the game is centred in a few widely separated localities. In the

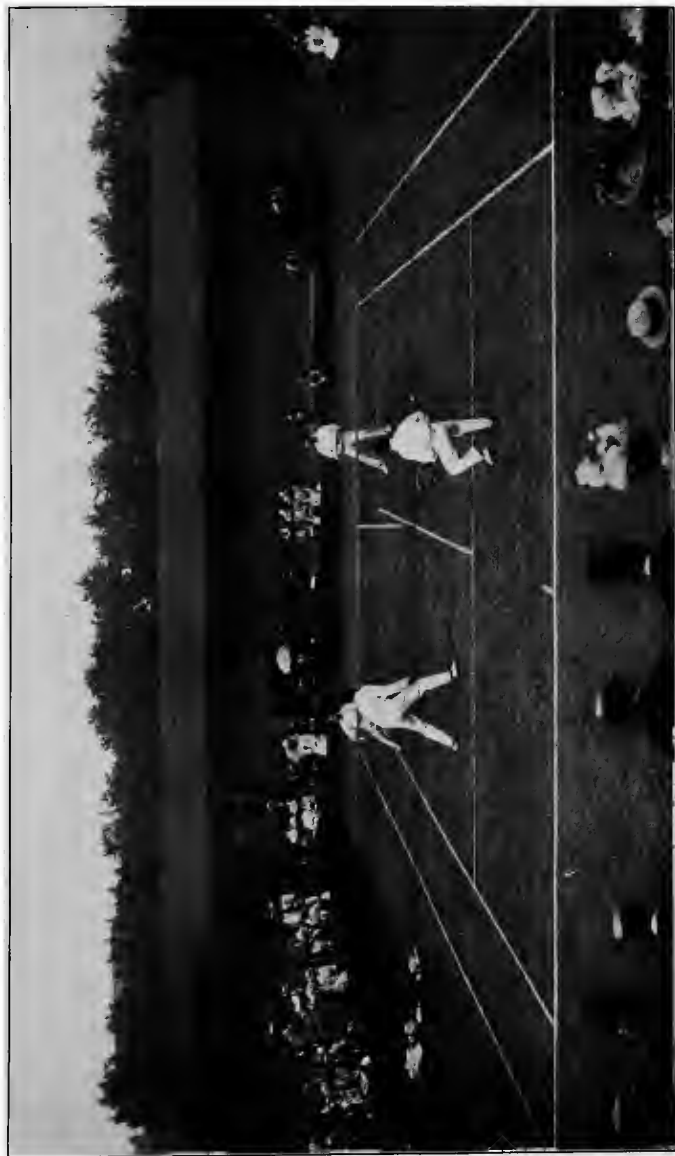
South, on the Riviera, the season lasts from January to April, and the game attracts a great deal of attention at Nice, Cannes, and Monte Carlo. The Riviera is the popular resort for the leisure classes of all Europe at this time of the year, and the lawn tennis clubs there have become quite cosmopolitan in character. At Nice, for instance, where the game enjoys the greatest popularity, the club championship in five successive years was held respectively by an American, an Italian, an Englishman, a Frenchman, and a Belgian.

There is a very sharp distinction between the early tournament season on the French Riviera, however, and the other French tournaments. During February and March each year a number of meetings are held at the most popular resorts of the Mediterranean coast, but these are monopolized almost entirely by the foreign visitors. A few English experts usually take about everything in sight, handicaps and all, while a sprinkling of American, German, French, and Italian players fill in the background. This early season on the Riviera offers the best possible preliminary practice for the more important events that come later, while the balmy climate of southern France at this season of the year and the bound-

less attractions of the Mediterranean resorts are enough to insure the return each spring of all the old *habitués*.

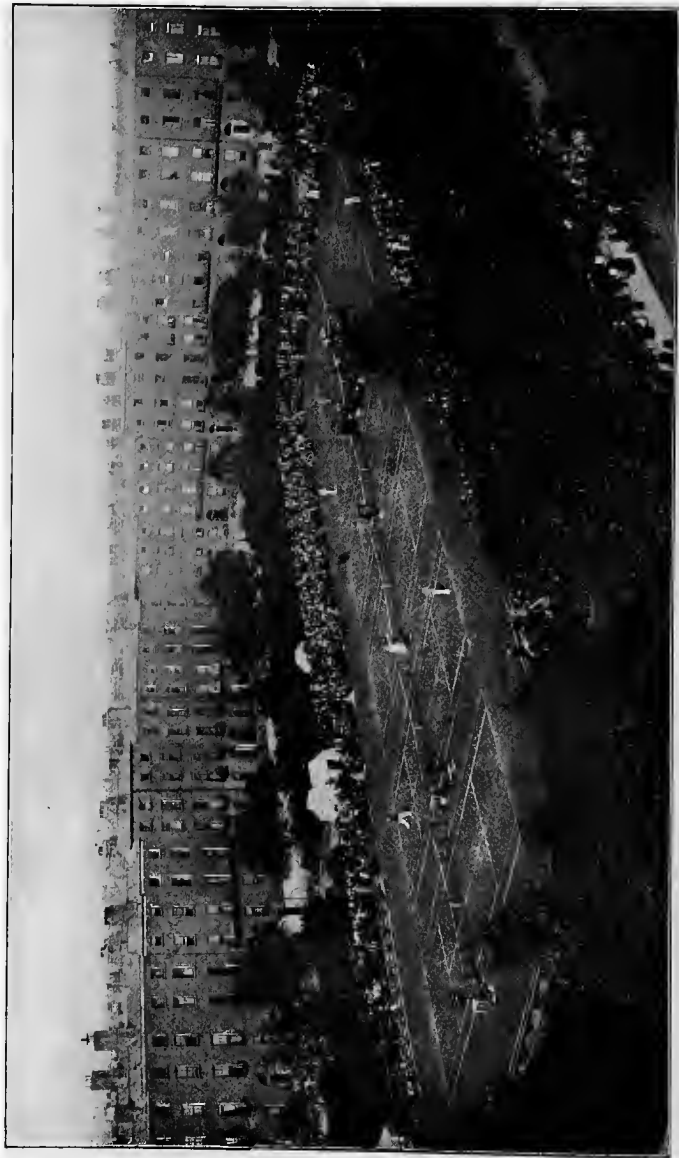
These Riviera tournaments always lead up to the open French Championship meeting, which is held in Paris during Easter week in the covered courts of the Tennis Club de Paris, at Auteuil. Paris, at this its gayest season of the year, offers many attractions, and a delegation of English players usually crosses the Channel for the French Championship meeting, joining those who journey up from the Riviera tournaments and stop over in Paris on their way back to England. The tournament lasts from Good Friday over until Easter Monday, as a rule, and always furnishes one of the best of holidays for the English players, with a reasonable certainty of bringing back with them the lion's share of the handsome prizes the Frenchmen offer.

But there is another circuit of tournaments during the summer months when the native Frenchmen are more prominent in the game. There are flourishing clubs at scores of other smaller towns scattered through the country, such as Dinard, St. Servan, Boulogne, Etretet, Aix, Pau, Lyons, Biarritz, and Roubaix, and many



THE CHAMPIONSHIP "CENTRE" COURT AT WIMBLEDON.

During a famous Championship match between the Doherty brothers and the Baddeley brothers.



IRISH CHAMPIONSHIP MATCHES AT FITZWILLIAM SQUARE, DUBLIN.

smaller tournaments are held at these clubs during the summer season.

In Italy, lawn tennis has not progressed as much as in the more northern countries of the Continent, but there are many excellent clubs around the Italian lakes. At Florence and Rome the English and American residents have laid out courts, but the play is chiefly confined to the foreigners. At Milan, Turin, Bologna, Genoa, and Naples, there are also good courts, and several Italian tournaments are held each year.

In Austria, there are two large clubs in Vienna, the Prater courts being the best. In Bohemia, the game is most popular at Prague and Pilsen, and the chief tournaments are held there.

In Scandinavia there is the Boldklub, of Copenhagen, with numerous courts, and the Idrottsparcken Club, of Stockholm, where there are some of the finest covered courts in the world. An important open tournament is held here each year, very early in the season.

Across the Baltic, in Finland, at Helsingfors, a club has existed for many years, and the courts at St. Petersburg and Warsaw are the rendezvous for the fashionable Russian diplomatic society.

In Belgium there are several clubs at Brussels, Liège, Spa, and Ostend, and in Holland there are courts all over the country in the largest towns. The Dutch clubs at The Hague, Amsterdam, Rotterdam, and Haarlem are of old standing. Important tournaments are held each year at Ostend, The Hague, and Spa, always attracting many foreign players.

Wherever the English have migrated there will be found lawn tennis, for the Englishman takes his sports along with him, no matter to what part of the earth, nor what his errand. This was shown during the recent Boer War in South Africa, when the English troops took foot-balls, cricket bats and lawn tennis rackets with them into the enemy's country. The English soon teach their sports to their new friends, too, and it has not taken long for lawn tennis to spread in its many new and widely separated homes.

Among the English colonies, lawn tennis has unquestionably made the greatest success in Australia, and there the game has found wonderful favor within the last ten or fifteen years. Important tournaments are held each year at Melbourne and Sydney. In India it is played

a good deal, but the climate is very severe for such violent exercise, and the sport is confined largely to the British officers in the cantonments, and English residents of the larger cities like Delhi, Singapore, and Mandalay. In South Africa, chiefly in Cape Colony and Natal, the game is played a good deal, while in New Zealand, Hong Kong, and in parts of South America where Anglo-American clubs for sports have been formed, the game has also found favor, particularly in Brazil and the Argentine Republic. In the British West Indies, too, in Bermuda, Jamaica, and the other islands, lawn tennis is frequently seen among the residents.

In Australia lawn tennis has a wonderfully fertile field in which to grow, and already its popularity closely rivals that of cricket. The game is chiefly confined to the most closely settled portions in the southern part of the great island, and Melbourne, Adelaide, and Sydney, the capitals of Victoria, Southern Australia, and New South Wales, are really the headquarters of the sport. Perhaps it flourishes best at Melbourne and Geelong, a Victorian seaport close by. Here they have splendid courts and a well-organized association composed of half a dozen of the local

clubs. At Sydney the game has progressed more rapidly than in either Adelaide or New Zealand, and intercolonial matches between Victoria and New South Wales are of annual occurrence. They generally furnish exciting sport, for the leading players of the two colonies are closely matched.

The Australian season, like that of California, is almost continuous, but during the winter months, June, July, and August, the weather is not very favorable for the game, and the days are too short to permit much practice in the afternoons after business hours. The conditions are best from August to November, and the intercolonial match between Victoria and New South Wales is generally held late in October or early in November. There are always a number of fall tournaments of importance that take place in April and May, but the high winds and cold, rainy weather have frequently interfered with these fixtures, and the weather is considered most favorable in the spring and early summer.

In New Zealand the "tennis week" at Auckland, where the championship tournament is held, is a red-letter one on the calendar, and a won-

derful amount of interest is centred in the matches.

In South America there is an open tournament held each year at Rio Janeiro, for the Championship of Brazil, and at Buenos Ayres several tournaments have been held within the last few years by the Anglo-American Club there.

In South Africa the English colonists have established championships of Cape Colony, Natal, and one or two of the smaller colonies, while the annual meeting for the Championship of British India is held each year at Delhi. Other tournaments are also held in the far East at Simla, Singapore, and Hong Kong.

CHAPTER IV

INTERNATIONAL MATCHES

THE only matches of international importance in the history of lawn tennis are those between American and British players. So-called international tournaments, open to all comers, are held in Canada, Germany, and in some of the other Continental countries; but there are only a few Continental players who rival the English standard abroad, and no Canadian players who compare with the leading American experts. Hence these events are monopolized by the visitors, and really lose their pretended international character. A tournament may become more or less international because the players of different nationalities are entered, but its results have no international significance unless the representatives are officially delegated to play, or are recognized as representatives of their own country and then rival the antagonists in point of skill, which is not the case at either the German or Canadian international meetings.

For six years (1892-1898) an international team match, between English and Irish players, was held alternately in England and Ireland, but this fixture has been dropped since then. England won four of these six matches. It is difficult to see how they can be considered international, since the English and the Irish are practically the same nation. English and Irish players compete regularly in the same tournaments against one another every season, and all their standards are the same.

Informal international tennis matches between British and American players have taken place at frequent intervals ever since 1883, though it is only within the last few years that the standards of play on opposite sides of the Atlantic have become so nearly the same that their outcome has been shrouded in doubt. Americans were distinctly behind their English cousins in skill until 1897, and the repeated successes of Larned and Wrenn against the invading team of that season gave them their first taste of equality.

C. M. Clark, of Philadelphia, and his younger brother, Joseph S. Clark, were the first to visit English lawn tennis courts. In the early part

of 1883 the two Clark brothers went abroad and played against the best of the English experts for several weeks. The Clarks were then considered to be fully the equals of Sears and Dwight in doubles, while in singles they were not far behind the Bostonians. Several doubles matches were arranged with the famous Renshaw brothers, and the American pair was beaten each time. The Clark brothers played through a number of English tournaments before they returned home, but without any marked success, and a reasonable deduction drawn from their play abroad was that American lawn tennis was many grades below the English standard.

Dr. James Dwight of Boston was the second American to make the pilgrimage, and it was late in the autumn of 1883 when he followed the example of the Clarks and ventured across the ocean. Richard D. Sears, then champion of America, and Dr. Dwight's partner in doubles, joined the latter in France later in the winter, and the pair played through a number of the British tournaments of 1884, after a winter's practice at Cannes, with varying fortunes but more defeats than victories.

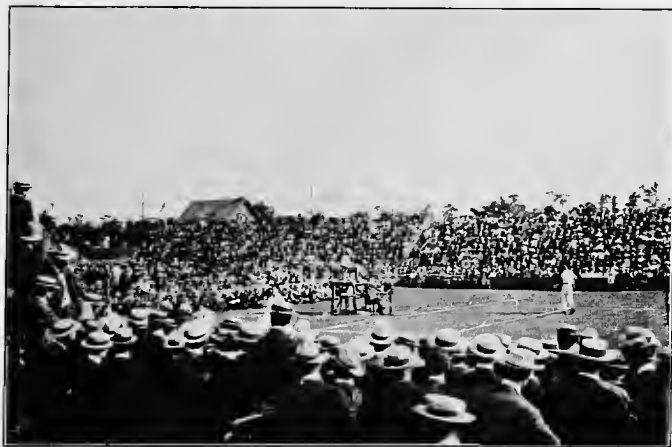
In doubles the American pair did better than in singles, winning from many strong combinations; but each time they were defeated in straight sets by the ever victorious Renshaw brothers. When the American players returned home, the general estimate was that they were fully fifteen below the Renshaws in form.

Dwight again played abroad in the tournaments of 1885, and showed much better form than before. At the end of this season the ranking of players which was annually issued by *Pastime*, then the English official organ, placed the American fifteen and one bisque (equal to about $15\frac{1}{6}$ on the present basis) below the English champion, W. Renshaw, and tenth in the list of expert players. The following winter at Cannes, R. L. Beeckman, of New York, another promising American player of that day, who afterward became one of the most brilliant of home-bred experts, also joined the little Anglo-American party of tennis enthusiasts in France. Just before the party broke up for the season, a handicap tournament was arranged, in which E. Renshaw conceded one bisque each to Dwight, Beeckman, and H. Grove, and larger handicaps to the other

players. He met all three in turn, and beat them, although Beeckman, the youngest of the quartet, managed to stave off defeat for five close sets.

At the close of the English tournaments that followed, Dwight was ranked in the English list just half-fifteen and one bisque below the brilliant W. Renshaw. He was not ranked in 1887, although he played abroad.

The next test of international skill was finished in 1888, when the first of the English experts visited our courts, and then began the second period of international competition. C. G. Eames, an English player of recognized skill although not of the first class, came over to America and played with little success in a few tournaments late in the season of 1888. The following summer E. G. Meers, who had been ranked among the first ten of Great Britain the season before, entered at Newport, and was beaten by O. S. Campbell in the semi-final round after five sets of exciting play. Campbell was beaten in the finals by Shaw, who in turn lost to the champion, Slocum. Campbell was then just on the threshold of his successful career, and was ranked third in America that



TWO VIEWS OF THE INTERNATIONAL MATCH OF 1902.
Whitman *vs.* R. F. Doherty at Bay Ridge, August, 1902.



THE DAVIS INTERNATIONAL CHALLENGE TROPHY.

season. Meers was rated below this abroad, however, and the American standard was still distinctly below the English, but not so much as in Dwight's days.

O. S. Campbell, then champion, ventured abroad in 1892, and played through the greater part of the English season. At the end of the year he was ranked well up among the experts of Great Britain, and the difference between his skill and that of the leading foreigners can best be shown by the estimates of the British handicappers. Campbell was placed on scratch in several tournaments, with W. Baddeley and E. Renshaw, the crack players of the year, at owe half-fifteen. Campbell was beaten more often at these odds than he won. The superior ground-strokes of the Englishmen were much better calculated to stop his net tactics than those of any of our American players, and Campbell's lack of ground-strokes made him helpless as soon as he was dislodged from the net position.

Late in the summer of 1893, M. F. Goodbody, an Irish expert of high rank, came over here on a business tour. He was badly out of practice, and was easily beaten by inferior American

players. He came again the following summer, however, and played through several of the most important American meetings. In the championship event at Newport he drew Hovey in the second round and won after a most exciting five-set match. In the next round Hobart was his victim again after five sets of play, and this time only after the American had pulled out the third and fourth sets of a seemingly lost match. In the semi-finals, Goodbody met Larned, and the latter had a lead of two sets to the one and 4-0 and 5-3 in the fourth set, seeming a sure winner, only to lose after the usual five sets. In the challenge round, Wrenn at first seemed destined to defeat also, when he lost six successive games in the first set, after having a lead of 5-1; but his play improved after that, while that of the Irishman fell off, and Wrenn won the next three sets. At the end of the season Goodbody was ranked third in America, even and in the same class with Larned, Hovey, Chace, and Hobart; while the champion, Wrenn, was placed above them all in a class by himself.

In the spring of 1895 Dr. J. Pim and H. S. Mahony, two celebrated Irish players, accepted an

invitation from the Neighborhood Club of West Newton, Massachusetts, to take part in its annual invitation tournament, and they came over in June. Pim was then the champion of All-England, and Mahony won the title the following year, 1896, so that it may readily be seen that the Americans were opposed to the very best talent in Great Britain. This West Newton tournament was really the first genuine victory for either British or American players on foreign soil, but its value was greatly overestimated by the press, and even by other American players, who did not realize the weakness of the American team. Besides the absence of Wrenn, the champion, Larned was not only out of condition but sick most of the week, and at no time did he show his true form.

Between them Pim and Mahony won both first and second prizes in this tournament. Mahony beat all the American players, while Pim lost only to Hobart and beat Mahony twice, thus taking first honors. Hobart managed to break an otherwise clean score of defeats by winning a most sensational match from Pim (score 7-5, 6-3). Chace, too, won a set from each of the visitors, while Hovey got a set from Mahony.

An exhibition match in doubles was played during the week, and in this Hobart and Hovey, the American champions, beat Pim and Mahony three straight sets.

The season of 1895 seemed to have left American lawn tennis further behind the British than the year before, when Goodbody was vanquished. Press and players alike talked hopelessly of our ever reaching English form, and most of the conclusions drawn from the West Newton play were as superficial as were the comments of two years later, when it was hysterically declared that the victories of Wrenn and Larned over Eaves, Mahony, and Nisbet proved American players more skilful than the English.

Larned went abroad in 1896, and with his campaign began the third period of international tennis,—what might be called the period of American equality. Larned played through most of the early season, beginning with the Irish Championship at Dublin late in May and ending with the English Championship at Wimbledon in July. In the Northern Championships at Liverpool, he was three times within a single stroke of beating Mahony, who won the All-England Championship a month later, but lost in five

exciting sets. At Wimbledon, Larned lost to Herbert Baddeley, after he had won the first two sets and seemed sure of victory.

In the English handicaps, Larned was rated half-fifteen poorer than the best men abroad, and at the end of the season he was ranked sixth in Great Britain, half-fifteen behind the champion for that year. Just before the Wimbledon Championship meeting, Mahony was quoted as saying that he considered Larned's chances for the English Championship almost if not quite as good as those of any British players, while the official organ of the English players had this to say of the American's play against Baddeley:—

“The way in which Larned went to work reminded one of nothing so much as Pim, for probably none else is capable of such clean, hard, and fearless hitting.”

At the end of the year the official review of the season included this comment on the Larned-Baddeley match:—

“The first two sets provided for the edification of the spectators some of the most brilliant lawn tennis, on the American player's part, that has ever been seen.”

Before the season of 1897 opened, the United

States National Lawn Tennis Association forwarded a challenge to the British Lawn Tennis Association, proposing an annual international match, Americans offering to pay the expense of a British team in America for 1897, if the foreigners would reciprocate the following year in the same manner. The English authorities found it necessary, on financial grounds, to decline this challenge, but a team of British players was made up at once, and the men came over here on their own responsibility, the American clubs at which they played paying a share of their expenses. This team was composed of H. S. Mahony, Dr. W. V. Eaves, and H. A. Nisbet, who were officially ranked, the season before, second, third, and sixteenth players in Great Britain. Although Nisbet was far below Eaves and Mahony in the official list, he was handicapped only three-sixths below Mahony, two-sixths below Eaves, and one-sixth below Larned. Mahony had just relinquished the English Championship to R. F. Doherty, while Eaves had just captured the Irish Championship; so these two, at least, were at the top of the lawn tennis ladder at home.

The visiting party reached America early in

August and played through four tournaments. At Longwood Larned beat Mahony rather easily, and then Nisbet, after the latter had beaten Eaves in straight sets. The following week a series of international matches was played at the St. George Cricket Club, in Hoboken, Larned and the two Wrenn brothers being opposed to the three visitors. Each of the Americans met each of the visitors in turn, and the home team won the tournament by 5 matches to 4, 18 sets to 14, and 162 games to 154. The British players won only one match (Eaves *vs.* R. D. Wrenn) from either of the American cracks, Larned beating all three, and R. D. Wrenn beating the other two. G. L. Wrenn was outclassed, and lost all three of his matches. An exhibition match in doubles was played during the progress of this Hoboken tournament, in which R. D. Wrenn and O. S. Campbell beat H. S. Mahony and H. A. Nisbet in three straight sets.

The British visitors next played a round-robin at Chicago, where the American team was composed of Larned, Wrenn, and Kriegh Collins, the young champion of the Western states. In this event, every player met all others in turn, including the others of his own

team. Larned beat all three of the visitors again, but lost to Wrenn; and as Wrenn lost to Nisbet, a triple tie resulted. There was no time to play off the tie, so first prize was courteously given to the visitor. Collins was outclassed, as G. L. Wrenn had been at Hoboken.

The American Championship tournament at Newport was the last tournament in which the visitors took part. Mahony, badly out of form, was defeated by M. D. Whitman, afterward the American champion, who also played a clever five-set match against Nisbet the following day and was beaten only after having been within two points of the victory. Larned met Nisbet in the semi-final round, and the most sensational match of the year resulted. The American had everything his own way in the first two sets, and at 5-4 in the third, was twice within a single point of a straight-set victory. Nisbet managed to crawl out and win the set by 9-7, and finally won the last two by 6-4, 6-4, Larned repeating his performances against Goodbody and Baddeley. In the finals, Eaves met his fellow-countryman, and won almost as he pleased in straight sets. With Eaves against Wrenn, however, it was a different matter, and the

American won after five of the most exciting sets it has been my good fortune to see, Wrenn thus saving the championship again as he had against Goodbody.

No international matches were played in 1898 and 1899, although Hobart played abroad both years, and won the all-comers' doubles at Wimbledon each year with Nisbet for a partner, being beaten easily each year, however, in the challenge round for the English Championship by the Doherty brothers.

The fourth period of international lawn tennis history began in 1900, and it looked very much like an era of American superiority at first. In this year was established the first Anglo-American official international matches, and the "International Lawn Tennis Championship" title was inaugurated with a valuable silver challenge bowl presented by Dwight F. Davis of St. Louis. The English Lawn Tennis Association and the United States National Lawn Tennis Association both officially recognized this trophy as emblematic of the World's Championship, and a code of "International Regulations" was duly adopted to govern all competitions for the new title and trophy.

The English Association challenged at once

for the title and sent A. W. Gore, E. D. Black, and H. R. Barrett over to play for it. These matches were played on the grounds of the Longwood Cricket Club, Boston, during the first week of August, 1900, and resulted in an overwhelming defeat of the challengers by 3 matches to 0, 10 sets to 1, and 76 games to 50. Rain interrupted the last day's play, which was never completed. M. D. Whitman, D. F. Davis, and Holcombe Ward composed the American team, and the only set they lost in three matches and part of another was the first set between Davis and Black, which was won by the visitor.

At Newport, two weeks later, Barrett having already returned home, Gore beat Black and then lost to G. L. Wrenn, who was unable to win a set from Larned in the finals. At the end of the season, everything pointed to the superiority of the American players over their British cousins, and the showing of the foreigners had been so poor that they were not ranked.

The following spring the English again challenged for the Davis Trophy, but they were unable to get together a representative team and refused to send a poor one, so asked the U. S. N. L. T. A. to cancel the challenge. In the

meantime, however, Davis and Ward, on their own responsibility, had been playing doubles abroad. Because of their unusual style of play and their clean sweep of the year before over the international team sent to America, unusual interest was centred in their play, and it was apparent that their only dangerous rivals were the Doherty brothers. Their principal object in making the trip was to try to win the English Championship in doubles, and they played in only one other event besides the Wimbledon meeting, and not in the singles of either. They met the Dohertys in both, losing in close sets the first time. At Wimbledon they had little difficulty in winning the all-comers' doubles, and then played a very exciting match in the challenge round for the championship title held by the Dohertys.

This match proved to be the feature of the season, and the biggest crowd seen at a tennis court for ten years turned out to witness it. The first day the match was interrupted by rain, with the score at one set all and the third set even at games all. Play was started all over again the second day, when the Dohertys won in four close sets, although the last set hung by

a thread until it was ultimately lost for the Americans by two poor plays by Davis at the most critical stage of the score.

In the fall of the same year (1901), Beals C. Wright and William J. Clothier went over to the other side and played there for a few weeks with only meagre success. At Eastbourne and Brighton, in September, the two young Americans met Hillyard, Mahony, Eaves, and other crack British players, and were beaten without reaching the finals in any event. Clothier's victories over E. R. Allen and C. H. L. Cazalet were the only notable successes the pair had abroad.

Another challenge for the Davis Cup was sent to America early in the season of 1902, and the two Doherty brothers and Dr. J. Pim (travelling under the *nom de plume* of "X") came over about the first of August to represent the Britishers against W. A. Larned, M. D. Whitman, D. F. Davis, and Holcombe Ward. The Dohertys were entered at Longwood the week before the international matches and captured the Eastern Championship in doubles after an exciting final match of four sets against the American Wrenn brothers.

The international cup matches were played



Holcombe Ward M. D. Whitman D. F. Davis

THE FIRST AMERICAN INTERNATIONAL TEAM.

Winners of the Davis cup in 1900.



G. L. Wrenn R. D. Sears R. D. Wrenn M. D. Whitman
Dr. W. V. Eaves W. A. Larned H. A. Nisbet H. S. Mahony

A FAMOUS GROUP OF CHAMPIONS AT LONGWOOD IN 1897.

on the grounds of the Crescent Athletic Club, Bay Ridge, New York, during the first week of August, and resulted in a victory for the American players by 3 matches to 2, 12 sets to 7, and 100 games to 74. Pim proved to be the weak spot of the team, and he was beaten by both Larned and Whitman, while Whitman also beat R. F. Doherty in the singles. Larned won the first two sets from the crack English player also, but rain interfered with the play after the second set, and when the match was resumed the next day, Doherty won three straight sets. In the doubles, the Doherty brothers beat Davis and Ward, in a close four-set match, by 3-6, 10-8, 6-3, 6-4.

At Newport, when the American Championship tournament was played two weeks later, the Doherty brothers again beat Davis and Ward in an exceedingly close three-set match (11-9, 12-10, 6-4), after having taken the full five sets to beat Kriegh Collins and L. H. Waidner, the champions of the West, in the final match of doubles (East *vs.* West). This victory gave them the American Championship in doubles for the first time this title had ever been won by foreign players.

In the singles, Pim was beaten in the fourth

round in three straight sets, while the two Doherty brothers went through to the semi-finals with the loss of one set each. The younger defaulted to the older, and in the finals R. F. Doherty met Whitman and won with unexpected ease, since the American had beaten him at Bay Ridge two weeks before. Doherty won at Newport in three straight sets, only one of which was close. In the challenge round the Englishman met W. A. Larned and was beaten after another brilliant match of four sets, the heat telling considerably in favor of the American.

Still a fourth challenge for the Davis Cup was issued before the beginning of the season of 1903; and again the Doherty brothers were sent over, this time with H. S. Mahony, to try to "lift" the trophy. The foreigners arrived two weeks before the international matches were held at the Longwood Cricket Club, Boston, and took part in the Longwood (open) and Nahant tournaments. Mahony was beaten in both, but the Dohertys stayed out of the singles at Longwood and H. L. Doherty won easily at Nahant. In the doubles, R. F. Doherty combined with Mahony at Nahant, and this combination beat the Wrenn brothers, who had been selected to

play in the international matches, after a close five-set match in the finals.

The American team selected to play against the challengers in the international matches were the Wrenn brothers and Larned, and they were beaten by 4 matches to 1, 12 sets to 8, and 96 games to 93. R. F. Doherty strained his shoulder a few days before the international matches and had to default in his first match to Larned. Several days' rain helped him out a good deal, and his shoulder rounded into shape in time to play in the other two matches in his schedule. The Dohertys again beat the Wrenns in four sets, while H. L. Doherty beat Wrenn easily in straight sets; and the last day, the two brothers beat Wrenn and Larned in singles, each in five close sets. The whole result was very close, and the issue trembled in the balance until the last minute. This victory gave the International Championship and the Davis Cup to the Englishmen for the first time.

At Newport two weeks later, the Dohertys successfully defended their claim to the American Championship in doubles by beating Collins and Waidner in straight sets, after the latter had beaten Holcombe Ward and L. E. Ware

in the finals. In the singles, the two visiting brothers were again drawn in the same half, and after the younger one had beaten Mahony in straight sets, his brother defaulted to him, and H. L. Doherty played through to the finals, having an easy victory there over W. J. Clothier. In the challenge round the English and American champions met once more, and this time Doherty scored a much easier victory over Larned than at Longwood. The American did not win a game until the second set was half gone, though from that point he made a good fight but could not get a set. This victory gave the visiting party, or rather the Dohertys, all the honors in sight, the American Championship in both singles and doubles, and the International Championship.

Two young American players, in the meantime, were winning high honors abroad. Wylie C. Grant and Robert LeRoy, who had already won the Indoor Championship of America, went over to the other side and played through six or eight weeks of English and Continental tournaments, with extraordinary success. At Homburg, in Germany, and The Hague, in Holland, LeRoy and Grant won the Championship of Europe in

both singles and doubles (LeRoy in the singles), while in the Brighton and Eastbourne tournaments, as well as several of the other English and Continental meetings, they played prominently. The two Americans came together in the finals, at Brighton, LeRoy beating his partner in five close sets, and taking the big Sussex challenge cup, while together they also captured first honors in the doubles. At Eastbourne, Grant beat Mahony, just returned from America with the international team, but both lost to E. R. Allen.

CHAPTER V

RACKETS, BALLS, AND OTHER ACCESSORIES

THE only requirements for lawn tennis are a stretch of level turf or some satisfactory substitute, a net stretched across the centre, two or more balls of a given size and weight, and a racket for each player engaged. The subject of courts, their construction and care, will be treated in another chapter, but the other accessories of the game are also of the utmost importance.

Of all the implements used in the game, the racket is by far the most important. A lawn tennis racket is simply an oval-shaped frame of wood, generally second-growth ash, with a handle about eighteen inches in length, and the head or playing surface (sometimes called the "face" of the racket) strung very tightly with interlaced catgut strings, making a meshwork of half-inch squares.

It is with this implement that all of the strokes of the game are made, and the most

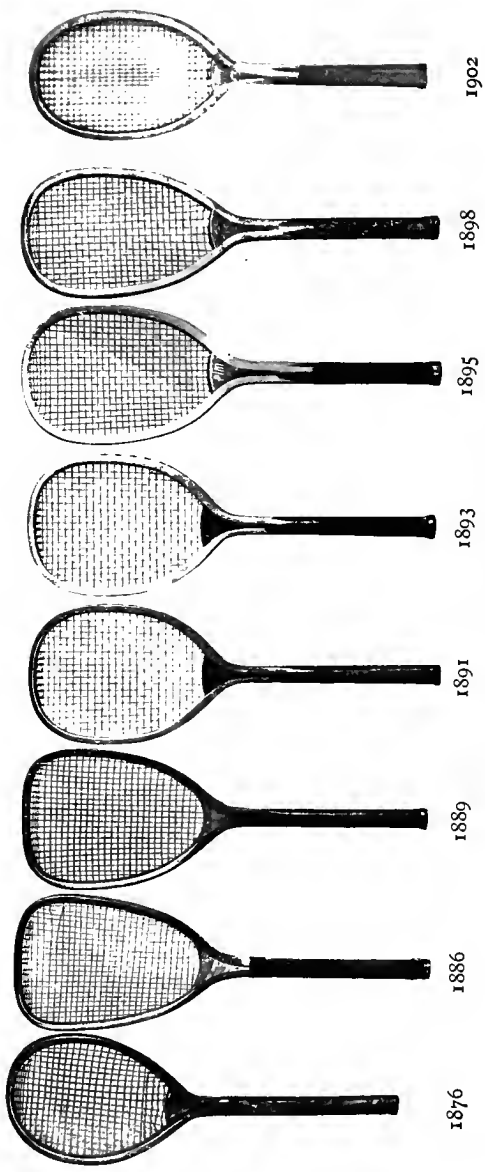
minute differences are noticeable to expert players, who depend upon the familiar "touch" or resistance of their own rackets for success. Every player has his own racket and becomes accustomed to its particular weight and balance. Expert tournament players generally keep two or more constantly in use, exchanging them in different kinds of weather, or keeping one in reserve for use in case the frame or strings of the other should break.

The origin of the racket is as easily traced as its evolution. In the early days of *la longue paume*, the ball was struck with the hand, as in our modern game of hand-ball. Soon a glove was introduced for the protection of the hand, as the play became faster and more severe. Next, strings were stretched over the glove from the thumb to the fingers, to give the ball a faster impulse, and then it was but two short steps to building a little framework on which to stretch the strings, and finally adding a handle to the frame. It was from this origin that court tennis rackets were evolved.

The earliest lawn-tennis rackets were modelled closely after those used in court tennis, for in playing the outdoor game the latter were used

at first. They were lopsided, having more of the surface of the strings at one side of the handle than the other. The early cut-strokes borrowed from the older game, which were so effective at first, were more easily played with a racket of this shape than with one that was symmetrical, but with the passing of the cut-stroke, the shape of the rackets was altered.

All of the earliest rackets imported into America were of this shape, and it was not until 1883 that the first rackets were made of symmetrical form. At first these were popularly called "bats," in contradistinction to rackets of the older shape; but as they became generally used by lawn tennis players, and the former style was discarded, the old name of "racket" was transferred to them. Some of the earliest of these symmetrical bats were intended to have "lops," or extensions, on both sides of the head, instead of only one, in order to facilitate making cut-strokes with either face of the stringing. The new shape was very wide at the top and narrow at the throat, the playing surface being materially larger than in the old style. One of these early rackets, called the "Franklin," which came out in 1884, was almost triangular in shape.



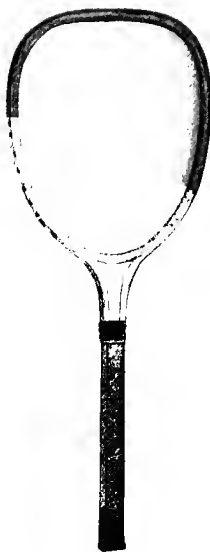
THE DEVELOPMENT OF RACKET-MAKING.



1878



1882



1885

THREE OF THE "FREAK" MODELS.

The heads of the rackets grew larger with the increased faith in the double lopsided shape, and it was not until several years later, when the theory that the amount of cut depended on the expanse of the stringing was thoroughly exploded, that the heads of the rackets used by experts were quickly reduced in size, and were made round or oval in shape. This decreasing tendency was in turn followed by an era of longer and narrower heads. This model was introduced into America when Dr. Pim, the famous English expert, played here in 1895, and a new racket, named for him, was modelled directly after that which he had brought over with him. This shape has been copied by other manufacturers, and on both sides of the ocean there seems now to be much the same shape in use by the best manufacturers. The English-built rackets are a trifle narrower in the head than those made in America, and they have less wood in their frames, a noticeable advantage.

The question of stringing was a bone of contention for many years, but early experiments were followed by an era in which all of the rackets were strung in the same way. In an English guide to lawn tennis published in 1885,

there are diagrams of no fewer than twenty-one different ways of stringing a racket. In the earlier days of the game all kinds of novelties were tried, and there were always short-sighted players who would buy rackets strung in any way for which the manufacturers claimed better driving power. Many attachments were introduced to keep the strings tight, too; but all have been finally discarded, with every method of stringing but the most simple of all. Now we depend entirely on the elasticity of the catgut strings to preserve the tightness of the mesh, and they are strung under heavy pressure. During the last two or three seasons, some manufacturers have introduced a few extra strings, as in the "Doherty" racket, to help keep the centre tight and increase the driving power.

We have had many "freak" models at various stages of the development of the racket. The lopsided court-tennis racket was first carried to an extreme, and then followed a symmetrical bat of wondrous proportions which would have made a tennis ball spin like a top and curve like a boomerang if there had been any truth in the theory that the amount of twist in strokes depended on the expanse of the playing surface.

Then followed the other extreme, when a straight-sided racket was built of such narrow proportions that the strings occupied little more space than actually required to hit the ball.

The care of a good racket is most important. The wooden frame will warp out of shape with a little dampness or with too much dry heat, and it is vital that it should be kept in a racket-press when not in use; for it is never safe for long without pressure to keep the frame straight. It is well to keep a good racket in a flannel or waterproof bag or case, when not in use, and case and all can be put into the press. Some makers recommend a little beeswax rubbed over the surface of the strings just after using, particularly if the strings show any tendency to fray, as they often do when used on sand or dirt courts. Wax or grease helps to keep the dampness away from the strings. Shellac is put on them before they come out of the shop, and a fresh coat of shellac effectually keeps out the dampness while it lasts.

In selecting a racket, it is well to get one that is evenly balanced, and, as it should always be held by the extreme end of the handle in using, it can be best tested there. Balancing it on one finger at the middle of the wedge-shaped throat

piece, however, will show how its weight is distributed. Rackets of less than $13\frac{1}{2}$ ounces are not strong enough for men to play with, nor under $12\frac{1}{2}$ for women. The best weight for a man is 14 or $14\frac{1}{2}$ ounces, and which is used depends chiefly on a man's strength of wrist. A woman, unless particularly weak, should use one of $13\frac{1}{2}$ ounces, while 13 or 14 can be used in cases of special weakness or strength.

The history of lawn tennis balls is quite dissimilar from that of rackets, for there have been practically no alterations necessary. When the game was first introduced, balls of hollow india-rubber were universally used. Before it was a year old, J. M. Heathcote, a veteran court-tennis player, suggested covering them with flannel, and the following season many such balls were in use. They were not universally adopted for a year or two after that, however, and even as late as 1885 we find prominent English manufacturers still urging the general use of uncovered balls. Felt was soon substituted for flannel in covering, however, and the ball gradually became harder.

Those universally used now by good players are made of rubber inflated with air under considerable pressure, sealed air-tight, and covered

with strips of a fine quality of white felt, which are cemented to the rubber and sewn together so that they fit tightly to the ball. The size and weight have never varied since the first. The laws on both sides of the ocean prescribe that lawn tennis balls shall measure $2\frac{1}{2}$ inches in diameter, and shall weigh 2 ounces. American and English rules both require that they shall not be more than one-sixteenth of an inch larger than the standard diameter, and not more than one-eighth of an ounce lighter than the prescribed weight.

There was a good deal of disparity in the balls first used in America, and it caused considerable trouble. When two of the earliest Boston players visited Philadelphia, in 1880, to play in one of the first open tournaments given in this country, they found that the balls used there were "not more than two-thirds of the size of an English ball, and also differed materially in weight."¹ For the first few years after the United States National Lawn Tennis Association was formed, in 1881, there was constant friction over the ball question. An imported English ball, made by Ayres, was

¹ See "Lawn Tennis in Our Own Country," by H. W. Slocum, Jr., page 113.

first used in the official tournaments, but in 1883 an American ball made by Wright & Ditson and Peck & Snyder was substituted for it. This lasted only one year, and then the Ayres ball again received official recognition. Despite much difference of opinion, this was retained for several seasons until that made by Wright & Ditson was again adopted. This make of balls had a practical monopoly of the business until last season, when another manufacturer succeeded in having the "bars let down," and now there are half-a-dozen makes that receive the official approval of the U. S. N. L. T. A. for use in tournaments held under its auspices. Abroad no official ball is adopted, and those of two different makes, Ayres's and Slazenger's, are used in the tournaments.

All rubber is more or less porous, and the compressed air inside of these balls gradually oozes through, either from standing too long in shops before they are used, or by constant use, the severity of the play forcing some of the air out. Good lawn tennis balls, when new, can be depressed with strong pressure from the thumb and finger less than half an inch. They should always be tested before using, and if the thumb

can be forced into the sphere more than that, the ball has lost its usefulness for accurate play. A ball that is not thoroughly hard will lose its shape when hit hard, and will not travel truly through the air. It also offers less resistance and ruins the accuracy of a skilful player; for he depends on a certain amount of impact from every stroke, and soon loses his "touch" if this varies.

In wet weather the covers of tennis balls absorb a good deal of moisture and soon become heavy, particularly on grass courts; and it is not unreasonable in a match to demand new balls whenever those in use exceed noticeably the weight prescribed by the rules. If heavy balls are used, a great many strokes that would otherwise be good, will find their way into the net. On the other hand, constant play on sand, gravel, or "dirt" courts, particularly in dry weather, will lighten the weight of lawn tennis balls in a few sets. Rebounding from the hard court forces the air out of them, so they offer less impact, and the grit on the surface of the court wears off some of the covering and reduces the weight of the ball. On dry, sandy courts, it will be found that the

balls often "sail" from ordinary strokes, and it becomes doubly hard to keep them within the boundaries of the court without sacrificing speed. New balls may reasonably be demanded in tournament play if those in use become soft or under the weight the rule prescribes. Nothing will hurt a tournament player's stroke more than playing or practising with balls that are too light, too heavy, or too soft.

Lawn tennis balls are very susceptible to heat and cold also. Their "centres" are filled with air at the factory temperature, probably between 70° and 80°. If they are afterward subjected to much cold, the air inside shrinks and the ball loses its life and elasticity. Under extreme heat, tennis balls will actually swell up above the legal limit, and bound faster and higher because of the greater pressure of the air inside them. In winter, cold balls that seem lifeless can be much improved by heat.

Because of the wide variations in high-grade balls possible under conditions of different temperatures, it would seem to be necessary that some standard of resilience should be adopted. The laws of the game define how large and how heavy the balls shall be, but they do not define their

resilience. After elaborate tests, I have found that 50 per cent is an excellent standard, and it would seem easy to add to law 2, which describes the balls used for the game, some such words as these: "and shall rebound from a hard surface, not less than five nor more than six feet after a drop of ten feet." If such a law were adopted on both sides of the ocean, we should have less difficulty in adjusting standards of balls for international matches, for the amount of resilience is the chief point of difference between English and American balls now.

Of the net it need only be said that the universal rules of the game prescribe its dimensions accurately. They require that it shall be three feet in height at the centre of the court, and three feet six inches at the posts, which are fixed at three feet beyond the side lines of the court. All nets for tournament play, and even for practice, if possible, should be bound at the top with a band of white canvas, two or three inches in width. This serves to mark the height of the net, so that the players can see the top quickly from a distance.

The net should always be drawn tight so that it cannot sway or tremble in the wind, as nothing

will upset the accuracy of an expert player's eye as a moving object before him. It is well to have the centre double-strung, for most of the wear comes at this point; and if there is much dampness, tarred nets will be found more durable. Centre bands made of canvas are preferable to the iron forks made to regulate the height of the net at exactly the three feet prescribed by the rules.

The posts used to support the net vary wonderfully, but only those of single-piece construction should be used, as the others have a tendency to bend in the middle. Some are made with iron sockets that are sunk into the ground to support the posts upright, and then no guy-ropes are needed; otherwise supporting ropes stretched out to guy-pins driven into the ground are necessary to take up the strain of the net. In either case, however, it is well to get posts which have one of the various attachments for winding up the net until it is drawn up to its proper height. It is important that there shall be no sagging of the net while play is in progress, and if the court lines are not to be shifted, it is well to sink posts into the ground firmly.

CHAPTER VI

CHAMPIONSHIP RECORDS

International Record of Davis Cup Matches

FIRST SERIES—1900

Won by America, 3 matches to 0, as follows:

TEAM RECORD	MATCHES		SETS		GAMES		POINTS	
	W.	L.	W.	L.	W.	L.	W.	L.
American Team .	3	0	10	1	76	50	464	381
English Team . .	0	3	1	10	50	76	381	464
Totals .	3	3	11	11	126	126	845	845

SECOND SERIES—1902

TEAM RECORD	MATCHES		SETS		GAMES		POINTS	
	W.	L.	W.	L.	W.	L.	W.	L.
American Team .	3	2	12	7	100	74	596	555
English Team . .	2	3	7	12	74	100	555	596
Totals .	5	5	19	19	174	174	1151	1151

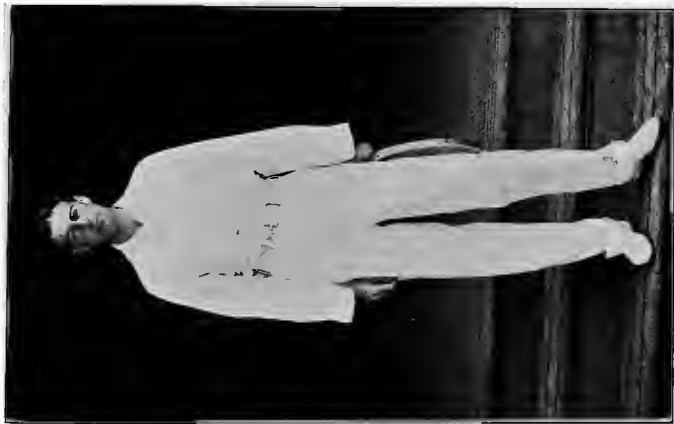
THIRD SERIES—1903

TEAM RECORD	MATCHES		SETS		GAMES		POINTS	
	W.	L.	W.	L.	W.	L.	W.	L.
English Team . .	4	1	12	8	96	93	562	583
American Team .	1	4	8	12	93	96	583	562
Totals .	5	5	20	20	189	189	1145	1145

American Championship Holders

MEN'S SINGLES

<i>Champions</i>	<i>Winners of All-comers</i>	<i>Runners-up</i>
1881. R. D. Sears.	R. D. Sears.	W. E. Glyn.
1882. R. D. Sears.	R. D. Sears.	C. M. Clark.
1883. R. D. Sears.	R. D. Sears.	James Dwight.
1884. R. D. Sears.	H. A. Taylor.	W. V. S. Thorne.
1885. R. D. Sears.	G. M. Brinley.	W. P. Knapp.
1886. R. D. Sears.	R. L. Beeckman.	H. A. Taylor.
1887. R. D. Sears.	H. W. Slocum, Jr.	H. A. Taylor.
1888. H. W. Slocum, Jr.	H. W. Slocum, Jr.	H. A. Taylor.
1889. H. W. Slocum, Jr.	Q. A. Shaw, Jr.	O. S. Campbell.
1890. O. S. Campbell.	O. S. Campbell.	W. P. Knapp.
1891. O. S. Campbell.	C. Hobart.	F. H. Hovey.
1892. O. S. Campbell.	F. H. Hovey.	W. A. Larned.
1893. R. D. Wrenn.	R. D. Wrenn.	F. H. Hovey.
1894. R. D. Wrenn.	M. F. Goodbody.	W. A. Larned.
1895. F. H. Hovey.	F. H. Hovey.	W. A. Larned.
1896. R. D. Wrenn.	R. D. Wrenn.	W. A. Larned.
1897. R. D. Wrenn.	Dr. W. V. Eaves.	H. A. Nisbet.
1898. M. D. Whitman.	M. D. Whitman.	D. F. Davis.
1899. M. D. Whitman.	J. P. Paret.	D. F. Davis.



R. F. Doherty.



H. L. Doherty.

THE FAMOUS DOHERTY BROTHERS.



R. D. Wrenn.



Holcombe Ward.



M. D. Whitman.

THREE AMERICAN CHAMPION PLAYERS.

	<i>Champions</i>	<i>Winners of All-comers</i>	<i>Runners-up</i>
1900.	M. D. Whitman.	W. A. Larned.	G. L. Wrenn, Jr.
1901.	W. A. Larned.	W. A. Larned.	B. C. Wright.
1902.	W. A. Larned.	R. F. Doherty.	M. D. Whitman.
1903.	H. L. Doherty.	H. L. Doherty.	W. J. Clothier.

CHAMPIONS IN MEN'S DOUBLES

- 1881. C. M. Clark and F. W. Taylor.
- 1882. R. D. Sears and James Dwight.
- 1883. R. D. Sears and James Dwight.
- 1884. R. D. Sears and James Dwight.
- 1885. R. D. Sears and J. S. Clark.
- 1886. R. D. Sears and James Dwight.
- 1887. R. D. Sears and James Dwight.
- 1888. O. S. Campbell and V. G. Hall.
- 1889. H. W. Slocum and H. A. Taylor.
- 1890. V. G. Hall and C. Hobart.
- 1891. O. S. Campbell and R. P. Huntington, Jr.
- 1892. O. S. Campbell and R. P. Huntington, Jr.
- 1893. C. Hobart and F. H. Hovey.
- 1894. C. Hobart and F. H. Hovey.
- 1895. M. G. Chace and R. D. Wrenn.
- 1896. C. B. Neel and S. R. Neel.
- 1897. L. E. Ware and G. P. Sheldon, Jr.
- 1898. L. E. Ware and G. P. Sheldon, Jr.
- 1899. H. Ward and D. F. Davis.
- 1900. H. Ward and D. F. Davis.
- 1901. H. Ward and D. F. Davis.
- 1902. R. F. Doherty and H. L. Doherty.
- 1903. R. F. Doherty and H. L. Doherty.

WINNERS OF ALL-COMERS

- 1881. C. M. Clark and F. W. Taylor.
- 1882. R. D. Sears and James Dwight.

1883. R. D. Sears and James Dwight.
 1884. R. D. Sears and James Dwight.
 1885. R. D. Sears and J. S. Clark.
 1886. R. D. Sears and James Dwight.
 1887. R. D. Sears and James Dwight.
 1888. O. S. Campbell and V. G. Hall.
 1889. H. W. Slocum, Jr., and H. A. Taylor.
 1890. V. G. Hall and C. Hobart.
 1891. O. S. Campbell and R. P. Huntington, Jr.
 1892. V. G. Hall and E. L. Hall.
 1893. C. Hobart and F. H. Hovey.
 1894. C. B. Neel and S. R. Neel.
 1895. M. G. Chace and R. D. Wrenn.
 1896. C. B. Neel and S. R. Neel.
 1897. L. E. Ware and G. P. Sheldon, Jr.
 1898. H. Ward and D. F. Davis.
 1899. H. Ward and D. F. Davis.
 1900. F. B. Alexander and R. D. Little.
 1901. L. E. Ware and B. C. Wright.
 1902. R. F. Doherty and H. L. Doherty.
 1903. Kriegh Collins and L. H. Waidner.

CHAMPIONS IN WOMEN'S SINGLES

- | | |
|-----------------------------|----------------------------|
| 1887. Miss Alice Hansell. | 1896. Miss E. H. Moore. |
| 1888. Miss B. Townsend. | 1897. Miss J. P. Atkinson. |
| 1889. Miss B. Townsend. | 1898. Miss J. P. Atkinson. |
| 1890. Miss E. C. Roosevelt. | 1899. Miss M. R. Jones. |
| 1891. Miss Mabel E. Cahill. | 1900. Miss M. McAteer. |
| 1892. Miss Mabel E. Cahill. | 1901. Miss E. H. Moore. |
| 1893. Miss Aline M. Terry. | 1902. Miss M. R. Jones. |
| 1894. Miss H. R. Hellwig. | 1903. Miss E. H. Moore. |
| 1895. Miss J. P. Atkinson. | 1904. Miss May Sutton. |

CHAMPIONS IN WOMEN'S DOUBLES

1890. Misses E. C. Roosevelt and G. W. Roosevelt.
1891. Miss M. E. Cahill and Mrs. W. F. Morgan.
1892. Misses M. E. Cahill and A. M. McKinley.
1893. Misses A. M. Terry and Hattie Butler.
1894. Misses H. R. Hellwig and J. P. Atkinson.
1895. Misses H. R. Hellwig and J. P. Atkinson.
1896. Misses E. H. Moore and J. P. Atkinson.
1897. Misses J. P. Atkinson and K. G. Atkinson.
1898. Misses J. P. Atkinson and K. G. Atkinson.
1899. Misses Myrtle McAteer and Jennie Craven.
1900. Misses Jennie Parker and Hattie Champlin.
1901. Misses J. P. Atkinson and Myrtle McAteer.
1902. Misses Marion Jones and J. P. Atkinson.
1903. Misses E. H. Moore and C. B. Neely.
1904. Misses E. H. Moore and C. B. Neely.

CHAMPIONS IN MIXED DOUBLES

1892. Clarence Hobart and Miss M. E. Cahill.
1893. Clarence Hobart and Miss E. C. Roosevelt.
1894. E. P. Fischer and Miss J. P. Atkinson.
1895. E. P. Fischer and Miss J. P. Atkinson.
1896. E. P. Fischer and Miss J. P. Atkinson.
1897. D. L. Magruder and Miss Laura Henson.
1898. E. P. Fischer and Miss Carrie Neely.
1899. A. L. Hoskins and Miss Edith Rastall.
1900. Alfred Codman and Miss M. Hunnewell.
1901. R. D. Little and Miss Marion Jones.
1902. W. C. Grant and Miss E. H. Moore.
1903. H. F. Allen and Miss Helen Chapman.
1904. W. C. Grant and Miss E. H. Moore.

INDOOR CHAMPIONS

	<i>Singles</i>	<i>Doubles</i>
1900.	J. A. Allen.	J. P. Paret and Calhoun Cragin.
1901.	Holcombe Ward.	O. M. Bostwick and Calhoun Cragin.
1902.	J. P. Paret.	W. C. Grant and Robert LeRoy.
1903.	W. C. Grant.	W. C. Grant and Robert LeRoy.
1904.	W. C. Grant.	W. C. Grant and Robert LeRoy.

English Championship Holders

	<i>Champions</i>	<i>Winners of All-comers</i>	<i>Runners-up</i>
1877.	S. W. Gore.	S. W. Gore.	W. Marshall.
1878.	P. F. Hadow.	P. F. Hadow.	W. Erskine.
1879.	J. T. Hartley.	J. T. Hartley.	V. "St. Leger."
1880.	J. T. Hartley.	H. F. Lawford.	O. F. Woodhouse.
1881.	W. Renshaw.	W. Renshaw.	R. T. Richardson.
1882.	W. Renshaw.	E. Renshaw.	R. T. Richardson.
1883.	W. Renshaw.	E. Renshaw.	D. Stewart.
1884.	W. Renshaw.	H. F. Lawford.	C. W. Grinstead.
1885.	W. Renshaw.	H. F. Lawford.	E. Renshaw.
1886.	W. Renshaw.	H. F. Lawford.	E. W. Lewis.
1887.	H. F. Lawford.	H. F. Lawford.	E. Renshaw.
1888.	E. Renshaw.	E. Renshaw.	E. W. Lewis.
1889.	W. Renshaw.	W. Renshaw.	H. S. Barlow.
1890.	W. J. Hamilton.	W. J. Hamilton.	H. S. Barlow.
1891.	W. Baddeley.	W. Baddeley.	J. Pim.
1892.	W. Baddeley.	J. Pim.	E. W. Lewis.
1893.	J. Pim.	J. Pim.	H. S. Mahony.
1894.	J. Pim.	W. Baddeley.	E. W. Lewis.
1895.	W. Baddeley.	W. Baddeley.	W. V. Eaves.
1896.	H. S. Mahony.	H. S. Mahony.	W. V. Eaves.
1897.	R. F. Doherty.	R. F. Doherty.	W. V. Eaves.

1898.	R. F. Doherty.	H. L. Doherty.	H. S. Mahony.
1899.	R. F. Doherty.	A. W. Gore.	S. H. Smith.
1900.	R. F. Doherty.	S. H. Smith.	A. W. Gore.
1901.	A. W. Gore.	A. W. Gore.	H. S. Mahony.
1902.	H. L. Doherty.	H. L. Doherty.	F. L. Riseley.
1903.	H. L. Doherty.	F. L. Riseley.	S. H. Smith.
1904.	H. L. Doherty.	F. L. Riseley.	M. J. G. Ritchie.

CHAMPIONS IN MEN'S DOUBLES

1879. L. R. Erskine and H. F. Lawford.
1880. W. Renshaw and E. Renshaw.
1881. W. Renshaw and E. Renshaw.
1882. J. T. Hartley and R. T. Richardson.
1883. C. W. Grinstead and C. E. Weldon.
1884. W. Renshaw and E. Renshaw.
1885. W. Renshaw and E. Renshaw.
1886. W. Renshaw and E. Renshaw.
1887. P. B. Lyon and H. W. W. Wilberforce.
1888. W. Renshaw and E. Renshaw.
1889. W. Renshaw and E. Renshaw.
1890. J. Pim and F. O. Stoker.
1891. W. Baddeley and H. Baddeley.
1892. H. S. Barlow and E. W. Lewis.
1893. J. Pim and F. O. Stoker.
1894. W. Baddeley and H. Baddeley.
1895. W. Baddeley and H. Baddeley.
1896. W. Baddeley and H. Baddeley.
1897. R. F. Doherty and H. L. Doherty.
1898. R. F. Doherty and H. L. Doherty.
1899. R. F. Doherty and H. L. Doherty.
1900. R. F. Doherty and H. L. Doherty.
1901. R. F. Doherty and H. L. Doherty.

1902. S. H. Smith and F. L. Riseley.
 1903. R. F. Doherty and H. L. Doherty.
 1904. R. F. Doherty and H. L. Doherty.

CHAMPIONS IN WOMEN'S SINGLES

- | | |
|----------------------------|----------------------------|
| 1884. Miss M. Watson. | 1895. Miss C. Cooper. |
| 1885. Miss M. Watson. | 1896. Miss C. Cooper. |
| 1886. Miss Maud Bingley. | 1897. Mrs. G. W. Hillyard. |
| 1887. Miss L. Dod. | 1898. Miss C. Cooper. |
| 1888. Miss L. Dod. | 1899. Mrs. G. W. Hillyard. |
| 1889. Mrs. G. W. Hillyard. | 1900. Mrs. G. W. Hillyard. |
| 1890. Miss Rice. | 1901. Mrs. Sterry. |
| 1891. Miss L. Dod. | 1902. Miss Robb. |
| 1892. Miss L. Dod. | 1903. Miss D. Douglass. |
| 1893. Miss L. Dod. | 1904. Miss D. Douglass. |
| 1894. Mrs. G. W. Hillyard. | |

PART II

METHODS OF PLAY

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CHAPTER I

THE FIRST RUDIMENTS OF SKILL

LAWN tennis is not an easy game to learn and it takes years of persevering effort, perhaps more than any other branch of amateur sport, to play well. The real masters of the game are few and far between, and I do not know of one, possibly excepting Dwight and Lawford (who were old when the game was young), that did not begin young to play, and that did not devote many years to close study and hard practice before he became thoroughly expert. Ten years' play is none too much training for the top class, and few have reached it with less than eight.

Of the physical severity of the play, more will be found in another chapter.

The game offers ample opportunity for deep study, for the play presents the same elements of attack and defence, of finesse and *coup*, as does the mimic warfare of the chess-board. In a general way, all volleying strokes, or those played before the ball strikes the ground, are

used as methods of attack, while strokes made from the bound of the ball become defensive. Attack is frequently made with ground-strokes, but defence is seldom if ever attempted by volleying. Once safely in a position to volley, the player puts his antagonist on the defensive, and tries to drive his attack home by a skilful volley or a smash.

The play begins with the attack of the server, who opens the game with a volleyed stroke. The first return of the striker-out is restricted by law to a ground-stroke, and becomes defensive or aggressive according to the power of the service and the stroke used by the player who returns it. From the first stroke to the end of the rest, there are unlimited opportunities for scientific and strategic play in great variety, and expert players make good use of them. Just as a chess master sacrifices his pieces and pawns, perhaps his only defence, when he sees the opening for a winning attack, so when a skilful tennis player has forced his opponent into a difficult position, either by extraordinary speed or accurate placing, he forsakes the defensive position in the back of the court, and risks the issue by immediately advancing toward

the net, so as to be in a position to deliver the *coup de grâce* with the next stroke. However, it does not necessarily follow that an attack must be answered by defence, for frequently a weak volley or a poor service will be returned with interest and the attack assumed by the opposite player. Here lies the infinite variety of the play.

The decisive stroke of each rest must be an error by one of the players, or an ace by the other, for points can be won only in one of these two ways. An ace is scored when the ball is played into any part of the opponent's court where he fails to hit it. If it is played into the net or outside of the court, the play is scored against the player making the error. To gain an ace from a skilful player, considerable skill and often strategy is necessary. The ball is driven to one part of his court to expose the opposite side for a play that will embarrass the opponent enough to make it safe to run toward the net position for an ace by volleying. Expert players often calculate three or four strokes ahead of their play, as one works out the hypothetical moves of the chessmen. Even when the opponent has run to the net to volley, it is

possible to score an ace by driving the ball past him and into one side of the court out of his reach.

Nine out of every ten young men have all the qualifications necessary to become good tennis players. Extraordinary physical strength is not needed, but the chances of most of those who are ambitious to play well are ruined by the awkward styles of making strokes that they generally acquire in learning the game. Few have the advantage of coaching from experienced players, and the longer these habits of play are allowed to grow, the more difficult it becomes to correct them afterward. Once started in the right direction, however, all that is needed is plenty of ambitious enthusiasm and steady, persistent practice, for early skill to ripen into final success at tournament play.

In learning the game there are three distinct things to be kept in mind: First, *how* to hit the ball; second, *where* to hit the ball; and third, *when* to hit the ball. In the first lie the elements of what is known as good form in the stroke. This mystical expression, "good form," means nothing more or less than hitting the ball in one of the few styles found by the experi-

ence of expert players to produce the best results. When this first point is mastered, and one is able to hit the ball in one of the approved styles, and control the direction of its flight, the next question which arises is where to direct it. Unbounded margin for skilful play is here offered in the accuracy of this "placing," as it is called; and still further improvement may be added by almost unlimited speed. A few of the leading experts are able to drive a ball with such pace, and yet such deadly accuracy, that they can command any spot in the adversary's court. When to hit the ball, whether before or after it bounds, and how to "cover court," make up the furthest advanced and most difficult of the three divisions of the game. Years of study and experience are needed to perfect a player's knowledge in this branch of the game, which can be taught by books least of all. How, where, and when to hit the ball, will each be treated separately, however, in the chapters immediately following.

One of the greatest elements of success in lawn tennis is the ability to judge time, speed, distance, and angles in their relation with one another, and this is a quality that is not born in one, but can be acquired only through training

the eye by constant and close observation. As the ball flies swiftly toward you, you have only a second or two in which to guess where it will strike the ground, and how far and how high it will bound. Before one can become an expert player, he must be able to estimate within a few inches of where it will strike, and to within a small fraction of a second of the time it will take to reach an imaginary point in the air, for the racket must begin its swing to meet it before the ball touches the ground.

All this sounds very difficult, but it is the very groundwork of an expert's skill, and it comes so gradually to one who is learning to play the game that he does not appreciate its importance. Any form of ball-playing helps the beginner to judge the flight of a tennis ball through the air, and to estimate the angle and distance of its rebound from the ground, while merely skipping a rope teaches a boy or girl unconsciously to measure speed relatively. How accurate the trained eye of a skilful tennis-player finally becomes, is shown by the small circle, perhaps three inches in diameter, of darkened stringing in the very centre of his racket, where the constant hitting of the ball has discolored it. The

edges of the stringing near the frame are never used to drive the ball, for they lack elasticity.

No stroke can ever be played successfully without having been practised many thousands of times. Perhaps the best way to practise strokes is against a blank wall, the side of a convenient house or the wall of some large room. Experienced tournament players often prefer this wall-practice to actual play on the court, and many of them use it every spring to get into shape for tournament play. The ball always comes back to you at the true angle corresponding with your stroke, and there is none of the uncertainty of another player's erratic return to take your mind off the actual making of the stroke. I have always found this the best possible method of getting my "eye on the ball" when out of practice. In practising on a regular court, particular care should always be taken not to play over a net that is either too low or too high, or on a court the size of which is not exactly right. If it be only a single foot too long or too short, too narrow or too wide, it will not take much practice to throw all accuracy in placing, to the winds.

I want to call special attention to another

point of general play. Even the best players carry their rackets in both hands when waiting for the ball, but never under any circumstances do they use both in making a stroke. Budlong, one of the former American experts, used to help out his right hand with his left in making backhand volleys, but the strokes were never well executed, and the poor form of the play ruined the possibilities of its improvement. But to balance the racket before starting the stroke, and to take its weight off the playing arm, the upper end of the handle (or "splice") is generally allowed to rest in the palm of the left hand, while waiting for the opponent's service or return. Neel, the famous Western champion, and one or two others, used to steady their rackets before making a stroke by balancing the head in the left hand, holding the top of the frame, and Neel did not let go of his until the last instant before the stroke. His play in these strokes, however, was weak, for the habit was carried to excess. The better method is to let the "splice" of the racket rest naturally in the left hand.

One of the most important points on which there have been differences of opinion between

different authorities in lawn tennis, has been the exact position of the hand in gripping the racket while in play. Dr. Dwight, the earliest and perhaps the best of the American authorities, altered his views upon this subject between the time of his first (1886) and second (1893) books. He first declared that good form demanded a permanent hold on the handle of the racket, which was not shifted for the backhand stroke; but in his second book he withdrew these instructions, and declared that a fixed grip entailed much more cut on the ball than was advantageous. However, even so recent (1897) and so good an authority as Baddeley, the brilliant ex-champion of All-England, still maintained that there should be no shifting in the hold. The fact that he does not change his grip, taken with his individual success in the game, proves conclusively that expert skill does not make imperative different grips for the forehand and backhand strokes. A majority of the other strong authorities, both English and American (including Wilberforce, Heathcote, Slocum, and Doherty), however, all prefer the changing method.

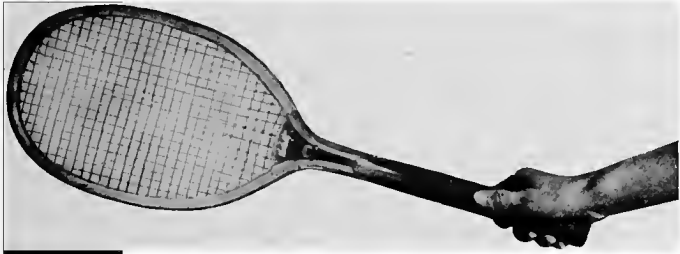
Despite Baddeley's assertion to the contrary,

I am convinced that the unchanging grip causes a loss of power and an extreme twist on the ball, which materially reduces its speed. If the racket is always carried in front of the body and balanced in the left hand, as it should be, the change of grip will cause no trouble. It is constantly required, during the progress of the play, to shift from the forehand to the backhand or *vice versa*; but the change in grip is easily made as the racket swings in front of the body, the opposite face of the stringing being used. This shift soon becomes unconscious and does not distract the player's attention from the stroke. After considerable study, I have found that the majority of the best players shift the grip through just one-quarter of a circle.

The accompanying illustrations show the most approved method of holding the racket for both forehand and backhand strokes, but the exact grip differs somewhat according to the style of the player. One thing, however, should always be kept in mind, and that is the freedom of the wrist. The grasp of the racket should invariably allow the greatest possible freedom for the muscles of the wrist, for in this particular lies much of the success of the stroke. The most

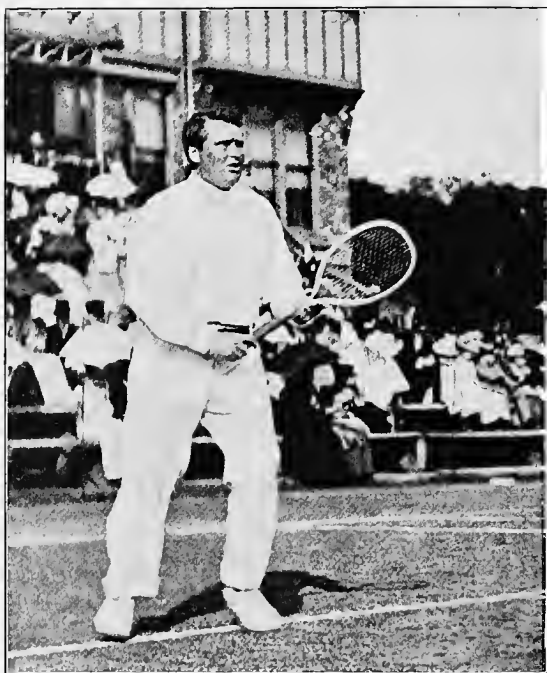


For the Forehand Stroke.



For the Backhand Stroke.

CORRECT METHODS OF GRIPPING THE RACKET.



E. R. Allen.

BALANCING THE RACKET DURING PLAY.

certain way to avoid a cramped position is to hold the racket so that the natural forward motion of the wrist is parallel with the direction in which the ball is to fly. The full length of the handle should always be used, and the extreme end of the handle should invariably rest against the fleshy part of the palm of the hand. This insures a stronger grip and greater freedom than if the end of the racket is allowed to protrude against the wrist.

For forehand play, the grip should be diagonally along the handle, with the first finger separated from the others and extended an inch or two farther along the racket, as shown in the illustration. The finger nails, when at rest on the handle, should face in the direction the ball is to fly when the stroke is made. In making the backhand stroke, the fingers should be closer together and the thumb extended out along the handle behind the racket, in order to give more force and better direction to the ball. For backhand play, the second or middle knuckles should face in the direction the ball is to be driven.

In one other point I must disagree with a number of the English treatises on the game.

Wilberforce (p. 21), Baddeley (p. 71), Miles (p. 28), and several others declare that the grip on the racket should be relaxed in making some of the strokes. This seems to me like the worst possible advice; for within my experience I have never found but one stroke (and that, one which is used very seldom) in making which it is advisable to relax the grasp of the racket. The play (rather than a stroke) that Baddeley refers to as a "stop-volley" does require a comparatively loose grip; but in making every other stroke in the whole category of the game, I am convinced that the handle of the racket should be gripped as tightly as is possible. Too much stress cannot be laid upon this point, for I am convinced that in its observance lies much of the success of the skilful player. If the racket is held loosely, almost any stroke will be spoiled should the ball not strike full in the centre of the stringing, for the tendency then is to twist the racket around in the hand; and if it slips ever so little, the power of the stroke is lost.

One point in the making of lawn tennis strokes is much too often neglected, both by teachers and students of the game, and that is in the all-important "follow-through" with the racket,

which is just as necessary as in golf and other games where the ball is struck. It is vitally important that when the racket meets the ball, it should be travelling in the direction the ball is to fly. With the single exception of drawing up the head of the racket at the last end of the stroke, in order to make the ball twist in the air, every other motion in the swing causes a loss of power. It is particularly important that every ounce of energy accumulated in the swing of the racket should be communicated to the ball, and the more direct the blow is struck, the more complete will be the transmission of power.

It is obvious then that when the impact between the ball and racket occurs, and for as much of its swing as possible after, the racket should be moving as the ball is to go. To continue the swing in the same direction, as much as possible,—that is, to follow the ball as long as possible, or as they say in golf, to follow-through,—serves the double purpose then of adding to the power of the stroke, and what is still more important, to guide the ball in the direction it is intended for it to go. The longer and more direct the swing can be made, both

before and after the impact, the faster and the truer will be the flight of the ball.

One has only to consider the use of the gun-barrel to appreciate the full force of this theory. The longer the barrel of the rifle, the more accurately will it throw its bullet, because it guides the missile on the proper course longer before discharging it into the air.

Now let us follow this comparison still further. Long study has taught the experts the advantage of the rifled gun from the old-fashioned smooth-bore. The rifling of any gun causes its bullet to twist rapidly on its own axis, as it flies through the air; and it has been found that the missile will not only travel faster and farther, but will preserve its direction better if it is twisting on its own axis. The same theory has been followed out in many other lines, including the rotary movements of many other spherical bodies in the air.

Those who have studied lawn tennis closest, have found that it applies very closely to the flying of the tennis ball. In nearly every stroke played, the expert causes the ball to twist on its own axis, more or less, and very few men have learned to hit the ball hard without any twist, and

still keep it within the bounds of the court. The very earliest masters of lawn tennis used the cut-strokes that they had learned from playing rackets; but in the era that followed, all under-cuts were abandoned, and Lawford was the first to introduce a sharp over-cut which made the ball drop rapidly in its flight. From Lawford's day down to the present, this twisting of the ball has been almost invariably employed, though generally in a lesser degree.

Billiards forms a splendid object-lesson for the practical uses and effects of these strokes. In the sharp under-cut of the racket stroke, we find reproduced the "draw-shot" of billiards, with the same effect of slowing up the speed of the ball. The "follow-shot" corresponds directly to the Lawford stroke, and other more recent plays that give a straight overtwist, or, as it is sometimes called, "top-spin" to the ball. In billiards, the players use two side twists also, which are known as right and left "English," and the ball answers in each case by rebounding from the cushion at an angle corresponding with the direction in which it is spinning. This same English, right and left, is reproduced in the side-twist strokes which we occasionally use in tennis.

Now, it is a well-known fact among students of physics that any spherical body in flying through the air, will travel in the line of the least resistance; and it is on this principle that base-ball pitchers have learned to throw a curved ball by twisting it in the air. A tennis ball being rougher on the surface than a base-ball, creates more friction on the side that is revolving fastest, and can, therefore, be made to curve much more. It is much lighter also, which lessens the inertia to be overcome in altering the natural line of flight. In the straight overtwist strokes, such as Lawford used, we have reproduced what base-ball players call the "drop-curve," and in tennis it is called a "drop-stroke." The greater friction on the top of the tennis ball, as in the follow-shot of billiards, causes it to drop much quicker than if it were not spinning. Because of this, much greater speed can be used without making the ball fly out of the court.

CHAPTER II

MAKING THE STROKES IN GOOD FORM

HAVING first mastered the rudiments of the game, the making of strokes is the next thing to be studied. One must learn *how* to hit the ball before the more intricate problems of the game can be considered. There are many ways of striking the ball, but the whole list of regular strokes can be divided into these five classes: the service, the horizontal ground-stroke, the volley, the half-volley, and the lob. On these, and these only, are built the whole structure of modern lawn tennis play. There are many variations of each stroke, and all except the service can be played either backhand or forehand.

At least one class can be quickly disposed of, for the half-volley is only properly used in an emergency when no other stroke is possible. In making a half-volley, you "trap" the ball with the racket, blocking it (not striking it) just as it rises from the ground. At best it is only a defensive play. It is a difficult stroke to bring

off successfully, and one that can almost always be avoided by proper position play.

The service will be treated in a separate chapter.

At least three-quarters of the game is made up of horizontal ground-strokes and volleys, but the proportion of these to each other depends on the style of the player. In nearly every case, even among pronounced volleyers, ground-strokes far outnumber any other form of play, and they make up more than half the game. These horizontal strokes off the ground may be in turn divided into several classes,—the drop-stroke, the side-stroke, and the cut (or “chop”) stroke.

What I have referred to as the drop-stroke is the most pronounced of all horizontal driving strokes that have the overtwist or “top-spin,” and resembles closest the famous Lawford stroke of the early days of the game. In various forms we find it played successfully by Clarence Hobart, by E. P. Fischer, by W. Gordon Parker, by F. B. Alexander, and other American experts. The ball is struck at the height of the waist, or not lower than the hip, and the racket drawn upward as sharply as possible while still in contact with the ball. This upward motion imparts a very fast forward spinning that makes the ball drop

quickly in its flight, which is calculated to occur soon after crossing the net. Its effect on the ball after it strikes the ground is to make it "shoot" ahead, the bound being longer and faster than from any other ground-stroke.

This stroke has many variations and some virtues, but its tendency is toward making the player unsteady, and the slightest deviation in the way of striking the ball generally causes a wider error in the flight. Among the younger generation of American players there has been a tendency to exaggerate this play, and under the mistaken impression that they are playing "the Lawford" they give most of their time to perfecting this stroke. Against weaker players it sometimes proves a strong attack, and the success that follows its first acquisition is often enough to encourage young players to persist in making every possible return with this stroke. This is a pitfall that should be avoided by an ambitious player, for the drop-stroke never carries its most expert users to the top, and against a steady opponent at the back of the court, its attack soon breaks down. The risk of error, both by driving into the net and out of court, is much too great for the chances of success, and one need only

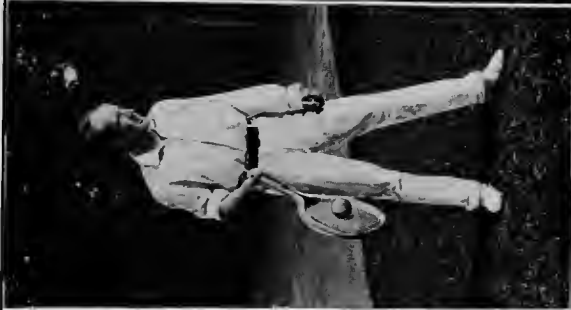
to abide his soul in patience when playing against a persistent player of this drop-stroke, and return the ball safely for a short time, to win on the errors of his opponent.

The drop-stroke is not only difficult to learn, but also difficult to preserve, for accuracy is soon lost by lack of practice, and it requires constant play to keep a drop-stroke player in form. It is a difficult stroke to volley, for its greatest speed comes just after passing the net, and its rainbow curve makes its flight difficult to judge; but it is very easy to play off the ground, if one will give it room enough to "shoot." The ball is still spinning when it crosses the net, and it shoots upward from a volleyer's racket, making the volleyed return slow and high; but after it strikes the ground, the forward jump seems to take the spin out of the ball, and its bound is so high, so long, and so regular, that one finds it very easy to handle, if he does not try to return it until after it has passed the top of the bound and started to drop again. To volley, half-volley, or play while rising, it is still difficult to gauge, however.

In making this stroke, the player stands well back of the ball with his body turned at right



Start.



Stroke.



Finish.

THE DROP-STROKE AS PLAYED BY CLARENCE HOBART.



W. Gordon Parker.

FINISH OF THE EXTREME DROP-STROKE.

Note both feet off the ground and the racket behind the head. This is probably the nearest to the Lawford stroke ever played in America.

angles to the line of its flight. The racket starts very far back and slightly above the level of the right shoulder. As the full-armed swing begins, the body leans far forward to meet the ball, and it is played high, generally above the level of the hip, and with the racket horizontal or parallel with the ground. The ball is met with the top of the racket forward of the bottom, its face being bevelled so that it strikes a glancing blow on the top side of the ball. This would drive the ball down instead of up, if the strings did not hold the rough surface of the ball's cover and the sharp upward swing of the racket overcome this tendency.

Just as the ball is met, the whole racket and forearm are drawn upward very sharply, and the swing becomes a sort of round-arm blow, "lifting" the ball apparently over the net. This upward drag of the racket's face across the ball sets it spinning very fast on its own axis in a forward direction, like a follow-shot in billiards or a "drop-curve" in base-ball. This spinning causes greater friction on the top of the ball than at other points, because the top moves faster through the air than any other point. As the felt cover is rough, it chafes against the particles

of air, and this pressure has a marked effect on the ball's flight.

The initial force of the blow sending the ball ahead and the lift of the racket that started it upward, wears itself off soon after it has passed the net, and then the ball "ducks" to avoid the greater resistance on its top side, turning in the air with a rainbow curve and dropping much more quickly than with a straight-hit ball. The amount of this curve depends on the sharpness of the spin that the player has been able to put in his stroke; but the ball is generally aimed much higher than necessary, so as to allow for this curve. If the ball did not drop unnaturally, it would almost surely "sail" out of court.

To return to the player who struck the ball, his racket follows ahead and upward with the object which has just left it, and finishes far up over the shoulder or head before its swing is checked. In the most exaggerated variations of this drop-stroke the racket sometimes finishes over the right shoulder, but this is only in exceptional cases. Over the head, with the wrist in front of the forehead, generally marks the end of the swing for this stroke, but those who use only

a little of the drop on the ball carry the racket farther across the body and let its swing end over the left shoulder. From the finish of the swing can be told the sharpness of the drop, and the straighter upward the racket travels the less certain or reliable is the stroke. The few players who cut off the follow-through so sharply as to finish with the racket over the right shoulder are the least reliable with this stroke, while those who finish over the left shoulder follow the ball longest with the racket and can depend most on this play for accuracy and steadiness.

With many players who use the drop-stroke there is a tendency to crouch immediately before striking and to straighten up quickly just as the blow is delivered,—for it is a blow in every sense, not a sweeping stroke. They use in this way the additional weight of the body upward, as well as the forward swing of the weight. In a few cases I have seen this carried to such excess that the player jumps entirely off the ground with both feet as he strikes the ball, but it is very doubtful if the gain of this extra effort repays the waste of strength required to do this frequently. Instantaneous photographs of Lawford himself show him with both feet off the ground at the

end of his stroke, and it is apparent that he used this means to increase the "lift" in making his famous stroke, but the marked difference between the Lawford stroke and the drop-stroke (or so-called "American Lawford") lies in the finish; for the famous Englishman completed his stroke chiefly by drawing up his forearm after striking, and he stopped the racket straight in front of the right shoulder, but with his upper arm and elbow still close to the body. On the other hand the whole arm of the drop-stroke player is carried away from the body, forward and upward at the end of his stroke. It is a much freer stroke than the true Lawford, which was distinctly cramped.

The cut-stroke was the first systematic method of hitting the ball developed in the early days of lawn tennis. It had its origin in and was developed from court tennis (or "real" tennis, as they call it in England), for the first of the lawn tennis players were devotees of the older indoor game and naturally carried their favorite methods of striking a ball into the new game. This stroke may be considered exactly the reverse of the drop-stroke, for it strikes the ball a glancing blow (as does the other), in the opposite direction and

with opposite effects. The racket passes under the ball instead of over it, and gives it a spinning motion in the opposite direction, which corresponds directly to the draw-shot of billiards. With the greater friction on its under side, the tendency of the ball is to keep up longer, and when its force is spent to "sail," instead of falling naturally to the ground. This under-cut overcomes gravitation and makes the ball take a very straight course through the air, instead of increasing its tendency to draw the ball downward, as with an over-cut ball. With this play, the great difficulty is in keeping the ball from going out of court if it is hit hard. Its tendency to "sail" makes the player aim much short of the base line to keep inside, and to clear the net closer when the ball is hit hard.

It is comparatively easy to volley against this stroke, for the under-twist keeps the ball well up above the net till after it is hit, and the spin takes effect on the face of the opponent's racket and brings his volley off sharper and with a crisp drop that aids its speed and helps to kill the volleyed return. If the cut-stroke is allowed to bound, however, it is very hard to play, for this same back-spin makes its bound

very low and a little uncertain, and it has a tendency to "skid" along the ground before rising. Even after it does come up high enough to play, the ball still retains a good deal of its back-spin that must be overcome and reversed in returning it, and the ball must be lifted more and played slower on the return in consequence.

Correctly played and in the hands of the Englishmen, who originated it, this stroke has a long swing and almost as much follow-through as the drop-stroke; but the Americans who cultivated the same style have shortened the swing materially, and earned for it the name of a "chop-stroke." The chief difference between the two is the length of the swing and the fact that the Englishman finishes his stroke with the racket much higher than his American cousin, who "stabs" at the ball a good deal and makes more use of his wrist, stopping the swing very soon after the ball has been hit.

The point at which the ball is met varies a great deal with this stroke. Many of the "chop-stroke" players stand very close to the ball and strike it at the very top of its bound. I have known some of them even to play the ball as

it was still rising with this stroke, bevelling the face of the racket a little less to overcome the upward tendency of the ball. However, in any case, the back swing is rather short, the racket stopping back of the right hip or shoulder and meeting the ball with more of a jerk than in the drop-stroke and less of the long, even swing. With the face of the racket bevelled back so that it strikes the ball a glancing blow from the under side, it clings to the felt surface long enough to start the ball spinning rapidly backward, and overcomes the tendency to knock the ball too high by drawing the racket quickly downward in striking.

The effect on the ball of this sharp back-spin is to make it dodge the greater resistance on its under side and to stay up in the air despite gravitation longer than if hit without twist. The ball generally skims close to the top of the net, if well played, but does not drop immediately after crossing, and is an easy mark for a volleyer on the other side. With the cut-stroke properly played, the racket finishes out in front of the body and partially across to the left, according to the individual style of the player and the amount of cut he uses. With the chop-stroke

player, the racket finishes out in front of the body, but generally to the right and never so full in the follow-through, the play being shorter and more jerky.

It is difficult, if not impossible, for any player to master and use with much skill the two opposite styles, the drop- and cut-strokes, for they are essentially different; but each has its point of advantage, and combined they would offer a splendid equipment for ground-play. With an opponent at the net, nothing can be more effective to pass him than a moderate drop-stroke; but with the antagonist back in his court, the cut-stroke is the safer and more effective. However, this is considered quite impracticable, and I would not advise any young player to try to acquire and use the two styles. He would almost certainly fall between the two and play neither well.

There is still a third method of hitting the ball that is to my mind unquestionably the safest and best stroke for any player. For want of a better name, we may call this the side-stroke, and it is this that most of the world's most expert players use. It is in the use of this stroke, perhaps more noticeably in the backhand than the



Start.



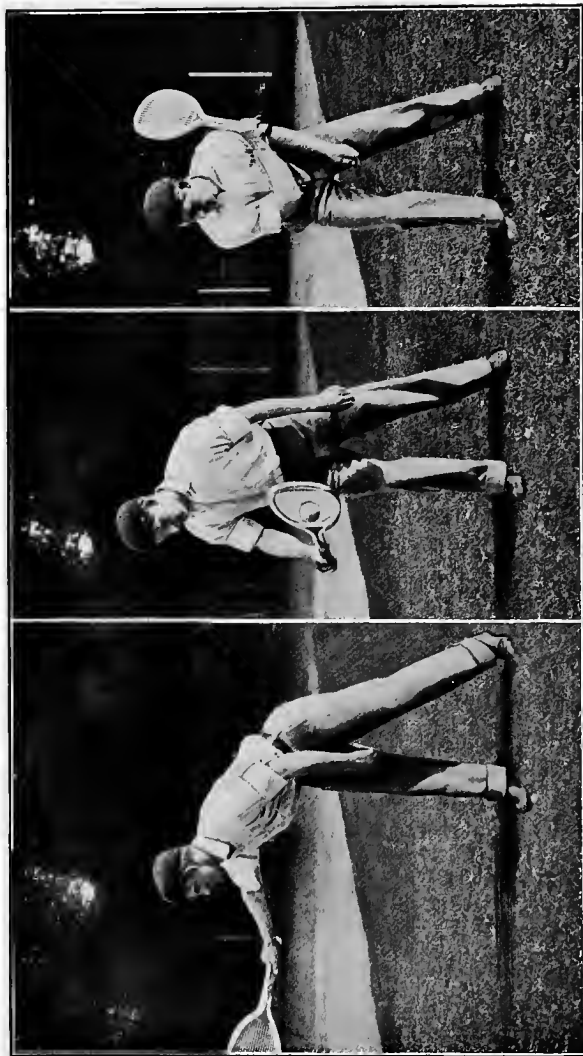
Stroke.



Finish.

THE AMERICAN (FOREHAND) SIDE-STROKE AS PLAYED BY W. A. LARNED.

Note the long, free back-swing, the leaning body that brings the weight into the stroke, and the clean "follow-through" that guides the ball.



Finish.

Stroke.

Start.

THE AMERICAN (BACKHAND) SIDE-STROKE AS PLAYED BY W. A. LARNED.

NOTE.—Larned's backhand is peculiar to himself, and he has incorporated some of the English ideas in this stroke, as will be seen by the low wrist in the middle picture.

forehand, that the English methods differ most from the American, although the experts of the two countries are rapidly drawing together in their ideas thanks to international matches, and must soon meet on a common and probably better standard. The essential point of difference lies in the elbow, and the slight difference in cut imparted to the ball that follows this. The American stroke imparts a little more overtwist to the ball than the English, although H. L. Doherty, perhaps the most perfect type on either side of the Atlantic, gets very nearly the American "rolling" effect with the English method of carrying his elbow.

According to English ideas, it is essential that the elbow should be below the head of the racket, while most Americans carry the head of the racket below the elbow both in forehand and backhand strokes. Both use the long, smooth follow-through on the forehand stroke, but when they come to pass an opponent at the net, the Americans let the racket cross a little in front of the body, drawing it up slightly as in the drop-stroke to give it more top-spin and make the ball drop sooner after crossing the net. The Englishmen, on the other hand, sel-

dom use this top-spin, and never (except H. L. Doherty occasionally) with such effect as the Americans. The American style is to meet the ball with a full open racket, that is with the face perpendicular, and to raise the ball by drawing it upward a little in striking, which accounts for the greater spin they have. The Englishmen, on the other hand, bevel their rackets in meeting the ball slightly backward as in the cut-stroke, and then turn the racket to get fully behind when the power is applied. This style is unquestionably safer and more certain, but has not the same attacking power for want of the rolling motion and consequent drop on the ball.

To make the stroke properly, the weight is carried well back on the right foot when the ball approaches, with the feet spread wide apart and in direct line with the flight the ball is to take. The weight must be thrown forward just as much as in making the drop-stroke; and the racket must reach its maximum speed just before or just as the ball is struck. It must follow the ball as long as possible, too, the shifting of the weight forward from the right to the left foot helping this follow-through, and it should be

carried on out as far ahead of the body as the arm can reach. Just as the ball is hit, the racket should be drawn up a little, and this gives the necessary rolling spin.

For driving with the opponent at the base line, little of this spin is necessary, although, personally, I always favor using some top-spin for every ground-stroke. With an opponent at the net, a passing stroke should have a little more spin to make the ball drop sooner, and then the racket should finish across the body and in front of or over the left shoulder, but as far forward as possible. The difference between this passing side-stroke and the drop-stroke is that the body is inclined to be thrown backward with the drop-stroke so as to emphasize the upward motion of the racket, while in passing with a side-stroke, the body swings forward just as in the straight side-stroke, only the racket finishes across the body to give the extra twist.

The height at which the ball should be hit is a much discussed point on which there is great difference of opinion. The Englishmen believe that it is well to hit the ball at the height of the hip or waist, and the Dohertys declared in their recent book that it should be

above the waist. Most Americans prefer to let the ball fall a little more before striking it; and their loss in position by being driven a little farther from the net and in having to lift it over, seems to me more than made up by the additional time they get to gauge the flight of the ball. However, the difference between the two styles in regard to height are probably due to the question of carrying the elbow high or low. It would be difficult to hit a low ball with the elbow down below the head of the racket and *vice versa*.

Personally, I prefer to hit the ball at the height of the knee, but I think this is perhaps the lowest point at which it is safe to hit it. From the knee to the hip is best height, with the elbow above the racket in the American style, and I do not think the height preferred by the Dohertys is at all practicable with our side-stroke.

One of the most essential differences between the American and English methods of playing this side-stroke is in the impact of the blow. The Englishmen strike with less impact, probably because their racket is bevelled when it reaches the ball, and also because they apply

their power later than do the Americans. H. L. Doherty is wonderful in this respect, his strokes producing much speed with very little effort, because he times his stroke so perfectly that there is little impact with the ball, and it leaves his racket with deceptive speed.

Another point of difference is in the position. Americans stoop much more in making the stroke and throw themselves at the ball with more violence. The Dohertys insist that the left arm should be kept at the side in making the stroke, but all good American players use theirs swung wide to help preserve the balance and assist in the body swing that gives power to the stroke.

Volley strokes may be divided into three classes, underhand volleys, horizontal volleys, and overhead volleys. All three may be made both forehand and backhand, although almost all overhead volleys are made from falling balls that give time to step around and use the forehand. This stroke generally takes the form of a smash, and very few players ever smash backhanded.

Underhand volleying is used a great deal by players of the English school, but very little in

America. The chief reason for this is the difference between the volleying position of most English players and that of the Americans. We go in so close to the net to volley that the ball seldom or never has time to begin to fall before we hit it; therefore nearly all American volleying is horizontal or overhead. Many of the English experts, however, stand eighteen or twenty feet back from the net to volley, and the ball has usually fallen to the height of the knee or below before they hit it.

Necessarily this stroke loses much of its otherwise aggressive quality because it must be lifted back over the net again, whereas the horizontal volley is driven straight ahead and the overhead volley is played downward. The English method of volleying shows the head of the racket always above the wrist and forearm, the elbow being carried low both in backhand and forehand strokes. In America, however, the head of the racket is almost invariably horizontal or below the elbow, except, of course, for overhead play.

In horizontal volleying lies the chief skill of the net-player when opposed by a hard-hitting adversary. Upon the crispness with which the

ball leaves his racket, the volleyer must depend for success. In order not to make the stroke defensive, the ball should be hit sharply with a quick forward motion of the forearm held horizontally and a snap of the wrist which turns the ball off sharply in one direction or the other. It is important to throw the weight forward in the act of making this stroke, for it must be maintained as an aggressive attack even under the greatest difficulties. Instantly that a fast ground-stroke makes the answering volley defensive, the attack shifts to the opponent, and the net-player's position soon becomes untenable. It is no easy task then to retire to the base line without being passed.

The most important feature in horizontal volleying is to hold the wrist very rigid and to meet the ball with a stiff racket that does not give at all from the impact. One should never volley upward, either; it is better to strike downward, and if the top of the net is too close to direct the ball down at once, the face of the racket can be bevelled slightly upward to keep it from being put into the net.

The racket should be drawn back eighteen inches or two feet as the ball comes toward you

and then brought forward with a determined crisp stroke that follows it as far as possible. To merely stop the ball without striking it, or even to relax the grip on the racket so that it gives before the ball leaves it, means to rob the volley of all its life and snap, and to make a weak return of the stroke.

Overhead volleying is seldom used except in returning a lob, and then the ball is falling when it is struck. Occasionally an opponent's drive will be above the level of the shoulder when it reaches the opponent at the net, but such a ball offers the easiest kind of a kill, and is generally avoided as suicidal.

It is never safe to risk a smash if farther back than the service line, and a ball that is going to fall farther back than that should be volleyed overhead rather than smashed. Smashing is very much overdone anyway. It is quite unnecessary to smash many short lobs that come to a player during the course of a game, for an ordinarily fast overhead volley placed out of the reach of the adversary is quite as effective as a smash and materially reduces the chances of error without lessening the chances for winning the ace. When a volley will kill a ball, a player should

never risk a smash or waste his strength on the play either. The English do this better than the Americans, who are generally too impetuous to hold themselves back.

While waiting for a dropping ball, particularly when it is a deep lob, a player should stand with his right shoulder directly under the ball, and his racket should be well back of his head. The swing for the overhead volley should not be too short, and should be in direct line with the course the ball is to take. The head of the racket, too, should be bevelled slightly backward and to one side as much as in making the service. For a smash, the swing should be longer and the weight of the body thrown farther forward, in order to get greater impetus with the stroke. A smash is expected to kill the ball outright and end the rest, so that it is not so dangerous to lose the balance after hitting the ball with this stroke.

There is one useful variety of the horizontal volley that Baddeley, in his excellent book on the game, refers to as a separate stroke, the "stop-volley," and this play has been recently developed by some of the Americans. As its name implies, this is simply the act of stopping the ball instead of hitting it, and is useful only when close to the

net. This stroke is very difficult to play from more than six feet back from the net; but if one can step forward and meet the ball as close as this, and the opponent is still back of his base line, a clever ace can often be earned by just stopping a fast ball and letting it rebound over the net from the racket.

In this stroke, and in this only, despite the statements of several lawn tennis authorities to the contrary, I believe the grip of the racket should be relaxed. In order to make a successful stop-volley, the whole arm and wrist should be rigid, but the grip relaxed enough to let the head of the racket be pushed back by the impact with the ball. If the grip is not relaxed, the volley will be too deep to kill, and the opponent will be able to reach the ball.

The lob was treated with much contempt in the earlier stages of the game, but during the last ten years Americans have developed its use to such an extent, for attack as well as for defence, that it has gradually earned a respected place among the skilful strokes of lawn tennis. At all times it is the simplest and most effective defence against a volleying opponent threatening at the net, and every player should practise lobbing

enough to have the stroke well under command for this occasion.

Another important use for the lob in defensive play comes when you are badly forced out of position, and then it is often wise to toss the ball high into the air, even though the opponent is not threatening a volleyed attack, for this will give you time to recover both your breath and your position in court. A few high lobs will often furnish effective relief when hard pressed for "wind," unless the antagonist is very deadly in smashing them, and such a defence sometimes checks the dangerous attack of a persistent opponent.

In making a lob, the ball should be hit firmly and with confidence, and it should have good length at all hazards. A short lob that is easily killed is more discouraging than a drive into the net or out of court. It is often wise to lob high, too, for a high lob that falls fast and straight is the hardest kind to smash, and it gives more time to recover position. The American habit of creeping in very close to the net has opened the way for a strong attack by lobbing, for a low-tossed ball will sometimes score a clean ace if the opponent is caught in so close that he cannot turn

and get back in time to make the return. Even if he does succeed in getting back in time to play the ball from the bound, it turns the attack against him, and should be followed up to the net at once to drive home this advantage. In such a play, it is always better (unless the adversary be left-handed, when the reverse is the case) to place the lob in his left-hand corner, for this makes him run still farther around it to play it fore-handed.

A few of the most advanced of the American experts have learned to cut under a lob, with the result that the ball drops exceptionally straight and with considerable back-spin. This twist permits a deeper lob without letting the ball go out of court, and its spinning motion makes it harder to smash with accuracy. It also holds the ball on its course against any deviation from the wind better than a straight-hit ball. Baddeley notes the existence of this stroke and calls it the "Irish lob," because it was practised by the Irish players of the early days, but he attaches little importance to the stroke.

The difficulty in smashing a high, twisting lob that falls fast and straight has brought into use another American development in letting a high-



THE ENGLISH (FOREHAND) STROKE AS PLAYED BY
H. S. MAHONY.

NOTE. — This shows three snap-shots on one plate, illustrating the start, stroke, and finish of the play.



THE ENGLISH (BACKHAND) STROKE AS PLAYED BY
H. S. MAHONY.

NOTE.—Three snap-shots on one plate. Mark the low wrist and back-slant of the racket as it meets the ball.

lobbed ball fall to the ground and running under the bound — such high lobs always bound well above the head — and smashing as the ball hangs in the air, or as it falls much more slowly the second time. Wright has used this play with exceptional success, and his percentage of kills from smashed balls is generally higher than other high-class players'. From the arching, rainbow lob, this smash is impossible, as the bound does not bring the ball up straight again. It can only be used against a high, straight lob, but it is the correct answer to such an overhead attack.

CHAPTER III

PLACING AND THE STRATEGY OF THE GAME

THERE is a trite old saying that one should learn to walk before he tries to run, and it is of the utmost importance for one who would learn to play tennis thoroughly, that he should build from the groundwork up. We have already seen how to hit the ball in the most approved ways, and one cannot spend too much time in practising these strokes before he dips into the more intricate features of the game. Once having acquired good form, however, the direction of the stroke becomes more and more within the control of the player, until the accuracy with which he can place the ball seems little short of marvellous, when one considers that its only guide is the instantaneous touch of the strings of a racket.

When constant practice has given the player fair control over the ball, his next problem is where to hit it, which is the art of placing. Making the stroke becomes of secondary importance, and the question of direction occupies the closest

attention. Length is one of the first essentials to consider in placing, for it is the backbone of a good defence. A deep return prevents a successful net attack, as the proper time to run up to the net is on a short return. If one wants to assume the aggressive, also, length is absolutely necessary for safety in reaching the net. Good length demands that the ball should strike behind the service line, but among experts the length of a stroke is not considered good unless it strikes within six or eight feet of the base line.

This question of length, of course, depends entirely upon the relative positions of the players, and what I have just said refers to play when the opponent is at the base line. The instant the opponent comes forward with the intention of volleying, a passing stroke or a lob becomes necessary, and length is only useful for the lob. In passing, on the other hand, it is important that the stroke should be short; in fact, the sooner a passing stroke drops after crossing the net, the better are the chances for its success.

Let us first take up the study of defensive play, which emphasizes this question of length. There is one cardinal rule that should always be kept in mind. The soundest defence of

one's court is always from the centre of the base line, or a few feet back of this point, against a fast player. Safety play in lawn tennis requires one to avoid all cross-court strokes, and so far as possible to make all returns parallel with the side lines, keeping the ball always in front of you. If the opponent's drive is far to the right of the court, the safe return is deep down the right side line, converging slightly toward the centre. This will permit the defensive player to return to his safety position at the middle of his own base line. The same is true of the other side of the court. If the opponent's drive comes straight down the centre, and you are not yet ready to assume the attack, it is safest if returned directly in front of you with as much length as possible. To place to either side serves no defensive purpose, and increases the possibilities of the opponent's next attack.

It is when the opponent assumes the net position that the heaviest burden is thrown upon the defence, and then one must have considerable skill at safety play, or risk an attempt to pass him at the net. With the opponent once in position to volley, it is doubly difficult to pass him from the centre of the base line, as will be

shown hereafter in dealing with the best methods of attack. Should he drive to one side of the court, even into one corner, it is generally wiser to assume the aggressive and try for a pass if you have a fair opportunity for a clean stroke from the bound of the ball. At the centre of the base line, however, or anywhere down the middle of the court, unless the return be very short, deep lobbing is generally the best defence. If the opponent is drawn very close in, his attack can be turned against him by making this lob too low to give him time to back up for a smash, and the counter attack will be doubly strong if such a lob is placed deep into the extreme left corner of his court, and followed up to the net.

It is a common error to suppose that all slow returns are weak. On the contrary, with both players at the base line, it is frequently a waste of strength, as well as an additional danger of error, to use a fast ball or a low ball. Players of a single stroke, particularly those who have mastered only the drop-stroke, find it difficult to play the ball slow, and they make many unnecessary errors for this reason. If the opponent is at the base line, and the time not ripe to begin your own attack, it is generally wiser to

throw aside both speed and height and play only for length. Providing the opponent is not in position to volley the return, there is no possible object in keeping the ball close to the net; on the other hand, the chances of driving into the net or out of court are materially reduced by playing it high and slow.

But there is always a proper time when defensive play should be turned into attack, and then it is that the greatest care in placing is necessary. Should the opponent make a short return that falls near the service line, the opportunity should be grasped at once to assume the aggressive position at the net, for this offers the best possible chance to run in. Length is doubly important when one is about to assume a position for a volleyed attack, for it is necessary to reach the net and come to rest before the antagonist shall have time to hit the ball.

There is an English maxim laid down by Baddeley, who declared that in championship play a man should never come to rest between the base line and the service line. This is forbidden ground, and to stop here means defeat, temporarily if not more lasting. By common consent, all skilful players fear most the ball

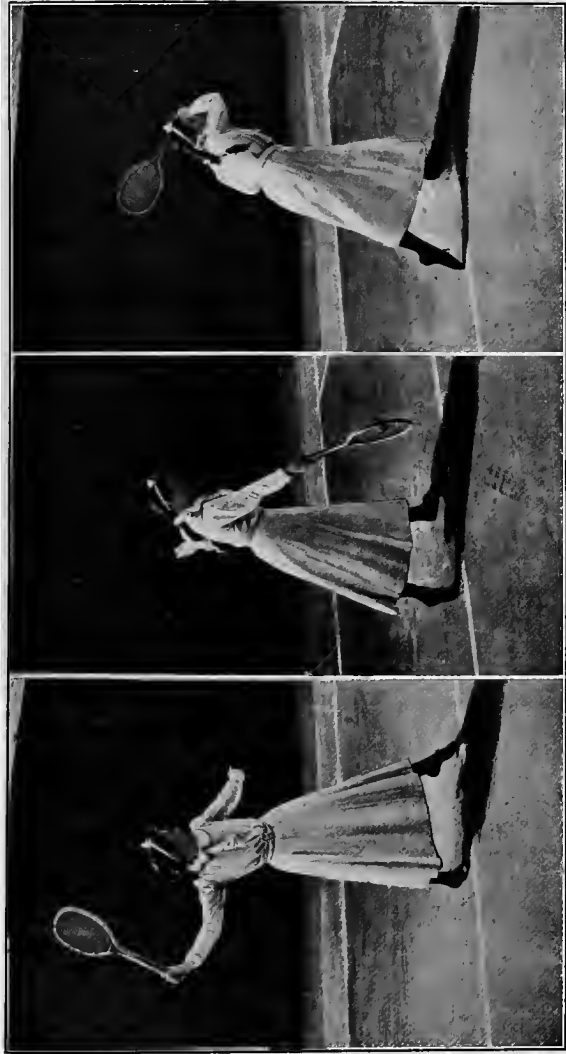
that reaches them on the volley yet below the height of the knee and one that strikes near the feet, forcing them to half-volley. Before Baddeley's days, we find generally advanced by English theorists the idea that a player should always establish a base of operations to which he should return after every stroke. In those days a player generally selected one style of play at the net or from the base line, and confined himself chiefly to this style.

Then came Baddeley and his excellent plan for two bases of operations, one for volleying and the other for ground-strokes. Both volleying and ground-strokes have now had their day, and even development is the winning game. Under modern developments, the truly scientific way of winning at lawn tennis is to earn a safe position at the net by good ground-play, and then to come forward and deliver the *coup de grâce* with a well-directed volley. The highest art in the game teaches the player how to earn this opening, and how to kill the ball when he does secure it.

Modern scientific play, particularly of the American school, goes even farther than does Baddeley in its theory of the forbidden sphere.

It is not only bad generalship to come to rest between the base line and the service line, practically in the back half of the court, but the danger does not cease there. Recently developed American tactics make it impossible to volley from as far back as the service line, and unless he stands well behind the base line for ground-strokes, too, the player soon finds the ball at his feet, and in the worst possible position to be returned.

The modern player, then, is forced to play his ground-strokes from behind the base line, and his volleys from in front of the service line. In fast play, this can be conservatively set at fully eight feet either way, and as the forbidden ground includes eighteen feet more of the court, we have a space of fully thirty-four feet that must be traversed in shifting from ground-play to volleying position, and this is a most difficult manœuvre to bring off successfully. To prevent this opening of the attack, the best plan is to drive so deep that the opponent cannot get up to volley before the next dropping return reaches him below the knees, and puts even his volleyed stroke on the defensive. If the volleyer is quick enough to get close up in time to antici-



Start.

Stroke.

Finish.

THE WOMAN'S FOREHAND STROKE AS PLAYED BY MISS MARION JONES.

Note the extreme freedom of the swing and body-follow that make up for the lack of a man's strength by making the racket travel fast.



Finish.

Stroke.

Start.

THE WOMAN'S BACKHAND STROKE AS PLAYED BY MISS MARION JONES.

Note the freedom of arm and body that give the ball speed and the long follow-through that guides it.

pate this play, he is in danger from the overhead attack with a low lob.

It is open to question whether length is useful for attack among experts of the top class. Primarily, length is a distinct advantage in all plays, and it is always the most consistent defence; but among players of the highest skill, length limits the power of the attack. When opposed to the English challengers of 1902, the American players could always depend on receiving the ball within a few feet of the base line, and this brought it almost invariably within reach. It is much less difficult to anticipate the direction of the next stroke if the ball is sure to bound near the base line, for the range available for placing is then reduced to just the width of the court. To confine the attack in this way limits the amount of running necessary for the opponent to meet the ball to approximately the twenty-seven feet of the base line's width.

But the American attack draws the antagonist in close and then passes him deep, or drives him back to the full distance of the base line, and then passes him short across the court. On this side of the ocean, the short cross-court is the vital stroke of the "cracks," whether it scores

a kill at once or opens the way for the *coup de grâce* on the next return. This kind of attack, even when it does not win outright, forces the opponent to get over much more ground. To the full width of the court that he must cover is added the forward and backward running required of him.

To keep the opponent at the base line makes it extremely difficult for him to run in to volley, but at the same time it is almost impossible to get the ball out of his reach with this kind of play. Speed alone will never win from a man of the top class, and one must take the bit in his teeth and risk something to gain success. Americans are seldom content to wait for the other man to lose; they prefer to risk the hazard and win or lose themselves, and this characteristic has developed the short angles of their cross-court placing.

One of the most recent developments of American skill at lawn tennis, and one that promises still further development, lies in this use of the front and back of the court for placing, rather than the sides. Instead of driving first to one side and then the other, the modern expert player drives first short and then deep,

using the side angles as well with both strokes. Wright was perhaps the first to perfect this style in attacking a volleyer, and he showed rare judgment in dropping his returns at the opponent's feet when the latter was coming up, and in lobbing low over his head if he crept in close enough to anticipate the short return. This style of attack was the natural outcome of the previous American development of the close-net attack. American volleyers had been getting in so close that they were generally open to an overhead attack by a low lob, and this play threatened them so often that they began to hang back just enough to anticipate it. Then came the dropping stroke that reached them at the height of the knee, and this forced them to hurry in closer again, but always with a watchful eye to the overhead attack.

Consistently following along these lines, Ward has developed the same method of front-and-back attack against a ground-stroke player from the net position. For this he uses, alternately, the stop-volley and a deep volley to the base line and deceives his adversary so long as to which he intends using that the other man is very frequently fooled into taking the wrong position

to handle the return, or hesitates long enough between the two to get the ball at his feet. Against this combination, the adversary is frequently drawn into Baddeley's forbidden zone, for this is practically the only spot from which either a short or a deep ball can be reached; and once there, he is often forced to half-volley, which is the most embarrassing position a lawn-tennis player can be forced into.

The gradual development in the use of the front of the court for killing strokes, which is being steadily perfected by the leading American players, notably Larned, Ward, and Wright, has furnished wonderful possibilities for sharper angles in smashing and placing in volley strokes. The volleyer's position must be closer to the net than under former conditions; but once in so close, the player commands a much greater proportion of his antagonist's territory for every foot he approaches the net.

I have even less respect for the man who simply knocks the ball back and waits for his opponent to miss than I have for him who would kill every ball he can reach. Each plays a losing game, and the majority of young players who fail are wrecked on one rock or the other.

It is from this desire to kill everything that has sprung the most injurious school among American players. There are a host of young Americans who believe that a severe stroke is the only useful play in lawn tennis, and they "stroke" every ball they play off the ground. No matter whether their opponent is far back in the court and in good position to return any ball they can give him, they must "stroke" the ball violently. There is no medium play between the softest kind of a return and a terrific stroke. They are worshipping false gods, and their errors prove their undoing. Take Davidson, the Washington expert, for instance, and how often has he been beaten by really inferior players who simply knock the ball back until he misses in his efforts to "stroke" the ball out of his antagonist's reach!

But there is a better method than either in the use of what we may call the "forcing stroke." The brilliant player aims to win each ace with one single clever stroke, while his safer rival, who uses this style of play, calculates farther ahead and plans to do the same thing with two or three, or perhaps a dozen strokes. The skill of one lies in the last stroke of his

play, while it is generally the stroke before his last that reveals the greatest skill of the other. The one uses only a winning stroke, while the other prefers a forcing stroke to give him an easy chance to win.

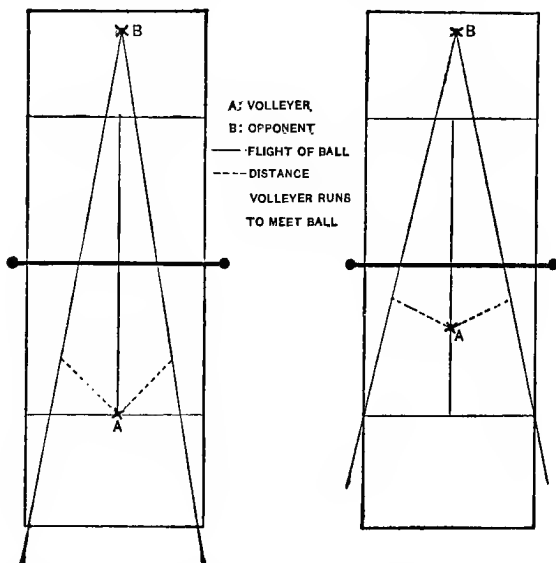
Safe players are generally underestimated, and they seldom receive the credit that they deserve, because most observers are superficial. Nine out of every ten never look deeper than the last stroke of each series for the cause of success. Because the safe player never kills a difficult ball, and gets so many more easy chances than other men, it gives the impression so often received that his opponent is "badly out of form" when he loses. It is much the same as in expert billiards, of which a superficial observer once remarked in watching Schaefer click off a long run of delicate caroms, "Why, he's playing nothing but easy shots that any one could make." He could not see the skilful position play that brought the balls together for him to make each of those easy shots.

Here lies the hidden skill of the tournament winner in lawn tennis: He never tries to kill a difficult ball, and he never misses an easy kill. But he does not "wait patiently for an opening,"

as one critic declared; he is working for that opening all of the time. He manoeuvres for the opening to attack with a forcing stroke, and then he puts his opponent into such difficulties that it is only possible for him to make a weak return which will afford an easy kill, or to take very long chances of making an error if he tries to get out of difficulty by making a brilliant play. The safe player, on the other hand, if badly forced himself, generally falls back on a deep lob, which he always has ready for his defence, and gets out of trouble again, without error. Again, the brilliant player fails in this event, for he tries to kill such a ball and fails more often than he succeeds, whereas his opponent uses another forcing play and avoids the chance of error.

A systematic net attack should be opened with a deep forcing stroke. Should the opportunity come when the opponent's return is deep in your court, it is generally dangerous to use a diagonal forcing stroke, for this brings him to one side of the court, and leaves that side line wide open for a pass. In such a case, it is generally wiser to direct the forcing stroke straight down the centre of the court to the middle of the

base line and then to follow the ball up as quickly as possible to the middle of the net. The closer one comes in to the net, the safer he is, too, as will be shown by the accompanying diagram. The



safest position at the net is always with the ball in the centre of the court, and then the range of the opponent's passing stroke becomes more limited the closer you are to the net. The more the lines of possible direction diverge, the slower must be the stroke in order to drop within the side lines; and the slower the pass, the more time

you have to reach it, and the easier it is to kill. This also works out the other way, too, and it is well to remember that in passing a player at the net, the cross-court play becomes more difficult the closer he is, and the easier it is to pass him down the line. Conversely, the farther back he is the easier to cross and the harder to go down the line.

If the chance for the forcing stroke which is to open the attack comes when the opponent's drive is near the base line, this safe centre drive can be frequently made more effective by playing slow, for this will give additional time to reach the net in safety before the return can be made. When the opening drive is directed to one side, or when any volley is placed away from the centre, of the court, it is important to find the correct playing centre of the net for the next volley, and to keep it. In this connection it should be remembered that a man can reach farther to his left than to his right, although this is not generally understood. There is always time to take one step sideways and forward in meeting the ball, and to the left the right foot crosses over the left in reaching the backhand position, while on the right side the left foot simply steps for-

ward to get into proper position for a forehand volley. In crossing your feet for a backhand reach, you bring your playing arm nearer the ball; on the other hand, your reach becomes shorter if you cross your feet to step over to the forehand side.

In selecting the volleying position, allowance should always be made for the position of the opponent and the possibilities and probabilities of his next return. If your last play has driven him out to your right, you should step over a little in that direction to cover up the greater gap that exists on that side, and *vice versa*. If he is a cut-stroke player, the greatest danger lies along the line, which should be covered closest, while a drop-stroke player more often threatens across the court. Parenthetically, it may be remarked here that cut-stroke or chop-stroke players should always be volleyed, if possible, while drop-stroke players are generally difficult to volley. With an adversary that cuts under the ball, the forcing stroke should always be kept in the centre of the court, and the sides reserved for killing strokes. Once safely ensconced at the net yourself, it is not dangerous to force a cut-stroke player with a short volley in the middle of



W. A. Larned.

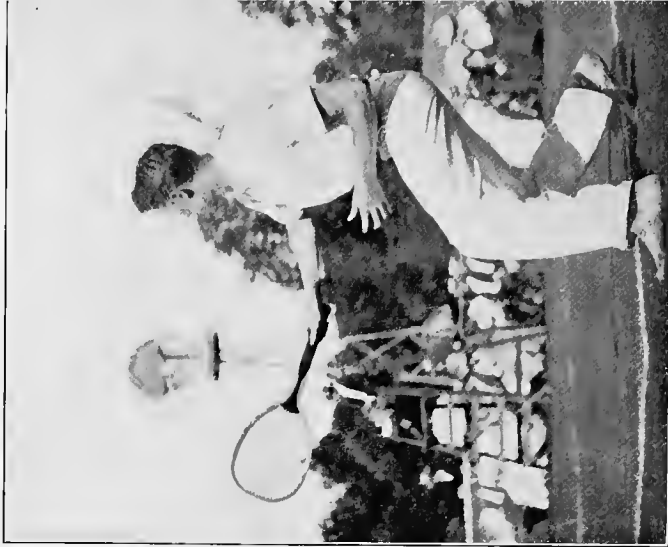
THE AMERICAN BACKHAND STROKE.

NOTE. — Three snap-shots on one plate.



J. P. Paret.

THE CHOP-STROKE, FOREHAND AND BACKHAND.



M. D. Whitman.

Note the bent knees of both players, and the horizontal rackets, giving close command of the ball.

the court, for their cross-court passes have a tendency to sail out of court unless very slow, and the nearer they are to the opposing volleyer, the more difficulty they are in.

Due allowance should always be made for the known characteristics of an opponent, if a player is sufficiently studious to discover his antagonist's weaknesses. I remember well how useful this was to me in a match played against Davis, then one of the leading American players, in the finals at Newport a few years ago. I discovered early in the match that he could not pass across court from his backhand side, and for at least three sets I systematically played to his backhand and ran in to volley his return, always carefully covering the line and neglecting the cross-court openings. This left him the choice of an error in trying to cross-court me or driving very close to where I was anticipating an attempt down the line. This little manœuvre probably saved the match for me, too, for it ran to the full five sets and was decided only by a close margin.

It is not only legitimate, but very wise to take advantage of any such individualities that one is able to discover. It can also be used to good purpose in ground-play as well. Frequently a

player will be found to have one marked weakness, and then the attacks should be directed at this spot. I remember playing in a tournament at Syracuse a few years ago an old Princeton expert, who was heralded as a world-beater by his fellow-townsmen, many of whom were anxious to bet on his winning. When the match came to be played, I discovered that he had a forehand drop-stroke like a six-inch gun, and it was evidently with this that he had beaten several strong opponents. After losing the first three games with ridiculous ease, I discovered also that his backhand was wofully weak, and I concentrated the attack at this weakness, winning easily. His friends afterward could not understand his sudden reversal of form, and declared that he was off in his famous stroke. They could not see the hidden forcing strokes that shut out that much prized drive of his; yet beating him would have been an easy task for a much poorer player than he if his forehand play were kept out of the game.

A general rule that it is well to keep in mind for all tournament players is that whenever you meet an opponent whose play you are not thoroughly familiar with, you should begin at once

to study his weaknesses. Try the backhand, then the forehand, then a lob, and so on through each play in the list, until you have discovered any weaknesses your opponent may have. Once the vulnerable point is discovered, this opening should be used for attack whenever a point is most needed; but it will kill the goose that lays the golden egg, if this is done so regularly as to permit the antagonist to cover up his weakness by getting out of position. It should be remembered that the unexpected point is generally the weakest point, and if one sees that an opponent expects the return in any particular part of the court, it should be directed another way.

Heathcote, in his treatise on lawn tennis in the *Badminton Library*, says (page 216), "Do not try to deceive your antagonist." This may be good advice for the novice who is first learning to play the game, but the experienced player will find it a very difficult task to pass an adversary unless he practises some of this very deceit that Heathcote advises against. In its commonest form, this has become known as "covering the stroke," for in order to keep the opponent in ignorance of the point to which the play is to be directed, and so to prevent him from antici-

pating it, it is necessary that no motion or sign should be permitted to indicate the direction of the stroke before the ball has left the racket.

Among expert players, this is carried much farther than this, and they not only conceal the direction of their strokes, but deliberately mislead an opponent on this point whenever possible. In order to anticipate the direction of the expected drive, skilful players study the position of their opponent's arm and body in making the strokes; but they are seldom able to tell what he intends to do with the ball if he "covers" his play well. To succeed at this, one should control the direction of the stroke, particularly in passing an adversary, as much as possible by the wrist, and learn to make a line stroke or cross-court stroke with the same motions of body and arm.

It would undoubtedly prove surprising for some experienced players if they knew how much they rely upon the eyes of their antagonist to find out where he intends to place the ball. Most players make a habit of looking in the direction in which they intend to play, and "heady" experts study the opponent's eyes and often read the secret there. This habit of reading the eyes

offers another opening for deceiving the opponent. Hovey, one of the American ex-champions, used to practise a remarkable trick of this kind, which illustrates the possibilities of deceiving the adversary. In match play, he would frequently look deliberately in the opposite direction from that in which he intended to place the ball. This little ruse was embarrassing at all times, but doubly so when the opponent stood at the net trying to anticipate the direction of his passing stroke, and it generally succeeded. Personally, I have found this play very useful in passing from the middle of the court on a short ball, and have been amazed at the regularity with which other players would fall into the trap. I only succeeded in mastering one variation of this, but could pass to the left while looking to the right and frequently deceived an adversary into jumping the wrong way.

Nisbet, one of the English cracks who played in America in 1897, worked in the opposite way, and waiting at the net for an opponent's attempt to pass him, he would frequently dodge to one side just before the ball was struck, and then instantly back in the opposite direction. The effect of this was almost invariably to make his

opponent place the ball away from the side he first started for, and it generally came where he could kill it with a quick volley.

It is essential to quick action that the weight of the body should be carried low in a crouching position. One ought to "run low," as the football coaches say, and even when at rest, the body should be bent well over. The legs should be spread well apart with one foot back of the other so as to start quicker backward or forward. This correct handling of the feet is an important feature of good form, yet it is understood and practised by very few players. Fully half the instances when a player at the net is caught in too close, and a lob makes him turn back and play the ball from the bound, are the result of standing in the wrong position.

This is a common error even among expert players, and the right and wrong positions are well illustrated by the two snapshots of Wrenn and Whitman shown opposite page 161. Wrenn, with his body bent well over, not only has his feet spread far apart, but is also turned diagonally from the net, while Whitman faces directly toward the ball and bends only from the hips, his feet being comparatively close together and his

weight consequently higher. In this position a quick move is possible only to one side or the other, and should occasion arise for a sudden shift of position forward or back, one foot would have to be lifted and put back, and a half turn made before he could start. In the other position, the player is prepared to move in any desired direction instantly.

CHAPTER IV

THE USE AND ABUSE OF THE SERVICE

OF all the strokes of the game, the service has had more restrictions placed upon it than any other. As it is the means of first putting the ball into play, and the player is allowed to hit it in any way he pleases, he naturally volleys it, tossing it up in the air and striking it downward as aggressively as possible toward the opponent. But the service court is very limited, being nominally little more than a quarter the size of the whole court, and actually only about one-eighth, because the part close to the net is entirely out of reach and the served ball must fall in the rear ten feet of half the width of the opponent's court. Among expert players, nearly every served ball falls in a space $13\frac{1}{2}$ feet wide by not over 6 feet deep.

But the position of the server is also restricted closely, and it has been more restricted at intervals ever since the game began, because of the constantly increasing advantage that modern skill has given the server with his initial attack. In

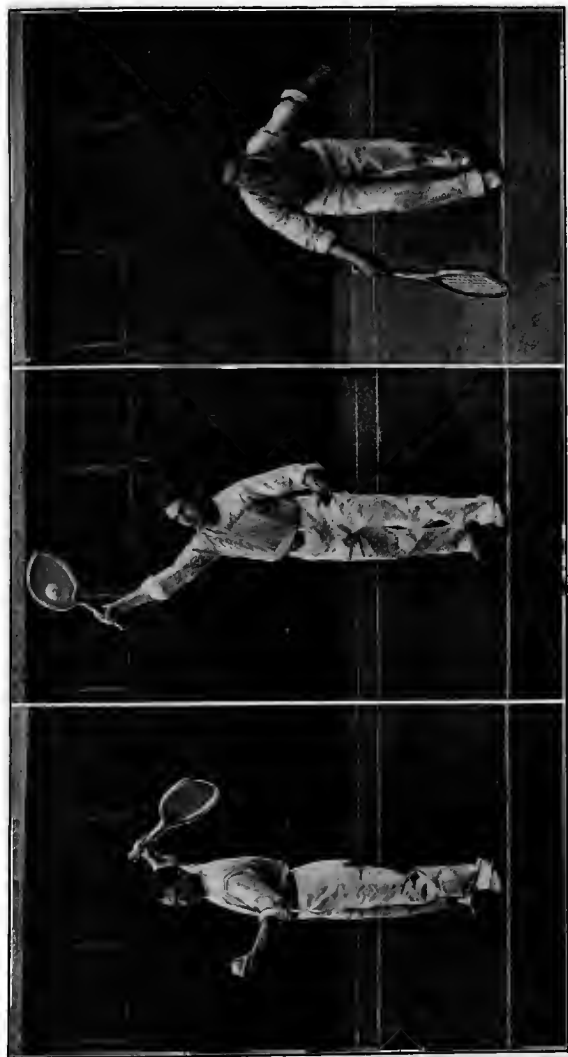
the earliest days of the game, the server stood with one foot inside and the other foot outside of the court, but now he is required to keep both feet outside until after he has delivered the ball. The tendency of modern skill at the game has been toward getting to the net as fast as possible, and as the striker-out is required by law to let the service bound, the attack through the volley is all put into the hands of the server.

In his haste to get to the net, however, the server has been guilty of making technical faults know as "foot-faults" because made by the feet crossing the line too soon, rather than by the ball falling into the net or outside of the proper court lines. Many changes have been made in the wording of this foot-fault rule (No. 6), all with the intention of keeping the server back longer at the base line before he is allowed to rush to the net, but still much of the same trouble over foot-faults exists. The difficulty of umpiring on the base lines seems inevitable so long as the umpire must watch both the player's racket to know when he hits the ball, and his feet to see when he gets into the court. It is a close decision anyway with a quick player, and one that has created all kinds of trouble among tournament players within the

last ten years, more particularly in America, where the tendency to get to the net is even more pronounced than abroad.

Even despite these restrictions, the server still maintains the attack, and it is always considered an advantage to have the service. In doubles there is a heavy percentage in favor of the side having the service in every game where the contending teams are closely matched. Experience has taught the most expert players, however, that against men of their own skill it is practically impossible to win outright by a served ball often enough to pay for the efforts wasted in trying to, and they confine their attack through the service to keeping the length good, the pace swift, the bound low and deep, and the direction of the ball sufficiently concealed to make it bound in the least convenient spot in the opponent's service court. If the server weakens materially in his pace, if he serves a short ball or a high-bounding one where the antagonist is expecting it, the attack may be quickly turned against him.

With a good service, it is often wise to follow it to the net immediately, although some players are very accurate in passing a volleyer at the net, and are reasonably sure to stop him unless his



Start.

Stroke.

Finish.

THE AMERICAN TWIST SERVICE AS PLAYED BY HOLCOMBE WARD.

Note the short grip on the racket, the glancing blow with the racket well up over the ball, and the exaggerated bending of the body and drawing of the racket down and out at the finish of the service.



R. F. Doherty.



W. A. Larned.



H. L. Doherty.

THE VARYING SERVICE STYLES OF THE MOST EXPERT PLAYERS.

Note the two extremes in the services of the Doherty brothers. R. F. throws the ball five or six feet in the air, and his action is extreme; whereas his brother seldom throws the ball up more than two feet and uses little effort in striking it.

service is fast enough and so well placed as to keep them in trouble. If the service is to be followed in, it is always best to place it close to the centre line of the opponent's service court, for this protects a volleyer at the net from being passed by a line stroke. As already explained in the previous chapter dealing with passing strokes, the lines of possible direction diverge on either side, and the pass must be slow or drop very quickly if the ball is to get by a server who has succeeded in getting in close to the net after serving to the centre. It was Campbell who invented, and Neel, the Western expert, who developed, this theory, and it has been since used to good advantage by most players who run in on their service. Occasionally an opponent will be met who has a marked weakness in his backhand play, and then it is always safe to direct the service on the left-hand side out to the edge of his court, in order to keep him in difficulty while the server is running in.

The most useful and commonest service used by good players is an overhand delivery almost straight with a slight cut to the right that keeps the ball from "sailing" in the air. The player should reach as high as possible, even serving

from up on the left toe, and strike the ball at the extreme length of the racket with its left face. He should reach up a little above the ball, too, so that the bevel of the racket shall be slightly on top as well as on the right side of the ball. This top twist helps to bring the ball down in time to fall in the court, when sometimes it might otherwise go out and be a fault. The racket should finish close to the ground and in front of the left foot, or just to the right of it.

This overhand-cut service curves slightly to the (server's) left, and its tendency is to draw the opponent out a little in that direction in order to return it. If a player can combine this service with a "reverse" service, which is made by using the right face of the racket and drawing it across the ball in the other direction, from right to left, he can fool the adversary wonderfully by varying the two, and keep him guessing almost constantly. This gives the server a big advantage, for the opponent is unable to anticipate his delivery and finds it more difficult to make a strong return. Fischer did this well and found it very profitable. It is also very useful to combine the two and to draw the opponent out of position by alternating these

two services on the sides that make them curve and bound away from the centre.

It is important to have a strong second service, and too many players neglect this feature of their play, serving so slowly and "softly" in their anxiety to avoid a double fault that their second service is very easy to kill. The second service should be as nearly like the first as possible, only moderated enough to be certain of making it. I know a number of good tournament players whose second service can be often killed by a fast drive from the slow high bound. It is important that the second service should be as long, that is, as near the service line, as possible, and that it should not bound up so high as to offer a tempting mark to drive at.

Some players try for too much speed with their first service, when they know that the chances are heavily against their making the stroke count. The result is that the second service is so much softer that it is easy to kill. It is much better to make the first a little slower and to be more sure of making it, and then to make the second more nearly like the first if the latter is a fault.

Besides the straight overhand service, which is

perhaps the most useful of all, there are several varieties of cut services that are sometimes effective. With the sun in the eyes of the server, it is often very difficult to look up at a high ball to serve it, and then an underhand twist is perhaps the best to keep the ball from bounding high. In mixed doubles, this service is useful against a woman antagonist who is not strong enough to handle a very swift service, and it is also useful occasionally against players of a fast ground-stroke who are puzzled by the erratic bound, or who find it difficult to bring off their favorite drives from the twisting ball. In any case a variety in service is very useful, as I discovered not very long ago in an important match.

I was playing Grant two years ago in the finals for the Indoor Championship, and was being beaten by his fast ground-strokes that "skidded" along the smooth board floor so fast I could not always handle his returns. A fast overhand service seemed to be the easiest kind of a mark for him, and his first return killed it repeatedly. I tried an underhand-twist delivery as an experiment, and found that my adversary could not get any speed from this service and its lack of pace and erratic bound kept him hesitating long

enough to make his returns weak. The stroke proved so profitable that I kept on using it for the rest of the match, and ultimately won after five close sets, although I was morally certain to be beaten if I had kept on serving a straight overhand ball. Another player might have killed that underhand-twist service every time, and I should soon have had to abandon it.

It is generally difficult to hit a heavily cut ball like this with a fast stroke, and so this service is more useful against a fast-stroke player than against an opponent who hits out with less pace. Some players have difficulty in judging quickly which way such a "screw" ball will bound, but this should be an easy matter. One should always remember that the bound will invariably be in the same direction that the server's racket takes in making the stroke. This holds good for every twist service that I have seen in use, either overhand or underhand.

Many years ago these twist services were very common, having been introduced by the first players of lawn tennis, who learned their skill at rackets or court tennis, where these cuts are in constant use. The faster play of the early eighties put them out of commission, however,

and it was found more profitable to serve a fast straight overhand ball with a slight twist. Within the last few years, however, the American players have revived them in a different form, by exaggerating the natural or the reverse twist in an overhand service, with the result that the ball curves in the air, while travelling fast, and then "breaks" sharply to one side on the bound. This delivery has become known as the "American twist" service, and it proved to be a "bugaboo" to the English players a few years ago. Its terrors, however, have been greatly exaggerated.

There has been a good deal of mystery surrounding the American twist services, but as a matter of fact there should be no mystery at all in regard to this play, as it is simply a scientific development of the common underhand-twist strokes adapted for overhand play, with the additional speed which has made the new service so formidable. It is an error to call all these deliveries "reverse twists," for only one or two players have ever learned to reverse the twist,—notably Whitman; while the more familiar services used by Davis, Ward, Alexander, and others have all the natural out-twist. As Davis is a left-handed player, his service breaks from the

ground in the opposite direction from those delivered by right-handed players, nevertheless.

Ever since the early days of base-ball, the scientific theory of curving a ball in the air has been well understood. The top of a carriage wheel travels through the air faster than the bottom, because its axis is moving ahead all of the time; and in the same way the friction on the side of a ball which is twisting on its own axis is greater on the side which is going fastest through the air—the right-hand side in a right-twist delivery, and *vice versa*. The rougher the surface of any spherical body and the lighter it is, the more it will curve in the air, because the friction becomes greater against the particles of the air and it is easier to deflect from its course. The rough felt covering of a lawn tennis ball causes more friction than a leather-covered base-ball, and consequently the tennis ball curves more in the air.

The secret of success in making this new twist service is not to make the ball curve so much to one side or the other, as to curve downward in its flight, like the “drop” of a modern base-ball pitcher. It is necessary to make a tennis ball drop quickly after crossing the net, if it is to be

served with much speed and still strike within the boundary of the service court. To accomplish this, the ball must be hit on top as much as possible, and the secret of the new twist service lies in following *over* the ball from behind it and twisting it from above as well as from the side. The racket strings are drawn across the cover of the ball as much as possible, the ball touching the strings first near one edge of the frame and leaving at the other side. To do this, a very quick side motion is required, and it is this that gives the ball its rapid rotation. The racket is drawn sharply downward too, while in contact with the ball, and this gives the top spin.

It has been a mystery to many why a tennis ball should bound in the opposite direction from its curve, but if one will apply the principle of the "English" in billiards, he will understand at once the reason. In the overhand out-twist, as served by Ward and Alexander, the ball spins exactly like a billiard ball when hit for a follow-shot with right English. It curves to the (server's) left in seeking the line of the least resistance, because of the greater friction on its right side, and it curves downward in its flight because of the greater friction on its top side.



THE "DRAGGING" SERVICE OF H. S. MAHONY.

NOTE. — Three snap-shots on one plate.



J. P. Paret.

THE STRAIGHT OVERHAND SERVICE.

Instantly the ball strikes the ground, it breaks to the right because the spinning motion drags it that way when it comes in contact with the ground, just the same way as a billiard ball with right English rebounds to the right when it strikes the cushion of the table. Thus we have the double motion in this new twist service which has puzzled so many who have played against it.

The service used by Whitman has the reverse twist; his racket moves from (his) right to left, the ball curves from left to right and breaks again to the left as it leaves the ground. Davis's service has the same curves and much the same effect as Whitman's, but Davis reaches very much farther over the ball, hitting it faster and making it bound much deeper. It is an out-twist and not a reverse twist, however, because Davis plays with his left hand and the racket travels away from his body, not across it. In Whitman's case, the racket travels across in front of his body and the tendency in making this reverse twist is to throw the server off his balance, and to make it doubly difficult for him to run in to the net to volley the first return. In the case of the out-twist it is just the reverse, and Ward

invented this service in an effort to get the impetus of the racket to help him get in motion quicker after serving, in his effort to reach the net for the volleying position.

In each case where this out-twist service has been successful the server bends very far backward and drops his racket down far behind his back before making the stroke. In each case, too, he reaches well up over the ball, and the more he hits it on top, the more speed he can secure and still make the ball drop enough to fall inside of the service court. There is a tendency also to ease up slightly on the inside edge of the racket so that the strings will follow the ball longer and give it a sharper twist in making the strokes.

The American twist service is physically very severe on its users and tires the muscles of the back and stomach more than those of the arms, because of the sharp bending backward as the stroke is made. There is no secret about it, however; and the fact that Alexander learned to use it simply through watching Ward is a proof that any other player can learn this stroke who will give enough time and effort to it. The keynote to success, however, lies in hitting the ball

well on top, with a very sharp twist, the ball rolling across the entire face of the strings before it leaves them, and in striking very much harder than would be possible to bring an ordinary service within the court.

Although I do not think the American twist a difficult stroke to learn, I would not advise a young player to neglect other practice in order to master it, for I doubt if it would repay the effort. It requires much practice to keep up, and often is no more effective than a straight overhand delivery. It loses much of its terrors, too, when one becomes accustomed to playing against it.

CHAPTER V

DOUBLES AND MIXED DOUBLES

ALTHOUGH the rules provide for a three-handed game, there is practically no lawn tennis played with an odd number of players on a court at the same time. Rarely one finds a three-handed game in progress when the best player is opposed by two weaker brothers, and in such cases it is customary for the single player to use only the narrow court for singles, while his opponents must cover the full double court. Occasionally one player is so much stronger than his adversaries that he is able to cover the full double width of thirty-six feet while opposed by two players in a similar court. Three-handed games, however, are at best only passing amusement.

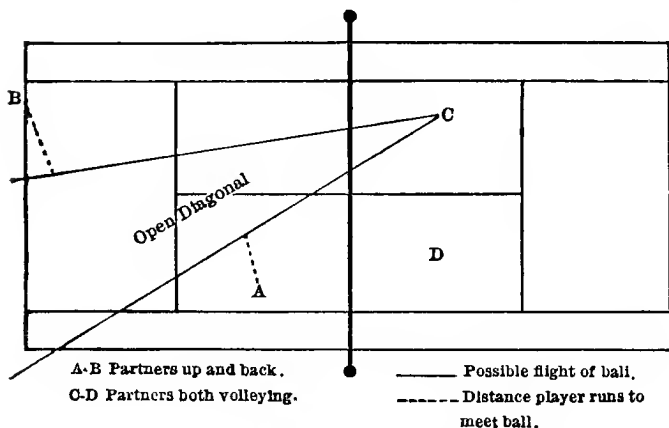
But the regular game of doubles, with two men on each side of the net, is unquestionably one of the most scientific as well as most enjoyable forms of the game. Abroad it is quite as popular as singles, but on this side of the ocean it is only

within recent years that doubles have found as much favor as the matches between two individual players. Within the last few seasons, however, the popularity of the doubles game has increased with wonderful rapidity, and last season the invitation tournaments for doubles attracted quite as much attention as any of the championship matches in singles. For this renewed interest, the developments of Ward and Davis on this side of the ocean, and the splendid team play of the Doherty brothers in England, with the exciting international matches that followed between these two famous pairs, are undoubtedly responsible.

In the old days two partners played doubles with one man at the net and the other in the back of the court, but modern tactics have made this position thoroughly untenable. With the opponents in these positions, a volleying pair have always open to them a winning stroke, through what is known to students of the game as the "open diagonal."

The accompanying diagram will show how hopeless such position play is against close net players. As will be seen from this, the player at the net covers his share of the court only when

the ball comes from the same side of the court in which he is posted. If his partner permits an opponent to volley from the opposite side of the court, the net player becomes *hors de combat*, being pocketed so that he covers less than a third of the court, and the open diagonal affords



abundant room for a winning stroke. There are one or two successful teams, notably S. H. Smith and F. L. Riseley, who have used this "formation" successfully on the other side, but I am convinced that their victories could never be repeated against aggressive American volleyers of high class. That they did win once from the Doherty brothers and have beaten many other strong

English pairs is due, I believe, to the different volleying position of the English players. A man is never so well able to take advantage of this winning hazard through the open diagonal when he volleys underhand from the service line, instead of overhand from close to the net.

However, there can be no question at this late day as to the advisability of having both partners in men's doubles at the net. Wilfred Baddeley, one of the best of the English authorities on the game and a most successful champion in doubles, declares that the correct volleying position for both partners in doubles is from six to twelve feet back from the net, "the nearer the better," as he truly puts it. Other successful English pairs, including the Dohertys, the Allens, and the Riseleys, all volley from close to the net, although none of the English teams seems to reach the position suggested as the best by Baddeley, *i.e.* six feet from the net.

Among American players of skill the custom is universal to "rush in on everything"; and the best players we have on this side of the Atlantic are to be found invariably up close, and more frequently six or eight feet than twelve from the net. Even after making a fault the server rushes

in on his second service, in order to take up the attacking position in the front of the court. That these volleying methods are successful is shown by the fact that the server wins a very large majority of all the games played in high-class doubles. Among teams that are evenly matched it is seldom that more than two games in ten are won by the strikers-out.

The rules give all the advantage to the serving side, for the service itself is a volleyed stroke, and the striker-out is required by law to let the ball bound before he makes his first return. Under these conditions the serving side is able to assume the attacking position at the net at once. As it is impossible for both sides to play close to the net at the same time, it follows that the strikers-out must retire to the defensive position behind the base line until such time as they are able to dislodge their opponents from the coveted net position.

It is these tactics that have brought the lob as an attacking stroke into such constant use, particularly on this side of the ocean, and the opponents of the servers often find this their only means of driving the antagonists away from the net, and of turning the attack against them. It is

no easy matter for a close volleyer to back up from the net, smash the ball as it falls, and then to rush back into the volleying position again in time to anticipate the next stroke, and a good lob often forces the volleyers to turn their backs to the opponents and hurry back and return the ball with a ground-stroke. To succeed in forcing such a retreat is invariably the signal for turning the attack against the volleyer who has been dislodged from his net position, and the team which put up the lob should instantly rush in to the net to volley the return.

It is always a safe rule in doubles to run to the net whenever the opponents play the ball off the ground from behind the service line, but to stay back as far as the base line whenever an opponent is volleying. In doubles quite as much as in singles, Baddeley's "forbidden zone" between the service line and the base line is an untenable spot at which to come to rest. Skilful players in doubles never hesitate long in this territory, and they will always be found ready to volley in front of the service line or ready to defend against volleying opponents from behind the base line.

In order to avoid the losing position with one

partner at the net and the other in the back of the court, the server must invariably run up after serving because his partner is always at the net before his service is delivered; and if one partner is forced to run back in his court, either because he misjudges a falling lob and runs back to find that it falls inside the court, or because he is unable to back up in time to volley it, his partner should run back with him in order to keep parallel and avoid offering the open diagonal that is so much to be feared.

The success of the Doherty brothers in America last season was undoubtedly due to their wonderful team play and the certainty of execution with which they made all of their returns. In some respects they had altered their style of game since their visit of a year before, and some of the distinctly American features of doubles had been incorporated in their play. They crept in a little closer to the net to volley and lobbed more often for defence. Their superiority, however, was shown in no way more clearly than in their low driving strokes and most of all in their ability to return the American service with a fast low drive. Americans realized after studying the Dohertys' play how much they lacked in this par-



End of his Forehand Stroke.

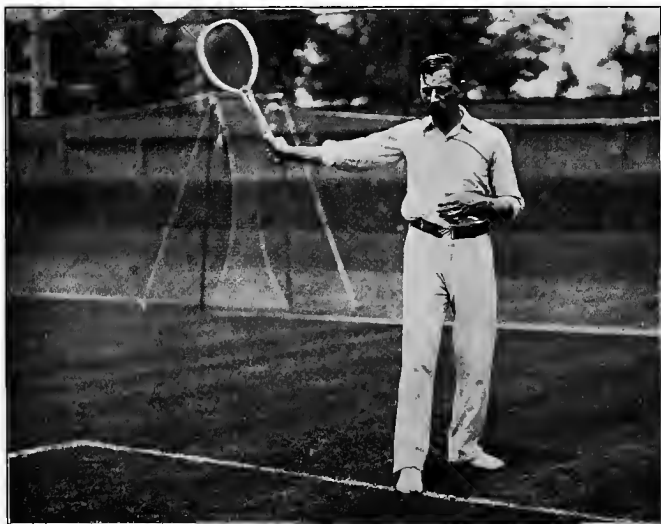


End of his Backhand Stroke.

R. F. DOHERTY'S TYPICAL ENGLISH STYLE OF PLAY.



End of his Forehand Stroke.



End of his Backhand Stroke.

DR. J. PIM'S EASY STYLE OF PLAY.

ticular, and the one point in which they most need improvement is in the confessed weakness of constantly lobbing their first returns of the service.

There is one notable difference between the play of the Dohertys and other English teams, and that of the American leaders. British players in doubles constantly use a "formation" in receiving the opponent's service which does not seem safe to American eyes. The partner of the striker-out will generally be found in position at the net when his partner receives the ball. The Dohertys tried this occasionally last season and the year before, but were almost invariably forced to give it up because of the sharp angles afforded the opponents in volleying the next stroke, which generally killed the ball at the feet of the striker-out's partner. When the Dohertys played Collins and Waidner at Newport last summer and the year before, the Western champion repeatedly scored clean aces by volleys at the feet of the opponent who was caught forward in his court, and the English champions were forced to abandon their use of this method.

It is often found that a fast-driving opponent will return the service down the centre of the

court in doubles between the server and his partner, and in order to stop up this "hole" it is always best for the server to deliver his ball in such a case from the extreme outside corner of the court, which sends his service at a sharp angle, as diagonally as possible, across the net. When this expedient is employed, the partner of the server must stand a little closer to the edge of the court in order to "cover his alley" against a passing stroke down the side line.

In handling all doubtful strokes in the middle of the court, particularly in smashing lobbs, the player whose forehand is nearest to the ball should have the preference, although he should never step far out of position to take a ball that is much nearer to his partner. Often a lobbing attack will be directed against one side of the court, and one of the opposing partners will have to bear the whole brunt of the play. At such times, it is difficult for his partner to hold himself back and let the other go on smashing ball after ball, but in such cases it should be remembered that a man gradually gets used to the range and to looking up into the air at a falling ball, and that he is much less apt to smash into the net or out of court than a fresh partner who jumps into

the breach. Nine times out of ten the partner gets out of position in order to get at the ball, and the next return finds its way through an opening on his side of the court instead of being another lob.

In smashing lobs it is often difficult to find a winning opening; but if one of the opponents is standing inside of his court, it is generally profitable to smash directly at his feet, and if by any chance his opponent should be in close to the net when an opportunity comes for smashing the ball, it should be killed directly at him, as he has practically no chance to return it under these circumstances. When no opening presents itself, however, it is generally wiser not to risk the killing stroke, but to volley deep and safe out to the edge to open up the centre for a winning smash on the next play, or to volley to the middle of the base line so that the opponents may be drawn in and leave a winning opening at one of the edges. A volleyer who is being steadily attacked can generally relieve himself by smashing off diagonally to the opposite side of his opponents' court, but his partner in that case must "cover his alley" closely in order to forestall any attempt at passing him along the side line.

Side lines and "alleys" are rather easy to cover in doubles, and it is chiefly due to this fact that the servers win such a large majority of the games. There is no doubt that the servers have all the advantage with them under present rules, and sooner or later some remedy must be found for this advantage that the servers hold over their opponents, and some alteration in the rules is needed.

In singles, a player has only twenty-seven feet of net to cover when he runs in after serving to volley the first return. That he is able to do so successfully, and that the striker-out has not better than even chances to pass him, shows that a single player at the net is able to cover about this space with even chances for success. On the face of it, therefore, the court for doubles is not wide enough, for in this kind of play each man has only eighteen feet of net to cover. It is so difficult to pass two volleyers in thirty-six feet that the chances against the strikers-out under present conditions are more than five to one, as shown by the small percentage of games won against the service in high-class doubles.

The logical change that is needed, then, is to widen the court for doubles, and fortunately

this can be done without interfering in any way with the groundwork of present skill. To alter the height of the net or the length of the court would upset much of the skill that expert players have acquired in the length and height of their strokes, but in widening the "alleys" of the court, none of the vital measurements of the trained eye of the expert would be upset. For several years I have favored this change, and I am still convinced that it offers the most logical and best solution of the problem that is presented to readjust the altered balance between the servers and strikers-out in doubles.

One other suggestion has been made that offers a possible solution, and this lies in the abolition of the second service for doubles, or possibly for all styles of game. This would tend to weaken the attack of the server slightly, but I doubt if its effect would be enough to offset his present advantage. To restrict the servers from volleying the first return of the adversaries, as some one suggested, would be preposterous, as this would reverse present conditions and give a still greater advantage to the strikers-out.

In mixed doubles the best methods in use vary, for in England they play with the man at the net

and the woman at the base line, whereas we Americans think this is distinctly unsound and prefer to play with the woman at the net and the man at the back of the court. Englishmen claim that their ability to volley and to run across the net and "poach" offers a great incentive for the man partner to play at the net with his feminine helper running up and down the base line and returning the balls that go past him. In America, however, we consider this an easy combination to beat, because it is practically impossible for any one man to cover the full width of the net, so it becomes an easy matter to keep the ball out of his reach. With the man at the net here, he is generally kept out of the game, and the woman is forced to do all of the work. This must sooner or later prove to be the undoing of her side, since her man opponent will soon get a short return and come in and kill the ball as he pleases. With the woman at the net, on the other hand, she will have to make fewer strokes and has all the advantage when she does play the ball, since it must be on the volley. Her partner on the base line can cover the court better, and when he has forced his adversaries into trouble he can come up to the



H. L. Doherty, the easier and safer style.

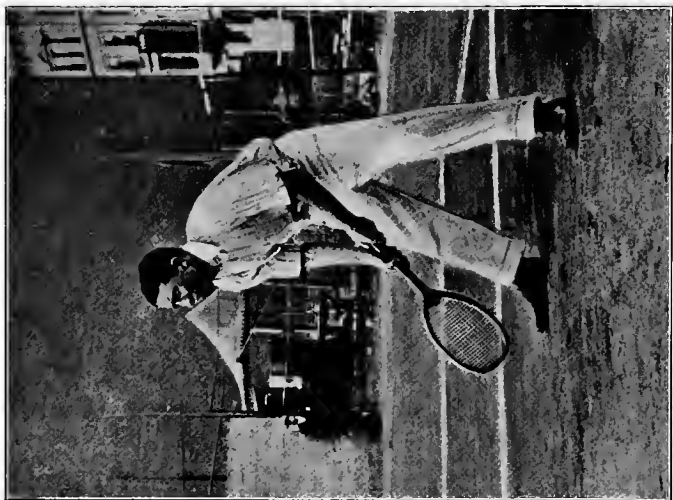


D. F. Davis, the more severe.

TWO EXTREMES IN SMASHING.



M. D. Whitman.



R. D. Wrenn.

INCORRECT AND CORRECT POSITIONS FOR THE FEET IN FAST PLAY.

Note the feet close together in the left-hand picture and spread well apart in the other; also the toes turned out in the right-hand picture, with one foot diagonally behind the other to facilitate quick movements.

net and risk a winning stroke from this position. The woman, being necessarily the weaker player, is generally the object of the attack, and she is in less danger of error and more dangerous to the opponents when at the net. If either of the partners should be placed to prevent attack, it should be the woman, who is the weaker. No rule holds good, of course, in any abnormal team where the woman is the stronger player.

CHAPTER VI

RELATIVE SKILL OF THE WORLD'S BEST PLAYERS

It is no easy task to estimate the relative skill of the most skilful exponents of lawn tennis throughout the world, particularly when it is necessary to confess that some of the data from which such an estimate necessarily must be made comes to me at second-hand. Personally, I have seen most of the leading English and Irish experts in tournament play, all of the great American players for the last fifteen years (with the exception of a few men in the extreme West), and the leading Canadian players. For estimate of the Continental players, I have had to rely principally upon the opinions of such Continental authorities as Charles A. Voigt, F. L. Fassitt, A. Masson, and the Continental handicappers; and for the form of some of the distant colonial experts upon a close study of the handicapping of the official lists for tournament use.

Perhaps the Australian players are the most difficult to gauge, for there is little data from

which to work. Dr. Eaves played in Sydney in 1891, and E. G. Meers made a trip through Australia in 1896-1897, and I have the opinions of these two experts from which to judge of the standards in England and in the Antipodes. A. D. Kearney and L. O. S. Poidevin, two of the leading Australian experts, have played in England recently and shown their relative form there as well as expressing opinions on relative skill.

Most lawn tennis players have a tendency to narrow their horizon too much, and the English leaders of five years ago, as well as a certain coterie in the eastern section of the United States, have suffered from this drawback more than others. Both have had a tendency to minimize the skill of distant players, of whom they knew little, and both have had occasions to repent of their narrowness. The English players for many years underestimated the skill of the American leaders, and it remained for Goodbody, Mahony, Eaves, Gore, and the Dohertys to open their eyes.

In turn the Eastern players in America fancied that little expert play existed in their country outside of the East. Their views were gradually broadened, however, as one after another clever Western player came East and surprised

them—Cummins, McClellan, Carver, the Wrenns, the Neels, Bond, Collins, and Waidner. For a time both Easterners and Middle Westerners mutually agreed that they monopolized the lawn tennis skill of the country. Soon Hubbard came East from California, then Driscoll, and the Hardys (the Neels, too, originally came from the Pacific Coast), and each in turn earned a little more respect for the extreme West. In the autumn of 1899 a formidable Eastern team went out to the Coast expecting a clean sweep, and although they were beaten by only one of the Coast men, they came back with broader ideas of the game in the far West.

It is intended, in this estimate of the world's skill at lawn tennis, to consider the players as they stood at the end of the season of 1903, not as they were in the past or as they may be in the future. In order to get a fixed standard from which to judge, it is necessary to determine the relative skill of the leading British and American experts.

The greatest rivals in lawn tennis have always been England and Ireland and the United States. Unquestionably the general average of the play is higher in these two countries than anywhere

else, and also the skill of the leading experts. The question of supremacy has been a much mooted one, and the international matches of the last four years cannot be said to have entirely settled it. The Americans held a clear title to supremacy until last season, but the victories of the Dohertys over here last summer have altered the complexion of the matter.

Many formidable English and Irish players have visited American courts, while some Americans have visited British fields; and from the results of their matches, deductions have been drawn as to the relative skill of the leaders in the two countries. But such estimates must be taken with some reserve, and even for that matter the result of the officially recognized matches for international supremacy. The playing conditions of the two countries are unquestionably different enough to prevent a visiting team from meeting picked home players under equitable conditions. Climatic considerations are the greatest, for the differences in the rules, courts, and balls are too slight materially to affect visitors from either side, and they make it very difficult to draw reliable comparisons. American experts are used to hot, dry weather with

little wind; while English and Irish players seem to be quite as skilful in damp, windy weather. British visitors to American courts invariably complain of our heat, — the atmosphere seems too enervating for strangers to show their best form; while Americans abroad will find it very difficult to show their best form in the raw, wet, windy weather, like ours during March and April, which so often prevails. Over there the matches are always continued under such conditions despite sodden balls and uncertain ground. They are as much of a handicap for American players abroad as our worst heat for visitors to our courts.

Now let us trace the course of international supremacy in lawn tennis. In 1883 we find the Clark brothers, then very close to the top on this side of the water, easily vanquished abroad. The following year Dwight and Sears were estimated to be fifteen behind Renshaw, and yet at the very top in America. In 1885 Dwight was officially ranked at fifteen and one bisque (equivalent to $15\frac{1}{6}$) behind the best of the British experts, but in 1886 he and Beeckman seem to have gained a little by their winter practice with the famous English players. At the end of 1886 Dwight was officially ranked ninth abroad, half-

fifteen and one bisque (equivalent to about $\frac{4}{6}$) below W. Renshaw, but only a shade behind the American champion Sears over here.

From the next two years, we have no gauge to test the relative skill of the two countries, but in 1889 Meers's play at Newport offers a more favorable comparison.

Campbell beat Meers, then ranked in England, and was in turn beaten by Shaw, who lost to Slocum, the American champion for the year. Campbell's visit abroad in 1892 is our next comparison; but I am strongly inclined to distrust the actual results of this play, first, because Campbell's style was admittedly a poor one to put against the steadiest and most experienced players in the world, and secondly, because it is doubtful if Campbell played so well abroad as he did on this side. The American was ranked well below Baddeley, the champion of the year, and subsequently won the American Championship again; so we must presume from unqualified results that the difference in 1892 was equal to that between Campbell and Baddeley. If Hall or Hovey had been the American representative abroad, however, perhaps the English ranking would have told a different story.

When Goodbody came to America, in 1894, some confidence in our ability to cope with the English at lawn tennis had been restored here, but abroad there still existed the impression that we were of another class. Even Goodbody shared this opinion when he came, but when he went home he declared in print:—

“I think that perhaps our players, certainly one or two of them, are better than those on this side; but, although I know there is an idea with us that there is a wide difference between the tennis in the two countries, I consider this quite a mistake; and any of our players who thinks he can come over here and carry all before him, will soon find out that he has quite underrated the capabilities of the best exponents of the game here. Could there be an international competition between, say, six of the leading players of each country on a perfectly neutral soil and under neutral conditions, I think that we would win; but the different conditions of climate, living, etc., under which an English player labors when he comes over here are quite sufficient, in my mind, to do away with the difference between the standards of play in the two countries.”

By reasonable analysis through Goodbody's ranking here and abroad, we can estimate the difference between our tennis and the English standard of 1894 at not over three-sixths, and probably two-sixths would more nearly express it.

Then came the disaster of 1895, — for the mistake made in holding an international tournament of such importance in the early spring, when none of our American players was in condition, amounted almost to a disaster. The success of Pim and Mahony would lend color to the belief that American tennis was still three-sixths and perhaps four-sixths behind the English, but had the meeting taken place later in the season, I feel confident that we should have found the best players of the two countries much more nearly even.

Larned's trip abroad the following year vindicated this theory. Not only was he ranked within two-sixths of the English champion, and one-sixth better than Goodbody, but the official organ, in its *résumé* of the year, remarked on his Wimbledon match against Baddeley: —

“The first two sets provided some of the most brilliant lawn tennis on the American player's part that has ever been seen.”

Mahony, the English champion for that year, was within one point of losing to Larned in five sets only a few weeks before he succeeded to the "blue ribbon of the lawn"; and just before the Wimbledon tournament, Mahony declared that he considered the American's chances for the English Championship as good as those of any of the English experts. The year's experience abroad added considerably to Larned's skill, and when he met the British visitors here in 1897, his victory was even more commanding than theirs over him abroad.

The American campaign of Eaves, Mahony, and Nisbet, in 1897, is the keystone to the structural arch of lawn tennis equality. Without possibility of question, these decisive results of that season's play showed Larned and Wrenn, as our best representatives, to be fully equal, on this side of the Atlantic Ocean, to any player the world could produce at that time. They proved themselves distinctly stronger than the best of the visitors, and their overwhelming success warranted the belief that Pim, Baddeley, or Doherty would not have fared much better if any of them had come over with Eaves and Mahony that year.

Before leaving for home, Eaves expressed his

opinion of the comparative standing of the game as follows:—

“I don't believe a team of Americans could win at Wimbledon any better than we could win here. The advantages of being on home ground are too great. It is very hard to say how our cracks would compare with yours on neutral ground, for it would all depend on surroundings, rules, and conditions even then. I am inclined to think, however, that Wrenn and Larned are about even with most of our best men, although W. Baddeley, the ex-champion, and R. F. Doherty, the present All-England champion, are perhaps a trifle better.”

After his return home to his native soil, Mahony wrote a public letter in which he praised American players very highly. Among other comments, he said:—

“The Americans dart in and kill many a volley which an English player would let drop, half-volley, or volley very weakly. . . . Of their ground-play, especially on the forehand, there is nothing to be said but praise, and those who saw Larned's beautiful ground-strokes last year in this country will thoroughly indorse this opinion.”

Hobart's matches abroad in 1898 and 1899

furnish the next data from which to judge of the international standards. His first season on foreign courts, he played only a few weeks abroad, and never showed his best form, stopping play before he became really acclimated. In 1899, however, he furnished several surprises toward the end of the season, particularly on the hard sand courts at Homburg, and seemed nearly, if not quite, as dangerous an antagonist for the strongest of the British experts, as were Eaves and Mahony in America two years before.

In 1900 the Davis International Challenge Cup was offered, and the first official matches were played that year for the World's Championship. The team sent to America this first year for the trophy was composed of A. W. Gore, E. D. Black, and H. R. Barrett, and it was soundly beaten by the American defenders, M. D. Whitman, D. F. Davis, and Holcombe Ward. While the challenging team cannot be said to have represented the full strength of Great Britain, because the Doherty brothers had declined to come, still Gore, the captain and leader of the invaders, won the English Championship the following year from R. F. Doherty and was unquestionably in the top class.

Whitman, then champion of America, beat Gore so easily in the international match at Longwood that there could be no question of his superiority. Gore was again beaten at Newport by G. L. Wrenn, Jr., and the inevitable deduction at the end of the season of 1900 certainly implied the superiority of the Americans—on their home courts, at any rate. How much the strange conditions handicapped the visitors it is impossible to say.

The following season Davis and Ward played in the doubles abroad and under foreign conditions easily beat all of the teams they met with the exception of the Doherty brothers, although neither of them played in singles on the other side. The English challenge for the Davis Cup fell through that season, and no Britishers crossed the ocean for our tournaments.

In 1902 the English Lawn Tennis Association sent a team which all agreed could not be improved upon, as it was composed of the three players in all Great Britain who were conceded to be the greatest exponents of the game,—R. F. Doherty, H. L. Doherty, and Dr. J. Pim. The international matches of this year resulted in another victory for the American defenders of

the Davis Cup, M. D. Whitman, W. A. Larned, D. F. Davis, and Holcombe Ward. The Americans won three matches out of five, losing the doubles and one match in singles after Larned had secured an apparently sure lead over R. F. Doherty. Again, at the end of 1902 there could be no doubt of the superiority of the American lawn tennis players on home courts, and H. L. Doherty declared before he left for home that he considered our American standards to be quite equal to those on the other side. The younger Doherty did not play in any of the important singles matches over here that season, but his brother was beaten both at Bay Ridge and Newport, while Pim was clearly outclassed on this side.

Last season's internationals furnished a victory for the Englishmen as decisive as was their defeat of the previous year, and to win the Davis Cup under foreign conditions gave the Englishmen a clear title to the international championship of the world. The reasonable deduction at the end of the year seemed to be that R. F. Doherty was still apparently just about level with the best of the American experts, but that his brother, the brilliant young H. L. Doherty, was clearly in a class by himself the whole world

over. He played a very close five-set match with Larned in the international match at Longwood, but earned a substantial victory over the American champion in the Newport Championship meeting.

The impression that the English victory of last year was due to the personal skill of H. L. Doherty was strengthened by another comparison offered later in the season. Two young American players, W. C. Grant and Robert LeRoy, crossed over to the other side late last season and won several substantial victories over players of known skill on foreign courts. LeRoy won the championship of Europe in singles and LeRoy and Grant in doubles. Furthermore, these two Americans came together in the final round at Brighton after disposing of a big field of English experts, while the following week at Eastbourne Grant beat Mahony, once champion of both England and Ireland. Yet neither LeRoy nor Grant has ever been rated in America even at the top of the second class. Both before they went abroad and after they came back both were beaten repeatedly by second-class American players, in whose eyes European championship titles were not magnified by such results.

England, Ireland, Scotland, and Wales are all close together, and the lawn tennis players of each have so many opportunities to meet one another, that the standards of the different countries do not vary much. In America the distances are so great that we get fewer opportunities to try our skill against that of the players from distant sections. Each little colony of enthusiasts goes on developing its skill, one player against another; and no one knows just how far the game has progressed there until some test is made against an outside standard.

The Canadians are probably farther backward in the game than the players of any of the larger sections of the United States. Curious as this seems, because they are of English descent, the Canadians have never shown great skill at the game, and their neighbors from across the borderline have carried off the chief honors in nearly every Canadian tournament in which they have taken part.

America may well be divided into six tennis-playing sections: the East, the South, the Middle West, the Far West (or Pacific Coast), the Northwest, and Canada. Taking the general average of the leaders in the East, West, and Coast

sections, I find that the standards of the game are about the same. We have more strong players in the East than in any other section of the country, and the few brilliant exceptions of national reputation who reach a little higher than any of the others have all been Easterners for the last few years. However, it is only a few years ago that the brilliant exceptions were from the West, — Wrenn and Neel.

Excepting the few who become stars irrespective of locality, and whose supremacy is often only temporary, the standards of the Coast, as represented by the Hardy brothers, Freeman, and George Whitney; of the Middle West, as represented by Collins, Waidner, and one or two others; and of the East, as represented by half a dozen players just below the top class, Ware, Wright, Ward, Clothier, etc., — are all approximately even, and under neutral conditions it would be difficult to choose the winners.

The players in the South, selecting those of Washington and Baltimore as representative, although they come from the most northern and eastern section of the South, are a little behind those of the other sections of the country and a little ahead, perhaps, of the leading Canadian

experts. In the Northwest, the best players are about even with the Canadians.

The players of the European continent are distinctly below the English and Irish players in skill, although two or three brilliant exceptions have recently sprung up among the French and Belgians, notably De Borman, Decugis, Vacherot, and one or two others, who have developed within the last few years as worthy foemen for the best of the American and English, with the exception of the very top class in each country. H. L. Doherty declared last year that he considered Decugis the most promising young player of the world.

The racial characteristics of the French are evidenced strongly in tennis, for their players have the same quick, nervous style, hazarding all on a single stroke, which marks everything else they do. The Germans and Hollanders show their sturdy temperament in their steadiness and slowness of movement, which make it difficult to mislead them; they make fewer errors in their play, though they do not display so much brilliancy as the French. The Italians and Swiss have not reached the level of their neighbors yet, although their play improves

with every season. One or two of the Austrians have shown form not far behind the leading Frenchmen.

The Dutch have shown a greater aptitude for the game than most of their neighbors, and the general average of play there is higher. In regard to this, Voigt, one of the most experienced of the Continental authorities on lawn tennis, declares:—

“In no other country of Europe” (and Voigt has visited them all and seen the game in many parts of the world) “have I seen such a good general standard of excellence in form and style as in Holland, the only weak point one can possibly find being that most of the players are rather casual and slow in their movements.”

Among the German players, Count Voss was, until he retired, in a class by himself, but his constant practice with the English experts had almost robbed him of the distinction of being “home bred.” Voss was fully half-thirty better than the next of the Germans, but there are many other tournament players of more than ordinary skill, as Continental experts go, among his countrymen. Wantzelius, Behrens, Andre, and W. Grobien are probably the strongest of the others,

but their play is weaker than that of the best of the French and Dutch experts.

Among the native Italian players, the strongest are probably Count de Minerbi, Count de Robiglio, and E. Lumbroso. The two noblemen frequently play in the Riviera tournaments and some of the other Continental meetings, and their skill is rated as about fifteen poorer than the leading Frenchmen.

With a few exceptions the native Swiss players are decidedly weak. Most of them lack appreciation of the finer points of the game, and their method seems only to return the ball safely and wait for an opponent's error by which to score. Bovet and Turrettini have monopolized most of the honors among the Swiss contingent, and most of the others would receive from them nearly thirty in a handicap.

The testimony of both Eaves and Meers in regard to the skill of the Australians is sufficient to convince the most sceptical that the antipodean experts are close up behind the best players of the world, although it is practically impossible to determine their exact position without actual matches from which to judge. Meers declared in 1898 that Kearney and Dunlop, whom

he had seen play, were nearly, if not quite, equal to the best of the Americans, and very little behind the leading English experts. Eaves says:—

“In the early part of 1891, some of the Australians I met were so close to my form, that, although I was not beaten, I think they would have been on the same mark as myself in England, which was fifteen poorer than Ernest Renshaw. I think their best even in those days (doubtless they have improved) would have beaten our second-class players, but the best men in America and over here would have been too good for them.”

Kearney, Green, Dunlop, and Irving are rated as the best in Australia, and they are probably little behind the best players in America and England, although Kearney, who is admittedly the greatest of them, is a defensive rather than an aggressive player. The New Zealanders are only a little behind the Australians in skill, as has been shown in matches between representatives of the two countries. Kearney took a special course a few years ago at one of the Scotch universities, and there played enough to demonstrate that his form was certainly equal to the second-class British experts', although he was not

thought to rival the form of the top-notch men. Poidevin, another Australian, has been in England recently, and his opinion of the best players of his country places them close up to the British leaders.

With the exception of the few leading Australians, whose form is rather an unknown quantity, there are very few players the world over who can class with the leading English and American experts. Count Voss-Schönau, a German, showed occasional glimpses of almost first-class form a few years ago, and Decugis, a young Frenchman, has recently improved so rapidly that he promises soon to be dangerous for the best. There are one or two other Belgian and French players also who are rapidly approaching the top form.

After all, however, the question of international supremacy lies entirely between the Americans and their British cousins, and a close study of the leading men on both sides of the ocean has convinced me that the standards in the two countries are practically the same. Two years ago, H. L. Doherty remarked at Newport that he believed we had more good players over here than there were in England, and he considered the standards of the two countries about even. On



BEALS C. WRIGHT.



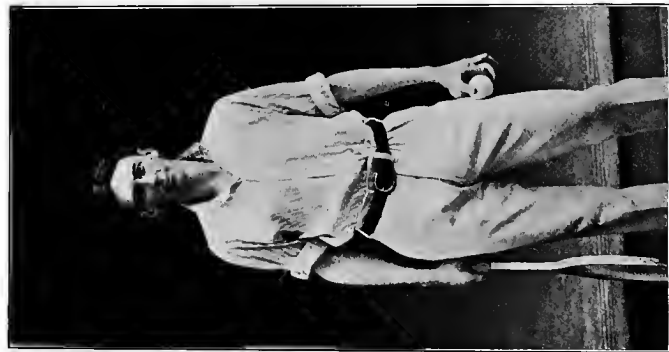
GEORGE L. WRENN, JR.



DWIGHT F. DAVIS.



WILLIAM J. CLOTHIER.



LEONARD E. WARE.



RAYMOND D. LITTLE.

recent form, H. L. Doherty has shown superiority over the best of the Americans, but he is equally superior to the best of his own countrymen; so we must consider his case as simply one of personal skill that surpasses the standards of any country.

In methods of play, however, I still consider that the American school is ahead of the British in more ways than one. Our chief advantage, I am convinced, lies in the closer net position for volleying, in the sharper angles used in attacking both off the ground and on the volley, and the better command of the lob. To offset this, the English unquestionably make their strokes better than do we, and we still have a good deal to learn from our cousins in this particular.

It would be impossible to find a more perfect model for pure technique in stroke play than H. L. Doherty, for instance. In his play there is no unnecessary swing and no sharp impact when the ball is struck; the power is applied at exactly the right instant, and the body swing and follow-through are nearly perfect. I have never seen a player get so much speed on the ball with so little apparent effort as the younger Doherty, and his racket follows it so long that he directs it with wonderful accuracy.

Each time Doherty has met Hobart we have seen a fine exposition of the opposite methods of stroke play that emphasized the advantage the English style holds over that so common in America. With a long preliminary swing, Hobart strikes the ball with a sharp impact, his racket having gained its maximum speed before it reaches the ball, and it is drawn up sharply so soon after contact that there is little or no follow-through. Doherty's racket, on the other hand, never gains its greatest speed or power until after reaching the ball and then it follows longer, adding to its speed and guiding the ball with the body swing before the stroke is completed. The methods of the two men are much the same in many respects, yet the English side-stroke is so far superior to the American drop-stroke that the result has each time been overwhelmingly in the foreigner's favor.

CHAPTER VII

REMINISCENCES OF EARLY MASTERS OF THE GAME

TIME invariably hallows the heroes of yesterday, and in amateur sports this is emphasized to a wonderful degree. In lawn tennis, the early English masters have always been looked upon with great respect, and even now, twenty years later, the name of Lawford is associated with the most terrific strokes in lawn tennis history. Of all the famous players of the game, however, the name of Renshaw is the most revered, and even in these days of greater development, there can be no question of the skill of these two brothers.

Personally, I never saw the Renshaws or Lawford play, and my acquaintance with English and Irish players includes only those of the last decade: the Dohertys, the Baddeleys, the Allens, Pim, Mahony, Eaves, Nisbet, Goodbody, Hillyard, Gore, Black, and other experts of recent years. One enjoys most to hear reminiscences from men who actually came in contact with and

played against the veterans of early days, so I shall quote others.

Spencer W. Gore, the first champion of England in 1877, tells of the advent of the Renshaws as follows:—

“The first appearance of the Renshaw brothers in a championship meeting deserves more than a passing notice. They were beaten by Mr. O. F. Woodhouse in the third and fourth rounds respectively; and it was in attempting to volley at the net that they failed. They found themselves compelled, after another year’s practice, to stand farther back—in fact almost at the service line—where they volleyed with success. These brothers were the first of the new race of lawn-tennis players. They were among the first to begin learning the game while young enough to be capable of improvement.”

Herbert Chipp, the English veteran, tells of the first appearance of the famous Renshaw brothers in his “Recollections,” as follows:—

“It was at Wimbledon, in the 1880 championship, that I first saw the Renshaws. It was their first appearance there, although they had entered the previous year. Rumors had reached others, who, like myself, could at that time

scarcely call themselves lawn tennis players, of the wonderful doings of two Cheltenham boys, and curiosity to obtain ocular proof of their skill was aroused in me. I had not then seen any first-class form, and I decided that I would journey down to Wimbledon to gratify my desire to know what a player in the front rank could do. I must frankly confess to a feeling of disappointment as the result of my journey. The performance was by a long way not as wonderful as I imagined it would be. Probably the weather should in the first place be blamed. There had been a heavy thunder-storm in the early morning, which had completely saturated the ground.

“At no time after the first set did W. Renshaw appear at his ease. He had a fall or two on the slippery ground, took off his shoes, played in his stocking soles, put the shoes on again, then tried another pair (I believe he had no ‘steel points’ with his)—all to no purpose. At this distance of time I cannot recall much of the details of the game, but it seemed to me that the returns were rather high over the net. There was some volleying, but it did not greatly impress me. That, then, was my first

sight of a player whose performances were soon to carry his name around the world.

“There can be no doubt that at the time referred to, and for several years subsequently, William Renshaw was a stronger player than his brother. He possessed a severer stroke, greater power of attack, more daring, and a cooler judgment; though Ernest excelled in delicacy of stroke, and was, perhaps, a trifle quicker in getting about the court. The supreme advantage which, to my mind, William Renshaw possessed over every other player, past or present, was his power of getting the ball back into his opponent's court with the least possible loss of time. The ball was taken at the top of the bound, and forced across the net before the opposing player had well recovered his balance. In this quality of rapid return—quite apart from the question of the pace imparted to the ball—I have never known William Renshaw's equal, and I believe that those who have faced him on a court will agree with me.

“His daring was remarkable. Time after time have I seen half his opponent's court left open on the one side, a foot of space on the

other, and the stroke would be scored in the foot rather than in the wider opening—one felt almost personally aggrieved at such insolence of treatment. As I have already said, his return was very low in its trajectory, and the rebound (especially from his backhand returns) was not great; his pacing and length were alike admirable, and his service was a most formidable weapon of attack. One of his effective strokes was a short forehand return across the court—generally off the service—from right to left, the ball alighting near the junction of the service line with the side line. As back-court players, both he and his brother were equal, if not superior, to any one, Lawford himself not excepted. In fact, I always found W. Renshaw more difficult to play from the base line than was his opponent.”

Lawford, whose name has been bandied around so often among lawn tennis players in talking of strokes, was the first great exponent of the base-line game, and the greatest rival of the Renshaws. Chipp was another early base-line player, but of a few years later, being in the chrysalis state when Lawford was at the height of his career. Chipp describes his first

match against the great Lawford in this way:—

“In those days, Lawford was simply a terror to second-class players; much more so, indeed, than the champion himself. It required a very considerable amount of nerve to stand up against this grim, determined player, with his sardonic smile, who neither asked nor gave quarter, whose arm never seemed to tire, and whose attack was crushing to a degree. My first meeting with him was a revelation to me, as it was to most players who essayed to tackle him for the first time. It was in 1863, in the open singles at the London Athletic Club meeting.

“To this day my mind as to what occurred during the first sets we played is all but a blank. I believe I won four games all together, but how I managed to win even one game against such diabolical side-line placing—as it seemed to me—I really cannot understand. I raced from side to side of the court; every stroke from Lawford’s racket seemed to alight on one line or the other of my court, generally on that farthest from poor breathless me, and at the end of the match I hardly knew whether my head or heels were uppermost. I remember that I presently

found myself imbibing a very necessary drink, and that Lubbock, who had joined us, said in his kindly way something complimentary to me, that with more experience I ought to play a good game, or words to that effect, appealing to Lawford whether he also did not think so. I remember, too, that apparently in the latter's opinion (Lawford was always very candid), Lubbock took a much too sanguine view of my capabilities, and that I possessed 'only one stroke.' At that moment I was quite unconscious of possessing any at all, but I mentally resolved that I would endeavor to add a second, if possible, by the time we met again."

There has been much controversy over the question of what the much-talked-of Lawford stroke really was, and Dr. Dwight's testimony on this point is of particular interest, because he not only played against Lawford and often saw him play, but was also a close student of the game. Dwight describes the stroke as follows:—

"Now let us take Mr. Lawford, who has been in the foremost rank of players for many years. His style is in direct contrast to that of the Renshaws, for it is labored, and purely the result of study. He may be said to play but four strokes,

but he plays them curiously well. He puts both feet firmly on the ground and fixes himself completely. He takes the ball at the top of its bound, striking it with all his force. His racket is vertical, and is lifted as he strikes, giving a strong over-twist to the ball. The back foot, too, is lifted as the stroke is made, and the whole weight of the body is thrown on to the ball. The elbow and wrist are held perfectly stiff, and the stroke seems to be made almost as much by the forward motion of the body as by the arm. The backhand stroke is made on the same principle, but not quite so well. The style is awkward and uncouth almost beyond conception, but no one who has not played against him can appreciate the suddenness, the accuracy, and the terrible speed of his strokes."

Chipp's description of Lawford's play does not differ in any material respect. He says:—

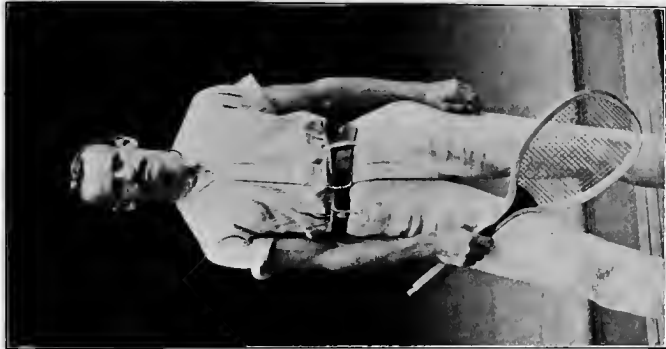
"He took the ball off the ground at about the height of his hip, and in doing so imparted an over-cut to the stroke, which made it a very puzzling one to deal with. His service was not particularly severe, but the length was excellent, and he had a knack of dropping the service very near the half-court line. He could not volley at

all below the level of the net, but anything above his shoulder he 'killed' absolutely and entirely. His backhand stroke was peculiar and decidedly ungainly. The ball was hit with the same face of the racket as for the forehand stroke. His luck was proverbial, but his plucky iron nerve and good condition (he was the only player who may be said to have gone through any systematic training) were the main secrets of his success, backed up, of course, by his powerful physique and accurate and severe returns."

In America, the names of Sears and Dwight have been honored almost as much as those of Renshaw and Lawford abroad. In fact, Sears's career bore a striking resemblance to that of William Renshaw. Both Sears and Dwight enjoyed the advantage of practice abroad, both at Cannes and in England, with the early English masters, and they naturally imbibed some of their ideas. Perhaps because he was younger, Sears made the better use of the new methods of play he had learned from studying the Renshaws' play, and he became invincible on American courts. Slocum, the successor of Sears to the championship, describes the play of the first American champion in the following manner:—

“The contestants, with a single exception, played the base-line game, and that exception was Mr. Sears, who continued his volleying tactics at the service line. The others were unfamiliar with this style of play, and each one who was drawn against the Boston man seemed impelled, as if by a magnet, to direct every return across the centre of the net, and straight into the hands of Mr. Sears, who calmly tapped the ball first to one side of the court and then to the other, and thus won the first championship of the United States without an effort. The racket used by Mr. Sears weighed sixteen ounces, and was much too heavy for ordinary play, but not for his purpose, which was merely to stop or block the ball. The harder his despairing adversaries drove the ball against the heavy racket, the harder it went back. Lobbing or tossing was then unknown, and he was therefore relieved from the greatest danger to which his style of play could have been subjected.”

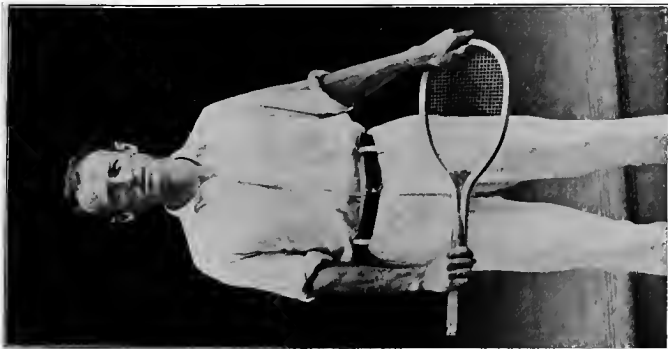
Personally, I never saw Sears play in singles, although I did see him and Dwight play one match in doubles together. The former, however, continued playing in the style described by Slocum, and his reputation was won in this way.



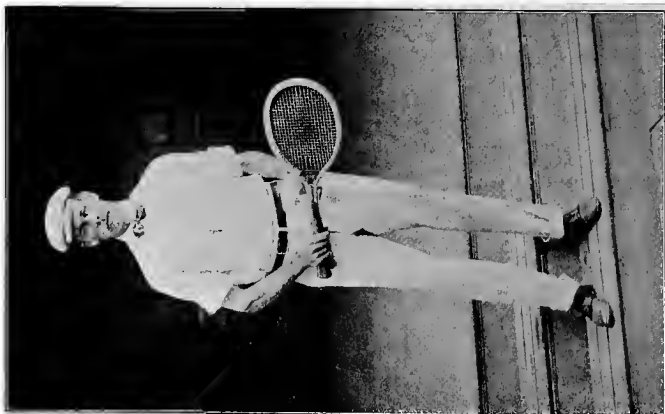
J. FARMLY PARET.



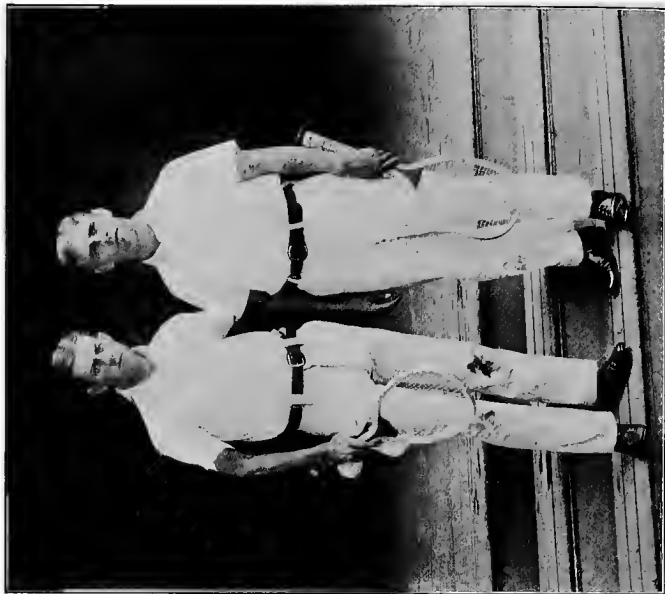
FREDERICK H. HOVEY.



CLARENCE HOBART.



R. P. HUNTINGTON, JR.



KRIECH COLLINS AND L. H. WAIDNER.

Those who often saw him play declare that the most lasting impression was that the other men always did all the running, while Sears stood still in his court and returned the ball from side to side until his opponent gave him an opening for a killing stroke.

Dr. Dwight has often been called the "father of American lawn tennis," and had he been a younger man when the game was introduced, he would probably have been the champion. It was he who taught Sears to play, but he was never able to beat his clever pupil at Newport, although he was generally close behind him in form. Dwight played abroad several seasons, and his opinion, as well as his play, was well appreciated there. Chipp describes his style as follows:—

"He was, as I have said, a confirmed volleyer, and in this department of the game he had few equals. Although, as already mentioned, of low stature, he possessed very long arms, and was extremely active, and the extent of his reach was astonishing to those who met him for the first time. All his strength lay in his volleying powers, for his ground-play was certainly weak by comparison. For this reason he was helpless against such a player as H. F. Lawford, who

always smote him hip and thigh. He dealt very decisively with all overhead turns, and his judgment and knowledge of the game were surpassed by none. One of those players who used their heads as well as their limbs, he was very quick to perceive the weak points in his opponent's game. His service was a peculiar one. It was something like that which E. G. Meers affects, but greater twist was imparted to the ball, and therefore one had to watch it very carefully. He invariably took a couple of steps up to the line when about to serve, dwelling an instant on the line before the ball left the racket — a perfectly fair service."

Chipp's first and only match against Dwight, quite an international affair, was interesting. The Englishman, who was ultimately the winner, describes it thus:—

"We met but once in a single-handed encounter — at Wimbledon in 1884, in the second round of all-comers. A most exciting match ensued. Victory ought certainly to have rested with my friend the enemy. He reached five games to one in the fifth set, and then in the eighth game was four times within a stroke of the match. Even now I can remember my feelings on those four

occasions. How anxiously I awaited his peculiar twisted service, — it seemed to come all round his head, and required careful watching, — wondering whether my time had come. For to miss or even return that service badly meant victory to the Stars and Stripes. But ‘Oft doomed to death, though fated not to die,’ was my position that day. For the luck was slightly against Dwight at this juncture, and I was enabled to win after a desperate struggle. In the last game or two my genial opponent, who was fairly ‘baked,’ caused great amusement by administering to himself an impromptu shower-bath from his pocket-flask.”

Chipp’s “Recollections” of the famous twin brothers Baddeley are set down in his recent book. In speaking of Wilfred, the older (by some twenty minutes), he says:—

“It may be said of him that he is probably the most consistent player the game has yet known.¹ At his highest and best J. Pim was undoubtedly his master, — probably, indeed, the master of any one, — but of no other player of Baddeley’s day can this be said. And possibly in a long series of matches even Pim might

¹ This was written before H. L. Doherty reached his present high standard of consistent high-class play. — J. P. P.

have come off second best, so marked was and still is Baddeley's consistency.

"Like nearly all the great players, he is a past-master in the back of the court, from which position most of his game is played. But he well knows when 'to take occasion by the hand' and by a well-timed volley give a finishing touch to the rest. In driving he takes the ball at the top of the bound, and is equally strong on the fore- or backhand. His activity is boundless, and his powers of endurance are well proved. Perhaps a lob—provided it be of good length—is as effective a weapon as any to employ against him. But it must be used very judiciously.

"His fame as a double player is shared by his brother Herbert, and countless victories—among them the doubles championship on four occasions—have fallen to the lot of the twins. It is whispered that, strong as their combination is, it has been known to show signs of weakness when opposed to hard and accurate hitting and the judicious use of the lob just alluded to. But hard and accurate hitting and judicious lobbing form a combination which is not met with every day. And of this fact the Baddeleys are well aware.

“Although not the equal of his brother as a single player, Herbert Baddeley occupies quite as high a pinnacle in the double game. Indeed, many good judges aver that in a double he is often the stronger player. Whatever may be the fate in store for the famous twins in future seasons, certain it is that their name has become as inseparable from the game of which they are such admirable exponents as that earlier *par nobile fratrum*, the Renshaws.”

PART III

THE PHYSIOLOGICAL SIDE OF THE GAME



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CHAPTER I

THE PHYSICAL EFFECTS OF LAWN TENNIS

IN the long list of recreative and competitive sports, there is not one, except those of actual bodily contact, such as boxing, wrestling, and football, which is physically so severe as lawn tennis. With team games like base-ball, cricket, and lacrosse, there is absolutely no comparison, for each player in these spends more time at rest than in action; such sports as rowing, skating, swimming, and bicycling, where the contestants are under a continuous physical strain throughout the contest, are the only ones to be considered. In these the strain is perhaps greater while it lasts than in lawn tennis, but one might take part in an average race at each of these sports in turn while a single tennis match was in progress.

In a lawn tennis match each of the players is under a continuous and violent physical strain from start to finish, his only opportunity for recuperation being the intermission of seven

minutes between the sets (allowed only by the American rules) which cannot occur more than three times in the longest contest, and the playing time varies from two to five hours. Admitting that lawn tennis is the longest game of continuous activity, one can soon see how severe is the exercise. The play does not consist merely of running around the court and swinging a racket, for to make the ball fly as fast as is required to play well, the whole weight and force of the body must be thrown into each stroke of the arm. In most cases this is done only by the most violent action of the body, arms, and legs combined.

Tournament matches of from two to four hours are of frequent occurrence, and a successful match player must always be prepared for such a strain, for he can never tell in which match it may come. Weeks and sometimes months of rigid training (dieting, exercise, regular hours, and abstinence from smoking and drinking) are frequently undergone properly to fit an expert for an important match; and more than one contest has been lost and won through nervous and physical exhaustion. Let him who thinks lawn tennis "a game for girls" go through

the ordeal of a severe match, endure the actual fatigue, the physical distress, the nervous strain, and the muscular tension necessary to successful play, and then think once more before passing judgment upon a game of the possibilities of which he knows little or nothing.

Lawn tennis is best adapted to young people, and it has proven a wonderful training school for immature organs. The play develops a keen eye, a steady nerve, a strong arm, and rapid judgment, and furnishes plenty of exercise in great variety without the one-sided physical strain which produces the abnormal lungs of a runner, the hollow chest of a bicycle rider, or the muscle-bound shoulder of an oarsman. The advantages of the physical development are shown by the prominence of the most successful tennis experts in other sports, and the general all-round athletic ability of the game's devotees. Those who begin to develop their unformed systems by some sport like this, which does not overtax them, usually make the most successful athletes.

Fortunately the game is one that does not call for unusual qualifications in the beginner, and muscular capabilities do not augur particularly in one's

favor. To play the game well, even to become an expert, does not require powerful arms or legs, great weight or height, or even particular speed or agility. Height undoubtedly is of some advantage to a good tennis player, but strength is little in his favor, and weight not at all. Tall men and short men, strong men and weak men, all have been successful tennis players. I have even known a player with but one arm, one who was badly lame at the hip, and still another who had the use of only one eye, and yet all played the game well. Generally speaking, any boy or young man who has two arms, two legs, and two eyes can become a good tennis player with proper training. Foot-ball requires weight and stolidity; bicycling requires strong legs; rowing, a powerful back; running, strong lungs; and other sports, their different items of individual strength. But lawn tennis demands none of these. Constant play will develop lungs, heart, legs, back, and right arm, but I have known some of the weakest-looking boys to play tennis better than others who were built powerfully, but who knew less of the fine points of the game. In fact, big men have lost more severe matches than small men, and, other things being

equal, the compact man of medium height seems to stand the strain of tennis better than any other.

Those who have studied closest the physical aspects of the game, professionals whose business it is to train athletes, declare that largely developed, hard muscles are not what is needed for skilful play at tennis. The muscles of an expert should be pliable, elastic, and comparatively soft. Once they become developed hard and rigid, they lose much of their ability to move quickly, and the more delicate plays of the game become difficult. Lawn tennis is a game that requires physical rather than muscular development.

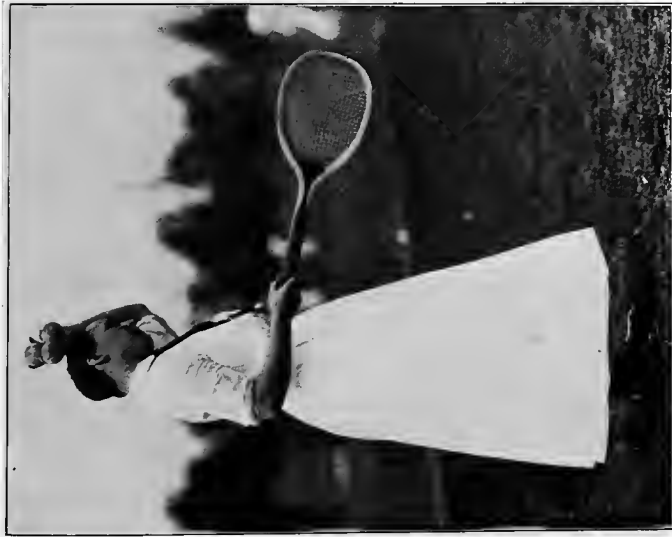
The effects of constant match play, unless carried to excess, cannot fail to be beneficial to any young man who is physically fit. It is unquestionably dangerous to the vital organs of the body to undergo any protracted severe strain without proper preparation; but if one leads up gradually by ample training to even the hardest matches, the strain will seldom prove abusive. A long match, particularly in hot weather, is necessarily a heavy tax upon the system; but proper training will have stored up the vitality that is needed to furnish quick recuperation.

The lungs of most men and women, particu-

larly those who live sedentary lives in cities, suffer from lack of robust rise. They are seldom expanded to their full extent nor in the right direction. Outdoor sports, tennis perhaps the best of all, force the player to breathe fast and deeply, and proper training indicates the best method of expanding the lungs up into the chest. Constant play in the open air develops the lungs and is a valuable aid to the best health.

The same is true of the heart. Fast breathing makes the heart beat fast, and excitement increases its speed. Constant practice under this pressure develops the power of the heart, and although one that has not been accustomed to any unusual tax would "flutter" or stand still at the crucial moment of some great strain in after life, the heart of the tennis player would go on about its business in the ordinary way, because it had become used to excitement and physical strain.

The effect on the nerves, too, is distinctly beneficial. The effect of excitement, such as constantly accompanies tournament matches, is to make the blood throb up into the brain and confuse one's mind and to upset the equanimity of the nerves. This is exactly what happens to a young tennis player in his first tournament, and



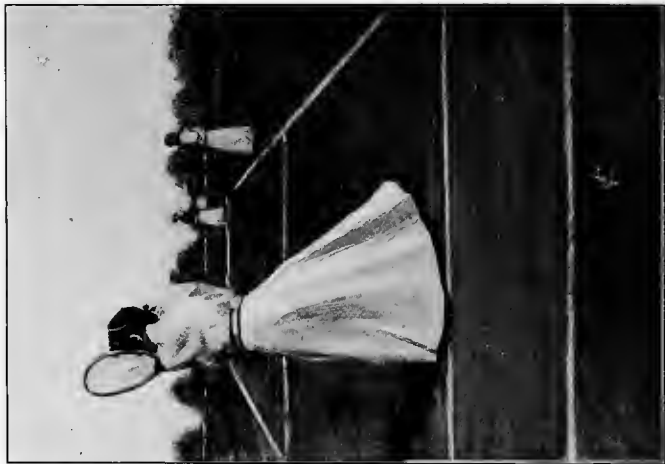
MISS ELIZABETH H. MOORE.



MISS JULIETTE P. ATKINSON.



Mrs. G. W. Hillyard serving.



Miss Juliette Atkinson waiting for the service.

SNAP-SHOTS OF TWO CHAMPION WOMEN PLAYERS.

Note the preliminary forward swing used by Miss Atkinson to bring the racket back quickly.

he is completely "flustered." Let him go on playing in matches, and soon it is only at the critical point of a hard match, when everything hangs on a single play, that his nerves fail him. A little more of the needed experience, and even this nervousness forsakes him and he does not get "rattled" at the time when he needs his steadiness most. The experienced tournament player learns to keep his mental equilibrium and steady his nerves under even the most intense excitement.

The advantage of this ability is sure to prove of inestimable advantage to any man in after life. Put the experienced tennis player alongside of one who has never taken part in sports; imagine the two caught in a burning building and having to slide down a rope for safety, or thrown out of a boat with a long swim necessary to reach land. One will keep cool under the stress of danger and come safely out of the ordeal, while the other will become so overwrought with excitement that even if he keeps his head enough to know what to do, his muscles will often refuse to obey. His nerves will become so unstrung that he is likely to miss his hold and fall to the ground, or get a cramp and sink.

No, whatever may be said of the disadvantage of developing the right arm at the expense of the left (the only physical disadvantage that can be urged against lawn tennis), the game is a wonderful training for the more important struggles of life. Teach any healthy boy to play tennis and he will develop all the vital organs of his body as well as his muscles, and when the strain comes in after life, he will be the one who stands it best. When steady nerves are needed, when a powerful heart or strong lungs are necessary, he will be prepared; when he lies in danger of death from sickness, his greater endurance and vitality will pull him through when another man's light will flicker and go out.

CHAPTER II

TRAINING FOR MATCH PLAY

PHYSICAL training for any athletic contest is unquestionably an excellent thing for any man, but the less preparation he requires to make him fit, the better must be his physical condition. Lawn tennis requires more fitness of physical condition than do most other sports, and although it is sometimes neglected without failure, I am strongly in favor of careful preparation for all forms of tournament or match play. But the most efficient method of preparing for any physical strain is always to keep in good training by the adoption of a regular routine of life which insures rugged health and good physical condition. By that it is not meant to undergo continuously any vigorous course of diet or other training, for too much of this will soon make a man "stale," but simply to observe all of nature's simplest rules for health.

Perhaps the most common enemies a man has to contend with in this respect are alcohol and tobacco. Incessant smoking undoubtedly affects

the power of the lungs and the heart, and too much liquor in any form is injurious in every respect. Smoking in moderation, and by this I mean not more than two or three cigars or as many pipefuls of tobacco a day (cigarettes are always injurious no matter how few are smoked), is hardly likely materially to affect a man's physical strength, and stopping this just before a severe contest will be less of a hardship than if he is accustomed to a more liberal allowance of tobacco.

In the same way, a small amount of wine will not often be found injurious, if a man's system is accustomed to it. Whiskey, brandy, gin, and all other extreme alcoholic drinks are at all times injurious, even in the smallest quantities, and should only be used, by any man with athletic ambitions, for medicinal purposes or as a stimulant in extreme cases of exhaustion. The effect of alcohol taken this way is to accelerate the action of the heart and to generate unnecessary internal heat, which is thrown off in turn by the body in an unnatural and weakening perspiration. A reaction follows quickly, in proportion to the quantity of the alcohol absorbed, and leaves a man's physical vigor and vital energies so much

the weaker. This is not intended as a temperance argument; I urge the absence of alcoholic drinks for physical rather than moral reasons.

In my creed, plenty of sleep, correct methods of breathing, and daily exercise in the open air, all in large doses, are quite as important as temperance in drinking and smoking. The efficiency of a man's lungs and the action of his heart will be most benefited by the systematic habit of taking daily walks, rides, or other exercises in the open air. At such times, and in fact at all times, the head should be carried well up and back, the chest thrown out, and the lungs filled to their fullest capacity, expanding up in the chest, not down against the stomach. If any man who plays lawn tennis will follow such simple rules as these, he will find his health and physical condition always in such shape that he does not require much preparation for match play.

A month before the tournament season opens, some form of regular physical exercise should be taken to harden up the muscles. The legs, back, and arms, of course, require the most attention, although the muscles over the chest and stomach are also brought into constant play during a severe match. Personally, I find the strain hard-

est upon the legs; but this is generally the case with those who play the net game, which requires much more running about the court. There are hosts of ways to develop the leg muscles, or to harden them up after a period of inactivity. Running, fast walking, or swimming will always be found the best method; bicycling is beneficial more to the upper parts of the legs than the calves. Chest weights, Indian clubs, dumb-bells and parallel-bars are all useful for the back, arms, and chest, and rowing on a machine or in a boat will also be found beneficial for this branch of training. Once the body is in condition for play, constant practice in making the strokes, and plenty of it, is necessary before any match, and this in itself will harden up the proper muscles better than any other form of training. Practice can easily be overdone, however, and the muscles develop better if used frequently for short periods than if practice is continued after they begin to tire. An hour's hard practice each day is better than two hours every other day.

The care of the feet and of the right hand requires particular attention if one wants to avoid trouble in tournament play. Nothing will interfere so quickly with a man's ability to play tennis

as soreness or blisters on the hands or feet, and, unless carefully watched, the constant chafing of the racket and shoes is likely to produce distressing results. I have known several players who always begin the season's practice by wearing a glove on the right hand, but I do not think this a wise method to harden up the skin. If the first practice of the season is made light and gradually increased to full length, one should have little difficulty with the skin of the hand; but it is particularly important that play should be stopped at once when the skin becomes chafed or inflamed, or a blister is threatened.

The same is true of the feet, and the results will be quite as disastrous to one's play if blisters are allowed to form. Too much care cannot be taken in the selection of proper shoes for tennis. They should fit exactly. If tight, it will be impossible to play in them at once; if too loose, it will very soon be impossible to play in them. Most tennis shoes, especially those made of canvas and rubber, stretch a little when they have been played in; but it is better to get shoes a little large and wear thick socks for protection to the feet. Soft woollen socks of the heaviest quality are one of the greatest possible advantages one's

feet have for match play, unless they cause excessive perspiration, which is injurious.

Once the hand or foot becomes blistered or badly chafed, play should be stopped at once and not resumed until the skin hardens again, else disastrous results will follow. An inflamed hand or foot should be soaked for some time in the hottest water the flesh can stand, and the inflammation will be checked before a blister is formed. Perhaps the best way, however, to harden the skin so that it will not become inflamed and blister is to soak the hands and feet frequently in cold water well saturated with salt. Sea salt is the best for this, but rock salt or the ordinary table variety will serve the purpose. This is particularly important early in the season when the skin of the feet is generally soft from early practice and the first warm weather.

So much for preliminary preparation. It is when the prospective match is within two weeks that the greatest care must be taken if one wishes to be strong and fit for a severe contest. Once in proper physical condition, the attention must be directed chiefly in the final training to the head and the stomach. The nerves and the eyes must be in good condition on the day of the

match, or one's chances for success are materially lessened. Proper care of the stomach and head is needed to produce this result.

In lawn tennis the one thing I rate above all others as necessary for the proper condition of the nerves is sleep, and nothing will put me off my game as quickly as lack of it. For two weeks before any important match, a man should sleep at least eight hours every night, and those eight hours should be between midnight and 8 A.M., better yet between 11 P.M. and 7 A.M., for it is very much better to sleep in the night than in the morning. The night before any important match, nine or even ten hours' sleep will be a benefit, but the additional time will prove more beneficial if added by going to bed earlier, not by getting up later.

One should always sleep in a room that is well ventilated with fresh air, and it is better to open the window from the top than the bottom. So far as possible, every muscle should be relaxed at night, by not resting in an unnatural or strained position. Sleeping on the face obstructs the breathing and digestion, and on the left side it makes the work of the heart more difficult; so one should sleep on the back or the right side, prefer-

ably on the back, for it is easier then to relax all of the muscles. The temperature of the body at night should always be kept warm, but never should covers enough be put over one to cause perspiration while asleep. Obstructing the breathing, the heart, or the digestion, sweating at night, or breathing bad air will any of them cause dreams; and the more dreamless and quiet is one's sleep, the more refreshing will be the rest.

The rules for diet in training depend largely upon the previous habits of the individual. A radical change in one's food should never be made just before any contest, and the chief change that is necessary is to leave off pastry and highly seasoned dishes, which are difficult to digest. A few simple rules regarding diet will have more effect on a man's physical vigor than elaborate changes of food. One should never eat heartily within two hours before any severe physical exercise, nor within one hour afterward. Particularly on the day of a contest, he should eat very slowly, and the food should be chewed thoroughly before it is swallowed, never bolted.

The question of drinking liquids during meal-times is very important. Warm liquids in mod-

erate quantities may safely be taken while eating and if thirst makes drinking necessary. They tend to draw the blood to the stomach and help the secretion of gastric juices. As they are not retained in the stomach for any length of time, the dilution of the digestive fluids is only temporary. Cold liquids, however, should be avoided while eating or just after meal-times, for their effect is to lessen the flow of blood to the stomach and to delay the processes of digestion. Cold water is a refreshing drink in the morning or between meals (not immediately after eating); but if salty foods are avoided, thirst will not make much liquid necessary. A little restraint will soon accustom one to get along with very little water with meals.

Foods must be largely determined by the individual. That "one man's poison is another man's food" has been amply demonstrated. However, it is well to know the relative values of the different kinds of food in order for one to decide what is best for him. All foods are divided by the experts into three classes: proteids, fats, and carbohydrates. Meat, eggs, and vegetable substances containing albumen are all protein food, and their consumption is necessary

for almost all men, notwithstanding the theories of some vegetarians. Proteids contain nitrogen, which is essentially needed for any one in training or undergoing unusual physical exercise, and the proportion of it should be increased while preparing for any contest. While too much nitrogeneous food is harmful, enough proteids must be taken to supply the needs for building up the muscular tissues and restoring those destroyed by excessive exercise.

Proteids furnish some energy, also, for the temporary use of the body, and the balance should be taken in fats and carbohydrates, which are digested, absorbed, and assimilated in the body through the activities of different organs. The relative amounts of proteid, fats, and carbohydrates that should be taken depend chiefly on the capacity of the individual to digest and dispose of these different kinds of foods, which is generally indicated by the appetite or desire.

The best diet for a man in training for lawn tennis, therefore, should contain all these classes of food, — carbohydrates to supply the immediate demands for energy, fats to give a concentrated store of energy as a reserve supply, and

proteids to build up the tissues of the body and make up for the unusual wear and tear resulting from violent muscular exercise. Food should be taken at regular intervals and only then, for the digestive glands work best when called upon at regular periods and allowed to rest in the intervals. Above everything else, the greatest care should be taken to insure regular action of the bowels. If waste matter is allowed to remain in the intestines, by constipation or any other lack of regular action, abnormal fermentation will follow and poisonous substances will be generated and carried to the nerves, with disastrous results.

A new theory has recently been developing among scientific students of the relation of foods to human energy, in regard to the usefulness and effect on the system of sugar. This used to be forbidden in all its forms to men in training, but recent experiments have shown this practice to have been all wrong in theory. Now the experts are beginning to believe that sugar is a powerful "fuel-food," and many of the professional athletic trainers are beginning to allow it for their men. It is stated on authority of Courtney, the trainer of the Cornell University

rowing crew, that men in training seem to crave sugar, and he allows it *ad libitum* with breakfast cereals and with tea and coffee.

Already some of the Continental scientists have been convinced of the usefulness of sugar as a food, and it is being fed to the troops in both the German and French armies by the military authorities. It is believed that the effect on the system of sugar, if it is not allowed to ferment in the stomach, is much like that of alcohol, except that its effect is slower and little or no reaction follows. Sugar is probably the most concentrated of all carbohydrates, and not only generates great energy, but is also lasting in its effect. Chocolate is well known to contain great nourishment, and can be freely used in its sweetened form with sugar.

There can be no doubt that men combining close diet with constant physical effort crave either sugar or alcohol. The one seems to take the place of the other, and a man does not want both. Alcohol induces great energy for a short time if the body is well supplied with food, but it also excites the nerves and the reaction leaves the body weaker; sugar seems to give nearly as much

energy, and also furnishes food, if taken regularly before physical effort, and does not bring on the reaction. My own personal experience would seem to support this theory, for I have always used large quantities of sugar and have never cared for alcohol. I have generally reduced the allowance of sugar for the meal immediately before any hard match, however, because the sweet seemed to "slow up" my activity. After any hard strain, I have always craved sugar above everything else, and as I have generally gratified this taste and have still shown much more than the average energy and endurance, with, perhaps, less than the average physique to build on, the new theory seems to work out rather favorably, at least in my own case. I cannot tell, of course, how well it would affect other systems, but I should certainly recommend giving it a fair trial. If sugar will take the place of alcohol, it should by all means be allowed to men in training for lawn tennis, for alcohol should be used least of all forms of fuel for physical energy.

Coffee, tea, and chocolate are stimulants of a milder form, and seldom work any injurious effects. They assist the tissues of the body in making use of the energy supplied to them and

bring on little or no reaction. The English habit of drinking hot tea while exercising has much to recommend it, since the hot liquid is a mild stimulant to their energies, it serves to quench thirst, and does not chill the stomach while the energies are in use. English lawn tennis players make a regular practice of drinking hot tea between matches, and Americans would find the habit much more beneficial than the iced drinks to which they are accustomed.

Within two weeks before any important contest, I would urge a man who drinks moderately to give up alcohol entirely, or an excessive drinker (if indeed it be possible for such a man to undergo the physical strain at all) to reduce his allowance to the very lowest limit, but not to give it up entirely. The same is true in regard to the use of tobacco. For any man who is a constant smoker or drinker to give up his habit entirely would have an injurious effect upon his nerves, and probably upon his sleep. I doubt if the benefit would be as great as the loss.

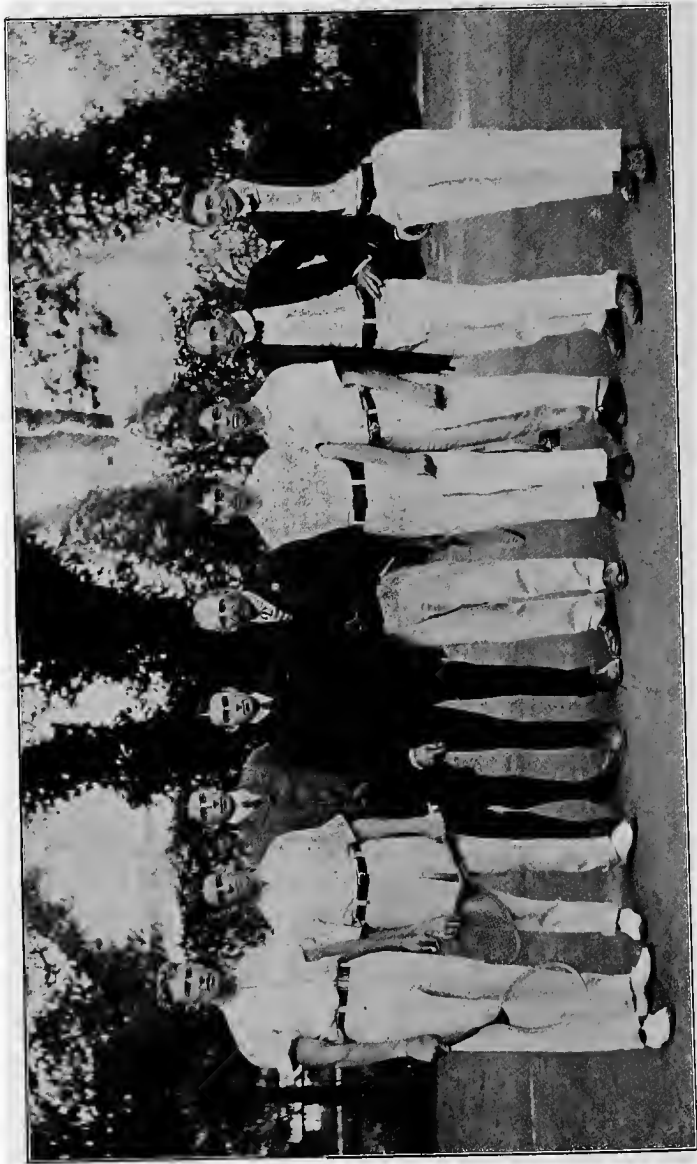
A wise old German proverb says that

“For want of a nail the shoe was lost ;
For want of a shoe the horse was lost ;
For want of a horse the man was lost ;
And all for the want of a horseshoe nail.”



M. G. Chace O. S. Campbell Richard Stevens R. D. Wrenn
W. A. Larned F. H. Hovey Clarence Hobart

A GROUP OF FAMOUS AMERICAN EXPERTS.



THE ATLANTIC COAST AND PACIFIC COAST TEAMS, IN CALIFORNIA, 1899.
(Whitman, Wright, Davis, Ward — George Wright, Manager — Hardy brothers, Whitney brothers.)

Many a lawn tennis match has been lost because one of the players did not know how to breathe properly, although the statement seems as surprising as the loss of a man for want of a horseshoe nail.

If proper attention is given to just such minor details as breathing, sleeping, and eating, the match will be won if energy and endurance can win it. The more brilliant tennis player has often been beaten by a less skilful brother in better physical condition.

CHAPTER III

CARE OF THE BODY UNDER PHYSICAL STRAIN

EVEN after a period of the most conscientious training, too much attention cannot be given to the care of the body before, during, and after any severe physical strain, and proper attention to this duty has won many important contests. After training for at least two weeks before a hard match, it ought not to be difficult for any skilful player to show his best form on the court, if he will take reasonable precautions to husband his energies.

First, it is important that he should have slept well the night before the anticipated contest, and he should avoid worrying about or thinking too much over the coming match. Particularly if he be nervous of temperament, this will soon cause him to lose sleep and upset his nerves. There should be at least two hours after eating before a player should go into court, and a short slow walk will often aid digestion; but no more

exercise than is necessary should be taken before the play begins.

The last thing before dressing and going on the court, it is well to have a friend rub him down with some good liniment. Alcohol is perhaps the most important ingredient of such a liniment, for it gives a stimulus to the blood, and increases the energy while the effect lasts. Clear alcohol, however, should be used only when a player is badly exhausted, for its effect is too strong, and the reaction comes too soon. Mixed in proportion with witch hazel, it makes an excellent liniment; but a still better one, I find, is that which is used by Harvard athletes. Particularly in hot weather will this liniment be found beneficial, for it contains menthol, and gives a cooling effect to the skin and relief from the burning due to severe exercise; while at the same time the camphor and other ingredients furnish warmth and energy for the blood and nerves.

The prescription for this liniment is as follows:—

Lin. Supo. camphor	.	.	.	260 grains.
Menthol	4 grains.

With either this or some other invigorating liniment, the player's legs, back, chest, shoulders,

and arms should be vigorously rubbed. It is well to chafe or slap the flesh until it becomes pink and the blood comes to the surface; then a small amount of the liniment will have a better effect, as the stimulant reaches the blood sooner, and is so carried through the whole system. The body should be thoroughly dried before the player dresses, and he should never be allowed to go on the court with his skin still damp.

A few suggestions from an experienced tournament player will perhaps be found useful by others who engage in match play. Great care should be taken to save your strength as far as possible during the match. While you should not miss any opportunity to force the play, and keep your opponent constantly on the move, particularly if he shows any signs of distress, you should take ample time between the points to recover your breath. After an exciting rally you should throw your head back as far as possible, and breathe slowly and deeply, expanding your lungs up into your chest, and then walk slowly back to your position for the next play, not hurriedly.

During the progress of the game, no liquid should be swallowed. I know this rule is con-

stantly broken; but I am confident that if any player will practise enough self-denial to suppress his thirst until after the match is over, his strength at the end of it will be materially greater as the result. A good substitute for drinking while play is in progress is to rinse the mouth out frequently with cold water. The tongue often becomes very parched, particularly in hot weather, and a burning thirst makes it seem as if some drink is absolutely necessary; but this use of water without swallowing it will go a long way toward relieving the hardship. If it becomes absolutely necessary to drink something while play is in progress, cold water is the very last thing that should be used, for it chills the stomach and detracts materially from the body's heat, which is necessary to maintain one's full energy. A small swallow of ginger ale or some other non-alcoholic drink that contains warmth is far preferable.

In America we are allowed a rest of seven minutes after the third set of a tournament match, although under English rules play continues from the beginning of the match to its end, no matter how long it may last. Under our rules a splendid opportunity is offered for reviving a

player who has become physically exhausted, and it is almost invariably used for this purpose. The player's friends hustle him into a dressing-room, take off his clothes, and rub him down thoroughly during this time, so that when he goes out for the next set he is materially refreshed and resumes play with a renewed vigor.

It is important that he should go out into the bright sunlight of the court again two or three minutes before he begins to play, in order that his eyes may become accustomed once more to the brilliant light. Most dressing-rooms are comparatively dark, and I have seen many sets lost and won because one of the players remained inside of this dark room until his seven minutes were up, and when he went out on the court again, he was required to begin play at once while his eyes were still unaccustomed to the change of light. If his opponent had the good sense to remain out in the brilliant sunlight, he often found the first few games were easy for him, and perhaps the whole set, before the other man got back into his true playing form again.

It is undoubtedly beneficial to rub a man down between sets. The legs, shoulders, and right arm require the most attention, but the

chest, back, and particularly the muscles just over the stomach should be carefully rubbed by those who are caring for the tired player. Especially in very hot weather it is wise to dry thoroughly a man's skin before rubbing him down, and while this is being done with a dry towel, the heated blood that is surging through the brain should be cooled off gradually by placing over the forehead and temples another towel or sponge soaked in cold water. While his head is being cooled off, his body and muscles should be kept warm.

When a man is badly exhausted, an excellent method of reviving him is to use a stiff brush for rubbing the skin, particularly over the muscles which are most used, after it has been thoroughly dried of all perspiration. After rubbing with a brush until the skin turns pink, a short application of clear alcohol and some massage of the muscles will revive an exhausted man very quickly. When a tennis match is finally over, the player should lie down and rest for at least ten or fifteen minutes, in order that the blood may cool and the flow of perspiration stop, before taking the usual shower bath or dressing. To check the perspiration too quickly

is injurious, and if one takes his bath or dresses before the blood has cooled off, it will break out again immediately after.

One other suggestion I can offer, that has proved very useful to me and may be welcomed by other players of a nervous temperament. If one feels anxious about the results of an important match, his nerves are very likely to be unsteady, and if this nervousness appears in the stomach, as it frequently has with me, it will be found a splendid way to stop it to eat half a cracker or a small morsel of dry bread just before going on the court. The fresh food will not be enough to interfere with one's activity, and the nervousness will soon disappear.

A man's body is composed of more than four-fifths of moisture, and no matter how well it is trained, or how little fat there may be over the muscles, constant perspiration will reduce the weight rapidly. The average loss to the trained oarsman in the four-mile college races is about four pounds, but, in hot weather, the loss is even greater in lawn tennis. In a single championship match, which lasted over four hours, in 1899, I lost eight and a half pounds, although already considerably below normal training weight when

I went on the court. It is just like wringing out a sponge, and the flesh is very dry and the man is very thirsty after this loss. While it is not wise to eat very soon after finishing a hard match of this kind, it is necessary that a good deal of liquid should be swallowed and absorbed back again into the flesh to make up for the weight that has been sweat away. Within six hours after the match which I have just referred to, I had regained five of these eight and a half pounds by eating and drinking.

There are unlimited dangers for a tournament player who is constantly taking part in matches to get "stale," and this generally results from overtraining or too much competition. In hot weather a player loses some weight in each match, that he cannot regain at once, and if matches are played very close together, he is constantly growing lighter. This in itself will soon make a man stale, unless he takes some rest, and once he has become stale he should stop playing at once. The fact that he is stale will first be apparent by the effort that is necessary to make himself play. All interest in the game has left him, and he plays because he is expected to, not because he wants to. Instantly

this feeling becomes apparent, a player should stop practice until the game seems attractive once more. In that condition he can never expect to win.

Staleness, the worst of all dangers threatening an athletic man, appears in all sports, and it is often due to other causes than too much competition. The human body as well as the mind grows very tired of monotony, and fixed habits often grow very monotonous in training and become repugnant. If a man's play goes off badly, and he still finds the game attractive but can't seem to play it as he did before, he has probably gone stale from other causes than too much practice or competition. At such a time he should single out any feature of his training habits that has become repugnant and alter it.

Change of subject or scene is always beneficial, and a change of diet is important. If the player is accustomed to smoking and has left it off, a little tobacco will do no harm, and if he has been denying himself liquors, a little ale, claret, or porter, or in an extreme case a little champagne or other effervescent wine, will generally be a good thing for him. Breaking the usual training rules in regard to sleeping, sweating, foods,

or pastry will never help in this respect. If cold baths seem repugnant, a lukewarm (never hot) one should vary the monotony. If he has eaten much sugar, he should cut it off; if very little, he should add some to his bill of fare.

When stale from too much tennis, take up some other athletic game that proves interesting and will not lame the tennis muscles for a few days. Bicycling, golf, light rowing, and swimming will be found excellent variations for the monotony and will keep the muscles hard. Hard rowing, base-ball, running, jumping, or other very serious exercises will temporarily lame new muscles and handicap one's tennis when he returns to it.

PART IV

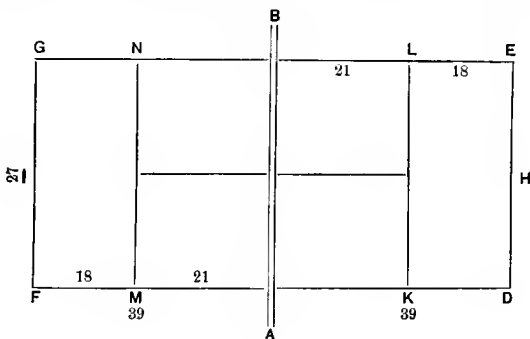
LAWN TENNIS ENCYCLOPÆDIA

CHAPTER I

THE LAWS OF LAWN TENNIS¹

The Court

1. The court is 78 feet long and 27 feet wide. It is divided across the middle by a net, the ends of which are attached to two posts, *A* and *B*,



standing 3 feet outside of the court on either side. The height of the net is 3 feet 6 inches at the posts and 3 feet in the middle. At each end

¹ As adopted by the United States National Lawn Tennis Association, with annotations to show how the English rules differ from the American.

of the court, parallel with the net, and 39 feet from it, are drawn the base lines *DE* and *FG*, the ends of which are connected by the side lines *DF* and *EG*. Halfway between the side lines, and parallel with them, is drawn the half-court line *IH*, dividing the space on each side of the net into two equal parts, the right and left courts. On each side of the net, at a distance of 21 feet from it, and parallel with it, are drawn the service lines *KL* and *MN*.

The Balls

2. The ball shall measure not less than $2\frac{1}{2}$ inches, nor more than $2\frac{9}{16}$ inches in diameter; and shall weigh¹ not less than $1\frac{5}{16}$ ounces, nor more than 2 ounces.

The Game

3. The choice of sides, and the right to serve in the first game, shall be decided by toss; provided that, if the winner of the toss choose the right to serve the other player shall have choice of sides, and vice versa, or the winner of the toss may insist upon a choice by his opponent. If

¹ In England, the minimum weight of the ball is fixed at 17 ounces.

one player choose the court the other may elect not to serve.

4. The players shall stand on opposite sides of the net; the player who first delivers the ball shall be called the server, and the other the striker-out.

5. At the end of the first game the striker-out shall become server, and the server shall become striker-out; and so on alternately in all the subsequent games of the set, and following sets.

6. The server shall serve with both feet behind, *i.e.* further from the net than, the base-line and within the limits of the imaginary continuation of the centre service and the side lines. It is not a fault if one only of the server's feet do not touch the ground at the moment at which the service is delivered. He shall place both feet upon the ground immediately before serving, and shall not take a running or a walking start. He shall deliver the service from the right and left courts alternately, beginning from the right, in each of his service games, even though odds be given or owed.

7. The ball served must drop between the service line, half-court line, and side line of the

court, diagonally opposite to that from which it was served.

8. It is a fault if the ball served drop in the net, or beyond the service line, or out of court, or in the wrong court; or if the server do not stand as directed by law 6. If the server, in attempting to serve, miss the ball altogether, it does not count a fault, but if the ball be touched, no matter how slightly, by the racket, a service is thereby delivered, and the laws governing the service at once apply.

9. A fault cannot be taken.

10. After a fault the server shall serve again from the same court from which he served that fault, unless it was a fault because he served from the wrong court.

11. A fault cannot be claimed after the next service is delivered.

12. The server shall not serve till the striker-out is ready. If the latter attempt to return the service, he shall be deemed ready.

13. A service or fault delivered when the striker-out is not ready counts for nothing.

14. The service shall not be volleyed—that is, taken before it has touched the ground.

15. A ball is in play on leaving the server's

racket, except as provided for in law 8, and remains in play till the stroke is decided.¹

16. It is a good return, although the ball touch the net; but a service, otherwise good, which touches the net shall count for nothing.

17. The server wins a stroke if the striker-out volley the service, or if he fail to return the service or the ball in play; or if he return the service or the ball in play so that it drops outside of his opponent's court; or if he otherwise lose a stroke, as provided by law 20.

18. The striker-out wins a stroke if the server serve two consecutive faults; or if he fail to return the ball in play; or if he return the ball in play so that it drops outside of his opponent's court, or if he otherwise lose a stroke, as provided by law 20.

¹ The English rule defining "in play" is much more comprehensive than the American, although it does not differ in its effect. It reads as follows: "A ball is in play from the moment at which it is delivered in service (unless a fault) until it has been volleyed by the striker-out in his first stroke, or has dropped in the net or out of court, or has touched either of the players or anything that he wears or carries, except his racket in the act of striking, or has been struck by either of the players with his racket more than once consecutively, or has been volleyed before it has passed over the net, or has failed to pass over the net before its first bound, or has touched the ground twice consecutively on either side of the net, though the second time may be out of court."

19. A ball falling on a line is regarded as falling in the court bounded by that line.

20. Either player loses a stroke if the ball touch him, or anything that he wears or carries except his racket in the act of striking; or if he touch the ball with his racket more than once; or if he touch the net or any of its supports while the ball is in play; or if he volley the ball before it has passed the net.

21. In case a player is obstructed by any accident not within his control, the ball shall be considered a "let." But where a permanent fixture of the court is the cause of the accident, the point shall be counted. The benches and chairs placed around the court shall be considered permanent fixtures. If, however, a ball in play strike a permanent fixture of the court (other than the net or posts) before it touches the ground, the point is lost; if after it has touched the ground, the point shall be counted.

22. On either player winning his first stroke, the score is called 15 for that player; on either player winning his second stroke, the score is called 30 for that player; on either player winning his third stroke, the score is called 40 for that player; and the fourth stroke won by either

player is scored game for that player, except as below: If both players have won three strokes, the score is called *deuce*, and the next stroke won by either player is scored *advantage* for that player. If the same player win the next stroke, he wins the game; if he lose the next stroke, the score returns to deuce, and so on until one player wins the two strokes immediately following the score of deuce, when game is scored for that player.

23. The player who first wins six games wins the set; except as below: If both players win five games, the score is called *games all*; and the next game won by either player is scored *advantage game* for that player. If the same player win the next game, he wins the set; if he lose the next game, the score returns to games all; and so on until either player wins the two games immediately following the score of games all, when he wins the set. But the committee having charge of any tournament may in their discretion modify this rule by the omission of advantage sets.¹

24. The players shall change sides at the end

¹ Under English rules, "players may agree not to play advantage sets, but to decide the set by one game after arriving at the score of games all."

of the first, third, and every subsequent alternate game of each set, and at the end of each set, unless the number of games in such set be even. It shall, however, be open to the players by mutual consent and notification to the umpire before the opening of the second game of the match, to change sides instead at the end of every set, until the odd and concluding set, in which they shall change sides at the end of the first, third, and every subsequent alternate game of such set.

25. In all contests the play shall be continuous from the first service till the match be concluded; provided, however, that at the end of the third set either player is entitled to a rest,¹ which shall not exceed seven minutes; and provided, further, that in case of an unavoidable accident, not within the control of the contestants, a cessation of play which shall not exceed two minutes may be allowed between points; but this provision shall be strictly construed, and the privilege never granted for the purpose of allowing a player to recover his strength or wind. The referee in his discretion may at any time postpone the match on account

¹The English rules do not permit any rest at all during the progress of a match.



W. H. COLLINS,
PRESIDENT ENGLISH L. T. A.



DR. JAMES DWIGHT,
PRESIDENT U. S. N. L. T. A.



D. F. DAVIS AND HOLCOMBE WARD.

Champions in doubles for three years.

of darkness or condition of the ground or weather. In any case of postponement the previous score shall hold good. Where the play has ceased for more than an hour, the player who at the cessation thereof was in the court first chosen shall have the choice of courts on the recommencement of play. He shall stay in the court he chooses for the remainder of the set. The last two sentences of this rule do not apply when the players change every alternate game as provided by law 24.¹

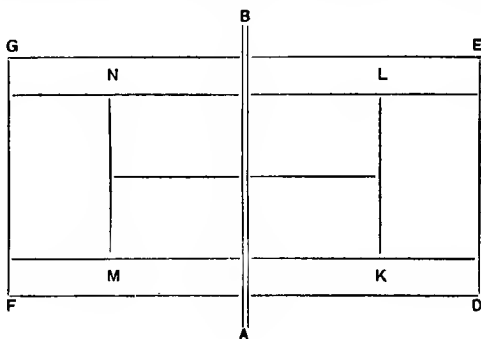
26. If a player serve out of his turn, the umpire, as soon as the mistake is discovered, shall direct the player to serve who ought to have served. But all strokes scored before such discovery shall be counted. If a game shall have been completed before such discovery, then the service in the next alternate game shall be delivered by the player who did not serve out of his turn, and so on in regular rotation.

27. The above laws shall apply to the three-handed and four-handed games, except as below:

¹ An exception to this rule was made at the annual meeting of the U. S. N. L. T. A. in 1902, when it was officially decided that "all matches in which women take part in tournaments held under the auspices of the U. S. N. L. T. A. shall be the best two in three sets, with a rest not exceeding seven minutes after the second set."

The Three-handed and Four-handed Games

28. For the three-handed and four-handed games the court shall be 36 feet in width; $4\frac{1}{2}$ feet inside the side lines, and parallel with them, are drawn the service side lines *KM* and *LN*. The service lines are not drawn beyond the



point at which they meet the service side lines, as shown in the diagram.

29. In the three-handed game the single player shall serve in every alternate game.

30. In the four-handed game, the pair who have the right to serve in the first game shall decide which partner shall do so; and the opposing pair shall decide in like manner for the second game. The partner of the player who served in the first game shall serve in the third,

and the partner of the player who served in the second game shall serve in the fourth, and the same order shall be maintained in all the subsequent games of the set.

31. At the beginning of the next set either partner of the pair which struck out in the last game of the last set may serve, and the same privilege is given to their opponents in the second game of the new set.

32. The players shall take the service alternately throughout the game; a player cannot receive a service delivered to his partner; and the order of service and striking-out once established shall not be altered, nor shall the striker-out change courts to receive the service till the end of the set.

33. It is a fault if the ball served do not drop between the service line, half-court line, and service side line of the court, diagonally opposite to that from which it was served.

34. It is a fault if the ball served do not drop as provided in law 33, or if it touch the server's partner or anything he wears or carries.

CHAPTER II

DECISIONS ON DOUBTFUL POINTS OF PLAY

ALTHOUGH the laws of lawn tennis, both in America and abroad, are carefully worded so as to prevent any possibility of misunderstanding, doubtful points which are difficult to decide frequently come up in the course of tournament and match play, and sometimes in ordinary practice games. In England there is a series of seven decisions on "Knotty Points" which has been officially approved by the national governing body, while in America Dr. Dwight has compiled a code of "Cases and Decisions" which has been officially recognized here. In only one or two minor details do these decisions disagree, but they do not cover all doubtful points. Inexperienced players frequently misunderstand some of the rules, and are puzzled by the simplest points which are not clearly laid down in the codes. It is possible that the following decisions repeat some points which ought to be understood by reading the laws. They also include a digest

of the two official codes in the most convenient form for reference, showing where they differ:—

The Service

1. The service always begins from the right-hand court, even though odds are given or owed, and always continues alternately from the left and right courts to the end of each game. (See law 6.)

2. It is not a fault if the server in attempting to serve, misses the ball altogether, but if his racket touches it, no matter how slightly, it is in play, and must be a fault, a let, or a good service, according to where it strikes. Touching the player's clothes, or body, does not make it a fault unless it is put in play first by touching the racket.

3. In no case may the striker-out volley the service, not even if the ball seems certain to fall outside of the service-court. (See law 14.)

4. The server may not serve either the first or the second ball until the striker-out is ready. Calling "Play" for the first service does not make the striker-out ready for the second.

5. When a good service is delivered before the striker-out is ready, the ball is in play if he

makes any attempt to return it, and he loses a stroke if he fails. (See law 12.)

6. If the striker-out calls "Not ready" to the server, the ball must be served again even if it is a fault. (See law 13.)

7. A fault cannot be played as good, and the striker-out has no option at all in the matter; it does not make a service good if he returns it.

8. A fault is not a let because it touches the net. A served ball becomes a let by touching the net only if it is otherwise good.

9. No number of lets equal a fault. The server may make as many lets as he can, and the service continues from the same court until two faults or one good service has been delivered.

10. A ball served from the wrong court or into the wrong court, or by the wrong player in doubles, is a fault under all circumstances, but the penalty cannot be claimed after another service has been delivered. (See laws 8, 11, and 30.)

11. If the service has been delivered from the wrong court or by the wrong player in doubles, the proper order must be resumed. In the latter case, however, if the error is not claimed until the next game has been started, the partner of the

player who served out of turn must serve in the next alternate game. (See laws 26 and 30.)

12. In doubles, the server is not required to receive first in the right-hand court. It is entirely optional which courts the partners select, but they must keep the same courts throughout the set.

13. The partner who served last in one set may also serve first in the next if he pleases. The partners must alternate only during a set.

Good and Bad Returns

14. It is a good return if a ball in play (except on a service) strikes any part of the net or its supports, the posts, or the centre stay, no matter how low down, and eventually goes over the net and into the proper court, before touching the ground.

15. It is a good return if the ball passes outside of the net-post, either above or below the level of the top of the net, and drops into the proper court. If the ball passes between the net and the post, but below the top cord supporting the net, the stroke is lost, for the net is presumed to cover that space.

16. If a ball in play drops into the proper court, and bounds back over the net, the player

whose turn it is to strike may reach over the net and play the ball. If he fails to hit such a ball, the stroke must be scored for his opponent, notwithstanding the fact that the ball has bounded back over the net.

17. A player does not lose a stroke because his racket passes over the net after he has hit the ball, providing that the ball had passed over to his side of the net before being played. (See law 20.)

18. It is a good return if a player succeeds in returning a ball in play after it has struck another ball lying in the court. If the wrong ball is returned, the stroke is lost, but if the umpire is in doubt as to which ball was returned, he should order a let.

19. A player loses a stroke if he touches, or any part of his person, clothing, or racket is touched by, a ball in play (unless he thereby makes a good return), no matter whether he is standing inside of the court or out. A return must always be presumed to be good until it touches the ground outside of the proper court.

20. Striking at a ball in play that ultimately falls out of court does not make the return good. It is out just the same and the player who hit it

last loses the stroke unless it touches the opponent's racket, person, or clothing.

21. A player loses a stroke if any part of his person, clothing, or racket touches the net, the posts, or other supports of the net, while the ball is in play. In doubles, he loses if his partner touches the net or its supports. (See law 20.)

22. A player loses a stroke if his racket slips out of his hand and touches the net, a post, or any of the supports of the net, while the ball is in play.

23. A player loses a stroke if he jumps over the net to avoid touching it while the ball is in play. (See law 4.)

24. A player loses a stroke if he catches the ball on his racket and drops or throws it into the proper court. This is not an "act of striking" as required by law 20.

25. A player loses a stroke if he throws his racket at the ball and so returns it into the proper court. Neither is this an "act of striking" as required by law 20.¹

¹ Dr. Dwight has put on record a decision (No. IX) to the contrary, and it is generally accepted in America, although the official English decision distinctly declares this to be an illegal return. The English decision seems to me more in accordance with equity, and I have given it the preference here. — J. P. P.

Lets

26. A let should be allowed if a spectator or linesman or umpire interferes in any way with a player while the ball is in play. (See law 21.)

27. A let should be allowed if a linesman or umpire erroneously calls "fault" and then corrects himself, and the next player fails to return the ball.

28. There is no redress for a player who mistakes a linesman's or umpire's call and stops when the ball is still in play. A let cannot be allowed in this case.

29. A let should be allowed if an idle ball is thrown into the court while the ball is in play. If it rebounds from the back-stop or elsewhere through impetus received from a previous stroke in the same court, or is kicked in by either of the players, no let can be allowed.

30. No let can be allowed because a player steps on an idle ball which was there before the stroke began, or because the ball in play strikes it. A player must keep his court free from idle balls, or suffer the penalty.

31. No let can be allowed because a player drops or breaks his racket, because his shoe-lace

or any other part of his clothing becomes disarranged, or because he falls down while playing.

32. A let does not annul a previous fault.¹

33. All decisions regarding lets are within the jurisdiction of the umpire, not the linesmen.

Matches

34. Whenever an unfinished match is interrupted on account of rain or darkness or for any other reason, it must be resumed from the exact point where it was discontinued. It may be started again only with the mutual consent of the referee and all of the players engaged. (See law 25.)

35. If a handicap match is played at the wrong odds, the result must stand, unless the players were wrongly instructed by the referee, tournament committee, or any other person acting under official instructions. In such a case,

¹ This decision has been rendered in both England and America, but I cannot agree with it. If the interruption comes after the server has made at least one good return, the ball is then in general play and the disadvantage of the first fault presumably has been overcome. I am convinced that in such a case, at least, the server should be entitled to the usual two services. It is sometimes difficult to decide as required, because there is seldom any official record of single faults. — J. P. P.

the loser may claim the right to have the match replayed, unless the mistake in the odds was in his favor. Such a claim must be made before the winner has started another match in the same event.

36. Neither the umpire nor the referee has the power to reverse any decision of a linesman, whether right or wrong, and either can decide a question of fact on any line only when appealed to by the linesman in whose jurisdiction that line lies. A linesman or umpire should never change his decision on a question of fact.¹

¹ I regret that this cannot be put more strongly, but there is no law or official decision in England or America that makes it imperative that the first decision on questions of fact must stand. The greatest curse of match playing is a vacillating umpire or linesman. — J. P. P.

CHAPTER III

SUGGESTIONS AND REGULATIONS FOR TOURNAMENTS

ALL tournaments held under the jurisdiction of the English Lawn Tennis Association are required to conform to an excellent set of "Regulations for the Management of Lawn Tennis Prize Meetings," and a similar code has recently been adopted for American tournaments. I have compiled the following rules and suggestions for the guidance of clubs holding tournaments, but they are not intended in any way to supersede the American or English "Regulations." They include, however, all of the cardinal points of both codes with many other suggestions, and tournament committees would do well to follow them closely.

I. Selecting a Tournament Committee. — A tournament committee should first of all be selected with not less than five men, as many as possible of them practical workers who have the time and inclination to look closely after the interests of

the club. At its first meeting, the committee should decide upon all details of the tournament. In selecting a date, it is advisable to choose one immediately before or after some established tournament in the neighborhood, for then the entries of those who are to play in the other event can generally be secured.

2. **Applying for Official Sanction.** — Application should be made to the Secretary of the United States National Lawn Tennis Association for official sanction for the tournament, stating dates and other particulars. If any championship events are to be held, official recognition must be secured before these titles can be of any value.

3. **Circular of Conditions.** — A printed circular should be issued by the tournament committee, which should state plainly: (1) the name of the club and the location of the courts; (2) the date of the meeting, and the hours of play; (3) the list of events, and the championship titles (if any) to be competed for, with the prizes offered for each event; (4) the amount of the entrance fees, and place and date for closing the list of entries; (5) the names of referee, handicapper, and tournament committee; and (6) the time and place for the draw to be made.

4. **Drawing the Entries.**— The draw should always be made by the committee in public, and due notice, either in the tournament circular or otherwise, should be given to the competitors, so that they may be present or represented when the draw is made. The draw should always be made by the Bagnall-Wilde system, rules for which follow.

5. **The Selection of Prizes.**— No money or its equivalent in any form may be offered in prizes, for this would disqualify the players from future competition as amateurs. Prizes should be trophies of silver, gold, or cut glass, or objects of art which can be suitably marked or engraved as souvenirs. It is preferable to have them marked before the tournament, although lawn tennis prizes are frequently bought with the privilege of exchange.

6. **The Selection of a Referee.**— The committee should select a referee, either from among their own number or outside of the committee. If handicaps are to be held, the referee may also be the handicapper, or a sub-committee may be appointed for the purpose of assigning the handicaps. Should the referee be also a competitor, a substitute should be appointed to act for him while he

is playing. A man should be selected who is thoroughly familiar with all the laws of the game, and he should always have a copy of them with him while play is in progress.

7. **The Referee's Duties.** — It is the duty of the referee: (1) to arrange the programme for each day's play, and to assign courts for each match; (2) to select an umpire and linesmen for each match; (3) to decide any point of law (not of fact) on which he may be appealed to; and (4) to keep the official records of the matches and give information about them to the press.

8. **The Umpire's Duties.** — It is the duty of the umpire: (1) to measure and adjust the net whenever appealed to by a player; (2) to call the score after each point and after each game; (3) to keep a written record of the score which should be handed after the match to the referee; (4) to decide whether a player reaches over or touches the net while in play, and whether the ball goes over, under, or through the net; (5) to decide whether a ball is hit after its first or second bound, and to call "not up" if the return is not good in this respect; (6) to call "let" when a served ball touches the net and goes over; if it is a fault, the linesman's cry of "fault" nullifies the

“let” of the umpire; (7) to decide any doubtful ball or to order a “let,” if appealed to for a decision by the linesman who had jurisdiction over the doubtful ball, but only after such an appeal; (8) to direct the players to change sides as provided in law 24; (9) to time the players while resting between sets, and to enforce the return to the court of the players at the expiration of the interval allowed by the rules; (10) to decide all claims for “lets” on account of interference or other reasons; and (11) in handicap matches, to explain the odds to the players, if necessary, and to announce them at the beginning of each game, as part of the regular score.

9. **Linesmen and Their Duties.** — In important matches there should be seven linesmen in addition to the umpire, one for each base line, one for each service line, one for the half-court line, and one for each side line. It is the duty of each linesman: (1) to decide whether any ball in play strikes the ground outside of the line over which he holds jurisdiction; (2) if it does, to call “out” as soon and as loud and distinctly as possible; and (3) to answer promptly any inquiry from a player on a doubtful ball in his jurisdiction, with either “out” or “good.” Linesmen should never

call a ball "good" unless specifically asked by one of the players for a decision. It is also the duty of the linesman on a base line to call "fault" instantly if a player does not serve as required by law 6, and this should always be done without special instruction from the umpire or referee.

10. Arranging the Handicaps.— In handicap events, the competitors should have their odds assigned to them before the drawings are made, and under no consideration should they be changed after the draw has been posted.

11. Entries of Competitors.— No competitor may transfer his entry to another after the entry-list has been closed. All competitors should be required to give their full names when entering, although it is optional with the committee in charge whether they be allowed to compete under an assumed name or not.

12. Substitution of Partners in Doubles.— In doubles, entries may be received for scratch events from any eligible player and "partner," and in such cases any other eligible player may take the place of the "partner" up to the time his first match is called, but no substitution can be made afterward. It is customary to permit one member of any team entered to substitute

another eligible player for an absent partner up to the time of beginning his first match, but one of the team originally named must play to make the entry valid. No player is eligible under any circumstances to play twice in the same event. In handicap doubles, the full names of both players of a team must be given before the draw, and no changes may be made afterward.

13. Arrangements for Courts, Balls, etc. — Tournament courts should be laid out north and south, never east and west, and there should be a clear space of at least twenty feet at each end of every court, and twelve feet at each side. The courts should be numbered with figures prominently displayed. For singles it is better not to have the double-court side lines marked out. There should be a plentiful supply of balls on hand for the matches. Players have a perfect right to refuse to play with balls that are soft, torn, or over the standard weight from dampness. A small box of sawdust should be kept near the court, in which the players can dry their hands while playing.

14. Offering of Challenge Cups. — If any challenge cup or trophy is to be offered, it must be

put into the hands of the United States National Lawn Tennis Association, to be held in trust for the players winning it. After securing official sanction for the tournament and the title to be awarded, the donors should execute and forward to the U. S. N. L. T. A. a legal "deed of gift" for the new trophy. The following form has been adopted by the Association for this purpose:—

"DEED OF GIFT" FORM FOR CHALLENGE CUPS

Know all Men by these Presents:

THAT.....hereby presents to the United States National Lawn Tennis Association the cup tendered herewith, to be called and known as.....
and to represent.....
 to be held under the auspices of the United States National Lawn Tennis Association, according to such Rules and Regulations as may be, from time to time, prescribed by said Association. The winner of the said championship shall be entitled to the possession of the cup for the period during which he holds the championship, being responsible, however, for the production of the cup at the next championship contest. - This cup shall become the property of the player who shall win said championship at.....annual championship contests.....

If for any reason no contest for said championship should be held for a period of two years, the United States National

Lawn Tennis Association shall have the right to dispose of said cup as shall seem proper.

(Signature)-----

IN WITNESS WHEREOF :

The Bagnall-Wilde System of Drawing

Both in America and abroad, the competitors for all lawn tennis tournaments are required to be drawn by the Bagnall-Wilde system. This plan for drawing was invented in England and subsequently imported to America, and it has now become universal in lawn tennis. Its cardinal principle is that no byes shall occur in any but the first round.

If the number of entries equals an even power of two (4, 8, 16, 32, or 64) there need be no byes, for the players then meet in pairs in the order their names are drawn from the hat. When the number of entries is not an even power of two, there must be byes in the preliminary round, and the number of byes will be equal to the difference between the number of entries and the next higher power of two; and the number of

matches in the preliminary round will be equal to the difference between the number of entries and the next lower power of two, because there will be one loser in each match and enough players must be beaten to reduce the number of competitors to an even power of two.

The byes, if even in number, should be divided, as the names are drawn, in equal proportions at the top and bottom of the list; if uneven in number, there should be one more bye at the bottom than at the top.

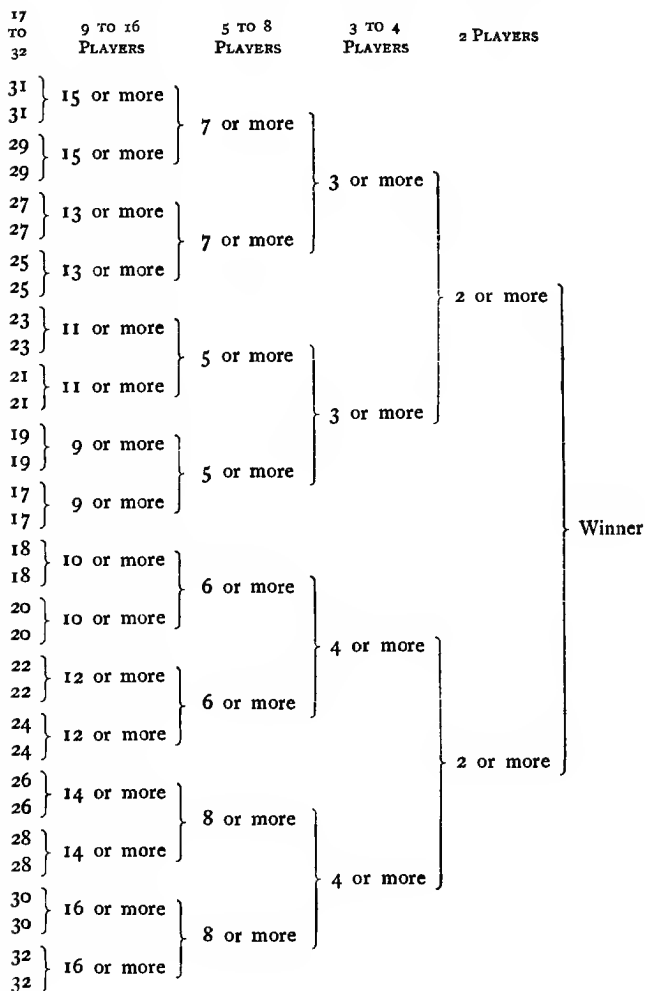
Only one drawing is made by this system, for the relative positions of the names on the draft show which players shall meet in each of the rounds up to the final. The winners are bracketed against each other (as shown in the diagram on page 300) and meet their nearest neighbors in successive rounds until the finals, when the survivor in the upper half meets the survivor in the lower half.

To make the draw properly, it should first be decided how many byes are necessary (as above); then a blank draft should be made out with one line for each competitor. Before drawing these lines should be bracketed out to the final to avoid the possibility of error. The names

should then be written on small slips of paper, folded carefully, and placed in a hat. They should be thoroughly shaken up and counted to be sure they equal the number of blank lines in the draft. Then they should be finally drawn out, one by one, and the names filled in the blanks in the order they are drawn.

For instance, if there are twenty-five players entered, there would be ($32 - 25 = 7$) seven byes, three at the top and four at the bottom of the draft, and ($25 - 16 = 9$) nine matches in the preliminary round. The draft should then be drawn up and bracketed out, and the names should be filled in as drawn from the hat, in regular order, the first three drawn receiving the byes.

DIAGRAM OF BAGNALL-WILDE DRAWING SYSTEM



Explanation

Select the column which includes the number of entries for any event, and omit the lines (if any) having higher numbers. Fill in the others and all the rest of the diagram to the right, and bracket out to the end. Then draw the names in regular order, and fill them in the spaces having no brackets to the left in your draft, beginning at the top. Those (if any) already advanced to the second round are entitled to byes in the first.

EXAMPLE. — If there are eleven players, use the third column, which includes this number, and omit the first four and last six lines, because they have numbers higher than 11. The first two names drawn have byes, because they are already advanced a round (in spaces marked 7); the next six players drawn meet in the first round as bracketed; and the last three have byes (in the lower space marked 6 and both spaces marked 8).

CHAPTER IV

RULES AND INSTRUCTIONS FOR HANDICAPPING

HANDICAPPING in lawn tennis is no easy matter, because the units of measurement are not easy to adjust. At first a system was used by which the better player allowed the poorer one or more "bisques" in each set. This bisque consisted in a stroke conceded by the better player at any point in the set (with a few minor exceptions) when the receiver of the odds claimed it.

The bisque system was very unsatisfactory, and in 1890 a new system for handicapping was adopted in England, by which players of different grades of skill were made even by the better allowing the poorer one or more strokes in every series of four games in each set. This was called the "quarter-fifteen" system, and a table showed at exactly which games the odds were to be given. Under this plan, however, it was thought that there were too few classes for handicap events, and the smallest unit, one-quarter of fifteen, was too large.

Accordingly another change was made in 1894 in which the units were made smaller and the classes more numerous by allowing the handicap strokes in every series of six games, instead of four. This was called the "sixths" system and is still in vogue. In the United States, the quarter-fifteen system succeeded the antiquated bisques system in 1896, but lasted only one year, for the prevailing English sixths system was soon substituted, and now prevails practically all over the world.

Under this, there are two kinds of handicaps, odds owed (or minus) and odds given (or plus). The difference between owed and given odds is that the better player is required to win a point without scoring it for every one he owes, while a poorer player scores a point without winning it for every one he receives.

In the sixths system, received odds are taken in the first place in the even games, beginning with the second and proceeding in order to the fourth and sixth; and when the even games are exhausted, odds are next received in the latest possible odd games, the fifth, and then the third. For example, a player receiving four-sixths of fifteen receives nothing in the first and

third games, and fifteen in the second, fourth, fifth, and sixth games of a set. In every succeeding six games of a set the odds recur in the same positions. Owed odds are owed in the first place in the odd games, beginning with the first, and proceeding in order to the third and fifth; and when the odd games are exhausted, odds are next owed in the latest possible even games, the sixth, and then the fourth. The order of the games used for the handicaps is exactly reversed in owed odds from the order used for given odds.

The arrangement is as follows:—

Received Odds

One-sixth of fifteen ($\frac{1}{6}$) is one stroke given by the better to the poorer player in the second, eighth, fourteenth, and every subsequent sixth game in each set.

Two-sixths of fifteen ($\frac{2}{6}$) is one stroke given in the second, fourth, eighth, tenth, and corresponding games in each set.

Three-sixths or one-half of fifteen ($\frac{3}{6}$) is one stroke given in the second, fourth, sixth, and every other alternate game in each set.

Four-sixths of fifteen ($\frac{4}{6}$) is one stroke given in

the second, fifth, sixth, eighth, tenth, eleventh, twelfth, and corresponding games in each set.

Five-sixths of fifteen ($\frac{5}{6}$) is one stroke given in the second, third, fourth, fifth, sixth, eighth, ninth, tenth, eleventh, twelfth, and corresponding games in each set.

Fifteen (15) is one stroke given in every game of each set.

Fifteen and one-sixth (15.1) is two strokes given in the same games for one-sixth, and one stroke in each of the others.

Fifteen and two-sixths (15.2) is two strokes given in the same games as for two-sixths, and one stroke in each of the others.

Fifteen and three-sixths or half-thirty (15.3) is two strokes given in the same games as for three-sixths, and one stroke in each of the others.

Fifteen and four-sixths (15.4) is two strokes given in the same games as for four-sixths, and one stroke in each of the others.

Fifteen and five-sixths (15.5) is two strokes given in the same games as for five-sixths, and one stroke in each of the others.

Thirty (30) is two strokes given in each game.

Thirty and one-sixth (30.1), thirty and two-sixths (30.2), thirty and three-sixths or half-forty

(30.3), thirty and four-sixths (30.4), thirty and five-sixths (30.5), and forty (40) are three strokes and two given in the corresponding games of each set, as in the fifteen series.

Owed Odds

One-sixth ($\frac{1}{6}$) is one stroke owed in the first, seventh, thirteenth, and every subsequent sixth game of each set.

Two-sixths ($\frac{2}{6}$) is one stroke owed in the first, third, seventh, ninth, and corresponding games of each set.

Three-sixths or one-half ($\frac{3}{6}$) is one stroke owed in the first, third, fifth, and every other alternate game of each set.

Four-sixths ($\frac{4}{6}$) is one stroke owed in the first, third, fifth, sixth, and corresponding games of each set.

Five-sixths ($\frac{5}{6}$) is one stroke owed in the first, third, fourth, fifth, sixth, and corresponding games of each set.

Fifteen (15) is one stroke owed in each game.

Fifteen and one-sixth (15.1), fifteen and two-sixths (15.2), fifteen and three-sixths or half thirty (15.3), fifteen and four-sixths (15.4), fifteen and five-sixths (15.5), thirty (30), thirty and one-sixth

(30.1), thirty and two-sixths (30.2), thirty and three-sixths or half-forty (30.3), thirty and four-sixths (30.4), thirty and five-sixths (30.5), and forty (40) correspond to the fractions of fifteen as do the larger handicaps in the table for given odds correspond to the fractions of fifteen in that table.

GIVEN ODDS—CLASS O (Scratch)

Class 1 receives 1-sixth of 15	Class 10 receives 15 and 4-sixths of 15
Class 2 receives 2-sixths of 15	Class 11 receives 15 and 5-sixths of 15
Class 3 receives 3-sixths of 15	Class 12 receives 30
Class 4 receives 4-sixths of 15	Class 13 receives 30 and 1-sixth of 15
Class 5 receives 5-sixths of 15	Class 14 receives 30 and 2-sixths of 15
Class 6 receives 15	Class 15 receives 30 and 3-sixths of 15
Class 7 receives 15 and 1-sixth of 15	Class 16 receives 30 and 4-sixths of 15
Class 8 receives 15 and 2-sixths of 15	Class 17 receives 30 and 5-sixths of 15
Class 9 receives 15 and 3-sixths of 15	Class 18 receives 40

OWED ODDS—CLASS O (Scratch)

Class 1 owes 1-sixth of 15	Class 10 owes 15 and 4-sixths of 15
Class 2 owes 2-sixths of 15	Class 11 owes 15 and 5-sixths of 15
Class 3 owes 3-sixths of 15	Class 12 owes 30
Class 4 owes 4-sixths of 15	Class 13 owes 30 and 1-sixth of 15
Class 5 owes 5-sixths of 15	Class 14 owes 30 and 2-sixths of 15
Class 6 owes 15	Class 15 owes 30 and 3-sixths of 15
Class 7 owes 15 and 1-sixth of 15	Class 16 owes 30 and 4-sixths of 15
Class 8 owes 15 and 2-sixths of 15	Class 17 owes 30 and 5-sixths of 15
Class 9 owes 15 and 3-sixths of 15	Class 18 owes 40

Practical Workings

When two players meet, one of whom owes and the other receives odds, each retains his original handicap, and the tables are so figured out that the handicaps will come on opposite games so far as possible.

As an illustration of this, suppose a player (A) owing 15.3 meets another (B) receiving $\frac{3}{6}$. On the first game, A owes 30 and B starts from scratch, and on the second, A owes 15 and B receives 15, these two different handicaps alternating throughout the set, the difference between the players being always the same, 30. A begins to count on the even games when he has made his second stroke, while B counts 30 when he scores his first, for one is given to him by handicap. On the odd games, A does not begin to score until his third stroke, while his adversary counts 15 when he wins his first point.

When two players meet, both of whom owe odds, or when both are in receipt of odds, the smaller handicap is subtracted from the greater, and the difference between them is the amount the better player must owe or give the poorer, as the

TABLE NO. I

When two players, both in receipt of odds, meet, the player receiving the smaller odds is put back to scratch. The following table shows the point at which the other should then start. The number at the left of the horizontal columns denotes the player who goes back to scratch, those at the head of the vertical columns, the player who still receives odds; and the numbers within the columns show the odds to be received by the player whose number stands at the head of the column.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	15.	15.1	15.2	15.3	15.4	15.5	30.	30.1	30.2	30.3	30.4	30.5	40.	
1	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	15.	15.1	15.2	15.3	15.4	15.5	30.	30.1	30.2	30.3	30.5	40.	
2	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	15.	15.	15.1	15.2	15.3	15.4	15.5	30.	30.1	30.2	30.3	30.5	
3	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	15.	15.1	15.2	15.3	15.4	30.	30.1	30.2	30.4	30.5	
4	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	15.	15.1	15.2	15.3	15.4	30.	30.1	30.2	30.4	30.5	
5	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	15.	15.1	15.2	15.3	15.4	15.5	30.	30.1	30.5	
6	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	15.	15.1	15.2	15.3	15.4	15.5	30.	30.5	
7	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	15.	15.1	15.2	15.3	15.4	15.5	30.1	
8	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	$\frac{16}{17}$ of 15	15.	15.1	15.2	15.3	15.4	30.1	
9	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	$\frac{16}{17}$ of 15	$\frac{18}{19}$ of 15	15.	15.1	15.2	15.3	30.1	
10	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	$\frac{16}{17}$ of 15	$\frac{18}{19}$ of 15	$\frac{20}{21}$ of 15	15.	15.1	15.2	30.1	
11	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	$\frac{16}{17}$ of 15	$\frac{18}{19}$ of 15	$\frac{20}{21}$ of 15	$\frac{22}{23}$ of 15	15.	15.1	30.1	
12	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	$\frac{16}{17}$ of 15	$\frac{18}{19}$ of 15	$\frac{20}{21}$ of 15	$\frac{22}{23}$ of 15	$\frac{24}{25}$ of 15	15.	30.1	
13	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	$\frac{16}{17}$ of 15	$\frac{18}{19}$ of 15	$\frac{20}{21}$ of 15	$\frac{22}{23}$ of 15	$\frac{24}{25}$ of 15	$\frac{26}{27}$ of 15	30.1	
14	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	$\frac{16}{17}$ of 15	$\frac{18}{19}$ of 15	$\frac{20}{21}$ of 15	$\frac{22}{23}$ of 15	$\frac{24}{25}$ of 15	$\frac{26}{27}$ of 15	$\frac{28}{29}$ of 15	30.1
15	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	$\frac{16}{17}$ of 15	$\frac{18}{19}$ of 15	$\frac{20}{21}$ of 15	$\frac{22}{23}$ of 15	$\frac{24}{25}$ of 15	$\frac{26}{27}$ of 15	$\frac{28}{29}$ of 15	30.1
16	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	$\frac{16}{17}$ of 15	$\frac{18}{19}$ of 15	$\frac{20}{21}$ of 15	$\frac{22}{23}$ of 15	$\frac{24}{25}$ of 15	$\frac{26}{27}$ of 15	$\frac{28}{29}$ of 15	30.1
17	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	$\frac{16}{17}$ of 15	$\frac{18}{19}$ of 15	$\frac{20}{21}$ of 15	$\frac{22}{23}$ of 15	$\frac{24}{25}$ of 15	$\frac{26}{27}$ of 15	$\frac{28}{29}$ of 15	30.1
18	$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	$\frac{7}{8}$ of 15	$\frac{8}{9}$ of 15	$\frac{10}{11}$ of 15	$\frac{12}{13}$ of 15	$\frac{14}{15}$ of 15	$\frac{16}{17}$ of 15	$\frac{18}{19}$ of 15	$\frac{20}{21}$ of 15	$\frac{22}{23}$ of 15	$\frac{24}{25}$ of 15	$\frac{26}{27}$ of 15	$\frac{28}{29}$ of 15	30.1

This table was calculated upon the following data: —

In the case of received odds —

- The average value of $\frac{1}{2}$ is .2024
- The average value of $\frac{2}{3}$ is .3552
- The average value of $\frac{3}{4}$ is .4811
- The average value of $\frac{4}{5}$ is .6069
- The average value of $\frac{5}{6}$ is .7841

The average length of a game is 4.6250 strokes.
15.1 means 15 and one-sixth of 15, and so on.

TABLE NO. 2

When two players meet who are handicapped to *owe* odds, the player owing the lesser odds is placed at scratch. This table shows the odds the other will still owe.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18																							
$\frac{1}{2}$ of 15	$\frac{2}{3}$ of 15	$\frac{3}{4}$ of 15	$\frac{4}{5}$ of 15	$\frac{5}{6}$ of 15	15.	15.1	15.2	15.3	15.4	15.5	30.	30.1	30.2	30.3	30.4	30.5	40.																							
1	$\frac{1}{3}$ of 15	$\frac{2}{5}$ of 15	$\frac{3}{6}$ of 15	$\frac{4}{7}$ of 15	$\frac{5}{8}$ of 15	15.	15.1	15.1	15.2	15.3	15.4	30.	30.	30.1	30.2	30.3	30.4																							
2	$\frac{1}{4}$ of 15	$\frac{2}{6}$ of 15	$\frac{3}{7}$ of 15	$\frac{4}{8}$ of 15	15.	15.	15.1	15.2	15.3	15.4	15.5	15.4	15.5	30.	30.	30.1	30.2																							
3	$\frac{1}{5}$ of 15	$\frac{2}{7}$ of 15	$\frac{3}{8}$ of 15	$\frac{4}{9}$ of 15	$\frac{5}{10}$ of 15	$\frac{6}{11}$ of 15	$\frac{7}{12}$ of 15	15.	15.	15.1	15.2	15.3	15.4	15.5	30.	30.	30.1	30.2																						
4	$\frac{1}{6}$ of 15	$\frac{2}{8}$ of 15	$\frac{3}{9}$ of 15	$\frac{4}{10}$ of 15	$\frac{5}{11}$ of 15	$\frac{6}{12}$ of 15	$\frac{7}{13}$ of 15	$\frac{8}{14}$ of 15	$\frac{9}{15}$ of 15	$\frac{10}{16}$ of 15	$\frac{11}{17}$ of 15	$\frac{12}{18}$ of 15	15.1	15.2	15.3	15.4	15.5	30.	30.1	30.2																				
5	$\frac{1}{7}$ of 15	$\frac{2}{9}$ of 15	$\frac{3}{10}$ of 15	$\frac{4}{11}$ of 15	$\frac{5}{12}$ of 15	$\frac{6}{13}$ of 15	$\frac{7}{14}$ of 15	$\frac{8}{15}$ of 15	$\frac{9}{16}$ of 15	$\frac{10}{17}$ of 15	$\frac{11}{18}$ of 15	15.	15.1	15.2	15.3	15.4	15.5	30.	30.	30.1	30.2																			
6	$\frac{1}{8}$ of 15	$\frac{2}{10}$ of 15	$\frac{3}{11}$ of 15	$\frac{4}{12}$ of 15	$\frac{5}{13}$ of 15	$\frac{6}{14}$ of 15	$\frac{7}{15}$ of 15	$\frac{8}{16}$ of 15	$\frac{9}{17}$ of 15	$\frac{10}{18}$ of 15	$\frac{11}{19}$ of 15	$\frac{12}{20}$ of 15	$\frac{13}{21}$ of 15	$\frac{14}{22}$ of 15	$\frac{15}{23}$ of 15	$\frac{16}{24}$ of 15	$\frac{17}{25}$ of 15	$\frac{18}{26}$ of 15	$\frac{19}{27}$ of 15	$\frac{20}{28}$ of 15	$\frac{21}{29}$ of 15	$\frac{22}{30}$ of 15																		
7	$\frac{1}{9}$ of 15	$\frac{2}{11}$ of 15	$\frac{3}{12}$ of 15	$\frac{4}{13}$ of 15	$\frac{5}{14}$ of 15	$\frac{6}{15}$ of 15	$\frac{7}{16}$ of 15	$\frac{8}{17}$ of 15	$\frac{9}{18}$ of 15	$\frac{10}{19}$ of 15	$\frac{11}{20}$ of 15	$\frac{12}{21}$ of 15	$\frac{13}{22}$ of 15	$\frac{14}{23}$ of 15	$\frac{15}{24}$ of 15	$\frac{16}{25}$ of 15	$\frac{17}{26}$ of 15	$\frac{18}{27}$ of 15	$\frac{19}{28}$ of 15	$\frac{20}{29}$ of 15	$\frac{21}{30}$ of 15	$\frac{22}{31}$ of 15	$\frac{23}{32}$ of 15	$\frac{24}{33}$ of 15	$\frac{25}{34}$ of 15	$\frac{26}{35}$ of 15	$\frac{27}{36}$ of 15	$\frac{28}{37}$ of 15	$\frac{29}{38}$ of 15	$\frac{30}{39}$ of 15	$\frac{31}{40}$ of 15									
8	$\frac{1}{10}$ of 15	$\frac{2}{12}$ of 15	$\frac{3}{13}$ of 15	$\frac{4}{14}$ of 15	$\frac{5}{15}$ of 15	$\frac{6}{16}$ of 15	$\frac{7}{17}$ of 15	$\frac{8}{18}$ of 15	$\frac{9}{19}$ of 15	$\frac{10}{20}$ of 15	$\frac{11}{21}$ of 15	$\frac{12}{22}$ of 15	$\frac{13}{23}$ of 15	$\frac{14}{24}$ of 15	$\frac{15}{25}$ of 15	$\frac{16}{26}$ of 15	$\frac{17}{27}$ of 15	$\frac{18}{28}$ of 15	$\frac{19}{29}$ of 15	$\frac{20}{30}$ of 15	$\frac{21}{31}$ of 15	$\frac{22}{32}$ of 15	$\frac{23}{33}$ of 15	$\frac{24}{34}$ of 15	$\frac{25}{35}$ of 15	$\frac{26}{36}$ of 15	$\frac{27}{37}$ of 15	$\frac{28}{38}$ of 15	$\frac{29}{39}$ of 15	$\frac{30}{40}$ of 15	$\frac{31}{41}$ of 15	$\frac{32}{42}$ of 15	$\frac{33}{43}$ of 15	$\frac{34}{44}$ of 15	$\frac{35}{45}$ of 15	$\frac{36}{46}$ of 15	$\frac{37}{47}$ of 15	$\frac{38}{48}$ of 15	$\frac{39}{49}$ of 15	$\frac{40}{50}$ of 15
9	$\frac{1}{11}$ of 15	$\frac{2}{13}$ of 15	$\frac{3}{14}$ of 15	$\frac{4}{15}$ of 15	$\frac{5}{16}$ of 15	$\frac{6}{17}$ of 15	$\frac{7}{18}$ of 15	$\frac{8}{19}$ of 15	$\frac{9}{20}$ of 15	$\frac{10}{21}$ of 15	$\frac{11}{22}$ of 15	$\frac{12}{23}$ of 15	$\frac{13}{24}$ of 15	$\frac{14}{25}$ of 15	$\frac{15}{26}$ of 15	$\frac{16}{27}$ of 15	$\frac{17}{28}$ of 15	$\frac{18}{29}$ of 15	$\frac{19}{30}$ of 15	$\frac{20}{31}$ of 15	$\frac{21}{32}$ of 15	$\frac{22}{33}$ of 15	$\frac{23}{34}$ of 15	$\frac{24}{35}$ of 15	$\frac{25}{36}$ of 15	$\frac{26}{37}$ of 15	$\frac{27}{38}$ of 15	$\frac{28}{39}$ of 15	$\frac{29}{40}$ of 15	$\frac{30}{41}$ of 15	$\frac{31}{42}$ of 15	$\frac{32}{43}$ of 15	$\frac{33}{44}$ of 15	$\frac{34}{45}$ of 15	$\frac{35}{46}$ of 15	$\frac{36}{47}$ of 15	$\frac{37}{48}$ of 15	$\frac{38}{49}$ of 15	$\frac{39}{50}$ of 15	
10	$\frac{1}{12}$ of 15	$\frac{2}{14}$ of 15	$\frac{3}{15}$ of 15	$\frac{4}{16}$ of 15	$\frac{5}{17}$ of 15	$\frac{6}{18}$ of 15	$\frac{7}{19}$ of 15	$\frac{8}{20}$ of 15	$\frac{9}{21}$ of 15	$\frac{10}{22}$ of 15	$\frac{11}{23}$ of 15	$\frac{12}{24}$ of 15	$\frac{13}{25}$ of 15	$\frac{14}{26}$ of 15	$\frac{15}{27}$ of 15	$\frac{16}{28}$ of 15	$\frac{17}{29}$ of 15	$\frac{18}{30}$ of 15	$\frac{19}{31}$ of 15	$\frac{20}{32}$ of 15	$\frac{21}{33}$ of 15	$\frac{22}{34}$ of 15	$\frac{23}{35}$ of 15	$\frac{24}{36}$ of 15	$\frac{25}{37}$ of 15	$\frac{26}{38}$ of 15	$\frac{27}{39}$ of 15	$\frac{28}{40}$ of 15	$\frac{29}{41}$ of 15	$\frac{30}{42}$ of 15	$\frac{31}{43}$ of 15	$\frac{32}{44}$ of 15	$\frac{33}{45}$ of 15	$\frac{34}{46}$ of 15	$\frac{35}{47}$ of 15	$\frac{36}{48}$ of 15	$\frac{37}{49}$ of 15	$\frac{38}{50}$ of 15		
11	$\frac{1}{13}$ of 15	$\frac{2}{15}$ of 15	$\frac{3}{16}$ of 15	$\frac{4}{17}$ of 15	$\frac{5}{18}$ of 15	$\frac{6}{19}$ of 15	$\frac{7}{20}$ of 15	$\frac{8}{21}$ of 15	$\frac{9}{22}$ of 15	$\frac{10}{23}$ of 15	$\frac{11}{24}$ of 15	$\frac{12}{25}$ of 15	$\frac{13}{26}$ of 15	$\frac{14}{27}$ of 15	$\frac{15}{28}$ of 15	$\frac{16}{29}$ of 15	$\frac{17}{30}$ of 15	$\frac{18}{31}$ of 15	$\frac{19}{32}$ of 15	$\frac{20}{33}$ of 15	$\frac{21}{34}$ of 15	$\frac{22}{35}$ of 15	$\frac{23}{36}$ of 15	$\frac{24}{37}$ of 15	$\frac{25}{38}$ of 15	$\frac{26}{39}$ of 15	$\frac{27}{40}$ of 15	$\frac{28}{41}$ of 15	$\frac{29}{42}$ of 15	$\frac{30}{43}$ of 15	$\frac{31}{44}$ of 15	$\frac{32}{45}$ of 15	$\frac{33}{46}$ of 15	$\frac{34}{47}$ of 15	$\frac{35}{48}$ of 15	$\frac{36}{49}$ of 15	$\frac{37}{50}$ of 15			
12	$\frac{1}{14}$ of 15	$\frac{2}{16}$ of 15	$\frac{3}{17}$ of 15	$\frac{4}{18}$ of 15	$\frac{5}{19}$ of 15	$\frac{6}{20}$ of 15	$\frac{7}{21}$ of 15	$\frac{8}{22}$ of 15	$\frac{9}{23}$ of 15	$\frac{10}{24}$ of 15	$\frac{11}{25}$ of 15	$\frac{12}{26}$ of 15	$\frac{13}{27}$ of 15	$\frac{14}{28}$ of 15	$\frac{15}{29}$ of 15	$\frac{16}{30}$ of 15	$\frac{17}{31}$ of 15	$\frac{18}{32}$ of 15	$\frac{19}{33}$ of 15	$\frac{20}{34}$ of 15	$\frac{21}{35}$ of 15	$\frac{22}{36}$ of 15	$\frac{23}{37}$ of 15	$\frac{24}{38}$ of 15	$\frac{25}{39}$ of 15	$\frac{26}{40}$ of 15	$\frac{27}{41}$ of 15	$\frac{28}{42}$ of 15	$\frac{29}{43}$ of 15	$\frac{30}{44}$ of 15	$\frac{31}{45}$ of 15	$\frac{32}{46}$ of 15	$\frac{33}{47}$ of 15	$\frac{34}{48}$ of 15	$\frac{35}{49}$ of 15	$\frac{36}{50}$ of 15				
13	$\frac{1}{15}$ of 15	$\frac{2}{17}$ of 15	$\frac{3}{18}$ of 15	$\frac{4}{19}$ of 15	$\frac{5}{20}$ of 15	$\frac{6}{21}$ of 15	$\frac{7}{22}$ of 15	$\frac{8}{23}$ of 15	$\frac{9}{24}$ of 15	$\frac{10}{25}$ of 15	$\frac{11}{26}$ of 15	$\frac{12}{27}$ of 15	$\frac{13}{28}$ of 15	$\frac{14}{29}$ of 15	$\frac{15}{30}$ of 15	$\frac{16}{31}$ of 15	$\frac{17}{32}$ of 15	$\frac{18}{33}$ of 15	$\frac{19}{34}$ of 15	$\frac{20}{35}$ of 15	$\frac{21}{36}$ of 15	$\frac{22}{37}$ of 15	$\frac{23}{38}$ of 15	$\frac{24}{39}$ of 15	$\frac{25}{40}$ of 15	$\frac{26}{41}$ of 15	$\frac{27}{42}$ of 15	$\frac{28}{43}$ of 15	$\frac{29}{44}$ of 15	$\frac{30}{45}$ of 15	$\frac{31}{46}$ of 15	$\frac{32}{47}$ of 15	$\frac{33}{48}$ of 15	$\frac{34}{49}$ of 15	$\frac{35}{50}$ of 15					
14	$\frac{1}{16}$ of 15	$\frac{2}{18}$ of 15	$\frac{3}{19}$ of 15	$\frac{4}{20}$ of 15	$\frac{5}{21}$ of 15	$\frac{6}{22}$ of 15	$\frac{7}{23}$ of 15	$\frac{8}{24}$ of 15	$\frac{9}{25}$ of 15	$\frac{10}{26}$ of 15	$\frac{11}{27}$ of 15	$\frac{12}{28}$ of 15	$\frac{13}{29}$ of 15	$\frac{14}{30}$ of 15	$\frac{15}{31}$ of 15	$\frac{16}{32}$ of 15	$\frac{17}{33}$ of 15	$\frac{18}{34}$ of 15	$\frac{19}{35}$ of 15	$\frac{20}{36}$ of 15	$\frac{21}{37}$ of 15	$\frac{22}{38}$ of 15	$\frac{23}{39}$ of 15	$\frac{24}{40}$ of 15	$\frac{25}{41}$ of 15	$\frac{26}{42}$ of 15	$\frac{27}{43}$ of 15	$\frac{28}{44}$ of 15	$\frac{29}{45}$ of 15	$\frac{30}{46}$ of 15	$\frac{31}{47}$ of 15	$\frac{32}{48}$ of 15	$\frac{33}{49}$ of 15	$\frac{34}{50}$ of 15						
15	$\frac{1}{17}$ of 15	$\frac{2}{19}$ of 15	$\frac{3}{20}$ of 15	$\frac{4}{21}$ of 15	$\frac{5}{22}$ of 15	$\frac{6}{23}$ of 15	$\frac{7}{24}$ of 15	$\frac{8}{25}$ of 15	$\frac{9}{26}$ of 15	$\frac{10}{27}$ of 15	$\frac{11}{28}$ of 15	$\frac{12}{29}$ of 15	$\frac{13}{30}$ of 15	$\frac{14}{31}$ of 15	$\frac{15}{32}$ of 15	$\frac{16}{33}$ of 15	$\frac{17}{34}$ of 15	$\frac{18}{35}$ of 15	$\frac{19}{36}$ of 15	$\frac{20}{37}$ of 15	$\frac{21}{38}$ of 15	$\frac{22}{39}$ of 15	$\frac{23}{40}$ of 15	$\frac{24}{41}$ of 15	$\frac{25}{42}$ of 15	$\frac{26}{43}$ of 15	$\frac{27}{44}$ of 15	$\frac{28}{45}$ of 15	$\frac{29}{46}$ of 15	$\frac{30}{47}$ of 15	$\frac{31}{48}$ of 15	$\frac{32}{49}$ of 15	$\frac{33}{50}$ of 15							
16	$\frac{1}{18}$ of 15	$\frac{2}{20}$ of 15	$\frac{3}{21}$ of 15	$\frac{4}{22}$ of 15	$\frac{5}{23}$ of 15	$\frac{6}{24}$ of 15	$\frac{7}{25}$ of 15	$\frac{8}{26}$ of 15	$\frac{9}{27}$ of 15	$\frac{10}{28}$ of 15	$\frac{11}{29}$ of 15	$\frac{12}{30}$ of 15	$\frac{13}{31}$ of 15	$\frac{14}{32}$ of 15	$\frac{15}{33}$ of 15	$\frac{16}{34}$ of 15	$\frac{17}{35}$ of 15	$\frac{18}{36}$ of 15	$\frac{19}{37}$ of 15	$\frac{20}{38}$ of 15	$\frac{21}{39}$ of 15	$\frac{22}{40}$ of 15	$\frac{23}{41}$ of 15	$\frac{24}{42}$ of 15	$\frac{25}{43}$ of 15	$\frac{26}{44}$ of 15	$\frac{27}{45}$ of 15	$\frac{28}{46}$ of 15	$\frac{29}{47}$ of 15	$\frac{30}{48}$ of 15	$\frac{31}{49}$ of 15	$\frac{32}{50}$ of 15								
17	$\frac{1}{19}$ of 15	$\frac{2}{21}$ of 15	$\frac{3}{22}$ of 15	$\frac{4}{23}$ of 15	$\frac{5}{24}$ of 15	$\frac{6}{25}$ of 15	$\frac{7}{26}$ of 15	$\frac{8}{27}$ of 15	$\frac{9}{28}$ of 15	$\frac{10}{29}$ of 15	$\frac{11}{30}$ of 15	$\frac{12}{31}$ of 15	$\frac{13}{32}$ of 15	$\frac{14}{33}$ of 15	$\frac{15}{34}$ of 15	$\frac{16}{35}$ of 15	$\frac{17}{36}$ of 15	$\frac{18}{37}$ of 15	$\frac{19}{38}$ of 15	$\frac{20}{39}$ of 15	$\frac{21}{40}$ of 15	$\frac{22}{41}$ of 15	$\frac{23}{42}$ of 15	$\frac{24}{43}$ of 15	$\frac{25}{44}$ of 15	$\frac{26}{45}$ of 15	$\frac{27}{46}$ of 15	$\frac{28}{47}$ of 15	$\frac{29}{48}$ of 15	$\frac{30}{49}$ of 15	$\frac{31}{50}$ of 15									
18	$\frac{1}{20}$ of 15	$\frac{2}{22}$ of 15	$\frac{3}{23}$ of 15	$\frac{4}{24}$ of 15	$\frac{5}{25}$ of 15	$\frac{6}{26}$ of 15	$\frac{7}{27}$ of 15	$\frac{8}{28}$ of 15	$\frac{9}{29}$ of 15	$\frac{10}{30}$ of 15	$\frac{11}{31}$ of 15	$\frac{12}{32}$ of 15	$\frac{13}{33}$ of 15	$\frac{14}{34}$ of 15	$\frac{15}{35}$ of 15	$\frac{16}{36}$ of 15	$\frac{17}{37}$ of 15	$\frac{18}{38}$ of 15	$\frac{19}{39}$ of 15	$\frac{20}{40}$ of 15	$\frac{21}{41}$ of 15	$\frac{22}{42}$ of 15	$\frac{23}{43}$ of 15	$\frac{24}{44}$ of 15	$\frac{25}{45}$ of 15	$\frac{26}{46}$ of 15	$\frac{27}{47}$ of 15	$\frac{28}{48}$ of 15	$\frac{29}{49}$ of 15	$\frac{30}{50}$ of 15										

This table has been calculated upon the following data: —

In the case of owed odds —

- The average value of $\frac{1}{2}$ is .2138
- The average value of $\frac{1}{3}$ is .3929
- The average value of $\frac{1}{4}$ is .5188
- The average value of $\frac{1}{5}$ is .6448
- The average value of $\frac{1}{6}$ is .7975

The average length of a game is 4.6250 strokes.

In using this table supply throughout the word "owe" before the odds specified.

case may be. However, in either case the game is lengthened or shortened by this change from what the handicapper arranged, and the proportion that the net handicap bears to the length of the game is consequently altered. For instance, with A on scratch, B at fifteen, and C at thirty, if B met C he would give him fifteen in a shorter game, as each starts with part of the game already scored in his favor. If B goes back to scratch, the game is increased to its original full length, and the odds must be increased to preserve their relative proportion.

Two tables have been figured out by an elaborate formula to decide these equations, and in each case the exact decimal value of what the handicap should be has been ascertained and the nearest handicap allowed. For this purpose, the players are always divided into classes, and differential tables are based on these classes. They appear on the two preceding pages.

Hints to Handicappers

The simplest method for handicappers to pursue is to sort out the entries for the event they are to handicap into classes according to the relative skill of the players. Then select the class

with the greatest number of players in it and place them on scratch, handicapping all of the other players either behind or in advance of scratch by owed odds, so as to make all even at the odds.

In deciding upon each player's handicap, his ability should be compared with his nearest and furthest rivals in the lists. Each player might meet any of the others, and the object of handicapping is to give each an exactly even chance, no matter who his opponent may be.

It should be remembered that it is easier to owe 15 or any fraction of it, than it is to give it, and when odds of 30 are given, the poorer player's score has already reached pretty near the end of the game, and the difference in skill between him and the best man must be very great to give the latter an even chance, should they meet.

It is very unwise to give even the poorest players over 30.3 (half-forty), and very seldom is it safe to make the given odds run higher than 30. If the difference between the best and the poorest players is very great, the latter should be placed as far as necessary behind scratch; the former should not be advanced to more than 30, or 30.3 in the most extreme cases.

Voluntary Handicaps

In practice play between two players of unequal skill, it is often interesting as well as helpful for the better to give the poorer player some handicap to even the skill of the two men. It is excellent practice for a poorer man to play a better, but the latter soon becomes slack in his play if he is not pushed, and handicaps are the only way to keep the better man working hard to win. Besides the regular allowances of odds, as already described, there are several useful ways of handicapping the better player.

One of the best of voluntary handicaps is that which provides that the better player loses a stroke if he returns any ball short of the service line, while the poorer player can use the whole court. This helps to develop the length of the better player's game, and is fine practice for him. The better player may also lose any stroke in which he volleys a ball, playing entirely off the ground to practise his ground-strokes; or he may volley every ball, losing any stroke when his opponent's return touches the ground. In each case, of course, the poorer man retains the use of all the strokes of the game. Exclusive volleying

or exclusive ground-strokes may be augmented by using only the back half (behind the service line) of the court. It is also possible to play exclusively backhand or exclusively forehand strokes, or to bar the lob; but these handicaps are not so simple, for it is more difficult to determine whether the excluded stroke is used, for lack of a sharp definition between them and other similar strokes.

It is a mistake for the better player to discard his weakest stroke and use only his strongest stroke or point of play against a weaker adversary, for this will serve to augment his weakness in this kind of play. It is much better for him to exclude this strongest point of play, and to use only his weakest, for this will help to develop his weak points. For a good volleyer, it is excellent practice to play a weaker opponent barring the volley and the front of the court, for such practice will develop his ground-strokes and at the same time teach him good length, a most important point in ground-stroke play.

Another excellent handicap, particularly for a poor server who wants to improve this part of his game, is to have only one service instead of

two for each point, a first fault counting a point against him. This makes him much more careful and more accurate with his service. For a good ground-stroke player, it is not nearly so difficult as it seems to bar the second service, the volley, and also the front of the court, in playing a poorer player, and at the same time it helps his play wonderfully to do so, making him very careful in his stroke play.

CHAPTER V

THE BUILDING AND CARE OF COURTS

NOTHING is more important for the full enjoyment of lawn tennis than a satisfactory court, and none of the other accessories of the game offers a wider variety. Many important considerations come up even after the kind of court to be built and the cost have been decided upon. No matter how much is to be spent on the ground, nor what the surface is to be, the most important things to consider first are space, light, and drainage.

The back-stop nettings should never be nearer than 15 feet from the lines, and if good players are expected to use the court, particularly if tournament matches are to take place on it, the space behind the base lines should be not less than 21 feet at each end. At the sides at least 6 feet (if possible 13 feet) should be allowed beyond the side lines for doubles of each court. A well-appointed court for tournament play should be centred in an unobstructed space of not less than 60 by 120 feet. Wire back-stop netting 10 or 12

feet high should surround it; and if there are two or more courts together, there should be at least 12 feet between their side lines, and one netting can surround all.

In selecting a site for a court, a spot should be chosen where there is always plenty of sunlight, and where at no time of the day does any shadow cross the ground on which the court is to be laid. Green or black is a preferable background to play against, but any dark and even color will do. A court should never be laid out with any very light background within a short distance at either end, or close at either side. Nor should a site be selected with a badly mixed or moving background. Shade trees are useful near a court only if their shadow is a solid one, not constantly checkered by flecks of sunlight glittering through moving branches, which constantly confuse the players. Never should they be allowed near enough to cast any shadows on the playing surface.

One more cardinal point should be remembered. The court should invariably be laid out north and south, — never east and west. If this warning is disregarded, the player at one end or the other will be hopelessly blinded by the sun.

The question of drainage is one of the most important considerations in selecting a site of this kind. On the natural facilities depends largely the cost of laying out a good court. If the natural soil be sandy and well drained, or if it be on high ground which slopes away quickly, artificial drain-pipes will not have to be put in, and this saves much of the cost. But if it be thick clay that holds moisture long, or on low ground with neighboring slopes that drain toward it, the court will be useless for many hours after each rainfall unless artificial drain-pipes are put in.

After the site has been selected, it must be decided whether a grass or "dirt" court is to be built. If the natural sod is luxuriant and the soil favorable for its growth, or if the court is not to be used enough to wear off the grass, a turf court will generally be found preferable; but if the ground is to be constantly in use, the sod will wear off and become "bald" unless there is space enough on the lawn to shift the court frequently.

When good turf cannot be had or will not stand the wear, a substitute must be found, and sand or gravel courts are most often used. On well-drained land, one can sometimes cut away the top surface, level the ground, and roll it until well

hardened, and the court is then ready for use; but more preparation is necessary to build a permanent court that will not be constantly losing its proper level.

For such a court the earth should be cut away to a depth of one foot, if no drains are required. After levelling it carefully with a spirit-level, to be sure that the grade is right, a layer of six inches of broken stone should first be laid and pounded down hard. Ordinary trap-rock used for macadamizing roads is perhaps the best for this purpose, but any broken stone, ranging in sizes from a walnut to an egg, will answer the purpose. This should be covered with a three-inch layer of coarse gravel or fine broken stone which should be thoroughly pounded and watered for several days before being covered. Before any surface is put on the court, the greatest care should be taken to see that the foundation is perfectly level, or, rather, that the centre of it is not more than ten nor less than six inches lower than the ends. Any holes or depressions that appear from rolling and pounding should be filled in before it is covered.

Every well-built court should be graded toward the net, and a drain-pipe well protected with

broken stone should be sunk at right angles to the court, dividing it in halves at the net. Toward this gutter, the surface of the court should be drained, and the drain-pipe in turn should be tilted enough to carry the water to one side, well off the grounds, into some lower spot, or be connected with some sunken hogshhead or regular sewer. A surface grade of eight inches is enough to keep the average court dry. The base lines therefore should be six to eight inches higher than the ground at the net, and if the soil is sandy enough to take up most of the water from the average rainstorm, no drain but that under the net will be necessary.

Many courts are drained off to one side, while others have all the grade from one end to the other; but in either case the playing surface of the court is not true, and expert players will soon notice this fault. The surface is also gradually washed away by storms. A grade of eight inches from either end down to the net not only leaves the court true for play, but is hardly noticeable. The drain under the net is easily kept free, if well filled with broken stone, and it carries off all the moisture from the court. In the heaviest storms a small pool of water settles here, but the

drain soon sucks it all in and the surface quickly dries up.

If artificial drainage is necessary to keep the court dry, drain-pipes can be laid in the foundations of the court. This can be done by getting six-inch stone sewer-pipes cut in halves, or stone gutters used for tiled roofs, and sinking them in the ground, open side up, immediately under the foundation of broken rock. Two or three should be placed on each side of the net, parallel with the side lines, and graded down toward the centre gutter under the net. These pipes should be filled with coarse pebbles or cracked stones about the size of walnuts, and these will keep the drains from filling up with earth. The water will then trickle through the coarse sand and stones to the pipes and be carried down to the main gutter and so off the court.

The covering for a gravel or sand court should be not less than three nor more than six inches in thickness, and of sandy loam and clay mixed. The proportions depend on the quality of the clay. If it is very binding and sticky, two parts of sand to one of clay are preferable; but for the average ingredients they should be mixed about evenly. When the court is finished, if it is found

to be too soft, but dry, more clay should be added ; while if it drains poorly and stays muddy too long after rain, or its surface is too sticky for the players' feet, more sand should be added on the surface. When a court is finally covered, it should be thoroughly watered and rolled alternately twice every day for two weeks before it is played on at all, and any depressions or uneven spots corrected as fast as they appear from the settling. After the first heavy rainstorm, it should be gone over and relevelled most carefully, for then it is most likely to develop new faults.

The fine seashore sand will seldom be found satisfactory for the surface of a court, for it works loose too quickly under the players' feet, and can only be made to bind when mixed with a larger proportion of clay, which will make the drainage more difficult, as water percolates very slowly through clay. If the soil upon which a court is being built is very rich and worms promise to work through to the surface above and injure the court, it is well to place a layer of fine cinders, those from a railroad engine preferred, between the foundation and the sandy surface layer. These cinders effectually prevent

worms from coming through to the surface. It is also well to use coarse sifted ashes mixed with the stones in the drain-pipes.

The construction of a grass court is less difficult, but varies much more in process. If cost need not be considered, it should be built by a professional, and will be built on deep-laid foundations; if it is desired to build an economical court on an available lawn which is fairly level, the cost will not be heavy. The sod should first be carefully removed in squares of about 18 inches, from a space at least 50 by 100 feet, cutting down to a depth of about 6 inches. The ground should then be turned with a spade to a depth of 18 inches or 2 feet, and after all stones have been removed, and the earth carefully raked over and levelled, it should be packed and rolled with a heavy roller. It cannot have too much levelling and rolling, and the rolling should be kept up for several days with plenty of soaking by rain or hose-pipe. Any inequalities which the heavy pressure of the roller produces should be filled in or cut down before the sods are relaid.

After the ground has been rolled sufficiently, the sods should be replaced. In doing this it

is important to get the edges close together, so that no seams or open cracks can be found. These sods should be relaid in the afternoon and well drenched with water. The next day the ground should be rolled again; and this should be followed by alternate drenching and rolling for several days. Even when the ground finally appears firm and level, the court should not be played upon until new blades of grass appear in considerable numbers. If depressions appear, the sod at that spot should be lifted, fresh earth inserted to the proper grade, and the sod replaced, watered, and rolled till level and flat again.

Bad spots are often found where the grass is thin or where malignant weeds obstruct its growth, and in this case fresh sods should be bought or cut elsewhere and substituted. Sometimes large patches of ground must be renewed in this way; but it will be found much less expensive, if all the turf is bad, to sow the new court down with lawn seeds, and seeds will often help out thin spots in the grass if the court is not to be used too soon after the sowing. It is better to make a grass court in the fall, whether it is to be sown with seed or sodded. The winter storms will then settle it

thoroughly, and after a little releveling in the spring, it will be ready for use.

Grass seeds should be sown between the middle of March and the first of May, or better yet in the autumn, between the middle of August and the first of October. It takes about twenty quarts of good lawn seed to cover a space 60 by 120 feet. The sowing should be gone over twice, the second time at right angles to the first. Clover seeds should be avoided, as this grass does not wear well; and guano should not be used for fertilizing, for it tends to bring up coarse blades in patches.

As soon as the young grass is high enough to be topped, a scythe or sickle should be used, being at first better than the mowing-machine. After the new grass is well hardened, however, the latter should be constantly in use, never less than once a week and in moist, warm weather nearly every day. With every precaution weeds are sure to appear, but these can generally be held in check by constant mowing. The more formidable weeds, however, must be cut with a knife one by one, about an inch below the surface, care being taken to remove as much of the root as possible. When the turf becomes worn in spots,

a small shift in the lines of the court will relieve the pressure and enable the grass to grow again; at the end of the season all of the bare patches should be resown.

There are several other kinds of courts sometimes built when turf cannot be had. Instead of sand or gravel, what we generally speak of as "dirt" courts are most often used. Cinders, clay, concrete, cement, and asphalt are also sometimes used, while board courts are built under cover for winter use.

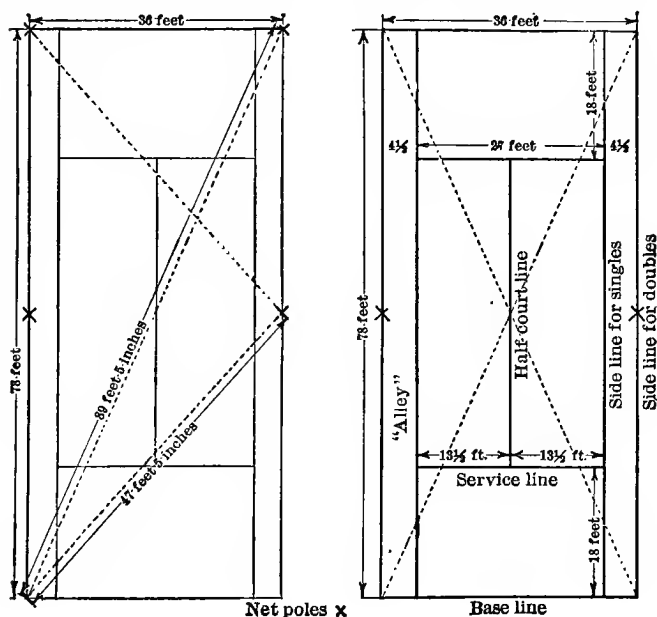
Concrete and cement are open to many objections. They are very hard on the eyes and legs, and often make the players' feet sore; the surface generally wears out the balls and shoes quickly, and it is also liable to crack with frost. Cinder courts are cheap and easy to construct, but the surface is so gritty, that it burns the feet of the players and soon uses up the balls. They are also very dirty. Asphalt courts are expensive and much affected by heat and cold, sometimes even cracking with the frost.

In Australia courts have been made of cracked blue-stone, while a cheaper substitute has been found in England in what is called a brick rubble court.

Once the court is finally built and ready for use, it must be properly marked out. In every case, unless it be of grass and the lines are to be constantly shifted to prevent bare spots, net-posts should be permanently sunk in the ground. They should be not less than 2 feet under the ground nor 40 feet apart. In marking out the lines, a thick mixture of whitewash and paint should be put on with a brush, not a marking machine. Two long and narrow strips of wood should be fastened together with three or four braces, their inner edges just 3 inches apart and parallel. This marker should be laid on the ground where the line is desired, and the brush run up and down between the boards. The line is then marked exactly 3 inches wide, perfectly straight and without ragged edges. Waving lines, or those made of marbledust that blows about or is pushed aside by the players' feet, are abominations. Tapes are sometimes used for marking out a hard court, being fastened to the surface with wire staples, but they are not only unsatisfactory, but very dangerous. I have seen many bad falls due to the players' catching their feet in these loosened tapes.

A double court contains every line used for

singles, and so it is customary to mark a court for doubles, — except occasionally for imported tournament matches in singles, when the outside lines are left off. In order to lay out a



court properly, the middle of the space should be measured and the two posts set down for the net. Then a cord should be stretched along one side just inside the post and pegs driven down into the ground each 39 feet from the

net. In order to prove that the side line is at right angles with the line of the posts where the net is to cross, it should be proved by measuring with a tape-line or cord the diagonals from the opposite net-post to the corner peg at each end of the side line, which should agree.

The pegs from the other two corners should be driven down next by measuring 36 feet at right angles from each end of the side line already planned. Then you have a hollow square, but before marking any of the lines it should be proved again. The long diagonals, from corner to corner, should be carefully measured to agree, in order that the court shall be exactly rectangular, not diamond shaped. Each side line and each base line should be gone over again to prove its length accurate, and then the lines of this hollow square should be marked out. If the position of the court is not to be shifted, it is a good plan to sink small angle plates to mark these four corners, so that when a hard storm washes away the lines, they will not have to be laid out all over again.

The inner side lines should be put in next, each parallel with the outer lines, and $4\frac{1}{2}$ feet inside, measuring them at the base lines and at

the net to prove them parallel. On each of these, pegs should be driven down just 18 feet from either end, and then they should be measured the other way to prove that each is 21 feet from the net and 42 feet from that at the opposite end. Across from each of these to that on the opposite side, should be marked the service lines, and then dividing these service lines in half, the half-court line should be marked, its distance being $13\frac{1}{2}$ feet from each inner side line. The court will then be completed and ready for use.

A good dirt court should be swept, watered, rolled, and freshly marked out after every eight or ten sets of play, and oftener in very dry weather. Instantly a depression is discovered it should be filled in and rolled down before playing is continued, for it is almost as dangerous for the players as the court to continue with it uneven. A court should never be rolled in the condition the players leave it after play. A player's heel raises a little lump; if the roller goes over this before it is swept down even again, a hard ridge results and the ball will bound unevenly from it. It should be swept over first, until all the lumps are levelled down, before the roller is allowed on its surface.

One of the best sweepers is made of a heavy joist of wood with a dozen thicknesses of old jute bagging or coarse cloth frayed out at the bottom edges, fastened to its bottom and trailing on behind it. This should be drawn over the court with a handle or rope several times. If it is pushed, the groundsman's feet will leave tracks after it; if he goes ahead the sweeper will erase them. Before the lines are marked out fresh, the old ones should always be swept off with a broom, but if the broom is constantly used along the lines in a parallel direction, it will gradually wear away little grooves in the court where the lines are and the balls will bound improperly from them. The sweeping should be done lightly across the court, at right angles with the lines.

A grass court cannot have too much care. It is advisable to wet it thoroughly several times a week and to roll it as often. It should be watered at night, cut in the morning, and rolled after cutting and before watering. The best way to repair a bare strip of ground is to lay fresh turf, and this should be done in the fall or as early as possible in the spring. Good tough turf, laid in February, or early in March, will be fit for use by the first of June. In the early spring, grass roots both in

new turf and old may be greatly benefited by a good dressing of manure well worked in, but regular manuring should also be done in the fall.

Worm casts are very bad for good tennis turf. Particularly in fertile ground or after a storm, the little mounds will appear on the sod, and if the roller passes over them or they are trodden down, little hard lumps are formed which spoil the surface of the court. The turf should always be swept before rolling, and in rich soil every morning. This scatters the mounds effectually. Where it is necessary to get rid of the worms, lime water should be sprinkled on the ground. They will then come to the surface and can be swept away.

When a horse mowing-machine is used, it is well to have the horse's hoofs covered with soft pads to prevent their cutting into the turf and leaving prints that affect the bound of the ball. The groundsmen at work on good lawn tennis courts, particularly when the turf is soft and always on a sand court, should be required to wear rubber-soled shoes without heels.

CHAPTER VI

GLOSSARY OF TERMS USED IN THE GAME

- Ace.** An earned point, in contradistinction to one scored by the error of an opponent. (Commonly used to mean only an ace made by service.)
- Ace on Service** (same as "service ace"). A point earned by serving a good ball that cannot be returned. (Commonly abbreviated to "ace.")
- Advantage** (same as "vantage"). The score of a game after either side has won a point from "deuce."
- Alley.** A slang expression defining the strip of court lying between the side lines for singles and doubles. (Used in America only.)
- Amateur.** In America, one who does not make a profession of sports, as defined in Art. II. Sect. 4 of U. S. N. L. T. A. By-laws. (See page 35.)
- American Plan** (same as "round robin"). An event in which each player or team meets all of the others entered. (Used in England only.)
- American Sweep.** An event, on the "American Plan," in which the winners take all entrance fees for prizes. (Used in England only.)
- Backhand.** With the playing arm and racket across the body; generally, strokes on the left side (for right-handed players).

- Back-spin.** The twisting of the ball caused by a straight cut or "chop" stroke, the ball spinning back toward the striker.
- Back-stop.** The netting or other obstruction behind the court to prevent the balls from rolling away.
- Bagnall-Wilde.** The system of drawing entries so that there shall be no byes after the first round. (See page 297.) Named after the Englishman who invented the system.
- Ball.** The sphere used in playing lawn tennis; made of rubber inflated with compressed air and covered with felt. (For size and weight, see page 83.)
- Ball-boy.** A boy employed to stand behind the court and toss idle balls to the server when he needs them.
- Band.** A strip of canvas bound to the top of the net to show the height.
- Base Line.** The back line at either end of the court, behind which the server stands.
- Base-line Game.** A style of play in which the player stays near the base line and seldom volleys; in contradistinction to the "net game."
- Bat.** A term used to distinguish a symmetrically shaped racket from one made in the old lopsided form, and used only when both styles were in use. (Now practically obsolete.)
- Bisque.** One point given by a player or team to another as a handicap under an old system. It could be claimed at almost any time during the set. (Now obsolete.)
- Blade.** The head of the racket, or that part where the stringing is. (Used in England only.)
- Blocked Ball.** A ball returned without any swing of the racket, by simply meeting it with a stiff wrist and stationary racket; generally, a "stop-volley."

Break. The action of a bounding ball as it leaves the ground ; used chiefly in speaking of cut or twist strokes, when the ball bounds unnaturally. (Used chiefly in England.)

Bump-ball. A term borrowed from cricket to describe a ball that has struck the ground at a sharp angle immediately after leaving the player's racket, and then bounded over the net ; not a good return. (Used in England only.)

Bye. A walk-over ; the right to enter the next round without playing, given by chance in the drawing to players for whom there is no antagonist.

Chalk. When a ball strikes exactly on a line, white dust often flies into the air, and players then speak of "seeing chalk," meaning that a disputed ball was good because it raised white dust. (Used in America only.)

Challenge Cups. Trophies offered in lawn tennis, the holders of which are open to challenge for their possession. The customary requirements are that the holder must meet the winner of an event held once each year, and if the trophy be won three times by the same player, it passes into his permanent possession. In England, some of these cups must be won three times in succession, but this is not the case in America.

Challenger. The player who wins an event for which there is a challenge cup, or title, and thus earns the right to challenge the holder for the trophy.

Challenge Round. The extra round in which a match is played between the challenger and holder for any trophy or title.

Champion Barred. The conditions of most events for championships, the holder of the title being debarred from

entering for the prizes, and meeting the winner in the challenge round.

Championship. The title held by virtue of winning any tournament held for supremacy of any given section. Also, the event held for the right to challenge for the title or trophy.

Chop-stroke. A slicing stroke made by drawing the racket down sharply with a chopping motion, as it strikes the ball, which gives the ball a sharp back-twist.

Consolation. A prize event, or match, open (in America) to any player beaten in the first match actually played, or (in England) generally to all players beaten in the first and second rounds. (Similar to "plate," as used abroad.)

Court. The ground bounded by the outer lines of play; or (more generally) that and the space immediately surrounding the lines.

Covered Court. An indoor court for winter play, generally with board flooring, always with roof. (Used chiefly in England.) In America, called an "indoor court."

Crack. A slang expression abbreviated from "crack-a-Jack," meaning a very expert player.

Cross-court. A stroke that drives the ball across the court diagonally from one side to the other.

Curl. The twist, cut, or spin on a ball resulting from a sharp cut-stroke. (Used in England only.)

Cut. The twist, spin, or curl of a ball when it has been sliced in hitting.

Cut-stroke. A stroke in which the racket strikes a glancing blow and is drawn sharply to one side or another in striking.

- Dead.** A ball is dead after it has ceased to be "in play"; that is, when it has hit the ground twice anywhere or once out of court, when it has fallen into the net, or when either player has lost the point by any infraction of the rules. Also said of a ball that has been placed or smashed out of the reach of an antagonist; a "killed" ball.
- Default.** The victory given to a player whose opponent is absent or declines to play; also, the absence or act of declining to play. (Used in America only.) In England, a "walk-over."
- Deuce.** The score of any game when each side has won three strokes by play or handicap; or after this point has been reached, whenever the score of points is equal. Also the score of any set in which each side has won five games; or after this point has been reached, whenever the score of games is equal.
- Differential Odds.** Handicaps whose relative values are adjusted by the use of tables of equation. (See page 308.)
- Double.** A slang expression derived from "double fault," meaning two successive faults by service. (Used in America only.)
- Double Fault.** Two faults in succession made by the server, scoring one point for the antagonist. (Often abbreviated in America to "double.")
- Doubles.** A game in which there are two players on each side.
- Draft.** The draw; the list of players entered for any event written out and bracketed in the order in which they are drawn to play.
- Draw.** The act of deciding by chance the order in which the players in any tournament will play, and against whom they will play. Also, the draft; the list of players entered

in any event written out and bracketed in the order in which they are drawn to play.

Drive. A long, horizontal stroke made from the back of the court when the antagonist is also back in his court. (Exact meaning doubtful.)

Drop. The unnatural down curve of a ball when hit with a "lifting" stroke that gives a top-curl or forward spin.

Drop-stroke. A stroke made with a sharp lift of the racket as it meets the ball, which makes the ball twist forward rapidly and "drop" unnaturally after it crosses the net. Also, a short stroke made so that the ball drops just over the net. (See "stop volley.")

Duffer. A poor player. (Used chiefly in England.)

Event. Any complete competition on the programme of a tournament.

Face. Either side of the stringing of a racket ; the flat surface in the head or blade of a racket strung with catgut.

Falls. Dies ; the second bound of a ball in play, or its first bound if out of court.

Fault. A served ball that does not strike in the proper court or is not properly served. (See page 272.)

Fifteen. One point scored for either player. Also, a handicap of one point given on every game.

Fifteen-all. The score when each side has won one stroke.

Fifteen- (thirty-, or forty-) love. The score when the server has won one (fifteen), two (thirty), or three (forty) points and the opponent none.

Fifteen-one (-two, -three, -four, or -five). (Abbreviated from fifteen-and-one-sixth, etc.) A handicap of two points in

one, two, three, four, or five games in each series of six, and one point in the rest of the series. (See page 302.)

Final Round. The last round, in which the two surviving players or teams are opposed to each other; commonly referred to as the "finals."

First Return. The first stroke made by the "striker-out," in returning the service.

Fit. Well trained; in good condition. (Used chiefly in England.)

Fluke. A slang expression meaning an accidental return, or one that was intended in some other way. Also, the victory of a poorer player over a stronger player, through chance or luck; an "upset." (Used chiefly in America.)

Foot-fault. A ball served when the feet of the server are not in the position required by the law. (See page 165.)

Forehand. With the playing arm and racket on the natural side of the body; generally strokes on the right side (for right-handed players).

Fork. An iron upright stuck in the ground at the centre of the court to keep the net at exactly the required height.

Form. The style in which a player carries himself, and makes his strokes. Also, his playing skill.

Forty. Three points scored for either player. Also, a handicap of three points given on every game.

Gallery. The spectators watching any game or match.

Gallery Play. A slang expression meaning fancy strokes made for the purpose of attracting the attention of the spectators, or a spectacular stroke made in the regular course of a game.

Game. A unit of the score made up of four points unless each side has won three, after which it takes a majority of two points to win a game.

Games-all. (Same as "deuce" in the score of a set.) The score of a set when the games are even at 5-all, 6-all, or higher.

Given Odds. Handicaps allowed a weaker player which presume him to have won certain points without playing for them.

Good. (Same as "in" and "right.") A ball that strikes in the proper court. (Used chiefly in America.)

Ground-stroke. A stroke made after the ball has bounded from the ground.

Gut. The stringing of a racket; an abbreviation of "cat-gut."

Guy-rope. The rope stays used to support the poles between which the net is suspended.

Half-court line. The line dividing the service-court into halves and separating the right and left service-courts.

Half-fifteen. (Same as "three-sixths.") A handicap of one point given on every other game, beginning with the second game of each set. (See page 304.)

Half-forty. An alternating handicap of two points or three points given on every game, beginning with two on the first and three on the second game of each set.

Half-thirty. An alternating handicap of one or two points given on every game, beginning with one on the first and two on the second game of each set. (See page 305.)

Half-volley. A stroke made by hitting the ball just as it rises from the ground after its first bound.

Handicap. Odds given or owed to a poorer player to equalize skill. Also, an event or match in which odds are assigned to unequal players, in order to equalize the chances of winning.

Handle. The end of the racket by which it is held.

Head. (Same as "blade.") The upper part of a racket in which the stringing is fastened.

Hop. The bound of the ball. (Used only in England.)

How? The call of a player for the decision of the linesman or umpire on any doubtful ball. (Used in England only.)

In. (Same as "good" and "right.") A ball that strikes in the proper court. (Used in America only.)

In play. A ball in use before it becomes "dead." (See pages 272-273.)

Invitation Tournament. A meeting which is open only to players who are invited to enter. (Used chiefly in America.)

Kill. To place a ball into some part of the opponent's court where it cannot be returned, or to smash it so fast that he cannot return it.

Knock-up. Practice play generally to warm up before a match, and often played without serving or scoring; sometimes only knocking the balls back and forth over the net regardless of the court lines. (Used in England only.)

Lawford Stroke. The method of hitting the ball invented and used by H. F. Lawford, an early English player. In America, this term is commonly misapplied to all fast ground-strokes made at the side, with a forward twist, or "drop-strokes."

- Length.** The distance a ball travels after crossing the net; specifically, how close it strikes to the base line.
- Let.** A ball that touches the net and yet goes over into the proper court; in service, it counts for nothing. Hence, also, any point which does not count and must be played over. (See page 286.)
- Let in.** (Same as "sleeper.") A slang expression meaning that a player has been given too much odds in a handicap event. (Used in England only.)
- Let it touch.** The warning called out by a player to his partner in doubles, when he thinks a ball is going out. (Used in England only.)
- Lift-stroke.** A stroke made with the racket nearly or quite vertical, and drawn up sharply as it meets the ball, apparently lifting the ball over the net.
- Line-pass.** A stroke made from the side of the court, that drives the ball past a player at the net, passing along parallel with and inside the side line.
- Linesman.** The official selected for a match to decide whether the balls are in or out of the court, generally having supervision over only one or two lines.
- Lob.** A stroke that knocks the ball high up into the air; a toss.
- Love.** A term used in scoring to indicate nothing; thus, the game begins at "love-all."
- Love-all.** A term used in scoring to indicate that neither side has made a point. Also, in handicaps, the score when one player has made up his owed odds and the other is still at scratch.
- Love-fifteen (-thirty, or -forty).** A term used in scoring to indicate that the server has not made a point and the oppo-

ment has made one (fifteen), two (thirty), or three (forty) points.

Love Game. A game in which one side has not scored a point.

Love-one (-two, -three, -four, or -five). A term used in scoring sets to indicate that the server has not made a game, and the striker-out has scored as many as indicated.

Love Set. A set in which one side did not win a single game.

In England, winning six successive games is called a love set, even though the antagonist had already scored when the run began.

Marker. An implement for marking out the lines of the court.

Also, a professional who keeps the score.

Match. A series of sets, generally the best in three, or the best

in five, in which the winner of the majority is the victor.

Also, a competition arranged between two clubs, teams, counties, states, nations, or other bodies, each being represented by an equal number of players who play a series of matches (as per first definition) against each other.

Minus. (Same as "owed.") Points not yet scored when odds are owed in a handicap.

Mixed Doubles. A game in which a man and woman play as partners on each side.

Muzzled. A slang expression meaning that dietary training is being undergone. (Used in England only.)

Net. The netting spread across the centre of the court to prevent balls lower than a given height from going into the opponent's court. Also (same as "let"), a ball that touches the net and goes into the proper court. (Seldom used with this meaning.)

Net-cord Stroke. (Same as "let.") A stroke that hits the top of the net and goes over into the proper court. (Used chiefly in England.)

Net Game. The style of play in which the ball is generally volleyed, with the player close to the net. The reverse of "base-line game."

Odds. Points given or owed by a better player to another in handicap play.

One- (two-, three-, four-, or five-) love. A term used in scoring to indicate that the server has one (two, three, four, five, or six) games and the opponent none.

One-sixth (two-, three-, four-, or five-sixths) of Fifteen. A term used in handicap play to indicate that one player gives the other one (two, three, four, or five) points at given intervals in each series of six games. (See page 304.)

Out. A ball that has touched the ground beyond the lines bounding the court into which it was played.

Overhand. With the racket above the shoulder.

Overhead. With the racket above the head.

Owed Odds. Handicaps charged against a stronger player, which require him to win points before he begins to score. The reverse of "given odds." (See page 306.)

Owe-fifteen (thirty, or forty). A term used in handicap play to indicate that one player must make one (fifteen), two (thirty), or three (forty) points in each game before he begins to score.

Pace. The speed with which a ball travels through the air, or the impact it has when it strikes the opponent's racket.

Pass. A stroke that drives the ball past an opponent at the net, inside the court, but still out of his reach.

- Pat-ball.** A slang expression used to describe slow play, in which the ball is simply batted back and forth across the net without pace.
- Pitches.** Where a ball touches the ground or strikes. (Used in England only.)
- Place.** To direct a ball to some special part of the court.
- Placing.** Controlling the direction of the ball and returning it where it will be the most difficult to play.
- Plate.** A prize given in England, generally to be played for by the losers in the first two rounds of a tournament event; similar to the American "consolation prize." (Used only in England.)
- Play.** A warning called by the server just before serving. Also, the response of a linesman or umpire when appealed to for a decision on a ball that is good; an order to continue play. (Same as "right," "good," and "in.")
- Played.** An abbreviation of "well played." Used as applause for a clever stroke. Also, the manner in which a ball is returned.
- Plus** (same as "given"). Used in speaking of points given in handicap play by one player to another.
- Poaching.** A slang expression meaning for one partner to take a ball which should have been played by the other; generally, at the net, for one to cross over and volley a ball travelling toward the other. (Used in England only.)
- Point.** The smallest unit in scoring games, a number of which go to make up a game.
- Pole.** The post at either end of the net that supports it.
- Position.** Where a player stands in relation to the lines of the court, the net, the opponent, and the ball.
- Post.** The pole at either end of the net used to support it.

Preliminary Round (now the "first round"). In tournament play, the first series of matches when the number of entries does not exactly equal a power of two. (Used in America only, and now obsolete.)

Quarter-fifteen. Under an old system of handicapping, one point given by a player to another in one game in each series of four. (Obsolete.)

Racket. The implement used to strike the ball in play.

Racket Press. A frame with hand-screws to tighten it, used to keep the frame of a racket from warping out of shape when not in use.

Rally. A series of strokes made during play; a "rest." (Used in America only.)

Referee. The chief official at a tournament, whose duties are defined in the Laws of Lawn Tennis. (See page 292.)

Renshaw Smash. A severe overhead volley intended to kill the ball by its speed, which was said to have been first played by the Renshaw brothers in England; a smash.

Rest (same as "rally"). A series of strokes, from the service till the point is won or lost.

Retire. For one player to give his opponent a "walk-over," or allow him to win by default by refusing to continue a match. (Used in England only.)

Return. To knock a ball back over the net while in play.

Reverse Twist. A stroke made by drawing the racket across the body in striking the ball.

Right (same as "good" and "in"). A ball that strikes in the proper court. (Used only in England.)

Ripping. A slang expression used to denote extreme praise of any stroke. (Used in England only.)

Romp. A slang expression meaning to win with the greatest of ease from an opponent ; to "go through." (Used in England only.)

Rough. The side of a racket on which appear the knots or rough edges of the twisted strings at the top and bottom of the regular stringing ; when there are no such strings, the side having the name of the racket, or maker, on it. Opposite to "smooth." (Used in "tossing" for choice of courts or service.)

Round. A series of matches in a tournament, the winners of which must equal an even power of two.

Round Robin. A method of playing a tournament by which each player meets all of the others in turn ; the "American plan." (Used only in America.)

Runner-up. The loser in the final round of any tournament or event.

Scorer. An official in a match who keeps the score.

Scratch. An event in which no handicaps are given ; championship ; opposite to handicap. Also, in a handicap, a player whose score is love, or who neither owes nor is given points. Also, to withdraw from an event ; to retire ; to default voluntarily. (Used chiefly in England.) Also, an accidental stroke which is successful ; a "fluke."

Screws. Twists, cuts ; balls that are hit so that they bound unnaturally from the ground. (Used in England only.)

Semi-final Round. The round preceding the final round.

Semi-finals. The two matches in the round before the finals ; the matches of the semi-final round.

Serve. To deliver the ball from the base line by throwing it into the air with the hand and knocking it into the oppo-

nent's service-court ; the opening stroke of each point or "rest."

Server. The player whose privilege it is to serve, or put the ball in play.

Service. The ball that has been served.

Service Ace. An ace scored by service ; a point earned by a served ball that is placed out of the reach of the striker-out but in the right court.

Service Line. The line 21 feet from the net that bounds the back of the service-court.

Set. A series of games, six unless each side gets five, when it must be won by a majority of two. (See page 275.)

Setless. Without a set ; when a player loses a match in "straight sets."

Shack. To collect or retrieve idle balls knocked out of the court ; the work of the ball-boys.

Short Ball. A ball that drops just over the net when the opponent is back in his court, intended to win because out of his reach. (Used in America only.) Generally a "stop volley."

Side Line. The line at either side of the court that marks the outside edge of the playing surface.

Side Pass (same as "line pass"). A stroke that drives the ball along the side of the court, out of the reach of an opponent at the net.

Singles. A game in which only two players take part, one on each side of the court.

Skittles. A contemptuous slang expression to describe the poor play in a game where the ball is knocked back and forth with little attempt to win. (Used in America only.)

- Sleeper.** A slang expression meaning a player who is much better than was thought ; specifically, in a handicap event, a player who has been given too large a handicap. (Used in America only.)
- Smash.** A fast overhead volley of a dropping ball intended to kill the ball by speed.
- Smooth.** The side of a racket on which none of the knots or rough edges appear in the twisted strings at the top and bottom of the regular stringing ; when there are no such strings, the opposite side from that which bears the name of the racket or maker ; opposite to "rough." (Used in tossing for choice of courts or service.)
- Spikes** (same as "steel points"). Shoes in which nails protrude from the soles or heels to keep the player from slipping. (Used in America only.)
- Spin.** The twist of a ball when it is cut in making the stroke. Also, to toss up a racket for choice of courts or service.
- Splice.** That part of the frame of a racket where the strip of wood around the stringing is joined in the handle ; the "throat." (Used in England only.)
- Steel Points** (same as "spikes"). Shoes that have nails or rivets protruding from the soles and heels to keep the player from slipping. (Used in England only.)
- Stop Volley.** A volleyed stroke made from close to the net by simply stopping a ball with the racket, so that it rebounds of its own force over the net ; a "short-ball" play.
- Straight Sets.** A match won without losing a set ; setless. (Used in America only.)
- Striker.** An abbreviation of "striker-out" ; the player whose turn it is to return the service.
- Striker-out.** The player whose turn it is to return the service.

Stringing. The catgut strung across the frame of a racket.

Stroke. The act of striking a ball with the racket while in play. Specifically, a fast stroke made with the racket drawn sharply upward, so that the ball twists forward and drops after crossing the net. Also, a point or series of plays that score a point.

Sudden Death. A slang expression meaning a set decided by one game, after the score has been even at five-all, in contradistinction to playing deuce-and-vantage sets.

Tape. The "band" of canvas bound on the top of the net. Also, the court line (derived from the occasional use of tapes for lines on dirt courts). (Used in America only.)

Tennis Elbow. An inflammation and swelling of the elbow joint, resulting from too much playing.

Tennis Leg. A rupture of some of the muscle fibres in the calf of the leg, resulting from a sudden twist or strain.

Tennis-stroke (same as "cut-stroke"). A stroke made by cutting or slicing the ball under so that it twists backward.

Thirty. A term used in scoring to denote two points. Also, in handicap matches, two points given on every game.

Thirty-all. A term used in scoring to denote that each side has scored two points.

Three (or Two) Straight (same as "straight sets"). A match won in successive sets; a setless victory.

Tie (same as "round"). A series of matches, the winners of which must equal some power of two. (Used in England only.)

Top-curl. An over twist or forward spin; the twisting of a ball caused by the racket being drawn up sharply as the stroke is made. (Used chiefly in England.)

- Toss** (same as "lob"). A stroke that knocks the ball up into the air over the head of an opponent. (Used chiefly in England.) Also, to throw up the racket for choice of sides or service ; to "spin."
- Touch.** The act of the ball when it strikes the ground. Also, the feeling of the ball with a player's racket.
- Tournament.** A meeting given with events or competitions for prizes.
- Twist** (same as "cut" or "spin"). The spinning of the ball caused by a cutting stroke.
- Umpire.** An official of a match, whose duties are described in the Laws of Lawn Tennis. (See page 292.)
- Underhand.** With the racket below the level of the shoulder.
- Vantage** (same as "advantage"). The score of a game after either side has won a point from "deuce."
- Vantage-all.** A term used in scoring, when the usual method of deuce-and-vantage games or sets is not used. When the best-two-out-of-three points (for games) or gamés (for sets) decide the game or set, the score is vantage-all when each side has won one point or game after deuce.
- Vantage-game.** The next game won by either side in a deuce-and-vantage set, after the score of games has been at deuce.
- Vantage-in** (or vantage-server). A term used to indicate that the server has won the "vantage" point (opposite of "vantage-out").
- Vantage-out** (or vantage-striker). A term used in scoring to indicate that the striker-out has won the "vantage" point (opposite of "vantage-in").

- Vantage Sets.** Sets in which deuce-and-vantage has been or is to be played.
- Veteran.** A player over forty years of age. (Used with this meaning in England only.) In America, any player having long experience.
- Volley.** A stroke made by hitting the ball before it has touched the ground.
- Volleyer.** A player who uses the "net game"; one who volleys by preference (opposite to a base-line player).
- Walk-over (W.O.).** A match won without playing, because of the absence or withdrawal of an opponent. (Used in England only.)
- Well Let.** A slang expression of approval called by one partner to another or by a spectator to a player, when he has declined to volley a ball within his reach that ultimately falls just outside of the court. (Used in England only.) In America, the corresponding expression is "good judgment," "well judged," or (in slang) "good eye."
- Well Played.** An expression of approval often abbreviated simply to "played" or "played, sir!" called as applause for a skilful play.

CHAPTER VII

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LACROSSE

BY WILLIAM HARVEY MADDREN

CHAPTER I

History.— The game of lacrosse, or, as it was known among the Indians, the “ball-play” game, dates back probably many centuries. At the end of the seventeenth century it was well known, and the manner of playing it was similar among tribes separated by thousands of miles. As with all serious undertakings among the aborigines, it was considered necessary to consult with the spirits and to invoke their aid; so that the game partook of the nature of a religious rite. Whole tribes took part in the contest, and a full day and night were occupied in the game itself, and upon the religious observances attendant upon it.

The night before the match each tribe left its encampment shortly after dark, all the men attired in the regalia of the game, and attended by the squaws carrying torches. Each brave wore only the loin cloth and a belt, having attached a tail made either of horse hair or of prairie grasses, and carrying in his hands two curious-looking sticks. The decorations and designs

painted upon their swarthy, naked bodies showed weird and strange in the flickering light of the torches. Each band slowly and solemnly approached its own goal or "bye," as it was known, the men surrounding the bye; and, with hands and sticks raised to the uttermost, encircled the goal to the accompaniment of a savage chant.

A straight line extended from one goal to the other; and at the centre point of this line, midway between the two goals, a small fire was built, around which the four medicine-men, who were to supervise the play of the morrow, sat and solemnly smoked; now and again invoking the counsel of the spirits, and praying that their decisions might be honest in matters of contention during the coming match, — a proceeding that might, with advantage, be followed by some of the referees of the present day. On either side of this dividing line, but not daring to cross it, the squaws stood, dancing in solemn unison to the chant of the braves, and each carrying in her hand a switch with which to urge on her lord and master in the struggle to come. This proceeding was repeated three or four times each hour during the entire night, no food being tasted. Truly methods of training have changed mightily.



From "North American Indian Portfolios." Catlin, 1844.

ANCIENT INDIAN DANCE BEFORE BALL-PLAY GAME (1840)

Betting upon the result of the game was universal, and the stakes consisted of every imaginable article — ponies, saddles, arms, beads, fire-water, — in fact, sometimes the entire possessions of the players. These goods having been wagered, and put into the hands of the stake holders, who were grouped picturesquely about the field, and the preliminary dances having been completed, all was in readiness for the game to begin.

Some of the players grouped themselves about either goal, and another group surrounded the four medicine-men at the centre of the field, who, at a certain signal, threw the ball into the air, and, as it fell, the players began their struggle to secure it. It is not definitely stated just what matters the four medicine-men were called upon to decide, for there apparently were no fouls. Tripping was rewarded often by speedily securing the ball, and no play was too rough; the players pounding each over the head, encouraged by the approving shouts of the spectators. Now lest any man falter, or growing weary should try to rest, his squaw pursued him in his chase after the ball, urging him on to greater effort by vigorous lashing over the head and shoulders with the

switch she carried, and reminding him always that defeat meant loss of all he possessed. Indeed, so thoroughly and persistently did the squaws fulfil their part, that to the casual observer it might seem that perhaps unpaid grudges were liquidated, and insults avenged; and that the winning of the stake appealed less to the dusky wife than the reëstablishing of a fair equilibrium in the blessed state of matrimony.

Whenever a goal was scored the game was again begun by throwing up the ball at the centre of the field, and scarcely a minute was devoted to rest. One hundred goals constituted a game, and the side first making ninety-five had the privilege of raising the limit, as it were, so that the game often occupied the entire day. So seriously was a defeat taken to heart that often a warrior would take his own life rather than face the derision of his people, and many would solemnly take an oath before the game to die by his own hand if not victorious. Men there were whose ambition was neither for the chase nor for battle, but only to be considered invincible at ball-play.

The accompanying copies of plates taken from Catlin's *Portfolio of Views of North American*

Sports (1844) show clearly not only the costumes, but the manner of conducting the dance and the teams in actual play. He states that sometimes as many as a thousand on each side took part.

CHAPTER II

Origin as White Man's Game. — Lacrosse, now the Canadian national game, as first adopted by the white man dates from about 1850. It was from the barbaric proceeding just described that the Fathers of Lacrosse were obliged to evolve the present game; and it was indeed an arduous task to popularize a game known to the whites at that time only as a savage rite.

It is almost everywhere accepted that Dr. George Beers, a native of Montreal, was the first to attempt this task, and he was certainly the first to accomplish it. To him, and to the sport-loving men associated with him, belongs the credit of reducing to a scientific and popular game this Indian struggle. Nor was the adoption a quick or easy one. In 1860, ten years later, the leading teams were the Caughnawauga and the St. Regis Indians, and it was even after that date that it was actively taken up by the Montreal, Shamrock, and Toronto clubs.

At first, as might be expected, the Indian ex-

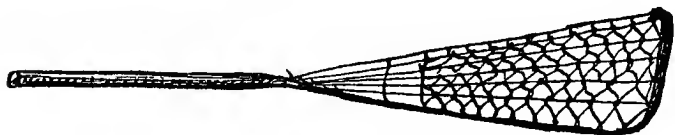
celled at his own game, but before many years had elapsed, his place as a player became less secure, and he was destined to see his pupils not only equal but far exceed his own ability; until to-day the Senega Indians — quite a third-rate team — are the main exponents of the game.

The present game of lacrosse is the outcome of a process of evolution which was so violent that only the main points are seen to resemble the game as played by the Indians. The rules, at first multitudinous and complex, have been simplified, until now they can be learned in large part by the simple watching of a good game.

Name Origin. — The name “La Crosse” was first given by the French Canadians because to them the stick, the characteristic paraphernalia of the player, resembled a crook. It *is* in shape not unlike a shepherd’s crook and is strung with gut or rawhide lacing, from the crook to a point about midway down the straight side of the stick, and cross lacings are then interwoven in such a manner that a shallow net is formed in which the ball is deftly caught, picked up, carried, and from which it is thrown.

The Stick. — The stick is from 4 to $4\frac{1}{2}$ feet long, and is made usually of seasoned hick-

ory, being at once very strong and very light. The greater skill shown in the modern game would have been impossible with the older heavy sticks at first in use.

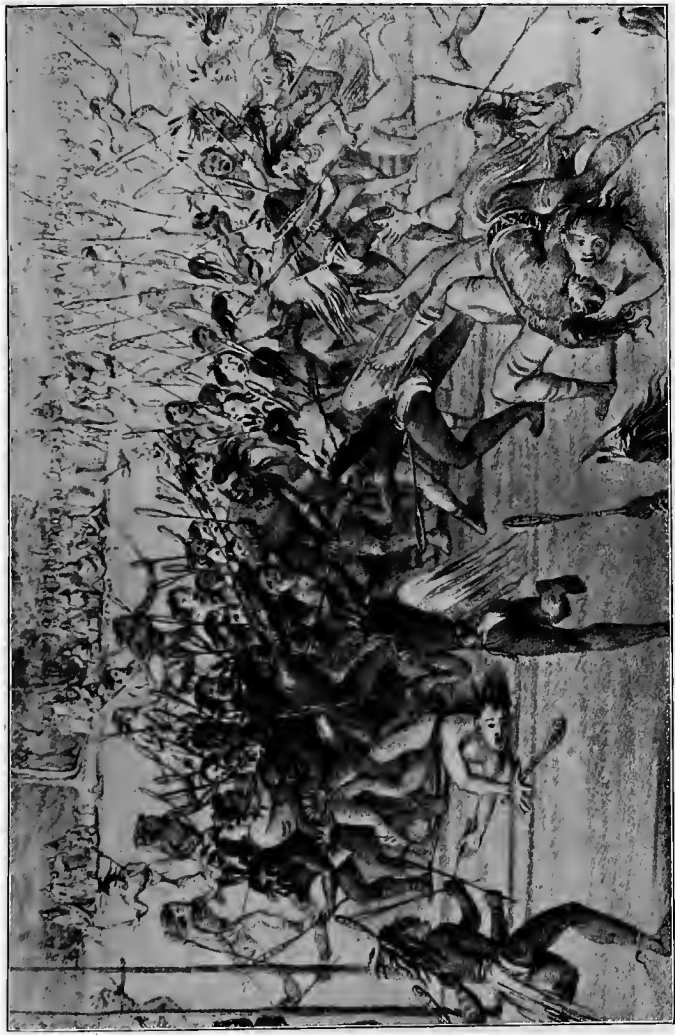


A Modern Lacrosse Stick.

W.H.J.

Field Dimensions. — The game is played on any level field at either end of which is a goal, through which the players endeavor to hurl the ball. The field is preferably 125 yards long, though when less than a regular team is playing, the field may be proportionately shortened. The width is variable, but is usually from 50 to 75 yards. Turf is preferable to bare ground, as it gives a softer and firmer foothold for running, and the ball is picked up with greater ease from turf.

Goals. — The goals are situated at either end of the field and consist of poles—technically known as “flags”—6 feet high and placed 6 feet apart. Until of late years the top of the goal consisted of an imaginary line 6 feet from and parallel with the ground; but judging the height of a swiftly thrown ball was so difficult and so



From "North American Indian Portfolio," Catlin, 1844.

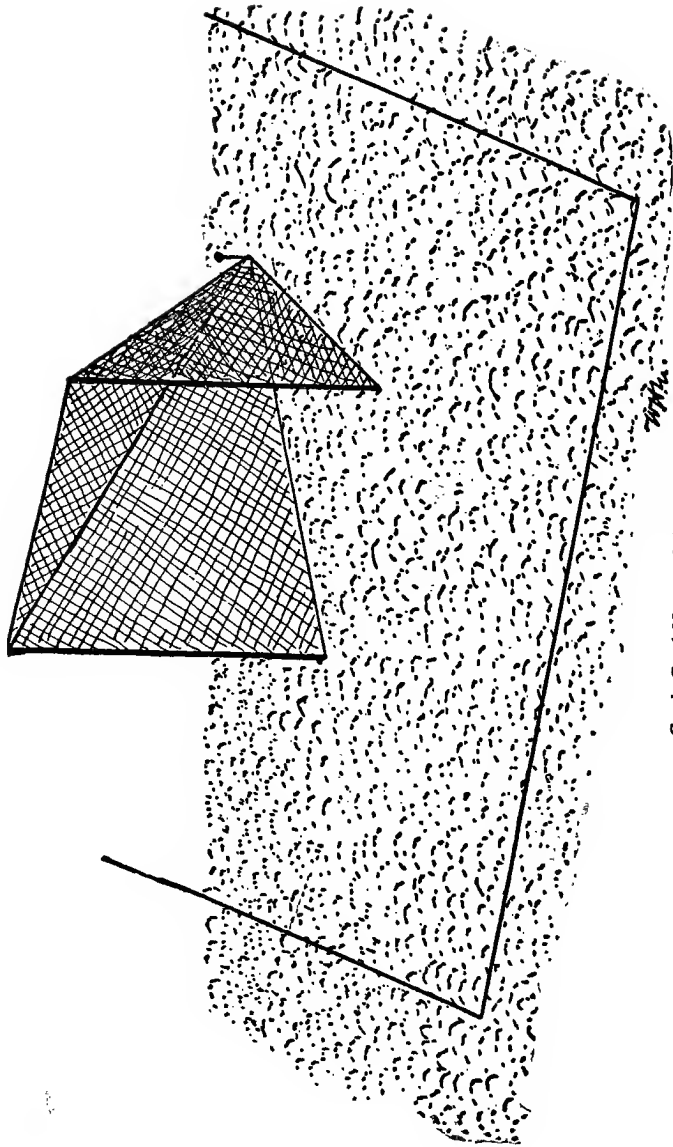
INDIAN BALL-PLAY GAME (1840)

A Scrimmage in Front of Goal

unsatisfactory, even when done by an absolutely competent and unbiassed umpire, that now there is a cross bar of iron, thus converting the goal into a definite square.

Goal Net. — From the top and sides of the goal a net, of a mesh sufficiently small to prevent the passage of the ball, is fastened, and this is carried back behind the goal and fastened to the ground with an iron pin; so that a ball passing through the goal is caught and held in the net, thus abolishing the chance of error, and adding greatly to the fairness of the game by eliminating the possibility of dishonesty or bad judgment on the part of the umpire.

Goal Crease. — The goal crease, which, however, is not always used in a game, is a square 18 by 12 feet, the lines of which are marked in white. The front line is 6 feet in front of and parallel with the goal, extending 6 feet beyond either post, and thus being 18 feet long. The side lines are at right angles with the plane of the goal, and 6 feet from either post. Thus the goal is in the centre of the crease. During a game no attacking player is permitted to go within the crease until after the ball has crossed the line. The object of this rule is to permit



Goal, Goal Net, and Goal Crease.

the goal-keeper to stop the ball without interference, and was designed to obviate the rough play close to goal — an object which it has accomplished to a large extent. It is most popular among the players of the United States, and is, I believe, an excellent scheme. If a goal is shot while one of the attacking players is inside the crease, it does not count, and play must be started afresh from where the ball was shot.

Teams. — The game itself is played by two teams, twelve on each side, — although a game may be contested with any even number of players from six to fifteen on a side.

Ball. — The ball is of sponge rubber, slightly larger than a tennis ball, but it is solid and weighs about $5\frac{3}{4}$ ounces. As in base-ball, it becomes the property of the team winning the match, and is furnished by the home team.

Officials. — The officials of a match are a referee, selected by the two captains, whose duty it is to enforce all rules — particularly those regarding fouls, — and to start and stop the game: and the two umpires, one of whom stands behind either goal, and whose duty it is to decide whether the ball fairly entered the goal, and, if a crease is used, whether or not an attacking player

was inside the crease before the ball. The umpire's duties have been greatly simplified by the use of the goal nets.

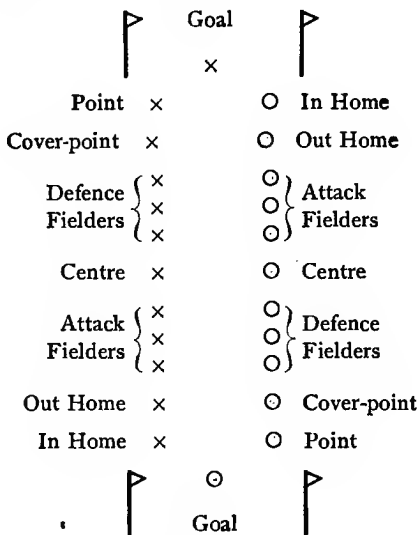
With the exception of the rules already cited, the others may be summed up by saying that no rough or vicious play is permitted, and specifying the penalties for such offences. For the novice that is enough to know, and to the expert an enumeration of the rules on this point is superfluous. No man is allowed to strike or trip another, and it seems almost unnecessary to mention them—that is, until you see a game. A player *is* permitted to strike an opponent's stick in an endeavor to dislodge the ball.

Time of Game.—At first the time of a game varied very greatly, for the side first succeeding in scoring three times won; but in view of the fact that sometimes the game was over in a few minutes, or that it might last for several hours, those in authority agreed upon a new rule, now universally accepted, that the game, as in football, should extend over a certain length of time; and that the team scoring the greatest number of goals in the given time was to be declared the winner. The halves are usually from thirty to forty-five minutes each, actual playing time, with

a rest between of ten minutes. In Canada, among some teams, it is customary to rest five minutes after each goal, and to count the actual time of play only to make up the total time.

Positions.—The positions of the players are designated as goal, point, cover-point, three defence fielders, centre, three attack fielders, outside home, and inside home. Each side defends one goal and attacks the other, endeavoring to send the ball through their opponents' goal, and preventing their opponents from accomplishing the same thing. Except for the goal-keeper, whose position is directly in front of the goal,—and even sometimes for him,—the positions on the field are not fixed; and the extent of field covered by any player depends entirely on his inclination and on the style of game played by his opponent. Each man of the team, except the goal-keeper, is directly opposed to a player of the opposite team, the point opposing the in home, the cover-point the out home, the defence fielders the attack fielders, and so on down the field. However, the positions are often interchanged, the point going to cover-point and *vice versa*. Point simply means the position next in front of and defending the goal, and the man playing that position ceases

to play it when he gets beyond cover-point. But after all, "What's in a name?" and these *are* only names.



Offside Play.— There is no offside play, as in hockey, and so the changes are as rapid as the flight of the ball.

Facing.— When all is ready, the game is started by the two centre men "facing" the ball. In facing the men stoop or kneel with their left sides toward the goal they are attacking. Their sticks are placed back to back, with the sides touching the ground. The ball is then placed between

the sticks and on the ground; the referee gives the word and each man sharply draws his stick toward himself, thus releasing the ball, which is then in play.



Facing the Ball.

On the right is R. T. Abercrombie of J. H. U., for several years the best college centre in the United States.

CHAPTER III

The Game. — The ball cannot under any circumstances be touched by the hand, and if it becomes caught in the stick, it may be dislodged only by striking the stick against the ground. The ball may be carried by any player as far toward his opponents' goal as he may see fit, and when he is no longer able to proceed, he tries to pass it on to one of his own men more favorably placed than himself, who in turn proceeds until the ball is intercepted, or until it is shot at goal; and this is kept up, now one side holding possession of the ball, now the other, until some one succeeds in scoring. When this is accomplished, play is again started at the middle of the field, as at first.

Bounds. — When the ball goes out of bounds, it is brought back to the place where it crossed the boundary, and the two nearest opposing players "face" it.

Changing Goals. — It is seldom that the conditions are such that one goal is not more easily

defended than the other; so that the goal first to be defended is determined by the toss of a coin, and after each score goals are changed, or between halves, according to the agreement reached beforehand.

Body Checking. — There is one rule that deserves especial explanation—that governing body checking. Suppose a man to be carrying the ball toward his opponents' goal—how may he be stopped? If he refuses to throw the ball, it cannot be intercepted, and striking his stick in an endeavor to dislodge the ball is a useless waste of energy, as every old player knows. Now to prevent his further progress some other plan must be tried, and so the body check is allowed. That is, either interposing your own body so that he cannot pass, or by jolting him sharply with the shoulder or hip as he attempts to dodge close to you. The rules are explicit on the point, and only body checks directly in front or at the side are permitted, a jolt from behind being one of the most flagrant fouls. Body checking is allowed only within six feet of the ball, so that when two players are in pursuit of the ball, they cannot endeavor to push the other away with their body unless within the prescribed six feet, and then

never with the hands or elbows, only with the shoulder or hip. It is the failure strictly to observe this rule that leads to most of the dirty play. The penalty for a foul body check is the loss of the ball to the guilty side, and a free and unhindered throw or run by the man fouled.

Fouls and Penalties. — Other fouls are punishable by suspension from the game, either for a certain number of minutes or until a goal is scored. Repeated offences are punishable by suspension for the entire match, the side whose player has been ruled off being meantime obliged to play without the services of the offending player.

Substitutes. — No substitutes are allowed unless the agreement is reached before the game starts. In case of accidental injury to any player, the opposing side must drop a man to equalize the number; and any man may be dropped, not necessarily the one playing against the one injured. If a fresh player could be substituted, it would be manifestly unfair, as the advantage derived from a fresh man, even though he be not the equal of the retiring player in other points, is very great toward the end of a hotly contested match.

Team Play. — No game, possibly excepting foot-ball, is so much a team game, nor does so much depend on the excellence of team play and so little on individuality as in lacrosse. By team play is not meant interference, as understood in foot-ball, for no one not actually in possession of the ball may be interfered with except when the ball is on the ground in a scrimmage, or in the air, and then the rule of only within six feet still applies. The man about to receive the ball or changing his position to receive it may not be blocked, nor may the runner be guarded and surrounded, as in foot-ball.

Covering. — The term “covering” means staying so close to your individual opponent that it is impossible for him to receive the ball without molestation. If close to the man, you may be able to intercept the ball by jumping in front of him, or you may be able to body check him just as he is trying to catch the ball, thus causing him to miss entirely or fumble it, in which case you stand not only an equal, but a better chance of securing the sphere.

When a player is running down the field with the ball, one man goes to intercept him. He is then obliged to pass the ball, and if every member

of his team is closely covered, his task is indeed a hard one, for then he must either run the risk of losing the ball on the pass, or be prepared to dodge, thus laying himself open to a body check. Meanwhile the players of his side are endeavoring to "uncover" — to get away from their opponents, so that the man with the ball may have the opportunity to pass it when he himself is checked. This continual effort of the side holding possession of the ball to uncover and of the side endeavoring to obtain the ball to cover is team play; and it may be readily seen that if one man fails in his effort to cover, the whole scheme of the defence fails, and the efforts of the rest of the team are useless.

The attack is continually trying, also, to draw the defence men away from the goal, so that the man running with the ball may proceed directly to the goal to shoot. Now the defence has a choice of but two things: either to follow his man away from goal, leaving the runner free with the ball, or he must stop the runner, thus leaving his own man free. The first principle is to stop the man with the ball, or failing that, make him pass it, for each additional pass means one more chance for the attack to miss the ball.

Thus the attack tries to get one uncovered man finally in a position to shoot with only the goal-keeper between him and the goal, and so close that stopping the ball becomes a matter of luck, for no one can see and move to intercept it as quickly as a ball shot from but ten feet out. The details of play beyond this point are of interest only to the embryo player, and will not be dwelt upon in this article.

For a detailed description of each play and position see "Lacrosse — from Candidate to Team," by W. C. Schmeisser, Captain J. H. U. Team, 1902. Published by Spalding, 1904.

Costume. — The costume adopted generally consists of running trousers, jersey, and shoes. The shoes are rubber soled, and no metal or leather spikes are permitted because of their danger. Soft rubber buttons or spikes are allowed, however, and are now quite generally used, for on soft turf they give an excellent foothold. In a game as active as lacrosse a very light costume is much more comfortable, and the guards used so extensively in foot-ball are seldom worn, even by the goal-keeper.

Injuries. — The injuries received in lacrosse are practically never fatal and seldom even

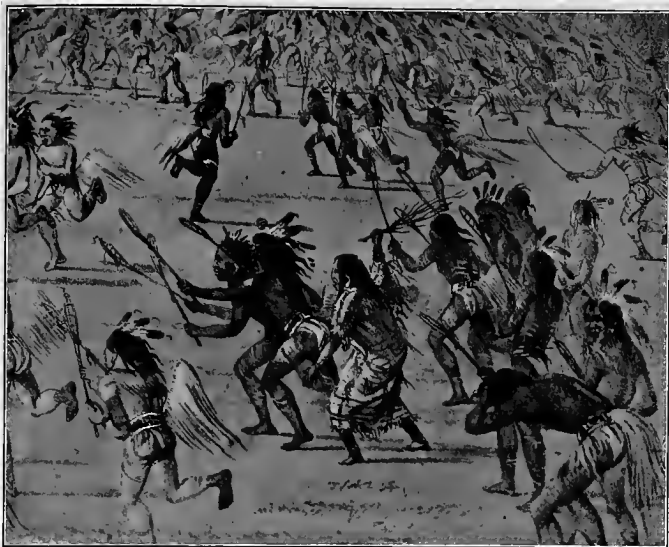
serious. Although it would seem at first glance as though it were certainly a rough game, it



A Modern Lacrosse Player.

C. R. McInnis, for several years the crack attack man in the Intercollegiate Lacrosse Association.

must be taken into consideration that the sticks, — being so light and springy, are not the formidable weapons at first imagined; and cuts are



From "North American Indian Portfolio." Catlin, 1844.

SQUAW URGING ON HER HUSBAND IN THE INDIAN
GAME OF 1840



From "North American Indian Portfolio." Catlin, 1844.

INDIAN PLAYERS

seldom more than scratches, and bruises are of little account. As an exercise I know of no game in which so many muscles come into play — legs, arms, back, all are developed, so that as a general body builder it has no superior.

Spectator's Point of View. — No game is more easily and quickly understood by the spectator, and few have the openness and rapidity of change of lacrosse. In a good game interest never flags; the whole picture changes in a flash, and from the first facing of the ball until the final whistle, the game is replete with brilliant individual, and united and scarcely less brilliant team play. Nor is it less fascinating to player than to spectator, for no one is ever out of the play. In a moment the ball may return from a safe position in front of your adversaries' goal to your own, and every effort must be made to get it away, and all this in a moment. I have actually seen a ball go from the face-off to each man of the attack in turn and successfully shot through goal in twelve seconds by the watch. No one can appreciate the skill required or possible to attain to, until he tries to catch or throw a ball with the queer sticks. The rubber becomes as elusive as a will-o'-the-wisp, and

seems possessed of a malevolent intelligence; and the first requisite to being a good player is to become a master of this, the technique of the game. It is the scales and exercises of the sport. It must be second nature to catch and throw. The ball must be thoroughly at your command or the game loses its charm and becomes a poor kind of shinny.

Seasons.— The season for lacrosse varies with the locality and the weather. In Canada, where every town has its team, and where every member of a college team plays on his town team during vacation, the season extends from April to September. In the United States, where there are really few but college teams, the season begins in March and ends at the beginning of college vacation.

CHAPTER IV

Foreign Trips. — The game of lacrosse, although originating with the Indians and afterward adopted by the Canadians with such enthusiasm, is now played extensively in England and Ireland as well as in Australia. In 1876 Dr. Beers, with the idea of introducing the game into England and Ireland, and of bringing Canada into prominence through its sports, took a party abroad, playing many exhibition matches. His purpose was entirely successful, for England and Ireland did adopt the game, and a few years later an Irish team visited Canada, playing many of the teams there. Many trips have since been made both by Canadian and American teams, and return trips have also been popular.

Oxford-Cambridge Team, 1903. — The last trip was that of the Oxford-Cambridge players, who in 1903 made a trip through the United States and Canada. In the United States they were able to defeat all the college teams played, but unfortunately, owing to the lateness of the season, a

game could not be arranged with the Johns Hopkins team, which held the Intercollegiate Championship; the only American team defeating them being the Crescents of Brooklyn, N.Y., to whom they fell victims in a well-played game by the score of 4-3. In Canada, however, they were unable to continue their winning streak, being decisively beaten in a number of games. This series serves very well to show the respective merits of the teams of the three countries; those of the United States and Great Britain being about of the same caliber, and both much behind the Canadians.

CHAPTER V

First United States Teams. — Among the first teams in the United States may be mentioned those representing Yale, Harvard, Princeton, Union of Boston, New York, Calumet of Chicago, and Druids of Baltimore. In the early eighties these clubs were engaged in playing matches amongst themselves, and even with some Canadian teams; but their work was so far inferior to that of the Canucks that the teams from the Dominion were almost invariably and overwhelmingly successful. Neither at that time nor since have there been any teams in the United States that could successfully compete with the major teams of Canada. The occasional victories of the American teams can be directly traced to the fact that the Canadian team playing was either of a junior grade, or that a senior team visiting the United States came with only a handful of their own players, making up the balance of their team from the junior ranks. This, coupled with the fact that added to the long

journey, "seeing the town" the night before a match was anything but conducive to good condition. The whites cannot be up all night at dances like their Indian friends and play good lacrosse the following day.

Comparative Merits of Teams.— But although the United States cannot compete with all the Canadian teams, the advances made by them have been under the same difficulties experienced by the Canadians themselves at the beginning. Their model has always been the best of Canada; and in the effort to follow worthily in the footsteps of their mentors, the game has progressed rapidly in the past eight or ten years. The college teams of to-day are playing better lacrosse than the larger teams of ten years ago, and each year the effort to improve is manifestly shown in the game played.

College and Club Teams in United States. — There are fewer lacrosse clubs now than formerly, and the chief foothold is among the colleges, where it is steadily increasing in popularity, usually at the expense of base-ball, the professionalism of which has done much to lessen its popularity as a college sport. Foot-ball it will never displace — first, because foot-ball has become an institution in



SHARP PRACTICE AT CRESCENT ATHLETIC CLUB
A Good Check



FACE OFF NEAR GOAL

itself and has attained a popularity among the people at large that base-ball never has enjoyed, and, secondly, because the seasons do not conflict.

Leagues.— There are two college leagues at present — the American Intercollegiate, the older of the two, comprising Lehigh, Johns Hopkins, Swarthmore, and Stevens; and the Inter-University, which embraces Harvard, Columbia, Cornell, and University of Pennsylvania. Besides these there are several unattached college teams— College of the City of New York, Hobart, Baltimore City College, and others. Of clubs there are unfortunately few, chief among which is the Crescent Athletic Club of Brooklyn, which team has held the championship for the past eight or nine years, and which is composed for the greater part of Canadian-born players. Some of the others are the Greater New York Irish Athletic Club, the South Orange Club, and the Boston Club.

Difference of Play in United States and Abroad.— It is interesting to observe some of the differences in the rules of play in the different countries. In England, for example, the ball used is hollow, much like a tennis ball, so that the method of throwing differs quite materially from the Canadian and American game. In England also the

goal-keeper is accustomed to interpose his body in the way of the ball, doing comparatively little stopping with his stick; so that when playing in the United States or Canada, the English goal-keeper would do as he was accustomed to at home, and stop all shots with his body. In the recent Oxford-Cambridge-Crescent game, shot after shot was pluckily stopped in this manner by the English goal-keeper, but he must have suffered severely from the bruises caused by the solid ball used. Another interesting point of difference is that the English do not use the body check, showing that the game may be played, and well played too, with this, the roughest check, eliminated. Their method is to cover very closely, and they then claim that the body check is unnecessary; and as they play the game, it may be a step in advance, though it will probably never become popular this side of the water. The English love of cross-country running is shown in their method of playing lacrosse, for they follow the ball from end to end of the field in a manner truly wonderful. Their endurance is marvellous, though this style of play would be much against them with a team of quick stick handlers like the Shamrocks.

Long Throw Abolished. — The most marked change for the better in the style of playing lacrosse adopted in the last ten or twelve years is the abandonment of the long throw. This throw, often the length of the field, was resorted to by the goal-keeper and other defence men to rid their own goal of the ball and to send it to their attack men at the other end of the field. It is always a spectacular play to see a defence man, pursued by several attack men, make the long, scoop-like swing, and to see the ball sail true and swift away from his own goal far up the field. Nor is it a play easily checked; but how much does his team gain? His own attack men must get the ball before they can shoot at the other goal, and when the long throw is used, they really stand a smaller chance of getting it than does the opposing defence, for the reason that the defence man may ignore the ball and devote himself to body checking the waiting attack man, letting the ball roll harmlessly back to the goal-keeper, who, having no direct opponent, easily catches it. The attack man must not only get but keep the ball in order to menace the goal, while the defence man who spoils the catch has at least for a moment saved the goal.

Modern Game.—In the game of ten years ago individuality could play a much greater part than at present, for now the defence man, instead of using the long throw, passes the ball to another defence man, perhaps but a short distance out, while he in turn passes it along, and so it goes up the field from man to man — by easy stages, as it were — until it reaches the attack man who shoots for goal. The long throw is obsolete. It is a sure sign of primitive lacrosse, and is now seldom seen. It is readily seen that the team work in a short passing game must be very precise, or all is in vain. A chain is no stronger than its weakest link, and so in this game one incompetent spoils the whole scheme.

Tricks. — The number of tricks possible in lacrosse is limited only by the ability of the player. Many are legitimate, but by far the greater number belong to the great class of “dirty plays” unfortunately all too common. It may be interesting briefly to describe some of these for the enlightenment of the non-player, for to the man playing for even a short time they are matters of sad experience.

Dirty Plays. — On the field they may — often do — pass unobserved. The deliberate, flagrant



CRESCENT ATHLETIC CLUB *vs.* TORONTO UNIVERSITY
At Bay Ridge, 1903. Match Play



As above

fouls are easily detected by referee and spectator alike; but these lesser evils are none the less fouls, and their penalties are equally severe.

Crosse Check. — The crosse check consists in putting both hands on the stick and striking your opponent with the portion of the stick thus rigidly held either in the face or body. It is so quickly done that it is sometimes hard to see; but it became so common, and was so inexcusably foul, that a special rule was adopted, compelling the referee to rule off the field for the entire match any player indulging in this particular form of rowdyism.

Tripping. — The rules also provide a penalty for tripping; but by tripping is meant several different kinds besides the very simple and convenient method of putting out one's foot so that the other man falls over it, which is crude, to say the least. Several ingenious minds have devised other, perhaps as effectual and none the less tantalizing, methods of accomplishing the same result. When the opposing player is several feet in advance, either running for or with the ball, it is impossible to stop him by any fair check, and if he is stopped, you may be reasonably sure that it was by the time-honored method of touching his

heel lightly with the end of the stick just as he was about to raise that foot to take another stride. It literally makes him stub his toe, and is rapidly followed by a fall, more or less entertaining to the spectators, and, provided the referee does not see it, eminently satisfactory to the pursuer. Yet another trip is given by stepping upon the opponent's foot, or on the extreme edge of the sole of his shoe, pinning his foot to the ground. Digging in the ribs with the elbows or butt of the stick, and striking on the elbow and wrist, are only a few of the infinite number of dirty plays. It is surprising to see at some of the Crescent games which in Brooklyn have become very popular, how keenly alert are the majority of the spectators not only to see and applaud the good plays, but to detect and condemn any occasional lapses into the ancient Indian methods.

CHAPTER VI

Famous Players and Records. — Among the names famous in lacrosse at the American colleges few stand preëminent, and yet there have been many players born and brought up here who have attained a remarkable proficiency in the game as played in the United States, and had they had the benefit of Canadian association and coaching, would have ranked well up in the list of players. Almost every college has certain names that are held in fond remembrance for deeds of prowess on the lacrosse field.

Lehigh, where the game was introduced and fathered by Mr. Arnold Reese, held the Intercollegiate championship in '92-'93-'95-'96 and '97. There are no complete records kept, unfortunately, so that the names of most of the players are forgotten, but some deserve especial mention, such as Dornin, the Symingtons, Merriman, and others.

At Stevens two names which must be always synonymous with good, hard, honest, gentlemanly

lacrosse are those of Hal Corbett, defence, and Ross Scott, attack. Besides these, Layatt at goal and Jennings and Jewell in the field were of the first water. Stevens won the championship in 1894.

At Johns Hopkins, where they boast of six championships, '91-'98-1900-'02-'03, it is difficult to choose from the number of good men, but Mitchell, Cone, Symington, Fitzgerald, McInnis, and Abercrombie will never be forgotten.

Swarthmore deserves especial praise for the quality of the game they have played, for with but a handful of material, comparatively, they have always played splendid lacrosse. In 1901 they virtually won the American College championship, defeating all teams played, including Johns Hopkins, though there was no official banner awarded. Downing, goal-keeper of this team, in my opinion heads the list of American college players in that position.

The writer very much regrets that he cannot give any data with regard to the Inter-university League teams, owing to the fact that he is not sufficiently familiar with their history, and as there seem to be no available records to consult. Although comprising the larger universi-



PRACTISING SHOOTING BEFORE THE GAME

J. H. U. Team, 1903



A SHOT WELL STOPPED BY THE GOAL-KEEPER

ties, they are not, perhaps, on the whole the equals of the teams of the Intercollegiate League, at which colleges lacrosse is the principal game.

The future of lacrosse remains to be proven. Whether it will continue to gain in popularity until it is *the* game of spring is a question none can answer. Chance is a fickle mistress; but while love of contest still lives, no game of such a type can die. It has come from ages back, and is growing greater every year. It surely deserves the first place, for, if the Indians were the first Americans, lacrosse surely was the first American game.

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